



RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

April 2021 Board Packet

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Agenda

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Regular Board Meeting Agenda

Wednesday, April 7, 2021

6:30 PM

Due to the COVID19 pandemic, this month's board meeting will be held via the video conferencing platform Zoom. Board members, staff, consultants, and general public will be able to join in via video and/or phone. The public that wish to will be able to listen to meeting but not participate with the exception of the visitor comments portion of the agenda. If you have comments you may speak on the Zoom meeting during the visitor comments agenda item. 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 3, 2021 (pg. 7)
 - B. Treasurer's Report and Bill List (pg. 18)
 - C. Permit Program
 - i. 21-04 Chick-fil-A Woodbury, Woodbury (pg. 33)
 - ii. 21-05 1880 Old Hudson Rd Phase 2, St. Paul (pg. 37)
 - iii. 21-06 Maplewood Fire Station County Rd C, Maplewood (pg. 41)
 - iv. 21-07 Ryan Drive/Keller Parkway Conveyance, Little Canada (pg. 45)
 - v. 21-08 White Bear Lake High School Phase 2, White Bear Lake (pg. 50)
 - vi. 21-09 3291 Labore Road, Vadnais Heights (pg. 54)
 - vii. 21-10 Xcel Energy Vehicle Storage Building, White Bear Lake (pg. 58)
 - viii. 21-11 North High School Addition, North St. Paul (pg. 63)
 - D. Keller Channel Weir & Phalen Outlet Modifications – Change Order No. 3 (pg. 67)
4. Visitor Comments (limited to 4 minutes each)
5. Permit Program
 - A. Applications – see consent agenda
 - B. Enforcement Action Report (pg. 72)
6. Stewardship Grant Program
 - A. Applications – None.
 - B. Budget Status Update (pg. 75)
7. Board Issues, Policies and Operation (for discussion at meeting)

- A. Annual Meeting
 - B. Communicating between Board meetings
 - C. RWMWD website needs
 - D. Maintenance needs
 - E. Workshops
8. Presentations and/or Action Items
- A. **Twin Lake Shoreline Restoration Accept Plans and Solicit Bids (pg. 77)**
 - B. **2021-22 BMP Maintenance Program Selection of Contractor(s) (pg. 144)**
 - C. **Ryan Drive and Keller Parkway Conveyance Upgrades Accept Bids and Order Project (pg. 152)**
9. Administrator's Report (pg. 158)
- A. Meetings Attended
 - B. Upcoming Meetings and Dates
 - C. WaterFest Update
 - D. Ramsey County Permitting Follow-up
 - E. Intern Hiring
 - F. Office Building Updates – In-person Meeting Technologies
10. Attorney Report
11. Project and Program Status Reports (pg. 165)
- A. Ongoing Project and Program Updates
 - i. Interim Emergency Response Planning
 - ii. FEMA Flood Mapping Updates
 - iii. Kohlman Creek Flood Risk Reduction Feasibility Study
 - iv. Ames Lake Area Flood Risk Reduction Feasibility Study
 - v. Special Project BMP Monitoring
 - vi. Shallow Lake Aeration Study
 - vii. Phalen Chain of Lakes Changes in Water Quality
 - viii. Kohlman Permeable Weir Test System
 - ix. Tanner Lake Alum Facility Monitoring
 - x. Automated Lake Monitoring Systems
 - xi. Target Store Stormwater Retrofit Projects
 - xii. Targeted Retrofit Projects
 - xiii. Keller Channel Weir and Phalen Outlet Resiliency Modifications
 - xiv. Ryan Drive and Keller Parkway Conveyance Project
 - xv. Beltline/Battle Creek Tunnel Five-Year Inspection
 - xvi. CIP Maintenance and Repair Project 2021
 - xvii. New Technology Report – AquaShield Water Treatment Solutions
 - xviii. Natural Resources Program Update
 - xix. Education Program Update
 - xx. Communications Program Update
12. Manager Comments and Next Month's Meeting
13. **Adjourn**

Items in **bold signify that an action needs to be taken by the Board.*



RAMSEY-WASHINGTON

METRO WATERSHED DISTRICT

NOTICE OF BOARD MEETING

Wednesday, April 7, 2021

6:30 PM

Via Web Conference and In Lieu of an In-Person Meeting

Per Minnesota Statute 13D.021, President Lawrence Swope has determined that an in-person meeting of the RWMWD Board of Managers is not practical or prudent given the COVID-19 pandemic. In compliance with Center for Disease Control and Minnesota Department of Health guidance on minimizing potential for spread of the virus, RWMWD will conduct its regular Wednesday, April 7, 2021, meeting at 6:30 p.m. CDT, by web conference and conference call. Members of the public wishing to participate in the meeting may do so by accessing the web-based conference, or by phone.

To access the meeting via webcast, please use this link: <https://us02web.zoom.us/j/85424883588?pwd=ODdMYnBDemRtZXMyWFdpZXpKUHBBCZz09>

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 **854 2488 3588**. The meeting password is **789320**. If you have any questions, please contact Tina Carstens at tina.carstens@rwmwd.org.

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Consent Agenda

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RAMSEY-WASHINGTON

METRO WATERSHED DISTRICT

Ramsey-Washington Metro Watershed District Minutes of Regular Board Meeting March 3, 2021

The Regular Meeting of March 3, 2021, was held at the District Office Board Room, 2665 Noel Drive, Little Canada, Minnesota, at 6:30 p.m.

PRESENT:

Larry Swope, President
Cliff Aichinger, Vice President
Dianne Ward, Treasurer
Val Eisele, Manager

ABSENT:

Dr. Pam Skinner, Secretary

ALSO PRESENT:

Tina Carstens, District Administrator
Tracey Galowitz, Attorney for District
Nicole Soderholm, Permit Inspector
Dave Vlasin, Project Coordinator
Kyle Kubitza, Water Quality Technician
Burt Johnson, Twin Lake Association
Cristina Holzer, Stevens Engineers

Paige Ahlborg, Project Manager
Brad Lindaman, Barr Engineering
Bill Bartodziej, Natural Resource Specialist
Erin Anderson-Wenz, Barr Engineering
Melissa Elke, Twin Lake Association
Ward Isaacson, Twin Lake Association

1. CALL TO ORDER

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

President Swope invited all members of the Board and staff to introduce themselves.

2. APPROVAL OF AGENDA (0:05)

Tina Carstens requested to add an item Election of Officers for the Treasurer position under Action Items.

President Swope requested to add Item 15, Manager's Comments and Next Month's Meeting and 16 would be to Adjourn.

Motion: Manager Aichinger moved, Manager Ward seconded, to approve the agenda as amended.

Further discussion: Tina Carstens noted that this would also be the time to remove an item from the Consent Agenda.

President Swope requested to remove Item A from the Consent Agenda for modification. Tina Carstens confirmed that item could be considered separately following the approval of the Consent Agenda.

A roll call vote was performed:

Manager Aichinger aye
Manager Ward aye

Manager Eisele aye
President Swope aye

Motion carried 4-0. (Manager Skinner absent)

3. RECOGNITION OF OUTGOING BOARD MEMBER – MARJ EBENSTEINER (0:07)

Tina Carstens recognized Marj Ebensteiner for her eight years of service on the Board.

President Swope expressed appreciation for Marj's time on the Board.

Manager Aichinger commented that he will miss her cheerfulness and leadership on the Board.

4. NEW BOARD MEMBER INTRODUCTION – VAL EISELE (0:09)

Manager Eisele introduced himself and provided background information on his education and career experience. He commented that he enjoys modeling complex systems and is excited to learn more on the Board. He stated that he applied because of the flooding in his neighborhood and the critical role that this organization plays in people's lives to mitigate risks.

The Board welcomed Manager Eisele.

5. RAMSEY-WASHINGTON METRO WATERSHED DISTRICT BOARD MANAGER OATH OF OFFICE (0:11)

Tracey Galowitz administered the Oath of Office to Manager Aichinger, Manager Eisele, President Swope, and Manager Ward noting that the Managers can sign the form and send it back electronically.

6. CONSENT AGENDA (0:12)

- A. ~~Approval of Minutes from February 3, 2021~~
- B. Treasurer's Report and Bill List
- C. Permit Program
 - i. 21-03 – Phalen Parking Lot Improvement, Phase 2 – Saint Paul
- D. Stewardship Grant Program
 - i. 21-05 CS – Cherokee Hills 2, Phase 2 – Rain Garden
- E. Keller Channel Weir and Phalen Outlet Modifications – Change Order No. 2

Motion: Manager Aichinger moved, Manager Ward seconded, to approve the consent agenda as revised.

A roll call vote was performed:

Manager Aichinger aye
Manager Ward aye
Manager Eisele aye
President Swope aye

Motion carried 4-0. (Manager Skinner absent)

A. Approval of Minutes from February 3, 2021

President Swope commented that meeting minutes are an important way the District communicates with residents. He noted on page four, Item 6A, the third paragraph, it should state, "...~~this idea~~ Phalen Creek daylighting..." On page seven, in the motion designating the Official Bank, it should be specified as the 4M Fund through Minnesota Cities US Bank. On page nine additional discussion should be added related to idea for a summary page showing all the graphs of lake levels in one place. On page ten, the third paragraph, it was requested that the first sentence become its own paragraph.

Manager Ward referenced the fourth paragraph on page ten. She commented that she believed the problem was with the County Parks and not the County Board. She believed that direction was given for staff to express the frustration of the Board on behalf of the District with the delayed process and problems it causes. She noted that staff has an upcoming meeting to further discuss the issue and find a possible solution.

Manager Ward commented that it would be good to ensure that the Parks are forwarding the requests quickly and express the delay that this is causing for projects.

Manager Aichinger stated that the County has submitted a permit request for a parking lot and part of the discussion should be that the County expects the District to deal with permit requests quickly and should also be judiciously reviewing requests.

President Swope asked the Managers to further consider this issue and perhaps form a motion later during the meeting to support staff.

Motion: Manager Aichinger moved, Manager Ward seconded, to approve the minutes from February 3, 2021 as amended.

A roll call vote was performed:

Manager Aichinger	aye
Manager Ward	aye
Manager Eisele	aye
President Swope	aye

Motion carried 4-0. (Manager Skinner absent)

7. VISITOR PRESENTATIONS (0:22)

Burt Johnson thanked Manager Eisele for accepting the new position and thanked Marj Ebensteiner for her service on the Board. He stated that the Twin Lake Association appreciates the work that the Board and staff complete. He reviewed the three goals of the Twin Lake Association, to prevent inundation from neighboring bodies of water or other sources, to ensure that there is a functioning outlet to prevent flooding of Twin Lake, and to preserve the water quality of Twin Lake. He commented that thanks to the work the District has done in the past few years, the berm has been reinforced and the outlet has been installed, therefore residents are cautiously and optimistically awaiting the results. He stated that the shoreline restoration project is also upcoming and thanked staff for the effort to setup that project. He commented that they look forward to continuing to work with the District.

8. PERMIT PROGRAM (0:24)

A. Applications – See Consent Agenda

B. Monthly Enforcement Report

During February zero notices were sent.

Nicole Soderholm provided background information on the memorandum that is prepared each month related to violations and general permit updates.

9. STEWARDSHIP GRANT PROGRAM (0:26)

A. Applications – See Consent Agenda

B. Budget Status Update

Paige Ahlborg commented that each month she provides a budget status update tracking funds allocated for the program. She stated that the Board approves requests over \$5,000 while staff can approve requests under that amount.

President Swope noted that research was included under public art and that discussion should continue in the future as to how that item should be classified.

10. REPORT OF MANAGERS (0:27)

President Swope stated that he worked with staff the previous week to add certain items to the agenda. He stated that the Board never seems to get around to operational and policy issues that are brought up during a meeting.

Manager Aichinger stated that he does not have objections to putting this item in this place on the agenda as long as the discussion is relatively brief. He noted that the problem placing the item in this position is that discussion can become lengthy and that could perhaps prohibit the Board from discussing the actual action items. He noted that perhaps these would be better placed at the end of a short meeting or during a special meeting.

President Swope stated that he would suggest that the maximum length for this item be 30 minutes. He believed that this would be a good place in the agenda as it would allow for follow up comments on a visitor comment. He stated that this placement was meant to follow the items that would have outside participation but before the more technical items. He agreed that perhaps a workshop should be held to address the list of items he has created. He noted that the benefit of a workshop would also be to facilitate discussion rather than taking action.

A. Summary of Closed Meeting Held February 10, 2021 at 6:00 p.m.

Manager Aichinger reported that the Board met in closed session on February 10, 2021, at 6:00 p.m. via web-conference platform Zoom to discuss the Administrator's performance review and salary adjustments.

President Swope suggested conducting the election for Treasurer at this time rather than in the Action Items.

B. Election of Treasurer

Tina Carstens opened the floor for nominations for the position of Treasurer. She noted that Managers Ward and Eisele currently do not have officer positions.

Manager Aichinger nominated Manager Ward for the position of Treasurer.

Manager Ward confirmed that she would accept the nomination.

A roll call vote was performed:

Manager Aichinger	aye
Manager Ward	aye
Manager Eisele	aye
President Swope	aye

Motion carried 4-0. (Manager Skinner absent)

C. Board Issues, Policies and Operation

i. Meeting Minutes

President Swope commented that he remains uncomfortable with the format of the minutes as it does not identify the Manager making the comment. He noted that it is difficult to follow a complex discussion because you cannot tell if one Manager is making the comments or multiple Managers making comments during a discussion. He

stated that when this format was chosen the agreement was to try this format and come back for further discussion. He stated that he would prefer to have the Manager names inserted back into the minutes. He also believed there should be additional review of the minutes by the Secretary before the draft minutes are published in the Board packet as that should reduce the amount of time the Board needs to review the minutes during the meeting.

Tina Carstens commented that she spoke with another Administrator that stated she distributes the draft minutes to the Board prior to the meeting to allow for each member to review their comments and provide input prior to the meeting. She stated that another Administrator commented that they have begun to include timestamps on their minutes for the agenda items as it allows people to follow the entire discussion in detail in the related video if desired.

President Swope commented that meetings will not always be videotaped and available on YouTube, or another platform whereas minutes remain. He agreed that he would like the ability to review the minutes prior to the meeting to provide comments.

Tina Carstens noted that she could verify suggested changes based on the video or audio recording, as changes become difficult when a Manager attempts to provide intent behind their statement rather than what was said.

Manager Aichinger stated that he is always troubled with minutes as they can range from extremely simple in only recording actions to including exhaustive discussion. He believed that the summary provided in the current format are the maximum length and could even be further condensed. He stated that if a member of the public wants more detail, they can obtain the recording and listen to the full discussion therefore he does not have a concern with transparency. He stated that he has no objection to using names of Managers as the District used that format for many years.

President Swope commented that if someone accepts a position of public office, they should be willing to publicly state their comments. He noted that people can still obtain the recording and therefore could still identify who is making the comments.

Manager Eisele asked if there has ever been a practice with Board members making statements to support their comments in the minutes.

President Swope commented that they have done that with visitor presentations, allowing visitors to provide transcripts of what was said to ensure it was accurately reflected.

Manager Eisele stated that in some meetings he attends with regulatory agencies, each person takes their own notes in order to provide a comprehensive transcription.

Tina Carstens stated that another Administrator commented that they ask the Manager or President making a motion to summarize the discussion, which could then be included in the minutes.

Tracey Galowitz commented that the concept of minutes for a local municipality is to include the motions and actions. She stated that this type of discussion would be more appropriate for a committee meeting. She stated that perhaps this would be another workshop item as the minutes are meant to reflect the action taken and the recording would reflect the discussion. She noted that minutes are not meant to detail who said what in every comment but acknowledged that President Swope prefers to use minutes for record of discussion.

President Swope acknowledged the minimum requirement but stated that the more information that can be put into the minutes as to how decisions are made, the clearer the process of the District is to others.

Manager Ward agreed that some level of detail is needed because this is a public agency. She stated that the more explanation there is for decisions, the better educated the public can be. She also believed it would be helpful if there is potential litigation.

Motion: Manager Ward moved, Manager Aichinger seconded, to change the minutes to identify the Managers speaking, add timestamps, distribute the draft minutes to the Managers before including draft minutes in the packet, and keep the same level of detail.

Further discussion: Manager Aichinger commented that staff creates the packet the week before the meeting and asked what would be considered adequate time for review by the Managers. Tina Carstens noted that she receives the minutes back fairly quickly and she then distributes to some staff members for review and formatting. She stated that she can send the draft minutes two weeks prior to the next meeting and Managers should comment only to her with proposed changes that she will review.

A roll call vote was performed:

Manager Aichinger	aye
Manager Ward	aye
Manager Eisele	aye
President Swope	aye

Motion carried 4-0. (Manager Skinner absent)

ii. Visitor Presentations

President Swope stated that he is fine with the current format for this item. He noted that in the past a visitor makes a comment and then it falls flat. He proposed that Managers be allowed to ask a follow up question without getting into a discussion, realizing that it could create a situation that is not productive. He asked that each presenter be allowed up to four minutes and if desired the Board be allowed two additional minutes for any follow up questions, with the intent that each visitor presentation with Board questions be limited to six minutes total.

Manager Aichinger commented that some comments can be easily replied to, but other comments require follow up work and response from staff. He cautioned against getting in a drawn out back and forth discussion. He suggested that Managers asking questions of visitors address their question to the President, so that the President remains in control of the discussion.

President Swope agreed with that format. Tina Carstens noted that time could also be used to delegate follow up to staff. She explained that the visitor comments do not always precipitate into an action needed by the Board but noted that when it does it would typically occur in the next Board packet or on a future Board agenda.

11. PRESENTATIONS AND/OR ACTION ITEMS

A. Ryan Drive and Keller Parkway Conveyance Upgrades Accept Plans and Solicit Bids (1:01)

Brad Lindaman stated that a draft set of construction drawings were included in the packet and are at the 90 percent level of completions, which is the typical process. He noted that this project comes from the Owasso Basin Bypass Beltline Feasibility Study from the past year and is an enlargement of the culvert under Ryan Drive and the conveyance capacity through to Keller Parkway. He provided details on the existing pipe and the upgrades proposed through the project. He noted that the estimate of probable construction costs was included in the packet along with the contingency, engineering, and administrative oversight. He stated that staff seeks authorization to finalize the design and bidding documents and solicit for bids.

Manager Ward commented that this project was chosen as a project that would allow more water to move in high rain events. She expressed concern that if this is approved the District would be liable for the entire project cost,

while there would be a benefit to Little Canada, Ramsey County, and the other stakeholders and therefore potentially those stakeholders could contribute to the cost.

Brad Lindaman noted that the City of Little Canada has been receptive to the proposed project and recognizes that section of roadway is in tough shape and this would improve the situation for properties in that vicinity. He stated that the City would need to complete its own feasibility study to support its contribution, which could be around \$200,000. He stated that the Little Canada City Council authorized the necessary study, and he is confident that the City will contribute some funds toward the project. He stated that while the City is moving ahead as quickly as it can, he would encourage the Board to keep the process moving in order to help the flooding situation but noted that the Board does not have to move urgently. He stated that even if the City does not approve funding for the project, he would still encourage the District to complete the project.

Manager Ward asked if Ramsey County would be likely to participate. Brad Lindaman stated that because Keller Parkway is in good shape, the County is not likely to contribute towards the project. He stated that staff has been in contact with the railroad and it recognizes that there are some problems with the pipe. He stated that staff will continue to encourage the railroad to upgrade its pipeline, but the railroad is sensitive to others completing work in their right-of-way and therefore would want to do the work themselves if they choose to do it.

Dave Vlasin stated that they met with a railroad representative one or two years ago and walked the system, but the representative did not see an issue as they believe the water is being conveyed through the pipe and not overtopping the tracks.

Manager Aichinger commented that he is not concerned with the railroad response. He stated that this project scope does not go into the right-of-way for the railroad and therefore their participation is not expected. He stated that if Little Canada chooses to contribute that would be nice, but he would still support moving forward with this infrastructure improvement regardless of whether another entity contributes.

President Swope commented that Little Canada has been a great partner to work with but agreed that the District should still complete the project regardless of whether another entity contributes.

Motion: Manager Aichinger moved, Manager Ward seconded, to approve the preliminary design, estimated costs, and proposed project schedule and direct staff to finalize the design and bidding documents and solicit bid proposals.

A roll call vote was performed:

Manager Aichinger	aye
Manager Ward	aye
Manager Eisele	aye
President Swope	aye

Motion carried 4-0. (Manager Skinner absent)

B. North St. Paul Target Accept Bids and Order Project (1:13)

Erin Anderson-Wenz commented that the bid opening was held on February 23rd noting that staff was pleased with the number of bidders that replied, which provides a good bidding climate. She stated that eight bids were received, with Peterson Companies submitting the lowest bid and recommended awarding the project.

President Swope commented that it was nice to see a more uniform range of bids as recent bids have often included an outlying bid.

Erin Anderson-Wenz noted that the District did share its opinion of cost and most bidders chose to submit under that amount.

Motion: Manager Ward moved, Manager Aichinger seconded, to accept the bids and award the North St. Paul Target Store BMP Retrofit project to Peterson Companies and direct staff to prepare and mail the notice of award, prepare the agreements and review required submittals.

A roll call vote was performed:

Manager Aichinger	aye
Manager Ward	aye
Manager Eisele	aye
President Swope	aye

Motion carried 4-0. (Manager Skinner absent)

C. New Project Scope Summaries (1:18)

Tina Carstens advised that the project scope summaries were included for the Board to review. She noted that the emergency response plan was within the budget and budgeted for 2021, therefore she did not believe a motion was necessary for that item. She noted that the Shallow Lake Aeration Study was not included in the budget, which is why she believed action would be needed. She commented that the item could be funded through the research budget for 2021 and the remainder could be budgeted for in 2022.

- i. Emergency Response Plans
- ii. Shallow Lake Aeration Study

Motion: Manager Aichinger moved, Manager Ward seconded, to authorize the Shallow Lake Aeration Study.

Further discussion: President Swope asked if staff has looked for potential partners to participate in this study, such as the University of Minnesota. Erin Anderson-Wenz stated that outreach was not included as part of the scope. She stated that the District shares information with the U of M Saint Anthony Laboratory and could reach out to that entity as they have partnered with them in the past. She was not aware of other entities currently completing this research.

A roll call vote was performed:

Manager Aichinger	aye
Manager Ward	aye
Manager Eisele	aye
President Swope	aye

Motion carried 4-0. (Manager Skinner absent)

Tina Carstens provided a general update on the purpose of the emergency response plans and related communication that she has with the different cities.

12. ADMINISTRATOR'S REPORT (1:24)

A. Meetings Attended

No comments.

B. Upcoming Meetings and Dates

Tina Carstens advised of the upcoming legislative MAWD event, noting that she will register the District and provide information to Managers on how they can connect.

Manager Aichinger referenced the staff performance reviews and was curious as to how staff have commented with concerns of working remotely during the pandemic and the possibility of staff continuing to work remotely at times.

Tina Carstens stated that she had discussions with staff about the opportunity to work remotely and all of the staff have expressed interest in returning to the office setting but there is a desire to provide the option to work from home as an efficiency at time as well; using the example of winter weather or when an employee is not feeling well. She noted that staff mentioned that it is nice to use Zoom for permit meetings as it allows different participants (engineers and applicants) to attend without driving to the District office.

President Swope commented that he would also encourage staff to review the options for recording the regular in-person board meetings, noting that the Zoom platform allows many people, such as members of the public, to participate without leaving their homes. Tina Carstens agreed the Zoom platform is helpful but noted that sometimes a hybrid format can be tricky. She stated that staff can look into different options.

C. WaterFest Update

Tina Carstens welcomed input from the Board on the concept for the WaterFest event which is proposed to be held during one week in June, noting that each day would have a different focus or vendor with a related self-directed activity at Lake Phalen.

Manager Ward stated that she would like to pursue the concept of accessibility to the water for disabled people. She believed that would increase the scope and allow more people to enjoy the water amenities. She mentioned North Star Community Rowing and Courage Kenny Rehabilitation Institute for kayaking.

Manager Aichinger believed that this would be a great idea to move forward for this year. He suggested fishing as an activity for one of the days.

D. CAC Update and Membership

Tina Carstens noted that an update from the last meeting was included. She advised that there were 11 applicants, but four of those were outside of the District boundaries and were redirected to their appropriate District. She stated that the remaining seven candidates were great applicants and staff recommends appointment of the applicants.

Motion: Manager Aichinger moved, Manager Ward seconded, to approve the CAC roster and new members for 2021 as presented.

A roll call vote was performed:

Manager Aichinger	aye
Manager Ward	aye
Manager Eisele	aye
President Swope	aye

Motion carried 4-0. (Manager Skinner absent)

13. **ATTORNEY REPORT (1:37)**

President Swope commented that this is a new item added to the agenda with the purpose to allow the Attorney to provide any necessary updates.

Tracey Galowitz commented that when the auditors complete an audit, she is also asked to complete a legal liability review audit letter. She noted that there are some pending claims with Sunram and therefore she had to review the claim and determine whether there would likely be liability for the District. She stated that she does not believe it likely for the District to have liability in the pending claims.

She stated that legal staff will work with Barr Engineering to review project documents as the contracts are voluminous and they will determine if any updates are needed.

14. PROJECT AND PROGRAM STATUS REPORTS (1:40)

A. Ongoing Project and Program Updates

i. Response to Accuracy of LIDAR and XP-SWMM Question

President Swope thanked staff for providing this information. He noted that board decisions are made based off LIDAR and modeling data and therefore it is important that data is put into perspective. He noted the uncertainty with LIDAR and thought that was important to keep in mind.

ii. Response to Request for More Public Facing Technical Materials

President Swope commented that he likes the idea of creating an executive summary of the reports which can be shared online.

Manager Ward agreed that would be a helpful preview and additional technical information can be found within the report.

iii. Interim Emergency Response Planning

iv. FEMA Flood Mapping Updates

v. Kohlman Creek Flood Risk Reduction Feasibility Study

vi. Ames Lake Area Flood Risk Reduction Feasibility Study

vii. Special Project BMP Monitoring

viii. Shallow Lake Aeration Study

ix. Tanner Lake Alum Facility Monitoring

x. Automated Lake Monitoring Systems

xi. North St. Paul Store Stormwater Retrofit Project

xii. Targeted Retrofit Projects

xiii. Aldrich Arena Project

President Swope referenced Aldrich Arena and asked for clarification on the communication with Ramsey County. Paige Ahlberg noted that information was provided to Ramsey County for as-builts. Erin Anderson-Wenz stated that the District continues communication with stakeholders in order to continue to provide input on upcoming project opportunities as they arise.

xiv. Wakefield Park/Frost Avenue Project

President Swope referenced the Wakefield Lake report and asked if that information would be posted on the website. Erin Anderson-Wenz stated that it is just documentation of how the project went. Tina Carstens stated that is an internal document used by the District, noting that pictures and other project information is available for the public.

xv. Keller Channel Weir and Phalen Outlet Resiliency Modifications

President Swope referenced the delay on the Keller weir and asked if the delay will impact the ability to complete the project. Brad Lindaman stated that the project will be completed but the contractor will need more time to do that. He stated that the change order extended the contract based on what was requested in additional time. He stated that with the extension the contractor has agreed that in the interim the gates could be opened and closed manually, or a generator could be used for temporary power.

President Swope noted that the delay was due to the delay of Ramsey County in its permitting. He noted that this delay at the County level continues to impact District projects.

Tina Carstens stated that District staff will continue to work with Ramsey County staff in attempt to resolve the issue.

Brad Lindaman noted that the contractor is working on the control structure for the Keller weir and therefore more progress will be made in the next few weeks. He stated that the milestone will be that the gate could be installed and operated manually in the interim. He noted that not all project delays are due to permitting. He provided an update on another construction project noting that Fitzgerald has been completing work on the Owasso Basin project. He stated that the contractor reached the final northern stretch and advised of problems with equipment mobilization in that area. The contractor has stated that he feels that completing that section at this time would necessitate a change order but noted that staff continues discussions as they feel it was the responsibility of the contractor to determine how that would work be done. He stated that staff will continue discussions and provide an update to the Board if necessary.

xvi. Ryan Drive and Keller Parkway Conveyance Project

xvii. Beltline/Battle Creek Tunnel Five-Year Inspection
Manager Aichinger referenced the Beltline Battle Creek Tunnel Inspection noting that perhaps it would be possible to develop a standard permit with Ramsey County for this work which would prevent future delays. He stated that perhaps the District could look for that type of permitting where the District would consistently be on Ramsey County property. Tina Carstens stated that she brought that idea forward for a general permit of that nature and will include it in her discussion with Ramsey County.

xviii. Natural Resources Update

xix. Communications Program Update

B. Lakeline Article: Strategic Aquatic Plant Harvesting as a Multi-Faceted In-Lake Management Tool

Manager Aichinger commended staff for their work on the article.

15. MANAGER COMMENTS AND NEXT MONTH'S MEETING (2:02)

President Swope stated that the continued discussion on the relationship with Ramsey County should appear on the next agenda.

Manager Aichinger stated that perhaps updates on the WaterFest event could be included on future agendas.

16. ADJOURN

Motion: Manager Aichinger moved, Manager Eisele seconded, to adjourn the meeting at 8:34 p.m.

Motion carried 4-0. (Manager Skinner absent)

RWMWD BUDGET STATUS REPORT
Administrative & Program Budget
Fiscal Year 2021
3/31/2021

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	\$8,500.00	-	375.00	375.00	\$8,125.00	4.41%
	Manager expenses	4360	3,500.00	-	-	-	3,500.00	0.00%
Committees	Committee/Bd Mtg. Exp.	4365	3,500.00	-	286.13	1,060.13	2,439.87	30.29%
	Sub-Total: Managers/Committees:		\$15,500.00	\$0.00	\$661.13	\$1,435.13	\$14,064.87	9.26%
Employees	Staff salary/taxes/benefits	4010	1,520,000.00	-	132,886.09	365,835.17	1,154,164.83	24.07%
	Employee expenses	4020	15,000.00	-	151.65	379.19	14,620.81	2.53%
	District training & education	4350	75,000.00	-	1,575.00	1,953.00	73,047.00	2.60%
	Sub-Total: Employees:		\$1,610,000.00	\$0.00	\$134,612.74	\$368,167.36	\$1,241,832.64	22.87%
Administration/ Office	GIS system maint. & equip.	4170	10,000.00	-	-	987.02	9,012.98	9.87%
	Data Base/GIS Maintenance	4171	40,000.00	-	-	-	40,000.00	0.00%
	Equipment maintenance	4305	3,000.00	-	-	-	3,000.00	0.00%
	Telephone	4310	8,000.00	-	57.48	172.44	7,827.56	2.16%
	Office supplies	4320	7,000.00	-	510.75	681.95	6,318.05	9.74%
	IT/Internet/Web Site/Software Lic.	4325	70,000.00	-	5,153.91	17,002.95	52,997.05	24.29%
	Postage	4330	3,000.00	-	143.55	143.55	2,856.45	4.79%
	Printing/copying	4335	8,000.00	-	661.00	1,249.00	6,751.00	15.61%
	Dues & publications	4338	11,000.00	-	155.00	7,655.00	3,345.00	69.59%
	Janitorial/Trash Service	4341	15,000.00	-	1,195.89	3,784.10	11,215.90	25.23%
	Utilities/Bldg.Contracts	4342	30,000.00	-	2,614.60	4,572.40	25,427.60	15.24%
	Bldg/Site Maintenance	4343	150,000.00	-	14,090.57	16,076.54	133,923.46	10.72%
	Miscellaneous	4390	5,000.00	-	-	-	5,000.00	0.00%
	Insurance	4480	50,000.00	-	35,722.00	35,722.00	14,278.00	71.44%
	Office equipment	4703	150,000.00	-	-	7,686.00	142,314.00	5.12%
	Vehicle lease, maintenance	4810-40	43,000.00	-	758.62	758.62	42,241.38	1.76%
	Sub-Total: Administration/Office:		\$603,000.00	\$0.00	\$61,063.37	\$96,491.57	\$506,508.43	16.00%
Consultants/ Outside Services	Auditor/Accounting	4110	65,000.00	-	4,796.87	8,970.73	56,029.27	13.80%
	Engineering-administration	4121	93,000.00	-	5,394.00	16,425.00	76,575.00	17.66%
	Engineering-permit I&E	4122	10,000.00	-	-	-	10,000.00	0.00%
	Engineering-eng. review	4123	55,000.00	-	4,992.00	13,339.50	41,660.50	24.25%
	Engineering-permit review	4124	55,000.00	-	3,640.00	7,186.00	47,814.00	13.07%
	Project Feasibility Studies	4129	440,000.00	-	15,339.00	30,105.00	409,895.00	6.84%
	Attorney-permits	4130	10,000.00	-	-	-	10,000.00	0.00%
	Attorney-general	4131	40,000.00	-	3,264.00	10,549.25	29,450.75	26.37%
	Outside Consulting Services	4160	20,000.00	-	-	-	20,000.00	0.00%
	Sub-Total: Consultants/Outside Services:		\$788,000.00	\$0.00	\$37,425.87	\$86,575.48	\$701,424.52	10.99%
Programs	Educational programming	4370	60,000.00	-	16.00	16.00	59,984.00	0.03%
	Communications & Marketing	4371	25,000.00	-	-	877.50	24,122.50	3.51%
	Events	4372	50,000.00	-	5,500.00	5,557.32	44,442.68	11.11%
	Water QM-Engineering	4520-30	180,000.00	-	10,183.87	15,010.95	164,989.05	8.34%
	Project operations	4650	200,000.00	-	34,900.27	36,542.56	163,457.44	18.27%
	SLMP/TMDL Studies	4661	103,000.00	-	-	-	103,000.00	0.00%
	Natural Resources/Keller Creek	4670-72	140,000.00	-	1,147.65	1,613.50	138,386.50	1.15%
	Outside Prog.Support/Weed Mgmt.	4683-84	127,000.00	-	1,250.00	14,250.00	112,750.00	11.22%
	Research Projects	4695	95,000.00	-	3,490.00	6,824.00	88,176.00	7.18%
	Health and Safety Program	4697	3,000.00	-	-	-	3,000.00	0.00%
	Sub-Total: Programs:		\$983,000.00	\$0.00	\$56,487.79	\$80,691.83	\$902,308.17	8.21%
GENERAL FUND TOTAL			\$3,999,500.00	\$0.00	\$290,250.90	\$633,361.37	\$3,366,138.63	15.84%
CIP's	CIP Project Repair & Maintenance	516	1,325,000.00	-	182,194.10	206,918.94	1,118,081.06	15.62%
	Targeted Retrofit Projects	518	2,810,000.00	-	18,687.43	54,365.43	2,755,634.57	1.93%
	Flood Risk Reduction Fund	520	4,200,000.00	-	334,803.88	683,488.65	3,516,511.35	16.27%
	Debt Services-96-97 Beltline/MM/Battle Creek	526	394,901.00	-	-	282,532.15	112,368.85	71.55%
	Stewardship Grant Program Fund	529	1,000,000.00	-	10,235.50	15,080.00	984,920.00	1.51%
	Wetland Restoration Projects	540	500,000.00	-	-	-	500,000.00	0.00%
	Wakefield Park Project	553	-	-	-	3,420.00	(3,420.00)	---
	District Office Bond Payment	585	194,885.00	-	-	-	194,885.00	0.00%
CIP BUDGET TOTAL			\$10,424,786.00	-	\$545,920.91	\$1,245,805.17	\$9,178,980.83	11.95%
TOTAL BUDGET			\$14,424,286.00	\$0.00	\$836,171.81	\$1,879,166.54	\$12,545,119.46	13.03%

Current Fund Balances:

Fund:	Unaudited Beginning Fund Balance @ 12/31/20	Fund Transfers	Year to date Revenue	Current Month Expenses	Year to Date Expense	Unaudited Fund Balance @ 03/31/21
101 - General Fund	\$4,263,108.52	-	2,287.64	290,250.90	633,361.37	3,632,034.79
516 - CIP Project Repair & Maintenance	405,706.36	-	-	182,194.10	206,918.94	198,787.42
518 - Targeted Retrofit Projects	1,037,852.35	-	143.81	18,687.43	54,365.43	983,630.73
520 - Flood Damage Reduction Fund	3,537,301.65	-	-	334,803.88	683,488.65	2,853,813.00
526 - Debt Services-96-97 Beltline/MM/Beltline-Battle Creek Tunnel Repair	946,126.60	-	-	-	282,532.15	663,594.45
529 - Stewardship Grant Program Fund	622,020.57	-	-	10,235.50	15,080.00	606,940.57
540 - Wetland Restoration Projects	-	-	-	-	-	0.00
553 - Wakefield Park Project	4,172.20	-	-	-	3,420.00	752.20
580 - Contingency Fund	891,682.00	-	-	-	-	891,682.00
585 - Certificates of Participation	204,313.98	-	-	-	-	204,313.98
Total District Fund Balance	\$11,912,284.23	\$0.00	\$ 2,431.45	\$ 836,171.81	\$1,879,166.54	\$10,035,549.14

Ramsey Washington Metro Watershed Dist.
Check Register
For the Period From Mar 1, 2021 to Mar 31, 2021

Check #	Date	Payee ID	Invoice #	Payee	Description	Amount
EFT	03/09/21	hea002	Apr 2021	HealthPartners	Employee Benefits	\$11,894.97
EFT	03/12/21	ada002	3255212	MetLife	Employee Benefits	1,585.09
72121	03/12/21	ada002	3255212	Adam's Pest Control, Inc.	Bldg./Site Maintenance	79.00
72122	03/12/21	att002	X02252021	AT & T Mobility - ROC	Water QM/IT/Website/Software	137.13
72123	03/12/21	aws001	S1335957-030121	AWS Service Center	Janitorial/Trash Service	237.00
72124	03/12/21	gil001	202126	Gilbert Mechanical Contractors, Inc.	Bldg./Site Maintenance	3,351.00
72125	03/12/21	gru001	01-2016	Gruber's Power Equipment	Natural Resources Project	90.90
72126	03/12/21	han008	1408	Hanna Enterprises, Inc.	Janitorial/Trash Service	470.00
72127	03/12/21	mbc001	1097	MB Consulting	Events	5,000.00
72128	03/12/21	met005	1336	Metro Blooms	Outside Program Support	1,250.00
72129	03/12/21	ncp001	Feb 2021	NCPERS Group Life Ins.	Employee Benefits	16.00
72130	03/12/21	nsp001	72109147/721988259	Xcel Energy	Project Operations/Utilities	34,563.81
72131	03/12/21	pit001	3104578821	Pitney Bowes Global Financial Serv LLC	Postage	143.55
72132	03/12/21	pre003	318018653	Premium Waters, Inc.	Bldg./Site Maintenance	26.00
72133	03/12/21	stu001	2019446	Studio Lola	Office Supplies	366.90
72134	03/12/21	ups001	0000F4471X101	United Parcel Service	Water QM Staff	133.17
72135	03/12/21	usb005	437351893	US Bank Equipment Finance	Printing Expense	294.00
72136	03/31/21	att002	287256653401X	AT & T Mobility - ROC	Water QM Staff	137.13
72137	03/31/21	bar001	02/13/21-03/19/21	Barr Engineering	Feb/March Engineering Expense	152,832.19
72138	03/31/21	bar004	Mar 2021	Deborah Barnes	Employee Reimbursement	40.00
72139	03/31/21	bfg001	1738970-00	BFG Supply Co., LLC	Education Program	16.00
72140	03/31/21	bre003	2nd Qtr-2021	Bremer Bank	Employee Benefits	8,100.00
72141	03/31/21	cad001	17400859	Allstream	Water QM Staff	69.90
72142	03/31/21	cit011	229922	City of Roseville	IT/Website/Software	4,958.78
72143	03/31/21	com004	Mar 2021	Comcast	Utilities/Bldg. Contracts	79.06
72144	03/31/21	fis002	20-37 CS	Fish & Waters Conservation Fund	Stewardship Grant Fund	3,000.00
72145	03/31/21	fit001	Progress Pay #1	Fitzgerald Excavating & Trucking, Inc.	Construction-Maint. & Repair	160,718.86
72146	03/31/21	gal001	Mar 2021	Galowitz Olson, PLLC	March Legal Expense	3,862.00
72147	03/31/21	ger004	Mar 2021	Gerdes Drywall, LLC	Bldg./Site Maintenance	1,100.00
72148	03/31/21	gru001	01-2231	Gruber's Power Equipment	Natural Resources Project	962.23
72149	03/31/21	hom001	03/28/21	Home Depot Credit Services	Natural Resources/Constr.-Maint.	324.69
72150	03/31/21	int001	W21020509	Office of MN, IT Services	Telephone Expense	57.48
72151	03/31/21	kor001	Mar 2021	Eric Korte	Employee Reimbursement	77.53
72152	03/31/21	kub001	Mar 2021	Kyle W. Kubitz	Employee Reimbursement	16.80
72153	03/31/21	lea004	Mar 2021	League of MN Cities Ins.Trust P & C	Insurance Expense	35,722.00
72154	03/31/21	mel001	Mar 2021	Michelle L. Melsner	Employee Reimbursement	244.93
72155	03/31/21	met004	INV1778642	Metro Sales, Inc.	Printing Expense	367.00
72156	03/31/21	mid003	562133	Roseville Midway Ford	Vehicle Expense	565.85
72157	03/31/21	ncp001	Mar 2021	NCPERS Group Life Ins.	Employee Benefits	16.00
72158	03/31/21	nsp001	724980079/723101908	Xcel Energy	Project Operations/Utilities	2,645.37
72159	03/31/21	pac001	2112026162	Pace Analytical Services, Inc.	Water QM Staff	567.00
72160	03/31/21	pas002	Feb/Mar 2021	Sage Passi	Employee Reimbursement	229.72
72161	03/31/21	pem002	Progress Pay #3	Pember Companies	Construction-Flood Damage	262,971.88
72162	03/31/21	qwe001	Mar 2021	CenturyLink	Project Operations	260.55
72163	03/31/21	red002	150459069	Redpath & Company	Monthly Accounting Services	4,796.87
72164	03/31/21	sim001	Jan-Mar 2021	Emily Simmons	Employee Reimbursement	59.14
72165	03/31/21	sod001	Mar 2021	Nicole Soderholm	Employee Reimbursement	246.01
72166	03/31/21	sto002	Mar 2021	William Stolzenburg	Events	500.00
72167	03/31/21	tec001	324964	Tech Sales Co.	Water QM Staff	4,825.15
72168	03/31/21	tim002	26305	Timesaver Off-Site Secretarial, Inc.	Committee/Board Meeting Exp.	254.00
72169	03/31/21	usb002	Mar 2021	U.S. Bank	Monthly Credit Card Expense	2,830.96
72170	03/31/21	van001	Apr 2021	Vanguard Cleaning Systems of Minnesota	Janitorial/Trash Service	488.89
72171	03/31/21	voy001	8692934232113	US Bank Voyager Fleet Sys.	Vehicle Expense	192.77
72172	03/31/21	was002	5151/5166	Washington Conservation District	Stewardship Grant Fund	2,024.00
72173	03/31/21	whe001	SP117995	Wheeler Hardware Company	Bldg./Site Maintenance	703.00
72174	03/31/21	all006	Mar 2021	All State Communications	Bldg./Site Maintenance	8,683.00
Total					Accounts Payable:	<u>\$725,185.26</u>

Ramsey Washington Metro Watershed Dist.
Check Register
For the Period From Mar 1, 2021 to Mar 31, 2021

Check #	Date	Payee ID	Invoice #	Payee	Description	Amount
EFT	02/05/21	myp001	02/05/21	February 5th Payroll Fees	4110-101-000	71.60
EFT	02/19/21	myp001	02/19/21	February 19th Payroll Fees	4110-101-000	69.65
Dir.Dep.	03/05/21	---	Payroll Expense-Net	March 5th Payroll	4010-101-000	33,873.69
EFT	03/05/21	int002	Internal Rev.Serv.	March 5th Federal Withholding	2001-101-000	12,258.02
EFT	03/05/21	mnd001	MN Revenue	March 5th State Withholding	2003-101-000	2,306.50
EFT	03/05/21	per001	PERA	March 5th PERA	2011-101-000	7,285.52
EFT	03/05/21	emp002	Empower Retirement	Employee Def.Comp. Contributions	2016-101-000	2,570.00
EFT	03/05/21	emp002	Empower Retirement	Employee IRA Contributions	2018-101-000	450.00
Dir.Dep.	03/19/21	---	Payroll Expense-Net	March 19th Payroll	4010-101-000	29,133.45
EFT	03/19/21	int002	Internal Rev.Serv.	March 19th Federal Withholding	2001-101-000	10,065.03
EFT	03/19/21	mnd001	MN Revenue	March 19th State Withholding	2003-101-000	1,859.69
EFT	03/19/21	per001	PERA	March 19th PERA	2011-101-000	6,330.30
EFT	03/19/21	emp002	Empower Retirement	Employee Def.Comp. Contributions	2016-101-000	2,645.00
EFT	03/19/21	emp002	Empower Retirement	Employee IRA Contributions	2018-101-000	450.00
Payroll/Benefits:						<u>\$109,368.45</u>
Total	Accounts Payable/Payroll/Benefits:					<u>\$834,553.71</u>

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From March 1, 2021 - March 31, 2021

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
03/09/12	EFT	hea002	HealthPartners	4040-101-000	Employee Benefits-General	\$11,894.97	
03/09/12	EFT	met008	MetLife-Group Benefits	4040-101-000	Employee Benefits-General	1,585.09	
03/12/21	72121	ada002	Adam's Pest Control	4343-101-000	Bldg./Site Maintenance	79.00	
03/12/21	72122	att002	AT & T Mobility - ROC			137.13	
				4530-101-000	Water QM Staff-General		38.04
				4325-101-000	IT/Website/Software		99.09
03/12/21	72123	aws001	AWS Service Center	4341-101-000	Janitorial/Trash Service	237.00	
03/12/21	72124	gil001	Gilbert Mechanical Contractors, Inc.	4343-101-000	Building/Site Maintenance	3,351.00	
03/12/21	72125	gru001	Gruber's Power Equipment	4670-101-000	Natural Resources Project-General	90.90	
03/12/21	72126	han008	Hanna Enterprises, Inc.	4341-101-000	Janitorial/Trash Service	470.00	
03/12/21	72127	mbc001	MB Consulting	4372-101-000	Events	5,000.00	
03/12/21	72128	met005	Metro Blooms	4683-101-000	Outside Program Support	1,250.00	
03/12/21	72129	ncp001	NCPERS Group Life Ins.	4040-101-000	Employee Benefits-General	16.00	
03/12/21	72130	nsp001	Xcel Energy			34,563.81	
				4342-101-000	Utilities/Bldg. Contracts		334.14
				4650-101-000	Project Operations-General		34,229.67
03/12/21	72131	pit001	Pitney Bowes Global Financial Services, LLC	4330-101-000	Postage-General	143.55	
03/12/21	72132	pre003	Premium Waters, Inc.	4343-101-000	Bldg./Site Maintenance	26.00	
03/12/21	72133	stu001	Studio Lola	4320-101-000	Office Supplies-General	366.90	
03/12/21	72134	ups001	Uniter Parcel Services	4530-101-000	Water QM Staff-General	133.17	
03/12/21	72135	usb005	US Bank Equipment Finance	4335-101-000	Printing-General	294.00	
03/31/21	72136	att002	AT & T Mobility - ROC	4530-101-000	Water QM Staff-General	137.13	
03/31/21	72137	bar001	Barr Engineering			152,832.19	
				4121-101-000	Engineering Admin-General Fund		5,394.00
				4129-101-000	Project Feasability-General		7,343.00
				4123-101-000	Engineering-Review		4,992.00
				4129-101-000	Project Feasability-General		3,863.00
				4129-101-000	Project Feasability-General		2,395.00
				4129-101-000	Project Feasability-General		845.50
				4129-101-000	Project Feasability-General		892.50
				4520-101-000	Water QM-Engineering		3,797.00
				4124-101-000	Engineering-Permit Review		3,640.00
				4695-101-000	Research Projects-General		494.00
				4695-101-000	Research Projects-General		662.50
				4695-101-000	Research Projects-General		357.00
				4695-101-000	Research Projects-General		1,976.50
				4650-101-000	Engineering-Project Operations		72.50
				4128-518-000	Engineering-School/Commer Retrofit		484.00
				4128-518-000	Engineering-School/Commer Retrofit		13,362.93
				4128-518-000	Engineering-School/Commer Retrofit		1,300.00
				4128-518-000	Engineering-School/Commer Retrofit		884.00
				4128-518-000	Engineering-School/Commer Retrofit		1,173.00
				4682-529-000	Stewardship Grant Fund		5,211.50
				4128-518-000	Engineering-School/Commer Retrofit		885.50
				4128-520-000	Engineering-Flood Damage		9,530.58
				4128-520-000	Engineering-Flood Damage		61,720.00

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From March 1, 2021 - March 31, 2021

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
				4128-520-000	Engineering-Flood Damage		475.00
				4128-516-000	Engineering-Maint. & Repair		5,834.50
				4128-516-000	Engineering-Maint. & Repair		15,246.68
				4128-516-000	Engineering-Maint. & Repair		
03/31/21	72138	bar004	Deborah Barnes	4040-101-000	Employee Benefits-General	40.00	
03/31/21	72139	bfg001	BFG Supply Co., LLC	4370-101-000	Educational Program-General	16.00	
03/31/21	72140	bre003	Bremer Bank	4040-101-000	Employee Benefits-General	8,100.00	
03/31/21	72141	cad001	Allstream	4530-101-000	Water QM Staff-General	69.90	
03/31/21	72142	cit011	City of Roseville	4325-101-000	IT/Website/Software	4,958.78	
03/31/21	72143	com004	Comcast	4342-101-000	Utilities/Bldg. Contracts	79.06	
03/31/21	72144	fis002	Fish & Waters Conservation Fund	4682-529-000	Stewardship Grant Fund	3,000.00	
03/31/21	72145	fit001	Fitzgerald Excavating & Trucking, Inc.	4630-516-000	Construction Imp.-Maint. & Repair	160,718.86	
03/31/21	72146	gal001	Galawitz Olson, PLLC			3,862.00	
				4131-101-000	Attorney General-General		3,264.00
				4131-518-000	Attorney-Targeted Retrofit		598.00
03/31/21	72147	ger004	Gerdes Drywall, LLC	4343-101-000	Bldg./Site Maintenance	1,100.00	
03/31/21	72148	gru001	Gruber's Power Equipment	4670-101-000	Natural Resources Project-General	962.23	
03/31/21	72149	hom001	Home Depot Credit Services			324.69	
				4670-101-000	Natural Resources Project-General		94.52
				4630-516-000	Construction Imp.-Maint. & Repair		230.17
03/31/21	72150	int001	Office of MN, IT Services	4310-101-000	Telephone-General	57.48	
03/31/21	72151	kor001	Eric Korte	4040-101-000	Employee Benefits-General	77.53	
03/31/21	72152	kub001	Kyle W. Kubitz	4040-101-000	Employee Benefits-General	16.80	
03/31/21	72153	lea004	League of MN Cities Ins. Trust P & C	4480-101-000	Insurance-General	35,722.00	
03/31/21	72154	mel001	Michelle L. Melser			244.93	
				4343-101-000	Bldg./Site Maintenance		100.00
				4020-101-000	Employee Expenses-General		144.93
03/31/21	72155	met004	Metro Sales	4335-101-000	Printing-General	367.00	
03/31/21	72156	mid003	Roseville Midway Ford	4820-101-000	Vehicle Maint.-General	565.85	
03/31/21	72157	nep001	NCPERS Group Life Ins.	4040-101-000	Employee Benefits-General	16.00	
03/31/21	72158	nsp001	Xcel Energy			2,645.37	
				4342-101-000	Utilities/Bldg. Contracts		2,201.40
				4650-101-000	Project Operations-General		337.55
				4650-520-000	Project Operations-Flood		106.42
03/31/21	72159	pac001	Pace Analytical Services, Inc.	4530-101-000	Water QM Staff-General	567.00	
03/31/21	72160	pas002	Sage Passi			229.72	
				4020-101-000	Employee Expenses-General		6.72
				4040-101-000	Employee Benefits-General		223.00
03/31/21	72161	pem002	Pember Companies	4630-520-000	Construction-Flood Damage	262,971.88	
03/31/21	72162	qwe001	CenturyLink	4650-101-000	Project Operations-General	260.55	
03/31/21	72163	red002	Redpath & Company, Ltd.	4110-101-000	Auditor/Accounting	4,796.87	
03/31/21	72164	sim001	Emily Simmons	4040-101-000	Employee Benefits-General	59.14	
03/31/21	72165	sod001	Nicole Soderholm	4040-101-000	Employee Benefits-General	246.01	
03/31/21	72166	sto002	William Stolzenburg	4372-101-000	Events	500.00	
03/31/21	72167	tec001	Tech Sales Co.	4530-101-000	Water QM Staff-General	4,825.15	
03/31/21	72168	tim002	Timesaver Off-Site Secretarial, Inc.	4365-101-000	Committee/Board Meeting Expense	254.00	
03/31/21	72169	usb002	U.S. Bank			2,830.96	
				4343-101-000	Bldg./Site Maintenance		28.57

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From March 1, 2021 - March 31, 2021

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
				4365-101-000	Committee/Board Meeting Expense		32.13
				4320-101-000	Office Supplies-General		54.67
				4343-101-000	Bldg./Site Maintenance		20.00
				4325-101-000	IT/Website/Software		96.04
				4320-101-000	Office Supplies-General		39.18
				4338-101-000	Dues & Publications		155.00
				4350-101-000	Training & Education		65.00
				4530-101-000	Water QM Staff-General		59.99
				4530-101-000	Water QM Staff-General		23.49
				4630-516-000	Construction Imp.-Maint. & Repair		163.89
				4320-101-000	Office Supplies-General		(3.56)
				4350-101-000	Training & Education		190.00
				4530-101-000	Water QM Staff-General		220.00
				4350-101-000	Training & Education		50.00
				4350-101-000	Training & Education		1,270.00
				4320-101-000	Office Supplies-General		53.56
				4530-101-000	Water QM Staff-General		313.00
03/31/21	72170	van001	Vanguard Cleaning Systems of Minnesota	4341-101-000	Janitorial/Trash Service	488.89	
03/31/21	72171	voy001	US Bank Voyager Fleet System	4830-101-000	Vehicle Fuel-General	192.77	
03/31/21	72172	was002	Washington Conservation District	4682-529-000	Stewardship Grant Fund	2,024.00	
03/31/21	72173	whe001	Wheeler Hardware Company	4343-101-000	Bldg./Site Maintenance	703.00	
03/31/21	72174	all006	All State Communications	4343-101-000	Bldg./Site Maintenance	8,683.00	
Accounts Payable Total:						\$725,185.26	

Ramsey Washington Metro Watershed Dist.
Cash Disbursements Journal
For the Period From March 1, 2021 - March 31, 2021

Date	Check #	Vendor ID	Name	Account ID	Account Description	Amount	Check Detail
EFT	02/05/21	myp001	Payroll Fees	4110-101-000	February 5th Payroll Fees	71.60	
EFT	02/19/21	myp001	Payroll Fees	4110-101-000	February 19th Payroll Fees	69.65	
Dir.Dep.	03/05/21	---	Payroll Expense-Net	4010-101-000	March 5th Payroll	33,873.69	
EFT	03/05/21	int002	Internal Rev.Serv.	2001-101-000	March 5th Federal Withholding	12,258.02	
EFT	03/05/21	mnd001	MN Revenue	2003-101-000	March 5th State Withholding	2,306.50	
EFT	03/05/21	per001	PERA	2011-101-000	March 5th PERA	7,285.52	
EFT	03/05/21	emp002	Empower Retirement	2016-101-000	Employee Def.Comp. Contributions	2,570.00	
EFT	03/05/21	emp002	Empower Retirement	2018-101-000	Employee IRA Contributions	450.00	
Dir.Dep.	03/19/21	---	Payroll Expense-Net	4010-101-000	March 19th Payroll	29,133.45	
EFT	03/19/21	int002	Internal Rev.Serv.	2001-101-000	March 19th Federal Withholding	10,065.03	
EFT	03/19/21	mnd001	MN Revenue	2003-101-000	March 19th State Withholding	1,859.69	
EFT	03/19/21	per001	PERA	2011-101-000	March 19th PERA	6,330.30	
EFT	03/19/21	emp002	Empower Retirement	2016-101-000	Employee Def.Comp. Contributions	2,645.00	
EFT	03/19/21	emp002	Empower Retirement	2018-101-000	Employee IRA Contributions	450.00	
Payroll/Benefits						\$109,368.45	
TOTAL:						\$834,553.71	




Summary of Professional Engineering Services During the Period
February 13, 2021 through March 19, 2021

	Total Engineering Budget (2021)	Total Fees to Date (2021)	Budget Balance (2021)	Fees During Period	District Accounting Code	Plan Implementation Task Number
Engineering Administration						
General Engineering Administration	\$76,000.00	\$16,425.00	\$59,575.00	\$5,394.00	4121-101	DW-13
RWMWD Health and Safety/ERTK Program	\$2,000.00	\$0.00	\$2,000.00		4697-101	DW-13
Educational Program/Educational Forum Assistance	\$20,000.00	\$7,649.00	\$12,351.00	\$7,343.00	4129-101	DW-11
Engineering Review						
Engineering Review	\$55,000.00	\$13,339.50	\$41,660.50	\$4,992.00	4123-101	DW-13
Project Feasibility Studies						
Interim emergency response plan funds for top priority District flooding areas	\$60,000.00	\$6,183.00	\$53,817.00	\$3,863.00	4129-101	DW-19
Groundwater/Surface Water Next Steps	\$50,000.00	\$0.00	\$50,000.00		4129-101	DW-16
FEMA Flood Mapping Update (2020)	\$109,720.00	\$82,822.00	\$26,898.00	\$2,395.00	4129-101	DW-9
Hillcrest Golf Course (multi-use)	\$20,000.00	\$90.00	\$19,910.00	\$0.00	4129-101	DW-6
Gold BRT planning	\$20,000.00	\$0.00	\$20,000.00	\$0.00	4129-101	DW-6
Kohlman Creek flood damage reduction feasibility study	\$75,000.00	\$1,887.50	\$73,112.50	\$845.50	4129-101	DW-9, BELT-3
Ames Lake Technical Assisstance and Project Planning with St. Paul	\$25,000.00	\$2,833.00	\$22,167.00	\$892.50	4129-101	DW-9, BELT-3
Battle Creek PFAS (monitoring, source ID, meetings, communications)	\$25,000.00	\$0.00	\$25,000.00		4129-101	DW-10
694/494/94 WQ treatment feasibility study	\$30,000.00	\$0.00	\$30,000.00		4129-101	BCL-3
Subwatershed feasiblity studies for At-Risk creeks (Fish Creek and Gervais Creek)	\$35,000.00	\$0.00	\$35,000.00		4129-101	DW-1, DW-2, DW-6
Wetland Restoration Workshop, Education, and Planning	\$25,000.00	\$0.00	\$25,000.00		4129-101	DW-8
Contingency*	\$50,000.00	\$0.00	\$50,000.00		4129-101	
GIS Maintenance						
GIS Maintenance	\$5,000.00	\$0.00	\$5,000.00		4170-101	DW-13
Monitoring Water Quality/Project Monitoring						
Lake Water Quality Monitoring (Misc QA/QC)	\$10,000.00	\$0.00	\$10,000.00		4520-101	DW-2
Annual WQ Report Assistance	\$10,000.00	\$0.00	\$10,000.00		4520-101	DW-2
Special Project BMP Monitoring	\$25,000.00	\$7,368.50	\$17,631.50	\$3,797.00	4520-101	DW-12
Permit Processing, Inspection and Enforcement						
Permit Application Inspection and Enforcement	\$10,000.00	\$0.00	\$10,000.00		4122-101	DW-7
Permit Application Review	\$55,000.00	\$7,186.00	\$47,814.00	\$3,640.00	4124-101	DW-7
Lake Studies/WRPPs/TMDL Reports						
2020 Grant Applications	\$40,000.00	\$0.00	\$40,000.00		4661-101	DW-13
Tanners Flood Response Tool Model Update	\$3,000.00	\$0.00	\$3,000.00		4661-101	TaL-1
WMP Updates - Including Implementation Plan Updates	\$20,000.00	\$0.00	\$20,000.00		4661-101	DW-13
Prioritization of water quality projects from subwatershed feasibility studies	\$15,000.00	\$0.00	\$15,000.00		4661-101	DW-13
Contingency for Lake Studies	\$25,000.00	\$0.00	\$25,000.00		4661-101	
Research Projects						
New Technology Mini Case Studies (average 6 per year)	\$12,000.00	\$2,808.00	\$9,192.00	\$494.00	4695-101	DW-12
Kohlman Permeable Weir Test System - Implement Monitoring Plan	\$15,000.00	\$662.50	\$14,337.50	\$662.50	4695-101	DW-12
Phalen Chain of Lakes Changes in Water Quality	\$10,000.00	\$1,377.00	\$8,623.00	\$357.00	4695-101	DW-2, DW-12
Shallow Lake Aeration Study	\$36,000.00	\$1,976.50	\$34,023.50	\$1,976.50	4695-101	DW-12
Project Operations						
2020 Tanners Alum Facility Monitoring	\$15,000.00	\$734.00	\$14,266.00	\$72.50	4650-101	TaL-3
Beltline Outlet and Keller Channel Operations Plans	\$30,000.00	\$0.00	\$30,000.00		4650-101	DW-9, BELT-3
Capital Improvements						
East St. Paul Target	\$45,000.00	\$43,878.27	\$1,121.73	\$484.00	4128-518	DW-6
North St. Paul Target	\$150,000.00	\$101,378.43	\$48,621.57	\$13,362.93	4128-518	DW-6
Cemstone	\$60,000.00	\$0.00	\$60,000.00		4128-518	DW-6
Commercial Sites Retrofit Projects 2021 (Targeted Retrofits)	\$45,000.00	\$1,300.00	\$43,700.00	\$1,300.00	4128-518	DW-6
School Sites Retrofit Projects 2021 (Targeted Retrofits)	\$45,000.00	\$884.00	\$44,116.00	\$884.00	4128-518	DW-6
Church Sites Retrofit Projects 2021 (Targeted Retrofit)	\$45,000.00	\$5,179.00	\$39,821.00	\$1,173.00	4128-518	DW-6
BMP Incentive Fund: Gen'I BMP Design Assistance and Review (cases where Dist is approached by landowner, or landowner is not commercial, school, church).	\$75,000.00	\$10,056.00	\$64,944.00	\$5,211.50	4682-529	DW-6
Willow Lake Area Detention (from feas. Study)	\$150,000.00	\$0.00	\$150,000.00		4128-520	DW-9, BELT-3
Kohlman Creek Storage and Detention (from feas. Study)	\$200,000.00	\$0.00	\$200,000.00		4128-520	KC-2
Aldrich Arena (soils and plantings)	\$25,000.00	\$22,689.89	\$2,310.11	\$885.50	4128-518	DW-6, WL-1
Wakefield Park/Frost Avenue Stormwater Project	\$17,500.00	\$22,151.27	-\$4,651.27	\$0.00	4128-553	DW-6, WL-1
Wetland Restoration	\$100,000.00	\$0.00	\$100,000.00		4128-529	DW-1, DW-8
Keller Channel Weir & Phalen Outet Resiliency Modifications	\$250,000.00	\$192,601.59	\$57,398.41	\$9,530.58	4128-520	DW-9, BELT-3
Address Internal Load in TMDL lakes	\$60,000.00	\$0.00	\$60,000.00		4661-101	KL-2, GC-2, WL-3, BL-3
Ryan Drive-Keller Parkway Conveyance	\$168,850.00	\$126,499.52	\$42,350.48	\$61,720.00	4128-520	DW-9, BELT-3, GC-3
Twin Lake Outlet Easement Acquisition, Permitting, Construction Plans (2020)	\$90,000.00	\$71,616.87	\$18,383.13	\$475.00	4128-520	DW-9
Place holder for feas. study (other) recommendations	\$25,000.00	\$0.00	\$25,000.00		4128-520	
CIP Project Repair & Maintenance						
Routine CIP Inspection and Unplanned Maintenance Identification	\$75,000.00	\$14,471.50	\$60,528.50	\$5,834.50	4128-516	DW-5
Beltline 5-year Inspection	\$70,000.00	\$612.50	\$69,387.50	\$0.00	4128-516	BELT-2
2021 CIP Maintenance and Repairs	\$150,000.00	\$94,530.75	\$55,469.25	\$15,246.68	4128-516	DW-5
2022 CIP Maintenance and Repairs (planning, bidding, and project setup)	\$30,000.00	\$0.00	\$30,000.00		4128-516	DW-5

TOTAL PAYABLE FOR PERIOD 1/16/21 - 2/12/21

\$152,832.19

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


Bradley J. Lindaman, Vice President

**Keller Channel Weir and Phalen Outlet Resiliency
Progress Payment Number 3**

1.0	Total Completed Through This Period:	<u>\$795,310.50</u>	
2.0	Total Completed Previously Completed:		<u>\$518,498.00</u>
3.0	Total Completed This Period:		<u>\$276,812.50</u>
4.0	Amount Previously Retained:	<u>\$25,924.90</u>	
5.0	Amount Retained This Period (See Note 1):		<u>\$13,840.63</u>
6.0	Total Amount Retained:	<u>\$39,765.53</u>	
7.0	Retainage Released Through This Period:		<u>\$0.00</u>
8.0	Total Retainage Remaining:	<u>\$39,765.53</u>	
9.0	Amounts Previously Paid:	<u>\$492,573.11</u>	
10.0	Amount Due This Estimate:		<u>\$262,971.88</u>

Note 1: Retainage shall be 5 percent of the value of the Work completed.

SUBMITTED BY:

Name: Joe Pember Date: 3/29/21
Title: Project Manager
Contractor: Pember Companies, Inc.

Signature: 

RECOMMENDED BY:

Name: Brad Lindaman Date: March 23, 2021
Title: District Engineer
Engineer: Barr Engineering Company

Signature: 

APPROVED BY:

Name: Lawrence Swope Date: _____
Title: President
Owner: Ramsey-Washington Metro Watershed District

Signature: _____

**Keller Channel Weir and Phalen Outlet Resiliency
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through March 23, 2021 for Progress Payment Number 3**

						(1) Total Completed Through This Period		(2) Total Completed Previous Period		(3) Total Completed This Period	
Item	Description	Unit	Estimated Quantity	Unit Price	Extension	Quantity	Amount	Quantity	Amount	Quantity	Amount
General											
1.04.A	Mobilization/Demobilization	L.S.	1	58,900.00	58,900.00	0.80	\$47,120.00	0.60	\$35,340.00	0.20	\$11,780.00
1.04.B	Clearing and Grubbing	L.S.	1	6,500.00	6,500.00	1.00	\$6,500.00	0.80	\$5,200.00	0.20	\$1,300.00
1.04.C	Control of Water	L.S.	1	225,000.00	225,000.00	0.80	\$180,000.00	0.45	\$101,250.00	0.35	\$78,750.00
1.04.D	Construction Entrance	Each	3	1,000.00	3,000.00	3	\$3,000.00	2	\$2,000.00	1	\$1,000.00
1.04.E	Silt Fence	L.F.	450	2.70	1,215.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04.F	Siltation Log	L.F.	250	4.20	1,050.00	425	\$1,785.00	165	\$693.00	260	\$1,092.00
1.04.G	Floatation Silt Curtain	L.F.	400	24.00	9,600.00	450	\$10,800.00	400	\$9,600.00	50	\$1,200.00
1.04.H	Erosion Control Blanket	S.Y.	347	3.70	1,283.90	0	\$0.00	0	\$0.00	0	\$0.00
1.04.I	Hydro-Mulch	S.Y.	780	3.00	2,340.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04.J	Inlet Protection	Each	14	130.00	1,820.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04.K	Traffic and Pedestrian Control	L.S.	1	10,000.00	10,000.00	0.75	\$7,500.00	0.75	\$7,500.00	0	\$0.00
Phalen Lake East and West Outlet Structures											
1.04.L	Remove, Salvage and Replace Split Rail Fence	L.F.	135	30.00	4,050.00	109	\$3,270.00	109	\$3,270.00	0	\$0.00
1.04.M	Remove and Salvage Existing Overflow Structure Grate Trash Rack	Each	2	3,000.00	6,000.00	2	\$6,000.00	2	\$6,000.00	0	\$0.00
1.04.N	Remove and Disposal of Existing 24” RCP Flared End Section and Trash Rack Inlet	Each	2	2,000.00	4,000.00	2	\$4,000.00	2	\$4,000.00	0	\$0.00
1.04.O	Excavate and Removal of Riprap from Infront of Structures and Regrade Area	L.S.	1	50,000.00	50,000.00	1.00	\$50,000.00	0.75	\$37,500.00	0.25	\$12,500.00
1.04.P	Construction Provisions/Methods to Protect Existing Concrete Structures D	L.S.	1	15,000.00	15,000.00	1.00	\$15,000.00	0.75	\$11,250.00	0.25	\$3,750.00
1.04.Q	Remove Partial Section of Existing Concrete Weir Wall	Each	2	7,500.00	15,000.00	2	\$15,000.00	2	\$15,000.00	0	\$0.00
1.04.R	36” RCP Class II	L.F.	140	300.00	42,000.00	151	\$45,300.00	124	\$37,200.00	27	\$8,100.00
1.04.S	36” RC Flared End Section w/Bull Nose Trash Rack	Each	4	5,000.00	20,000.00	4	\$20,000.00	3	\$15,000.00	1	\$5,000.00
1.04.T	Connect 36” RCP to Existing Outlet Control Structure	Each	4	10,000.00	40,000.00	4	\$40,000.00	3	\$30,000.00	1	\$10,000.00
1.04.U	Random Granite Riprap Mn/DOT Class IV	Ton	556	83.00	46,148.00	398	\$33,034.00	323	\$26,809.00	75	\$6,225.00
1.04.V	Granular Filter Material	Ton	277	32.50	9,002.50	115	\$3,737.50	58	\$1,885.00	57	\$1,852.50
1.04.W	72” Dia. RC Control Structure Manhole with Integral Base, Weir Wall and Door Hatch Cast in Top Slab	Each	4	15,000.00	60,000.00	4	\$60,000.00	3	\$45,000.00	1	\$15,000.00
1.04.X	Construct 8” Reinforced Concrete Weir Wall in Existing Outlet Structure	Each	4	5,500.00	22,000.00	4	\$22,000.00	3	\$16,500.00	1	\$5,500.00
1.04.Y	Aluminum Angle Frame Floor Door Hatch – Single Leaf	Each	4	2,500.00	10,000.00	4	\$10,000.00	2	\$5,000.00	2	\$5,000.00
1.04.Z	Furnish and Install 48” Wide x 48” High Drop Weir Gate (Whipps, Inc.™) with Electric Actuator	Each	4	20,500.00	82,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04.AA	Furnish and Install Custom Fabricated Special Overflow Structure Galvanized Trash Rack (Haala Ind.™)	Each	2	6,400.00	12,800.00	2	\$12,800.00	1	\$6,400.00	1	\$6,400.00
1.04.AB	Aggregate Fill	C.Y.	578	32.50	18,785.00	588	\$19,110.00	402	\$13,065.00	186	\$6,045.00
1.04.AC	Import Topsoil	C.Y.	58	70.00	4,060.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04.AD	Protect Trails/Paths and Repair/Restoration of any Damaged Bituminous	L.S.	1	40,000.00	40,000.00	0.50	\$20,000.00	0.35	\$14,000.00	0.15	\$6,000.00

**Keller Channel Weir and Phalen Outlet Resiliency
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through March 23, 2021 for Progress Payment Number 3**

						(1) Total Completed Through This Period		(2) Total Completed Previous Period		(3) Total Completed This Period	
Item	Description	Unit	Estimated Quantity	Unit Price	Extension	Quantity	Amount	Quantity	Amount	Quantity	Amount
1.04.AE	Seeding	S.Y.	347	5.00	1,735.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04.AF	Site Restoration	L.S.	1	5,000.00	5,000.00	0	\$0.00	0	\$0.00	0	\$0.00
Keller Channel Weir											
1.04.AG	Remove Top 3 Feet of Existing Weir Wall	L.S.	1	18,000.00	18,000.00	1	\$18,000.00	0	\$0.00	1	\$18,000.00
1.04.AH	Construction Provisions/Methods to Protect Existing Concrete Structure During Selective Demolition/Removals	L.S.	1	8,500.00	8,500.00	1	\$8,500.00	0	\$0.00	1	\$8,500.00
1.04.AI	Concrete Modifications to Weir, (Add 1 foot to top of weir and 6 inches to side walls as shown on Drawings)	L.S.	1	8,000.00	8,000.00	1	\$8,000.00	0	\$0.00	1	\$8,000.00
1.04.AJ	Repair/Regrade Existing Channel Side Slopes, Construct Level Access Pad Area for Control Panel, Remove and Replace Riprap Upstream and Downstream of Structure, Add Topsoil, Seed, and Erosion Control Blanket	L.S.	1	28,000.00	28,000.00	0.5	\$14,000.00	0.0	\$0.00	0.5	\$14,000.00
1.04.AK	Furnish and Install 132” Wide x 30” High Drop Weir Gate (Whipps, Inc.™) with Interconnected Gearbox and Electric Actuator	Each	3	23,000.00	69,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04.AL	Valve Stem Cover Box/Lid Installed	Each	3	4,100.00	12,300.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04.AM	Protect Trails/Paths and Repair/Restoration of any Damaged Bituminous	L.S.	1	20,000.00	20,000.00	0.5	\$10,000.00	0.0	\$0.00	0.5	\$10,000.00
1.04.AN	Site Restoration	L.S.	1	14,000.00	14,000.00	0	\$0.00	0	\$0.00	0	\$0.00
Electrical											
1.04.AO	Electrical - Phalen Lake East and West Outlet Structures	L.S.	1	130,000.00	130,000.00	0.35	\$45,500.00	0.35	\$45,500.00	0	\$0.00
1.04.AP	Electrical - Keller Channel Weir	L.S.	1	40,000.00	40,000.00	0.35	\$14,000.00	0	\$0.00	0.35	\$14,000.00
Electrical Allowance											
1.05B	Schedule of Allowances	Each	1	21,000.00	21,000.00	0	\$0.00	0	\$0.00	0	\$0.00
Contract Base Extensions =						\$1,197,089.40	\$753,956.50	\$494,962.00	\$258,994.50		
Change Order 1											
C.O.1.A	Crushed Granite Stone (Barton CA1)	Ton	400	83.00	33,200.00	416	\$34,528.00	277	\$22,991.00	139	\$11,537.00
C.O.1.B	Type 5 Stabilization Geotextile	SY	350	2.50	875.00	350	\$875.00	218	\$545.00	132	\$330.00
C.O.3.A	Keller Channel Sediment/Muck Excavation and Disposal	CY	105	56.68	5,951.00	105	\$5,951.00	0	\$0.00	105	\$5,951.00
Change Order 1 Extensions =						\$40,026.00	\$41,354.00	\$23,536.00	\$17,818.00		
Contract Grand Total =						\$1,237,115.40	\$795,310.50	\$518,498.00	\$276,812.50		

2021 Capitol Improvemet Project (CIP) Progress Payment Number 1

1.0	Total Completed Through This Period:	<u>\$169,177.75</u>	
2.0	Total Completed Previously Completed:	<u>\$0.00</u>	
3.0	Total Completed This Period:		<u>\$169,177.75</u>
4.0	Amount Previously Retained:	<u>\$0.00</u>	
5.0	Amount Retained This Period (See Note 1):		<u>\$8,458.89</u>
6.0	Total Amount Retained (See Note 2):	<u>\$8,458.89</u>	
7.0	Retainage Released Through This Period:		<u>\$0.00</u>
8.0	Total Retainage Remaining:	<u>\$8,458.89</u>	
9.0	Amounts Previously Paid:	<u>\$0.00</u>	
10.0	Amount Due This Estimate:		<u><u>\$160,718.86</u></u>

Note 1: Retainage shall be 5 percent of the value of the Work completed.

SUBMITTED BY:

Name: Jason Fitzgerald Date: _____
Title: President
Contractor: Fitzgerald Excavating & Trucking, Inc.

Signature: _____

RECOMMENDED BY:

Name: Brad Lindaman Date: _____
Title: District Engineer
Engineer: Barr Engineering Company

Signature: _____

APPROVED BY:

Name: Lawrence Swope Date: _____
Title: President
Owner: Ramsey-Washington Metro Watershed District

Signature: _____

2021 Capital Improvement Project (CIP)
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through March 23rd 2021, for Progress Payment Number 1

						(1) Total Completed Through This Period		(2) Total Completed Previous Period		(3) Total Completed This Period	
Item	Description	Unit	Estimated Quantity	Unit Price	Extension	Quantity	Amount	Quantity	Amount	Quantity	Amount
General											
1.04.A	Mobilization/Demobilization	L.S.	1	55,000.00	55,000.00	0.25	\$13,750.00	0.0	\$0.00	0.3	\$13,750.00
1.04.B	Control of Water	L.S.	1	3,000.00	3,000.00	0.25	\$750.00	0.0	\$0.00	0.3	\$750.00
1.04.K	Traffic Control	L.S.	1	8,000.00	8,000.00	0.25	\$2,000.00	0	\$0.00	0.25	\$2,000.00
Site 1 - Tamarack Swamp, Woodbury (PFS Basins Cleaning/Sweeping)											
1.04 G	Sediment Log (9-Inch Diameter)	L.F.	60	2.00	120.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 D	Sediment/Muck Cleanout Unregulated MPCA SRV Level 1 Material (P)	C.Y.	54	38.00	2,052.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Disposal of (SRV Level 2 and 3)	TON	92	10.00	920.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 H	Paver Sweeping (1,400 S.Y.)	S.Y.	1,400	3.00	4,200.00	0.00	\$0.00		\$0.00	0	\$0.00
1.04 J	Clear Washed Filter Rock	TON	10	40.00	400.00	0.00	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	100	1.00	100.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 2 - 5th Street Wetland, Oakdale (Wetland Weir Maintenance)											
1.04. K	Permeable Weir Maintenance (Reopening Drainage Slots and Remove all Brush and Debris)	L.F.	65	10.00	650.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	210	1.00	210.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 3 - Tanners Wetland, Oakdale (Wetland Weir Maintenance)											
1.04. K	Permeable Weir Maintenance (Reopening Drainage Slots and Remove all Brush and Debris)	L.F.	580	10.00	5,800.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	210	1.00	210.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 4 - Gervais Mill Park, Little Canada (Mill Pond Filter Maintenance)											
1.04 N	Flotation Silt Curtain	L.F.	45	15.00	675.00	45	\$675.00	0	\$0.00	45	\$675.00
1.04 Q	Composite Mud Mats Protection (Double Layer)	S.Y.	100	3.00	300.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 I	Remove Existing 1-1/2 inch to 2-inch Filter Rock	L.S.	1	3,500.00	3,500.00	1	\$3,500.00	0	\$0.00	1	\$3,500.00
1.04 J	Clear Washed Filter Rock	TON	50	45.00	2,250.00	35	\$1,572.75		\$0.00	34.95	\$1,572.75
1.04 F	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	400	1.00	400.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 5 - Lower Afton Road, Maplewood (Drainageway Sediment Removal)											
1.04 O	Construction Entrance	EACH	1	500.00	500.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 P	Temporary Rock Filter Dike	TON	10	25.00	250.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 Q	Composite Mud Mats Protection (Double Layer)	S.Y.	45	3.00	135.00	45	\$135.00	0	\$0.00	45	\$135.00
1.04 D	Sediment/Muck Cleanout Unregulated MPCA SRV Level 1 Material (P)	C.Y.	75	35.00	2,625.00	75	\$2,625.00	0	\$0.00	75	\$2,625.00
1.04 E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Disposal of (SRV Level 2 and 3)	TON	127	16.00	2,032.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	210	1.00	210.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 6 - ABI Diversion Manhole, Oakdale (Weir Repair)											
1.04 O	Construction Entrance	EACH	1	500.00	500.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 G	Sediment Log (9-Inch Diameter)	L.F.	50	2.00	100.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 D	Sediment/Muck Cleanout Unregulated MPCA SRV Level 1 Material (P)	C.Y.	12	35.00	420.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Disposal of (SRV Level 2 and 3)	TON	20	17.00	340.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 S	Remove and Replace Top Slab Water Control Structure, Remove Existing Concrete Weir and Rebuild Concrete	L.S.	1	12,000.00	12,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 T	Remove and Replace Bituminous Trail Pavement	S.Y.	20	25.00	500.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site and Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	100	1.00	100.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 7 - Bailey Nursery, Newport (Storm Sewer Repair)											
1.04 U	Removal of RCP Storm Sewer Pipe	L.F.	16	28.00	448.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 V	Precast Reinforced Concrete Pipes	L.F.	16	95.00	1,520.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 W	Connection to Manhole Structure	EACH	2	1,000.00	2,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 HH	MN/DOT Class III Riprap with Type IV Geotextile Filter Fabric	TON	25	40.00	1,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site and Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	100	4.00	400.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 8 - Kohlman Basin, Maplewood (Permeable Weirs Upflow Treatment Cells)											
1.04 O	Construction Entrance	EACH	1	800.00	800.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 X	Remove, Salvage, and Replace Existing Treatment Materials for Construction of Cell Structures	C.Y.	12	100.00	1,200.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 Y	Construct Upflow Treatment Cell Structure	EACH	2	9,000.00	18,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 GG	Filter Fabric MN/DOT Type 5	S.Y.	32	2.00	64.00	0	\$0.00		\$0.00	0	\$0.00
1.04 Z	3-inch PVC Schedule 40 Piping and Fittings	L.F.	60	25.00	1,500.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 AA	Valterra Knife Gate	EACH	2	800.00	1,600.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 BB	Pea Gravel Bedding	TON	4	10.00	40.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 CC	Limerock (CC17)	TON	8	40.00	320.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	200	1.00	200.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 9 - Willow Pond, Roseville (CMAC Drain Pipe Installation)											
1.04 O	Construction Entrance	EACH	1	800.00	800.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 Q	Composite Mud Mats Protection (Double Layer)	S.Y.	112	3.00	336.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 G	Sediment Log (9-Inch Diameter)	L.F.	350	4.00	1,400.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 DD	Furnish and Install 4-inch PVC Drainpipe SDR 35	L.F.	205	30.00	6,150.00	0	\$0.00		\$0.00	0	\$0.00
1.04 W	Connection to Manhole Structure	EACH	2	2,000.00	4,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	540	1.00	540.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 10a - Owasso Basin, Little Canada (Perimeter Berm Raise with Grading and Restoration)											
1.04 O	Construction Entrance	EACH	1	800.00	800.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 R	Removal of Trees, Brush, and Debris (Disposal Off Site)	L.S.	1	3,500.00	3,500.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 EE	Strip and Salvage Topsoil	C.Y.	150	10.00	1,500.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 MM	Berm Fill Material Borrow	C.Y.	265	20.00	5,300.00	0	\$0.00		\$0.00	0	\$0.00
1.04 KK	Replace Salvaged Topsoil	C.Y.	150	10.00	1,500.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 LL	Topsoil Borrow	C.Y.	60	20.00	1,200.00	0	\$0.00	0	\$0.00	0	\$0.00

2021 Capital Improvement Project (CIP)
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through March 23rd 2021, for Progress Payment Number 1

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
1.04 F	Site Access Restoration (Seeding and Erosion Control Blanket)	S.Y.	1,500	4.00	6,000.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 10b - Owasso Basin, Little Canada (Channel Cleaning and Grading)											
1.04 O	Construction Entrance	EACH	2	2,000.00	4,000.00	2	\$4,000.00	0	\$0.00	2	\$4,000.00
1.04 R	Removal of Trees, Brush, and Debris (Disposal Off Site)	L.S.	1	45,000.00	45,000.00	1	\$45,000.00	0	\$0.00	1	\$45,000.00
1.04 EE	Strip and Salvage Topsoil	C.Y.	170	10.00	1,700.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 Q	Composite Mud Mats Protection (Double Layer)	S.Y.	312	20.00	6,240.00	312	\$6,240.00	0	\$0.00	312	\$6,240.00
1.04 NN	Remove Sheet Pile Water Control Weir, Pipe and Riprap	L.S.	1	5,000.00	5,000.00	1	\$5,000.00	0	\$0.00	1	\$5,000.00
1.04 D	Sediment/Muck Cleanout Unregulated MPCA SRV Level 1 Material (P)	C.Y.	3,640	28.00	101,920.00	2,730	\$76,440.00	0	\$0.00	2,730	\$76,440.00
1.04 E	Sediment/Muck Cleanout Unregulated MPCA SRV Level 2 and 3)	TON	6,152	14.00	86,128.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 KK	Replace Salvaged Topsoil	C.Y.	170	10.00	1,700.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 LL	Topsoil Borrow	C.Y.	160	20.00	3,200.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	3,275	1.00	3,275.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 11 - Round Lake Pond, Little Canada (Pond Cleanout)											
1.04 O	Construction Entrance	EACH	1	800.00	800.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 OO	Protection of Existing Trees, Landscaping, and Trail	L.S.	1	500.00	500.00	1	\$500.00	0	\$0.00	1	\$500.00
1.04 Q	Composite Mud Mats Protection (Double Layer)	S.Y.	62	20.00	1,240.00	62	\$1,240.00	0	\$0.00	62	\$1,240.00
1.04 N	Flotation Silt Curtain	L.F.	85	10.00	850.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 D	Sediment/Muck Cleanout Unregulated MPCA SRV Level 1 Material (P)	C.Y.	75	30.00	2,250.00	75	\$2,250.00	0	\$0.00	75	\$2,250.00
1.04 E	Sediment/Muck Cleanout Unregulated MPCA SRV Level 2 and 3)	TON	127	16.00	2,032.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 HH	MN/DOT Class III Riprap with Type IV Geotextile Filter Fabric	TON	31	50.00	1,550.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	300	2.00	600.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 12 - Margaret Pond, North St. Paul (Pond Cleanout)											
1.04 O	Construction Entrance	EACH	1	800.00	800.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 R	Removal of Trees, Brush, and Debris (Disposal Off Site)	L.S.	1	2,000.00	2,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 N	Flotation Silt Curtain	L.F.	80	15.00	1,200.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 U	Removal of 30-inch RCP Storm Sewer Pipe	L.F.	42	40.00	1,680.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 PP	Remove Curb and Gutter	L.F.	20	5.00	100.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 QQ	Remove and Disposal of Drainage Structure Manhole	EACH	2	500.00	1,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 FF	Sawcut Bituminous Pavement	L.F.	56	4.00	224.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 RR	Remove Bituminous Pavement	S.Y.	20	5.00	100.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 II	Aggregate Base Class 5	TON	8	25.00	187.50	0	\$0.00	0	\$0.00	0	\$0.00
1.04 JJ	Bituminous Wear Coarse (Including Tack Coat)	TON	3	100.00	300.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 SS	Remove Concrete Sidewalk	S.F.	80	5.00	400.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 TT	Coarse Filter Material	TON	17	25.00	425.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 V	Furnish and Install 36-inch RCP Class III	L.F.	50	200.00	10,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 UU	36-inch Reinforced Concrete Flared End Section	EACH	1	4,000.00	4,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 W	Connect to Manhole Structure	EACH	2	2,000.00	4,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 VV	Construct Drainage Structure Design 84-4020	L.F.	9	1,200.00	10,800.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 WW	Construct Drainage Structure Design Special	EACH	1	5,000.00	5,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 D	Sediment/Muck Cleanout Unregulated MPCA SRV Level 1 Material (P)	C.Y.	130	35.00	4,550.00	100	\$3,500.00	0	\$0.00	100	\$3,500.00
1.04 E	Sediment/Muck Cleanout Unregulated MPCA SRV Level 2 and 3)	TON	220	16.00	3,520.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 HH	MN/DOT Class III Riprap (Field Stone)	TON	59	75.00	4,425.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 XX	8-inch Concrete Walk	S.F.	80	15.00	1,200.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 YY	Concrete Curb and Gutter Design B612	L.F.	20	30.00	600.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	500	1.00	500.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 13 - McKnight Basin, Maplewood (Erosion/Sink Hole Repairs)											
1.04 Q	Composite Mud Mats Protection (Double Layer)	S.Y.	122	10.00	1,220.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 ZZ	Fill Existing Sink Holes (Including Fill Materials/Topsoil)	L.S.	1	6,000.00	6,000.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 HH	MN/DOT Class III Riprap with Type IV Geotextile Filter Fabric	TON	10	50.00	500.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	244	4.00	976.00	0	\$0.00	0	\$0.00	0	\$0.00
Site 14 - Grass Lake Emergency Overflow, Shoreview (Pavers along Bituminous Trail)											
1.04 G	Sediment Log (9-Inch Diameter)	L.F.	75	4.00	300.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 Q	Composite Mud Mats Protection (Double Layer)	S.Y.	112	10.00	1,120.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 AAA	Remove and Replenish Existing Riprap	L.S.	1	1,500.00	1,500.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 II	Class 5 Aggregate Base or (Engineer-Approved Class 7 Recycled Material)	TON	2	25.00	50.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 BBB	Remove, Salvage, and Replace Existing Class 5	L.S.	1	1,200.00	1,200.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 CCC	Furnish and Install Turfstone Pavers (Includes bedding sand and edge restraints)	S.F.	266	39.00	10,374.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 LL	Topsoil Borrow (Fill In Pavers)	C.Y.	2	20.00	40.00	0	\$0.00	0	\$0.00	0	\$0.00
1.04 F	Site Restoration (Seeding Paver Voids, Disturbed Area and Erosion Control Blanket)	S.Y.	40	4.00	160.00	0	\$0.00	0	\$0.00	0	\$0.00

Contract Grand Total = \$518,053.50 \$169,177.75 \$0.00 \$169,177.75

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 23, 2021
File No: 9M

	Balance
General Account	\$3,264.00
North St Paul Target Project	\$598.00
	<u>\$3,862.00</u>

Permit Application Coversheet

Date April 07, 2021

Project Name Chick-fil-A Woodbury Project Number 21-04

Applicant Name Justin Lurk, Chick-fil-A, Inc.

Type of Development Commercial/Retail

Property Description

This project is located southeast of I-494 and Valley Creek Road in the City of Woodbury. The applicant is proposing to construct a restaurant with associated sidewalk, patio, drive-thru lane, and trash enclosure. The total site area is 0.54 acre but triggers a RWMWD permit because it's part of a common plan of development. Stormwater treatment was previously provided in Permit #19-47, so this permit is for erosion control only (District Rule F). A temporary erosion control permit was issued on 3/4/21 to accommodate an anticipated early April start date.

Watershed District Policies or Standards Involved:

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

Water Quantity Considerations

There are no water quantity considerations.

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.

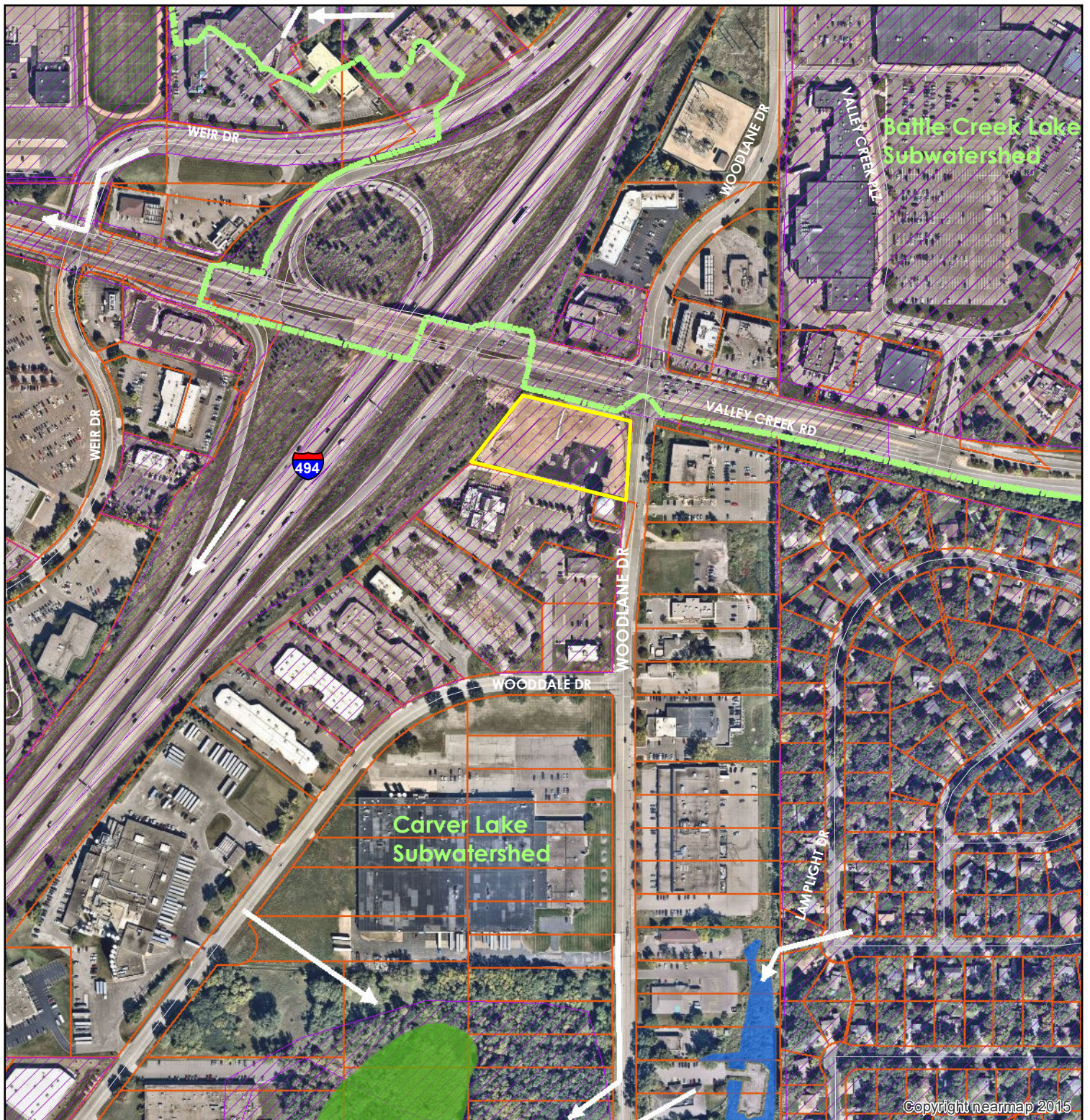
Staff Recommendation

Staff recommends approval of this permit.

Attachments:

- ☒ Project Location Map
- ☒ Project Grading Plan

#21-04 Chick-fil-A Woodbury

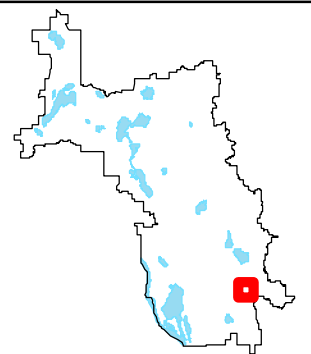
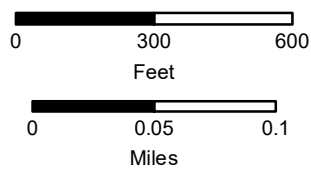


Wetlands

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

- RWMWD Boundary
- Flow Arrows
- Major Flow Arrows
- Subwatersheds
- Creeks
- Permits
- Washington Co Parcels

Highlighted Areas
Represent Active Permit



21-04

Special Provisions

None



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

HRGreen.com
HRGreen

CHICK-FIL-A

WOODBURY FSU

6949 VALLEY CREEK ROAD
WOODBURY, MN 55125

FSR# 04341

NO.	DATE	DESCRIPTION
1	04/14/20	ISSUED FOR PERMIT
2	01/06/21	ISSUED FOR CONSTRUCTION
3	01/12/21	PER ENGINEER

ISSUED FOR CONSTRUCTION

ENGINEER'S PROJECT #	180801
PRINTED FOR	ISSUED FOR CONSTRUCTION
DATE	04/10/2020

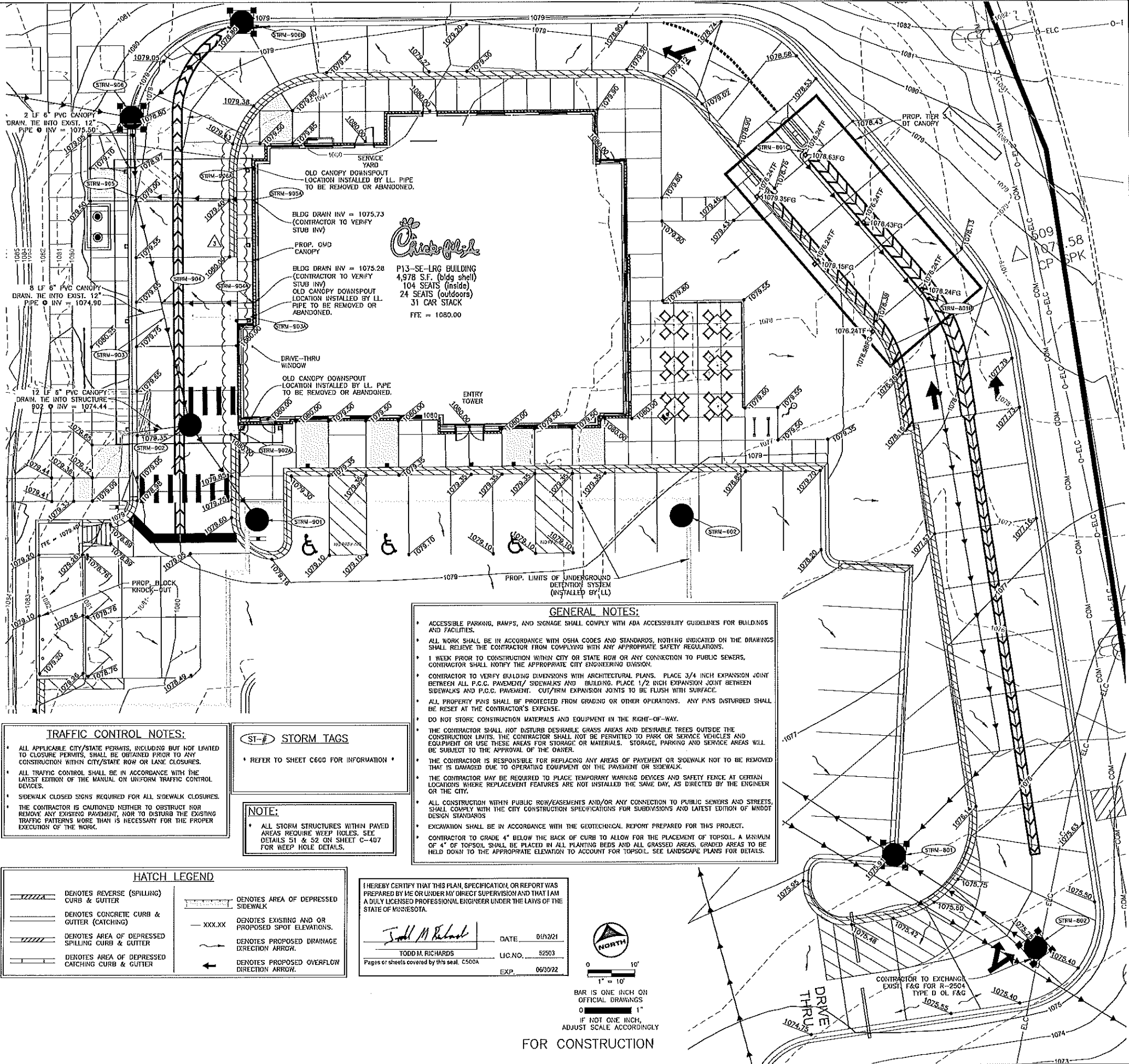
DRAWN BY: ECH
CHECKED BY: JPV
Information contained on this drawing shall be all legal for
provided for actual construction project and not a representation
of any kind or character, either in verbal or written
or otherwise, and shall not be used for any other purpose.

SHEET
CFA GRADING PLAN

SHEET NUMBER
C500A

GRADING & DRAINAGE NOTES

- CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES. TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED, THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER OR OWNER'S REPRESENTATIVE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT.
- ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
- THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
- PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
- THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE ALONG ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.5% MINIMUM ON ASPHALT. TO PREVENT PONDING, ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
- PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
- IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS.
- CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING WORK.
- SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- SEE EROSION CONTROL PLAN FOR EROSION CONTROL MEASURES AND NOTES.
- ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING, TREES, & ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED & DISPOSED OF OFF SITE. NO ON SITE BURNING WILL BE ALLOWED.
- ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST.
- ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
- GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
- NO PART OF THE PROPOSED PROJECT IS LOCATED WITHIN A FLOOD HAZARD AREA.
- SPOT ELEVATIONS SHOWN ARE @ EDGE OF PAVEMENT UNLESS OTHERWISE NOTED ON PLAN.
- ALL CONCRETE CURB & GUTTER SHALL BE TYPE 8-6.18 CURB UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL STORM SEWER JOINTS SHALL HAVE O-RING GASKETS.
- MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
- BACKFILL TO THE TOP OF CURBS.
- SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
- ALL SIDEWALK CROSS SLOPES SHALL BE A MAXIMUM OF 1.5%.
- DESIGNATED HANDICAP PARKING AREAS SHALL BE GRADED TO A MAXIMUM OF 1.5%.
- SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING OF PAVEMENT.
- THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND Haul Roads TO PREVENT THE SPREAD OF DUST.
- ALL FIELD TILES ENCOUNTERED SHALL BE REPLACED AND/OR CONNECTED TO THE STORM SEWER SYSTEM AND LOCATED AND IDENTIFIED ON THE RECORD PLANS BY THE CONTRACTOR.
- ALL STORM DRAINAGE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE MOST CURRENT CITY OF WOODBURY STANDARD SPECIFICATIONS.



P13-SE-LRG BUILDING
4,978 S.F. (bldg shell)
104 SEATS (inside)
24 SEATS (outdoors)
31 CAR STACK
FFE = 1080.00

GENERAL NOTES:

- ACCESSIBLE PARKING, RAMPS, AND SIGNAGE SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
- ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS, NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
- 1 WEEK PRIOR TO CONSTRUCTION WITHIN CITY OR STATE ROW OR ANY CONNECTION TO PUBLIC SEWERS, CONTRACTOR SHALL NOTIFY THE APPROPRIATE CITY ENGINEERING DIVISION.
- CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/ SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT. CUT/TIRM EXPANSION JOINTS TO BE FLUSH WITH SURFACE.
- ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
- DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT-OF-WAY.
- THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
- THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OR THE CITY.
- ALL CONSTRUCTION WITHIN PUBLIC ROW/EASEMENTS AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE CITY CONSTRUCTION SPECIFICATIONS FOR SUBDIVISIONS AND LATEST EDITION OF MNDOT DESIGN STANDARDS.
- EXCAVATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT.
- CONTRACTOR TO GRADE 4" BELOW THE BACK OF CURB TO ALLOW FOR THE PLACEMENT OF TOPSOIL. A MINIMUM OF 4" OF TOPSOIL SHALL BE PLACED IN ALL PLANTING BEDS AND ALL GRASSED AREAS. GRADED AREAS TO BE HELD DOWN TO THE APPROPRIATE ELEVATION TO ACCOUNT FOR TOPSOIL. SEE LANDSCAPE PLANS FOR DETAILS.

TRAFFIC CONTROL NOTES:

- ALL APPLICABLE CITY/STATE PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY/STATE ROW OR LANE CLOSURES.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES.
- THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.

ST-T STORM TAGS

- REFER TO SHEET C600 FOR INFORMATION

NOTE:

- ALL STORM STRUCTURES WITHIN PAVED AREAS REQUIRE WEEP HOLES. SEE DETAILS 51 & 52 ON SHEET C-407 FOR WEEP HOLE DETAILS.

HATCH LEGEND

	DENOTES REVERSE (SPILLING) CURB & GUTTER		DENOTES AREA OF DEPRESSED SIDEWALK
	DENOTES CONCRETE CURB & GUTTER (CATCHING)		DENOTES EXISTING AND/OR PROPOSED SPOT ELEVATIONS.
	DENOTES AREA OF DEPRESSED SPILLING CURB & GUTTER		DENOTES PROPOSED DRAINAGE DIRECTION ARROW.
	DENOTES AREA OF DEPRESSED CATCHING CURB & GUTTER		DENOTES PROPOSED OVERFLOW DIRECTION ARROW.

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.

Todd M. Richards
TODD M. RICHARDS
Pages or sheets covered by this seal: C500A
DATE: 01/12/21
LIC. NO.: 52503
EXP: 06/30/22



BAR IS ONE INCH ON
OFFICIAL DRAWINGS
IF NOT ONE INCH,
ADJUST SCALE ACCORDINGLY

FOR CONSTRUCTION

Permit Application Coversheet

Date April 07, 2021

Project Name 1880 Old Hudson Rd Phase 2

Project Number 21-05

Applicant Name Samir Abumayyaleh,

Type of Development Residential

Property Description

This project is located between Old Hudson Road and I-94 in the City of St. Paul. The applicant is proposing to complete Phase 2 of an apartment construction project. This phase will include construction of a second apartment building and associated parking. Two underground filtration systems were constructed during Phase 1 of the project (Permit #16-01). One of the existing underground filtration systems will be expanded slightly to account for an increase in impervious area that wasn't originally planned for. Filtration is being proposed due to poor soils. Pretreatment methods include sumped inlets and an isolator row. This phase will also include underground compensatory storage for fill proposed in the floodplain. The total site area for Phase 2 is 1.2 acres. The applicant has demonstrated stormwater treatment and compensatory storage requirements are met as proposed for the full build-out.

Watershed District Policies or Standards Involved:

- ☐ *Wetlands* ☒ *Erosion and Sediment Control*
☒ *Stormwater Management* ☒ *Floodplain*

Water Quantity Considerations

The proposed stormwater management plan and compensatory storage are sufficient to handle the runoff from the site and maintain no net loss in floodplain volume.

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.

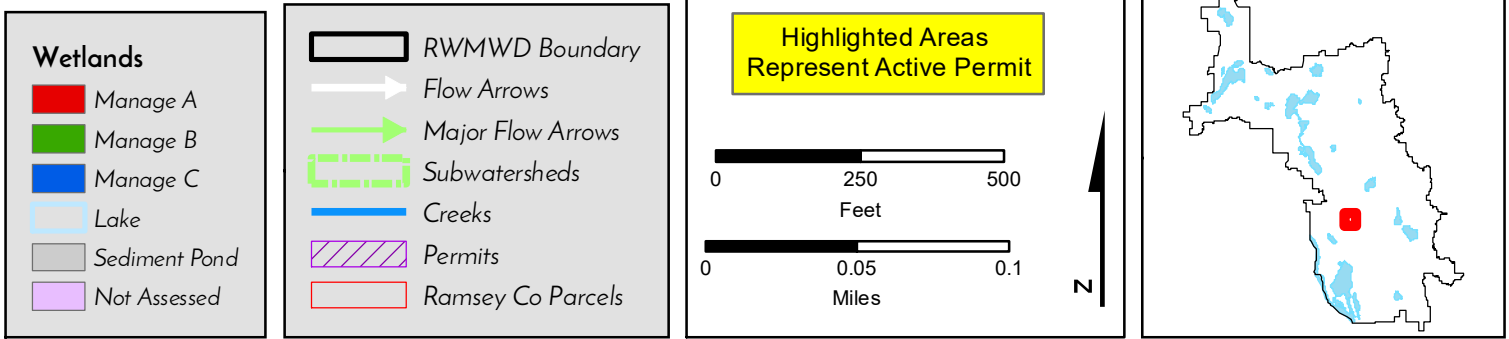
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☒ Project Location Map
☒ Project Grading Plan

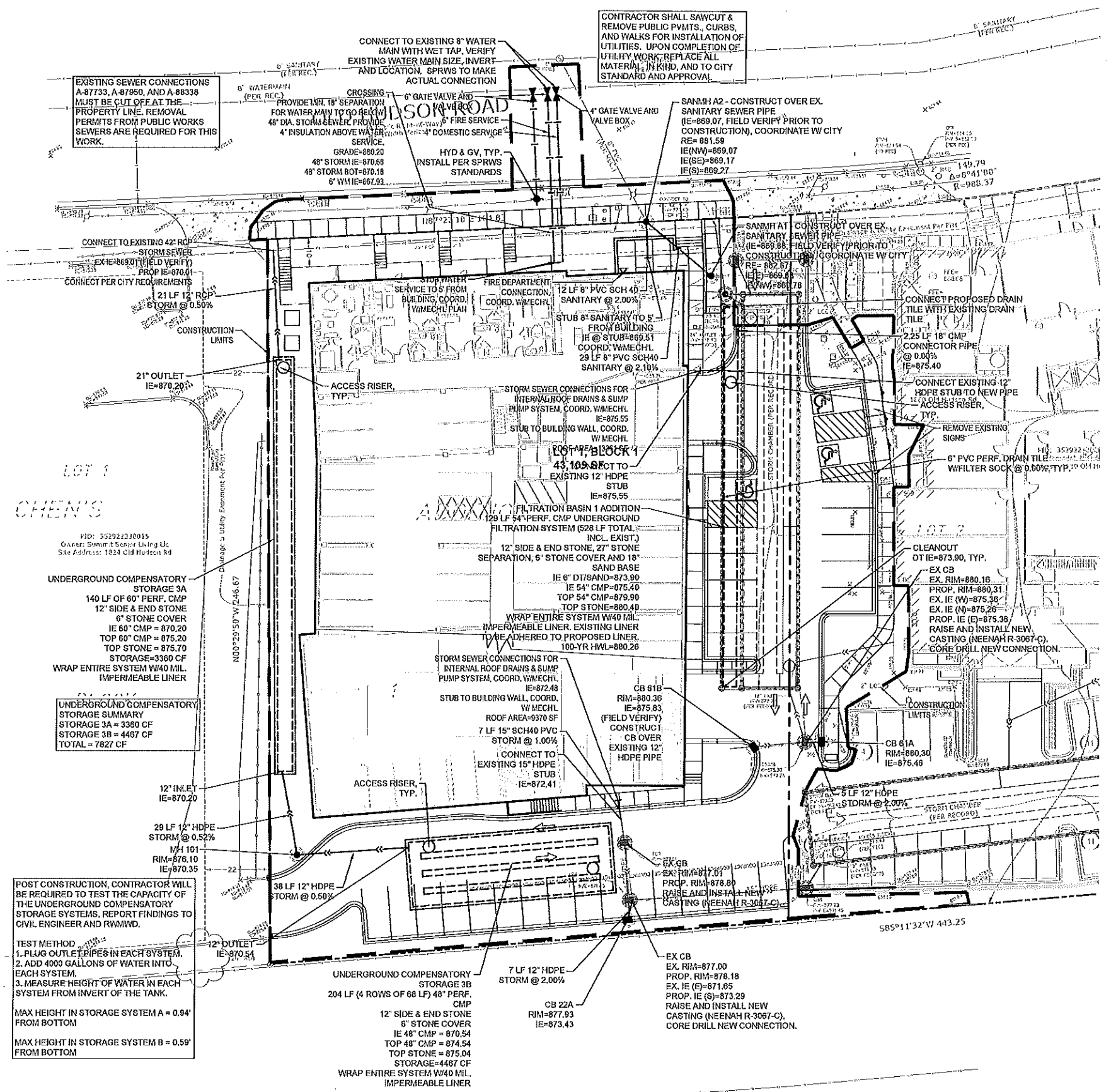
#21-05 1880 Old Hudson Rd Phase 2



21-05

Special Provisions

1. The applicant shall submit the escrow fee of \$6,000.
2. The applicant shall submit the final, signed plans set.
3. The applicant shall submit the signed stormwater maintenance agreement.
4. The applicant shall submit the draft, site-specific BMP Operations & Maintenance Plan.
5. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).

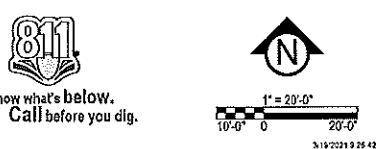


GENERAL UTILITY NOTES:

1. SEE SITE PLAN FOR HORIZONTAL DIMENSIONS AND LAYOUT.
2. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF DISCREPANCIES OR VARIATIONS FROM THE PLANS.
3. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTACT "Gopher State One Call" (651-454-0002 OR 800-252-1168) FOR UTILITY LOCATIONS, 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.
4. UTILITY INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION" AND "SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), AND SHALL CONFORM WITH THE REQUIREMENTS OF THE CITY AND THE PROJECT SPECIFICATIONS.
5. CASTINGS SHALL BE SALVAGED FROM STRUCTURE REMOVALS AND RE-USED OR PLACED AT THE DIRECTION OF THE OWNER.
6. PIPE MATERIAL FOR 8" DUCTILE IRON PIPE MUST BE CLASS 52, PIPE MATERIAL FOR 6" AND 4" DUCTILE IRON PIPE MUST BE CLASS 53. THE EXTERIOR OF DUCTILE IRON PIPE SHALL BE COATED WITH A LAYER OF ARC-SPRAYED ZINC PER ISO 8179. THE INTERIOR CEMENT MORTAR LINING SHALL BE APPLIED WITHOUT ASPHALT SEAL COAT. PIPE MUST BE WRAPPED IN V-BIO POLYWRAP ENCASUREMENT.
7. ALL STORM SEWER PIPE SHALL BE HDPE ASTM F714 & F2306 WITH ASTM D3212 SPEC FITTINGS UNLESS OTHERWISE NOTED.
8. PIPE LENGTHS SHOWN ARE FROM CENTER TO CENTER OF STRUCTURE OR TO END OF FLARED END SECTION.
9. UTILITIES ON THE PLAN ARE SHOWN TO WITHIN 5' OF THE BUILDING FOOTPRINT. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE FINAL CONNECTION TO BUILDING LINES. COORDINATE WITH ARCHITECTURAL AND MECHANICAL PLANS.
10. CATCH BASINS AND MANHOLES IN PAVED AREAS SHALL BE SUMPED 0.04 FEET. ALL CATCH BASINS IN GUTTERS SHALL BE SUMPED 0.15 FEET PER DETAILS. RIM ELEVATIONS SHOWN ON THIS PLAN DO NOT REFLECT SUMPED ELEVATIONS.
11. ALL FIRE HYDRANTS SHALL BE LOCATED 5 FEET BEHIND BACK OF CURB UNLESS OTHERWISE NOTED.
12. HYDRANT TYPE, VALVE, AND CONNECTION SHALL BE IN ACCORDANCE WITH CITY REQUIREMENTS. HYDRANT EXTENSIONS ARE INCIDENTAL.
13. SERVICE CONNECTIONS SHALL BE INSTALLED WITH 8 FEET OF COVER AS PER THE ESTABLISHED GRADE FROM THE MAIN TO THE PROPERTY LINE. MAINTAIN 3 FEET VERTICAL SEPARATION BETWEEN WATER AND SEWER PIPES OR 18-INCH SEPARATION INCLUDING 4-INCH HIGH DENSITY INSULATION PER SPRWS STANDARD PLATE D-10 FOR TYPICAL WATER MAIN OFFSETS.
14. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE IN ACCORDANCE WITH CITY STANDARDS AND COORDINATED WITH THE CITY PRIOR TO CONSTRUCTION.
15. CONNECTIONS TO EXISTING STRUCTURES SHALL BE CORE-DRILLED.
16. COORDINATE LOCATIONS AND SIZES OF SERVICE CONNECTIONS WITH THE MECHANICAL DRAWINGS.
17. COORDINATE INSTALLATION AND SCHEDULING OF THE INSTALLATION OF UTILITIES WITH ADJACENT CONTRACTORS AND CITY STAFF.
18. ALL STREET REPAIRS AND PATCHING SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY. ALL PAVEMENT CONNECTIONS SHALL BE SAWCUT. ALL TRAFFIC CONTROLS SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE ESTABLISHED PER THE REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE CITY. THIS SHALL INCLUDE BUT NOT BE LIMITED TO SIGNAGE, BARRICADES, FLASHERS, AND FLAGGERS AS NEEDED. ALL PUBLIC STREETS SHALL BE OPEN TO TRAFFIC AT ALL TIMES. NO ROAD CLOSURES SHALL BE PERMITTED WITHOUT APPROVAL BY THE CITY.
19. ALL STRUCTURES, PUBLIC AND PRIVATE, SHALL BE ADJUSTED TO PROPOSED GRADES WHERE REQUIRED. THE REQUIREMENTS OF ALL OWNERS MUST BE COMPLIED WITH. STRUCTURES BEING RESET TO PAVED AREAS MUST MEET OWNERS REQUIREMENTS FOR TRAFFIC LOADING.
20. CONTRACTOR SHALL COORDINATE ALL WORK WITH PRIVATE UTILITY COMPANIES.
21. CONTRACTOR SHALL COORDINATE CONNECTION OF IRRIGATION SERVICE TO UTILITIES. COORDINATE THE INSTALLATION OF IRRIGATION SLEEVES NECESSARY AS TO NOT IMPACT INSTALLATION OF UTILITIES.
22. CONTRACTOR SHALL MAINTAIN AS-BUILT PLANS THROUGHOUT CONSTRUCTION AND SUBMIT THESE PLANS TO ENGINEER UPON COMPLETION OF WORK.
23. ALL JOINTS AND CONNECTIONS IN STORM SEWER SYSTEM SHALL BE GASTIGHT OR WATERTIGHT. APPROVED RESILIENT RUBBER JOINTS MUST BE USED TO MAKE WATERTIGHT CONNECTIONS TO MANHOLES, CATCH-BASINS, OR OTHER STRUCTURES.
24. ALL PORTIONS OF THE STORM SEWER SYSTEM LOCATED WITHIN 10 FEET OF THE BUILDING OR WATER SERVICE LINE MUST BE TESTED IN ACCORDANCE WITH MN RULES, CHAPTER 4714, SECTION 1109.0.
25. FOR ALL SITES LOCATED IN CLAY SOIL AREAS, DRAIN TILE MUST BE INSTALLED AT ALL LOW POINT CATCH BASINS 25' IN EACH DIRECTION. SEE PLAN AND DETAIL. INSTALL LOW POINT DRAIN TILE PER PLANS AND GEOTECHNICAL REPORT RECOMMENDATIONS AND REQUIREMENTS.

UTILITY LEGEND:

- CATCH BASIN
- MANHOLE
- GATE VALVE AND VALVE BOX
- PROPOSED FIRE HYDRANT
- WATER MAIN
- SANITARY SEWER
- STORM SEWER
- FES AND RIP RAP



PRELIMINARY:
NOT FOR CONSTRUCTION

PROJECT
**OLD HUDSON ROAD PHASE 2
DEVELOPMENT**
1880 OLD HUDSON ROAD, ST. PAUL, MN 55119
HAMADEH PROPERTIES LLC
1880 OLD HUDSON ROAD, ST. PAUL, MN 55119

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.
David J. Knaeble
David J. Knaeble
DATE 03/18/21 LICENSE NO. 48776

ISSUE/SUBMITTAL SUMMARY	
DATE	DESCRIPTION
09/18/2019	CITY SUBMITTAL
12/02/2020	RD SUBMITTAL
04/22/2021	CITY RESUBMITTAL
04/29/21	WATERSHED RESUBMITTAL
04/29/21	WATERSHED RESUBMITTAL

REVISION SUMMARY	
DATE	DESCRIPTION

DRAWN BY: BN, MW REVIEWED BY: DK
PROJECT NUMBER: 20005

UTILITY PLAN
C4.0
© COPYRIGHT CIVIL SITE GROUP P.C.

Permit Application Coversheet

Date April 07, 2021

Project Name Maplewood Fire Station County Rd C

Project Number 21-06

Applicant Name Michael Mondor, City of Maplewood

Type of Development Institutional

Property Description

This project is located at the southeast corner of County Road C East and Hazelwood Street in the City of Maplewood. The applicant is proposing to construct a new fire station. The total site area is 2.8 acres. Stormwater treatment requirements will be met through construction of two infiltration basins. Pretreatment will include vegetated filter strips and a sumped inlet with SAFL baffle.

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.

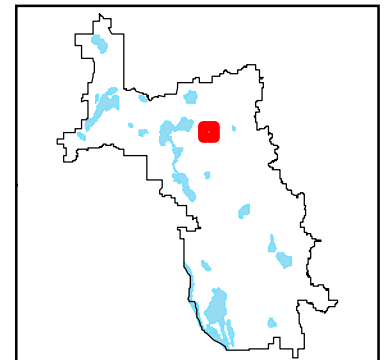
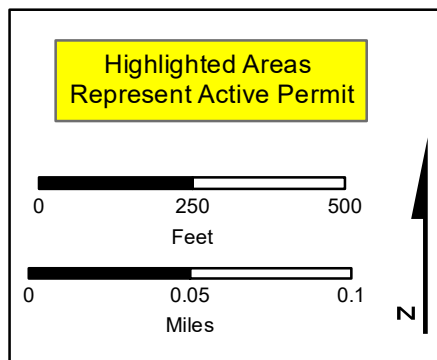
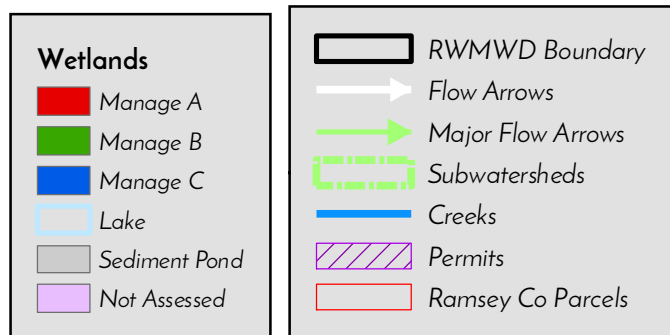
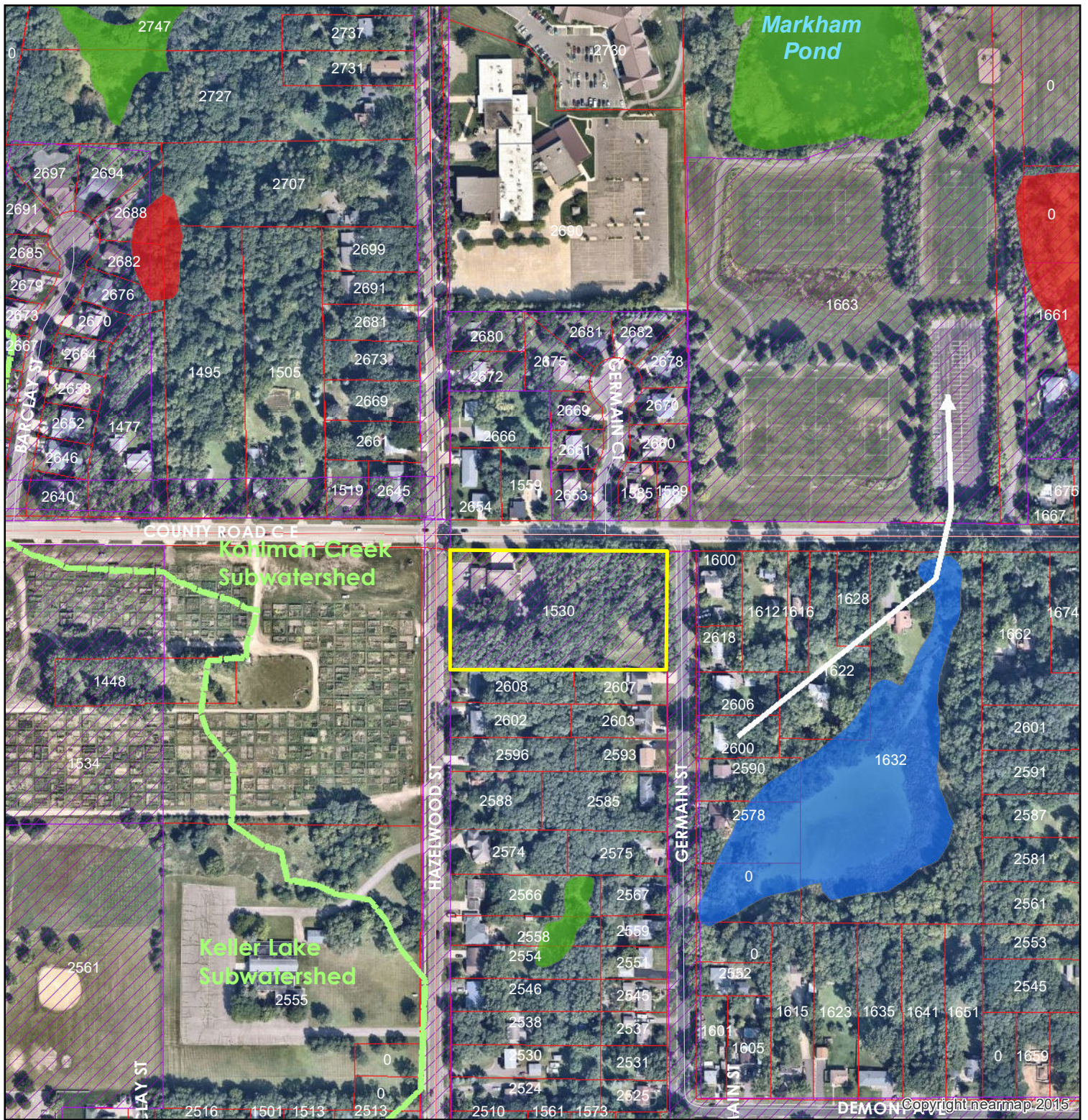
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☒ Project Location Map
- ☒ Project Grading Plan

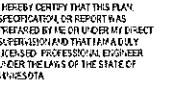
#21-06 Maplewood Fire Station County Rd C



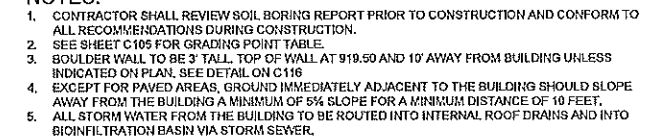
21-06

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 a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.



DATE 02/25/2021 LICENSE NO. 5123
Project Owner
CITY OF MAPLEWOOD



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Project Status: **IN PROGRESS**
 Issue Date: **FEBRUARY 26, 2015**

GRADING PLAN

Permit Application Coversheet

Date April 07, 2021

Project Name RWMWD Ryan Drive/Keller Parkway Conveyanc Project Number 21-07

Applicant Name Tina Carstens, RWMWD

Type of Development Flood Control

Property Description

This project is located in two separate locations: Ryan Drive at Owasso Basin and Keller Parkway at Gervais Creek. RWMWD is proposing to complete a flood risk reduction project in the Gervais Creek subwatershed which will include replacing culverts to improve stormwater conveyance through the system. The work will also include raising the grade on a section of Ryan Drive. Modeling results indicate the project will result in no net increase in water levels immediately downstream of each site and results in reduced flood risk for nearby habitable structures. The project disturbance is less than an acre but triggers a grading permit for work adjacent to water bodies (Rule F) and within the floodplain (Rule D). Sediment and muck excavation along Gervais Creek with the previously approved 2021 CIP project will provide sufficient compensatory storage for fill proposed in the floodplain.

Watershed District Policies or Standards Involved:

- | | |
|---|---|
| <input 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 design results in no net loss of floodplain storage and no net increase in downstream water levels.

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.

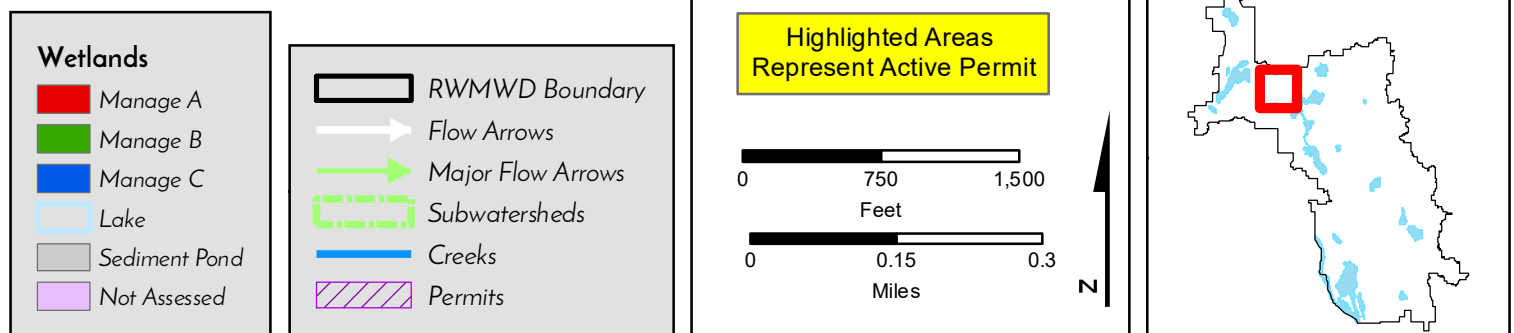
Staff Recommendation

Staff recommends approval of this permit with the special provision.

Attachments:

- ☒ Project Location Map
- ☒ Project Grading Plan

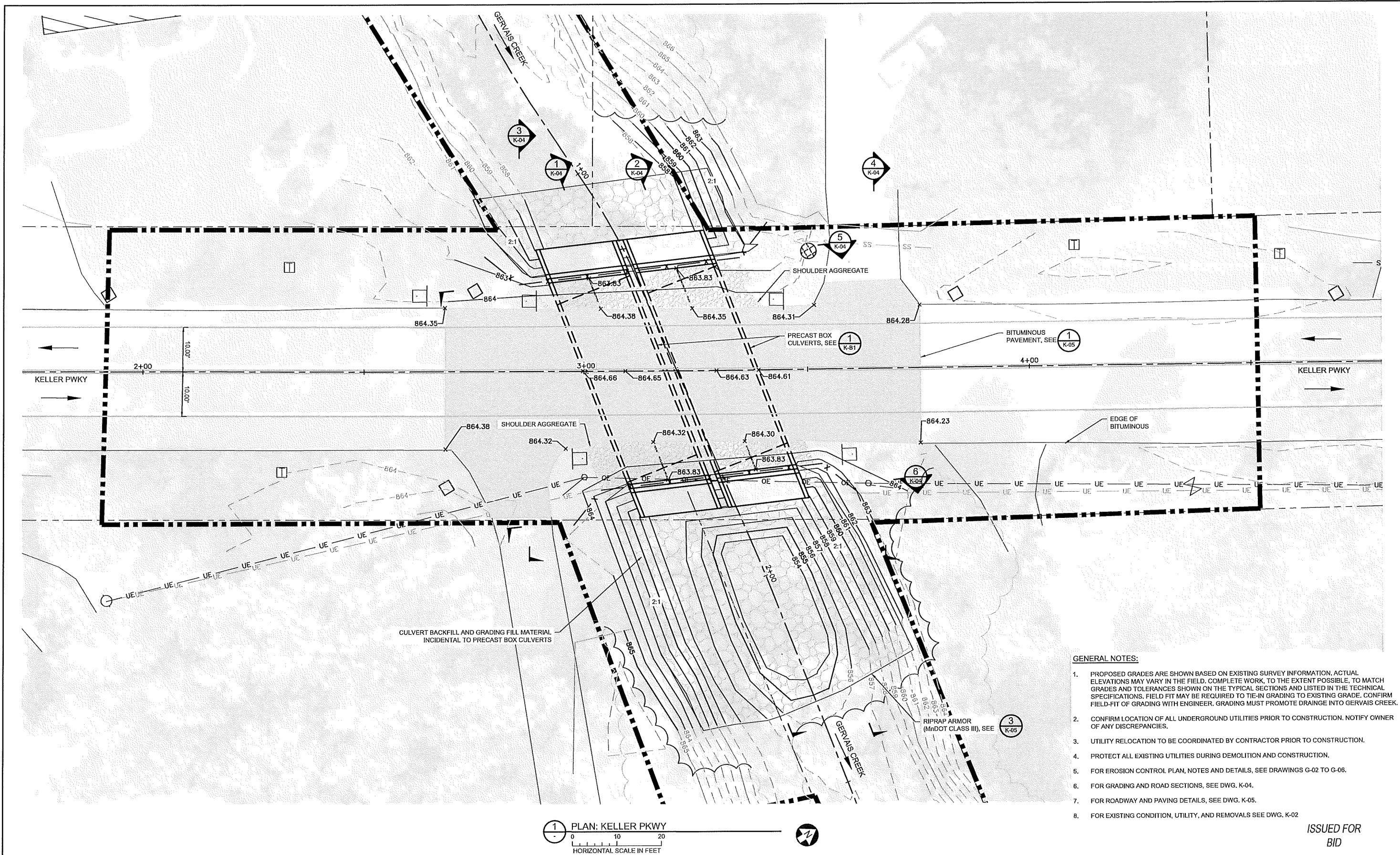
#21-07 RWMWD Ryan Drive/Keller Parkway Conveyance Upgrades



21-07

Special Provisions

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



ISSUED FOR
BID

Permit Application Coversheet

Date April 07, 2021

Project Name White Bear Lake High School South Phase 2 Project Number 21-08

Applicant Name Tim Wald, ISD 624

Type of Development Institutional

Property Description

This project is located at White Bear Lake High School South, at County Road E East and McKnight Road North in the City of White Bear Lake. This is the second phase of proposed improvements to the school (Phase 1 Permit #20-23). This phase consists of two building additions, parent drop-off lane, and parking reconfiguration. Stormwater treatment requirements will be met through construction of a filtration and infiltration basin. The proposed filtration basin is an existing BMP that will be expanded to account for additional impervious area. Pretreatment includes Rain Guardian sumped inlets.

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.

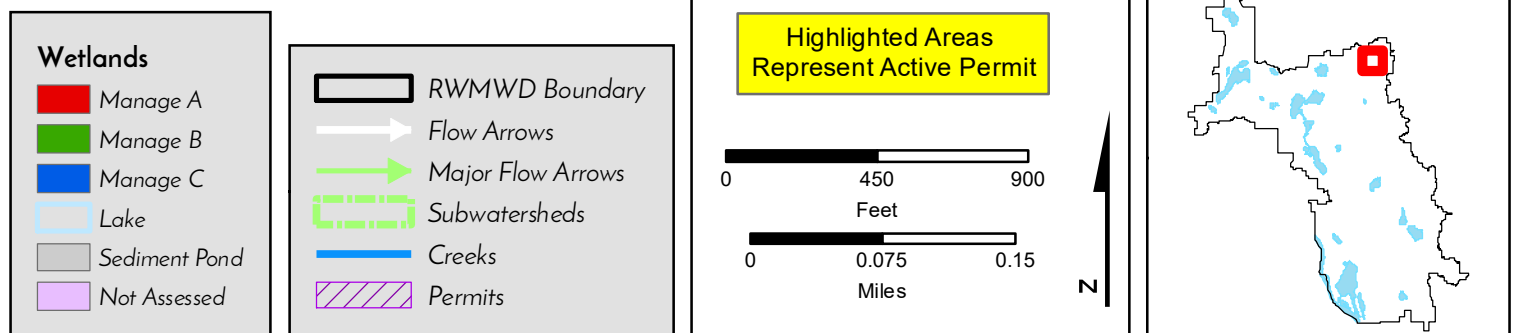
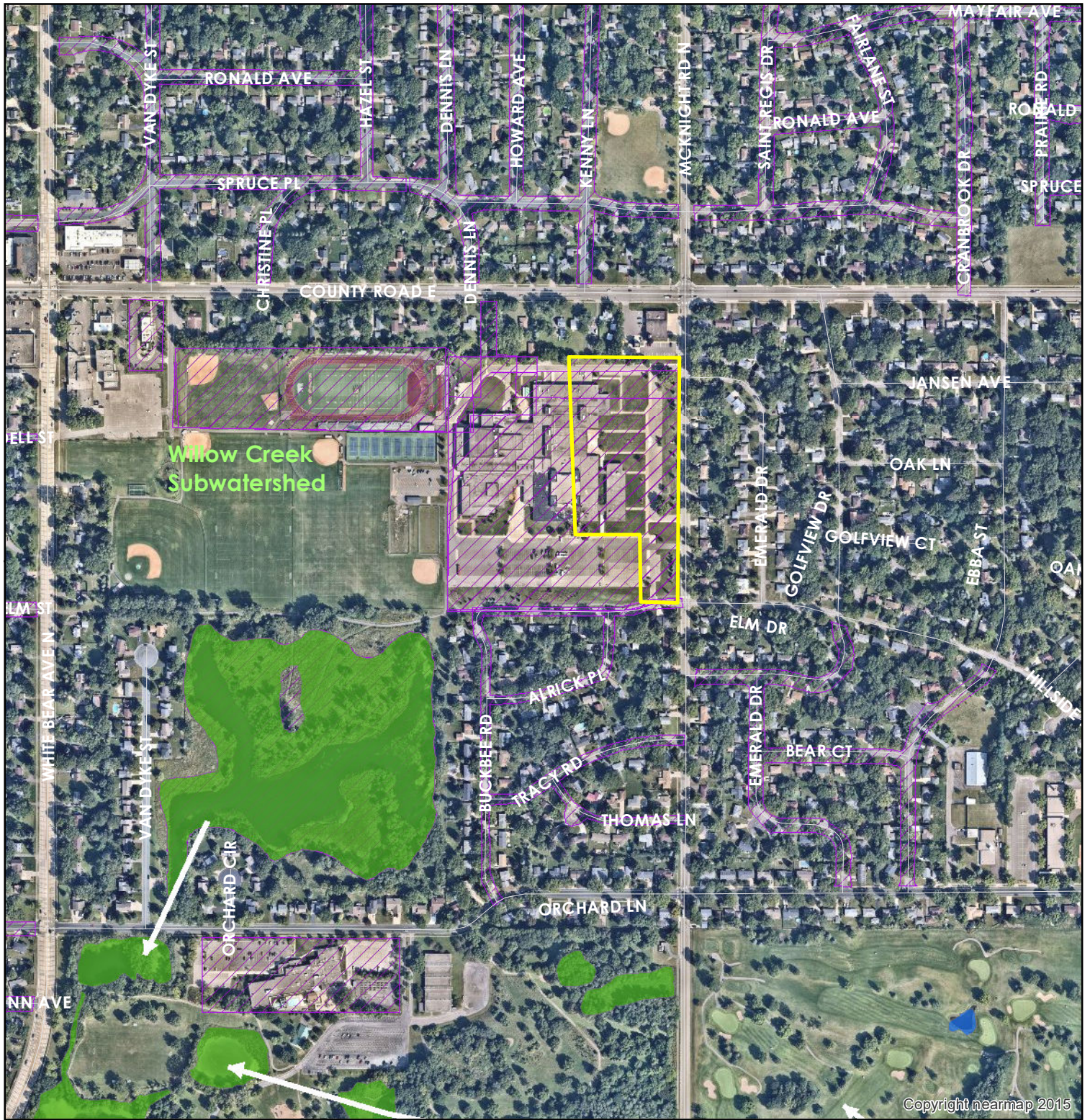
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☒ Project Location Map
- ☒ Project Grading Plan

#21-08 White Bear Lake High School South Phase 2



21-08

Special Provisions

1. The applicant shall submit a revised erosion control plan that clearly shows location(s) of construction entrance(s).
2. The applicant shall submit the final, signed plans set.
3. The applicant shall submit the signed stormwater maintenance agreement.
4. The applicant shall submit the draft, site-specific BMP Operations & Maintenance Plan.
6. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).
7. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.

MN

GRADING NOTES

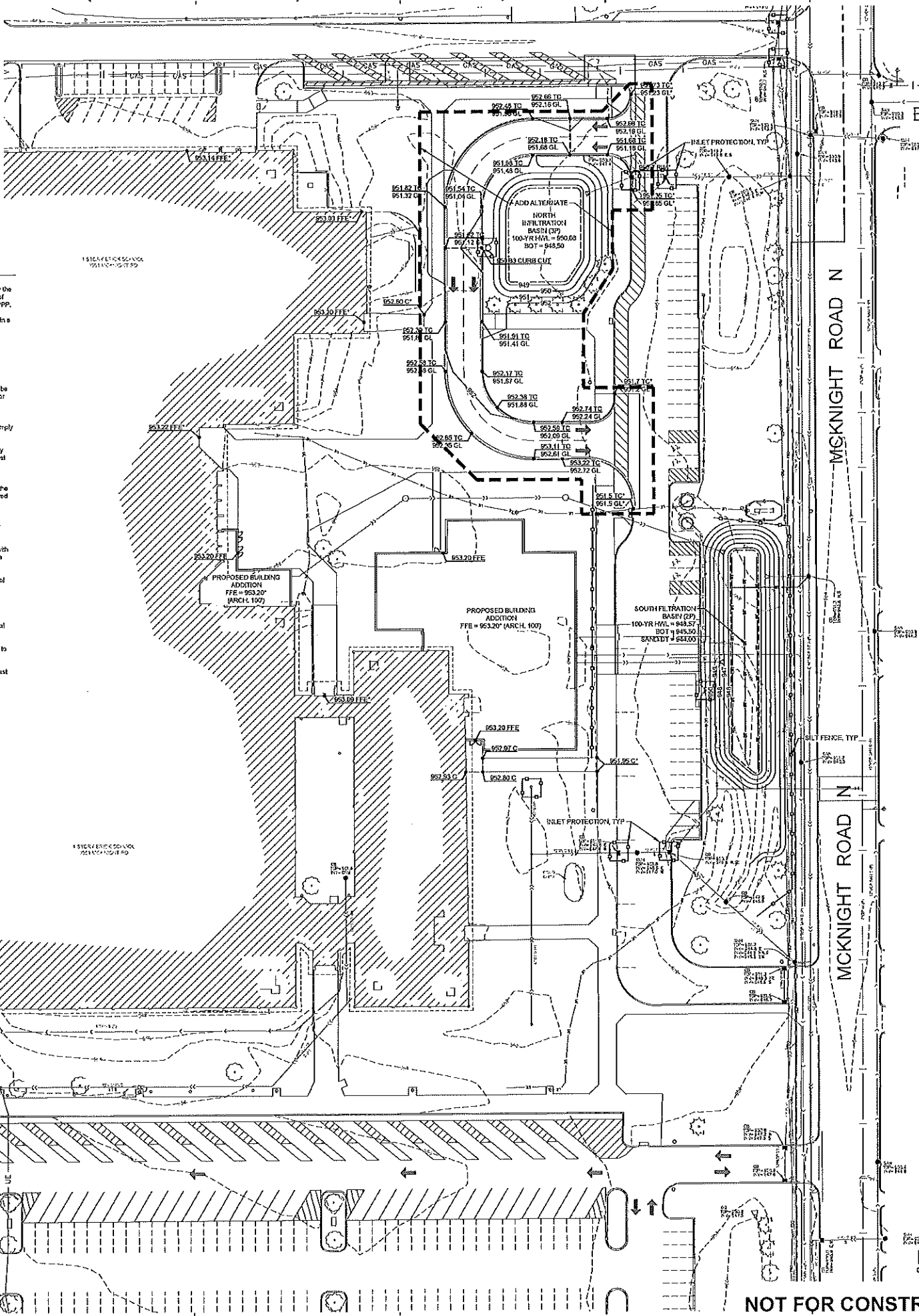
- Tree protection consisting of snow fence or safety fence installed at the drip line shall be in place prior to beginning any grading or demolition work at the site.
- All elevations with an asterisk (*) shall be field verified. If elevations vary significantly, notify the Engineer for further instructions.
- Grades shown in paved areas represent finish elevation.
- Restore all disturbed areas with 4" of good quality topsoil and seed or sod as indicated on the landscaping plan. Topsoil is not permitted in the infiltration basin.
- All construction shall be performed in accordance with state and local standard specifications for construction.

LEGEND

- EXISTING CONTOURS
PROPOSED CONTOURS - MAJOR INTERVAL
PROPOSED CONTOURS - MINOR INTERVAL
GRADE BREAK LINE
GRADE SLOPE
SILT FENCE
RIP-RAP / ROCK CONST. ENTRANCE
LOCATION / TOP CONST. ENTRANCE TO BE FIELD LOCATED BY CONTRACTOR.
INLET PROTECTION
CONCRETE WASHOUT STATION
SPOT ABBREVIATIONS:
TO - TOP OF CURB
GL - GUTTER LINE
B - BITUMINOUS
C - CONCRETE
EO - EMERGENCY OVERFLOW
TW - TOP OF WALL
BW - BOTTOM OF WALL (F/G)
(*) - EXISTING TO BE VERIFIED

EROSION CONTROL NOTES

- Owner and Contractor shall obtain MPCA-APDES permit. Contractor shall be responsible for all fees pertaining to this permit. The SWPPP shall be kept onsite at all times.
- Install temporary erosion control measures (silt fence, silt fence, and rock construction entrances) prior to beginning any excavation or demolition work at the site.
- Erosion control measures shown on the erosion control plan are the absolute minimum. The contractor shall install temporary earth dikes, sediment traps or basins, additional silt fence, and/or disk the soil parallel to the contours as deemed necessary to further control erosion. All changes shall be recorded in the SWPPP.
- All construction site entrances shall be surfaced with crushed rock across the entire width of the entrance and from the entrance to a point 50' into the construction area.
- The toe of the silt fence shall be braced in a minimum of 6'. The braced backfill shall be compacted with a vibratory plate compactor.
- All grading operations shall be conducted in a manner to minimize the potential for site erosion. Sediment control practices must be established on all down gradient perimeters before any up gradient land disturbing activities begin.
- All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) and the constructed base components of roads, parking lots and similar surfaces are exempt from this requirement.
- The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, must be stabilized within 200 linear feet from the property edge, or from the point of discharge into any surface water. Stabilization of the last 100 linear feet must be completed within 24 hours after connecting to a surface water. Stabilization of the remaining portions of any temporary or permanent ditches or swales must be complete within 14 days after connecting to a surface water and construction in that portion of the ditch has temporarily or permanently ceased.
- Pipe outlets must be provided with energy dissipation within 24 hours of connection to surface water.
- All riprap shall be installed with a filter material or soil separation fabric and comply with the Minnesota Department of Transportation Standard Specifications.
- All storm sewers discharging into wetlands or water bodies shall outlet at or below the normal water level of the respective wetland or water body at an elevation where the downstream slope is 1 percent or flatter. The normal water level shall be the invert elevation of the outlet of the wetland or water body.
- All storm sewer catch basins not needed for site drainage during construction shall be covered to prevent runoff from entering the storm sewer system. Catch basins necessary for site drainage during construction shall be provided with inlet protection.
- In areas where concentrated flows occur (such as swales and areas in front of storm catch basins and inlets) the erosion control facilities shall be backed by stabilization structure to protect those facilities from the concentrated flows.
- Inspect the construction site once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. All inspections shall be recorded in the SWPPP.
- All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/3 of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access. All repairs shall be recorded in the SWPPP.
- If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts.
- All soils tracked onto pavement shall be removed daily.
- All infiltration areas must be inspected to ensure that no sediment from ongoing construction activity is reaching the infiltration area and these areas are protected from compaction due to construction equipment driving across the infiltration area.
- Temporary soil stockpiles must have a silt fence or other effective sediment controls, and cannot be placed in surface waters, including stormwater conveyances such as curb and gutter systems, or conduits and ditches unless there is a bypass in place for the stormwater.
- Collected sediment, asphalt and concrete millings, roofing debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.
- Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
- External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed onsite.
- All liquid and solid wastes generated by concrete washout operations must be contained in a leak-proof containment facility or impermeable liner. A compacted clay liner that does not allow washout liquids to enter ground water is considered an impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operations or areas. Liquid and solid wastes must be disposed of properly and in compliance with MPCA regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.
- Upon completion of the project and stabilization of all graded areas, all temporary erosion control facilities (silt fence, hay bales, etc.) shall be removed from the site.
- All permanent sedimentation basins must be restored to their design condition immediately following stabilization of the site.
- Contractor shall submit Notice of Termination for MPCA-APDES permit within 30 days after Final Stabilization.
- Notify Nicole Soderholm, Ramsey-Washington Metro Watershed District, at 651-792-7970 prior to beginning construction activity 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 infiltration basin.



WHITE BEAR LAKE AREA HIGH SCHOOL SOUTH CAMPUS PHASE 2

3551 McKnight Road North
White Bear Lake, MN 55110

INDEPENDENT SCHOOL
DISTRICT #624
4855 Bloom Avenue,
White Bear Lake, MN 55110

Wold

WOLD ARCHITECTS AND ENGINEERS

332 Minnesota Street, Suite 2000
Saint Paul, MN 55101

whl@woldae.com | 651.277.7773

Larson
Engineering, Inc.
3524 Labors Road
White Bear Lake, MN 55110
651.481.9120 (F) 651.481.9201
www.larsonengr.com

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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.

Date: 03/28/2021 Lic. No.:

Revision	By	Date

Drawn: TJB
Check: GAB
Scale: As Indicated

GRADING AND EROSION CONTROL PLAN

Scale: As Indicated

C3.00

NOT FOR CONSTRUCTION

Permit Application Coversheet

Date April 07, 2021

Project Name 3291 Labore Road

Project Number 21-09

Applicant Name Heather Wendorf, 3291 Labore Rd, LLC

Type of Development Industrial

Property Description

This project is located on Labore Road north of I-694 in the City of Vadnais Heights. The applicant is proposing to construct an industrial building with associated parking. The total site area is 2.7 acres. Stormwater treatment requirements will be met through construction of two infiltration basins. Pretreatment methods include Rain Guardian sumped inlets.

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.

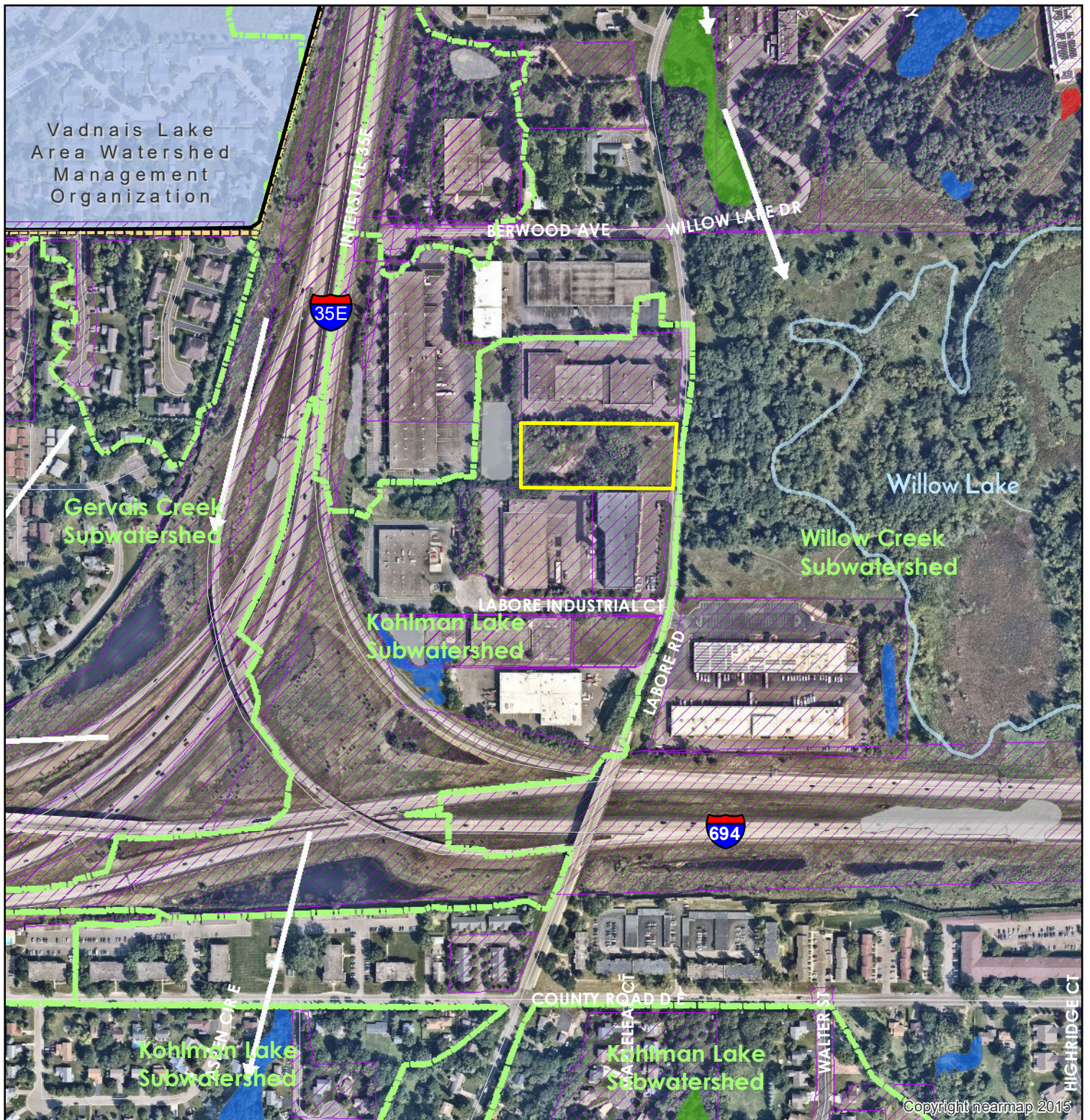
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

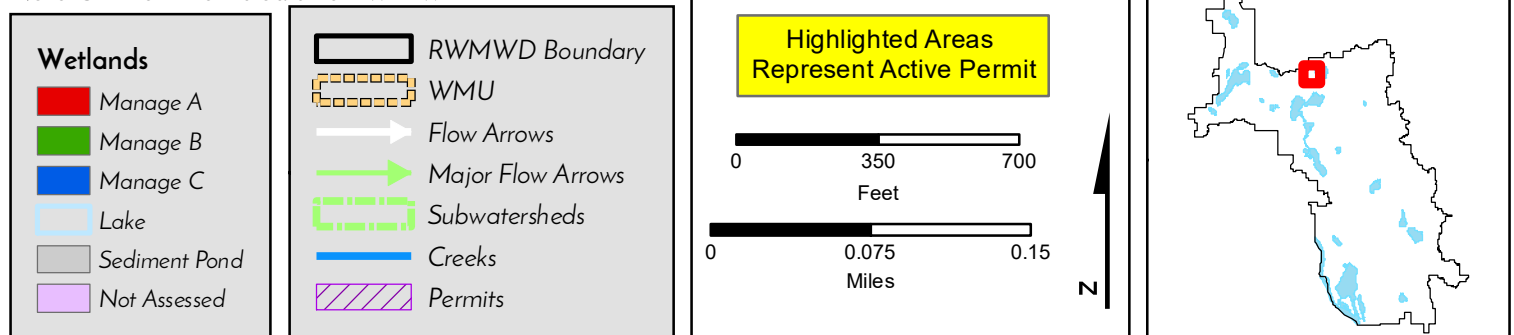
Attachments:

- ☒ Project Location Map
- ☒ Project Grading Plan

#21-09 - 3291 Labore Road



Note: Shaded area is outside RWMWD



21-09

Special Provisions

1. The applicant shall submit the escrow fee of \$13,500.
2. The applicant shall submit the final, signed plans set.
3. The applicant shall submit the signed stormwater maintenance agreement.
4. The applicant shall submit the draft, site-specific BMP Operations & Maintenance Plan, including discussion/procedures for regularly inspecting and cleaning 4" orifices in outlet structure.
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.

Permit Application Coversheet

Date April 07, 2021

Project Name Xcel Energy Vehicle Storage Building

Project Number 21-10

Applicant Name Zachary Mahlum, Xcel Energy

Type of Development Industrial

Property Description

This project is located off County Road E, east of Highway 61 in the City of White Bear Lake. The applicant is proposing to construct a vehicle storage building and associated utilities. The total site area is 1.11 acres. Stormwater treatment requirements will be met through construction of an underground filtration system (base bid). Pretreatment will include an isolator row and sumped inlet with SAFL Baffle. A bid alternate, dependent on easement acquisition, has been submitted for the project which would provide stormwater treatment above-ground in an infiltration basin. The applicant has demonstrated treatment requirements are met for both scenarios.

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.

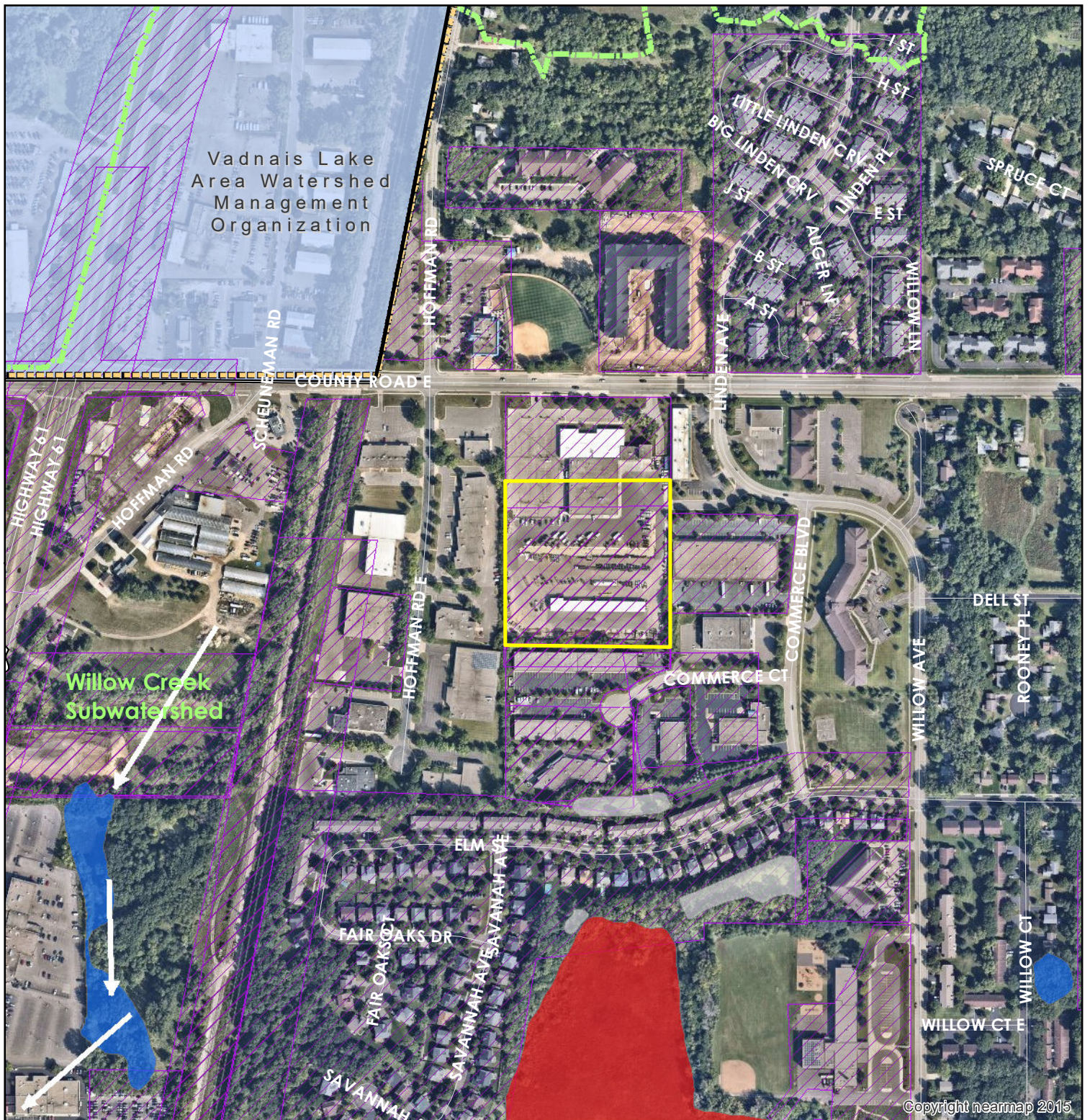
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

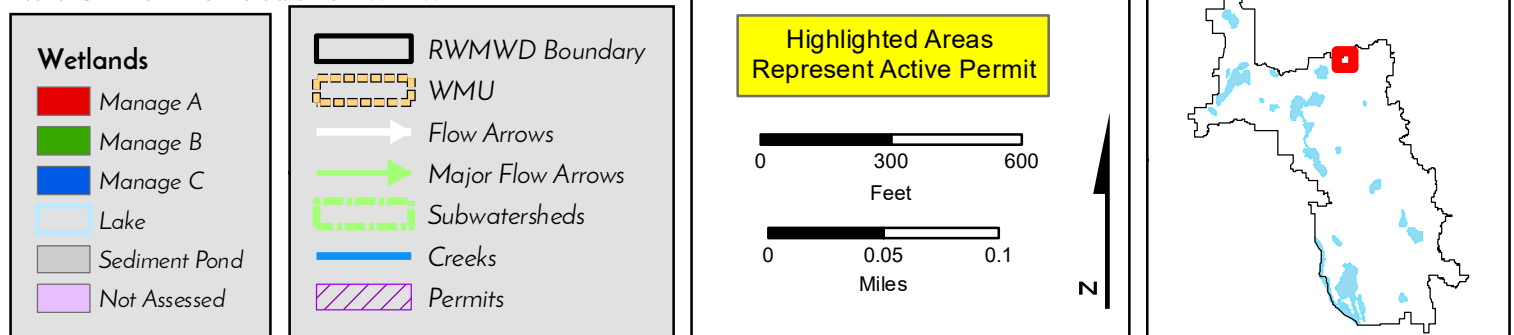
Attachments:

- ☒ Project Location Map
- ☒ Project Grading Plan

#21-10 Xcel Energy Vehicle Storage Building



Note: Shaded area is outside RWMWD



21-10

Special Provisions

1. The applicant shall submit the escrow fee of \$5,500.
2. The applicant shall submit the signed stormwater maintenance agreement.
3. The applicant shall submit the draft, site-specific BMP Operations & Maintenance Plan.
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.

Permit Application Coversheet

Date April 07, 2021

Project Name North High School Addition

Project Number 21-11

Applicant Name Randy Anderson, ISD 622

Type of Development Institutional

Property Description

This project is located at North High School, northeast of McKnight Road N and Highway 36 in the City of North St. Paul. The applicant is proposing to construct two building additions, parking reconfiguration, and associated sidewalks. The total site area is 6.3 acres. Stormwater treatment requirements will be met through construction of two underground filtration systems. Filtration is being proposed to poor soils and high groundwater. Pretreatment methods include sumped inlets and isolator rows.

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.

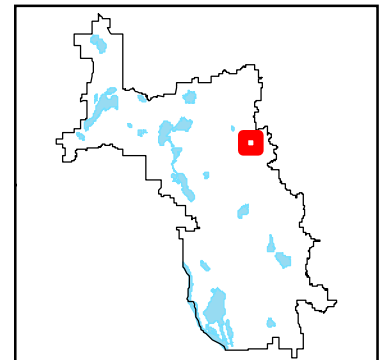
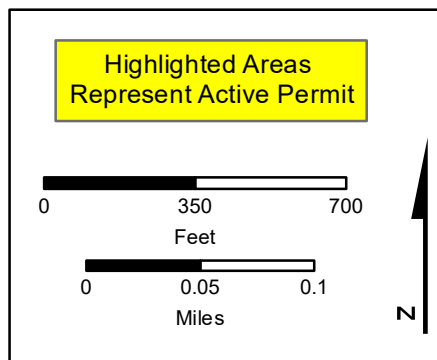
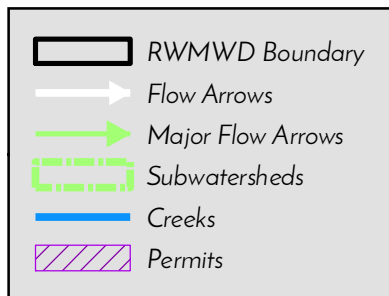
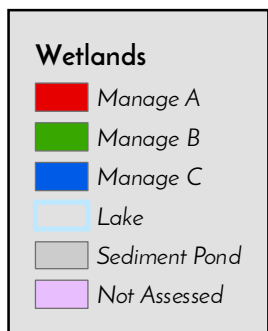
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☒ Project Location Map
- ☒ Project Grading Plan

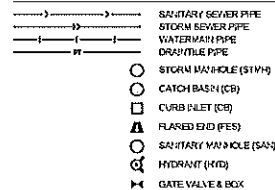
#21-11 North High School Addition



Special Provisions

1. The applicant shall submit the full Prinsco technical evaluation report.
2. The applicant shall submit the final, signed plans set.
3. The applicant shall submit the signed stormwater maintenance agreement.
4. The applicant shall submit the draft, site-specific BMP Operations & Maintenance Plan.
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.

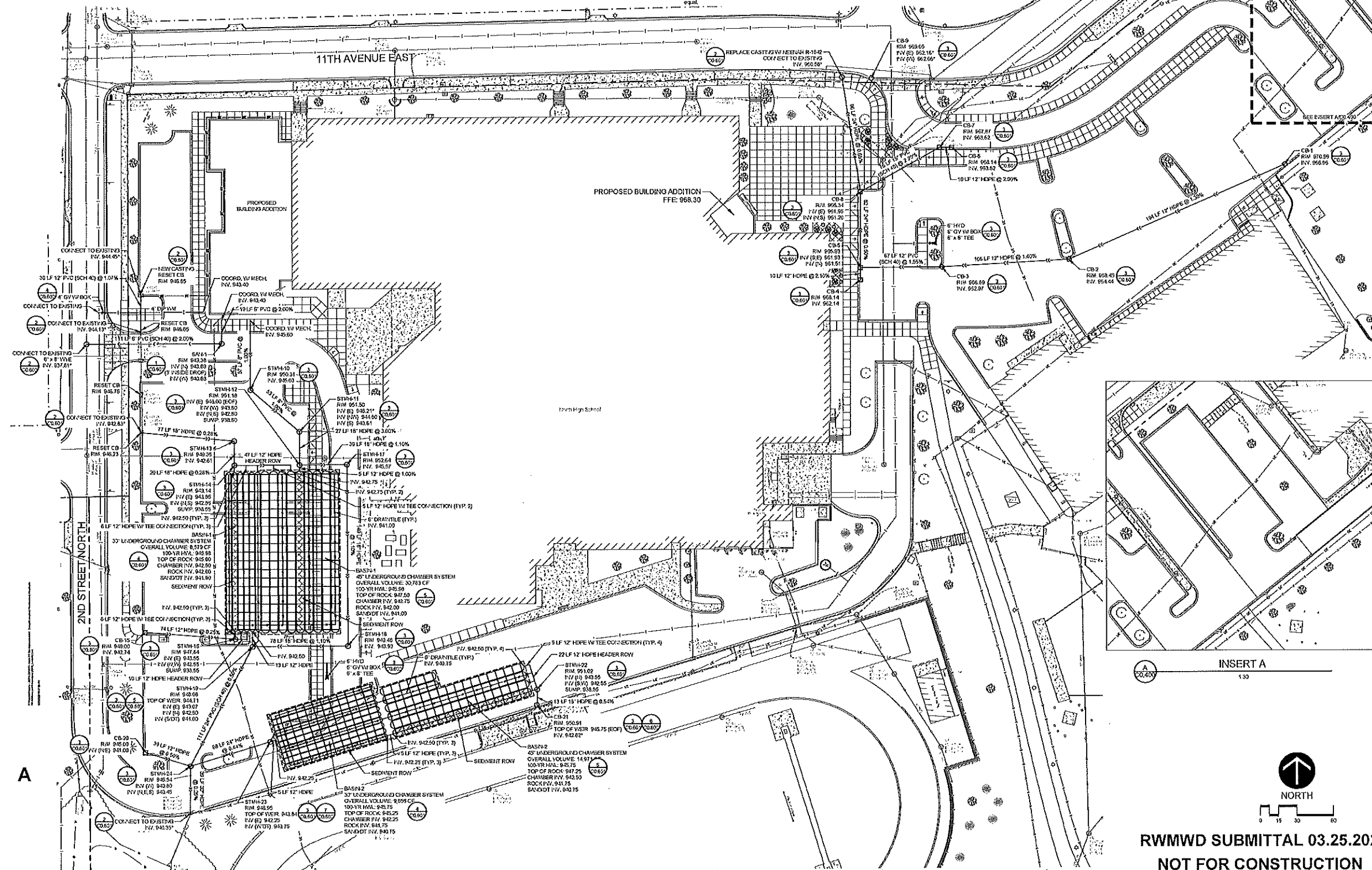
SYMBOL LEGEND



UTILITY NOTES

- It is the responsibility of the contractor to perform or coordinate all necessary utility relocations and relocations from existing utility locations to the proposed building as well as to adjacent properties. These relocations include but are not limited to water, sanitary sewer, cable TV, telephone, gas, electric, etc.
- All service connections shall be performed in accordance with state and local standard specifications for construction. Utility connections (sanitary sewer, watermain, and storm sewer) may require a permit from the City.
- The contractor shall verify the elevations at proposed connections to existing utilities prior to any demolition or excavation.
- The contractor shall notify all appropriate engineering departments and utility companies 12 hours prior to construction. All necessary precautions shall be made to avoid damage to existing utilities.
- Storm sewer requires testing in accordance with Minnesota plumbing code 4714.1109 where located within 10 feet of structures on the building.
- HOPE storm sewer piping shall meet ASTM F2336 and fittings shall meet ASTM D3212 joint pressure test. Installation shall meet ASTM C231.
- All RCP pipe shown on the plans shall be MN DOT class 3.
- Maintain a minimum of 7' 30" of cover over all water lines and sanitary sewer lines. Where 7' 30" of cover is not provided, install 2" rigid polyethylene insulation (PE-RT) with a thermal resistance of at least 5 and a compressive strength of at least 20 psi. Insulation shall be 8" wide, centered over pipe with 4" sand cushion between pipe and insulation. Where depth is less than 6", use 4" of insulation.
- Install water lines 12" above sewers. Where the sewer is less than 12" below the water line (or above), install sewer piping of materials approved for inside building use for 10 feet on each side of the crossing.
- All watermain piping shall be class 52 ductile iron pipe unless noted otherwise.
- See Project Specifications for bedding requirements.
- Pressure test and dislodge all new watermain in accordance with state and local requirements.
- Sanitary sewer piping shall be PVC, SDR-35 for depths less than 12", PVC SDR-26 for depths between 12" and 20", and class 52 D.I.P. for depths of 20" or more.
- A structure adjustment shall include removing and salvaging the existing existing assembly, removing existing concrete steps to the precast section, install new steps and salvaged casing to proposed grade, churning casing flange by mechanical means to insure a sound surface and install an in-situ chimney seal from existing to precast section. Chimney seals shall be in-situ installed under an approved permit.

MN



NORTH HIGH SCHOOL

2416 11th Ave.
St. Paul, MN 55109

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

Wold

WOLD ARCHITECTS AND ENGINEERS
333 Minnesota Street, Suite 200
St. Paul, MN 55101

Wold Architects & Engineers

Larson Engineering, Inc.
3924 Labors Road
White Bear Lake, MN 55110
651.431.9120 (F) 651.481.8201
www.larsoneng.com

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I hereby certify that the 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.

Date: 10/10/2013

Description	Revision	Date	By

Drawn: J2210003

Date: 10/10/2013

Drawn: J2210003

Check: GAS

UTILITY PLAN

Scales As Indicated

C0.400

RWMWD SUBMITTAL 03.25.2021
NOT FOR CONSTRUCTION

Consent Agenda Action Item

Board Meeting Date: April 7, 2021

Agenda Item No: 3D

Preparer: Tina Carstens, Administrator

Item Description: Change Order No. 3 for the Keller Channel Weir and Phalen Outlet Resiliency Modification

Background:

The purpose of this project is to implement a design that will allow the district to remotely adjust the weir heights on the Keller channel structure and the Phalen outlet structure in accordance with an approved operating plan. Operation of the structures under certain conditions will help reduce upstream flood levels where homes exist in the floodplain.

Attached is change order number 3 for this project. This request is for additional excavation of sediment needed to install the Keller Channel Weir system.

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:

Approve Change Order No. 3.

Financial Implications:

This change order increases the contract price by \$5,951.00. This is available in the project contingency funds.

Board Action Requested:

Approve Change Order No. 3.

Change Order No. 3
Ramsey-Washington Metro Watershed District
Keller Channel Weir and Phalen Outlet Resiliency

DATE OF ISSUANCE: March 23, 2021

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

Contractor: Pember Companies, Inc.
N4449 469th St.
Menomonie, WI 54751
Attn: Joe Pember

Engineer: Barr Engineering Company
4300 MarketPointe Drive, Suite 200
Minneapolis, MN 55435
Attn: Brad Lindaman

C.O.3.A Keller Channel Sediment/Muck Excavation and Disposal

Description of Change:

In the continuing effort to provide unrestricted flow through the Keller Channel Weir system, additional sediment was excavated behind the bridge structure, loaded and disposed by trucks offsite. This work was performed after the initial excavation limits were determined and while the equipment was available. The contractor completed the work, in good faith, under authorization by the owner, and as directed by the owner's representative.

Measurement and Payment:

The contractor will be paid on a cubic yard (CY) unit price basis to complete all work as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies profit and overhead, and perform all operations as are necessary to complete the work. The email sent by the contractor to determine the total unit price is provided as an attachment for reference.

Change in Contract Time:

None

Total Impact on Contract Price:

105 CY @ \$56.68/CY for a total cost of \$5951.00

This Change Order No. 3 is:

Submitted By:
(ENGINEER)



Bradley J. Lindaman, Project Engineer
Barr Engineering Company

Date: March 23, 2021

Authorized By:
(OWNER)

Lawrence Swope, President
Ramsey-Washington Metro Watershed District

Date: _____

Approved By:
(CONTRACTOR)

Joe Pember, Project Manager
Pember Companies, Inc.

Date: _____

Attachments:

Pember email estimate dated March 5, 2021

From: [Joe Pember](#)
To: [Greg Nelson](#)
Cc: [Terry Ludtke](#); [Haley Pember](#)
Subject: Keller Channel Extra Haul and Dispose Dirt
Date: Friday, March 5, 2021 12:59:03 PM

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Hi Greg,

The price to haul and dispose an extra 105 CY of dirt us as follows:

Trucking \$100/hr x 22.5 hrs = \$2250.00
Disposal fees 105 cy x \$8/cy = \$840.00
Cat 336 Excavator 5 hrs x \$275/hr = \$1376.00
Mini Hoe 5 hrs x \$155/hr = \$775.00
1 Load of 3" minus Recycle to keep road passable \$450.00
Track Skid Steer 2 hrs x \$130/hr = \$260.00

Total Cost = \$5951.00

Let me know if this is approved. We can do the work on Monday morning 3/8/21.

Thanks,
Joe Pember
Senior Project Manager
Pember Companies, Inc.
N4449 469th Street
Menomonie, WI 54751
jpember@pembercompanies.com
Office 715.235.0316
Mobile 715.556-0602
Fax 715.235.9006

Permit Program



RAMSEY-WASHINGTON

METRO WATERSHED DISTRICT

MEMORANDUM

Date: April 7, 2021

To: Board of Managers and Staff

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

Subject: March Enforcement Action Report

During March 2021:

Number of Violations:	7
Install/Maintain Inlet Protection	1
Install/Maintain Perimeter Control	2
Contain Liquid/Solid Wastes	2
Stabilize Exposed Soils	2

Activities:

Permitting assistance to private developers and public entities, miscellaneous inquiries, ongoing ESC site inspections and reporting, WCA administration and procedures, new permit review with Barr Engineering, permit pre-submittal meetings, Metro Watershed Regulators meeting, Washington County Water Consortium, Confined Space safety training, Public Works Flood Risk Reduction meeting, media training, MECA MS4 workshop, Permit survey meeting with Communications staff, St. Paul Port Authority Annual Spring River meeting

Project Updates:

#20-09 7th Street Townhomes (North St. Paul)

Staff met with contractors onsite on March 12th to conduct an initial erosion control walk-through prior to soil disturbance. Trees had been removed prior to the walk-through, but earth-moving activities were scheduled to begin on March 25th. Overall, all necessary erosion and sediment control devices were installed properly. Staff noted a low spot on the site adjacent to an existing pond that should have redundant perimeter control as it'll likely receive the most runoff on the site. Staff also recommended adding an additional row of silt

fence at the northeast corner of the site as there is an existing home in this area. Staff revisited the site on March 22nd and found that these installations had not yet occurred. Site contractors confirmed they would be installed prior to soil disturbance on March 25th. Additional follow-up will be completed.

#20-26 Owasso Gardens (Roseville)

Staff performed a routine SWPPP inspection on March 10th. Staff noted several items that needed attention, including perimeter control repair, inlet device installation, and removal of construction debris/litter. Site contacts confirmed via e-mail that these items would be addressed promptly. Staff revisited the site on March 26th and found that all items had been corrected. Staff felt the site was in good condition, but two minor maintenance items needed attention: sweeping sediment along the curblane of S Owasso Blvd and repairing tears in silt fence throughout the site. Site contacts confirmed they would repair these two items right away. Staff will continue to inspect the site on a regular basis.

#20-30 Anchor View Apartments (North St. Paul)

Staff members attended an initial erosion control walk-through with several contractors on March 4th. Staff explained the District's inspection process, inquired on the site's schedule, and answered any questions the contractors had regarding erosion and sediment control. While onsite, staff found the site to have good erosion and sediment control implementation. Staff returned to the site on March 22nd for a routine SWPPP inspection and found the site to be in good condition. Staff and site contacts discussed temporarily stabilizing the site's stockpile, continuing to rough up rock entrances, and continuing to clean out inlet devices. The site is currently using a small temporary sedimentation basin for dewatering and so far it is working well infiltrating back into the soil.

#19-42 American Indian Magnet School Addition (St. Paul)

Work continues at American Indian Magnet School's new addition. Several repair and maintenance items were noted during staff's routine inspection on March 2nd, including damaged biolog, damaged inlet devices, construction entrance rock installment, and sweeping of all paved surfaces. Staff had ongoing communication with site contractors to ensure items were being completed. During a revisit on March 17th, staff found that several items had been improved, but that there were still remaining items that still needed attention. Staff received a phone call on March 25th indicating that these remaining items had been completed.

Permits Closed:

15-23 Woodbury HS Parking Lot Reconstruction (Woodbury)
18-25 Windwood Passage Park Improvements (Woodbury)

Permits Approved by Staff:

None

Stewardship Grant Program

Stewardship Grant Program Budget Status Update

April 7, 2021

Homeowner	Coverage	Number of Projects: 7	Funds Allocated
Habitat Restoration and rain garden w/o hard surface drainage	50% Cost Share \$15,000 Max	6	\$7,168.40
Rain garden w/hard surface drainage, pervious pavement, green roof	75% Cost Share \$15,000 Max	1	\$2,800
Master Water Steward Project	100% Cost Share \$15,000 Max	0	\$0
Shoreland Restoration	100% Cost Share \$15,000 Max	0	\$0

Commercial, School, Government, Church, Associations, etc.	Coverage	Number of Projects: 3	Funds Allocated
Habitat Restoration	50% Cost Share \$15,000 Max	1	\$13,989
Shoreland Restoration (below 100-year flood elevation w/actively eroding banks)	100% Cost Share \$100,000 Max	1	\$180,000 (Proposed work on Twin Lake)
Priority Area Projects	100% Cost Share \$100,000 Max	0	\$0
Non-Priority Area Projects	75% Cost Share \$50,000 Max	0	\$0
Public Art/Project Research	50% Cost Share	1	\$10,000
Aquatic Veg Harvest/LVMP Development	50% Cost Share \$15,000 Max	0	\$0

Maintenance	50% Cost Share \$5,000 Max for 5 Years	46	\$31,500
Consultant Fees			\$1,373
Total Allocated			\$36,150

2021 Stewardship Grant Program Budget	
Budget	\$1,000,000
Total Funds Allocated	\$259,854.40
Total Available Funds	\$740,145.60

* * * * *

Action Items

* * * * *

Request for Board Action

Board Meeting Date: April 7, 2021

Agenda Item No: 8A

Preparer: Tina Carstens, Administrator
Paige Ahlborg, Watershed Project Manager

Item Description: Twin Lake Shoreline Restoration Project Authorization to Finalize Design and Prepare the Bidding Documents and Advertise for Bids.

Background:

This project involves the shoreline buffer restoration of 15 residential properties along the Twin Lake shoreline that have experienced high water levels. Combined, the total restoration area is approximately 0.65 acres, with individual sites ranging from 1,000 square feet to 6,800 square feet, with an average project size of 1,800 square feet. Board Manager Eisele is one of the property owners who will be participating in the project.

The project scope includes site-wide management for invasive and non-desirable species, bank and shoreline stabilization, and revegetation using a combination of native seed and plant plugs. The purpose of completing this work is to establish a diverse, natural shoreline buffer, as well as provide wildlife and pollinator habitat, runoff interception and filtration, competition for invasive species, and landscape aesthetics. Individual site design and revegetation components were developed for this project based on needs for shoreline use by landowners; in addition to, important site circumstances such as elevation, remnant plant communities, and anticipated soil and hydrologic conditions.

Site preparation for the project will begin as soon as conditions allow in spring 2021. Stabilization of upland soils and vegetation will shortly follow, allowing the contractor to closely monitor water level elevations for timing and favorable conditions to plant the aquatic and transitional zones. The overall project is expected to be substantially completed by fall of 2021. Long-term monitoring and maintenance for all individual project sites will continue beyond the completion date, for the 2022 and 2023 growing seasons. Cost estimate for the proposed project is \$175,500.

Final plans and specs are set to go out for public bid on April 9. Bids will be due on April 28. Staff will bring a contractor recommendation to the board of managers at the May 5th meeting.

Applicable District Goal and Action Item:

Goal: Achieve healthy ecosystems- The District will manage water and related natural resources to create and preserve healthy ecosystems.

Action Items: Lead ecological restoration projects to improve water resources and associated upland habitat.

Staff Recommendation:

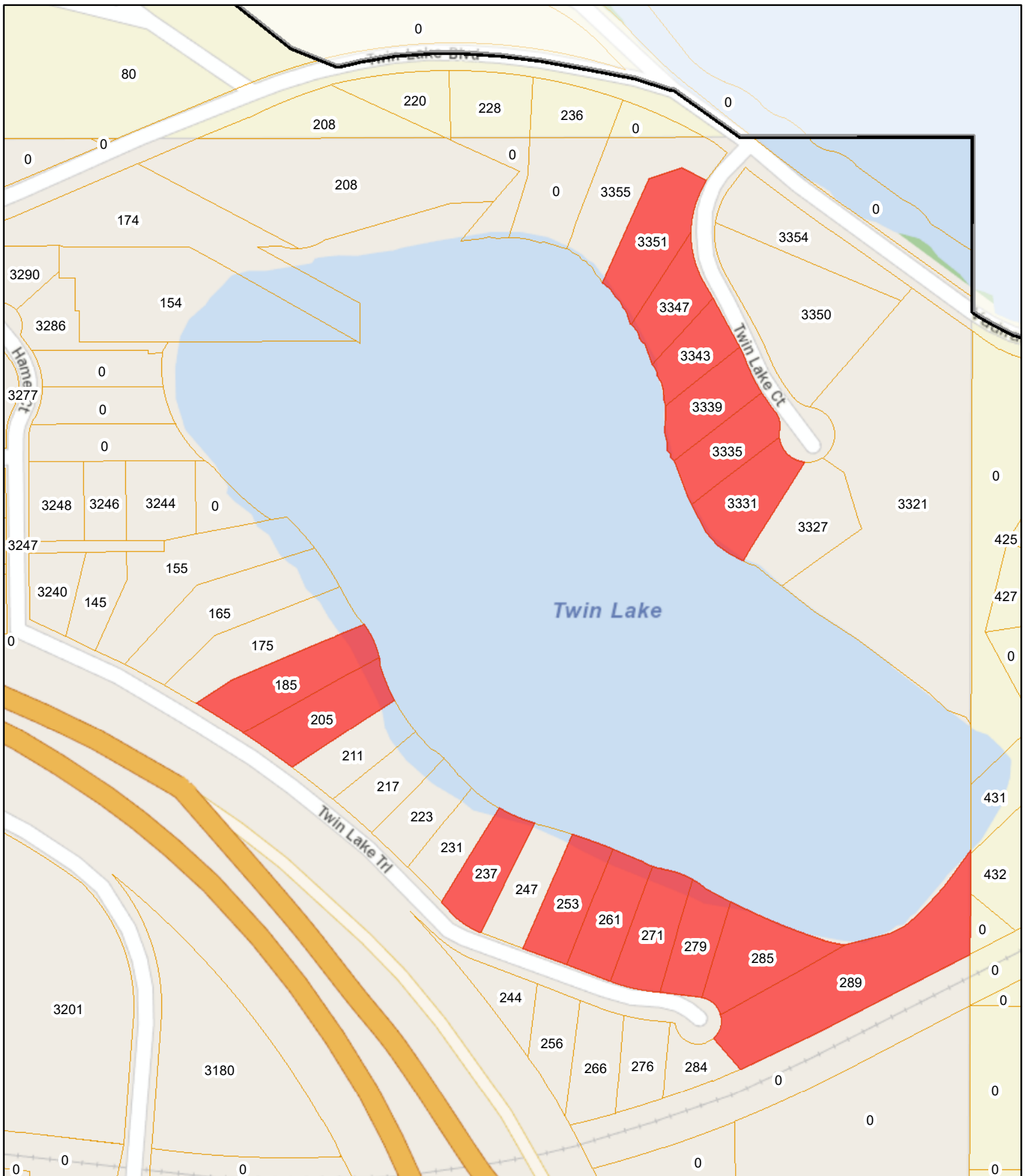
Staff recommends that the Board approve the preliminary design, estimated costs, and proposed project schedule, and direct staff to finalize the design and bidding documents and advertise the project for bid.

Financial Implications:

The Twin Lake Shoreline Restoration Project budget is included in the 2021 Stewardship Grant Program budget.

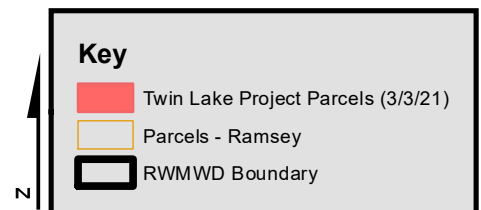
Board Action Requested:

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



Twin Lake Restoration Parcels: 3/3/21
Ramsey-Washington Metro Watershed District

0 200 400 800 Feet



**TWIN LAKE SHORELINE RESTORATION PROJECT
LITTLE CANADA, MN**

INVITATION FOR BID

The Ramsey-Washington Metro Watershed District invites you to submit a bid for the TWIN LAKE SHORELINE RESTORATION PROJECT in Little Canada. This letter is intended to provide you with background information about the project, the anticipated scope of work, and deliverables.

Bids for the TWIN LAKE SHORELINE RESTORATION PROJECT in Little Canada, Minnesota will be **received via email** at paige.ahlborg@rwmwd.org until **1:00 pm, CDT, Wednesday, April 28, 2021**, and then opened privately. Evaluation of bids will be a qualitative review conducted by Ramsey-Washington Metro Watershed District and Ramsey County with emphasis on price, qualifications and completeness.

The Work consists of furnishing all labor, materials, equipment, skills, and performing all operations required to construct the Work. The Work includes, but is not limited to, mobilization and demobilization; construction survey and project layout; furnishing, installing, maintaining, and removing erosion control facilities; woody and herbaceous vegetation, and invasive species removal; tree clearing and removal; disposal, preparing soil, transporting and installing of all seeds, live plants and other materials required for: (1) shoreline and soil stabilization practices, (2) seeding and planting of native plant species, (3) the establishment and protection of seeded areas and live plants, (4) site-wide management for all invasive and non-desirable species for two growing seasons post-contract period; all as provided for in the Bidding Documents.

Instruction to Bidders Brief: A complete submittal shall include at a minimum, the following documents, and/or items:

1. Statement of Qualifications (SOQ) per Section A – A-7 General Conditions and Requirements of the Specifications and Provisions Document
2. Completed Copy of the Bid Form (See Exhibit C)
3. Completed Copy of the ‘Responsible Contractor and Certification of Compliance’ Form (See Attachment A)

There will be no pre-bid meeting for this project. Please contact us by phone at (651) 792-7964 and (651) 266-7275 if you have any questions. Questions will be accepted until **1:00pm, CDT, April 26, 2021**. Partial sets of documents will not be issued.

Contact Information

Ramsey-Washington Metro Watershed District
Paige Ahlborg
Watershed Project Manager
(651) 792-7964
paige.ahlborg@rwmwd.org

Ramsey County Soil & Water Conservation Division
Michael Schumann
Owner Representative
(651) 266-7275
michael.schumann@co.ramsey.us

ATTACHED: Packaged Bidding Documents for the TWIN LAKE SHORELINE RESTORATION project

Bid Package
for
**TWIN LAKE SHORELINE
RESTORATION PROJECT**
(Little Canada, MN 55117)

April 8, 2021

Prepared By:



**RAMSEY
COUNTY**

Bid Package Content Index:

Exhibit A: Project Specifications and Provisions

Exhibit B: Construction Plan Set

Exhibit C: Bid Form

Attachment A: 'Responsible Contractor and Certification of Compliance' Form

Attachment B: Construction Contract (Draft Example)

Exhibit A: Project Specifications and Provisions

SPECIFICATIONS AND PROJECT PROVISIONS

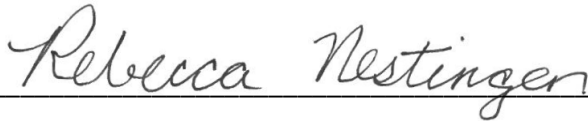
Twin Lake Shoreline Restoration Project

March 12, 2021

SPECIFICATIONS AND PROJECT PROVISIONS

SECTION 00 – CERTIFICATIONS PAGE

I hereby certify that this specification 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



Rebecca Nestingen, P.E.

Date: 03/12/2021

License No. 49246

SECTION A – GENERAL CONDITIONS AND REQUIREMENTS

A-1 SCOPE OF WORK

The work to be performed under the provision of these contract documents shall include the furnishing of all materials, labor, tools, and equipment necessary to successfully and safely complete the restoration as described in the Plans and Specifications herein. Items required to perform work but may not be listed in the specifications remain the responsibility of the Contractor. Minor appurtenances not specifically listed as proposal items, but which are necessary to complete the project, as shown in the Plans and Specifications, in a satisfactory manner, shall be considered incidental items and no direct compensation will be made therefore. The Owner is not responsible for safety on this project.

A-2 LOCATION

The project consists of **15** residential sites, surrounding the extent of Twin Lake (ID 62003900) – located north of the I-694 and I-35E corridor merge, within the City of Little Canada. As shown on Construction Drawings.

RESIDENTIAL SITE(S) The residential sites are individually owned and located immediately surrounding Twin Lake. Sites are separated along Twin Lake Court on the northwest and Twin Lake Trail on the southwest sides of the lake. As shown on Construction Drawings.

A-3 OWNER AND OWNER REPRESENTATIVE

The Owner of the Project is Ramsey-Washington Metro Watershed District (RWMWD), 2665 Noel Drive, Little Canada, MN 55117. The Owner Representative for the project unless otherwise noted, is the Ramsey County Parks & Recreation Department; Soil & Water Conservation Division staff. The Owner Representative will provide oversight and inspection for the Twin Lake Shoreline Restoration Project site(s).

A-4 SPECIFICATIONS, WHICH APPLY

Except as modified herein, the following shall apply and where applicable, hereby adopted by reference:

(1) Minnesota Department of Transportation Standard Specifications for Construction; 2018 edition, Division II and Division III.

(2) Minnesota Seed Law and Rules; August 1, 2015 edition.

A-5 PAYMENT

Payment must be coordinated with Ramsey-Washington Metro Watershed District

A-6 PROJECT WAGES

This is **NOT** a prevailing wage project

A-7 QUALIFICATIONS AND CERTIFICATIONS OF CONTRACTOR

To demonstrate qualifications to perform the Work, **the Bidder shall submit to the Owner a Statement of Qualifications (SOQ)**, which demonstrates the Contractor's ability to complete the Work as specified. This documentation shall include at a minimum the following, and such other information the Owner believes necessary:

- (1) Description of the project overview and the Contractor's approach to completing the work, written in a way that demonstrates the Contractor's understanding of what is required; estimated work start date; procedures and an anticipated time of completion for each type of work listed in plan; methods and locations for material staging sites and all major points of access necessary.
- (2) Description of the Contractor's equipment, key personnel and resources which demonstrate the Contractor's ability to successfully complete the Work including: size and makeup [i.e. supervisors, crew leaders, operators, laborers, etc.] of crew anticipated, and Labor rate sheets.

It is required that all onsite staff proposed to supervise or lead in completion of the services must have a bachelor's degree in Natural Resources – or approved equal; experience constructing shoreline restoration projects and establishing native landscapes within the state or upper Midwest; qualifications to accurately and quickly identify trees and vegetation native to the State of Minnesota, and the invasive species targeted for eradication.

All herbicide applicators on-site must be individually licensed for application in the State of Minnesota. Copies of current herbicide applicator licenses must be submitted. Applicators applying herbicide under someone else's license is explicitly forbidden.

- (3) Description of the Contractor's project experience including: nature of project, owner's name and contact information, dollar value and name of bonding company.

Contractors must have performed similar shoreline restoration, native landscape installation work at a minimum of five (5) projects within the past five (5) years, to the extent possible for projects of equal size.

Contractors must have performed similar vegetation management work at a minimum of five (5) projects within the past five (5) years, not including projects that were primarily installation work. Provide five (5) references of vegetative management work within the past five (5) years. Include only projects that were primarily vegetation management/maintenance.

- (4) Description of present commitments during the 2021-2023 growing seasons.

References will be checked, as necessary, to help verify the Contractor's record of quality, timeliness and customer satisfaction of performance on previous projects, technical capabilities, qualified key personnel, necessary tools and equipment, compliance with the associated legal or regulatory requirements and adequate financial resources to perform.

A-8 STARTING AND COMPLETION DATES

Construction and installation work authorized under this contract for the Twin Lake Shoreline Restoration Project, shall be completed by **June 15th, 2022**. Maintenance of these sites may continue beyond this date. **Work can begin after execution date of contract between the Owner and the Contractor.**

Anticipated Project Timeline (*subject to change*):

- (1) Quotation packages due: April 28, 2021 (1:00 p.m.)
- (2) Contractor selection: May 5, 2021

- (3) Notice to Proceed: May 12, 2021
- (4) Substantial Completion: October 31, 2021
- (5) Full Completion: June 15, 2022

A-9 LISTING OF SUBCONTRACTORS

The Contractor shall provide the Owner with a listing of subcontractors, contact information who will perform the major items of work on this project and their qualifications **within three calendar days following the Owner's request.**

If while completing the project, additional Sub-Contractors are required, the general Contractor shall notify the Owner in writing of the Contractors name, contact information, and Work to be performed prior to the start of the work to be completed.

A-10 WORKING HOURS

Work shall not commence before 7:00 a.m. nor extend beyond sundown Monday through Friday. No work is to be done on Saturday or Sunday without prior Owner, County and City approval.

A-11 DRUG AND ALCOHOL FREE WORKPLACE

The Contractor hereby certifies, under penalty of perjury, under the laws of the State of Minnesota that under the contract he will comply with the requirements of the Drug-Free Workplace Act of 1988 (Government Code Section 8350 et. seq.). Therefore, the work site shall be kept drug and alcohol free at all times.

A-12 CONTRACTOR ACCESS TO SITE

The project site(s) will be accessible from surrounding roads via vehicles, large equipment may be restricted and must be discussed with the Owner and Owner Representative prior to access. The Owner anticipates all work throughout most sites, to be completed through foot traffic only, based on scope of work specified per plan. Any use of motorized vehicles or equipment to be used on site during the restoration project must be pre-approved by the Owner Representative.

Private property, of residential landowners participating in the restoration project have consented to reasonable and appropriate access to sites respectively. It is the contractor's responsibility to obtain permission through contact, coordination and notification with individual residential landowners for abrupt or intrusive access, usage of sites for staging of materials, access with equipment, and the temporary relocation of existing above ground and below ground structures. The contractor shall inform the Owner Representative of any discrepancies with residential landowners who have specific concerns related to construction that may delay work activities and completion dates.

A-13 BRAND NAME

If items called for by these documents have been identified herein by a "brand name or equal" description, such identification is intended to be descriptive but not restrictive and is to indicate the quality and characteristics of products that will be satisfactory.

A-14 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

The Contractor is expected to carefully examine the site prior to submitting a bid and prior to any contract for restoration work begins. Contractor specifically acknowledges and declares that

the Contract Documents are sufficient to have enabled it to determine the Guaranteed Maximum Price, and that the Drawings and Specifications are sufficient to enable Contractor to properly complete the Work to fulfill all its obligations under the Contract Documents. Contractor shall carefully study and compare all existing conditions, Drawings, Specifications, and other Contract Documents; shall verify all figures on the Drawings before laying out the Work; shall take field measurements and verify field conditions; shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing activities; and shall give prompt notice to the Owner Representative in writing, of all errors, inconsistencies, or omissions, which it may discover and obtain specific instructions in writing with respect thereto before proceeding with the Work.

The Contractor is reminded that the responsibility for determining all surface and sub-surface conditions is placed solely on the Bidder. This shall be construed to include the location of all underground facilities and utilities, the soil type, the depth of water table, and all other factors having an influence on the work.

A-15 WARRANTY AND GAURANTEES

The Contractor shall provide a warranty and guarantee on all material, products and work performed by the Contractor and subcontractor for the restoration project for a period of not less than one year, as specified below, or as agreed between Owner and Contractor prior to beginning of restoration work. Specific products used in the restoration of the project may include warranties specific to them and of longer term than 1 year. Provide written verification from the manufacture of the product stating what the warranty covers and the timeframe in which the warranty expires.

SEEDED AREAS

Contractor shall guarantee seeded areas through the specified maintenance period, and until final acceptance. Success is defined as minimum 80% cover of acceptable species (See Section C-9 for undesirable species) as determined by Owner Representative and minimum of 50% of seeded species. Areas unsuccessful because native plants have not become successfully established or because native plants have been choked out by exotic species or destroyed by herbicide drift at any time during the maintenance period shall have weed species and problem areas removed prior to seed dispersal and be re-seeded at the original density.

A-16 UNIT PRICES

Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead and profit. **For Measurement and Payment, refer to Bid Form.** Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this worked measured, at Owner's expense, by an independent surveyor acceptable to Contractor. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price.

A-17 MEASUREMENT VERIFICATION

The Contractor shall verify all measurements and grades, which relate to his/her work at the site and shall, before commencing work, report any variations or discrepancies to the Owner Representative for adjustment.

A-18 MATERIALS FURNISHED BY CONTRACTOR

All materials used in the Work shall be new unless otherwise provided for in the Contract Documents, shall meet the requirements of the specification, be in conformance with samples provided, and shall not be incorporated into the work until reviewed by the Owner Representative. Unless otherwise specifically indicated in the Contract Documents, all materials necessary for the proper execution of the Work shall be furnished and paid for by the Contractor, whether temporary or not and whether incorporated into the work or not. Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditions as specified by the manufacturer. Materials supplied or equipment to be incorporated into the work shall not be purchased by the Contractor or the subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

A-19 PRODUCT SUBSTITUTIONS

Each Contractor, by signing and submitting a response form, represents that their response is based upon the materials and equipment described or designated in the Contract Documents and that, if Awarded the Contract, will furnish or use only materials and equipment so described or designated. No substitution will be considered unless written request has been submitted to the Owner for approval at least four (4) calendar days prior to the date and hour set for receipt of response. Each request shall include a complete description of the proposed substitution and any other data or information necessary for a complete evaluation by the Owner. If the Owner approves any proposed substitution, such approval will be set forth in an addendum. The general requirements for substitutions will be equal to or better than the initially specified materials.

A-20 STORAGE OF MATERIALS

Materials shall be so stored by the Contractor as to insure the preservation of their quality and fitness for the work. Stored materials shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposes without written permission of the owner respectively or lessee thereof, or otherwise noted by the project Owner.

A-21 SUBMITTALS PROCEDURES

The Contractor shall provide submittals for project products, services, equipment in accordance with the following instructions:

- (1) Action Submittals: Written and graphic information that requires Owner Representative responsive action.
- (2) Informational Submittals: Written information that does not require Owner Representative responsive action. Submittals may be rejected for not complying with requirements.

Coordinate preparation and processing of submittals with performance of restoration activities. Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Owner Representatives receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals. Allow 10 days for initial review of each

submittal. Allow additional time if coordination with subsequent submittals is required. Owner Representative will advise Contractor when a submittal being processed must be delayed for coordination.

Resubmittal Review: Allow 10 days for review of each resubmittal. Make resubmittals in same form and number of copies as initial submittal. Place a permanent label or title block on each submittal for identification. Indicate name of firm or entity that prepared each submittal on label or title block. Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.

A-22 PROGRESS AND COMPLETION

The Contractor understands and agrees that time is of the essence for completion of this Contract. The Contractor, by submitting a bid and entering into a contract with the Owner, agrees that Substantial Completion, as certified by the Owner of the Twin Lake Shoreline Restoration Project, **shall be substantially completed by October 31st, 2021;** after written Notice to Proceed. The date of Substantial Completion shall be adjusted accordingly if the OWNER does not issue the Notice to Proceed on or before the aforementioned dates. Refer to General Contract/Agreement Terms and Conditions.

A-23 SITE PROTECTION

The Contractor shall protect that which is to remain and shall conduct all installation operations in a manner that will not damage or jeopardize the surrounding plant life or existing structures designated to remain. The Contractor is responsible for all utility locates and shall coordinate with the appropriate utility provider for any modification for all major and small utilities. Any damage to utilities, trees or other existing-to-remain items shall be repaired at the Contractor's expense.

A-24 EXCAVATED MATERIALS

Excavated materials must be removed from site, deposited or stored in an upland area, in a manner where the materials will not be redeposited into the water body by reasonably expected high water or runoff. Departure from any previously approved spoil disposal plans may be allowed only through approval by Owner Representative.

Excavated material shall not be permanently placed within community designated floodplain areas or shoreland areas, unless all necessary local permits and approvals have been obtained.

A-25 INVASIVE SPECIES – EQUIPMENT DECONTAMINATION

All equipment intended for use at the project site must be free of prohibited invasive species and aquatic plants prior to being transported into the project site; and from one site to the next within the overall scope of the project, for the duration of the Installation and Maintenance Contract periods.

A-26 SITE CLEANLINESS AND CLEAN-UP

The Contractor shall be responsible for keeping the restoration site clean, neat and orderly during the actual restoration project and free of trash. Material shall be stored in areas approved by Owner Representative. Dirt and debris shall be removed from paved surfaces in and immediately around the restoration limits. For final acceptance, the site shall be thoroughly cleaned. This shall include but not be limited to, remove all materials, trash and sweeping including parking lots and paths used for

access. On weekends all materials or equipment on-site shall be neatly stored and safely out of the way of vehicle or pedestrian traffic.

Contractor shall protect landscape work and materials from damage due to landscape operations, operations by other trades and trespassers. Contractor shall maintain protection during installation and maintenance periods, and shall treat, repair or replace damaged landscape work as directed by Owner's Representative.

A-27 PLANS DURING RESTORATION

The Contractor is expected to carefully examine the site prior to submitting a Bid and prior to any restoration work. Prior to commencing with the restoration project, the Contractor shall have the restoration plan, Addenda, permits, and all supplemental instructions on site. These documents shall be made available to all Subcontractors, Owner, and agency inspectors. Permits shall be displayed for easy review by agency staff. The project restoration plan and specifications shall be kept with staff on site during work on the project.

SECTION B – MATERIALS

B-1 SUBMITTALS LIST

Contractor shall provide the Owner and Owner Representative the following submittals within 30 days notice to proceed on contracted work, or as otherwise specified, per the Owner Representative's request.

(1) Weed Spraying and Vegetation Removal Schedule

1. Dates of mobilization to the site, initial crew size, and equipment being used.
2. Herbicides(s) product name and rate of application.

(2) Temporary Erosion Control, Subsoiling, Seed Bed Preparation and Rolled Erosion Blanket Installation Schedule

1. Dates of mobilization to the site, initial crew size, and equipment being used.

(3) Planting Schedule

1. Prior to the time of any seeding and/or planting Contractor shall supply the Owner's Representative with the proposed planting schedule for each operation.

(4) Seeding and Planting Supplies

1. Prior to the time of any seeding and/or planting the Contractor shall supply the Owner's Representative with the names and addresses of all seed and live plant suppliers showing quantities related to supplier for all seeds and live plants. Plant species, including scientific names, seed blends, percentages, weights, and ratios shall be submitted and guaranteed in writing.

B-2 HERBICIDE

All herbicides to be used must be pre-approved by Owner Representative before being brought on site for use. Contractor shall submit any alternative equal herbicide requests to Owner Representative before use. Herbicide shall be delivered to the site in the closed fully labeled manufacturer's container.

All herbicide used in or around saturated or wet areas such as wetlands, seeps, shrub swamps, open water, shorelines, etc. should be marketed for safe use around aquatic habitat.

The primary herbicides for herbaceous vegetation used shall be a broad-spectrum non-selective post-emergent systemic formulation such as “Rodeo” (Glyphosate) manufactured by Monsanto company or an approved equal suitable for application by appropriate sprayer. Any other herbicide will be a broadleaf selective, which will be chosen to fit the specific weeds found during the restoration phase, for example “Milestone” (aminopyralid) manufactured by DOW or an approved equal suitable for application by appropriate sprayer. Contractor shall submit any alternative equal herbicide requests to Owner Representative before use.

The primary herbicides for woody stump treatment shall be “Garlon 3A” (triclopyr) manufactured by DOW or an approved equal suitable for application by appropriate sprayer. Any other herbicide will be an invasive woody selective, which will be chosen to fit the specific species found during the restoration phase, for example “Transline” (clopyralid) manufactured by DOW or an approved equal suitable for application by appropriate sprayer.

B-3 SEED MIXTURES

All seed mixtures are shown on the Construction Drawings; and outlined as such in the following: Seeds shall be blended by the vendor and the mixture and ratio shall be guaranteed in writing to be as specified by percentage or weight in the Seed and Plant Lists. Seed testing indicating an 80% or higher viability must be supplied to the Owner Representative. This is a submittal required of the Contractor prior to final payout.

TURF SEED

The seed mixture and rate of application to be used in the restoration of disturbed areas, and for all areas identified on drawings, will be standard Minnesota State Seed Mix 25-131; Low-Grow Non-Native Fine Fescue Seed Mix; at 220 pounds per acre; or approved equal. See Construction Drawings for all project seed mixtures.

NATIVE SEED

Permanent Native Seed – Wet-Transitional Mix (Custom):

The *Wet-Transitional Mix*; or approved equal, shall be planted for all corresponding areas identified on Construction Drawings. Additional areas to be reviewed onsite by Contractor and Owner Representative as necessary due to water-level fluctuations, prior to seeding activities are as follows: areas one-foot higher than water elevation down to six-inches lower than water elevation, along the edge of standing water, areas of wet or pro-longed saturated soils and areas that may periodically be saturated.

COVER CROP

All cover crop shall be mixed and sown accordingly, and specified rates of application, to be used will be the standard Minnesota State Seed Mix 21-111 (Oats Cover Crop), OR, the standard Minnesota State Seed Mix 21-112 (Winter Wheat Cover Crop); see MNDOT Table 3876-1. For all Permanent Native Seed Mixes, oats and winter wheat shall be selected based on the time of year that the Permanent Native Seed Mix is being used; Contractor shall specify cover crop in species submission to the Owner Representative for approval.

B-4 SEED REQUIREMENTS

All seed shall be true to their name as specified. All seed shall originate from parent plants as close to the site as possible, located within the St. Paul Baldwin Plains and Moraines or Anoka

Sand Plain Ecoregions or within 200 miles of project location. The origin of seed is required to be listed on the seed tag for all species in a mix. Plant origins beyond a 200-mile radius shall be approved in writing by the Owner Representative.

Species and quantities to be planted shall be those specified. Seed mixtures and any substitutions or changes shall be submitted in writing to the Owner Representative for approval.

Native seed shall be inspected on site by Owner Representative prior to seeding. Seed shall be delivered to the site premixed in labeled closed containers. Labels shall state the producer's guarantee as to the year grown, percentage of purity, percentage of germination, and date of tests by which percentage of purity and germination were determined.

All seed that is supplied for projects must be labeled according the requirements of the Minnesota Seed Law, section 21.82, including limits on noxious weeds. Information pertaining to pure seed, germination, and hard (dormant) seed of individual components in a mix is required on seed tags. All seed shall have been tested within 9 months prior to the date of sowing. All seed should be of the highest quality pure live seed and germination rate.

All seed shall be stored in such a manner to insure adequate protection against damage by heat, moisture and/or high humidity to maintain dormancy, rodents or other such causes. Seed which has become wet, moldy, or otherwise damaged in transit, storage or during planting operations will not be acceptable.

All legumes shall be inoculated with the proper rhizobia and at the appropriate time prior to planting.

All labels and empty containers shall be retained for inspection and auditing by the Owner Representative.

B-5 EROSION AND SEDIMENT CONTROL

In all cases, methods that have been determined to be the most effective and practical means of preventing or reducing sediment from leaving the worksite shall be installed according to the Plans and Specifications; or as directed by the Owner Representative; and in areas that slope to the water and on worksite areas that have the potential for direct discharge to the water body. These methods such as mulches, erosion control blankets, temporary coverings, silt fence, silt curtains, bio-rolls, barriers, dead-turfgrass preservation, as specified in the Plans and Specifications, or as required during the process of construction; shall be installed or implemented concurrently with construction and planting operations, or within 24 hours after the start of the project per site.

Sediment Control Logs/Bio-Rolls are preferred and may be used in lieu of silt fence where trenching is not acceptable (i.e. within the drip-line of existing trees, etc.). Bio-Rolls shall conform to MNDOT 3897 Specification.

Any work below the water level shall be encircled by a flotation sediment curtain to prevent sediment from being transported beyond the construction site. Rolled erosion control prevention shall be installed according to the plans and specifications. (See Section B-6).

The Contractor is responsible for stabilizing all areas until after final acceptance. The Contractor shall provide written request for stabilization acceptance. Contractor to remove temporary erosion control measures upon notification by Owner Representative.

B-6 ROLLED EROSION CONTROL PRODUCTS

Rolled erosion control products shall conform to the requirements of MNDOT 3885, category erosion control blanket shall be made of all natural, biodegradable materials such as jute or coconut fiber, or straw. Thread shall be cotton or similar all-natural material. **PHOTO BIODEGRADABLE MATERIAL WILL NOT BE ACCEPTED; METAL STAPLES WILL NOT BE ACCEPTED.**

Contractor shall use erosion control blanket as indicated in Construction Drawings; on disturbed areas with high erosion potential, in areas prone to wet or saturated soils, temporary and permanent flooding, slopes greater than 4H:1V. Install rolled blanket per manufacturer specifications.

Basis of Specification Standards shall be used for the following:

(1) Specified for Use Within Revegetation Unit-2:

Specified Per Plan As: Category 25

American Excelsior Company (AEC); Curlex II FibreNet

Roll Size – 4.0ft x 101.25ft (45 SY) or 8.0ft x 101.25ft (90 SY)

Weight – 32.9lb. or 65.7lb

Fiber Count – 7,000 per yd²

Fiber Length (80% min.) – 6.0 in.

Mass per Unit Area (+/-10%) – 0.73lb./ yd²

Net Openings – 0.5 in. x 1.0 in.

Thread – Biodegradable natural jute fiber

(2) Specified for Use Within Revegetation Unit-4

Specified Per Plan As: Category 30

North American Green (NAG); BioNet SC150BN

Roll Size – 6.67ft x 108ft (80 SY) or 8.0ft x 112ft (100 SY)

Top Net – Leno woven, 100% biodegradable jute; 9.35lb./1,000 ft² (4.53 kg/100 m²) approx. wt.

Bottom Net – 100% biodegradable jute; 7.70lb./1,000 ft² (3.76 kg/100 m²)

approx. wt.

Matrix – 70% Straw Fiber 0.35lb./ yd² (0.19 kg/100 m²); 30% Coconut Fiber 0.15lb./ yd² (0.15 kg/100 m²)

Thread – Biodegradable woven natural fiber

(3) North American Green (NAG); Eco-Stake 6-inch and 12-inch

Leg Length – 5.00-inch

Leg Thickness – 0.40-inch

Head Width – 1.25-inch

Total Length – 6.00-inch

Head Thickness – 0.40-inch

Leg Width (tapered to point) – 0.60-inch

The Contractor shall submit other equal erosion control blanket samples with manufacturer information for consideration by Owner Representative as approved equal.

B-7 LIVE PLANTS

Basis of Specification Standards shall be used for the following:

1. NATIVE PERENNIAL 4" CONTAINERIZED
2. NATIVE PERENNIAL 2" PLUG
 - a. Cell Size: 2 1/8 in. x 2 3/8 in. x 2 1/4 in. deep; or approved equal

Plants shall be true to their name as specified. Any substitution or change shall be approved in writing by the Owner Representative. Their origin shall be known to be local within a 200-mile radius of the project location. Plant origin beyond a 200-mile radius shall be submitted in writing to the Owner Representative for approval.

All live plants and seed, including bare roots, live stakes, and all container grown plants including shrubs and trees, shall be produced in nurseries that do not use neonicotinoids in the storing or production of the plants or the storing or production of the seed producing plants. Plants stored on site shall be given proper horticultural care until installation. Proper horticultural care entails: watering, shading, proper drainage, pest and disease free, adequate sunlight to ensure average healthy growth per that season of growth and protection from weather and mechanical damage. Plants shall be free from insects, diseases and weeds; and must show appearances of normal health and vigor.

All plant material, including collected stock, shall comply with the State and Federal laws with respect to inspection for plant diseases and insect and weed infestations. All precautions that are customary in good trade practice shall be taken to insure the arrival of plants in good condition. Plants shall be packed in such a manner as to insure adequate protection against damage while in transit. The plant shall be carefully protected to ensure that the plants are delivered in a good condition.

When shipment is made by enclosed vehicle, the vehicle shall be adequately ventilated and cooled to prevent "over-heating" in transit shall not exceed 78 degrees Fahrenheit. All plants shall be packed or covered in such a manner as to insure adequate protection against damage while in storage and during planting operations.

Plants may be inspected and approved at the place of growth, for compliance, with specification requirements for quality, size and variety. All plants to have white root tissue developed to bottom and edges of pots at time of delivery. Such approval shall not impair the right of inspection and rejection upon delivery at the site or during the progress of the work. Inspection of plants by the Owner's Representative before digging shall be at the option and expense of the Contractor.

All plants shall be free of unacceptable weed species, pests, root or crown rot, mold and debris.

All plants shall have been in current pot a minimum of six (6) weeks. Plants shall be free of Woody circling roots.

B-8 MULCH

Shredded hardwood mulch shall conform to the requirements of MNDOT 3882, Type 6 mulch. Natural color undyed mulch only. Contractor shall install mulch in planting areas not susceptible to flooding, and/or all planting areas not specified for vegetation establishment in combination with seed specified for seed.

B-9 TEMPORARY EXCLUSION FENCE

Exclusion fencing shall be installed immediately after the start of planting operations and placed according to the Plans and Specifications, or as directed by the Owner Representative. Contractor shall submit written request for approval by Owner Representative for the need of additional fencing material. Steel securing staples shall be used for fence installation only; are temporary; and shall be removed and disposed off-site by contractor during fence removal operations.

Basis of Specification Standards shall be used for the following:

- (1) Heavy Duty Fence Posts – 12 Gauge; Color-Green
Size – 6.0ft H **Weight** – 5.50 lb.
- (2) Vinyl-Coated Welded Wire Fence; PVC Green
Size – 2" x 4" (maximum opening dimensions) x 14 Gauge-Galvanized Steel Core (maximum gauge); 48" (maximum height)
Weight – 72.00 lb.
- (3) Steel Securing Staples; 6-inch
Size – 6.0-inch x 1.0-inch x 6.0-inch

SECTION C – PROJECT EXECUTION

C-1 DESCRIPTION

The Work shall consist of furnishing all labor, tools and equipment required for grading, preparing soil, transporting and installing of all seeds, live plants and other materials required for:

- (1) Shoreline and soil stabilization practices
- (2) Seeding and planting of native plant species
- (3) The establishment and protection of seeded areas and live plants designated in the plans
- (4) Site-wide management for all invasive species for two growing seasons (2022 and 2023)

C-2 PRE-CONSTRUCTION CONFERENCE

Prior to the start of the Work, there will be a pre-construction conference arranged by the Owner and Owner Representative; attended by Owner, Owner Representative, Contractor (including designated project superintendent), and others as appropriate; held to establish a working understanding among the parties as to the Work, to discuss the Project Tasks and Timeline, and set forth a Progress Meeting Schedule (See Section C-3) for which it will be mandatory for Contractor to attend.

At this meeting, the Contractor shall designate a competent project superintendent. The Contractor shall also submit a list of phone numbers for the various subcontractors, foremen and all superintendents, including numbers to use in case of emergency.

At this meeting, the Contractor shall submit in writing to the Owner Representative for approval, a schedule of procedure indicating the order in which the Contractor proposes to perform the various stages of the work. Dates on which they will start the various activities of the work thereof (including procurement of construction materials, seed and live-plant

materials, and equipment), and the intended completion dates for the same. The Contractor shall clearly indicate the percentage of work scheduled and completed at weekly intervals. The Contractor shall not deviate from said schedule once approved without written permission from the Owner Representative.

This meeting will be documented by Owner Representative; Minutes will be transmitted to all parties prior to start of construction.

C-3 PROGRESS MEETINGS

Progress meetings will be held – **Weekly, or as otherwise determined by Owner and Owner Representative** to monitor progress and coordinate activities on the project site. The Contractor and its subcontractors shall attend these meetings, provide any required documentation of progress and anticipated construction scheduling as required by Owner Representative. Meetings may start as soon as the growing season begins, and based on when the Work is scheduled to start.

C-4 JOB CONDITIONS

The Contractor shall examine and evaluate soils, and water levels, observe conditions under which work is to be performed, and notify the Owner Representative of unsatisfactory conditions. Contractor shall not proceed with the work until unsatisfactory conditions have been resolved.

If conditions detrimental to installation or plant growth are encountered, such as prolonged inundation or flooding, adverse drainage conditions, obstructions, excessive compaction, or inadequate soil cover, the Contractor shall notify Owner Representative.

C-5 UTILITY COORDINATION

Contractor shall notify Gopher State One-Call for all utilities locates prior to work initiation.

Private Landowners shall provide private utility locates at the request of the Contractor. The Contractor is not responsible for private underground facilities and utilities (wires, cables, irrigation, electrical, etc.), but shall be required to coordinate and receive confirmation from landowners to ensure all private utilities are located or indicated to the fullest extent conceivable prior to the commencement of restoration work.

C-6 CONSTRUCTION SURVEYING

Contractor shall provide construction surveying for the onsite staking of critical construction elevations; elevations shall be staked in the field for positioning review and approval by Owner Representative prior commencement of work activities; and maintained in place by the Contractor until project completion. This shall serve as a baseline and plan reference for all future restoration work to be completed by Contractor, and water levels experienced during the Contract Period. Critical construction elevations as specified below should be staked, for a minimum of once per site, or additionally as necessary.

Basis of Specification Standards for Construction Survey Staking shall be used for the following critical elevations:

1. BASE FLOOD ELEVATION (BFE): 872.0' NAVD88

2. NEWLY CONSTRUCTED OUTFALL ELEVATION (E.O.E.): 872.7' NAVD88
3. CONTOUR LINE ELEVATION: 873.0' NAVD88
4. CONTOUR LINE ELEVATION: 874.0' NAVD88

BENCHMARKS

The Contractor shall use the following Benchmarks for reference:

Elevation: 874.78'

Datum: NAVD 88 ft.

Date Set: 09/10/2019

Location: T30R22S31

Description: For use only with prior permission from landowner. Top lakeside rim of sanitary manhole cover in yard area between private properties, 154 & 174 Twin Lake Blvd, Little Canada, on NW side of lake.

Elevation: 879.82'

Datum: NAVD 88 ft.

Date Set: 01/01/2008

Location: T30R22S31

Description: Ramsey County BM for use only with prior permission from landowner. 20d spike, 2.5' above ground, in SW side of a 4.3' cottonwood, approximately 90' from water's edge, on NE side of property, at private residence, 174 Twin Lake Blvd, Little Canada, on NW side of lake.

C-7 PROJECT FIELD LOCATION AND LAYOUT

The Contractor and Owner Representative shall jointly inspect the work area(s) prior to the start of the restoration project to establish or verify the boundaries and/or limits of the work area(s), equipment assignment, material storage areas and access routes.

The Contractor is required to field stake all elements and boundaries to be constructed with the project and review the location with the Owner Representative prior to construction of the element. Project elements and boundaries constructed without Owner Representative approval that are constructed in the wrong location or with the wrong elevation shall be removed at the Contractor's expense and replaced per the requirements of the plan and field conditions. Contractor shall provide Owner Representative with 72-hour notice of each field meeting needed for approval.

The Owner Representative will provide flagging of unique features, trees or ground cover vegetation to remain and/or be relocated prior to construction. The Contractor shall provide Owner Representative with 72-hour notice to when flagging will be required.

C-8 SITE WIDE MANAGEMENT FOR HERBACEOUS WEEDS

The Contractor shall begin management for herbaceous weeds as soon as the growing season begins in 2021. Sites identified for preliminary weed infestation severity have been indicated on the Construction Drawings; to be field verified by Contractor.

The Contractor shall coordinate timing and methods for eradication of all woody and herbaceous weeds throughout the Installation Contract Period of the 2021 growing seasons and Maintenance Contract Period of the 2022 and 2023 growing seasons. The Contractor shall thoroughly inspect each site – once per month during the growing season (May– October) and perform eradication of all invasive species, including re-sprouts of woody invasives removed previously as well as all herbaceous invasive plants as listed below in weed control plan.

The Contractor shall provide to the Owner Representative a detailed management inspection

report, including amount of staff people on site, type and quantity of herbicide used, type of equipment used if any, and a general description of the work performed, including areas in which invasive plants were controlling and if further action should be taken, for the entirety of the contract period.

C-9 SITE PREPARATION

Before soil preparation and planting activities commence, the Contractor shall control and eliminate all competing vegetation located within the project limits; designated per plan; or as not to remain by Owner Representative, including but not limited by: all native and non-native; annual, biennial or perennial; lawn and turfgrass-type, bed plantings, etc.

Furthermore, the following species are considered unacceptable and shall be herbicided as specified below: Garlic Mustard – *Alliaria petiolata*, Buckthorns – *Rhamnus* spp., Honeysuckles – *Exotic Lonicera* spp., Motherwort – *Leonurus cardiac*, Narrowleaf Bittercress – *Cardamine impatiens*, Purple Loosetrife – *Lythrum salicaria*, Cattails, *Typha* spp., Reed Canary Grass – *Phalaris arundinacea*, Smooth Brome – *Bormus inermis*, Crown Vetch-Coronilla varia, Bird’s Foot Trefoil – *Lotus corniculatus*, Yellow Sweet Clover – *Melilotus officinalis*, White Sweet Clover – *Melilotus alba*, Canada Thistle – *Cirsium arvense*, Curly Dock – *Rumex crispus*, Giant Ragweed – *Ambrosia trifida*, Common Ragweed – *Ambrosia artemisiifolia*, Foxtail – *Setaria* spp., Leafy Spurge – *Euphorbia esula*, Japanese Knotweed – *Polygonum cuspidatum*, Mulberry – *Morus alba* –

Additionally, all other plant species listed in part of the Minnesota Noxious Weed Law (Minnesota Statutes 18.75-18.91). **No noxious weed or non-desirable plant species shall be allowed to recolonize and go to seed at any point during the contract period.**

The Contractor shall submit a weed control plan formatted in a table form listing the weeds per site, different herbicides used for each weed, and each weed’s growing seasons. The weed control plan shall be organized by weed growth in ascending order by date.

Site preparation for seeding and planting areas shall start as soon as the growing season begins in 2021 and is estimated to cease by late-spring 2022.

At least 14 days prior to seeding and planting in areas shall be a foliar spray of glyphosate, to be added in areas with large numbers of broadleaf and turfgrass species present. Contractor must inspect site with the Owner Representative to determine spray mixture prior to any spraying; obtain approval by Owner Representative before planting; Owner Representative will approve seeding and plant installation after site has been herbicided and all turfgrass and weeds are dead.

<u>Timing</u>	<u>Activity</u>
2 weeks before seeding or planting	Herbicide Application 1: Broadcast Spray Herbicide all areas
5-7 days after herbicide application 1	Mow/Cut: Mow/Cut all areas to height 4-6”.
2 weeks after beginning of site preparation	Begin seeding and planting if no unacceptable species are visible to Owner’s Representative within 14 days of herbicide application and Owner Representative approves seeding and

planting; otherwise apply herbicide again as directed until approval from Owner Representative is obtained.

(1) Application rates for spot spraying with backpack sprayers:

1. 3-quart 6% concentrate "Round Up" or generic equivalent (Use "Rodeo" or generic equivalent only within 20' of water bodies).
2. Surfactant in all applications.

Sites with perennial weeds that are well-established, will require repeated applications of herbicide treatment, and are expected to extend through the 2021 growing season as required. After the perennials have been eliminated in the first growing season, Contractor shall allow weed seeds that are harbored or persist in the soil to germinate and be killed by additional applications of herbicide by late-spring 2022.

The contractor shall provide adequate surface preparation and soil treatment required to facilitate maximum germination and growth success for plants. Site shall be relatively free of debris before planting. Dead turfgrass shall remain undisturbed for soil stabilization; or as approved by Owner Representative. All soil preparation prior/post planting activities will be conducted on the contour to reduce erosion. In areas of exposed soils, Contractor must allow all soil to effectively settle before planting.

C-10 CLEARING OPERATIONS & VEGETATION REMOVAL

Clearing Operations of existing vegetation shall be according to MNDOT 2101 Specification. Contractor shall cut off, remove and dispose of trees under 4" in diameter, brush, shrubs, intrusive suckering of existing trees, bedding plants, herbaceous perennials, and other plant life within the boundaries of each site as identified on the plans; which is not specifically designated to remain; or as directed by Owner Representative. Contractor shall be responsible for securing a disposal area offsite and shall comply with all regulations and secure any permits necessary for the proper disposal of the material. The Contractor shall inspect each site identified in the Construction Drawings prior to the bid opening to satisfy the amount of clearing operations required.

Contractor is required to cut woody species flush to the ground, or at a point no greater than 6-inches of the ground. Contractor shall treat fresh cut stumps with herbicide immediately within a 24-hour period and shall use the appropriate herbicide (Section B-2).

The contracted Work may require grubbing of singular Trees as necessary, identified per plan and/or as determined by Owner Representative where located within project layout boundaries. The Contractor shall identify specific trees greater than 4" in diameter that need to be removed to accommodate design and restoration work. Contractor shall notify Owner Representative for approval prior to removal of impacted trees. Contractor shall provide Owner Representative with 72-hour notice of each field meeting needed for approval.

C-11 SEEDING SCHEDULE

At least three weeks prior to beginning work in each area, Contractor shall submit a seeding plan for approval by the Owner Representative. This plan shall include proposed methods of site

preparation, seeding, species, quantities, and types of propagules, proposed surface preparation and equipment.

C-12 SEEDING DATES

All seeding dates shall be performed during May 15-June 30 of the 2021 growing seasons; variance may be granted due to seasonal conditions with approval by Owner Representative.

C-13 SEEDING

Contractor shall notify the Owner Representative 24 hours prior to beginning the seeding operations.

Contractor shall seed all areas using a broadcast method of seeding; or equal. The broadcast method will use broadcast seeding equipped with an agitator that effectively prevents seed from bridging or plugging. Seed shall be broadcast twice over each area to help insure even distribution, with the second broadcast perpendicular to the first route of seeding. The seeded area shall be hand-raked to the extent necessary to cover the majority of the seed with 1/8" to 1/4" of soil. 1/8-inch to 1/4-inch of soil.

All cover crop shall be mixed and sown accordingly, and specified rates of application, to be used will be the standard Minnesota State Seed Mix 21-111 (Oats Cover Crop), OR, the standard Minnesota State Seed Mix 21-112 (Winter Wheat Cover Crop); see MNDOT Table 3876-1. For all Permanent Native Seed Mixes, oats and winter wheat shall be selected based on the time of year that the Permanent Native Seed Mix is being used; Contractor shall specify cover crop in species submission to the Owner Representative for approval.

Within 12 hours, if conditions permit or as soon thereafter as practical, the Contractor shall cover all seeded areas with specified erosion control blanket. The Contractor shall be fully responsible for implementing and maintaining permanent and temporary erosion control measures within prescribed planting areas until vegetated cover has been established to the Owner's Representative's satisfaction.

No fertilizer shall be applied to any seeded areas for any reason.

C-14 SITE RESTORATION

Turf establishment shall apply to all disturbed areas not specified for permanent native seed or live plantings, designated per plan and/or otherwise stated; shall be according to MNDOT 2575, except as modified. Turf establishment shall occur within two (2) weeks of completing grading activities and/or soil bed preparation. Contractor shall be responsible for maintaining and watering during installation and for at least 60-day establishment period after acceptance. The volume of water shall be per plant requirements for establishment and normal growth. Contractor shall provide written request for acceptance inspection.

C-15 LIVE PLANTING INSTALLATION

Four (4) Revegetation Units were delineated for this project based on elevation, anticipated soil and hydrologic conditions, special installation and treatment needs associated with each site respectively.

The planting locations and layouts shown in the Plan are approximate. The Contractor shall stake the exact locations and layouts of plants for approval by Owner Representative. Contractor shall provide Owner Representative with 72-hour notice of each field meeting needed for approval. To remedy unanticipated localized problems and seasonal conditions that may hinder plant establishment, the Contractor may request approval by Owner Representative to relocate plantings, to make plant substitutions, or to modify soil or drainage characteristics in accordance with what is shown on plan.

Contractor shall layout a minimum of five (5) sites for plant layout review and demonstration of planting for approval by Owner Representative, to insure adequate layout and proper installation techniques are administered. All Supervisors and laborers completing aforementioned activities shall be present onsite. Contractor shall provide Owner Representative with 72-hour notice of each field meeting needed for approval.

All planting dates shall be performed during May 15-October 15 of the 2021 growing season; preference for early-season planting; or as specified; variance may be granted due to seasonal conditions with approval by Owner Representative. Contractor shall time planting of all live plant material with weather conditions (including rainfall and temperatures) and hydrology per site. Live plant installation specified for areas in combination with seeding activities, shall occur after all seeding activities have been completed per site. Contractor shall install plants in conformance with each Revegetation Unit as shown on plans; specific to each individual plant stock type; and as specified in planting details and schedules. Contractor shall sequence plantings to install rhizomatous species first, subsequently planting clump-formers and forbs. Live plants shall be randomly planted within the specified enclosure areas to provide a non-uniform appearance, in large clusters or group counts of like species throughout the site. Immediately after planting operations begin on site, the enclosures must be properly installed and located (See Section C-17).

Substantial completion of planting activities for Revegetation Unit-1 shall be completed by August 1, 2021. For those sites with low or moderate water-level fluctuations, planting activities for Revegetation Unit-2 is estimated to cease by October 15, 2021; with substantial completion for Revegetation Unit-2 planting activities estimated to cease by September 1, 2021.

All planting dates for Revegetation Unit-3 shall be performed during May 15-Aug 30 of the 2021 growing season; variance may be granted due to seasonal conditions with approval by Owner Representative. Contractor shall hand plant the prescribed quantities of aquatic emergent plants within the areas specified on the plans for Revegetation Unit-3 and shall time planting after water levels have stabilized. Substantial completion of planting activities for Revegetation Unit-3 shall be completed by August 30, 2021.

Emergent plants must be planted with their tops out of the water, plant species exceptions include: *Sagittaria latifolia* (Broadleaf Arrowhead). Revegetation Unit-3 specifies emergent plantings in areas per site ranging from areas with saturated soils, staggered along the edge of the water line, and areas of inundation or shallow water. Active water levels during the contract period will dictate the extent waterward at which the aquatic plantings can be established, but shall not be installed beyond a water depth of one (1) foot; or as approved by Owner Representative.

Plant stock shall be installed on the day of delivery to the Project site unless temporary storage methods are employed. Prior to being installed, the roots of all plants shall be kept completely covered with a moisture-holding material (wood chips, straw, sawdust, moss, or soil) that is kept thoroughly and continuously moist and protect from drying winds, direct sunlight, excessive heat, freezing, low humidity, inadequate ventilation, and animal or human harm. Plants with damage, that has occurred or has been discovered during temporary storage, will become unacceptable. Plants shall not remain stored from one planting season to the next.

C-16 MULCH

Contractor shall place mulch material as shown on plans and in standard planting details no later than seven days after plant installation. Placement of mulch that is contaminated with soil or other materials and inconsistent with the requirements of MNDOT 3882 (Mulch Materials) will be considered unacceptable and shall be removed from the Project.

C-17 TEMPORARY EXCLUSION FENCE

Contractor shall install exclusion fencing immediately surrounding the entire perimeter of each restoration area per site once planting operations have begun; extending waterward to encompass aquatic-emergent plantings as necessary. Contractor shall tie all adjacent and neighboring restoration site fencing together; shall coordinate with landowners regarding all dock staging and access sites; or as directed by Owner Representative.

All exclusion fencing shall remain for the duration of contract and maintenance periods; Contractor to remove exclusion fence upon notification by Owner Representative at the termination of the 2023 maintenance season; or as directed by Owner.

C-18 PLANT INSTALLATION PERIOD

At all times, seedings and plantings shall be maintained for the duration of the Plant Installation and Contract period. Maintenance shall include all operations necessary for the vigorous establishment of all seedings and plantings.

Watering of seedings and plantings shall be incidental to the maintenance and establishment operations, except as otherwise stated by Owner, and/or hereby supplemented with the following:

Contractor shall be responsible for watering during installation and for at least 60-day establishment period after acceptance. The volume of water shall be per plant requirements for establishment and normal growth. Contractor shall provide written request for acceptance inspection after 60-day establishment period. Upon which acceptance is awarded, responsibilities for watering all seedings and plantings will be the responsibility of the private landowner.

C-19 INSPECTION AND ACCEPTANCE

The Owner Representative reserves the right to inspect seeds and plant materials, either at place of growth or at site before planting, for compliance with requirements for name, variety, size, quantity, quality and mix proportion.

Upon request, Contractor shall supply written affidavit certifying composition of Contractor supplied seed mixtures and integrity of plant materials with respect to species, variety, source and germination.

Final Acceptance:

- (1) Acceptance of Installation: When the seeding or planting is completed, the Owner Representative will, upon request make a final inspection to determine acceptability.
- (2) Acceptance of Guaranteed Work: A minimum of one year after the seeding and planting installation is completed, the Owner Representative will, upon request, make a final inspection to determine acceptability.

Performance Standards: Contractor shall be responsible for the satisfactory growth of plants and all areas seeded under the Contract until final acceptance of the work at the end of the contract period.

Areas for Acceptance of Maintenance

- (1) Field Confirmation: Acceptance of the work will be determined by onsite review. The Owner's Representative shall conduct a review for each unit per site.
 1. The review shall be conducted during the first full growing season after seeding and/or planting (not to exceed 12 months).
 2. The field confirmation will review each unit that was seeded and/or planted per site respectively. If the unit area has minimum 80% of expected and acceptable cover species (See Section C-9) established; the seeding work will receive acceptance of guaranteed work. If at least 95% of the live plantings are healthy as determined by the Owner's Representative, the live plantings will receive acceptance of guaranteed work.

Non-Compliance: Where inspected seeding work does not comply with the requirements, Contractor shall replace rejected work until inspected again by the Owner's Representative and found to be acceptable. Rejected plants and materials shall be removed promptly from the project site. Contractor shall re-sow at half the original seeding rate and replant unhealthy plants in failed areas of live plantings within 2 weeks of Owner's Representative's notification.

C-20 FINAL CLEAN-UP

Upon completion of the work and before preliminary acceptance and final installation payment will be made, the Contractor shall clean and remove from the site of the work surplus and discarded materials, temporary structures, and debris of every kind.

The Contractor shall leave the site of the work in a neat and orderly condition equal or better than that which originally existed.

Surplus materials removed from the site of the work shall be disposed of at locations approved by the Owner's Representative.

SECTION D – FULL-SITE MANAGEMENT AND MAINTENANCE

D-1 DESCRIPTION

The Full-Site Management and Maintenance contract of two calendar years, begins on the date which all planting operations, have been satisfactorily completed and final acceptance of the project is awarded, unless otherwise specified.

The Work more specifically consists of furnishing relevant expertise as well as all labor, materials, equipment, skills, and performing all operations required to complete all requested maintenance work, which includes, but is not limited to, mobilization and demobilization; maintenance of plantings; plant replacement; herbicide furnishment and application; invasive species management and removal; mulch replenishment; furnishing, installing, and maintaining erosion control measures as necessary; acquisition of all necessary permits to perform the Work; regular reporting of completed operations (See Section C-8 and C-9); and complete site restoration of all disturbed areas all as directed by the Owner. All live plant material installed by Contractor shall be warranted for 120 days after installation; replaced at no cost to the Owner.

The Contractor shall thoroughly inspect each site – once per month during the growing season (May – October), to control all competing vegetation sites shall be maintained approximately six (6) times or as determined per site requirements and/or as budgets allow, throughout the growing seasons for 2022 and 2023.

The Contractor shall provide to the Owner a detailed management inspection report, including amount of staff people on site, type and quantity of herbicide used, type of equipment used if any, and a general description of the work performed, including areas in which invasive plants were controlling and if further action should be taken, for the entirety of the contract period.

D-2 MAINTNENACE DUTIES

Each site included in the contract for this project shall be subject to the same maintenance requirements, progress schedule and reporting. Maintenance duties shall include at a minimum but not be limited by the following:

- (1) Spring Clean-up and Mow: All planted areas shall have all perennial vegetation from the previous growing season removed to within four (4) inches above the ground, but not less than four (4) inches. Shrubs shall be pruned to remove dead and dying vegetation. Clear sites of debris and obstructions from over-wintering that may be detrimental to growth success, and reset exclusion fencing; etc.
- (2) Weed Control Visits: All weeds and competing species as identified by the Contractor or as directed by the Owner will be monitored and controlled via manual removal, chemical herbicide applications, spot mowing or full-site mowing regiments. Herbicide application shall be performed with extreme care shall be taken to avoid damage to existing plants and seed. Weed control via manual removal shall not occur within the first growing season in any areas planted in combination with seed. Any damaged plants and seed shall be replaced by the Contractor without cost to the Owner. All planting areas shall be completely free of weeds or all weeds shall have been chemically treated after each Control Visit. All applicable State regulations regarding the application of chemical herbicide are to be complied with including but not limited to postings/notices of application and spray records.

- (3) Routine Planting Maintenance: During each growing season prior to June 15 of the contract year, the Contractor shall provide a plant replacement list to be approved by Owner, that includes plants matching those that are installed at each site per Revegetation Unit; in size, spacing and species. All plants are to be warranted for 120 days after installation and replaced at no cost to the Owner.

All mulched planting areas shall have a maintained depth of 3 inches of approved twice-shredded hardwood mulch at the end of each growing season of the Contract period. Mulch shall conform to MnDOT 3878.2 Type 6 Mulch.

For the low grow fescue and turf establishment areas, management practices will be mowing of the areas one to two times per year and spot treating for broadleaf weed species.

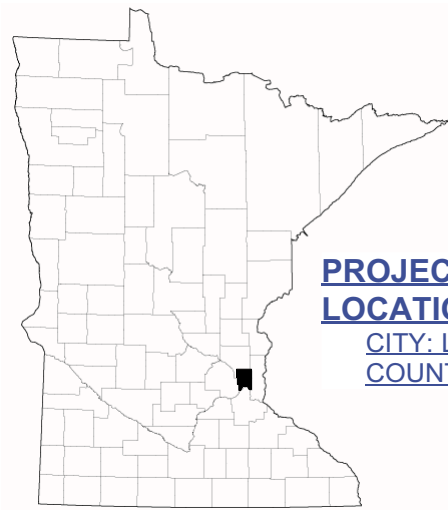
D-3 INSPECTION AND ACCEPTANCE

Upon request the Contractor shall be available for site inspection and review. Any defects in the work shall be corrected per Owner request.

Exhibit B: Construction Plan Set

TWIN LAKE SHORELINE RESTORATION

TWIN LAKE CITY OF LITTLE CANADA RAMSEY COUNTY, MINNESOTA



**PROJECT
LOCATION**
CITY: LITTLE CANADA
COUNTY: RAMSEY



1 VICINITY MAP
NOT TO SCALE



INDEX OF SHEETS

G101: TITLE AND SHEET INDEX
G102: INDIVIDUAL PROJECT SITE LOCATIONS
L101 - L106: RESIDENTIAL - TWIN LAKE COURT SITES
L107 - L115: RESIDENTIAL - TWIN LAKE TRAIL SITES
L201: PLANTING SCHEDULES
L301 - L307: SITE DETAILS

THIS PLAN SET CONTAINS 25 SHEETS


**RAMSEY
COUNTY**
RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7280
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE
LOCATION:

WATERSHED DISTRICT:
 **RAMSEY-WASHINGTON**
METRO WATERSHED DISTRICT

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

Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

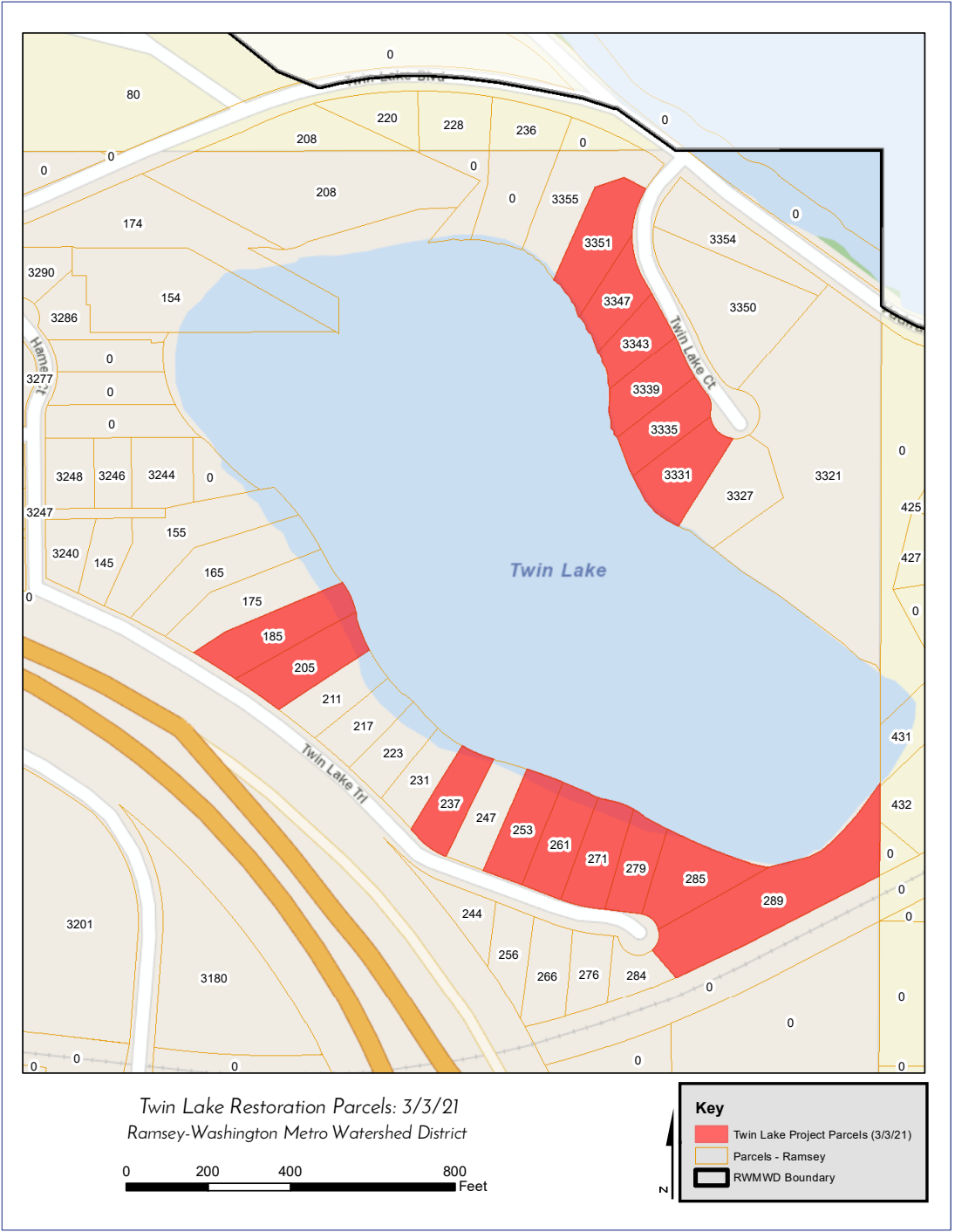
SCALE: N/A

PROJECT LOCATION



G101

INDIVIDUAL PROJECT SITE LOCATIONS



RAMSEY
COUNTY

RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7280
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE
LOCATION:

WATERSHED DISTRICT:



I hereby certify that this plan,
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Minnesota

Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

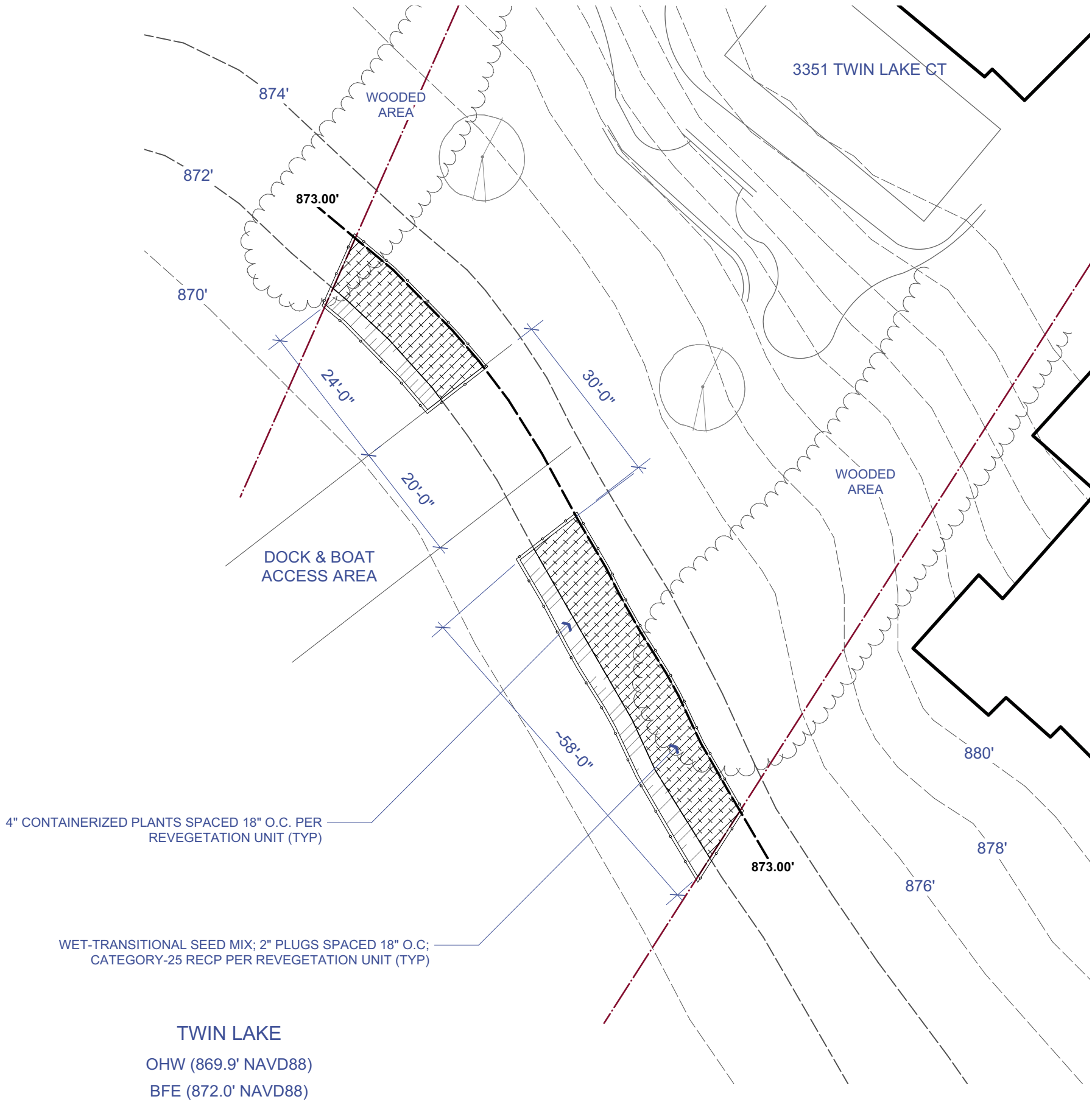
NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: N/A

INDIVIDUAL PROJECT
SITE LOCATIONS



G102



SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	360
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	135
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	215
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	0
2575.508/25131	SEED MIXTURE 25-131	SF	0
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	0
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	89
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	800

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

- REVEGETATION UNIT-1
TOTAL AREA: +/- 0 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 800 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 300 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 0 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
 - 1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
- HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS.
- DEAD TURF TO REMAIN FOR SOIL STABILIZATION. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL FACILITIES IF REQUIRED; AS APPROVED BY OWNER REPRESENTATIVE.
- ALL PLANTINGS INSTALLED BELOW WATER LINE, IN SOFT SOILS, OR IN AREAS SUBMERGED DUE TO WATER FLUCTUATIONS SHALL BE BIO-STAKED TO ANCHOR IN PLACE.
- OWNER REPRESENTATIVE & CONTRACTOR SHALL MARK ANY/ALL UNIQUE ITEMS IN THE FIELD DURING SITE LAYOUT WALKTHROUGH THAT ARE TO REMAIN
- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE



RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE

LOCATION:
MALONEY RESIDENCE
3351 TWIN LAKE CT

WATERSHED DISTRICT:



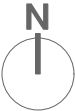
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the State of Minnesota

REVISION:
Rebecca Nestingen Date: 03/12/2021
Rebecca Nestingen Reg. No. 49246

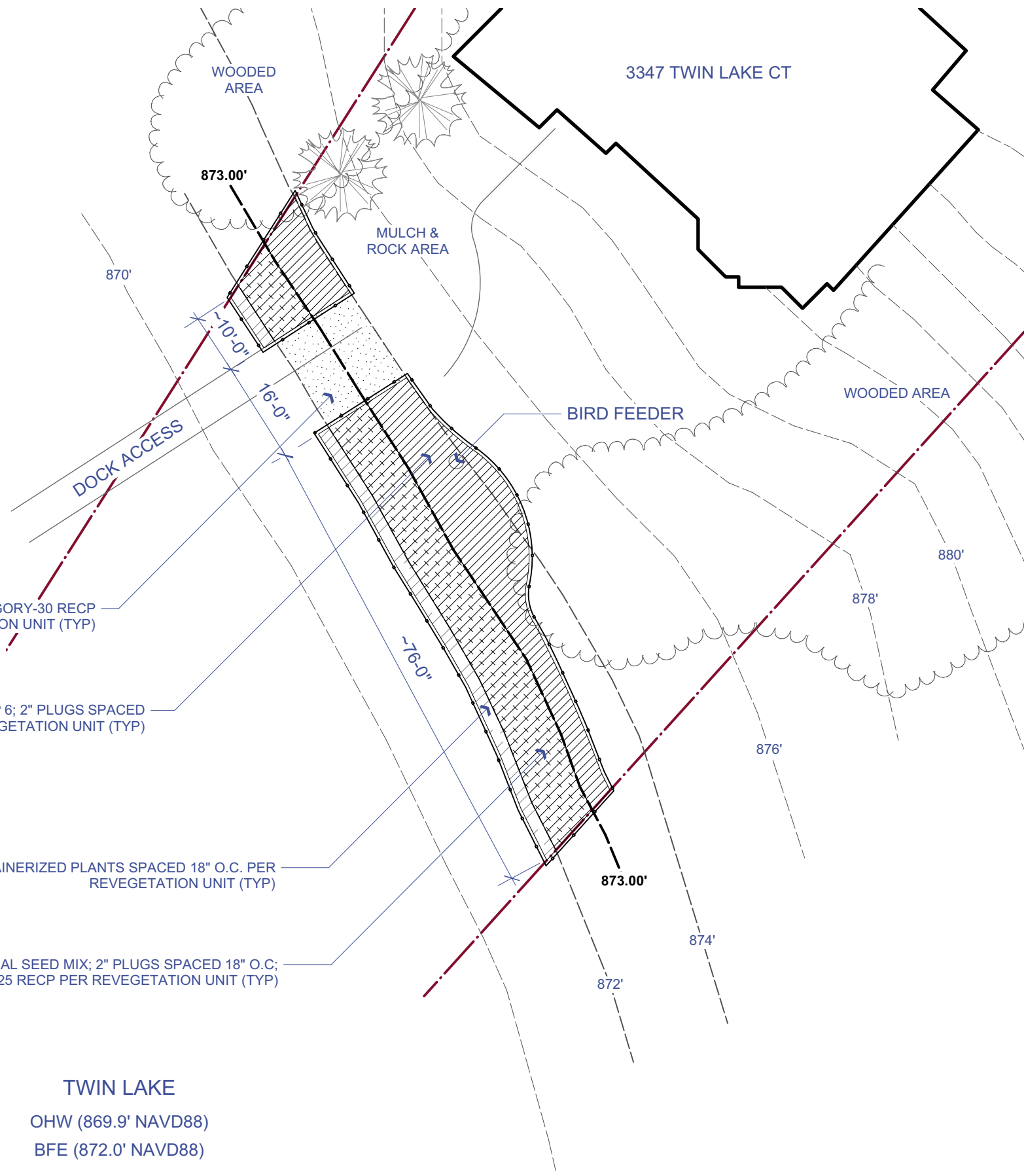
NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT



L101



TWIN LAKE
OHW (869.9' NAVD88)
BFE (872.0' NAVD88)

SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	630
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	90
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	230
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	7
2575.508/25131	SEED MIXTURE 25-131	SF	300
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	34
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	78
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	700

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

REVEGETATION UNIT-1
TOTAL AREA: +/- 700 SF

REVEGETATION UNIT-2
TOTAL AREA: +/- 700 SF

REVEGETATION UNIT-3
TOTAL AREA: +/- 200 SF

REVEGETATION UNIT-4
TOTAL AREA: +/- 300 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
- HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS.
- DEAD TURF TO REMAIN FOR SOIL STABILIZATION. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL FACILITIES IF REQUIRED; AS APPROVED BY OWNER REPRESENTATIVE.
- ALL PLANTINGS INSTALLED BELOW WATER LINE, IN SOFT SOILS, OR IN AREAS SUBMERGED DUE TO WATER FLUCTUATIONS SHALL BE BIO-STAKED TO ANCHOR IN PLACE.
- OWNER REPRESENTATIVE & CONTRACTOR SHALL MARK ANY/ALL UNIQUE ITEMS IN THE FIELD DURING SITE LAYOUT WALKTHROUGH THAT ARE TO REMAIN
- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER RESPRESENTATIVE

RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE

LOCATION:
ISAACSON RESIDENCE
3347 TWIN LAKE CT

WATERSHED DISTRICT:



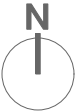
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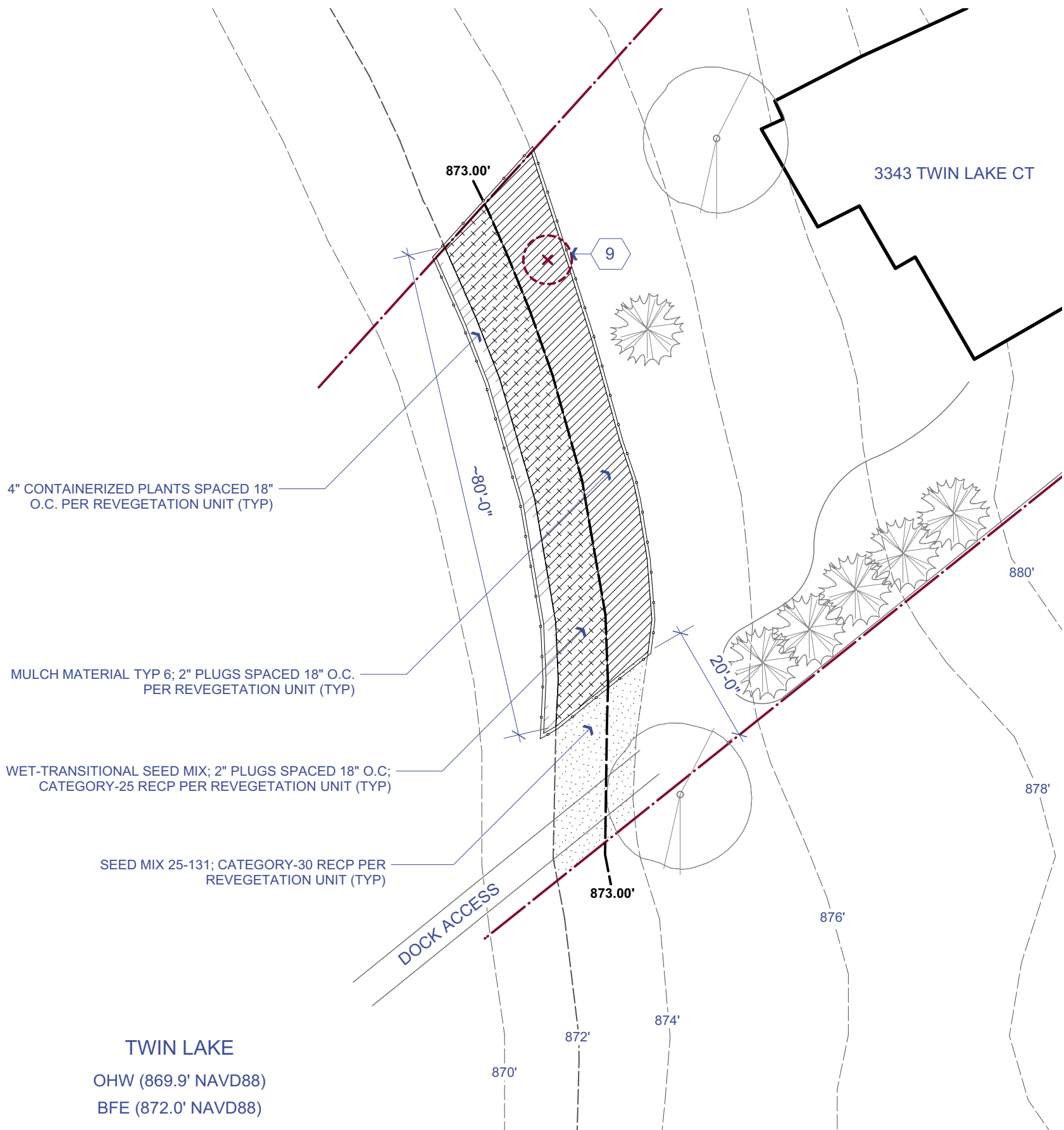
REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT





SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	630
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	90
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	215
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	7
2575.508/25131	SEED MIXTURE 25-131	SF	400
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	45
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	78
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	700

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)
- TREE REMOVAL(S). SEE SHEET NOTE 9

- REVEGETATION UNIT-1
TOTAL AREA: +/- 700 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 700 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 200 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 400 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
 - 1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
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- OWNER REPRESENTATIVE & CONTRACTOR SHALL MARK ANY/ALL UNIQUE ITEMS IN THE FIELD DURING SITE LAYOUT WALKTHROUGH THAT ARE TO REMAIN
- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- TREE REMOVAL (1 EST. QTY.) 12"-18" DIA. SHALL BE MARKED ONSITE BY OWNER REPRESENTATIVE PRIOR TO REMOVALS

RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE

LOCATION:
WAHLSTRON RESIDENCE
3343 TWIN LAKE CT

WATERSHED DISTRICT:



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

REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

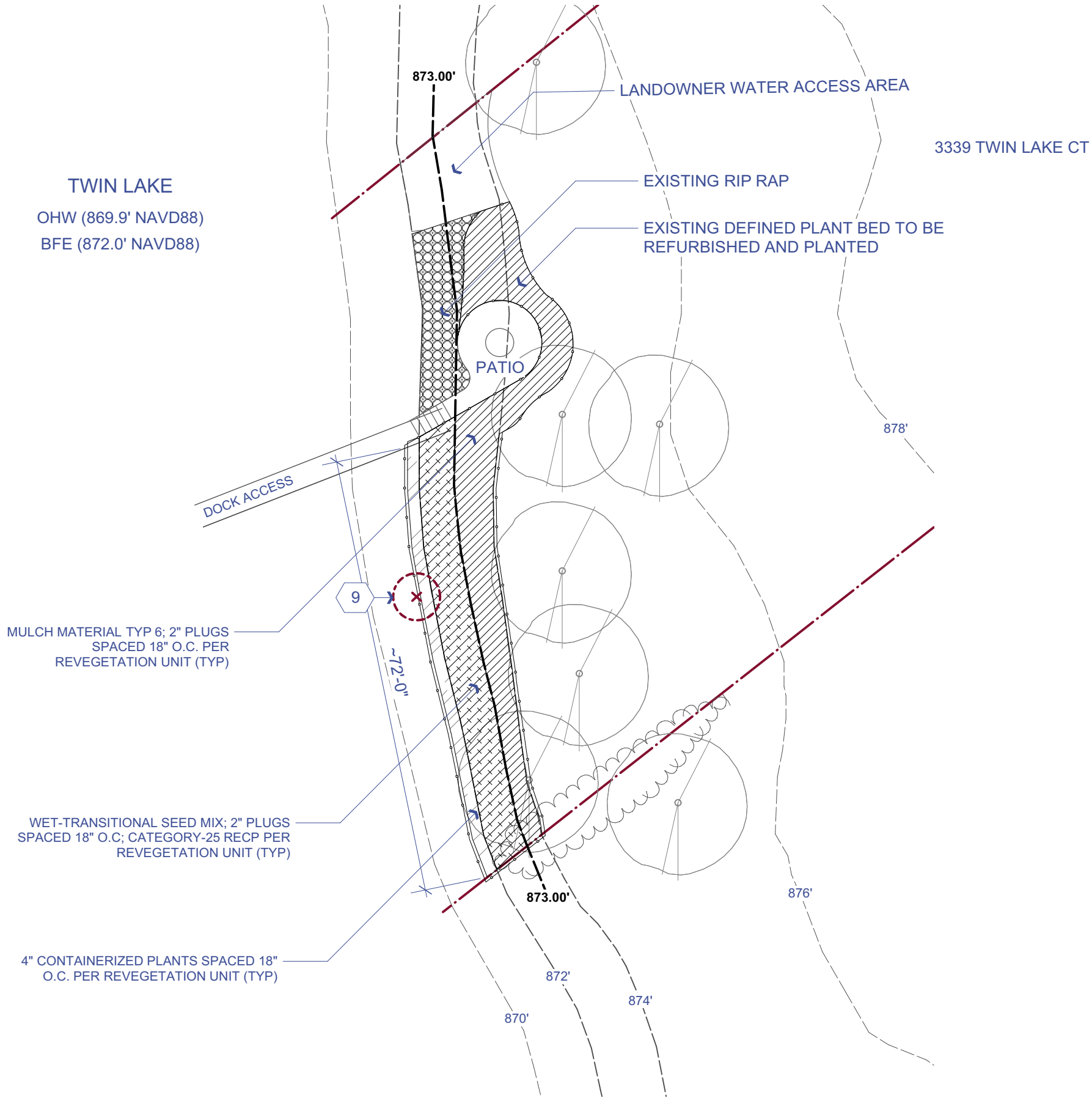
NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT



L103



SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	540
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	90
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	275
2573.503/00024	SILT FENCE: TYPE TB	LF	72
2573.503/00063	SEDIMENT CONTROL LOG TYPE WOOD CHIP	LF	72
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	7
2575.508/25131	SEED MIXTURE 25-131	SF	0
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	0
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	56
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	500

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
 SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)
- TREE REMOVAL(S). SEE SHEET NOTE 9

- REVEGETATION UNIT-1
 TOTAL AREA: +/- 700 SF
- REVEGETATION UNIT-2
 TOTAL AREA: +/- 500 SF
- REVEGETATION UNIT-3
 TOTAL AREA: +/- 200 SF
- REVEGETATION UNIT-4
 TOTAL AREA: +/- 0 SF

NOTES

1. PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
 1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
2. HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS.
3. DEAD TURF TO REMAIN FOR SOIL STABILIZATION. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL FACILITIES IF REQUIRED; AS APPROVED BY OWNER REPRESENTATIVE.
4. ALL PLANTINGS INSTALLED BELOW WATER LINE, IN SOFT SOILS, OR IN AREAS SUBMERGED DUE TO WATER FLUCTUATIONS SHALL BE BIO-STAKED TO ANCHOR IN PLACE.
5. OWNER REPRESENTATIVE & CONTRACTOR SHALL MARK ANY/ALL UNIQUE ITEMS IN THE FIELD DURING SITE LAYOUT WALKTHROUGH THAT ARE TO REMAIN
6. CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
7. REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
8. REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
9. TREE REMOVAL (1 EST. QTY.) MULTI-STEMMED (6) 12"-18" DIA. SHALL BE MARKED ONSITE BY OWNER REPRESENTATIVE PRIOR TO REMOVALS. **MAY REQUIRE GRUBBING IF EXPOSED ABOVE WATER LINE**

RAMSEY COUNTY SWCD
 1425 PAUL KIRKWOLD DR
 ARDEN HILLS, MN 55112
 651-266-7274
 www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE

LOCATION:
 ELKE RESIDENCE
 3339 TWIN LAKE CT

WATERSHED DISTRICT:



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

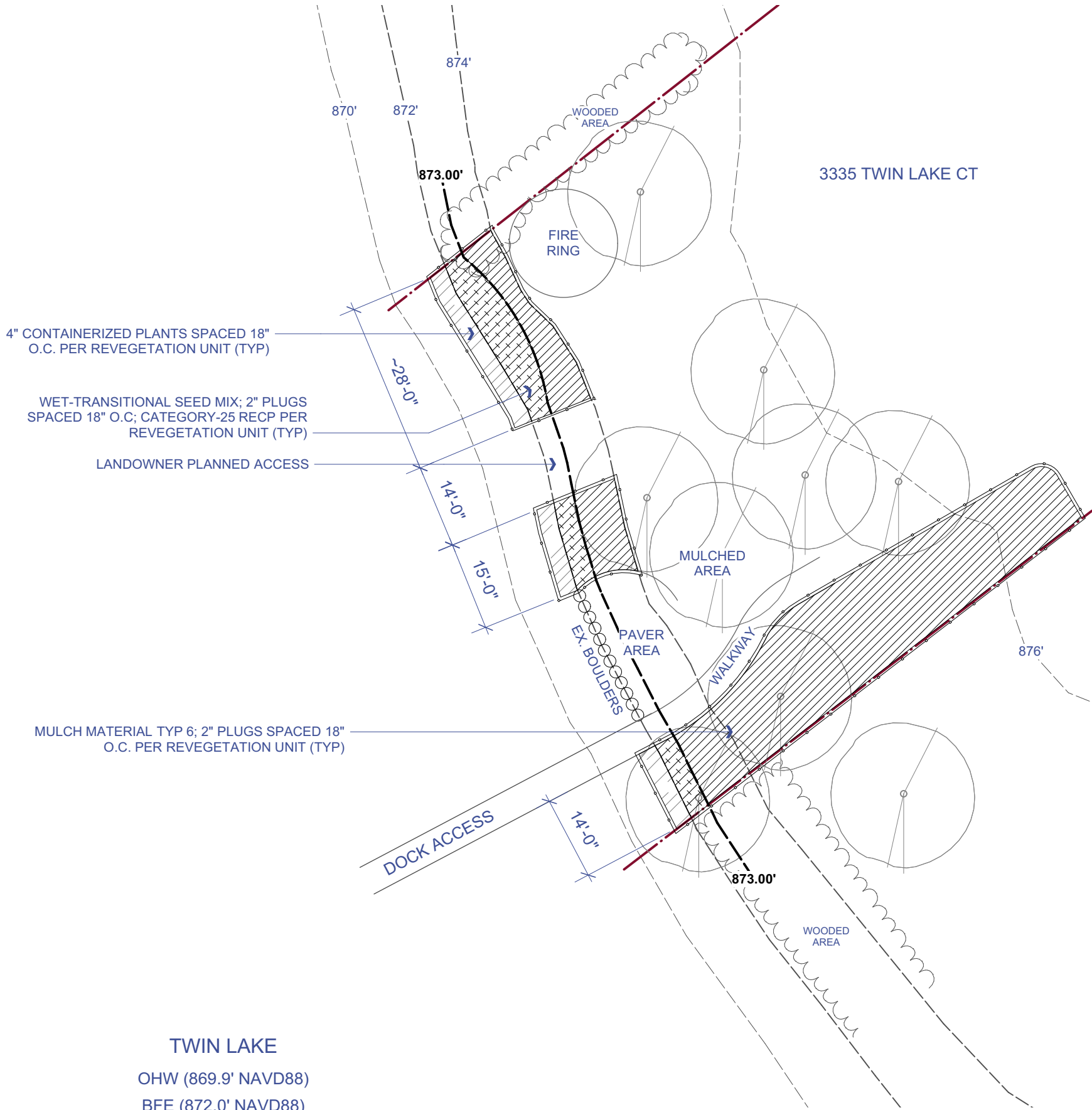
REVISION:
 Rebecca Nestingen Date: 03/12/21
 Rebecca Nestingen Reg. No. 49246

NOTES:
 ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT





SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	142
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	90
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	250
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	14
2575.508/25131	SEED MIXTURE 25-131	SF	0
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	0
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	34
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	300

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
- SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

- REVEGETATION UNIT-1
TOTAL AREA: +/- 1400 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 300 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 200 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 0 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
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- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER RESPRESENTATIVE

PROJECT: TWIN LAKE SHORELINE

LOCATION:
EISELE RESIDENCE
3335 TWIN LAKE CT

WATERSHED DISTRICT:



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

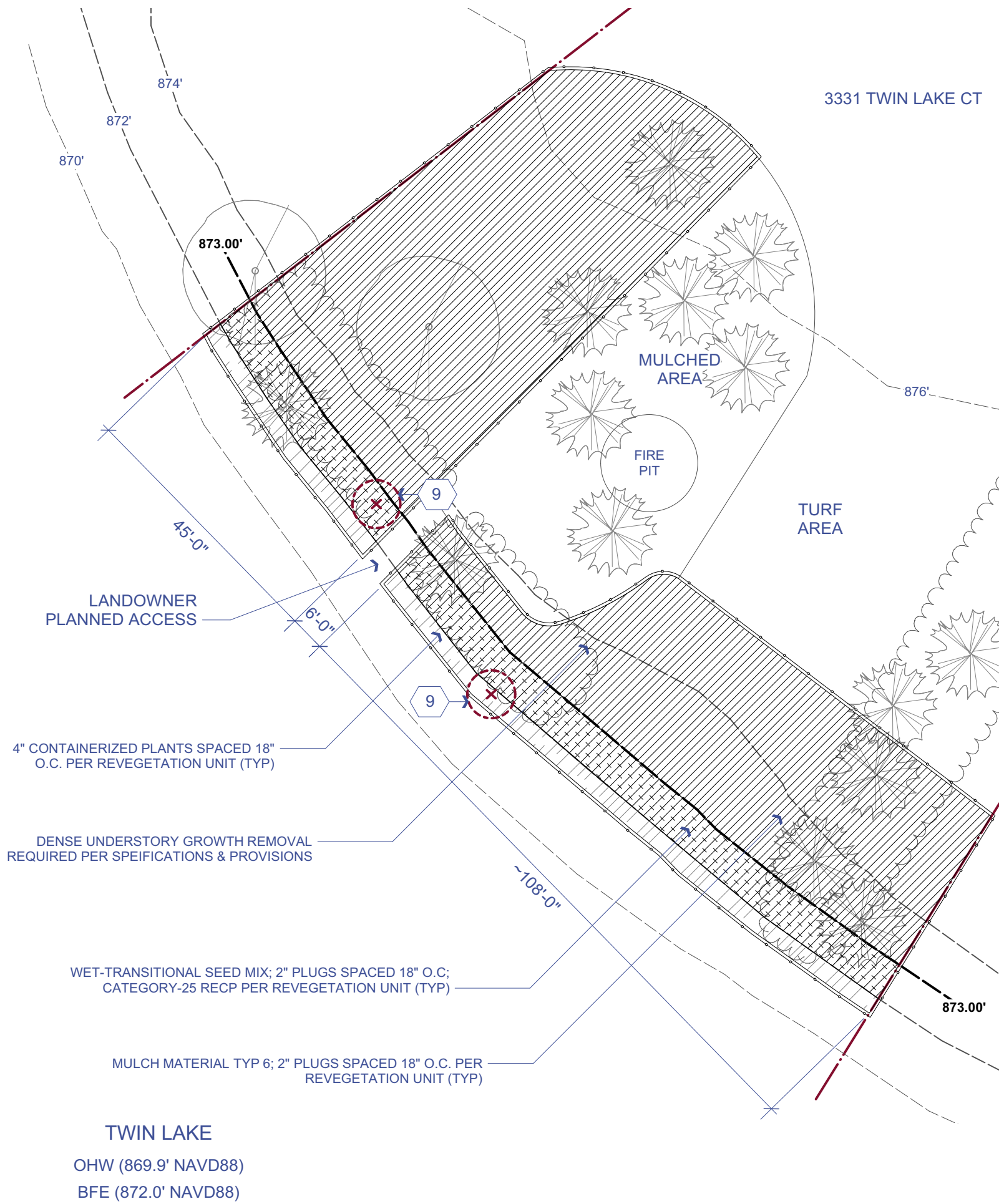
REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT





SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	2835
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	225
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	455
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	53
2575.508/25131	SEED MIXTURE 25-131	SF	0
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	0
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	112
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	1000

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)
- TREE REMOVAL(S). SEE SHEET NOTE 9

- REVEGETATION UNIT-1
TOTAL AREA: +/- 5300 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 1000 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 500 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 0 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
- HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS.
- DEAD TURF TO REMAIN FOR SOIL STABILIZATION. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL FACILITIES IF REQUIRED; AS APPROVED BY OWNER REPRESENTATIVE.
- ALL PLANTINGS INSTALLED BELOW WATER LINE, IN SOFT SOILS, OR IN AREAS SUBMERGED DUE TO WATER FLUCTUATIONS SHALL BE BIO-STAKED TO ANCHOR IN PLACE.
- OWNER REPRESENTATIVE & CONTRACTOR SHALL MARK ANY/ALL UNIQUE ITEMS IN THE FIELD DURING SITE LAYOUT WALKTHROUGH THAT ARE TO REMAIN
- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- TREE REMOVAL (2 EST. QTY.) 12"-18" DIA. SHALL BE MARKED ONSITE BY OWNER REPRESENTATIVE PRIOR TO REMOVALS

RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE

LOCATION:
CHANDRA RESIDENCE
3331 TWIN LAKE CT

WATERSHED DISTRICT:



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

REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

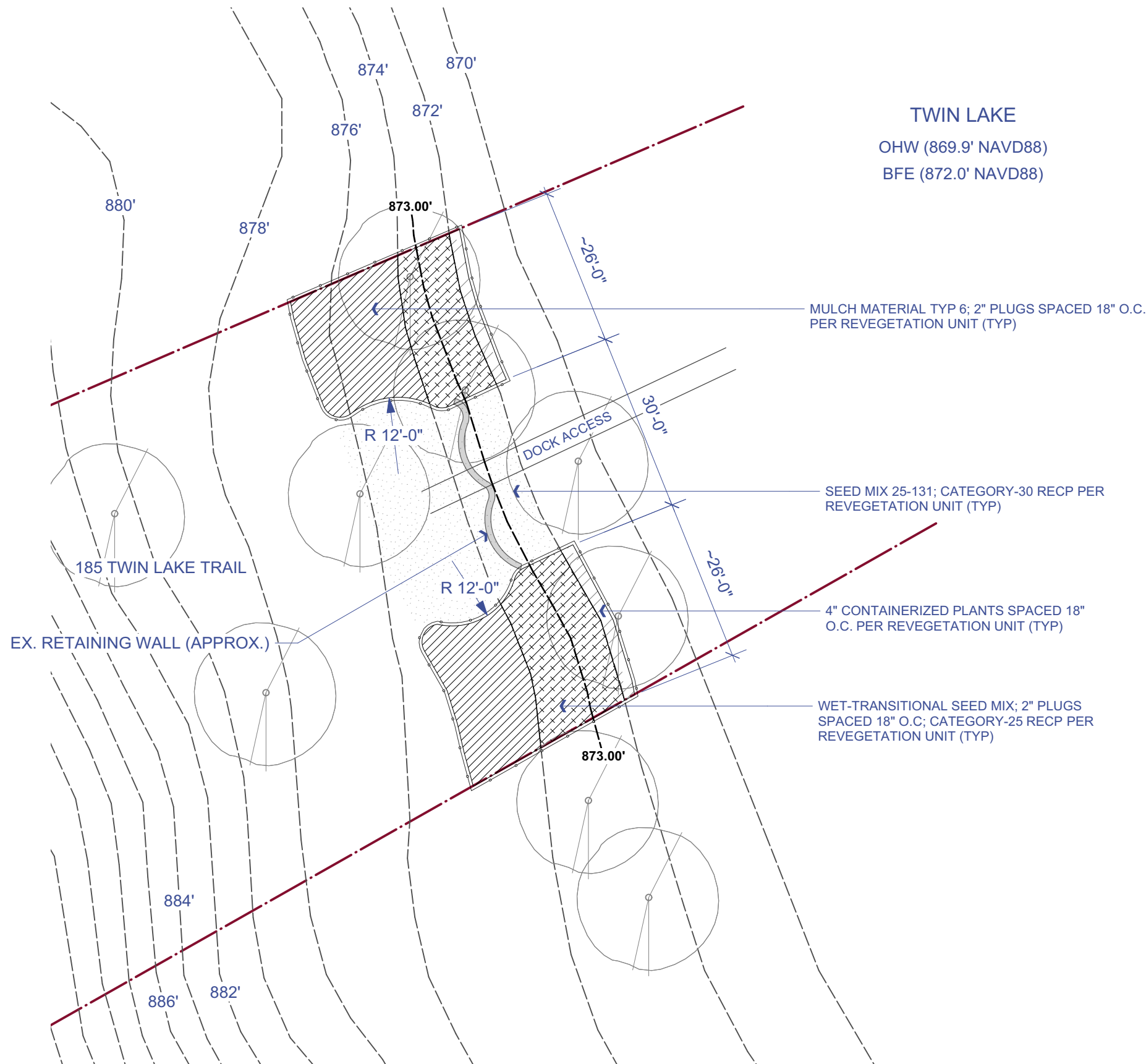
NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT



L106



TWIN LAKE
OHW (869.9' NAVD88)
BFE (872.0' NAVD88)

SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	653
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	50
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	200
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	8
2575.508/25131	SEED MIXTURE 25-131	SF	1000
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	112
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	78
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	700

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

- REVEGETATION UNIT-1
TOTAL AREA: +/- 750 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 700 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 110 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 1,000 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
- HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS
- DEAD TURF TO REMAIN FOR SOIL STABILIZATION. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL FACILITIES IF REQUIRED; AS APPROVED BY OWNER REPRESENTATIVE
- ALL PLANTINGS INSTALLED BELOW WATER LINE, IN SOFT SOILS, OR IN AREAS SUBMERGED DUE TO WATER FLUCTUATIONS SHALL BE BIO-STAKED TO ANCHOR IN PLACE
- OWNER REPRESENTATIVE & CONTRACTOR SHALL MARK ANY/ALL UNIQUE ITEMS IN THE FIELD DURING SITE LAYOUT WALKTHROUGH THAT ARE TO REMAIN
- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE

RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE
LOCATION:
LARSON RESIDENCE
185 TWIN LAKE TRAIL
WATERSHED DISTRICT:



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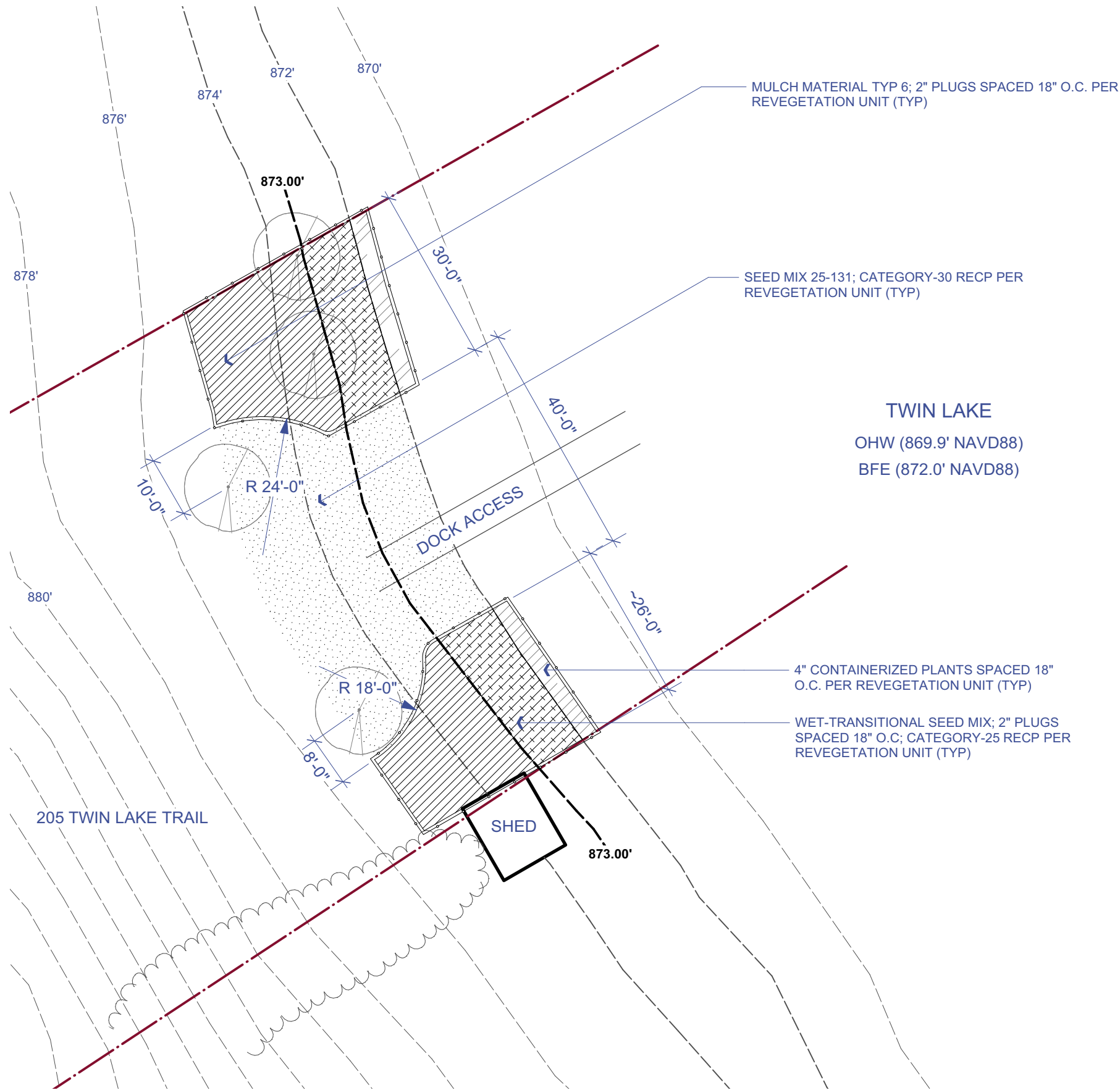
REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT





SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	720
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	90
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	200
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	10
2575.508/25131	SEED MIXTURE 25-131	SF	1600
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	178
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	67
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	600

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

- REVEGETATION UNIT-1
TOTAL AREA: +/- 1000 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 600 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 200 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 1600 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
- HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS.
- DEAD TURF TO REMAIN FOR SOIL STABILIZATION. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL FACILITIES IF REQUIRED; AS APPROVED BY OWNER REPRESENTATIVE.
- ALL PLANTINGS INSTALLED BELOW WATER LINE, IN SOFT SOILS, OR IN AREAS SUBMERGED DUE TO WATER FLUCTUATIONS SHALL BE BIO-STAKED TO ANCHOR IN PLACE.
- OWNER REPRESENTATIVE & CONTRACTOR SHALL MARK ANY/ALL UNIQUE ITEMS IN THE FIELD DURING SITE LAYOUT WALKTHROUGH THAT ARE TO REMAIN
- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE

*WARNING: SEVERE LANDOWNER BEE ALLERGY; NO FORBS SHALL BE SELECTED OR PLANTED FOR THIS SITE WITHOUT OWNER REPRESENTATIVE DIRECT APPROVAL

RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
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PROJECT: TWIN LAKE SHORELINE
LOCATION:
JOHNSON RESIDENCE
205 TWIN LAKE TRAIL

WATERSHED DISTRICT:



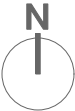
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the State of Minnesota

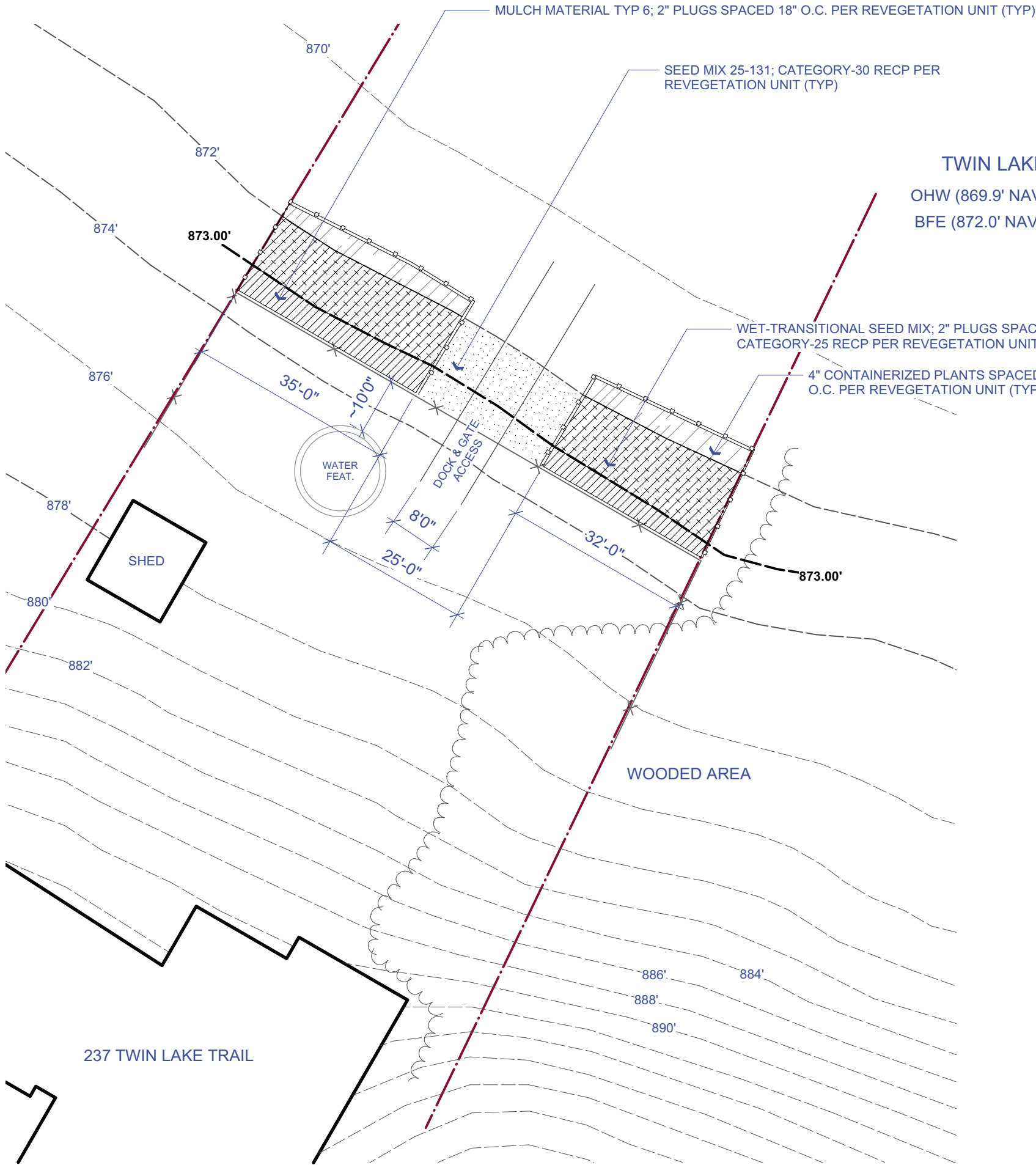
REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT





SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	675
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	135
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	140
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	3
2575.508/25131	SEED MIXTURE 25-131	SF	400
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	45
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	78
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	700

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2" CONTOUR ELEVATION (UNLESS NOTED)
- EXISTING CHAINLINK FENCE

- REVEGETATION UNIT-1
TOTAL AREA: +/- 300 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 700 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 300 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 400 SF

NOTES

1. PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
2. HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS.
3. DEAD TURF TO REMAIN FOR SOIL STABILIZATION. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL FACILITIES IF REQUIRED; AS APPROVED BY OWNER REPRESENTATIVE.
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7. REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
8. REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER RESPRESENTATIVE

PROJECT: TWIN LAKE SHORELINE

LOCATION:
CEDERBERG RESIDENCE
237 TWIN LAKE TRAIL

WATERSHED DISTRICT:



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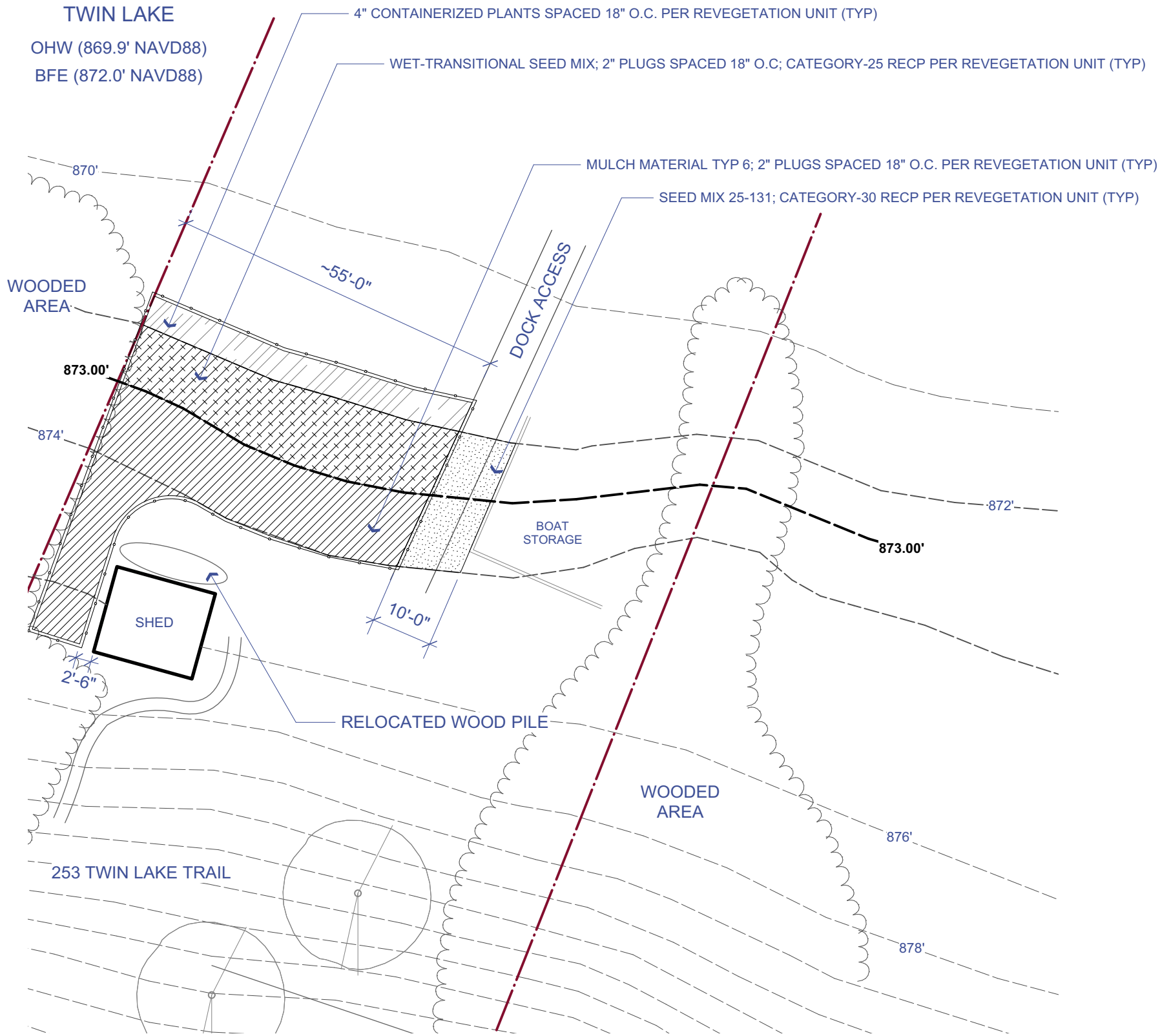
REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT





SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	675
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	135
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	220
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	9
2575.508/25131	SEED MIXTURE 25-131	SF	300
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	34
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	67
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	600

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

- REVEGETATION UNIT-1
TOTAL AREA: +/- 900 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 600 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 300 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 300 SF

NOTES

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- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE

RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE

LOCATION:

TELEGA RESIDENCE
253 TWIN LAKE TRAIL

WATERSHED DISTRICT:



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

REVISION:

Rebecca Nestingen Date: 03/12/21

Rebecca Nestingen Reg. No. 49246

NOTES:

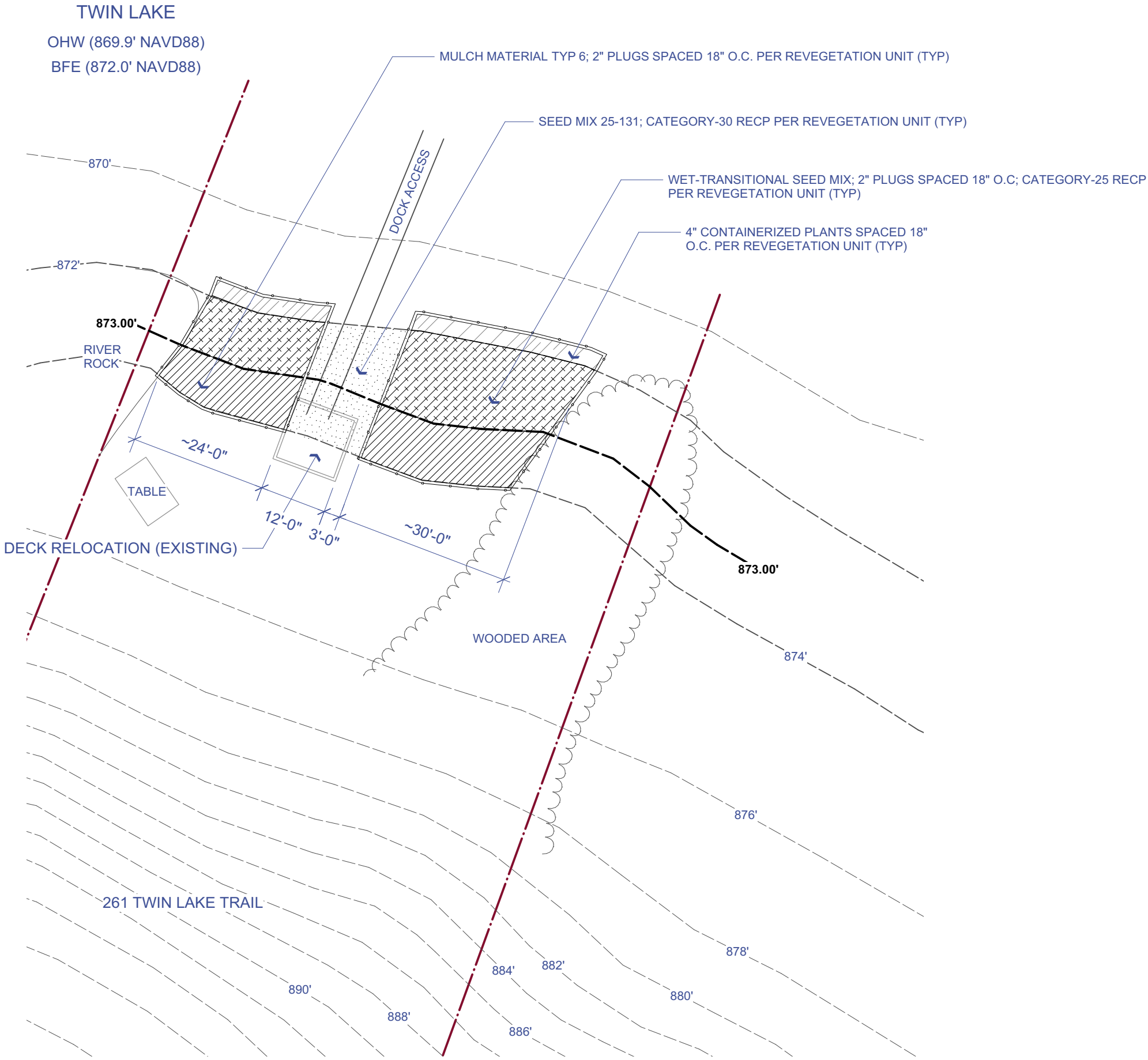
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT



L110



SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	540
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	90
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	210
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	5
2575.508/25131	SEED MIXTURE 25-131	SF	400
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	45
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	78
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	700

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

- REVEGETATION UNIT-1
TOTAL AREA: +/- 500 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 700 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 200 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 400 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
 - 1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
- HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS.
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- ALL PLANTINGS INSTALLED BELOW WATER LINE, IN SOFT SOILS, OR IN AREAS SUBMERGED DUE TO WATER FLUCTUATIONS SHALL BE BIO-STAKED TO ANCHOR IN PLACE.
- OWNER REPRESENTATIVE & CONTRACTOR SHALL MARK ANY/ALL UNIQUE ITEMS IN THE FIELD DURING SITE LAYOUT WALKTHROUGH THAT ARE TO REMAIN.
- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE.
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE.
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE.



RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE

LOCATION:
SMITH RESIDENCE
261 TWIN LAKE TRAIL

WATERSHED DISTRICT:



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

REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

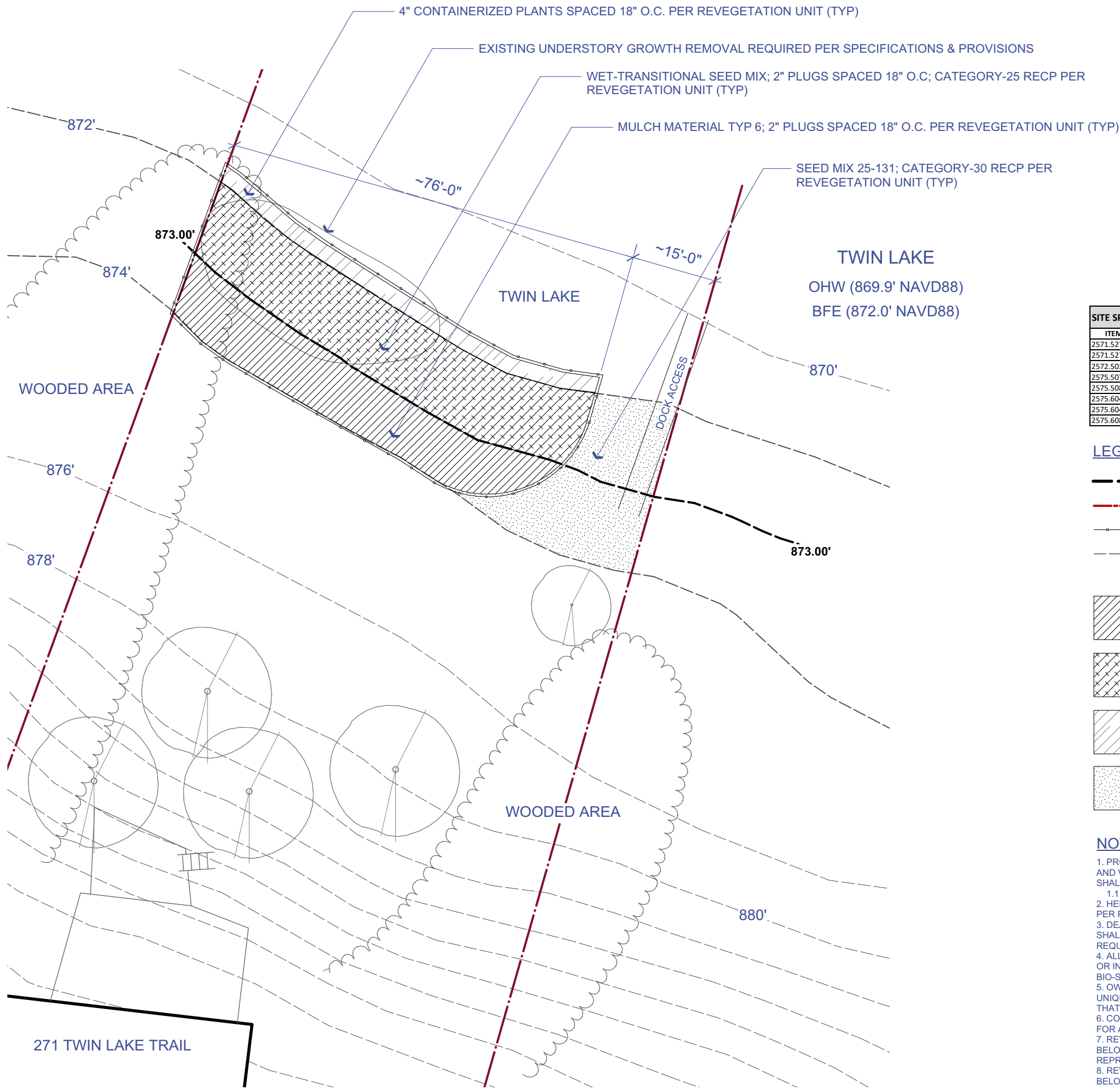
NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT



L111



SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	855
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	135
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	210
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	8
2575.508/25131	SEED MIXTURE 25-131	SF	700
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	78
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	123
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	1100


LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

- REVEGETATION UNIT-1
TOTAL AREA: +/- 800 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 1100 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 300 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 700 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
- HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS.
- DEAD TURF TO REMAIN FOR SOIL STABILIZATION. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL FACILITIES IF REQUIRED; AS APPROVED BY OWNER REPRESENTATIVE.
- ALL PLANTINGS INSTALLED BELOW WATER LINE, IN SOFT SOILS, OR IN AREAS SUBMERGED DUE TO WATER FLUCTUATIONS SHALL BE BIO-STAKED TO ANCHOR IN PLACE.
- OWNER REPRESENTATIVE & CONTRACTOR SHALL MARK ANY/ALL UNIQUE ITEMS IN THE FIELD DURING SITE LAYOUT WALKTHROUGH THAT ARE TO REMAIN
- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE



RAMSEY COUNTY

RAMSEY COUNTY SWCD

1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE
LOCATION:
LO RESIDENCE
271 TWIN LAKE TRAIL
WATERSHED DISTRICT:



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

REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

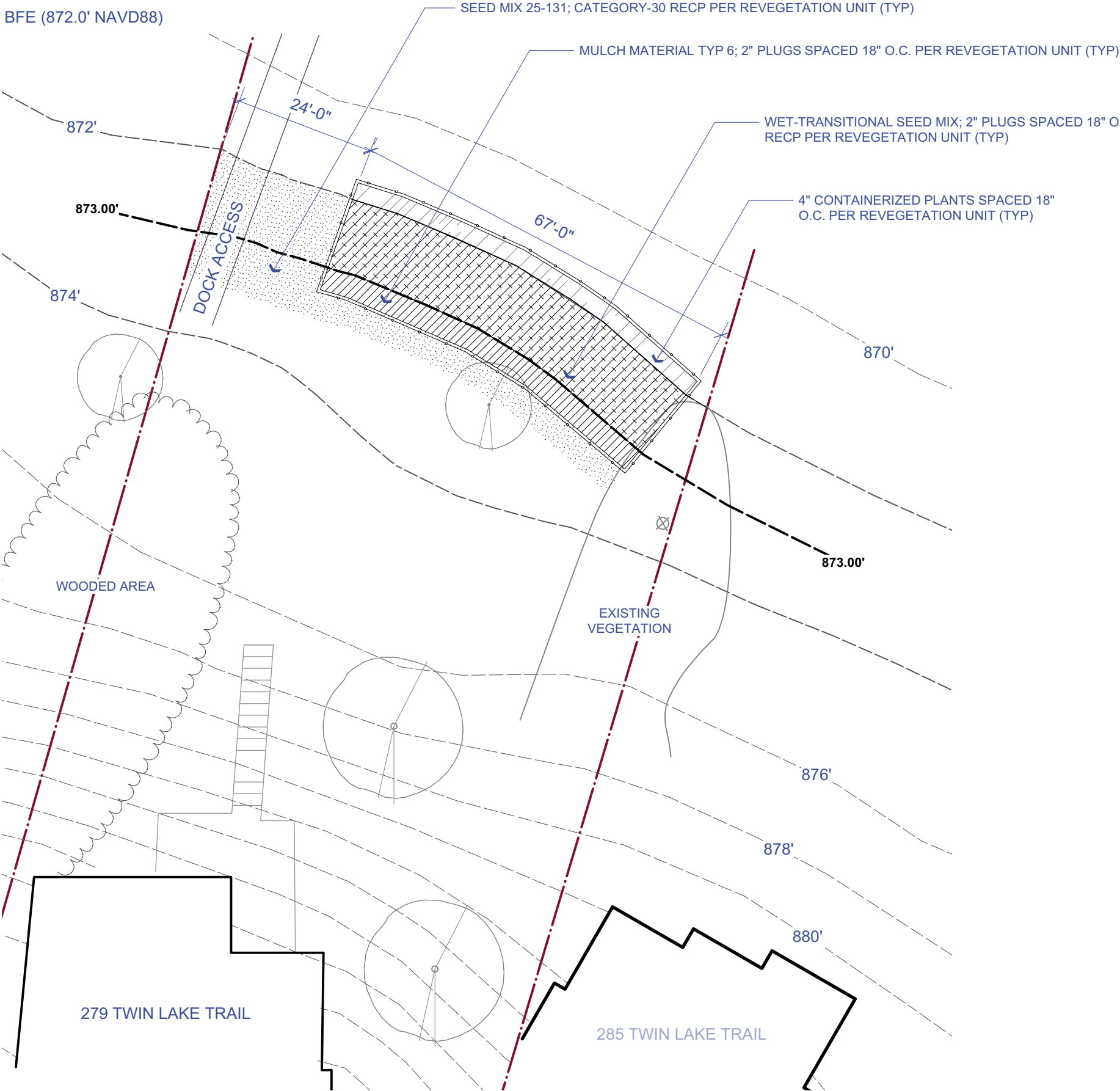
SITE LAYOUT

L112



TWIN LAKE

OHW (869.9' NAVD88)
BFE (872.0' NAVD88)



SEED MIX 25-131; CATEGORY-30 RECP PER REVEGETATION UNIT (TYP)

MULCH MATERIAL TYP 6; 2" PLUGS SPACED 18" O.C. PER REVEGETATION UNIT (TYP)

WET-TRANSITIONAL SEED MIX; 2" PLUGS SPACED 18" O.C; CATEGORY-25 RECP PER REVEGETATION UNIT (TYP)

4" CONTAINERIZED PLANTS SPACED 18" O.C. PER REVEGETATION UNIT (TYP)

SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	495
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	90
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	160
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	3
2575.508/25131	SEED MIXTURE 25-131	SF	800
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	89
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	89
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	800

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
- SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

- REVEGETATION UNIT-1
TOTAL AREA: +/- 300 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 800 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 200 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 800 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
 - 1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
- HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS.
- DEAD TURF TO REMAIN FOR SOIL STABILIZATION. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL FACILITIES IF REQUIRED; AS APPROVED BY OWNER REPRESENTATIVE.
- ALL PLANTINGS INSTALLED BELOW WATER LINE, IN SOFT SOILS, OR IN AREAS SUBMERGED DUE TO WATER FLUCTUATIONS SHALL BE BIO-STAKED TO ANCHOR IN PLACE.
- OWNER REPRESENTATIVE & CONTRACTOR SHALL MARK ANY/ALL UNIQUE ITEMS IN THE FIELD DURING SITE LAYOUT WALKTHROUGH THAT ARE TO REMAIN
- CONTRACTOR SHALL CONNECT TEMPORARY EXCLUSION FENCE FOR ALL ADJACENT PROJECTS WHERE FEASIBLE
- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE

RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE
LOCATION:
McCABE RESIDENCE
279 TWIN LAKE TRAIL
WATERSHED DISTRICT:



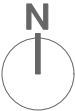
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the State of Minnesota

REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

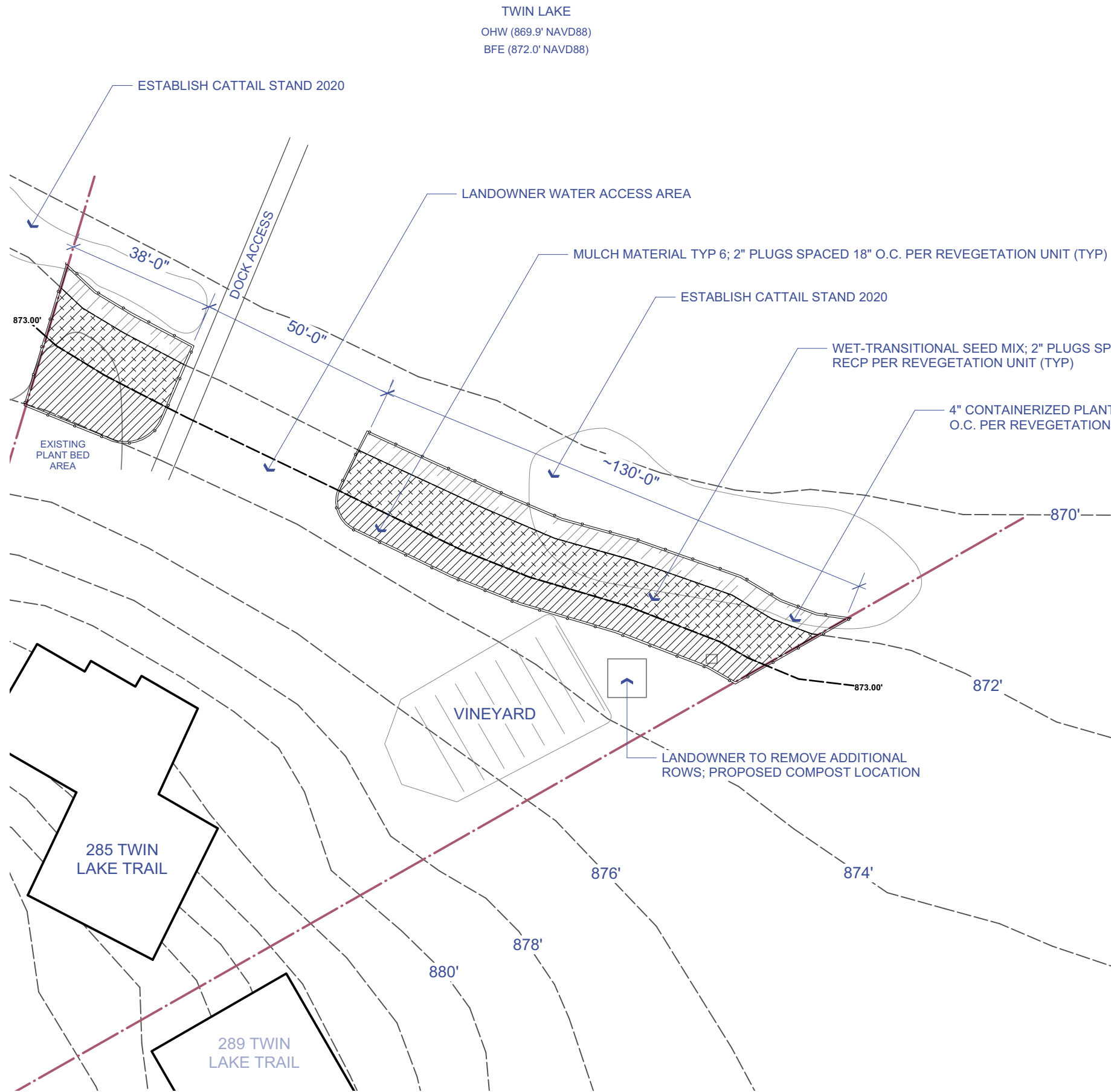
NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=20'-0"

SITE LAYOUT



L113



SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL; 2" PLUG	EA	1440
2571.527/01100	NATIVE PERENNIAL; 4" POT	EA	405
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	400
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	13
2575.508/25131	SEED MIXTURE 25-131	SF	0
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	0
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	212
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	1900

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
- SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

- REVEGETATION UNIT-1
TOTAL AREA: +/- 1300 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 1900 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 900 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 0 SF

NOTES

- PROJECT LAYOUTS & CRITICAL ELEVATIONS SHALL BE STAKED AND VERIFIED BY OWNER REPRESENTATIVE PRIOR TO START AND SHALL REMAIN STAKED THROUGHOUT PROJECT PERIOD:
 - 1.1 - B.F.E. 872.00' / 1.2 - E.O.E. 872.70' / 1.3 - 873.00' / 1.4 - 874.00'
- HERBICIDE APPLICATIONS AND SITE PREPARATION SHALL OCCUR PER PROJECT SPECIFICATIONS.
- DEAD TURF TO REMAIN FOR SOIL STABILIZATION. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL FACILITIES IF REQUIRED; AS APPROVED BY OWNER REPRESENTATIVE.
- ALL PLANTINGS INSTALLED BELOW WATER LINE, IN SOFT SOILS, OR IN AREAS SUBMERGED DUE TO WATER FLUCTUATIONS SHALL BE BIO-STAKED TO ANCHOR IN PLACE.
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- REVEGETATION UNIT-4 MATERIALS SHALL NOT BE INSTALLED BELOW B.F.E. 872.00'; OR AS APPROVED BY OWNER REPRESENTATIVE
- REVEGETATION UNIT-1 MATERIALS SHALL NOT BE INSTALLED BELOW 873.00'; OR AS APPROVED BY OWNER REPRESENTATIVE



RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE

LOCATION:
LeCLAIR-SOMMERS RESIDENCE
285 TWIN LAKE TRAIL

WATERSHED DISTRICT:



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

REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

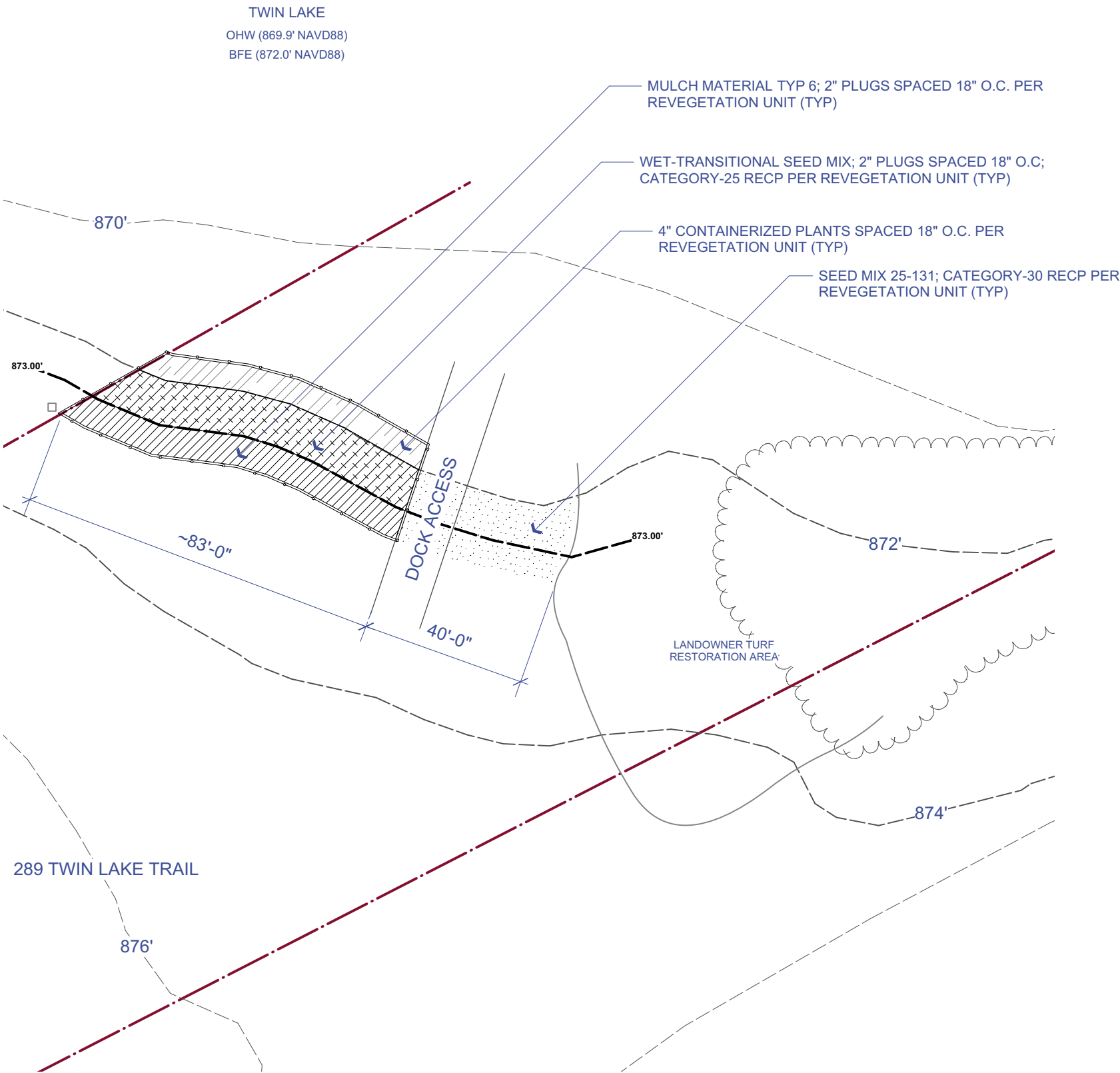
NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=30'-0"

SITE LAYOUT



L114



SITE SPECIFIC MATERIALS SCHEDULE			
ITEM NO.	SHORT DESCRIPTION	UNIT	QTY
2571.527/00053	NATIVE PERENNIAL: 2" PLUG	EA	630
2571.527/01100	NATIVE PERENNIAL: 4" POT	EA	180
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	170
2575.507/00060	MULCH MATERIAL TYP 6 (3" DEPTH)	CY	6
2575.508/25131	SEED MIXTURE 25-131	SF	700
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	78
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	89
2575.608/40000	SEED MIXTURE SPECIAL (NATIVE WET-TRANSITIONAL MIX)	SF	800

LEGEND

- 873.00' CONTOUR ELEVATION (APPROX.)
SURFACE WATER OUTFALL ELEVATION: 872.70'
- PARCEL BOUNDARY (APPROX.)
- EXCLUSION FENCE / DISTURBANCE LIMITS
- 2' CONTOUR ELEVATION (UNLESS NOTED)

- REVEGETATION UNIT-1
TOTAL AREA: +/- 600 SF
- REVEGETATION UNIT-2
TOTAL AREA: +/- 800 SF
- REVEGETATION UNIT-3
TOTAL AREA: +/- 400 SF
- REVEGETATION UNIT-4
TOTAL AREA: +/- 700 SF

NOTES

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RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
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651-266-7274
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PROJECT: TWIN LAKE SHORELINE

LOCATION:
MARTIN RESIDENCE
289 TWIN LAKE TRAIL

WATERSHED DISTRICT:



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REVISION:
Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: 1"=30'-0"

SITE LAYOUT



1

REVEGETATION UNIT-1 MASTER LIST

REVEGETATION UNIT-1: UPLAND PLANT SPECIES LIST			
Soil Moisture: Wet-Mesic / Mesic / Dry-Mesic / Dry			
Common Name	Scientific Name	Size	Remarks
Contractor to select species from list for the appropriate site conditions; field verification and approval by Owner Representative required. Install perennials 18" on center (specified per plan) in random groups (12-36 count per group); 6-12 species per site			
Grasses		2" Plug	
Side Oats Grama	Bouteloua curtipendula		
Blue Grama	Bouteloua gracilis		
Bottlebrush Grass	Elymus hystrix		
June Grass	Koeleria cristata		
Little Bluestem	Schizachyrium scoparium		
Indiangrass	Sorghastrum nutans		
Prairie Dropseed	Sporobolus heterolepis		
Sedges & Rushes			
Bicknell's Sedge	Carex bicknellii		
Plains Oval Sedge	Carex Brevior		
Field Oval Sedge	Carex Molesta		
Spreading Oval Sedge	Carex normalis		
Long-beaked Sedge	Carex sprengeii		
Path Rush	Juncus tenuis		
Forbs & Ferns			
Butterfly Milkweed	Asclepias tuberosa		
Whorled Milkweed	Asclepias verticillata		
Anise Hyssop	Agastache foeniculum		
Prairie Onion	Allium stellatum		
Wild Columbine	Aquilegia canadensis		
Butterfly Milkweed	Asclepias tuberosa		
Panicled Aster	Aster lanceolatus		
Big Leaf Aster	Aster macrophyllus		
Lady Fern	Athyrium filix-femina		
Coreopsis Palmata	Coreopsis palmata		
Tall Coreopsis	Coreopsis tripteris		
White Prairie Clover	Dalea candida		
Purple Prairie Clover	Dalea Purpureum		
Canada Tick Trefoil	Desmodium canadense		
Purple Coneflower	Echinacea purpurea		
Pale Purple Coneflower	Echinacea pallida		
Sweet Joe Pye Weed	Eupatorium purpureum		
Wild Geranium	Geranium maculatum		
Prairie Smoke	Geum triflorum		
Ox-eye Sunflower	Helioopsis helianthoides		
Rough Blazingstar	Liatris aspera		
Meadow Blazingstar	Liatris ligulistylus		
Dense Blazingstar	Liatris spicata		
Ostrich Fern	Matteuccia struthiopteris		
Virginia Bluebells	Mertensia virginiana		
Wild Bergamot	Monarda fistulosa		
Sensitive Fern	Onoclea sensibilis		
Smooth Penstemon	Penstemon digitalis		
Prairie Phlox	Phlox pilosa		
Jacobs Ladder	Polemonium reptans		
Solomon's Seal	Polygonatum canaliculatum		
Mountain Mint	Pycnanthemum virginianum		
Black-eyed Susan	Rudbeckia hirta		
Sweet Black-eyed susan	Rudbeckia subtomentosa		
Zig Zag Goldenrod	Solidago flexicaulis		
Stiff Goldenrod	Solidago rigida		
Showy Goldenrod	Solidago speciosa		
Smooth Blue Aster	Symphyotrichum laevis		
Sky Blue Aster	Symphyotrichum oolentangiensis		
Spiderwort	Tradescantia ohiensis		
Hoary Vervain	Verbena Stricta		
Culver's Root	Veronicastrum virginicum		
Heartleaf Alexanders	Zizia aptera		
Golden Alexanders	Zizia aurea		

2

REVEGETATION UNIT-2 MASTER LIST

REVEGETATION UNIT-2: WET-TRANSITIONAL PLANT SPECIES LIST			
Soil Moisture: Wet / Wet-Mesic / Mesic			
Common Name	Scientific Name	Size	Remarks
Contractor to select species from list for the appropriate site conditions; field verification and approval by Owner Representative required. Install perennials 18" on center (specified per plan) in random groups (12-36 count per group); 6-12 species per site			
Grasses		2" Plug	
Canada Blue Joint	Calamagrostis canadensis		
Sedges & Rushes			
Bebb's Sedge	Carex bebbii		
Bottlebrush Sedge	Carex comosa		
Caterpillar Sedge	Carex crinita		
Porcupine Sedge	Carex hystericina		
Lake Sedge	Carex lacustris		
Common Hop Sedge	Carex lupulina		
Pointed-Broom Sedge	Carex scoparia		
Awl Fruit Sedge	Carex stipata		
Tussock Sedge	Carex stricta		
Fox Sedge	Carex vulpinoidea		
Creeping Spikerush	Eleocharis palustris		
Soft Rush	Juncus effusus		
Green Bulrush	Scirpus atrovirens		
Forbs & Ferns			
Sweet Flag	Acorus americanus		
Water Plantain	Alisma subcordatum		
Canada Anemone	Anemone canadensis		
Swamp Milkweed	Asclepias incarnata		
Nodding Bur Marigold	Bidens cernua		
Turtlehead	Chelone glabra		
Showy Tick Trefoil	Desmodium canadense		
Joe Pye Weed	Eupatorium maculatum		
Boneset	Eupatorium perfoliatum		
Sweet Joe Pye Weed	Eupatorium purpureum		
Grass Leaf Goldenrod	Euthamia graminifolia		
Sneezeweed	Helenium Autumnale		
Great St. Johnswort	Hypericum ascyron		
Northern Blue Flag Iris	Iris versicolor		
Meadow Blazing Star	Liatris ligulistylis		
Prairie Blazing Star	Liatris pycnostachya		
Dense Blazing Star	Liatris spicata		
Cardinal Flower	Lobelia cardinalis		
Great Blue Lobelia	Lobelia siphilitica		
Monkey Flower	Mimulus ringens		
Sensitive Fern	Onoclea sensibilis		
Mountain Mint	Pycnanthemum virginianum		
Riddell's Goldenrod	Solidago ridellii		
New England Aster	Symphyotrichum novae-angliae		
Blue Vervain	Verbena Hastata		
Golden Alexanders	Zizia aurea		

3

REVEGETATION UNIT-3 MASTER LIST

REVEGETATION UNIT-3: Emergent Plant Species List			
Soil Moisture: Below Water Line / Wet			
Common Name	Scientific Name	Size	Remarks
Contractor to select species from list for the appropriate site conditions; field verification and approval by Owner Representative required. Install perennials 18" on center (specified per plan) in random groups (12-36 count per group); 3-5 species per site			
Species		4" Container	
Common Arrowhead	Sagittaria latifolia		
Hard Stem Bulrush	Scirpus acutus		
Three Square Bulrush	Scirpus pungens		
Soft Stem Bulrush	Scirpus validus		
Giant burreed	Sparganium eurycarpum		

4


REVEGETATION UNIT-2 SEED MIX

REVEGETATION UNIT-2: PERMANENT NATIVE WET-TRANSITIONAL SEED MIX				
Seeding Rate: 4 lb/acre (82.5 seeds/square foot)				
Common Name	Scientific Name	% of Mix	Seeds/Sq. Ft.	Total (PLS lb)
Grasses				
Fringed Brome	Bromus ciliatus	3.00%	0.20	0.04
Blue Joint Grass	Calamagrostis canadensis	0.50%	2.10	0.01
Fowl Bluegrass	Poa palustris	2.00%	3.80	0.02
Sedges & Rushes				
Bebb's Sedge	Carex bebbii	8.00%	4.00	0.10
Bicknell's Sedge	Carex bicknellii	6.00%	1.50	0.07
Plains Oval Sedge	Carex brevior	6.00%	2.60	0.07
Bottlebrush Sedge	Carex comosa	4.00%	1.80	0.05
Fringed Sedge	Carex crinita	4.00%	1.40	0.05
Porcupine Sedge	Carex hystericina	4.00%	1.30	0.05
Lake Sedge	Carex lacustris	1.00%	0.20	0.01
Palm Sedge	Carex muskingumensi	8.00%	3.40	0.1
Pointed-Broom Sedge	Carex scoparia	8.00%	9.90	0.10
Fox Sedge	Carex stipata	8.00%	4.00	0.10
Brown Fox Sedge	Carex vulpinoidea	8.00%	11.80	0.10
Great Spike Rush	Eleocharis palustris	1.00%	0.70	0.01
Common Rush	Juncus effusus	0.60%	8.30	0.01
Softstem Bulrush	Scirpus validus	5.00%	2.30	0.06
Green Bulrush	Scirpus atrovirens	0.50%	3.40	0.01
Three Square Rush	Scirpus pungens	5.00%	0.90	0.06
Forbs				
Sweet Flag	Acorus americanus	2.00%	0.20	0.02
Water Plantain	Alisma subcordatum	4.00%	3.50	0.05
Northern Blue Flag Iris	Iris versicolor	5.00%	0.10	0.06
Monkey Flower	Mimulus ringens	0.40%	13.50	0.01
Common Arrowhead	Saggitaria latifolia	1.00%	0.90	0.01
Giant Bur Reed	Sparganium erucarpum	5.00%	0.10	0.06

5

REVEGETATION UNIT-4 SEED MIX

REVEGETATION UNIT-4: MNDOT 25-131 LOW-MAINTENANCE TURF SEED		
Seeding Rate: 250 lb/ac		
Common Name	Scientific Name	% of Mix
Grasses		
Hard Fescue	Festuca longifolia	25.00%
Chewing Fescue	Festuca rubra var. commutate	25.00%
Creeping Red Fescue	Festuca rubra var. rubra	25.00%
Sheeps Fescue	Festuca ovina	25.00%




RAMSEY
COUNTY

RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7280
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE
LOCATION:

WATERSHED DISTRICT:



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Licensed Professional Engineer
under the Laws of the State of
Minnesota

Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

PLANT MATERIAL LISTS
& SEED MIXES

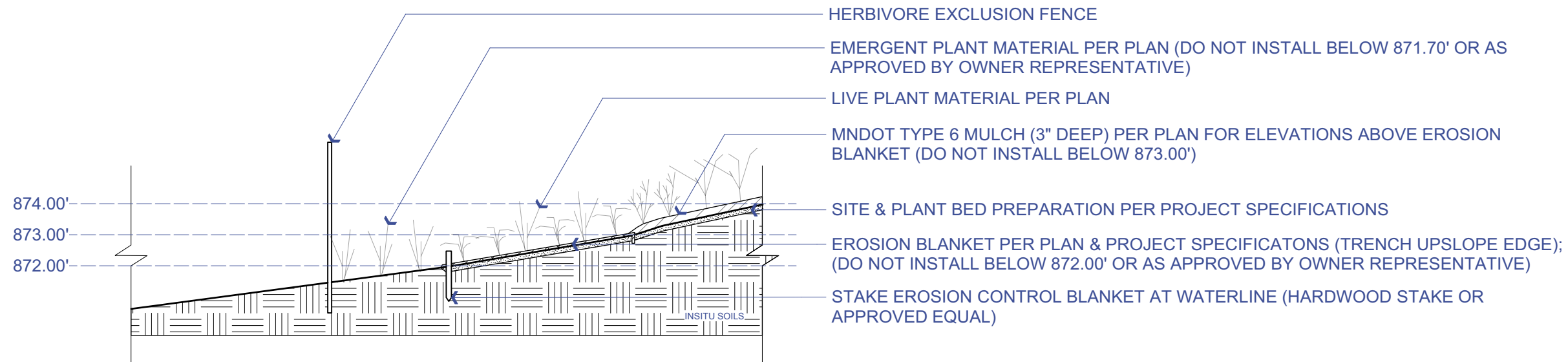
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L201

1

STANDARD SHORELINE CROSS-SECTION

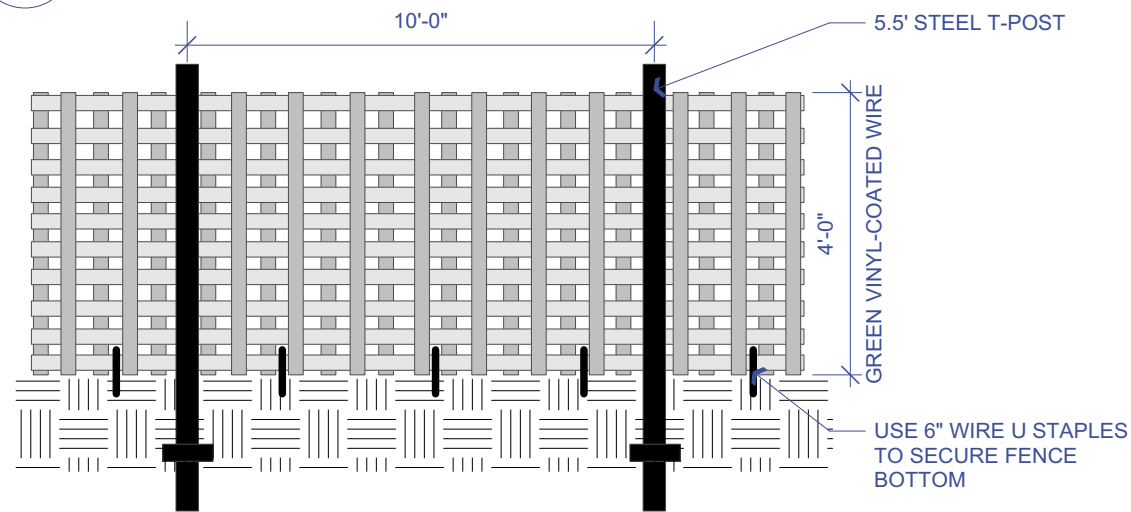
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2

HERBIVORE EXCLUSION FENCE DETAIL

NOT TO SCALE



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651-266-7280
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PROJECT: TWIN LAKE SHORELINE
LOCATION:

WATERSHED DISTRICT:



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Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:

ORIGINAL SHEET SIZE: 11" x 17"

SCALE: N/A

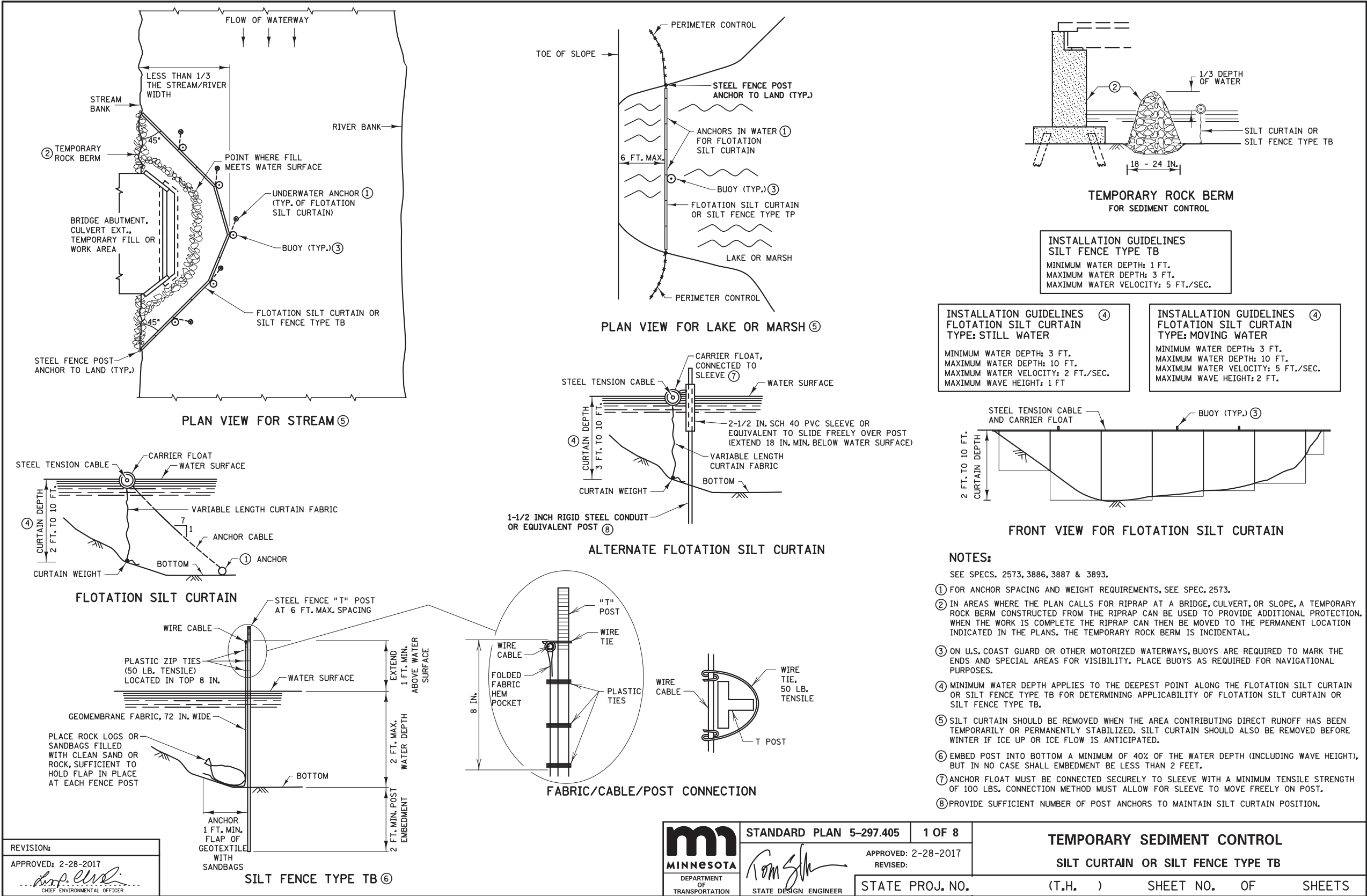
SITE DETAILS



L301

PLOTTED/REVISED: 4-APR-2018

IPLOT NAME: s405_L.spr
PATH & FILENAME: OTS\DesignStandards\Development\New Border\400_Series\s405_L.spr.dgn



PROJECT: TWIN LAKE SHORELINE
LOCATION:

WATERSHED DISTRICT:

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

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Rebecca Nestingen Reg. No. 49246

NOTES:
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SCALE: N/A

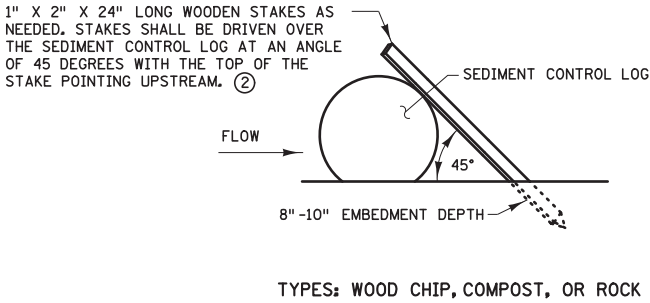
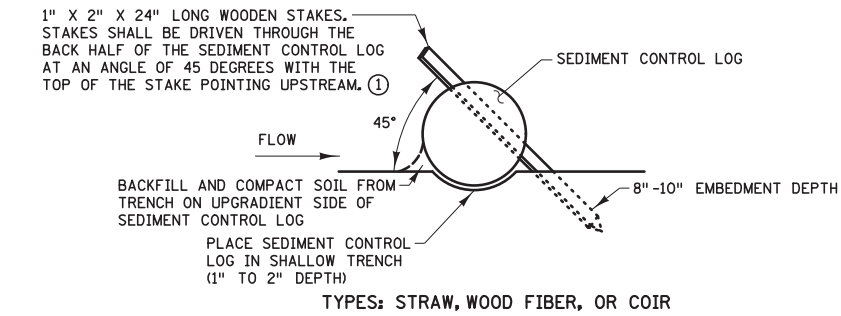
SITE DETAILS

L302

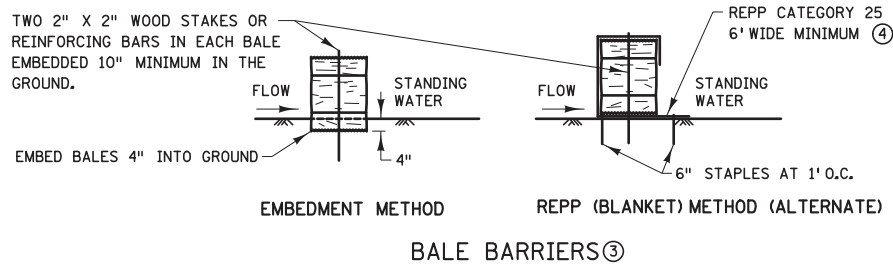
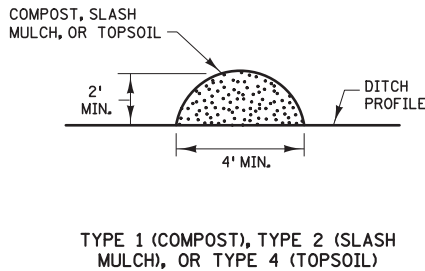
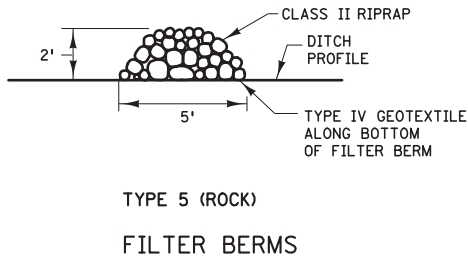
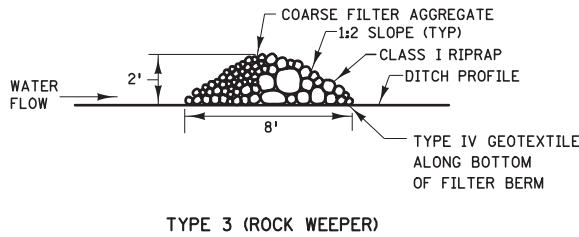


PLOTTED/REVISED: 24-JAN-2020

I/PLOT NAME: s405_2.spl
 PATH & FILENAME: OTS\DesignStandards\Development\StandardPlans\DEV400_Series\s405_2.spl.dgn



SEDIMENT CONTROL LOGS




NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

SEE SPECS. 2573, 3149, 3874, 3882, 3885, 3886, AND 3897.

- ① SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1' FOR DITCH CHECKS OR 2' FOR OTHER APPLICATIONS.
- ② PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.
- ③ TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS WHERE STANDING WATER OCCURS (6" MAXIMUM DEPTH). BALES SHALL CONSIST OF TYPE 1 MULCH OF APPROXIMATELY 14" X 18" X 36" LONG. BALES SHALL BE PLACED ON EDGE AND BUTTED TIGHT TO ADJACENT BALES.
- ④ INSTEAD OF TRENCHING, PLACE BALE ON THE REPP (BLANKET) AND WRAP BLANKET AROUND THE BALE. PLACE STAKE THROUGH BALE AND BLANKET.

	STANDARD PLAN 5-297.405	2 OF 8	TEMPORARY SEDIMENT CONTROL	
	APPROVED: 1-8-2020 REVISED:		FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS	
	STATE PROJ. NO.	(T.H.)	SHEET NO.	OF SHEETS

SITE DETAILS



L303



RAMSEY
COUNTY

RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7280
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE
 LOCATION:

WATERSHED DISTRICT:



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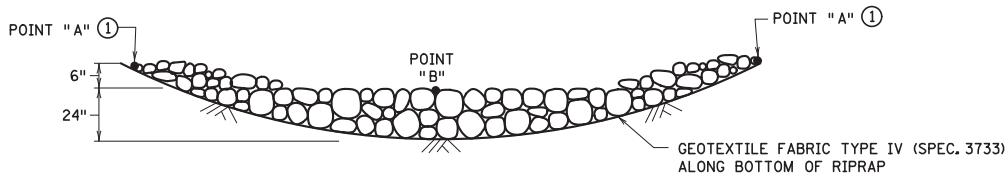
Rebecca Nestingen Date: 03/12/21
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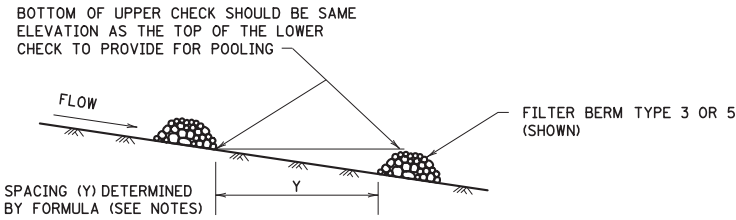
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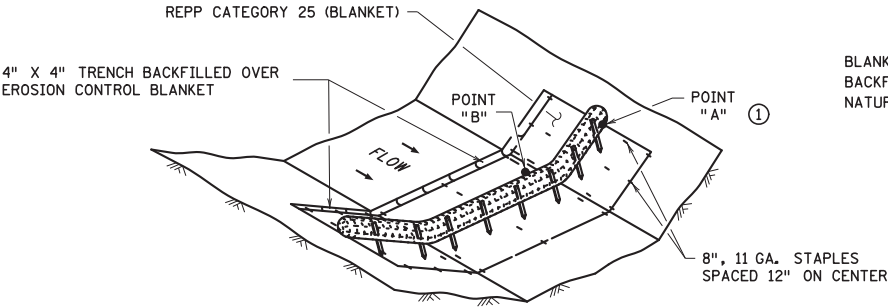
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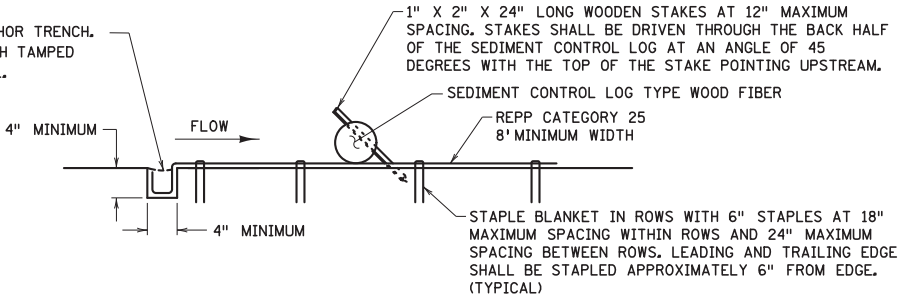
ROCK DITCH CHECKS
FILTER BERMS TYPE 3 (ROCK WEEPER) OR FILTER TYPE 5 (ROCK) ③
FOR USE ON ROUGH-GRADED AREAS
ONLY FOR USE OUTSIDE CLEAR ZONE ②



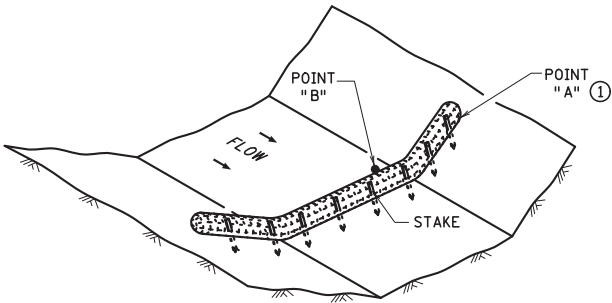
DITCH CHECK SPACING
FOR ALL FILTER BERM TYPES



BLANKET ANCHOR TRENCH.
BACKFILL WITH TAMPED
NATURAL SOIL.



SEDIMENT CONTROL LOG TYPE REPP (BLANKET) SYSTEM ④



SEDIMENT CONTROL LOG TYPE WOOD FIBER, OR TYPE COMPOST ⑤
FOR USE ON ROUGH GRADED AREAS

NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.

FOR DITCH CHECKS, PLACE SEDIMENT CONTROL LOG PERPENDICULAR TO FLOW AND IN A CRESCENT SHAPE WITH THE ENDS FACING UPSTREAM.

APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

APPROXIMATE SPACING OF DITCH CHECKS (FT.) = $Y = \frac{\text{DITCH CHECK HEIGHT (FT.)}}{\% \text{ CHANNEL SLOPE}} \times 100$

① POINT "A" MUST BE A MINIMUM OF 6" HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

② ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE ARE TO BE 18" OR LESS IN HEIGHT. A 1:6 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

③ DITCH GRADE 3% - 5%, MAX. FLOW VELOCITY 12 FT./SEC.

④ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 4.5 FT./SEC.

⑤ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 1.5 FT./SEC.

REVISION:

APPROVED: JANUARY 8, 2020

Marni Karnowski
MARNI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER



STANDARD PLAN 5-297.405

3 OF 8

Tom Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

APPROVED: 1-8-2020

REVISED:

TEMPORARY SEDIMENT CONTROL

DITCH CHECK

STATE PROJ. NO.

(T.H.)

SHEET NO.

OF

SHEETS



RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7280
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE
LOCATION:

WATERSHED DISTRICT:



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

Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

NOTES:

ORIGINAL SHEET SIZE: 11" x 17"

SCALE: N/A

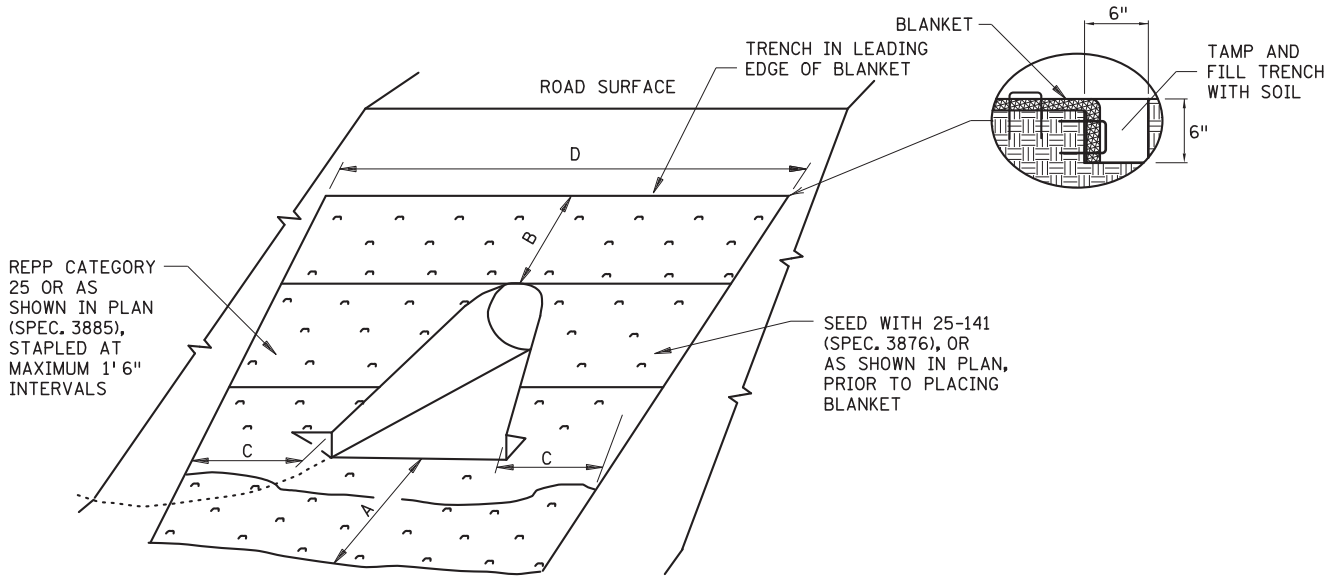
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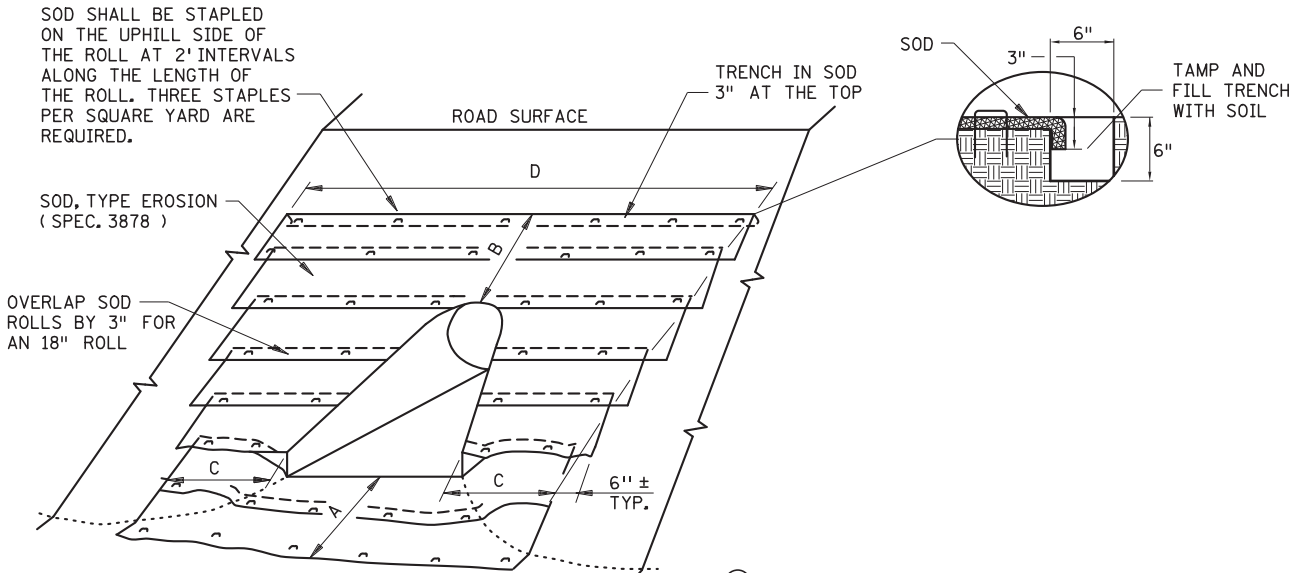
L304

PLOTTED/REVISED: 24-JAN-2020

IPLOT NAME: s404_2.spl
 PATH & FILENAME: OTS\DesignStandards\Development\StandardPlans\DEV\400_Series\s404_2.spl.dgn



ROLLED EROSION PREVENTION PRODUCT (BLANKET) & SEED DETAIL



SODDING DETAIL

- ① ADDITIONAL QUANTITIES MAY BE SHOWN IN THE PLAN OR REQUIRED BY THE ENGINEER.
 ② FOR ARCH PIPE USE CLOSEST CIRCULAR PIPE DIAMETER AND APRON SLOPE. DIAMETERS LARGER THAN 72" REQUIRE SPECIAL DESIGNS.

CULVERT INLET APRON ①										
CULVERT DIAMETER ②	SOD OR REPP (SQ. YDS.)						"A"	"B"	"C"	"D"
	CIRCULAR AND ARCH PIPE METAL APRON (PLATE 3123, PLATE 3122)	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3100, PLATE 3110)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:4 SLOPE (PLATE 3148)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:6 SLOPE (PLATE 3148)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:6 SLOPE (PLATE 3128)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:4 SLOPE (PLATE 3128)				
15"	9	9	8	8	N/A	N/A	3'	1.5'	3'	13'
18"	13	12	12	14	16	N/A	3'	3'	3'	16'
21"	14	14	14	16	18	14	3'	3'	3'	17'
24"	16	15	16	19	21	17	3'	3'	3'	18'
27"	N/A	20	N/A	N/A	N/A	N/A	3'	4.5'	3'	20'
30"	23	22	25	30	32	N/A	3'	4.5'	3'	22'
36"	34	34	39	48	51	37	4.5'	4.5'	4.5'	27'
42"	43	40	51	64	N/A	N/A	4.5'	6'	4.5'	30'
48"	54	50	66	82	N/A	N/A	4.5'	7.5'	4.5'	34'
54"	65	58	81	102	N/A	N/A	4.5'	9'	4.5'	37'
60"	69	59	91	115	N/A	N/A	4.5'	9'	4.5'	39'
66"	69	63	N/A	N/A	N/A	N/A	4.5'	9'	4.5'	39'
72"	78	72	99	122	N/A	N/A	4.5'	10.5'	4.5'	41'

CULVERT OUTLET APRON①										
CULVERT DIAMETER ②	SOD OR REPP (SQ. YDS.)						"A"	"B"	"C"	"D"
	CIRCULAR AND ARCH PIPE METAL APRON (PLATE 3123, PLATE 3122)	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3100, PLATE 3110)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:4 SLOPE (PLATE 3148)	CIRCULAR AND ARCH PIPE METAL SAFETY APRON 1:6 SLOPE (PLATE 3148)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:6 SLOPE (PLATE 3128)	CIRCULAR CORRUGATED METAL PIPE SAFETY APRON 1:4 SLOPE (PLATE 3128)				
15"	10	10	9	10	N/A	N/A	4.5'	1.5'	3'	13'
18"	13	13	12	14	15	N/A	6'	1.5'	3'	14'
21"	16	14	16	18	19	15	6'	1.5'	3'	15'
24"	18	18	18	21	22	18	7.5'	1.5'	3'	16'
27"	N/A	19	N/A	N/A	N/A	N/A	7.5'	1.5'	3'	17'
30"	23	23	24	28	29	N/A	9'	1.5'	3'	18'
36"	36	35	38	47	48	37	10.5'	1.5'	4.5'	23'
42"	43	40	47	58	N/A	N/A	12'	1.5'	4.5'	25'
48"	50	46	57	70	N/A	N/A	13.5'	1.5'	4.5'	27'
54"	57	50	67	84	N/A	N/A	15'	1.5'	4.5'	29'
60"	74	63	90	113	N/A	N/A	16.5'	1.5'	6'	33'
66"	75	67	N/A	N/A	N/A	N/A	16.5'	1.5'	6'	33'
72"	77	70	92	114	N/A	N/A	16.5'	1.5'	6'	34'

NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

AREA SHOWN IN SQUARE YARDS IS FOR ONE CULVERT END.

QUANTITIES ARE CALCULATED TO INCLUDE SOD REQUIRED TO PROVIDE A 3" OVERLAP ON ALL 18" WIDE ROLLS. THIS ALLOWS FOR SHRINKAGE OF THE SOD.

FOR PIPE ARCHES USE EQUIVALENT PIPE DIAMETER TO APPROXIMATE AREA.

FOR CORRUGATED POLYETHYLENE PIPE METAL APRON (PLATE 3129), USE THE METAL APRON COLUMN (PLATE 3123).

AREAS AND DIMENSIONS ARE APPROXIMATE AND ARE BASED ON APRON SIDE SLOPES OF NO STEEPER THAN 1:2, UNLESS INDICATED AS FOR SAFETY APRONS.

CARE SHOULD BE TAKEN IN SELECTING SOD TO STABILIZE THE APRON. RIP-RAP SHOULD BE USED FOR FLOW VELOCITIES GREATER THAN 6 FPS.

REVISION:

APPROVED: JANUARY 8, 2020

 MARNI KARROWSKI
 CHIEF ENVIRONMENTAL OFFICER

STANDARD PLAN 5-297.404

2 OF 3

PERMANENT EROSION CONTROL
 TURF ESTABLISHMENT DETAIL AT CULVERT ENDS

APPROVED: 1-8-2020
 REVISED:

THOMAS STYRBICKI
 STATE DESIGN ENGINEER

STATE PROJ. NO.

(T.H.)

SHEET NO. OF SHEETS

RAMSEY COUNTY SWCD
 1425 PAUL KIRKWOLD DR
 ARDEN HILLS, MN 55112
 651-266-7280
 www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE
 LOCATION:

WATERSHED DISTRICT:

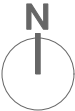
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the State of Minnesota

Rebecca Nestingen Date: 03/12/21
 Rebecca Nestingen Reg. No. 49246

NOTES:
 ORIGINAL SHEET SIZE: 11" x 17"

SCALE: N/A

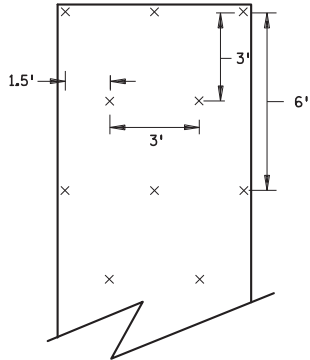
SITE DETAILS



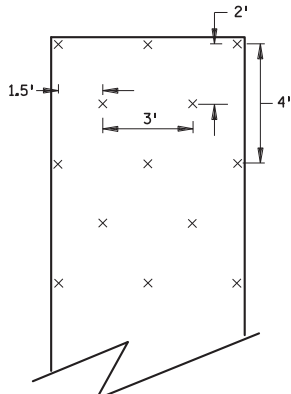
L305

PLOTTED/REVISED: 24-JAN-2020

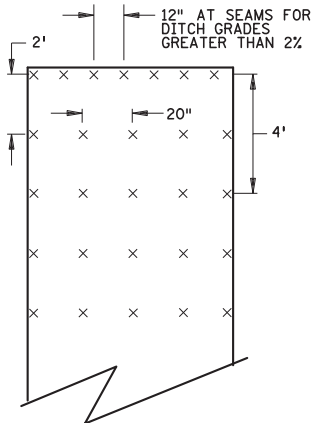
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SLOPES FLATTER THAN 1:2
120 STAPLES PER 100 SQ YD

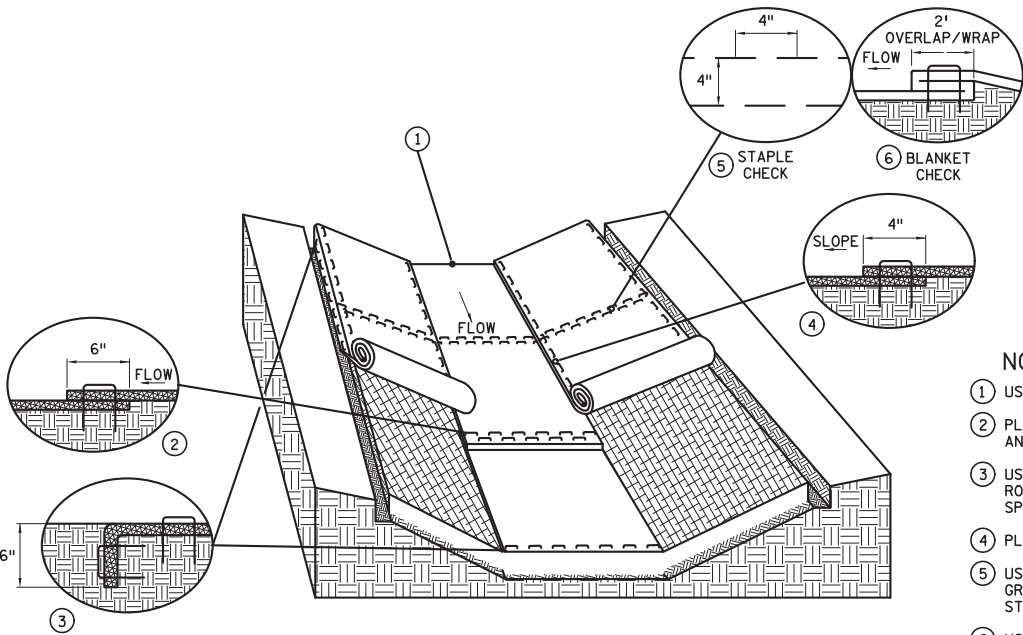


SLOPES 1:2 TO 1:1
170 STAPLES PER 100 SQ YD

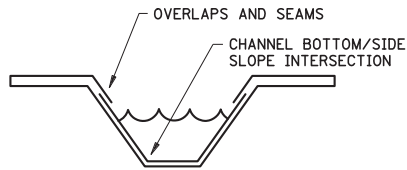


CHANNEL AND DITCH APPLICATIONS
350 STAPLES PER 100 SQ YD

BLANKET STAPLE PATTERN



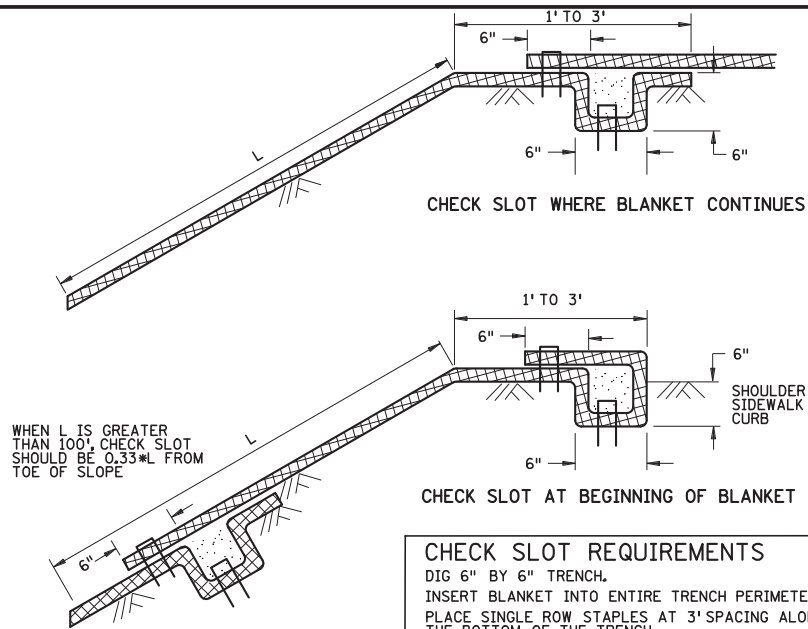
DITCH BLANKET STAPLE DETAIL



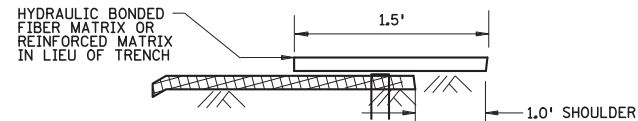
DITCH BLANKET CRITICAL POINTS ⑦

NOTES:

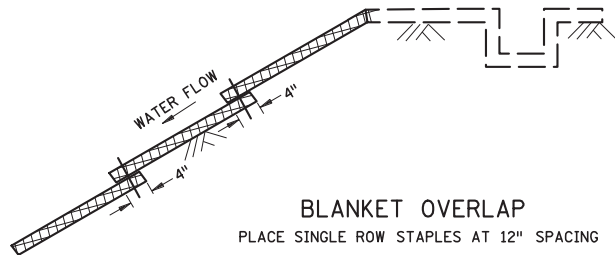
- ① USE CHECK SLOT DETAIL (NO ALTERNATES).
- ② PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER.
- ③ USE 6" X 6" TRENCH TO PLACE BLANKET. PLACE SINGLE ROW OF STAPLES ON TOP AND TRENCH SIDES AT 12" SPACING. BACKFILL TRENCH WITH SOIL AND TAMP.
- ④ PLACE SINGLE ROW OF STAPLES AT 12" SPACING.
- ⑤ USE STAPLE CHECK FOR CHANNEL SLOPES LESS THAN 2.5%. GRADE AT 100' INTERVALS. PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND AT 4" SPACING.
- ⑥ USE BLANKET CHECKS FOR THE FOLLOWING SLOPES:
2.5%-3% 100' INTERVALS
3%-5% 50' INTERVALS
5%-7% 25' INTERVALS
- ⑦ CRITICAL POINTS SHALL BE SECURED WITH PROPER STAPLE PATTERNS.



CHECK SLOT REQUIREMENTS
DIG 6" BY 6" TRENCH.
INSERT BLANKET INTO ENTIRE TRENCH PERIMETER.
PLACE SINGLE ROW STAPLES AT 3' SPACING ALONG THE BOTTOM OF THE TRENCH.
BACKFILL TRENCH WITH SOIL AND TAMP.
PLACE SINGLE ROW STAPLES AT 3' SPACING ON OVERLAP.



CHECK SLOT ALTERNATIVE
PLACE SINGLE ROW STAPLES AT 12" SPACING
CHECK SLOT DETAILS



BLANKET OVERLAP
PLACE SINGLE ROW STAPLES AT 12" SPACING

GENERAL BLANKET INSTALLATION REQUIREMENTS
REPP = ROLLED EROSION PREVENTION PRODUCT.
PREPARE SOIL AS PER SPECIFICATION 2574.
LAY PARALLEL OR PERPENDICULAR TO THE DIRECTION OF WATER FLOW.
OVERLAP ADJACENT STRIP EDGES A MINIMUM OF 4".
OVERLAP BLANKET 6" (MINIMUM) AT EACH END. OVERLAP BOTTOM END OF UPPER BLANKET OVER TOP END OF LOWER BLANKET. STAPLE ALONG OVERLAP EVERY 1.5'.
THE UPPERMOST BLANKET OF ALL SLOPE APPLICATIONS MUST START IN A CHECK SLOT. IF SLOPE LENGTH (L) IS 100' OR GREATER, INSERT BLANKET INTO A CHECK SLOT 1/3 FROM THE BOTTOM OF THE SLOPE.

REVISION:
APPROVED: JANUARY 8, 2020
<i>Mari Karnowski</i>
MARI KARNOWSKI
CHIEF ENVIRONMENTAL OFFICER

m MINNESOTA DEPARTMENT OF TRANSPORTATION	STANDARD PLAN 5-297.404 <i>Tom Styrbicki</i> THOMAS STYRBICKI STATE DESIGN ENGINEER	3 OF 3 APPROVED: 1-8-2020 REVISED:	PERMANENT EROSION CONTROL REPP (BLANKET) STAPLE PATTERN FOR SLOPES (T.H.) SHEET NO. OF SHEETS
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RAMSEY COUNTY
RAMSEY COUNTY SWCD
1425 PAUL KIRKWOLD DR
ARDEN HILLS, MN 55112
651-266-7280
www.ramseycounty.us

PROJECT: TWIN LAKE SHORELINE
LOCATION:

WATERSHED DISTRICT:
RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

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

Rebecca Nestingen Date: 03/12/21
Rebecca Nestingen Reg. No. 49246

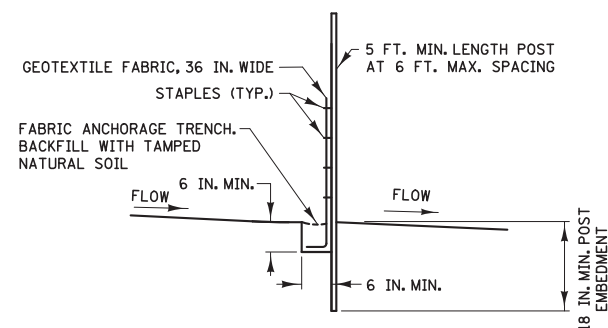
NOTES:
ORIGINAL SHEET SIZE: 11" x 17"

SCALE: N/A

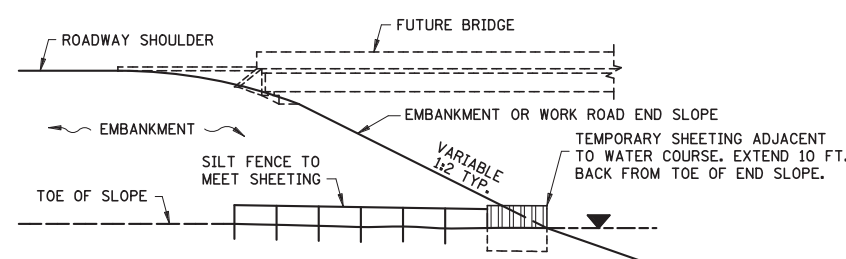
SITE DETAILS



L306

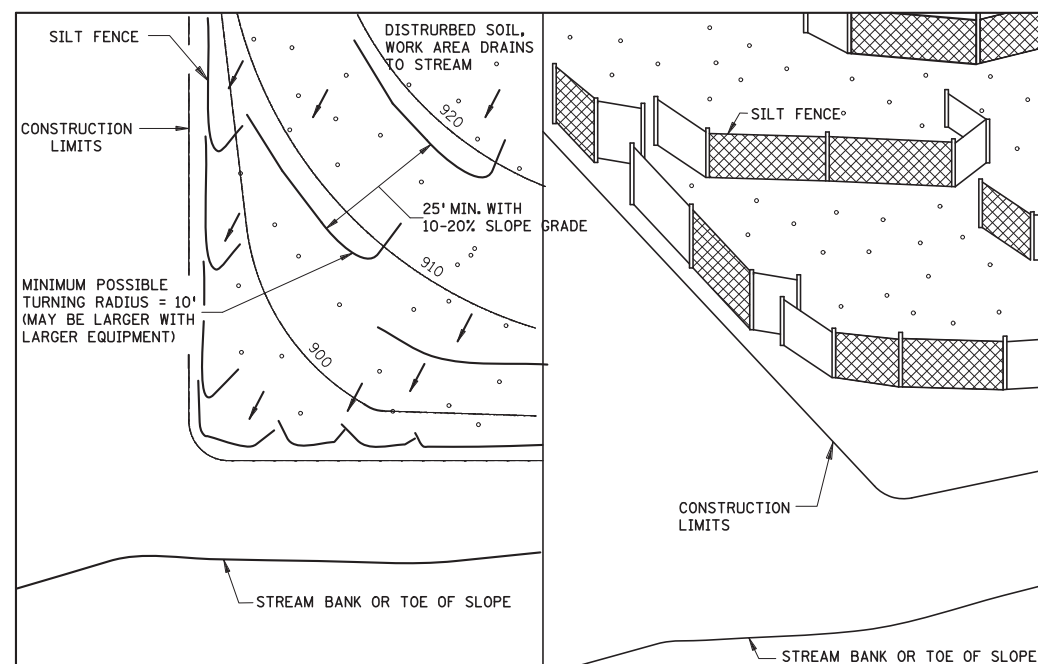


SILT FENCE TYPE PA ③
(PREASSEMBLED)



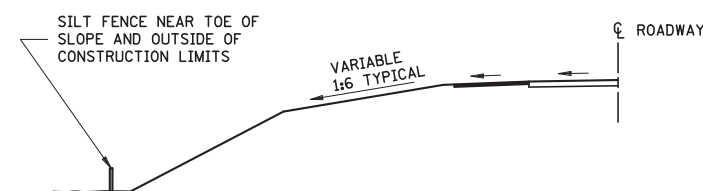
SILT FENCE WITH SHEETING ⑥

INSTALLATION AT BRIDGE EMBANKMENT ADJACENT TO WATER



PERSPECTIVE VIEW

J-HOOK INSTALLATION



LOCATION AT TOE OF ROADWAY EMBANKMENT


NOTES:

SEE SPECS. 2573, 3149 & 3886.



- ① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.
- ② TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 1 ACRE.
- ③ TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.
- ④ WATER COURSE FLOW VELOCITY: STANDING.
CONTRIBUTING SLOPE AREA: 1/2 ACRE.
- ⑤ WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC.
CONTRIBUTING SLOPE AREA: 1 ACRE.
- ⑥ WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC.
CONTRIBUTING SLOPE AREA: 3 ACRES.

REVISION:

APPROVED: 2-28-2017



CHIEF ENVIRONMENTAL OFFICER

 MINNESOTA DEPARTMENT OF TRANSPORTATION	STANDARD PLAN 5-297.405	6 OF 8	TEMPORARY SEDIMENT CONTROL SILT FENCE			
	 STATE DESIGN ENGINEER	APPROVED: 2-28-2017 REVISED:	STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS			

SITE DETAILS



L307

Exhibit C: Bid Form

BID FORM
TWIN LAKE SHORELINE RESTORATION
LITTLE CANADA, MN

THIS BID FOR: TWIN LAKE SHORELINE RESTORATION

IS SUBMITTED (VIA EMAIL) TO:

Attn: Paige Ahlborg (paige.ahlborg@rwmwd.org)

c/o Ramsey Washington Metro Watershed District

Little Canada, MN 55117

ARTICLE 1

1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with Owner in the procedure included in the Bidding Documents; to perform and furnish all Work as specified or indicated in the Bidding Documents for the Contract Price and within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and Contract Agreement as specified with the Owner.

ARTICLE 2

2.01 In submitting this Bid, Bidder represents, as more fully set forth in the Contract Documents, and incorporated into the Agreement by reference, that:

- A. Bidder has examined copies of all the Bidding Documents and of the following Addenda (receipt of all of which is hereby acknowledged):

No.	Date	Addendum Number	Signature
1			
2			
3			

- B. The contractor installing the shoreline restoration shall have experience in installing and maintaining similar projects and shall meet the qualification requirements described in Section A-7 of the General Conditions and Requirements of the Specifications and Project Provisions to Bidders.
- C. Bidder understands that the Work must be substantially complete by the date indicated in the Contract Documents; Specifications and Project Provisions to Bidders.
- D. Bidder understands that Owner has limited funds for the project, and that alternates may be eliminated from the Contract based on Bids.

- E. Bidder has familiarized himself/herself with the nature and extent of the Bidding Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- F. Bidder has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, studies, and drawings which pertain to the surface and subsurface or physical conditions at the site or otherwise may affect the cost, progress, performance or furnishing of the Work as Bidder considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, explorations, tests, reports or similar information or data are or will be required by Bidder for such purposes.
- G. Bidder has reviewed and checked all information and data with respect to existing Underground Facilities and Utilities at or contiguous to the site whether shown or indicated, or not shown or indicated, on the Drawings and Bidder assumes full responsibility for the accurate location of said Underground Facilities and Utilities prior to the performance of all elements of the Work. No additional examinations, investigations, explorations, tests, reports or similar information or data in respect of said Underground Facilities and Utilities are or will be required by Bidder in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents.
- H. Bidder has correlated the results of all such observations, examinations, investigations, explorations, tests, reports, studies, and drawings with the terms and conditions of the Bidding Documents.
- I. Bidder has given Owner and Owner Representative written notice of all conflicts, errors or discrepancies that it has discovered in the Bidding Documents and the written resolution thereof by Owner and Owner Representative is acceptable to Bidder.
- J. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding.
- K. This Bid has been arrived at the Bidder independently, and has been submitted without collusion with, and without any agreement, understanding, or planned common course of action with any other Bidder or vendor of materials, supplies, equipment or services described in the Bidding Documents designed to, or acting to, limit independent bidding or competition.
- L. This Bid has not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any Bond furnished with the Bid, and will not be communicated to any such person prior to the opening of the Bid.

ARTICLE 3

- 3.01 Bidder will complete the Work for the following price(s) as referenced in Section A for Unit Price, Measurement and Payment of the Specifications:

- A. BID ITEMS

Item Number	Short Description	Unit Name	Spec Year	Estimated Quantity	Unit Price	Item Cost
2011.601/00003	CONSTRUCTION SURVEYING	LS	18	1.00		
2021.501/00010	MOBILIZATION	LS	18	1..00		
2101.524/00040	CLEARING	TREE	18	4.00		
2101.505/00020	CLEARING	AC	18	0.08		
2101.524/00040	GRUBBING	TREE	18	1.00		
2571.527/00053	PERENNIAL 2" PLUG	PLT	18	11,820.00		
2571.527/01100	PERENNIAL 4" CONT	PLT	18	2,030.00		
2572.503/00020	TEMPORARY EXCLUSION FENCE	LF	18	3,550.00		
2573.501/00025	STABILIZED CONSTRUCTION EXIT	LS	18	1.00		
2573.503/00024	SILT FENCE; TYPE TB	LF	18	72.00		
2573.503/00063	SEDIMENT CONTROL LOG TYPE WOOD CHIP	LF	18	72.00		
2574.505/00010	SUBSOILING	AC	18	0.50		
2574.505/00020	SOIL BED PREPARATION	AC	18	0.50		
2575.501/00020	TURF ESTABLISHMENT	LS	18	1.00		
2575.505/00021	SEEDING	AC	18	0.50		
2575.505/00035	MOWING	AC	18	0.50		
2575.505/00040	WEED SPRAYING	AC	18	0.65		
2575.507/00060	MULCH MATERIAL TYPE 6	CY	18	153.00		
2575.508/25131	SEED MIXTURE 25-131	LB	18	34.00		
2575.508/21111	SEED MIXTURE 21-111	LB	18	30.00		
2575.602/00700	SITE RESTORATION	EA	18	15.00		
2575.604/01225	ROLLED EROSION PREVENTION CATEGORY 25	SY	18	1330.00		
2575.604/01130	ROLLED EROSION PREVENTION CATEGORY 30	SY	18	740.00		
2575.608/40000	SEED MIXTURE SPECIAL	LB	18	2.00		
M-2022	2022 ANNUAL MAINTENANCE	LS		1.00		
M-2023	2023 ANNUAL MAINTENANCE	LS		1.00		
Project Subtotal						

TOTAL OF EXTENSIONS

(in words) _____ U.S. Dollars (\$ _____)

3.02 Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) Estimated

quantities are not guaranteed, and are solely for the purpose of comparison of Bids. Final payment for all unit price Bid items will be based on actual quantities of work performed as determined in accordance with the Contract Documents.

ARTICLE 4

4.01 Bidder agrees that the entire Work will be substantially complete and completed and ready for final payment in accordance with the Owner, and within the number of calendar days, or by the date, provided in the Specifications and Project Provisions.

4.02 Bidder accepts the provisions of the Bidding Documents as to liquidate damages in the event of failure to complete the Work on time.

ARTICLE 5

5.01 Bidder understands and agrees that Owner reserves the right to reject any or all Bids and to waive formalities. It is further understood and agreed that this Bid may not be withdrawn within forty-five (45) calendar days following opening of Bids.

ARTICLE 6

6.01 The terms used in this Bid which are defined in the other Contract Documents have the meanings assigned to them in the Contract Documents.

ARTICLE 7

7.01 Communications concerning this Bid shall be addressed to the address of Bidder indicated below.

This Bid is submitted by:

Company Name:

By (Typed or Printed):

Signature:

Title:

Official Address:

Phone:

() _____

Federal Tax I.D. No.

Date:

ATTACHMENT A

RESPONSIBLE CONTRACTOR AND CERTIFICATION OF COMPLIANCE

PROJECT TITLE: TWIN LAKE SHORELINE RESTORATION PROJECT

Minn. Stat. §16.285, Subd., 7, **IMPLEMENTATION.** any prime contractor or subcontractor that does not meet the minimum criteria in subdivision 3 or fails to verify it meets those criteria is not a responsible contractor and is not eligible to be awarded a construction contract for the project or to perform work on the project.

Minn. Stat. §16.285, Subd. 3. **RESPONSIBLE CONTRACTOR, MINIMUM CRITERIA.** “Responsible contractor” means a contractor that conforms to the responsibility requirements in the solicitation document for its portion of the work on the project and verifies that it meets the following minimum criteria:

1. The Contractor:
 - a. is in compliance with workers' compensation and unemployment insurance requirements;
 - b. is currently registered with the Department of Revenue and the Department of Employment and Economic Development if it has employees;
 - c. has a valid federal tax identification number or a valid Social Security number if an individual; and
 - d. has filed a certificate of authority to transact business in Minnesota with the secretary of state if a foreign corporation or cooperative.
2. The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 177.24, 177.25, 177.41 to 177.44, 181.13, 181.14, or 181.722, and has not violated United States Code, title 29, sections 201 to 219, or United States Code, title 40, sections 3141 to 3148. For purposes of this clause, a violation occurs when a contractor or related entity:
 - a. repeatedly fails to pay statutorily required wages or penalties on one or more separate projects for a total underpayment of \$25,000 or more within the three-year period;
 - b. has been issued an order to comply by the commissioner of labor and industry that has become final;
 - c. has been issued at least two determination letters within the three-year period by the Department of Transportation finding an underpayment by the contractor or related entity to its own employees;
 - d. has been found by the commissioner of labor and industry to have repeatedly or willfully violated any of the sections referenced in this clause pursuant to section 177.27;
 - e. has been issued a ruling or findings of underpayment by the administrator of the Wage and Hour Division of the United States Department of Labor that have become final or have been upheld by an administrative law judge or the Administrative Review Board; or
 - f. has been found liable for underpayment of wages or penalties or misrepresenting a construction worker as an independent contractor in an action brought in a court having jurisdiction. Provided that, if the contractor or related entity contests a determination of underpayment by the Department of Transportation in a contested case proceeding, a violation does not occur until the contested case proceeding has concluded with a determination that the contractor or related entity underpaid wages or penalties.

3. The contractor or related entity is in compliance with and, during the three-year period before submitting the verification, has not violated section 181.723 or chapter 326B. For purposes of this clause, a violation occurs when a contractor or related entity has been issued a final administrative or licensing order.
4. The contractor or related entity has not, more than twice during the three-year period before submitting the verification, had a certificate of compliance under section 363A.36 revoked or suspended based on the provisions of section 363A.36, with the revocation or suspension becoming final because it was upheld by the Office of Administrative Hearings or was not appealed to the office.
5. The contractor or related entity has not received a final determination assessing a monetary sanction from the Department of Administration or Transportation for failure to meet targeted group business, disadvantaged business enterprise, or veteran-owned business goals, due to a lack of good faith effort, more than once during the three-year period before submitting the verification.
6. The contractor or related entity is not currently suspended or debarred by the federal government or the state of Minnesota or any of its departments, commissions, agencies, or political subdivisions; and
7. All subcontractors that the contractor intends to use to perform project work have verified to the contractor through a signed statement under oath by an owner or officer that they meet the minimum criteria listed in clauses (1) to (6).

Minn. Stat. 1§16.285, Subd. 5. **SUBCONTRACTOR VERIFICATION.** A prime contractor or subcontractor shall include in its verification of compliance under subdivision 4 a list of all of its first-tier subcontractors that it intends to retain for work on the project.

If a prime contractor or any subcontractor retains additional subcontractors on the project after submitting its verification of compliance, the prime contractor or subcontractor shall obtain verifications of compliance from each additional subcontractor with which it has a direct contractual relationship and shall submit a supplemental verification confirming compliance with subdivision 3, clause (7), within 14 days of retaining the additional subcontractors.

A prime contractor shall submit to the contracting authority upon request copies of the signed verifications of compliance from all subcontractors of any tier pursuant to subdivision 3, clause (7). A prime contractor and subcontractors shall not be responsible for the false statements of any subcontractor with which they do not have a direct contractual relationship. A prime contractor and subcontractors shall be responsible for false statements by their first-tier subcontractors with which they have a direct contractual relationship only if they accept the verification of compliance with actual knowledge that it contains a false statement.

Minn.Stat. §16.285, Subd. 4. **VERIFICATION OF COMPLIANCE.** A contractor responding to a solicitation document of a contracting authority shall submit to the contracting authority a signed statement under oath by an owner or officer verifying compliance with each of the minimum criteria in subdivision 3 at the time that it responds to the solicitation document.

A contracting authority may accept a sworn statement as sufficient to demonstrate that a contractor is a responsible contractor and shall not be held liable for awarding a contract in reasonable reliance on that statement. Failure to verify compliance with any one of the minimum criteria or a false statement under oath in a verification of compliance shall render the prime contractor or subcontractor that makes the false statement ineligible to be awarded a construction contract on the project for which the verification was submitted.

A false statement under oath verifying compliance with any of the minimum criteria may result in termination of a construction contract that has already been awarded to a prime contractor or subcontractor that submits a false statement. A contracting authority shall not be liable for declining to award a contract or terminating a contract based on a reasonable determination that the contractor

CERTIFICATION

By signing this document, I certify that I am an owner or officer of the company, and I swear under oath that:

- 1) My company meets each of the Minimum Criteria to be a responsible contractor as defined herein and is in compliance with Minn. Stat. §16.285,**
- 2) I have included THIS FORM (Attachment A), with my company's solicitation response**

Authorized Signature of Owner or Officer:	Printed Name:
Title:	Date:
Company Name:	

CONTRACT DOCUMENTS

TWIN LAKE SHORELINE RESTORATION PROJECT

LITTLE CANADA, MINNESOTA

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

NOTICE OF AWARD

Dated: _____

OWNER: Ramsey Washington Metro Watershed District

TO CONTRACTOR: _____

CONTRACT FOR: Twin Lake Shoreline Restoration Project

Owner has requested that we notify you that your Bid dated _____ has been accepted as the successful Bidder and _____, has been awarded the contract to perform the Work. The Contract Price is stated in the Agreement.

_____ must comply with the following conditions precedent within fifteen (15) days of the date of this Notice of Award, that is by _____.

1. Return to Owner three fully executed counterparts of the Agreement (attached).
2. Performance and Payment Bond
3. Certificate of Insurance and endorsement(s)

Failure to comply with these conditions within the time specified will entitle Owner to consider your bid in default, to annul this Notice of Award and to declare your Bid Security forfeited.

OWNER: Ramsey Washington Metro Watershed District

By: _____
(AUTHORIZED SIGNATURE)

ACKNOWLEDGEMENT OF NOTICE

CONTRACTOR
By: _____
(AUTHORIZED SIGNATURE)

(TITLE)

(DATE)

CONTRACT DOCUMENTS
TWIN LAKE SHORELINE RESTORATION PROJECT
LITTLE CANADA, MINNESOTA
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

FORM OF AGREEMENT

THIS AGREEMENT is by and between Ramsey-Washington Metro Watershed District (hereinafter called Owner) and _____ (hereinafter called Contractor).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents for Twin Lake Shoreline Restoration Project. The Work is generally described in the General Requirements Section of the Technical Specifications. The Work to be provided under the Contract Documents may be the whole or only a part of the total construction for the Project.

Article 2. CONTRACT TIMES

2.01 *Time of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

2.02 *Dates of Substantial Completion and Final Payment*

- A. The number of calendar days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Times) are set forth in the Instructions to Bidders except as may be stated below:

No exceptions.

Request for Board Action

Board Meeting Date: April 7, 2021

Agenda Item No: 8B

Preparer: Tina Carstens, Administrator
Paige Ahlborg, Watershed Project Manager
Matt Kumka, Barr Engineering

Item Description: 2021 - 2022 BMP Maintenance Program Selection of Contractor

Background:

The purpose of this program is to provide an affordable, high-quality opportunity for best management practice (BMP) owners to keep their BMPs functional and attractive.

This BMP Maintenance Program has been in place since 2013. For the first two years, the district conducted a pilot of this program, which included maintenance of BMPs at Maplewood Mall, Maplewood Living Streets, and a select number of sites in the City of Little Canada. In 2015 and 2016, the District rolled out a complete program that continued the maintenance of these sites, in addition to numerous others, both District projects and city/county partner sites, which were reimbursed. We have since hired three maintenance contractors for 2 years contracts and are again proposing to hire contractors for 2021 and 2022. This time we have 28 sites on the list including Maplewood Mall and Ames Lake. The others include commercial sites, schools, and churches that had BMPs installed through our targeted retrofits program.

A Request for Qualifications (RFQ) for the 2021-2022 maintenance program was posted last month. The RFQ is attached. Three contractors submitted complete qualification packages. All three met the requirements and the projects will be divided between them based on previous year's maintenance experience. These three contractors are the current maintenance contractors and staff would recommend continuing to work with them.

Applicable District Goal and Action Item:

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

Action Items: Maintain district water quality improvement projects and consider opportunities to support the maintenance activities of others.

Staff Recommendation:

Staff recommends awarding the 2021-2022 BMP Maintenance Contract to Minnesota Native Landscapes, Outdoor Lab, and Sandstrom Land Management for the following projects:

Sandstrom Land Management:

Margaret St Rain Gardens, Harmony Learning Center, Maplewood Middle School, Weaver Elementary School, Central Park Elementary School, Roseville Area Middle School, Target Suburban Ave, E. St. Paul, Lionsgate, Woodbury Elementary, Willow Park Pond

Outdoor Lab:

Dey Manufacturing, Taurus Engineering, Redeeming Love Church, Presentation Catholic Church, Casey Lake Rain Gardens, Wakefield Park Basin, Wakefield Park Rain Gardens, Cornerstone Montessori, East Side St. Paul Boys and Girls Club, Our Redeemer Lutheran Church, SPUTS Rain Garden.

Minnesota Native Landscapes:

Aldrich Arena, Ames Lake Native Buffer, Maplewood Mall, PCU Pond, Sand Berm, Valley Creek Road,

Financial Implications:

This program is included in the approved 2021 budget for \$165,500. The maintenance performed on BMPs for the various partners will be reimbursed to the District.

Board Action Requested:

Award the 2021-2022 BMP Maintenance contract to Minnesota Native Landscapes, Outdoor Lab, and Sandstrom Land Management for the projects specified above and direct staff to prepare the necessary documents and work with the selected contractors.

BMP MAINTENANCE PROGRAM
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

REQUEST FOR QUALIFICATIONS

Ramsey-Washington Metro Watershed District (District) is establishing a pool (up to three) of qualified landscape maintenance contractors to provide construction and landscape maintenance services to the District, and through the District, to partnering municipalities, and local county governments within the District's boundaries. The work will include the regular and routine maintenance of various stormwater Best Management Practices (BMPs) including rainwater gardens and regional infiltration and filtration basins of varying ages and conditions. The District's Board is requesting any firm interested in providing professional services to submit a Statement of Qualifications (SOQ).

Submittal Deadline:

Submit via email one (1) PDF copy of the Statement of Qualifications (SOQ) as outlined in this document is due no later than 2:00pm on March 19, 2021 to Paige Ahlborg, Watershed Project Manager, at paige.ahlborg@rwmwd.org. Questions regarding this RFQ must be made in writing via email to Paige Ahlborg at the same email address by March 17, 2021.

General Work Description:

The Work is generally a maintenance program associated with selected Stormwater BMPs in the District. The Work more specifically consists of furnishing relevant expertise as well as all labor, materials, equipment, skills, and performing all operations required to complete all requested maintenance work, which includes, but is not limited to, mobilization and demobilization; maintenance of plantings; plant replacement; herbicide furnishment and application; removal and proper disposal of accumulated sediment in the BMPs; invasive species management; mulch replenishment; furnishing, installing, and maintaining erosion control measures as necessary; acquisition of all necessary permits to perform the Work; regular reporting of completed operations; and complete site restoration of all disturbed areas all as provided for in the RFQ and as directed by the Owner of the BMP, which is not always the District.

The selected Contractor(s) will be required to execute a contract with the District for services on an as-needed basis. However, the individual BMP site Owners will vary. Municipalities, county governments, commercial properties, and private residences located within the District boundaries will have the opportunity to enter into a separate agreement with the District for the services above and will be entitled to exiting that agreement with the District at any time. The District reserves the right to decrease, increase or eliminate sites from the project at its discretion. The District will provide oversight and coordinate billing between all involved entities.

The District reserves the right to a) award all project sites to a single Contractor or b) award groupings of sites (e.g., based geographically or otherwise) at the District's discretion to up to three responsive, responsible Contractors, or c) advertise a new RFQ.

The contract will be for two (2) years (growing seasons) beginning in May 2021 and ending approximately November 15, 2022.

Statement of Qualifications elements:

The Statement of Qualifications shall address the four (4) items listed below:

1. General Contractor Information Capacity and Work Plan:

- a) To demonstrate the Contractor's qualifications to perform the Work, each proposal shall include a full written description of the proposer's approach to completing the work written in a way that demonstrates the Contractor's understanding of what is required and to illustrate their approach for each type of the maintenance event listed. This description should include:
 - 1) Size and makeup (i.e. foreman, supervisors, crew chiefs, operators, laborers, etc.) of crew anticipated,
 - 2) Equipment to be used,
 - 3) Anticipated average time per visit expected, and
 - 4) Any pertinent information that will demonstrate the proposer's ability to complete the work in an effective, high-quality, efficient, and timely manner.
- b) In addition each proposal shall include:
 - 1) A brief description of present commitments in 2021 during the growing season,
 - 2) A listing of the Bidder's equipment and hourly rates with an operator,
 - 3) Labor rate sheet,
 - 4) Key personnel and their years of experience,
 - 5) A list of subcontractors, if any, proposers intend to use.

2. Employee Qualifications

- a) Documentation of the following qualifications shall be included in the submittal:
 - 1) Supervisor: The Supervisor (Crew Leader) must have a Bachelor's degree in Natural Resources, or approved equal, and extensive plant knowledge. The Supervisor shall also have experience constructing or maintaining stormwater BMPs, such as rain gardens.
 - 2) Arborist: To qualify for any work at the Maplewood Mall portion the Contractor shall have a minimum of one (1) Minnesota Society of Arboriculture or International Society of Arboriculture-certified arborist on staff. This qualification cannot be met through a sub-contractor.
 - 3) Herbicide Applicators: Any personal working with chemical herbicides shall have a valid herbicide applicator's license as required by the State of Minnesota.

3. Applicable Work Experience

- a) Contractor must have performed similar vegetation management work at a minimum of five (5) projects within the past five (5) years, not including projects that were primarily vegetation installation.

- 1) Provide five (5) references of vegetative management work within the past five (5) years. Include only projects that were primarily vegetation management/maintenance.

- 2) List the following information for each project reference:

- a. Customer
 - b. Project Location
 - c. Scope of Work
 - d. Approximate Start and End Dates
 - e. Approximate Contract Amount
 - f. Owner Contact Information – Name, Position, Phone, Email

- (b) References will be checked to help verify the Contractor's

- 1) record of quality, timeliness and customer satisfaction of performance on previous projects, technical capabilities, qualified key personnel, necessary tools and equipment, and adequate financial resources to perform, compliance with the associated legal or regulatory requirements.

4. Proof of Insurance and Bonding

- a) As a part of the contracting, the Contractor will be required to provide proof that they can obtain performance bonding for up to \$200,000.
- b) The Contractor and Subcontractors shall maintain insurance for Comprehensive Public Liability and Broad Form Property Damage, Comprehensive Automobile Public Liability and Property Damage, Contractual Liability, Completed Operations Liability and Explosion, Collapse and Underground Property Damage. The provisions must include coverage for Bodily Injury Liability which includes bodily injury claims from the Contractor's and Subcontractor's employees. Minimum coverage shall be consistent with the requirement in the Conditions of the Contract.

5. Unit Prices for Select Items

- a) In addition to the labor rate sheet and hourly equipment rates with operator as listed above, the Contractor shall include unit prices for the furnishment and installation of the following items:

- 1) Mn/DOT 3878.2 Type 6 Shredded Hardwood Mulch
 - 2) #1 Containerized Perennial Plant
 - 3) #2 Containerized Shrub

4) Perennial Plant Plug

- b) Any plants installed by the Contractor shall be warranted for ninety (90) days after installation and replaced at no cost to the Owner or District.

Maintenance Duties

Each site included in the Contract shall be subject to the same maintenance requirements, progress schedule, and reporting.

Maintenance duties shall include:

- 1) Spring Clean-Up: All planted areas shall have all perennial vegetation from the previous growing season removed to within three (3) inches above the ground including all ornamental grasses and herbaceous plants. Shrubs shall be pruned to remove dead and dying vegetation. Accumulated sediment or debris, whether in inlet structures or loose sediment in the bottom of the BMP, removed and disposed of at the Contractors expense.
- 2) Plant Replacement and Potted Plant Installation: During the growing season prior to June 1st of the contract year, the Contractor shall provide a plant replacement list to be approved by the District that includes plants matching those that are installed in each BMP in size, spacing, and species. All plants are to be warranted for ninety (90) days after installation and replaced at no cost to the Owner or District.
- 3) Routine Planting Areas Maintenance: All sites shall be inspected and maintained approximately four (4) times during the growing season (May-October) or as determined per site requirements and/or as budgets allow.
 - a) All weeds as identified by the Contractor or as directed by the Owner or District shall be removed via manual removal or chemical herbicide application. Herbicide application shall be performed with extreme care shall be taken to avoid damage to existing plants. Any damaged plants shall be replaced by the Contractor without cost to the Owner or District. All planting areas shall be completely free of weeds or all weeds shall have been chemically treated after each Routine Visit. All applicable State regulations regarding the application of chemical herbicide are to be complied with including but not limited to postings/notices of application and spray records.
 - b) During routine visits, the Contractor shall inspect for any inlet or outlet failure, standing water or failures of retaining walls or edging within BMPs that are visible. If any of these conditions are observed the Contractor shall contact the Owner or District for further instruction.
 - c) All planting areas shall have a maintained depth of 3 inches of approved shredded hardwood mulch at the end of each growing season of the Contract period. Mulch shall confirm to Mn/DOT 3878.2 Type 6 Shredded Hardwood Mulch.

- 4) Review and Acceptance of Work: Upon request the Contractor shall be available for site inspection and review. Any defects in the work shall be corrected per Owner or District request.

Project Sites List and Budget Allotment

1. The Project Sites List is subject to change but shall include the following at the onset of the project (the listing is organized by Owner).
2. The Budget Allotment is a Not-to-exceed for each BMP Maintenance Site.
3. The list below is for 2021. The two-year project will have an updated list, generally similar in scope and scale, provided to the selected contractor(s) in winter 2021 for the upcoming 2022 growing season.
4. The Budget Allotment will be updated for the 2022 growing season but will generally remain similar.

2021 BMP Maintenance Sites	Owner	Budget Allotment	Type of BMP
Ames Lake Wetland, St Paul	RWMWD	\$5,000	Three (3) acre wetland area and native restoration
Lionsgate Academy, Shoreview	RWMWD	\$2,000	One (1) commercially sized raingarden, two (2) native prairie areas.
Maplewood Mall	RWMWD	\$38,000	Eight (8) regional raingardens, twenty-five (25) residentially sized raingardens, eighty two (82) parking lot end islands, five (5) entrance planting areas, and two hundred and twenty-five (225) trees located within parking lot tree trenches, raingardens, and end islands
Margaret Street Rain Gardens	City of St. Paul	\$2,000	Four (4) residentially sized raingardens.
Woodbury Elementary	RWMWD	\$5,000	Two (2) regionally sized raingardens
Casey Lake Area Rain Gardens	RWMWD	\$5,000	Fourteen (14) residential rain gardens. Spring cleanup only.
Presentation Catholic Church	RWMWD	\$5,000	Five (5) commercially sized raingardens.
Redeeming Love Church, St Paul	RWMWD	\$5,000	Nine (9) commercially sized raingardens
Taurus Distributing and Dey Engineering	RWMWD	\$1,000	Two (2) commercially sized raingardens
Central Park Elementary	RWMWD	\$2,000	One (1) commercially sized rain garden
Harmony Learning Center	RWMWD	\$2,000	One (1) commercially sized raingarden
Maplewood Middle School	RWMWD	\$5,000	Three (3) regionally sized raingardens. School construction in 2021 to be mindful of.
Roseville Area Middle	RWMWD	\$2,000	One (1) commercially sized raingarden

School			
Weaver Elementary	RWMWD	\$2,000	One (1) commercially sized raingarden
Aldrich Arena	RWMWD	\$20,000	Thirteen (13) commercially sized raingardens. Planting warranty in place to be mindful of.
Wakefield Park Basins	RWMWD	\$20,000	Two (2) commercially sized raingardens. Planting warranty to be mindful of.
Our Redeemer	RWMWD	\$5,000	Two (2) commercially sized raingardens. Planting warranty to be mindful of.
Cornerstone Montessori	RWMWD	\$2,000	Native planting area
Willow Pond Park	RWMWD	\$2,000	Native planting area
Eastside Boys and Girls Club	RWMWD	\$2,000	One (1) porous paver parking lot, One (1) native planting area. Planting warranty to be mindful of.
Target St. Paul	RWMWD	\$15,000	Seven (7) commercially sized raingardens, One (1) tree trench. To be planted spring 2021. Maintenance will begin upon completion of plantings.
PCU Pond	RWMWD	\$5,000	Native planting area
Sand Berm	RWMWD	\$5,000	Native planting area
Valley Creek Road Basins	RWMWD	\$5,000	Five (5) commercially sized raingardens
Wakefield Park Raingardens	City of Maplewood	\$1,500	Two (2) raingardens. Separate from RWMWD's Wakefield Park basins.
St. Paul Urban Tennis Center	RWMWD	\$2,000	One (1) commercially sized raingarden. Planting warranty to be mindful of.
TOTAL BUDGET ALLOTMENT		\$165,500	

Review Notification and Contract Process:

1. The District will review all submittals and determine which Contractors are qualified.
2. A selection will be made by the Owner based on the above criteria and weighting.
3. The selected Contractors will be notified of which portion of the work will be contracted to them. A contract will then be developed between the District and the Contractor to be agreed upon by the Contractor. The selected Contractors will enter into terms with the District including all conditions and forms of agreement as provided by the District. A Performance Bond will be required for the agreed upon contract amount at this time.
4. Work on all projects except school sites is to commence no later than May 1, 2021. Work at school sites shall commence upon the end of the school year unless otherwise specified.
5. An opportunity to update unit prices for the materials listed and the labor rate will be given to the Contractor during the winter of 2021-2022. These will be negotiated, incorporated into a contract update, and utilized for budget allotment for the 2022 growing season work.

Request for Board Action

Board Meeting Date: April 7, 2021

Agenda Item No: 8C

Preparer: Tina Carstens, Administrator

Item Description: Ryan Drive and Keller Parkway Conveyance Upgrades Bid Award

Background:

This project is a continuation of the effort and recommendations of the Owasso Basin Bypass Feasibility Study performed by Barr Engineering in 2020. Last month, the board reviewed the project documents and directed staff to go out for bid. Attached is a memo that outlines the received bid information.

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 the board award the project to Fitzgerald Excavating.

Financial Implications:

This construction project will be funded through the Flood Risk Reduction Fund, where sufficient funds are available. In addition, the City of Little Canada will be cost-sharing on this project.

Board Action Requested:

Accept the bids and award the Ryan Drive and Keller Parkway Conveyance Upgrades project to Fitzgerald Excavating. Direct staff to prepare and mail the notice of award, prepare the agreements and review the required submittals.

Memorandum

To: Ramsey Washington Metro Watershed District Board of Managers
From: Barr Engineering Co.
Subject: Ryan Drive and Keller Pkwy Conveyance Upgrades Bid Results
Date: March 30, 2021
Project: 23/62-1379.00
c: Tina Carstens – RWMWD Administrator

At its March 3, 2021 board meeting, the RWMWD Board of Managers approved the preliminary design, estimated costs, and proposed project schedule for this project, and authorized staff to finalize the design and bidding documents to solicit bid proposals. The baseline opinion of probable cost for construction provided at the March meeting (~90-percent design) was \$808,000 (-10%/+20%).

This project was advertised for bid on Monday, March 15, 2021. Bids were submitted through Quest CDN. Four bids were electronically submitted. Bids were publicly opened and read aloud via a virtual, online WebEx meeting at 2:00pm on Monday, March 29, 2021. Figure 1 below provides a summary of the Base Bid Results, with the detailed bid results attached. The attached also provides the updated engineers opinion of probable cost, relative to the final design quantities and bid form, for reference.

Contractor Name	5% Bid Bond	Addenda Acknowledged	Bid Signed	Responsible Bidder Affidavit/Oath	Base Bid Amount	Order
Fitzgerald Excavating	yes	N/A	v-Bid	Yes	\$750,543.00	1
Miller Excavating, Inc.	yes	N/A	v-Bid	Yes	\$790,488.95	2
Landwehr Construction, Inc.	yes	N/A	v-Bid	Yes	\$822,827.50	3
T. A. Schifsky & Sons, Inc	yes	N/A	v-Bid	No	\$849,395.00	4

Figure 1: Bid Results Summary Table

Note: Bid Alternate 1 is not included in Figure 1 above but is provided on the attached. The bid alternate is to provide the final wearing course of pavement on Ryan Drive next year to allow time for any localized settlement to occur in the road raise.

As mentioned in previous correspondence, District and Barr staff have been in communication with City of Little Canada staff and their Engineer regarding the City's potential cost-sharing support of this project. The formal request for City support would be reimbursement for actual construction costs related to the Ryan Drive road raise element of the scope, which should be at or below \$150,000.

The Board of Managers should consider awarding the project to the lowest responsive and responsible bidder who they determine is in the best interest of the project. Assuming the required bonds, insurance documentation, and other submittals meet contract requirements, and provided that permits and approvals are in place, the project will be started this summer with a fall 2021 completion.

Bid Results Summary Table

Ramsey-Washington Metro Watershed District
Ryan Drive and Keller Pkwy Conveyance Upgrades
Bid Opening: Monday, March 29, 2021 - 2:00 p.m.

Contractor Name	5% Bid Bond	Addenda Acknowledged	Bid Signed	Responsible Bidder Affidavit/Oath	Base Bid Amount	Order
Fitzgerald Excavating	yes	N/A	v-Bid	Yes	\$750,543.00	1
Miller Excavating, Inc.	yes	N/A	v-Bid	Yes	\$790,488.95	2
Landwehr Construction, Inc.	yes	N/A	v-Bid	Yes	\$822,827.50	3
T. A. Schifsky & Sons, Inc	yes	N/A	v-Bid	No	\$849,395.00	4

				Engineer's Estimate			Fitzgerald Excavating		Miller Excavating, Inc.		Landwehr Construction, Inc.		T. A. Schifsky & Sons, Inc	
Item	Description	Unit	Estimated Quantity	Unit Price	Extension	Average Unit Prices	Unit Price	Extension	Unit Price	Extension	Unit Price	Extension	Unit Price	Extension
General														
01 55 26.01	Traffic Control	LS	1	14,023.37	14,023.37	22,118.76	15,000.00	15,000.00	13,925.05	13,925.05	9,550.00	9,550.00	50,000.00	50,000.00
01 71 13.01	Mobilization/Demobilization	LS	1	70,116.85	70,116.85	62,687.50	105,000.00	105,000.00	40,200.00	40,200.00	38,550.00	38,550.00	67,000.00	67,000.00
Site 1 - Keller Pkwy														
01 74 23.02	Construction Entrance	EA	2	1,700.00	3,400.00	1,602.89	1,000.00	2,000.00	1,236.55	2,473.10	975.00	1,950.00	3,200.00	6,400.00
01 74 23.04	Silt Fence	LF	550	3.00	1,650.00	3.70	2.50	1,375.00	2.20	1,210.00	6.10	3,355.00	4.00	2,200.00
01 74 23.05	Flotation Silt Curtain	LF	80	21.00	1,680.00	37.15	20.00	1,600.00	26.60	2,128.00	27.00	2,160.00	75.00	6,000.00
01 74 23.06	Erosion Control Blanket and Seeding	SY	310	2.50	775.00	6.34	3.00	930.00	2.05	635.50	12.30	3,813.00	8.00	2,480.00
02 41 00.01	Removal of Trees, Brush, and Debris (Disposal Off Site)	LS	1	30,000.00	30,000.00	12,687.50	15,000.00	15,000.00	5,500.00	5,500.00	20,250.00	20,250.00	10,000.00	10,000.00
02 41 00.03	Remove and Dispose of 96-in Wide x 62-in Tall RC Arch Pipe	LF	116	20.00	2,320.00	84.45	75.00	8,700.00	102.80	11,924.80	110.00	12,760.00	50.00	5,800.00
02 41 00.04	Remove and Dispose of Fencing	LF	120	10.00	1,200.00	10.46	15.00	1,800.00	10.85	1,302.00	6.00	720.00	10.00	1,200.00
02 41 00.05	Saw-Cut, Bituminous pavement	LF	100	2.00	200.00	5.04	10.00	1,000.00	1.65	165.00	3.50	350.00	5.00	500.00
02 41 00.06	Remove and Dispose Bituminous Pavement	SY	400	8.00	3,200.00	5.50	5.00	2,000.00	3.00	1,200.00	4.00	1,600.00	10.00	4,000.00
02 41 00.07	Remove and Dispose Bituminous Driveway Pavement	SY	50	6.00	300.00	11.41	10.00	500.00	10.65	532.50	15.00	750.00	10.00	500.00
31 00 00.01	Strip, Salvage, and Replace Topsoil (6-in Depth)	CY	270	18.00	4,860.00	25.73	12.00	3,240.00	21.40	5,778.00	9.50	2,565.00	60.00	16,200.00
31 00 00.02	Sediment and Muck Excavation, Loading, and Hauling (Regulated)	TON	520	25.00	13,000.00	37.51	20.00	10,400.00	45.05	23,426.00	55.00	28,600.00	30.00	15,600.00
31 00 00.03	Sediment and Muck Excavation, Loading, and Hauling (Non-Regulated)	CY	0	35.00	0.00	28.75	40.00	0.00	0.00	0.00	48.00	0.00	27.00	0.00
31 00 00.04	Sediment and Muck Disposal Fee	TON	520	20.00	10,400.00	23.04	20.00	10,400.00	24.15	12,558.00	28.00	14,560.00	20.00	10,400.00
31 00 00.07	Aggregate Base Class 6	CY	60	45.00	2,700.00	49.38	35.00	2,100.00	27.50	1,650.00	60.00	3,600.00	75.00	4,500.00
31 00 00.08	Riprap w/fabric (Mn/DOT CL III)	CY	350	90.00	31,500.00	100.11	60.00	21,000.00	155.45	54,407.50	105.00	36,750.00	80.00	28,000.00
31 00 00.09	Shoulder Aggregate Class 2 (100% Crushed Quarry Rock)	TON	25	60.00	1,500.00	50.53	45.00	1,125.00	39.10	977.50	48.00	1,200.00	70.00	1,750.00
31 00 00.10	Topsoil Placement (Borrow)(Allowance)	CY	25	40.00	1,000.00	47.25	35.00	875.00	44.00	1,100.00	45.00	1,125.00	65.00	1,625.00
31 23 19.01	Water Management - Keller Pkwy	LS	1	37,203.50	37,203.50	43,513.01	27,000.00	27,000.00	21,907.05	21,907.05	85,145.00	85,145.00	40,000.00	40,000.00
32 12 00.02	2.5-in Type 12.5 Non-Wearing Course Mixture (4,B)(SPNWB430B)	TON	60	75.00	4,500.00	133.94	100.00	6,000.00	180.75	10,845.00	105.00	6,300.00	150.00	9,000.00
32 12 00.04	2.5-in Type SP 9.5 Wearing Course Mixture 4,C (SPWEA440C)	TON	60	85.00	5,100.00	143.95	105.00	6,300.00	192.80	11,568.00	118.00	7,080.00	160.00	9,600.00
32 12 00.05	2-in Type SP 9.5 Wearing Course Mixture 4,C (SPWEA440C)	TON	50	85.00	4,250.00	143.20	105.00	5,250.00	192.80	9,640.00	115.00	5,750.00	160.00	8,000.00
32 12 00.06	Driveway Patching	TON	10	150.00	1,500.00	186.50	155.00	1,550.00	241.00	2,410.00	150.00	1,500.00	200.00	2,000.00
32 31 13.01	Fencing (Chain Link)	LF	140	30.00	4,200.00	75.81	50.00	7,000.00	48.25	6,755.00	140.00	19,600.00	65.00	9,100.00
33 42 00.03	16-FT Wide X 4-FT Tall Reinf. Conc. Box Culvert End Section (MnDOT Class I, Type III)	EA	4	22,000.00	88,000.00	20,581.36	16,000.00	64,000.00	29,325.45	117,301.80	19,000.00	76,000.00	18,000.00	72,000.00
33 42 00.04	16-FT Wide X 4-FT Tall Reinf. Conc. Box Culvert (MnDOT Class I)	LF	86	1,800.00	154,800.00	1,785.45	1,735.00	149,210.00	1,751.80	150,654.80	1,755.00	150,930.00	1,900.00	163,400.00
Site 2 - Ryan Drive														
01 74 23.02	Construction Entrance	EA	4	1,700.00	6,800.00	1,553.75	800.00	3,200.00	1,240.00	4,960.00	975.00	3,900.00	3,200.00	12,800.00
01 74 23.03	Sediment Log (9-in Diameter)	LF	540	4.00	2,160.00	4.91	5.00	2,700.00	2.65	1,431.00	8.00	4,320.00	4.00	2,160.00
01 74 23.04	Silt Fence	LF	600	3.00	1,800.00	3.68	2.50	1,500.00	2.20	1,320.00	6.00	3,600.00	4.00	2,400.00
01 74 23.06	Erosion Control Blanket and Seeding	SY	690	2.50	1,725.00	4.66	3.00	2,070.00	2.05	1,414.50	5.60	3,864.00	8.00	5,520.00
01 74 23.07	Rock Filter Dike	EA	1	800.00	800.00	1,481.79	500.00	500.00	977.15	977.15	2,450.00	2,450.00	2,000.00	2,000.00
02 41 00.01	Removal of Trees, Brush, and Debris (Disposal Off Site)	LS	1	10,000.00	10,000.00	9,087.50	15,000.00	15,000.00	5,500.00	5,500.00	10,850.00	10,850.00	5,000.00	5,000.00
02 41 00.02	Remove and Dispose of 30-inch RC Circ. Pipe	LF	53	15.00	795.00	39.51	55.00	2,915.00	11.05	585.65	42.00	2,226.00	50.00	2,650.00
02 41 00.04	Remove and Dispose of Fencing	LF	15	10.00	150.00	33.96	50.00	750.00	10.85	162.75	45.00	675.00	30.00	450.00
02 41 00.05	Saw-Cut, Bituminous pavement	LF	181	2.00	362.00	5.41	12.00	2,172.00	1.65	298.65	3.00	543.00	5.00	905.00
02 41 00.06	Remove and Dispose Bituminous Pavement	SY	327	6.00	1,962.00	7.00	10.00	3,270.00	3.00	981.00	5.00	1,635.00	10.00	3,270.00
02 41 00.08	Reclamation (12-in Depth)	SY	1,490	7.50	11,175.00	5.20	5.00	7,450.00	1.55	2,309.50	2.25	3,352.50	12.00	17,880.00
02 41 00.09	Haul Out/Stockpile Millings	CY	500	30.00	15,000.00	9.40	12.00	6,000.00	7.60	3,800.00	13.00	6,500.00	5.00	2,500.00

				Engineer's Estimate			Fitzgerald Excavating		Miller Excavating, Inc.		Landwehr Construction, Inc.		T. A. Schifsky & Sons, Inc	
Item	Description	Unit	Estimated Quantity	Unit Price	Extension	Average Unit Prices	Unit Price	Extension	Unit Price	Extension	Unit Price	Extension	Unit Price	Extension
31 00 00.01	Strip, Salvage, and Replace Topsoil (6-in Depth)	CY	264	18.00	4,752.00	22.85	14.00	3,696.00	21.40	5,649.60	6.00	1,584.00	50.00	13,200.00
31 00 00.02	Sediment and Muck Excavation, Loading, and Hauling (Regulated)	TON	330	25.00	8,250.00	35.76	20.00	6,600.00	45.05	14,866.50	48.00	15,840.00	30.00	9,900.00
31 00 00.03	Sediment and Muck Excavation, Loading, and Hauling (Non-Regulated)	CY	0	35.00	0.00	28.50	45.00	0.00	0.00	0.00	42.00	0.00	27.00	0.00
31 00 00.04	Sediment and Muck Disposal Fee	TON	330	20.00	6,600.00	21.04	20.00	6,600.00	24.15	7,969.50	20.00	6,600.00	20.00	6,600.00
31 00 00.05	Roadway Embankment (Select Granular Borrow)	CY	1,160	30.00	34,800.00	25.98	30.00	34,800.00	21.40	24,824.00	24.50	28,420.00	28.00	32,480.00
31 00 00.07	Aggregate Base Class 6	CY	440	40.00	17,600.00	26.38	35.00	15,400.00	27.50	12,100.00	33.00	14,520.00	10.00	4,400.00
31 00 00.08	Riprap w/fabric (Mn/DOT CL III)	CY	120	90.00	10,800.00	103.39	65.00	7,800.00	153.55	18,426.00	105.00	12,600.00	90.00	10,800.00
31 00 00.09	Shoulder Aggregate Class 2 (100% Crushed Quarry Rock)	TON	90	60.00	5,400.00	45.34	45.00	4,050.00	33.35	3,001.50	33.00	2,970.00	70.00	6,300.00
31 00 00.10	Topsoil Placement (Borrow) (Allowance)	CY	25	40.00	1,000.00	46.25	35.00	875.00	44.00	1,100.00	41.00	1,025.00	65.00	1,625.00
31 23 19.02	Water Management - Ryan Drive	LS	1	13,901.43	13,901.43	21,289.26	27,000.00	27,000.00	21,907.05	21,907.05	8,250.00	8,250.00	28,000.00	28,000.00
32 12 00.01	2-in Type 12.5 Non-Wearing Course Mixture 3,C (SPNWB340C)	TON	180	70.00	12,600.00	120.40	100.00	18,000.00	150.60	27,108.00	106.00	19,080.00	125.00	22,500.00
32 12 00.06	Driveway Patching	TON	80	150.00	12,000.00	159.21	100.00	8,000.00	210.85	16,868.00	151.00	12,080.00	175.00	14,000.00
32 31 13.01	Fencing (Chain Link)	LF	80	30.00	2,400.00	75.81	50.00	4,000.00	48.25	3,860.00	140.00	11,200.00	65.00	5,200.00
33 42 00.01	14-ft Wide X 5-ft Tall Reinf. Conc. Box Culvert End Section (MnDOT Class, Type I)	EA	2	20,000.00	40,000.00	16,544.25	16,000.00	32,000.00	19,852.00	39,704.00	17,825.00	35,650.00	12,500.00	25,000.00
33 42 00.02	14-ft Wide X 5-ft Tall Reinf. Conc. Box Culvert (MnDOT Class I)	LF	38	1,250.00	47,500.00	1,698.75	1,680.00	63,840.00	1,505.00	57,190.00	1,910.00	72,580.00	1,700.00	64,600.00
TOTAL BASE BID					763,711.15			750,543.00		790,488.95		822,827.50		849,395.00
Bid Alternate 1 (Ryan Drive Wearing Course Paving)														
32 12 00.03	2-in Type SP 9.5 Wearing Course Mixture 3,C (SPWEA340C)	TON	180	120.00	21,600.00	125.65	115.00	20,700.00	150.60	27,108.00	112.00	20,160.00	125.00	22,500.00
TOTAL BASE BID INCLUDING ALTERNATE					785,311.15			771,243.00		817,596.95		842,987.50		871,895.00

Administrator's Report

MEMO

TO: Board of Managers and Staff
FROM: Tina Carstens, Administrator
SUBJECT: April Administrator's Report
DATE: April 1, 2021

A. Meetings Attended

Monday, March 1	11:00 AM	Administrator Meeting
Wednesday, March 3	8:15 AM	Met with Manager Eisele
	9:00 AM	Wabasso Outlet Discussion
	6:30 PM	Board Meeting
Thursday, March 4	9:00 AM	MnDNR/FEMA Map Meeting
Friday, March 5	8:30 AM	MAWA Executive Meeting
Wednesday, March 10	10:00 AM	MS4 Permit Update Meeting
Thursday, March 11	9:00 AM	MAWA Spring Meeting
Monday, March 15	9:00 AM	Met with Manager Ward & Manager Swope
Wednesday, March 17	1:00 PM	MAWD Legislative Event
Thursday, March 18	9:00 AM	Met with Mark McCabe, Ramsey Co Parks
	11:00 AM	WaterFest Meeting
	12:00 PM	Public Works Forum Meeting
Tuesday, March 23	10:00 AM	Metro Watershed Based Funding Meeting
Wednesday, March 24	1:00 PM	Staff Media Training
Thursday, March 25	8:30 AM	MAWA Subcommittee – MAWD Handbook
	9:30 AM	Office Project Walk-Through
Thursday, April 1	8:00 AM	Water Resources Conference Planning
	1:00 PM	BWSR Partner Dialog/Listening Session

B. Upcoming Meetings and Dates

April Board Meeting	April 7, 2021
Environmental Forum	April 8, 2021
Metro MAWD	April 21, 2021
CAC Meeting	April 27, 2021
May Board Meeting	May 5, 2021
June Board Meeting	June 2, 2021
CAC Meeting	June 8, 2021
WaterFest	June 19-27, 2021
July Board Meeting	July 7, 2021
Metro MAWD	July 21, 2021

August Board Meeting	August 4, 2021
September Board Meeting	September 1, 2021
CAC Meeting	September 28, 2021
October Board Meeting	October 6, 2021
Metro MAWD	October 20, 2021
CAC Meeting	October 26, 2021
November Board Meeting	November 3, 2021
December Board Meeting	December 1, 2021
MAWD Annual Meeting	December 2-4, 2021
CAC Meeting	December 7, 2021

C. **WaterFest Update (Maddy Bohn and Tina Carstens)**

Planning for this year's WaterFest continues and is taking shape. You all should have received a message to answer a survey to develop a theme and tagline for the event this year. As that message said, the event will be held over several days in June, June 19-27th. Here is an overview of the event:

Join us at WaterFest taking place at Lake Phalen Park from June 19 - 27, 2021. Due to COVID safety measures, the event will showcase numerous self-directed learning opportunities and activities throughout the week. In addition, the WaterFest webpage will feature virtual activities shared by our exhibitors. Our volunteers will be assisting with the self-directed exhibits. Even though WaterFest will look much different from previous years, the goal remains to continue educating all people on the importance of water management, wildlife habitat, and our region's watershed's unique ecological features. More information to come soon!

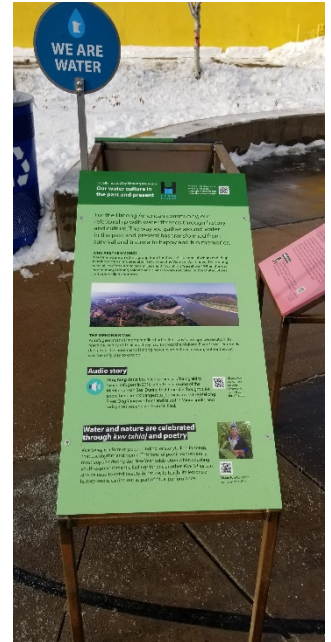
I asked Maddy to update you on the rest of the planning for this unique WaterFest event.

Sponsorships

- Eight sponsors have carried over from 2020
 - o Sponsors have been notified of the change in the festival and been updated with the sponsorship level
- An additional 15 sponsors have been invited to participate
 - o Phone call follow-ups will happen in April
- 2021 Sponsorship Package
 - Your logo on the WaterFest web page with a link to your webpage
 - Proud sponsor logo on display during WaterFest + back of the T-shirts
 - Sponsor recognition on social media
 - Opportunity to showcase a self-directed activity exhibit at WaterFest
 - Opportunity to a virtual activity on our WaterFest page
 - Four T-shirts will be mailed to your office

Grounds Activities – the following activities have been set while the staff is still working with others to define their activities. This includes the suggestions given at the last board meeting.

- We are Water
 - Installation of 4 semi-permanent Exhibit Walls will be installed by the MPCA and MN Humanities group. The Hmong Museum of MN created the exhibit. It features written and audio stories about the history and special relationship water shared with the Hmong culture. The city of St. Paul has approved this activity. (See photo of the exhibit to the right)
- Twin Cities Paddlesports
 - Afternoon sessions for kids interested in trying a new water sport. To prevent over-crowding, participants will sign up ahead of time. Paddles and boats will be disinfected between rides.
- City of St. Paul
 - Story Stroll (15b yard signs) focusing on keeping plastic bags out of recycling carts.
- CHAT (Center for Hmong Arts and Talent)
 - Lantern release to honor those we lost in 2020. Date: it will be on the 20th or 26th at 10:30p.m. The waterway around the island will be used to make sure no lanterns float into the main lake. A clean up team will be available to retrieve all lanterns and properly dispose of them.



Virtual Activities

- Saint Paul Regional Water Services
 - [Story of our Water \(arcgis.com\)](https://arcgis.com)
 - Shows where water comes from, starting with the Mississippi River and traveling along conduits through lakes and canals to the treatment plant.
 - Highland Water Tower (arcgis.com) (Includes a 360 degree view from the top of the Highland Tower that the user can control.)
 - A history of the Highland Park water tower as well as information on Clarence "Cap" Wigington, the first African American architect in the state, who designed the tower.
 - Lead and Drinking Water (arcgis.com)
 - Information on lead in drinking water, why it is important to remove it, and ways you can reduce your exposure to it.

Volunteers

- [A link has been created for volunteers to sign up.](#) T-shirts will be given to volunteers. Depending on the number of exhibitors we will have 1-2 volunteers per shift. The volunteers will be supervising the exhibits.
 - Shifts will be in 3 hour sessions from June 19-27
 - Shifts: 10am-12pm , 12pm – 2pm, 2pm-4pm, 4pm- 6pm

D. Ramsey County Permitting Follow-Up

I met with the director of the Ramsey County Parks and Recreation Division, Mark McCabe. We discussed the district's concerns regarding the length and difficulty of acquiring permission from the county to perform work on Ramsey County Park's property.

We discussed the long history of partnering on projects and the need to perform maintenance or improvements to those projects. We discussed the difference between maintenance and improvements on existing projects versus constructing new projects on parkland.

When we are doing maintenance or improvements, I requested that those be approved with a staff approval process versus a county board approval. I offered the possibility of renewing an annual permit with the county board with the general provisions we would follow while doing that work. Site-specific information could then be provided to county staff for approval when needed throughout the year.

The following steps are for district staff to work with county staff on developing the general permit language for review by both entity's attorneys. I would anticipate that we will have a new process for future work on Ramsey County property.

We also agreed that when the district is proposing to do new work on park property, it may be necessary to get that approval from the county board instead of just from staff.

E. Intern Hiring

It's that time of year where we hire a new class of interns for the upcoming year. Our natural resources staff hired two new interns. In addition, an intern from 2020, Emily, will be staying with us in 2021.

Seth, our communications intern for the past couple of years, has moved out of state and had his last day at the district on March 31. Lauren has also hired a new intern for this year.

F. Office Building Furniture Updates and In-person Meeting Technologies

Over the last month, some office updates have occurred to replace the carpet throughout and install new furniture in the staff offices spaces and board room. I have included pictures below. When we open back up again, I will be happy to give the board a tour of the space to see the changes.

In anticipation of returning to the office for board meetings in the future, I am working with our technology consultant to be sure our system is set up to video and audio record our meetings. There was a discussion at the last board meeting regarding the desire to continue to post our meeting recordings to the district YouTube channel. We have all the necessary equipment to accomplish this, and it should be a smooth transition.

The board room received new carpet, chairs, and visitor seating. We also have other seating that can easily be brought into the board room if we need more chairs available for meetings.



In the staff office spaces, we needed more office spaces for our full-time staff. We took areas that had two office spaces and made them quads. You will see in the pictures below that we could provide spacious offices still and take advantage of the natural light. Each office space has a sit-stand desk that has been requested from staff in the past. Before the remodel, we had room for 14 full-time staff. With the changes, we now have room for 19 with three open desk spaces at this time. We also maintained the intern bay with the redesign to continue to have their space as well. Another change is that we didn't place staff in the two private offices with doors at the end of the office space. Those will be available for staff to use to take phone calls or have a quiet room to work.



Project and Program Status Reports

Memorandum

To: Board of Managers and Staff
From: Tina Carstens and Brad Lindaman
Subject: Project and Program Status Report – April 2021
Date: April 1, 2021

Project feasibility studies

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

The purpose of this project is to provide information and guidance to cities throughout the district about how to protect low-lying habitable structures from flooding during the 100-year storm event. These emergency response plans address areas for which there is 1) not currently a feasible project that has been identified to protect structures or 2) a project that cannot be implemented in the near future due to logistical and/or budgeting reasons.

This period, Barr compiled a master list of all properties to be surveyed and began drafting a new version of the notification letter that will be sent to gain approvals for site access. We will leverage a text-messaging method to track which homeowners have approved access to surveyors. Next period, we will begin surveying each site to determine the most appropriate course of action for flood risk mitigation. In some cases, site findings will suggest that larger, more regional projects should be evaluated further in other 2021 flood damage reduction feasibility studies in the Kohlman Creek and Willow Lake subwatersheds and in the Ames Lake area.

Federal Emergency Management Agency (FEMA) flood mapping updates (Barr project manager: Brandon Barnes; RWMWD project manager: Tina Carstens)

The purpose of this project is to use the RWMWD's updated stormwater model to develop information required to update the FEMA floodplain maps. Minnesota Department of Natural Resources (DNR) grant funding is being used.

Barr attended a March 4 input meeting, facilitated by the DNR, which was an opportunity for city representatives and floodplain managers to see the draft inundation extents and for the DNR to clarify the process of updating the FEMA flood maps. The meeting served as the beginning of the 30-day comment period, during which the DNR will accept comments regarding the proposed modifications to the inundation extents. If comments are received, the DNR will respond to and address them.

Later this month, Barr will submit a memorandum summarizing previous submittals to the DNR. This memorandum is the final deliverable required as part of the grant agreement. Following the submittal, we will be available to help respond to comments or clarify information, if the DNR requests. This additional work would be covered by remaining grant funds.

Kohlman Creek flood-risk-reduction feasibility study (Barr project manager: Erin Anderson Wenz; RWMWD project manager: Tina Carstens)

The purpose of this study is to evaluate the benefit-cost relationships of infrastructure changes throughout the Kohlman Creek subwatershed by reviewing potential pipe alignments, land acquisition costs, utility conflicts, permitting issues, and related design as well as construction and long-term maintenance costs associated with each alternative that achieves the project objective of removing habitable structures from the 100-year floodplain in this area.

The Kohlman Creek area surveying work is being coordinated with the emergency response planning work described above. Survey elevations being collected include the low opening and low adjacent grade near each structure considered to be at risk of flooding based on our review of the LiDAR (light detection and ranging) data. This information is needed to provide more accurate elevations than those estimated from LiDAR to determine which structures within the flood zone warrant more attention.

This period, Barr met to discuss this project's upcoming modeling needs as well as the Ames Lake flood damage reduction project. Flood damage reduction projects that were described conceptually in the Beltline resiliency study will be evaluated in greater detail for both the Kohlman Creek subwatershed and Ames Lake area feasibility studies.

Ames Lake flood-risk-reduction feasibility study (Barr project manager: Erin Anderson Wenz; RWMWD project manager: Tina Carstens)

The purpose of this study is to evaluate the benefit-cost relationships of infrastructure changes that would remove habitable structures from the floodplain in this area. This study will be phased. The first phase (currently underway) involves communications with the City of Saint Paul about how to approach flood management in this area, which involves both regional and localized flooding issues. The second phase (if pursued) will encompass reviewing potential pipe alignments, land acquisition costs, utility conflicts, permitting issues, and related design as well as construction and long-term maintenance costs associated with each alternative that achieves the project objective, as defined in partnership with the city.

The Ames Lake area surveying work is being coordinated with the emergency response planning work described above. Survey elevations being collected include the low opening and low adjacent grade near each structure considered to be at risk of flooding based on our review of the LiDAR (light detection and ranging) data. This information is needed to provide more accurate elevations than those estimated from LiDAR to determine which structures within the flood zone warrant more attention.

Monitoring water quality/project monitoring

Special project best management practice (BMP) monitoring (Barr project manager: Katie Turpin-Nagel; RWMWD project manager: Paige Ahlborg)

The primary objective of this project is to monitor specific water quality BMPs that the RWMWD has implemented, particularly those that include filtration media such as iron-enhanced sand, spent lime, or CC17 crushed limestone aggregate, and/or which leverage continuous monitoring and adaptive control (CMAC) technology.

This period, Barr continued to plan monitoring and maintenance efforts with the RWMWD for the Willow Pond CMAC spent-lime filter in Roseville's Willow Pond Park. The current plan is to bring the filter online and begin monitoring the site in spring 2021 after the manhole drain is installed. Installation is planned for the end of April.

Barr and the RWMWD continue to coordinate long-term monitoring of lakes, stormwater ponds, and watershed BMPs. This period, Barr identified stormwater ponds and wetlands for 2021 chloride monitoring and provided the initial locations to the RWMWD. Barr and the RWMWD will continue to refine the monitoring locations this spring based on schedule, budget, and site access.

Research projects

Shallow lake aeration study (Barr project manager: Keith Pilgrim; RWMWD project manager: Bill Bartodziej)

The purpose of this study is to evaluate the potential effectiveness of aeration in shallow lakes by studying the effect of aeration in two smaller shallow systems (Markham Pond and Frog Pond) in detail during 2021 and 2022.

This study is designed to evaluate the potential for aeration in shallow lakes to reduce internal loading and meet total maximum daily load (TMDL) requirements of impaired lakes. This study is the outcome of an internal loading evaluation conducted in 2020. Two shallow basins, Frog Pond and Markham Pond, are being used as test systems to examine the capacity of aeration to reduce internal loading in shallow systems. The intent is that these smaller systems allow for a controlled test with minimal capital investment and a controlled environment where a reasonable number of measurements can be made as part of the evaluation.

This period, Barr prepared for 2021 testing and began the literature review that will guide details of the study this year.

Phalen Chain of Lakes changes in water quality (Barr project manager: Keith Pilgrim; RWMWD project manager: Bill Bartodziej)

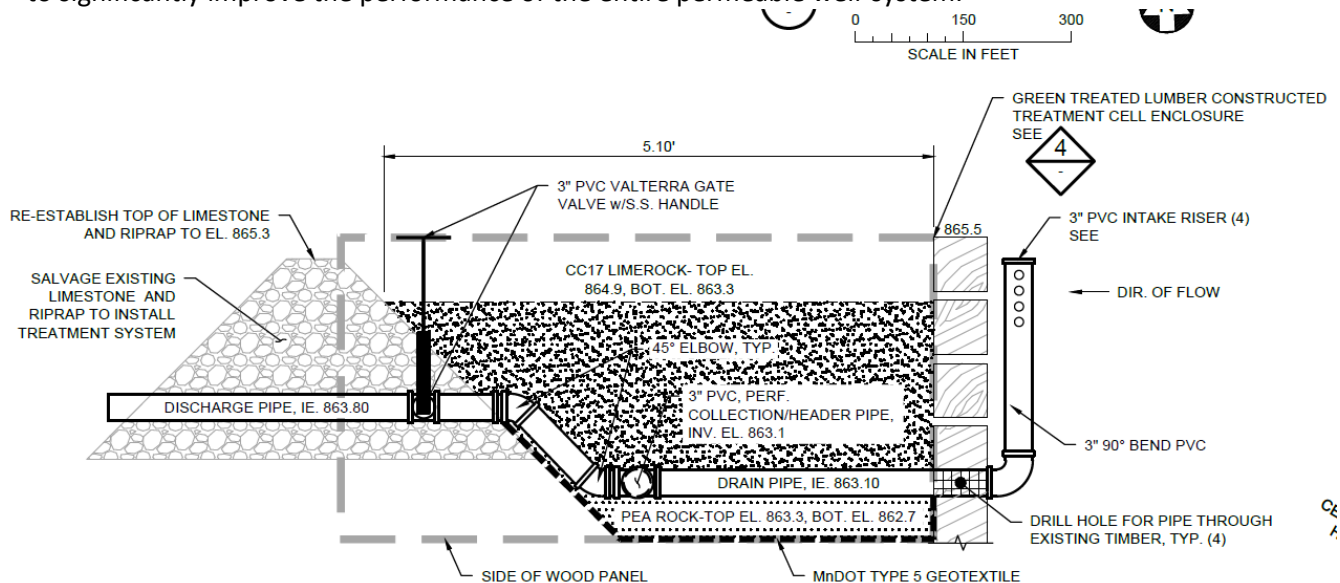
The primary objective of this study is to develop an overall assessment of a number of at-risk or TMDL lakes with respect to the magnitude of internal phosphorus loads, benefits of controlling internal loads, and potential internal-load mitigation approaches.

Recently, Barr provided analysis and follow-up writing to support a publication being developed by RWMWD biologist Bill Bartodziej. Recent activity involved analysis of phosphorus and chlorophyll "a" data for Markham Pond and Casey Lake in the Kohlman Creek subwatershed.

Kohlman permeable weir test system (Barr project manager: Keith Pilgrim; RWMWD project manager: Bill Bartodziej)

The objective of this current investigation is to develop one or more conceptual designs that will fit within the footprint of the existing Kohlman Basin permeable weir that will allow for ongoing testing of the system's effectiveness at removing total suspended solids and phosphorus.

Two test cells will be constructed in April and May as a part of the 2021 CIP maintenance and repairs project. Once in place, these test cells will allow Barr and the RWMWD to evaluate the functionality of an upflow treatment cell (see figure below) designed to maximize the volume of water treated by filtration in the Kohlman Basin. This unique test system design requires a one- to two-year test period to evaluate the hydraulics and treatment performance of the system in a small area before upflow filtration cells are constructed across the basin. The media in the treatment cell is a crushed limestone called CC17. If the system modifications are effective, broad implementation across the weir is expected to significantly improve the performance of the entire permeable weir system.



Project operations

2021 Tanners Lake alum facility monitoring (Barr project manager: Meg Rattei; RWMWD project manager: Eric Korte)

The purpose of this project is to complete monitoring and reporting required by the general National Pollutant Discharge Elimination/State Disposal System permit for municipal separate storm sewer systems (MS4s).

The alum treatment facility remains shut down for the winter. Typically, the system is restarted in April each year, as conditions allow. Barr and the RWMWD continue to summarize and analyze 2020 data and develop the required MS4 report per permit requirements. We are also completing the RWMWD MS4 permit application, which includes a section for the alum treatment facility. The RWMWD expects to submit the application to the Minnesota Pollution Control Agency in April or early May.

Automated lake-monitoring systems (Barr project manager: Chris Bonick; RWMWD project manager: Eric Korte)

The purpose of this project is to install a system to monitor lake levels throughout the district and allow real-time transfer of data to the district's website for public consumption.

Connection to the lake level report graphs on the RWMWD's website is now live and was demonstrated at the January board meeting. Barr and the RWMWD are modifying the graphs slightly, including to depict ice conditions during winter months.

Physical installation of the four newest stations (Spoon, Battle Creek, Twin, and Tanners lakes) are also nearing completion. Xcel Energy made the power connection at the Tanners Lake station on March 25. In April, Barr and the RWMWD will install monitoring equipment and commission the four new stations. Subsequently, Barr will set up data management software (Vista Data Vision) to link with each of the stations to provide the RWMWD and Barr with online access to real-time and past data. When this is done, the connection to the lake level report graphs will be established on the RWMWD's website.

Capital improvements

Target store stormwater retrofit projects (Barr project manager: Katie Turpin-Nagel; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to design, provide bid assistance for, and oversee construction of BMP retrofits at two Target retail stores.

Barr has completed design and construction documents for the North Saint Paul site, and the project was advertised for bidding purposes on February 8. Bids were accepted online through 10:00 AM on February 23, publicly presented, and then offered to the managers at the March board meeting for consideration of award. The board accepted the bids and awarded the work to the lowest responsive and responsible bidder (Peterson Companies, Inc.).

As of March 26, Peterson Companies and the RWMWD have reviewed and signed the final contract documents (notice of award, form of agreement, certificate of insurance, performance and payment bond). Construction is expected to begin at the North Saint Paul Target site in early July 2021.

Remaining construction work at the East Saint Paul Target site is expected to start in mid-April and last through mid-May. Tasks include spot bituminous installations and restoration and planting in the rain gardens.

Targeted retrofit projects (Barr project manager: Matt Kumka; RWMWD project manager: Paige Ahlborg)

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

Final design and bidding have been completed on the St. Rose of Lima parking lot retrofit in partnership with the City of Roseville. The city is taking the lead on contracting with the apparent low bidder (OMG Construction). The RWMWD's portion of the work includes reducing the impervious surface of the parking lot without losing stalls by reorienting the stall positions and adding larger islands to support trees. The City of Roseville is installing an underground storage and infiltration system, while the church is contributing money for asphalt reconstruction. Final cost-share amounts are currently being prepared. Preparation is underway for the start of construction in the coming weeks.

Keller channel weir and Phalen outlet resiliency modifications (Barr project manager: Greg Nelson; RWMWD project manager: Tina Carstens)

This project includes design, bid document development, bidding, permitting, and project procurement of modifications to the Keller channel structure and the Phalen outlet structure. The purpose is to implement a design that will allow the RWMWD to remotely adjust the weir heights on the Keller channel structure and the Phalen outlet structure in accordance with an approved operating plan. Operation of the structures under certain conditions will help reduce upstream flood levels where homes exist in the floodplain.

During this period, the contractor completed work on the existing weir modifications at the Keller channel control structure. In addition, channel bottom excavation and grading was performed, and additional volume was excavated to improve flows through the structure. The additional work is described in the change order. The contractor's crew continued to clean up at the Phalen outlets and the Keller channel while waiting for the gates to be shipped and delivered. The crew plans to install them at the Keller channel first, followed by the Phalen outlets. Once the gates are installed, work on electrical and control panels will ensue as ground conditions allow.

Progress payment no. 3 and change order no. 3 are included for board consideration at the April 7 meeting.

Ryan Drive and Keller Parkway conveyance (Barr project manager: Sam Redinger; RWMWD project manager: Dave Vlasin)

The purpose of this project is to implement improved conveyance through Gervais Creek, as recommended by the Owasso Basin bypass feasibility study.

On March 29, bids were opened. The bid result are summarized in the action item in this packet and offered to the board for consideration at the April 7 board meeting. If the board deems it appropriate, they should award the work to the lowest responsible and responsive bidder that they feel is in the best interest of the project.

The City of Little Canada continues to be amenable to partnering with the RWMWD on the Ryan Drive improvements and is currently working through its evaluation process. The level of the city's partnership (i.e., cost sharing) has not been confirmed, but Barr and the RWMWD have met with the city and its engineer multiple times to discuss the merit of the Ryan Drive scope and the benefit to the city and its residents.

As mentioned last month, Ramsey County has indicated that a financial partnership on the Keller Parkway improvements is unlikely at this time, although coordination with them is also ongoing.

CIP project repair and maintenance

Beltline/Battle Creek tunnel five-year inspection (Barr project manager: Sam Redinger; RWMWD project manager: Dave Vlasin)

The purpose of this project is to maintain the existing Beltline and Battle Creek tunnel systems and infrastructure owned and operated by the RWMWD.

As previously mentioned, based on Barr's findings, several defects warrant consideration for near-term rehabilitation. The repairs are localized and specific and outside of the previous project repair extents. These repairs, as well as remaining pipe inspections, will be completed, and a comprehensive inspection report provided this winter, when flows subside and the tunnel can be accessed safely.

Barr solicited and received three bids for the work on Tuesday, March 30, 2021. The amount work is well below the threshold (\$175,000) requiring a formal public bidding process. We are currently reviewing the bids and will offer a recommendation to the district's administrative staff in early April. No formal board action is needed to proceed with the work due to its relatively low cost. The Beltline repair work is anticipated to be completed by the end of May as conditions in the pipe allow. A Special Use Permit to allow access onto Ramsey County Parks and Recreation land is pending execution (the permit has been signed by RWMWD). The permit is anticipated shortly, and will allow the repairs for McKnight Basin Structure 98 to be completed on a similar schedule as the Beltline repairs.

CIP maintenance/repairs 2021 project (Barr project manager: Greg Nelson; RWMWD project manager: Dave Vlasin)

The purpose of this project is to maintain existing systems and infrastructure owned and operated by the RWMWD and to assist and facilitate stormwater pond cleanouts to allow other public entities to meet their MS4 requirements.

In January and February, Fitzgerald Excavating & Trucking completed the channel muck excavation in Gervais Creek south of South Owasso Boulevard. Crews had difficulty finishing the cleanout work in the creek north of Owasso Boulevard and have removed equipment to reassess their approach. The contractor, along with the owner's representatives, is in the process of planning how best to complete that work. In the meantime, the contractor finished the cleanout excavation of ponds in Little Canada and North Saint Paul, continues to make progress on the remaining work items, and appears to be on track excluding the one issue mentioned above.

Progress payment application number 1 is included in this month's bill list.

New technology review

AquaShield water treatment solutions (Barr project manager: Matt Kumka; RWMWD project manager: Tina Carstens)

The purpose of this project is to provide summaries of new and/or innovative stormwater technologies being implemented to reduce the negative impacts of stormwater runoff. These serve as mini case studies for these products and for public informational purposes.

Innovative technology	<ul style="list-style-type: none">▪ Three-part prefabricated stormwater treatment system▪ Components: AquaGuardian, AquaSwirl, and AquaFilter
Use	Reducing sediment and pollution loading from non-point source stormwater runoff
Benefits of technology	<ul style="list-style-type: none">▪ Total suspended solids removal▪ Total petroleum hydrocarbon removal▪ Phosphorus removal▪ Zinc/heavy metal removal▪ Multi-purpose land use when installed with traffic loading specifications▪ Made of lightweight high-density polyethylene (HDPE) for less costly installation▪ Modular for a variety of site-specific applications, including small spaces
Drawbacks	<ul style="list-style-type: none">▪ Does not provide substantial peak flow reduction or overall runoff volume reduction▪ Limited proven phosphorus removal▪ Product-specific filter media supplied by sole manufacturer▪ May prove cost prohibitive where other BMPs are possible
Case studies	<ul style="list-style-type: none">▪ https://www.aquashieldinc.com/tech-reports--case-studies.html▪ Testing video: https://www.youtube.com/watch?v=VnLzPdTPOj4
Suppliers/contacts	<ul style="list-style-type: none">▪ AquaShield Inc. (Chattanooga, Tennessee)▪ http://www.aquashieldinc.com/index.php
Conclusion	<ul style="list-style-type: none">▪ Provides moderate pollutant removal from stormwater runoff▪ Best used in areas where space is limited and restrictive of other BMP options▪ Strict maintenance regime required to maintain effectiveness▪ Not cost effective where other surficial BMPs are an option, such as a rain garden

Technology description

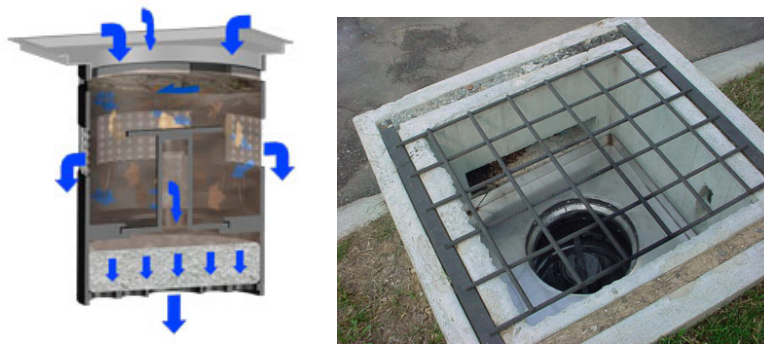
AquaShield is an inline, three-component treatment train designed to reduce large amounts of total suspended solids, hydrocarbons, some heavy metals such as zinc, other sediments, and floatables from stormwater runoff. The system consists of the AquaFilter, the AquaSwirl, and the AquaGuardian. Each component can be used individually, but the manufacturer suggests conjunctive use for full functionality. Each component and its required filter media is solely produced by the manufacturer, AquaShield.

Due to new filtration media and cost considerations, this new technology review has been updated since a previous version was included in a 2009 board packet.

AquaGuardian

The AquaGuardian is a catch basin insert constructed of stainless steel and HDPE and is designed to trap and contain large floatables, sediments, and other debris before entering the AquaSwirl component (or storm sewer if not used in junction with other AquaShield products). The AquaGuardian is fully customizable to fit an existing catch basin structure of almost any size. A support collar is used to concentrate flows and force them to pass through a series of filter screens and insert filter media. The design includes a high-flow bypass and baffle to enable continued floatable separation during increased flow rates while not allowing sediments to re-suspend from filter media. The filter media commonly used is 100-percent reclaimed hydrophobic cellulose, or perlite, which has been proven capable of capturing sediment, heavy metals, and petrochemicals.

Maintenance involves removing the catch basin grate and manually extracting large floatables, as well as removing sediments with a wet/dry vacuum or vacuum truck. The filter media needs to be replaced regularly, depending on sediment loading and the location of the catch basin. Currently, a variety of similar products exists on the market.



Figures 1 and 2: AquaGuardian (section and installed)

AquaSwirl

AquaSwirl is a hydrodynamic grit separator used as continued pretreatment to settle out coarse sedimentation and floatables. The structure itself is made from HDPE and is customizable in diameter. When used as the manufacturer intends, the AquaGuardian provides pretreatment of stormwater runoff, while the AquaSwirl provides advanced pretreatment. An angled inlet creating swirl action or vortex separation and gravity settlement is implemented to provide treatment through the physical separation of larger-grained particulates. A swirl concentrator allows the sediments to collect on the bottom of the sump structure for later removal. The sump depth is customizable for site-specific needs. An arched baffle keeps other floating pollutants such as grease and free oil from moving to further filtration or the storm sewer system. Other similar hydrodynamic separators exist, such as Stormceptor.



Figure 3: AquaSwirl installation

AquaFilter

The third component in the AquaShield treatment train is the AquaFilter. The AquaFilter stormwater filtration system is designed to remove a large percentage of fine sediments and waterborne pollutants from runoff. The AquaFilter is designed to accept runoff water from the AquaSwirl, where the majority of large sediment particulates have been removed. Pretreated water gravity feeds through pores in perlite filter cartridges, providing total suspended solids removal and chemical treatment. The runoff is evenly distributed over a permeable filter bed of individual filter media cartridges. Peak design flow is dependent on unit sizing according to the treatment area. No moving parts or valves can potentially provide longer-term use, with less maintenance needed beyond filter media replacement.

AquaFilter model	Peak design flow (cubic feet per second)	Approx. area treated (acres)	Diameter (feet)
AF-7	7.5	2.0-3.0	6
AF-8	11.0	3.0-4.5	8
AF-9	14.5	4.5-6.0	9

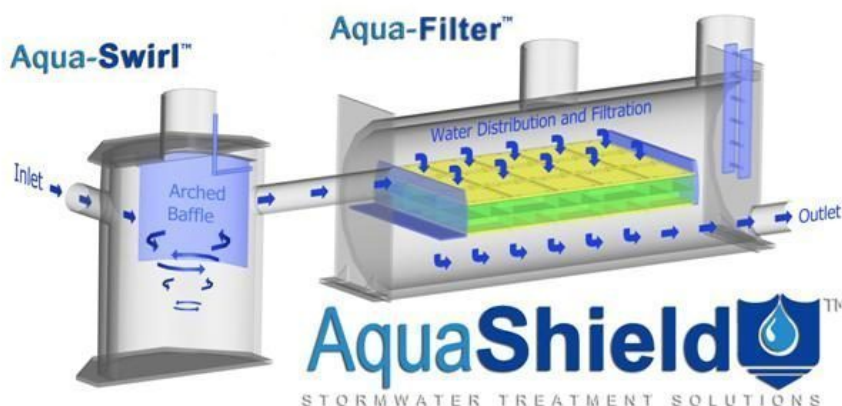


Figure 4: sectional illustration shows functions of the AquaSwirl and the AquaFilter



Figure 5: installation of the AquaSwirl and AquaFilter components

Cost

\$31,500 per acre treated¹

The individual unit costs for the AquaFilter and the AquaSwirl range from \$25,000 to \$69,000 depending on the customizable sizing and storage capacity. The replacement filters cost \$45 per bag.

In comparison to other BMP alternatives, this stormwater quality solution is relatively expensive. A site-specific cost/benefit analysis would be needed to determine whether this system is appropriate, but initial consideration indicates that for sites where other BMPs are an option, the AquaShield is not cost effective.

Design criteria

All three products require site-specific design for the expected sediment and pollution loading and catchment area. Peak filtration rate is a product of calculating specific water quality treatment requirements. A manufacturer-provided sizing chart is available to aid in peak filtration flow rate for each component (see the chart above). The system is best implemented in retrofit situations connected to existing storm sewer networks.

The complete system requires proper excavation and bedding, which is comprised of compacted crushed aggregate and sand. Manufacturer-approved pipe connection devices include Fernco adapters to tie into existing storm sewer networks and between units. For implementation underneath parking lots or other trafficked areas, H-20 traffic loading compliance is required, including reinforced concrete surface and appropriate load distribution design.

Maintenance

The manufacturer suggests quarterly inspections and maintenance of the AquaSwirl pretreatment chamber and AquaFilter filtration media. Depending on catchment area, the AquaGuardian may require additional maintenance to remove an overabundance of floatables.

The AquaSwirl can be visually inspected via a 33-inch surface manhole. Floating debris and free oil can be observed on the surface. A measuring device (stadia rod) can be used to determine captured sediment depth. A vacuum truck is needed to remove captured sediment when it has built up to within 36 inches of water surface. A visual inspection of baffle is required to confirm that no obstructions have formed.

The AquaFilter must be inspected by a two-person crew performing a confined space entry. One of the filter media cartridges must be removed to the surface for visual inspection. The filter media is light tan in color and needs to be completely replaced once the media has turned black from pollutant loading. Replacement filters are available from the manufacturer only. Spent filters must be treated as fuel material if recycled or sent to a landfill. A basic visual inspection of inflow and outflow pipes is required to check for obstructions.

Conclusion

The AquaShield treatment train represents one of many customizable manufactured BMP options for stormwater runoff treatment. With two stages of pretreatment and a unique filtration system, however, it does appear to be one of the more complete systems. Overall, the system has a flexible design, allowing it to be utilized in several configurations.

Importantly, the system does not provide peak flow reduction and could potentially limit peak flow filtration during larger storm events because of its relatively small storage capacity. Systematic maintenance is required for lasting effectiveness. If no maintenance is performed, the system becomes quickly obsolete.

One independent study¹ concluded that during summer months, the complete AquaShield system can remove up to 70 percent of total suspended solids, 82 percent of total petroleum hydrocarbons, 55 percent of zinc (heavy metals), and 40 percent of phosphorus.

The relatively low amount of proven phosphorus removal limits the usefulness of the AquaShield in catchment areas where such removal is a priority or in highly sensitive areas.

The complete AquaShield system is best used where space is very limited and/or multiple land uses are required, such as a parking lot or densely built urban areas. Individually, the AquaGuardian has the most potential for relatively inexpensive pollutant removal due to its flexible sizing and compatibility with existing catch basins without providing peak flow reduction or storage capacity.

1. Virginia Tech Stormwater Center: http://www.vwrrc.vt.edu/swc/documents/Aqua-Filter_TP%20Removal%20Efficiency.pdf

Natural Resources Update – Bill Bartodziej and Simba Blood

Carp Management Program

We are happy to report that the watershed will continue to partner with Carp Solutions, Inc. to conduct carp management throughout the watershed. We continue to make excellent progress and believe that this year will be extremely productive. NR staff and Carp Solutions staff work together closely in the field to conduct this management. This year, we are introducing PIT tag technology to increase our harvest rates. Below is an outline of scheduled activities:

1) Owasso Chain of Lakes

a) Installation of PIT (Passive Integrated Transponder) antenna systems to identify when schools of carp are migrating at the inlets and outlets and feeding in the baited box nets. Hundreds of carp have already been PIT tagged throughout the system. These tagged fish mingle with untagged fish, and help us to locate large schools of carp at key times.



A PIT tag is the size of a grain of rice and is injected into the carp with a syringe.

b) Carp migrate during the spawning period, beginning in late May. We have had very good success harvesting at key barrier locations during the spawning run. This year, we will have PVC pipe barriers at these locations: Bennett outlet, Owasso inlet, Owasso outlet, Wabasso outlet, and the Grass Lake outlet. The installation of PIT antennas at these locations will definitely improve our harvest efficiency.

c) Two baited box nets will be used in the summer to trap carp in Bennett Lake. A PIT antenna system will be deployed around the nets. When feeding activity is optimal, the nets will be triggered. Since Bennett is a shallow lake, this system should respond quite favorably and water quality should improve.

d) A low power electric barrier will be installed at the West Vadnais outlet. We will use a PIT antenna system to evaluate the effectiveness of this new barrier. The main objective is to prevent carp from moving into the Phalen Chain of Lakes. If we do see a large aggregation of carp at the barrier, we will attempt removal. VLAMO has been great to work with and is providing cost-share funding (\$10,500) for this barrier.

2) Phalen Chain of Lakes

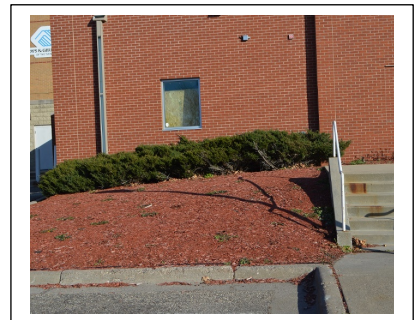
After years of intensive management, carp levels are low in the Phalen Chain. Our main focus in this system is the monitoring of fish populations in key carp spawning areas. Healthy native gamefish populations will work to control carp in these systems.

a) Fish community assessments will be conducted in Gervais Mill Pond, Casey Lake, Kohlman Basin, and Markham Pond. A combination of trap nets and boat electrofishing will be used to conduct the surveys.

b) A pipe barrier is located in Kohlman Creek just to the East of HWY 61. The main purpose is to keep carp from migrating into key spawning areas like Kohlman Basin. If carp migrate and school at the barrier, we will use a backpack electroshocker and nets to remove the fish. We have had success in the past at this location.

Public Involvement and Education Program – Sage Passi

St. Paul Boys and Girls Club Youth Will Design Memorial Gardens

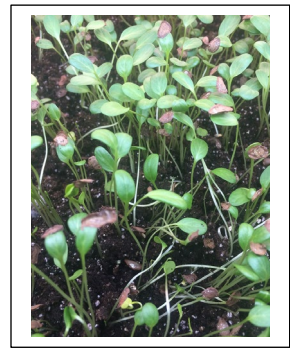


At the end of February, we received news from the St. Paul Garden Club that the East St. Paul Boys and Girls Club proposal for a Memorial Garden on their site was accepted and awarded \$2500. Sage worked in late fall with Koreena Moua, Branch Director for the Club and Shannon Mattson, Vice President of Development and Communications on the grant application and developed preliminary plans for 3 garden areas to be fully designed with youth involvement this spring. This project will help address

erosion issues on several slopes on the site, support youth to develop skills in garden design, leadership, project coordination and integrate native plant and watershed education.

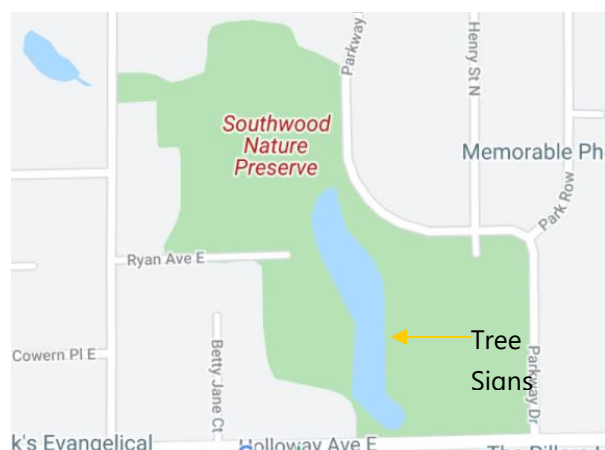
Dana Boyle, a member of the St. Paul Garden Club and a Master Naturalist active in our Watershed District offered to be the Garden Club's liaison for the project. Randee Edmundson, educator and CAC member will work with art teacher Aloun Phoulavan and youth artists to develop a design for a sculpture to be installed within one of the garden areas to honor youth who have lost their lives to violence on the east side of St. Paul. On March 30, Sage will participate in a Zoom introductory meeting with staff and youth from the Boys and Girls Leadership team and alumni from the Club to kick-off the planning process.

Germinating Engagement: Adapting Our Plant Growing Operation During COVID-19



This time of year would be typically busy with Master Gardeners assisting classrooms in the transplanting process of native seedlings to be planted in late spring at various sites around the District or given away at WaterFest. The growing operation has been downsized considerably with seedlings being grown under a set of lights at a home site. These trays will be transferred to the homes of volunteers (Water Stewards or others) for the transplanting process along with supplies (soil, inserts and trays), then returned to grow under our light set ups at our office and at other locations and then incorporated into projects around the Watershed District.

Educational Sign Project Installed at Southwood Nature Preserve Pond



Cathy Troendle, Master Naturalist and Education Consultant for RWMWD recently developed and installed an educational sign project along the east side of the pond at Southwood Nature Preserve (2651 Holloway) in North St. Paul to help visitors learn how to identify ten floodplain trees before they bud out in the spring. Several species specialize in this habitat type, particularly cottonwood, silver maple, box elder, black willow, green ash, American elm, basswood, swamp oak, river birch, and big-toothed aspen. These trees, with extensive, shallow root systems, help to stabilize creek, pond, lake and riverbanks by holding the soil tightly and preventing excessive erosion.

Landscape Revival Will Be Held this Spring in Two Locations in our Watershed



**Free and Open To All
Rain or Shine**

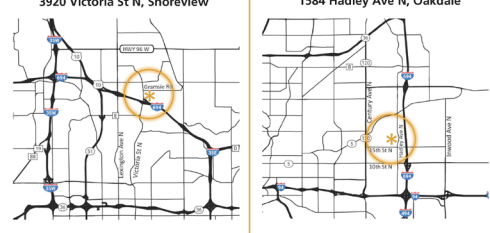
Landscape Revival: Shoreview	Landscape Revival: Oakdale
Saturday, June 5, 2021 9 am - 1 pm	Saturday, June 12, 2021 9 am - 1 pm
Shepherd of the Hills North Parking Lot 3920 Victoria St N, Shoreview	Oakdale City Hall Parking Lot 1584 Hadley Ave N, Oakdale

See reverse for maps; for more info go online to
tiny.cc/SHOREVIEW & tiny.cc/OAKDALE

Join Us For Our 10th Annual Plant Sale!
Expo: we expect to offer an exhibition & educational experience online, to the best of our abilities.
Market: Purchase Minnesota native plants from a variety of local growers. No cultivars or systemic insecticides.
Cash or Check Preferred
Mask and Social Distance Required

Landscape Revival
Native Plant Expo & Market

Landscape Revival: Shoreview	Landscape Revival: Oakdale
Saturday, June 5, 2021 9 am - 1 pm	Saturday, June 12, 2021 9 am - 1 pm
Shepherd of the Hills North Parking Lot 3920 Victoria St N, Shoreview	With a food truck! Oakdale City Hall Parking Lot 1584 Hadley Ave N, Oakdale



Please wear a mask and stay 6 feet apart! Check the websites listed on the front for the latest information.

The annual Landscape Revival that was canceled this past year due to Covid will be held this year at two locations in our watershed on Saturday, June 5 at Shepherd of The Hills at 3920 Victoria St. North in Shoreview and on Saturday, June 12 at Oakdale City Hall (1584 Hadley Avenue North in Oakdale). Hours are from 9 AM-1 PM. The Landscape Revival offers new and experienced gardeners two convenient locations to shop for Minnesota native plants (no cultivars) from local growers and learn how gardening with native plants can help pollinators, wildlife habitat, and water quality. Native plant growers participating in the sale do not use systemic pesticides. The event coordinators ask everyone to follow state guidelines, wear a mask and stay 6 feet away from those not in their household. The organizers are also offering the opportunity for organizations to provide experiential opportunities related to native plants online.

Communications Report – Lauren Hazenson

Communications Strategy and General Updates

Event Promotion

This month, communications campaigns were delivered for the Raingarden Maintenance Workshop (38 registrants) and Environmental Forum (62 registrants as of 3/30). We will also begin a post-event survey for the Environmental Forum to help with future event promotion and content.

Permitting Surveys

Planning and drafting work for permit program stakeholder surveys was started this month, with a planned delivery date of May 4th. These surveys will help inform messaging throughout the permitting and inspection process.

Emergency Response Plans and Flood Risk Reduction Studies Outreach

Lauren Hazenson has been coordinating with Barr staff to research outreach methods for residents whose properties are surveyed as part of the flood risk reduction study work.

Publications/ Original Content

Flood Risk Mitigation Fact Sheets

Five fact sheets were presented for review by city staff at a Public Works Forum on March 18th. Edits based on forum feedback will be completed by April 8th. The fact sheets will be provided as a resource for RWMWD member cities to provide their residents and other stakeholders with tools to proactively address flood risk concerns on their properties.

Annual Report

March Annual Report tasks included compiling photos for the report design, collecting data for program-level reports, and meeting with programs to collect story ideas.

Wetland A Interpretive Signage

We conducted several planning meetings with Natural Resources staff, drafted illustration mockups, and held a design planning meeting with Barr Engineering staff.

Social Media (Facebook, Twitter, Instagram)

Numbers as of 3/29 for March:

Audience: 2,588

Impressions/Post Views: 8,045

Engagement (likes, comments, shares): 361

To: Board of Managers and Staff
From: Tina Carstens and Brad Lindaman
Subject: Project and Program Status Report April 2021
Date: April 1, 2021

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Website Updates

We have begun searching for a new web design and support firm before conducting an upgrade to the website's storage capacity. This firm is expected to be in place by mid-April. Staff are preparing for a site performance assessment, including gathering input from internal and external website stakeholders, which is planned for this summer. The data collected during this assessment will inform any updates to the website structure to enhance user experience and whether any additional solutions are required to meet stakeholder needs.

Professional Development/ Misc.

Communications hosted a media training for staff in partnership with Mississippi Watershed Management Organization and Capitol Region Watershed District on March 24th. The training prepared staff for media interviews in community outreach, project promotion, and crisis communications scenarios. Select staff and Board will receive small group interview training in early April.



Environmental Forum

A MOUNTAIN LION'S STORY



FOLLOW THE PATH OF THE "MN MOUNTAIN LION"
AND HEAR THE INTRIGUING LESSONS LEARNED ABOUT APEX PREDATORS
THROUGH YEARS OF RESEARCH

Sponsored by: The Ramsey-Washington Metro Watershed District
and H.B. Fuller Company

When: Thursday, April 8, 2021 7:00 PM (CDT)

Who: **William Stolzenburg**, Wildlife Conservation Biologist, Acclaimed
Author of Four Books and Professional Speaker

To Attend: Virtual Webinar
Reservations required: EventBrite – [click here](#) to register
Ability to attend Zoom meeting necessary
Questions: deb.barnes@rwmwd.org

Cost: Free

Questions: Watershed District: 651-792-7950
Evening of Event: 651-387-6368

You won't want to miss his captivating story!

Hear Will Stolzenburg's incredible chronicle of the two-year journey of a young mountain lion across America, with well-documented stops in the Twin Cities. Learn Will's discoveries as he tracked the lion's story through both rural and populated areas and the support and concern this predator raised among people living along the path he traversed. Will authored a book accounting this tale, which completed an unplanned trilogy on apex predators and their role in ecosystems. He will share his fascinating research and observations on various predators and will inspire each of us to reflect on their impact on our world and our lives.

Will Stolzenburg is a wildlife biologist turned author and speaker. Gravitating toward predators, his journey led him to uncover the critical role these topmost predators play in ecosystems. Will has written three books on predators, *Where the Wild Things Were*, *Rat Island* and *Heart of a Lion*. Will writes about animals because he finds them wondrous, good for the soul, and because they deserve a voice. You will appreciate his commitment to educating others. Willstolzenburg.com

