

Riley-Purgatory-Bluff Creek Watershed District

Board of Managers Regular Meeting

Wednesday, June 6, 2018

7:00 pm Regular Board Meeting

DISTRICT OFFICE

18681 Lake Drive East

Chanhausen

Tentative Agenda

1. Call to Order
2. 7:00 pm Approval of the Agenda (Additions/Corrections/Deletion) Action
- ~~3. Rules Public Hearing~~ moved to July 11
4. Matters of general public interest Information

Welcome to the Board Meeting. Anyone may address the Board on any matter of interest in the watershed. Speakers will be acknowledged by the President; please come to the podium, state your name and address for the record. Please limit your comments to no more than three minutes. Additional comments may be submitted in writing. Generally, the Board of Managers will not take official action on items discussed at this time, but may refer the matter to staff for a future report or direct that the matter be scheduled on a future agenda.

5. Reading and approval of minutes Action
Board of Manager Meeting, May 2, 2018
6. Consent Agenda
(The consent agenda is considered as one item of business. It consists of routine administrative items or items not requiring discussion. Any manager may remove an item from the consent agenda for action.)
 - a. Accept Staff Report
 - b. Accept May Engineer's Report (with attached Inspection Report)
 - c. Approve 60 day review period extension for permit 2018-005 Hampton Inn in Eden Prairie.
 - d. Approve permit 2018-015 Starbucks Coffee Store in Shorewood with staff recommendations
 - e. Approve permit 2018-022 Sunrise Park Athletic Court Improvements in Bloomington with staff recommendations.
 - f. Approve permit 2018-027 MAMAC Addition in Chanhausen with staff recommendations.

- g. Approve 60 day review period extension for permit 2018-028 Oak Point Elementary Parking Lot in Eden Prairie
- h. Approve permit 2018-029 98th Street Reconstruction in Bloomington with staff recommendations.
- i. Approve permit 2018-030 Dakota Road Reconstruction in Bloomington with staff recommendations.
- j. Approve permit 2018-031 Ridgeview Elementary School Improvements in Bloomington with staff recommendations
- k. Approve permit 2018-034 Basin 05-11-A Cleanout in Eden Prairie with staff recommendations

7. Citizen Advisory Committee

Information

8. Action Items

Action

- a. Accept April Treasurer's Report
- b. Approve Paying of the Bills
- c. 4M Fund Membership
- d. Shorewood Water Management Plan

9. Discussion Items

Information

10. Upcoming Events

Information

- Junior Master Steward Action Project, Eden Prairie High School
- Citizen Advisory Committee monthly meeting, June 18, 6:00 pm, 18681 Lake Drive East, Chanhassen.
- Public Hearing and Regular Board Meeting, July 11, 7:00 pm, 18681 Lake Drive East, Chanhassen

MEETING MINUTES

Riley-Purgatory-Bluff Creek Watershed District

May 2, 2018, Board of Managers Monthly Meeting

PRESENT:

Managers: Richard Chadwick, Secretary

Jill Crafton, Treasurer

Dorothy Pedersen, Vice President

Dick Ward

Leslie Yetka, President

Staff: Claire Bleser, District Administrator

Michelle Jordan, Community Outreach Coordinator

Louis Smith, Attorney (Smith Partners)

Scott Sobiech, Engineer (Barr Engineering Company)

Other attendees: Jan Callison, Hennepin Co. Commissioner Brent Massey, CEI Engineering

Greg Hawks, Chanhassen Environmental Krista Spreiter, City of Chanhassen
Commission

Pete Iverson David Ziegler, CAC; Eden Prairie Resident

Larry Koch, Chanhassen Resident

1. Call to Order

President Yetka called to order the Wednesday, May 2, 2018, Board of Managers Meeting at 7:04 p.m. in the District Office, 18681 Lake Drive East, Chanhassen, MN 55317.

2. Approval of the Agenda

Manager Ward moved to approve the agenda. Manager Crafton seconded the motion. Upon a vote, the motion carried 5-0.

3. Update From Hennepin County Commissioner Jan Callison

Hennepin County Commissioner Jan Callison stated that 62% of Hennepin County's directors will be eligible to retire in 10 years. She spoke about the County's initiative to make sure that the right people are in the right place, and she displayed a bookmark developed by the County with such statistics. Commissioner Callison talked about the County's 2018 state legislative priorities and platforms:

- Constructing and operating a Regional Medical Examiners Facility, located in Minnetonka;
- Addressing the increasing number of deaths in the County due to opioid use;
- Recycling and in particular encouraging more organics recycling

Commissioner Callison thanked the District for its work, noted that President Yetka has submitted her resignation, and noted that Manager Crafton's term expires on July 31. Commissioner Callison responded to questions.

4. Matters of General Public Interest

No Matters of General Public Interest were raised.

5. Reading and Approval of Minutes

a. April 4, 2018, RPBCWD Board of Managers Workshop and Monthly Meeting

Manager Crafton moved to approve the minutes as presented. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0.

6. Consent Agenda

President Yetka read aloud the Consent Agenda: 6a. Accept Staff Report; 6b - Accept Engineer's Report (with Attached Inspection Report); 6c – Approve Permit 2018-001 Minnesota Panera Store #6038 in Chanhassen with staff recommendations; 6d – Approve Permit 2018-017 Eden Prairie Schools Administrative Service Center Parking Lot Expansion in Eden Prairie with Staff Recommendations; 6e -Approve Permit Modification to Permit 2015-010 Children's Learning Adventure in Chanhassen with Staff Recommendations; 6f – Approve Residential Cost Share Grant for Stoner Raingarden Project; 6g – Approve Scenic Heights Elementary School Forest Restoration Project – Pay Application #1; 6h - Authorize the Administrator to enter into Grant Agreement with Metropolitan Council for Watershed Outlet Monitoring Program.

Manager Ward moved to approve the Consent Agenda as presented. Manager Crafton seconded the motion. Upon a vote, the motion carried 5-0.

7. Citizen Advisory Committee (CAC)

Mr. Zielger, CAC president, reported that the CAC recommended approval of the raingarden cost-share, which was just approved by the Board with the Consent items. Ms. Pedersen extended her appreciation for the CAC member who put on the recycling event at the Eden Prairie Library.

8. Action Items

a. Accept March Treasurer's Report

Manager Crafton moved to accept the March Treasurer's report. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0.

b. Approve Paying of Bills

Manager Crafton moved to pay the bills. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0.

c. Authorize the Administrator to Enter into Agreement with the University of Minnesota on the Stormwater Pond Proposal from Dr. John Gulliver

Administrator Bleser reminded the Board that she introduced this topic at a previous meeting. She reported that she has contacted the five cities involved with the original study, including the cities of

Bloomington, Chanhassen, Eden Prairie, Minnetonka, and Shorewood. Administrator Bleser said that the memo in the Board meeting packet lists the proposed financial contribution by each city. She explained that additionally, the cities will apply and purchase the iron-enhanced sand filings to the selected ponds. Administrator Bleser responded to questions about which ponds would receive the iron-enhanced sand filings and about the safety of the filings to people and wildlife. She explained that in the first phase of the study, Dr. Gulliver's team would perform a literature study to understand tolerance to iron compounds and to make sure putting the filings in ponds would not create unsafe conditions.

Manager Ward asked who would be responsible for the public education piece. Administrator Bleser said the District, the University, and the cities would be responsible jointly. There was discussion about the study's funding, the District's portion of the funding, which is proposed to be \$63,580, and the ponds to be selected for the study.

Manager Ward moved staff's recommendation to authorize Administrator Bleser to enter into an agreement with the University of Minnesota and the five Cities as specified in Dr. John Gulliver's proposal and to allocate the District's funds toward the study from the District's Survey and Data Analysis and Reserve Funds budget and for there to be a report to the District Board at the end of the study's first phase and with the Agreement subject to review by the District's Legal Counsel. Manager Crafton seconded the motion. Upon a vote, the motion carried 4-1 [Manager Chadwick opposed the motion.]

d. Enter into Cooperative Agreement with the City of Chanhassen for Lake Susan Park Pond

Administrator Bleser requested that the Board enter into a Cooperative Agreement with the City of Chanhassen for the Lake Susan Park Pond Watershed Treatment and Stormwater Reuse Project. There was a discussion regarding what amount the City of Chanhassen approved to fund the project, and it was determined that the City approved \$99,091.

Manager Crafton moved to approve the District entering into agreement with the City of Chanhassen for the Lake Susan Park Pond Watershed Treatment and Stormwater Reuse Project with the edit to the Cooperative Agreement in Section 3.1 to reflect the City's contribution of \$99,091. Manager Ward seconded the motion. Upon a vote, the motion carried 5-0.

e. Authorize the Administrator to Award the Lake Susan Park Pond Project to Peterson Company with Engineer's Recommendation

Administrator Bleser pointed out that the Board Meeting Packet contains a memo explaining the need for additional funds for the Lake Susan Park Pond Watershed Treatment and Stormwater Reuse Project due to higher bids than anticipated for the construction and management of the project. She recommended that the Board transfer \$100,000 from Purgatory Creek at 101 project to the Lake Susan Park Pond project and award the Lake Susan Park Pond Project to Peterson Company with the Engineer's Recommendation.

Manager Crafton moved to approve awarding the Lake Susan Park Pond Project to Peterson Company with the District Engineer's recommendation and staff's recommendation to transfer District funds in the amount of \$100,000 from the Purgatory Creek at 101 project to the Lake Susan Park Pond project. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0.

f. Authorize the Administrator to Purchase District Vehicle for Wetland Survey and Education and Outreach Program

Administrator Bleser explained the proposal for the District to purchase another vehicle. She went into detail about the proposed vehicle, which is a Toyota Rev 4. She described the Cooperative Purchasing Venture through the state and the research performed by staff regarding the vehicle. There was a lengthy discussion about alternatives to purchasing a vehicle.

Manager Crafton moved to authorize the Administrator to purchase the Toyota Rev 4 as outlined in the proposal. Manger Pedersen seconded the motion. Upon a vote, the motion carried 4-1 [Manager Chadwick opposed the motion.]

g. Conditional Approval of the City of Chanhassen's Local Surface Water Management Plan

Administrator Bleser explained that staff has eight comments for the City about its LSWMP. She went through the conditions. Manger Pederson moved to conditionally approve the City of Chanhassen's Local Surface Water Management Plan based on the conditions explained by Administrator Bleser. Manager Crafton seconded the motion. Upon a vote, the motion carried 5-0.

h. Approve Memorandum Supporting and Providing Explanation of Proposed Revisions of the Riley Purgatory Bluff Creek Watershed District and Authorize Distribution of Draft Rules for Public Comment

Manager Crafton offered a few non-substantive edits to the memorandum. Manager Ward asked to see all of the written comments once they are received and compiled. He asked how this information is conveyed to developers, and he suggested that the District make the information available through the cities. Staff offered ideas of how it could make the information available.

Manager Crafton moved to approve the Memorandum Supporting and Providing Explanation of Proposed Revisions of the Riley Purgatory Bluff Creek Watershed District and Authorize Distribution of Draft Rules for Public Comment with additional notification from the District's database and the suggested edits to the Memorandum. Manager Ward seconded the motion. Upon a vote, the motion carried 5-0.

9. Discussion Items

a. Local Government Cost-Share Application – Eden Prairie, Rustica Raingarden

Administrator Bleser announced that the District will hold a public hearing about this item at its June meeting.

b. HOA Cost-Share Application – Fairway Woods II Water Quality Landscaping

Ms. Jordan reported that she will bring this item to the Board but it might not be ready for the Board's June meeting.

c. Upcoming Events

President Yetka read aloud the upcoming meetings and events, including the May 21st CAC meeting at 6 p.m. at the District Office and the District June 6th public hearing and monthly Board meeting at 7 p.m. at the District Office.

10. Upcoming Events

- Citizen Advisory Committee Meeting, Monday, May 21, 6, 6:00 p.m., District Office, 18681 Lake Drive East, Chanhassen.
- RPBCWD Board of Managers Public Hearing and Regular Monthly Meeting, Wednesday, June 6, 7:00 p.m., District Office, 18681 Lake Drive East, Chanhassen

11. Adjourn

Manager Ward moved to adjourn the meeting. Manager Crafton seconded the motion. Upon a vote, the motion carried 5-0. The meeting adjourned at 8:37 p.m.

Respectfully submitted,

Richard Chadwick, Secretary

RPBCWD Staff Report

June 6, 2018

Administrative

10-Year Plan

Timeline

November 15 – release of the plan out for comments

December 6 – 6:00pm Informational session

January 15 – end of written comment period

February 7 - response to comments to board for approval (we need 10 days in between response to comments and public hearing)

March 15 – Public Hearing

April 4 – release for 90 day

Administrator Bleser will be presenting to the BWSR Central Regional Committee on June 7, 2018

50th Anniversary Celebration: Come explore with us!

Staff has worked on fine tuning a 50th anniversary logo.

Administration

Administrator Bleser performed performance reviews for staff Jeffery, Jordan, and Maxwell. Staff was compensated reflective to the performance review scale adopted by the managers April 17, 2015. Paperwork for Two of our interns has been completed.

Aquatic Invasive Species

Curlyleaf pondweed surveys were completed on Lotus Lake, Lake Susan, Lake Riley, Mitchell Lake, Red Rock Lake and Staring Lake. Lotus, Susan, Riley, mitchella and Red Rock Lake were treated on May 30th.



Lake Riley



Lake Susan



Mitchell Lake



Lotus Lake



Tuesday, May 29, 18

To Whom It May Concern:

The Riley-Purgatory-Bluff Creek Watershed District is proposing to have herbicide treatment applied to areas with curly-leaf pondweed on Red Rock Lake. The herbicide used would be a low dose of Diquat and would be applied early-season; please see figure on the backside for specific targeted areas. Application of this herbicide will occur when the treatment will be optimal (low wind action and water temperature close to 50F).

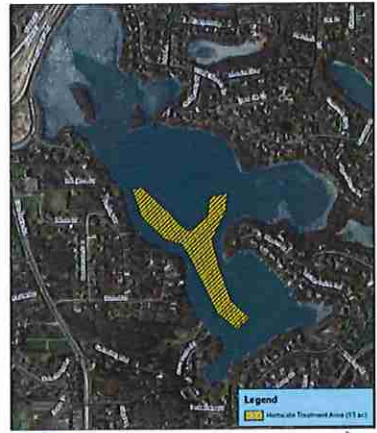
The District recommends that you do not use the water from Red Rock Lake for human or animal drinking, and irrigation within 7 days of application. If you would like to opt-out from having treatment occur on your property, please contact me at the below contact information. Please let us know if you would like to opt-out by May 28, 2018. The treatment of the lake would be at no-cost to the residents.

If you have any questions on these applications, please feel free to contact me at the below contact information.

Sincerely,

Claire Illner
District Administrator
18681 Lake Drive East
Chanhassen, MN 55317
T: 952-607-6512
Email: cillner@rpbcbd.org

Proposed area of the treatment are highlighted in yellow. These are pending MN DNR permit.



Annual Report

No Update

Budget

No changes

Data Requests and Research Extension

A staff member of MCWD requested and was sent information about common carp trap netting.

A community member requested and was sent the zero lake level elevation to track water levels in Lake Lucy. Last year staff utilized the data she collected when our unit went down.

Grants

The District was part of a meeting with Hennepin County LGUs to discuss distribution of targeted watershed fund for Hennepin County. LGUs were in favor of the Minnesota Watershed Organization proposal to develop a cost-share program focusing on minimizing chloride pollution.

MAWD

We have close to 90 participants for the MAWD tour. This is a mix of local leaders and MAWD affiliates.

Citizens Advisory Committee

April meeting

The Citizens Advisory Committee met Monday, May 21, for their regular monthly meeting. Draft minutes are included in the board packet. These include a proposal from one of the CAC members for a water conservation rebate program.

Technical Advisory Committee

No new updates

Programs and Projects

District-Wide

Cost-share program

The second-round application deadline is June 13. The Community Outreach Coordinator has been transitioning to having the technical assistant from Carver County Soil and Water Conservation District conduct site-visits independently in preparation for the coordinator's planned leave July-September. While the coordinator is gone, the technician will report activities to the district administrator. Staff have been working with the city of Eden Prairie and the HOA on their applications. They will be brought to public hearing and to the board for consideration when all components have been finalized.

Lake Riley Community Clean Water Meeting

The watershed district, in partnership with the Lake Riley Improvement Association, hosted a community clean water meeting for the Lake Riley watershed. 16 community members attended and learned about actions they could take on their properties to help protect clean water in the lake. They also learned about the district's cost-share program and had the chance to sign up for site visits. It was an interactive session with questions and comments from the participants and several people signed up for site visits.

MPCA Community Resiliency Grant

Staff has not yet completed reporting but anticipate having it done in April.

Regulatory Program

Permitting

Three (3) applications were submitted to the District's on-line permitting system since the May 2, 2018 Board Meeting. Of these two were approved administratively and are listed in the table below. The third (2018-034) is on the consent agenda for approval. The remaining permit reviews were submitted prior to the May meeting.

| PERMIT # | ADDRESS | PROJECT DESCRIPTION |
|----------|--------------------------------|---|
| 2018-032 | Valley View Rd Right-of-Way | Mill and overlay of 7,300 feet of existing 8-foot wide bituminous path from Eden Prairie Rd to Mitchell Rd.. |
| 2018-033 | EPHS / TC&W RR | Construction of pedestrian crossing from Duck Lake Rd to Eden Prairie HS and associated 8' to 10' trail with downstream vegetated pervious area equal to at least one-half the trail width. |
| 2018-035 | 7440 Chanhassen Rd, Chanhassen | The installation of a sand blanket 29' in width by 10' in depth. |

Builder/Developer Workshop

The District hosted a workshop for builders and developers on May 16. There were thirteen (13) attendees. Two of the attendees were builders and the remaining eleven were consulting engineers. While most seemed to find the workshop informative, staff is recommending that in the future a workshop is held specifically for builders and landscapers and a second workshop be held for developers and consultants.

Rules Update

The District Rules are currently out for comment. Comments are due June 25, 2018. As of the date of the report, only the Metropolitan Council had submitted comments. Staff will prepare responses to all comments at the end of the comment period and bring to the Board for review and approval.

Stormwater Research (Gulliver)

Administrator Bleser is working with Prof. Gulliver on the research proposal and grant agreement. Stormwater ponds were identified for each of the partner cities.

Data Collection (J. Maxwell)

Rice Marsh Aeration

David Ziegler assisted District staff in retrieving the thin ice signs in early May. Staff also picked up a new aeration unit which was being held by BARR Engineering. Staff will pulse the unit once a month and remove the aeration stones this summer to ensure the lines are clear.

Bluegill Stocking

Because healthy bluegill populations within lakes can control common carp populations, the District decided to stock bluegills in several lakes/waterbodies in 2018. The cost of stocking bluegills is relatively cheap (\$1.00/fish) as compared to having commercial fisherman seine for carp. The bluegills stocked were from Goeden Fisheries LLC



based in Alexandria, MN which is certified by the state of MN. The fish were approximately 5-7 inches with the majority able to spawn this spring. The bluegills will provide some immediate carp control, however the main benefit will come via reproduction this spring and establishment of breeding population. The following are lakes that were stocked, along with some description of circumstances which lead to stocking:

- 1) Rice Marsh Lake (1,000 bluegills) - experienced a winterkill in late February. The lake's bluegill population is key in controlling carp within the the Riley Chain of Lakes.
- 2) Staring Lake (300 bluegills) - although signs of strengthening bluegill population has been apparent in Staring, numbers were relatively low last year. So, bluegills were stocked to bolster the population.
- 3) Upper Purgatory Creek Recreational Area (200 bluegills) - limited wintekills occur in the upper wetland area and stocking bluegills was meant to again bolster the population. Carp trying to migrate upstream often end up in the upper wetland area and it has had the highest density of carp the last two years of monitoring.
- 4) Lower Purgatory Creek Recreational Area (500 bluegills) - winter kills are common, although this spring panfish have been observed frequently in this waterbody. The lower wetland area is the main water waterbody in the Purgatory chain of lakes that provides perfect spawning conditions for carp. The presence of a bluegill population can limit reproduction. Bluegills were stocked to ensure a spawning population was present and to bolster the population if a partial winterkill did occur.

Summer Field Season

Staff sent in both sondes last month for regular maintenance and have since received them back. The DS-5 water quality sonde took longer than expected as the DO sensor needed to be replaced. We are still waiting to receive the spent lime signature series sensor to be repaired and returned for deployment. Staff conducted two stream sampling events this past month. All but two lake level troll 500 units have been deployed. Staff purchased, assembled, and had Limnotech program two additional EnviroDIY units that will be used for lake level sensors on Lake Riley and Rice Marsh Lake whose sensors had to be replaced (should be in place in early June). Staff will be working with Limnotech within the upcoming months to learn to program the Enviro DIY units which are significantly less expensive than other products available. Staff installed two automated water sampling stations in early May, one at the stormwater inlet to the pond at the northwest corner of Rice Marsh Lake and one on Riley Creek in the culvert running under Powers Blvd upstream of Lake Susan. These stations are programed to trigger and take water samples when the water level rises during/after rain events. These samples will be used to analyze nutrient loading at these sites and determine whether these sites would benefit from stormwater BMPs. Emma Nyquist (wetland focus) and Mathieu Nicklay (water quality focus) joined the RPBCWD team as summer interns this month and been a huge help, allowing the District to get more done!

Common Carp Management

With DNR permits secured, staff installed the barrier trap net on May 7th and Eden Prairie staff installed the barrier on May 4th. Over an eight day period at the end of May, staff removed **1,376 common carp** between the trap net and backpack electrofishing. A majority of the fish were removed via the backpack electrofishing. Staff will continue to remove carp as long as the main

spawning run is occurring and will target fish above the barrier after they spawn as they try to return to Staring. Staff placed signs at the breach in the berm between the Upper and Lower Purgatory Creek Recreational Area asking people to not disturb the carp via fishing and wading. Carp have congregated at this location in large numbers which allows staff to easily target them if they have not been disturbed. Staff have fielded multiple calls about the signage and trap net with mostly positive reactions after discussion of the RPBCWD common carp management plan. Overall low mortality of native fish has occurred while utilizing the trap net this year. Staff will soon order tags for tracking common carp this winter (approximately 15). Staff would again like to recognize and thank the Shakopee Mdewakanton Sioux Community Organics Recycling Facility for allowing the District to drop off captured carp to be composted at no charge.



Creek Restoration Action Strategy

Staff will be replacing “lost” bank pins at our regular stream monitoring sites, as well as at an additional site on the southwest side of Silver Lake, to assess erosion rates in 2018. Barr Engineering and District staff submitted the CRAS to the Center for Watershed Protection for publication and are waiting for acceptance for the journal.

WOMP Station - Metropolitan Council

Staff visited the WOMP stations twice this month for baseline sample collection. On May 15th METC staff upgraded sampling units in the WOMP station on Purgatory Creek.

Education and Outreach (M. Jordan)

Volunteer program

Service Learners

All service learners have completed their hours. One student served as an artist in residence, taking photographs of resources and events around the watershed. Some examples are provided below.



Adopt a Dock Program

Volunteers have begun picking up their plates and logging their observations.

Master Water Stewards Program

This year's cohort continues to work toward planning and implementing their projects. Last year's high school student steward will be installing their project June 18th and 19th. The project is a rain garden on the Eden Prairie High School Grounds. Staff are beginning to recruit for next year's cohort.

Citizen Advisory Committee

See CAC section above.

Minnetonka High School Capstone Mentorship

The Minnetonka High School Student, Aimi Dickel, conducted her senior capstone mentorship project May 21-June 1st. For her project, she created an interpretive sign for the Scenic Heights School Forest restoration project. She focused on a specific feature in the school forest, a dead tree left to transform into a nurse stump. Nurse stumps decay slowly over time, providing habitat for insects, animals, and plants, including new trees. The first step in Aimi's project was to visit the school forest and explore the habitats there, including the nurse stump. Aimi also helped with

the school-wide art project that is taking place, rolling out clay slabs for use in the mural. After seeing the forest and the nurse stump, Aimi had the idea of creating a sketch of the nurse tree as it might look in the future, partially broken down and host to other creatures. This sketch was then incorporated into a draft of an interpretive sign. Once finalized, the sign will be installed next to the nurse tree.



Nurse stump sketch by Aimi Dickel

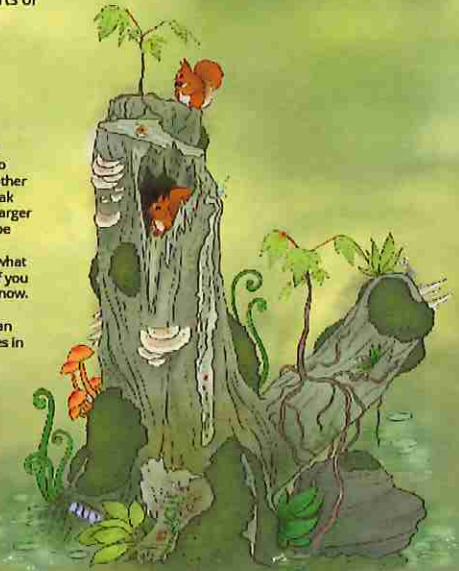
LENDING A HELPING HAND

The stump in front of you may be dead, but it is going to support new life. Over time, the tree stump will break down. It will provide food and homes for other animals and plants including new trees. Trees like this are called nurse stumps. They are important parts of forest ecosystems.

A story of time

It can take decades for the wood of a nursing stump to decay. Insects, fungi, and other bacteria start to slowly break down the tree. Eventually larger plants and even trees will be able to grow on top of the stump. This sketch shows what the nurse stump in front of you might look like years from now.

What plants and animals can you see making their homes in the picture?



Artwork and design by Aimi Dickel '13

CREATING HEALTHY SOIL

Nurse stumps can also support many types of fungi. Fungi help break down the tree so that nutrient-rich soil, called humus, is produced from the decaying wood. A common species of mushroom is called the Gilled Polypore.




PROVIDING HOMES FOR CRITTERS

Animals like this gray tree frog can be found making their homes on nurse stumps. They can find shelter and food. Some of the other animals you might find are squirrels, woodpeckers, crickets, wax worms, and moths.




STORING WATER

Nurse stumps and the mosses that grow on them soak up water when it rains. During dry months other plants like young trees can use this water to survive.



Approximately 1/3 of woodland creatures depend upon dead trees for their homes!



Sign draft with sketch incorporated by Aimi Dickel with staff mentor support

Communication Program

Bluff Creek Restoration Project

Invitation for the Bluff Creek Restoration Project community meeting have been mailed out. The meeting will be held June 13, 7 pm, at the watershed district office. Signage is being developed similar to that used at the Riley Creek Restoration Community meeting.



COMING SOON
 A project to
 restore healthy
 habitat & stabilize
 Bluff Creek
 info meeting
 June 13, 7pm
 18681 Lake Drive East,
 Chanhassen

Speakers Bureau

The subcommittee drafted notes for a watershed basics presentation, based off of a presentation developed by district staff. This was presented to the CAC for feedback and was well-received.

Stormwater Practice Maintenance Certification Workshop

Staff Maxwell lead an exercise at the annual Stormwater Practice Maintenance workshop held by the University of Minnesota on April 30th and May 1st. Around 65 professionals from cities, WD's, WMO's, SWCD's, and private construction companies attended the workshop which was held at the stormwater pond near the Chanhassen Recreation Center. Staff Maxwell's station connected attendees with the importance of functioning bmp's to our water resources, specifically the importance of the stormwater pond and its positive water quality impacts to nearby Bluff Creek. Around 40 Bluff Creek Fact Sheets were distributed at the event.

Twin Cities Water Monitoring and Data Assessment Group

Staff Maxwell lead an exercise at a workshop held by the Twin Cities Monitoring and Data Assessment Group held by the Metropolitan Council on May 30th. Around 50 water resource professionals from WD, MPCA, WMO, METC, MNDNR, counties and cities attended the workshop which was held at Hansen Park in New Brighton. The purpose of the workshop was to exhibit the available water quality monitoring equipment used today. Staff Maxwell gave three 20 minute presentations on manual sampling equipment and discussed what the RPBCWD is currently doing to monitor our water resources. Field equipment prep lists and data collection sheets for both lakes and streams that are utilized by the District were distributed at the event. About 16 people total attended the three presentations.

Tabling at community events

The next tabling scheduled tabling event is the Minnetonka Pollinator Field Day July 11, followed by the Chanhassen Water Day July 21.

Water Resources Report


Fact sheets continue to be distributed in print form and accessed through the district website.

Watershed Sandbox interactive display

The watershed sandbox has been used for a half dozen events and activities to date. It has proved a fun and interactive tool for teaching about watersheds.

Website & Newsletter

The website update is making progress. The most recent iteration was brought to the Citizens Advisory Committee for their consideration and feedback. Staff continue to work with the web developer to finalize the update.



RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

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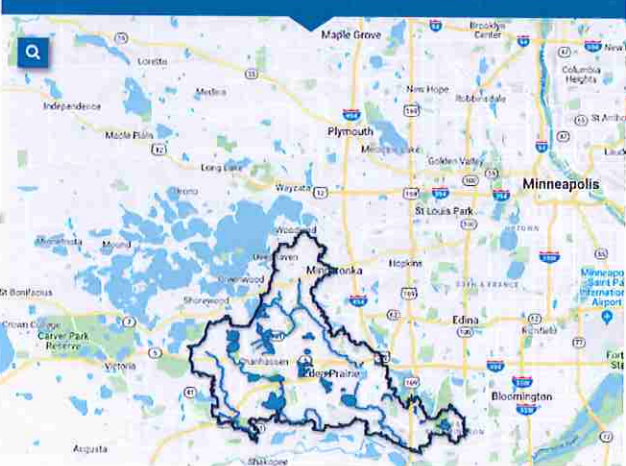
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Explore the watershed
Enter your address to see if you are in the watershed. Or click on a waterbody to learn more about it.



Welcome to our watershed.

The Riley Purgatory Bluff Creek Watershed District works with citizens, government bodies, and organizations to improve water quality and support the conservation ethic that has evolved over our 40-year history. We believe restoring and protecting our waters is the highest priority, while respecting our local history and preserving our water heritage.

LATEST NEWS [SEE ALL >>](#)

Become a Member of the CAC [→](#)

Do you care about the lakes, creeks, wetlands, and ponds in your community? Do you wonder how you might help to protect and restore them? Become a volunteer on the Citizens Advisory Committee (CAC) at the Riley Purgatory Bluff Creek Watershed District (RPBCWD) and make a difference through sharing your community insights and ideas. *Date posted: 10/16/2017*

Brittle Naiad Found on Lotus Lake [→](#)

Brittle Naiad was recently found on Lotus Lake for the first time. Brittle Naiad is an invasive aquatic plant that can form dense mats that out-compete native species and interfere with recreational activities like boating, swimming and fishing. The plant breaks easily into pieces that can spread the plant to new locations. *Date posted: 10/10/2017*

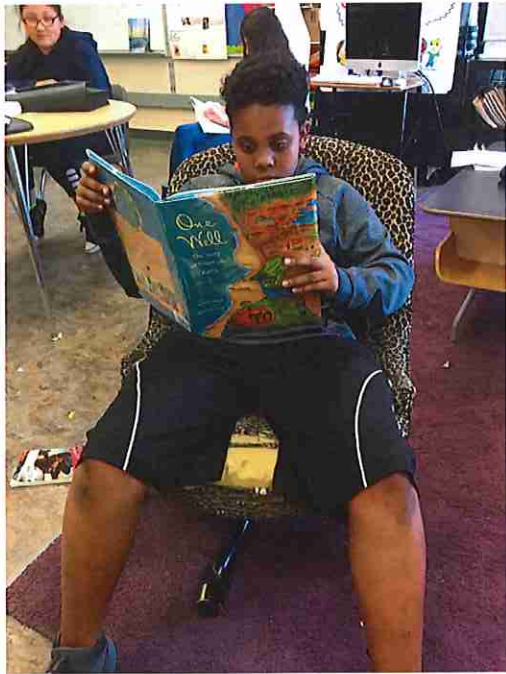
RPBCWD Resident Talks Blue-Green Algae With WCCO [→](#)

The deadly blue-green algae is back in Minnesota lakes. WCCO interviews RPBCWD resident, Matt Lindon, to see what he has to say. *Date posted: 8/18/2017*

Youth Outreach

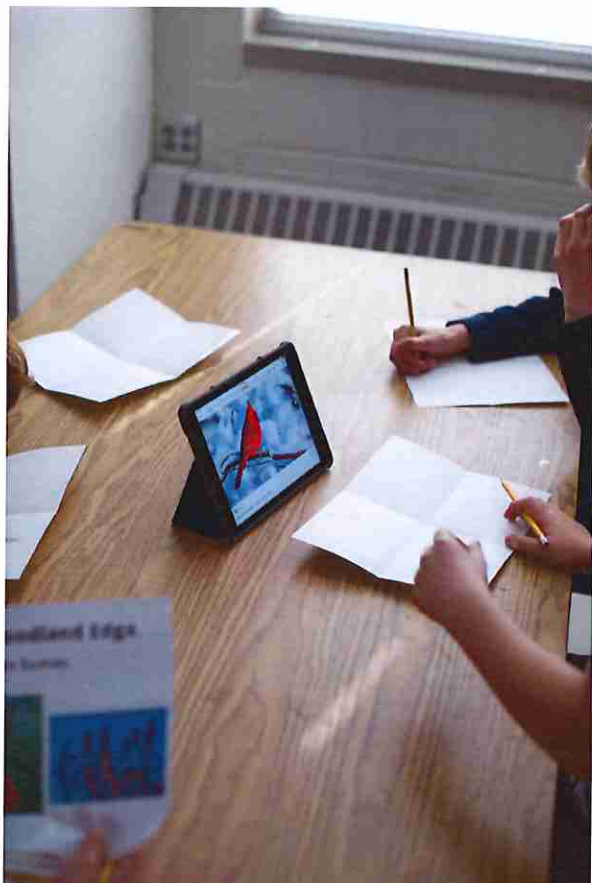
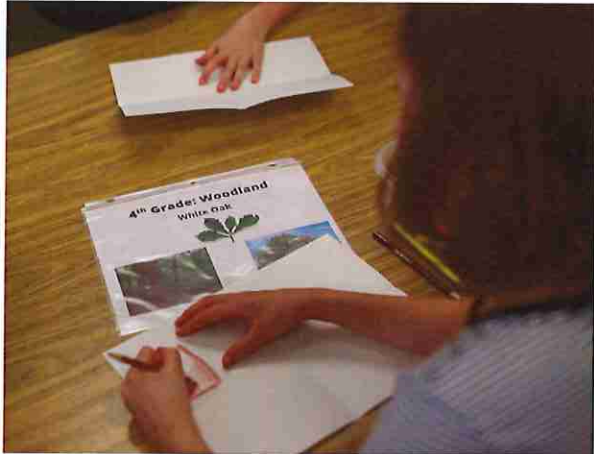
Earth Day Mini-Grants

Eight of the nine mini-grant recipients have completed their projects and submitted for reimbursement. Projects have spanned from getting snowshoes to explore frozen Duck Lake and rainboots for exploring the creek, to creating terrariums to study the water cycle and taking a trip to a nature center to learn about aquatic habitats. Photos from project summaries are shown below.



Scenic Heights School Forest Restoration

As a part of the restoration project, Scenic Heights is creating a school-wide mural art project. Each grade level is working together on two large clay tiles that represent one of six habitats in the forest. Each class is creating taking a different plant or animal that lives in that habitat. Once they are complete, the tiles will be hung in the school. Staff presented to all classes (K-5) May 1-7th about the restoration project, and the plants and animals they would be creating. Over the week, staff interacted with over 850 students at the school.



School Forest Central Regional Summit

Staff Jordan was invited to present at the DNR School Forest Program's Central Regional Summit, May 3rd. These regional summits provide resources, knowledge, and skills to help School Forest coordinators, maintenance staff, and dedicated volunteers manage their School Forest. Staff gave a talk titled "School Watersheds", about the various water features that might be found in and near school forests, and how management of the forests can help to protect and improve clean water. Staff talked about the Scenic Heights restoration project, and provided resources for learning more about local lakes/creeks/ponds/wetlands, and searching out partnerships. Approximately 30 individuals attended the talk, and based on submitted evaluations they found it useful.

Continuing Education Program

Winter & Turf Maintenance Training

The district will be hosting a Winter Parking Lots & Sidewalks Maintenance workshop August 23rd.

Sustainable and no-mow lawns workshops

Together with the Carver County Water Management Organization and Nine Mile Creek Watershed District, RPBCWD is hosting two workshops on how to transform your traditional turf into a Sustainable and Low Mow Lawn (June 25th and 27th). More information can be found on the district website, promotional description of the event is included below.

"Are you tired of mowing your lawn? Looking for a more sustainable option that requires less water? Join us for an evening workshop and learn how to convert your traditional grass into a no-mow lawn. The terms "no-mow" and "low-grow" refer to a type of grass called fine fescues. These species are one of the most shade tolerant turfs, require less water, and little to no mowing.

In this practical workshop you'll learn everything from how to assess your current lawn, to selecting the right seed and planting and maintaining a no-mow lawn. Come with your curiosity and leave ready to take on a project in your own yard!"

Local Leaders Program

Summer Tour

Planning for the MAWD Summer Tour continues. Staff are creating a handout with a map of the Minnesota River tour, and the bus tour.

Businesses and Professionals Program

Professional luncheon series

The Builders and Developers Luncheon was held on May 16th. Thirteen individuals attended and had good interactions and conversations with staff. The topic for the luncheon was the watershed district's permitting program. The next, and last, luncheon in the series will be on July 18th, and is for Property Managers. The topic will be winter maintenance practices and chloride pollution.

Bluff Creek One Water

Chanhassen High School

Chanhassen High School Cooperative Agreement have been finalized by ISD 112 and the City of Chanhassen. The project was awarded. Pre-con meeting occurred on May 22.

Bluff Creek Tributary Restoration

Public Meeting is schedule for June 13, 2018. Postcards were mailed to residents near the project.

Riley Creek One Water

Lake Susan Park Pond

An initial pre-con meeting was held on May 22. Chanhassen Public Works director was not able to attend but good discussion occurred between RPBCWD staff, contractor and Chanhassen Water Resources Coordinator. Another pre-con meeting will be schedule into June.

Riley Creek

The City of Eden Prairie and RPBCWD went through the whole Lower Riley Creek Corridor Enhancement Plan. We are working in having the cooperative agreement drafted and ready for the July meeting.

Purgatory Creek One Water

Fire Station 2

No new updates.

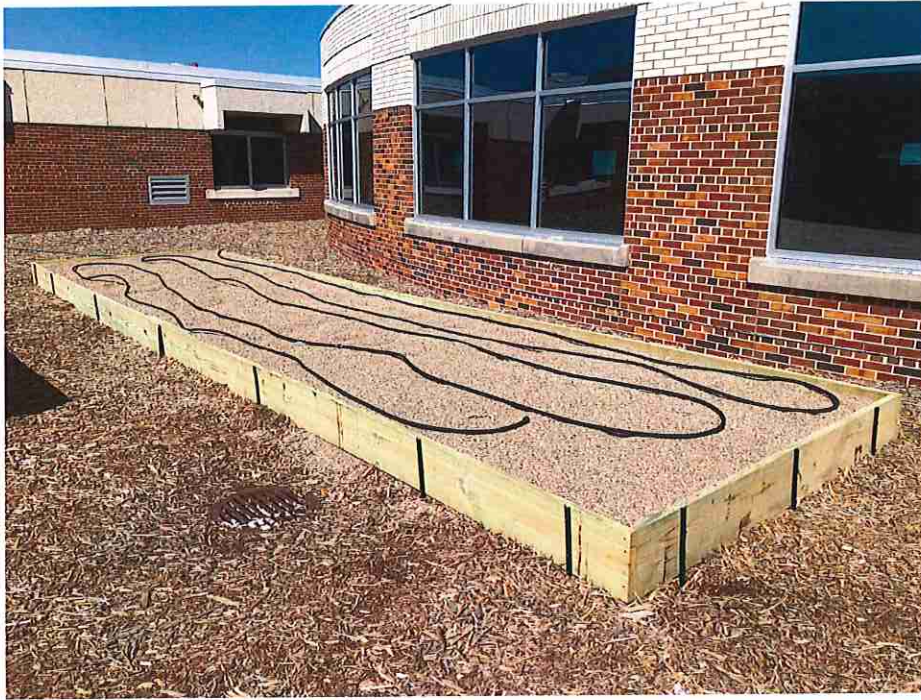
Purgatory Creek at 101

No new updates.

Scenic Heights School Forest

The contractor Landbridge Ecological (formally Wetland Habitat Restorations) is beginning to manage herbaceous invasive species such as garlic mustard and re-sprouts of tartarian honeysuckle and buckthorn. This is being accomplished with extremely targeted herbicide applications and mechanical spot mowing. Seeding of the native species will begin after the first two management visits have been completed. Management will continue throughout the growing season with monthly visits by professionals trained in plant identification.

Also, bare root shrubs and trees will be installed into the new gravel bed tree nursery in the courtyard of the school. The nursery was built by a local eagle scout. These plants will be installed in the fall as a new native plant buffer enhancement around the Outdoor Learning Classroom pond.



Professional Workgroups and Continuing Education

Staff Dickhausen participated in the U of M Wetland Delineation Certification Program's day-long aerial photo review class on May 3rd. As a part of Staff Dickhausen's wetland delineation training, he now has a more in-depth understanding of how to analyze aerial photography and identify patterns and trends when carrying out off-site wetland delineation/analysis.

Staff Maxwell will be leading creek assessment workshop the day after the MAWD tour. The workshop is held by the RPBCWD not MAWD. Audiences for this professional workshop are water resource managers, data collection staff and individuals who are interested in learning more about techniques to assess creeks, some common solutions, and how to inspect the creek post-restoration. The technical session is now full.



Memorandum

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing May 2018 Activities for June 6, 2018, Board Meeting
Date: May 31, 2018

The purpose of this memorandum is to provide the Riley-Purgatory-Bluff Creek Watershed District (RPBCWD) Board of Managers and the District Administrator with a summary of the activities performed by Barr Engineering Co., serving in the role of District Engineer, during May 2018.

General Services

- a. Met with Administrator Bleser on May 17th to revise the Lower Riley Creek corridor enhancement plan in connection with the cooperative agreement for the Lower Riley Creek Restoration project.
- b. Participated in a May 21st conference call with Permit Coordinator Jeffery and Counsel Smith to discuss the MPCA's draft construction stormwater permit and potential synergies with the RPBCWD regulatory program.
- c. Prepared comments on the MPCA's draft construction stormwater permit as Permit Coordinator Jeffery's request. Comments focused on the proposed infiltration prohibitions on hydrologic soil group D (i.e., clays) and in the emergency response areas for wells because of the significant limitation this would have on potential infiltration in the District. Combined the two proposed prohibitions would affect rough 41% of the land area in RPBCWD.
- d. Participated in a May 30th meeting with Administrator Bleser, City of Eden Prairie to finalize Lower Riley Creek Corridor Enhancement plan to serve as a basis for the cooperative agreement for the Lower Riley Creek Restoration project.
- e. Prepared Engineer's Report for engineering services performed during May 2018.
- f. Miscellaneous discussions and coordination with Administrator Bleser about task order status, cooperative agreements, 2018 work plan, packet materials, and upcoming Board meeting agenda.
- g. Project management and overall coordination of active task orders.

Permitting Program

- a. *Permit 2015-010: Children's Learning Adventure:* This project involved construction of a children's learning center in the northwest quadrant of Galpin Blvd. and Highway 5 in Chanhassen. The applicant submitted a new permit to reflect site modification needed to demonstrate compliance with the RPBCWD rules because the infiltration BMPs are not functioning as designed. Informed applicant of Board's conditional reinstatement of permit. Responded to applicant's questions about information needed to fulfill conditions of approval.

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Reviewed two version of the draft declaration covering wetland buffers and stormwater management features.

- b. *Permit 2018-016: Avienda:* This project involves a mixed-use regional development in the southwest quadrant of the intersection of Lyman Boulevard and Powers Boulevard in Chanhassen Minnesota. The project will trigger the RPBCWD Floodplain, Erosion Control, Wetland and Creek Buffer and Stormwater Management Rules. The applicant is proposing an initial construction phase to include mass grading and construction of all public infrastructure. The applicant will seek future permit approvals, as development occurs to account for site-specific impervious coverage. Conducted review of revised submittal materials received on April 25th and notified applicant on May 4th that the submittal remained incomplete because additional information on ultimate build-out condition was needed and property ownership remained unclear. Participated in a meeting with Applicant, applicant's engineer, Permit Coordinator Jeffery, Administrator Bleser and City of Chanhassen on May 15th. Responded to calls from applicants engineer with questions about stormwater modeling. Received 3rd submittal package on May 25th and started completeness review.
- c. *Permit 2018-026: Culvers-Eden Prairie:* This project involves the removal of an existing parking lot and the construction of a new Culver's restaurant, as well as parking lot modifications, utilities installation, stormwater management features implementation, and landscaping in the northeast quadrant of the intersection of Prairie Center Drive and Plaza Drive in Eden Prairie. The project will trigger the RPBCWD Erosion Control and Stormwater Management Rules. Reviewed initial submittal and notified applicant on May 1st that the submittal was incomplete because a phase 1 environmental assessment was needed and the permit applicant must be signed by the property owner. Conducted a review of the revised information and on May 23rd notified the applicant of a complete submittal, and commented on revisions needed to meet RPBCWD's stormwater criteria. Met with applicant on May 30, 2018 to discuss comments and opportunities to meet abstract and water quality criteria on the site.
- d. *Permit 2018-027: MAMAC SYSTEMS:* This project involves construction of building expansion, additional parking, and the installation of an infiltration basin on MAMAC Systems property east of Century Boulevard in Chanhassen. The project will trigger the RPBCWD Erosion Control and Stormwater Management Rules. Reviewed initial submittal and notified applicant on May 2nd that the submittal was complete. Conducted a review of the revised information and notified applicant on May 25th of revisions needed to meet RPBCWD's stormwater criteria. Answered applicant question about review comments and reviewed revised plans on May 31, 2018. Drafted permit review memo for Board consideration at the June 6th regular meeting.
- e. *Permit 2018-028 Oak Point Elementary Parking Lot:* This project involves construction of a new parking lot and walkway in the southwest portion of the Oak Point Elementary School parcel on Staring Lake Parkway in Eden Prairie. . The project will trigger the RPBCWD Erosion Control, Wetland and Creek Buffers, and Stormwater Management Rules. Reviewed initial submittal and notified applicant on May 4th that the submittal was complete. Met with applicant on May 15th to discuss initial review comments. As of May 29th a revised packet has not be submitted by the applicant. Because the review period for permit 2018-028 expires on June 24th, 2018, which is before the Board's regular July meeting, a review extension

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memorandum was submitted to the RPBCWD Board Members for consideration at the June 6, 2018 meeting.

- f. Performed erosion control inspections of active sites during the week of May 22nd (see attached inspection report).
- g. Developed permit location maps based on Permit Coordinator Jeffery's requests and provided additional GIS data.
- h. Miscellaneous conversations with Permit Coordinator Jeffery about technical questions on permit requirements for potential development and redevelopment projects, including 2018-029 Bloomington 98th St, 2018-022 Sunrise Park, , and others.

Data Management/Sampling/Equipment Assistance

- a. Uploaded 2016 and 2017 MCES analytical data to EQUiS.
- b. Uploaded 2017 15 minute auto-collected analytical data to EQUiS.
- c. Uploaded April 2017 surface water data to EQUiS.
- d. Responded to MPCA questions regarding 2017 Lake and Stream data submittal
- e. Updated the customized app for collecting and reporting data electronically from the field based on RPBCWD field staff feedback.

Task Order 6: WOMP Station Monitoring

Purgatory Creek Monitoring Station at Pioneer Trail

- a. Download and review data.
- b. Install and check DTS-12 Turbidity Sensor.

Purgatory Creek Monitoring Station at Valley View Rd

- a. Download and review data.
- b. Assist data management in entering 2017 data into EQUiS database.

Task Order 7b: Purgatory Creek Stabilization near Hwy 101—Construction

- a. A landscape architect inspected the site to review reports of a trail through the project area. The trail appeared to be a wildlife path rather than created by human foot traffic. An initial review of the condition of the plantings indicated good growth and establishment. An additional walk through with the contractor to determine specific replacement needs is anticipated in June.

Task Order 13b: Lake Susan Watershed Treatment and Stormwater Reuse Enhancements Design and Construction Administration

- a. Coordinate Notice of Award, Form Agreement, and Notice to Proceed for RPBCWD and Peterson Companies, including follow-up with Peterson regarding Certificate of Insurance revisions.

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- b. Assisted with preparation of fully-execute cooperative agreement between the City of Chanhassen and the District.
- c. Prepared for and attended the preconstruction meeting held on May 22, 2018.

Task Order 14b: Lower Riley Creek Final Design

- a. Continued work on permit applications to be submitted to the US Army Corps of Engineers, Mn DNR, and RPBCWD.
- b. Worked on draft contract documents to prepare the project for bidding
- c. Continued discussions with the city of Eden Prairie and met with District and City staff on May 30, 2018 to discuss revised plans and the corridor enhancement plan.
- d. Continued working on corridor enhancement plan.

Task Order 16: Watershed Management Plan Refresh

- a. No activity this past month.

Task Order 19: Chanhassen High School Stormwater Reuse Design

- a. Coordinate Notice of Award, Form Agreement, and Notice to Proceed for RPBCWD and Peterson Companies, including follow-up with Peterson regarding Certificate of Insurance revisions.
- b. Prepare for and attend preconstruction meeting on May 22nd, completed with the Lake Susan Park Pond project.
- c. Organize required submittals and critical construction oversight points in preparation for construction.
- d. d. Compile a complete, fully-executed PDF of issue for construction set.

Task Order 21B: Bluff Creek Stabilization Project

- a. Worked on draft contract documents to prepare the project for bidding
- b. Minor revisions to the plan set to prepare the project for bidding.
- c. Worked with the city of Chanhassen to schedule a public meeting on June 13.

Task Order 23: Scenic Heights School Forest Restoration

- a. The restoration of the small creek-like channel that feeds water to the pond took place. Three rock riffles were installed and the steep eroded banks were softened to reduce the erosion.
- b. Herbicides treatments and spot mowing with a handheld brush saw began on re-sprouts of honeysuckle and buckthorn re-sprouts and herbaceous invasive species such as garlic mustard and motherwort. Native seeding will take place approximately two weeks after the next herbicide treatment, which is scheduled for late-May.

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Newly seeded and stabilized swale with rock riffles



Buckthorn removal and native plant restoration in progress

Task Order 24: Preliminary Engineering Study for Silver Lake Water Quality Treatment Project

- a. Met with Administrator Bleser and Permit Coordinator Jeffery on May 10, 2018 to discuss District staff comments on the draft Feasibility Report. During that meeting Administrator Bleser directed additional field investigations including a wetland delineation, tree inventory, and topographic survey. The additional investigations will allow for a better characterization of wetland impacts, and number of trees affected by each alternative described in the draft Feasibility Report.
- b. Barr staff will complete field investigations by mid-June.
- c. After the additional information is collected, we anticipate meeting with Administrator Bleser and Permit Coordinator Jeffery to review site impacts and confirm the recommended alternative.



To: RPBCWD Board of Managers
From: Dave Melmer
Subject: May 21-23, 2018—Erosion Inspection
Date: May 29, 2018
Project: 23/27-0053.14 PRMT 9016

Barr staff has inspected construction sites in the Riley Purgatory Bluff Creek Watershed District for conformance to erosion and sediment control policies. Listed below are construction projects and the improvement needed for effective erosion control. Site inspections occurred between May 21-23, 2018.

Site Inspections

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|----------|---|------------|
| 2015-008 | 3520 Meadow Lane - Existing Single-Family 3520 Meadow Ln Minnetonka, Minnesota 55345 Site BMP's are adequate. Silt fence removed. Site cleanup and house painting complete. Some landscaping observed on north side. Deck installation underway. Site activity observed--indoor construction. Driveway and sidewalk installed. Bio-logs in place where needed. (May-2018) | 2018-05-23 |
| 2015-010 | Children's Learning Adventure - Private - Commercial/Industrial Northwest Coerner of Highway 5 and Galpin Avenue Chanhassen, Minnesota 55317 Area near SW overflow (riprap) still has bare areas on east side slope--vegetation not taking hold. All temporary BMP's have been removed with exception of-inlet protection observed at catch basin on Galphin-- SE corner on site side. (May,2018) | 2018-05-22 |
| 2015-014 | 12420 Sunnybrook Road - Private - Residential 12420 SUNNYBROOK ROAD Eden Prarie, Minnesota 55347 Site has been surveyed. No construction has started. | 2018-05-21 |
| 2015-016 | Blossom Hill - Private - Residential 10841 Blossom Rd Eden Prairie, Minnesota 55347 BMP's look good. Minor tracking to street. Catch basin protection reinstalled. Overall site is in good shape. | 2018-05-21 |
| 2015-035 | LaMettry's Chanhassen - Private - Commercial/Industrial Audubon RD and Motorplex CT Chanhassen, Minnesota 55317 Construction complete. Site is stable. Inlet protection still in place. (May-2018) | 2018-05-22 |

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| 2015-036 | Saville West Subdivision - Private - Residential 5325 County Road 101 Minnetonka, Minnesota 55345 Construction complete at 5320 Spring Ln. House site. Silt fence perimeter control in place. BMP's look good. Landscaping not complete. Silt fence installed on southwest and west side of development. Additional lot has silt fence perimeter control installed- no activity at this lot. Lots to south have been brushed/cleared. (May-2018) | 2018-05-23 |
| 2015-050 | Arbor Glen Chanhassen - Private - Residential 9170 GREAT PLAINS BLVD Chanhassen, Minnesota 55317 Perimeter control (silt fence) installed. Heavy equipment onsite and earthwork/grading complete. Roadway and detention pond installed. All slopes have been stabilized and covered. BMP's look good. Underground utilities installation occurring. (May-2018) | 2018-05-21 |
| 2015-056 | Oster Property - Private - Residential 9008 & 9010 Riley Lake Road Eden Prairie, Minnesota 55347 Construction complete. Silt fences /bio-logs have been removed. Vegetation mats and wood chips have been installed on all bare soils. All other BMP's look good. Vegetation (grass) still sparse in areas. (May-2018). Homeowner stated they are getting bids for final landscaping. Site is stable. | 2018-05-21 |
| 2015-058 | Prairie Center Clinic Addition - Private - Commercial/Industrial 8455 Flying Cloud Drive Eden Prairie, Minnesota 55344 Construction complete on building. Some BMP's have been removed for landscaping. Vegetation is established. Parking lot top coat complete. Landscaping complete. Site is stable. BMP's are still in place--silt fence. Site representative will be notified next month that temporary BMP's can be removed. | 2018-05-21 |
| 2016-004 | Round Lake Park Improvements - Government - Other 16700 Valley Road Eden Prairie, Minnesota 55344 BMP's look good. Site construction complete. Vegetation is growing. All temporary BMP's have been removed with exception of BMP's at infiltration areas. Infiltration basins have been graded spray-tac'd--vegetation is growing. May-2018 | 2018-05-23 |
| 2016-015 | 18321 Heathcote Lane - Existing Single-Family 18321 Heathcote LN Deephaven , Minnesota 55391 New permit: 2018-016. Construction complete. Landscaping is underway. | 2018-05-23 |
| 2016-021 | Cedar Hills Park - Government - Other 9580 Eden Prairie Rd Eden Prairie, Minnesota 55347 Construction complete. All temporary BMP's have been removed. Vegetation growing. Site is stable. Will inspect one | 2018-05-21 |

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las time in June.

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| 2016-026 | Foxwood Development - Private - Residential 9150 and 9250 Great Plains Blvd Chanhassen, Minnesota 55317 Multiple house construction continues-BMP's look good- silt fences and rock entrances installed/ good perimeter control. Silt fences have been installed on unsold lots. Catch basin protection has been reinstalled. Additional silt fences have been installed across site. Bare soils have been spray-tac'd vegetation growing. Some tracking to streets. Site is swept regularly. (May-2018) | 2018-05-21 |
| 2016-030 | IDI Distribution Building Expansion - Private - Commercial/Industrial 8303 Audubon Road Chanhassen, Minnesota 55317 Parking on north side installed/curb and gutter installed. BMP's look good. Building addition complete. All bare soils have been spray-tac'd. North parking lot area has base rock installed. (May-2018) | 2018-05-22 |
| 2016-032 | CSAH 61 Improvements - Government - Linear N/A Eden Prairie, Minnesota 55347 Construction continues. Spoil piles have been spray tac'd and wood chips being used were necessary. Silt fences installed. Area near creek crossing is under construction and piling are onsite. BMP's to date look good. | 2018-05-21 |
| 2016-037 | Prestige Day Care - Private - Commercial/Industrial 15219 Pioneer Trail Eden Prairie, Minnesota 55347 Construction complete. Site is stable and all temporary BMP's have been removed. This will be last field inspection for this permit. | 2018-05-21 |
| 2016-039 | Powers Ridge Senior Apartments - Private - Residential 1351 Lake Drive West Chanhassen, Minnesota 55317 Construction complete. Most temporary BMP's have been removed. Landscaping and sod installation complete. Bare soils covered with matting and vegetation sprouting. Wetland signage installed. (May-2018) | 2018-05-22 |
| 2016-040 | 18995 Minnetonka Blvd - Existing Single-Family 18995 Minnetonka Blvd Deephaven, Minnesota 55391 Construction complete. Slopes with vegetation mats have growth. Southwest corner has more BMP's to control sediment erosion. BMP's installed are adequate. Earthwork near front has been completed--entire site has bin covered with straw and vegetation has sprouted. Driveway installed--some class five near south end of driveway needs grading. May-2018. | 2018-05-23 |
| 2016-041 | Chanhassen West Water Treatment Plant - Government - Other 2070 Lake Harrison Road Chanhassen, Minnesota 55317 | 2018-05-22 |

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Silt fences installed on site. Construction continues. Rock entrance good. BMP's look good. Street torn up and under construction. May-2018.

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| 2016-042 | 18663 St. Mellion Place--Eden Prairie (Bear Path) - Government - Other 2070 Lake Harrison Road Chanhassen, Minnesota 55317 Construction halted . BMP's are good. Silt fence in one small area is overtopping. Spoke with home owner and fence will be updated. Site grading and sod installation has occurred on a large portion of site. May, 2018. | 2018-05-21 |
| 2016-043 | Bongards Redevelopment - Private - Commercial/Industrial 8330 Commerce Drive Chanhassen, Minnesota 55317 BMP's are adequate. Parking lot base installed-- catch basins installed and protected--pavement installation still needs to be completed. (May-2018) | 2018-05-22 |
| 2016-044 | Dell Rd & Riley Creek Repair Project - Government - Other 9980 Dell Road Eden Prairie, Minnesota 55347 Vegetation was growing appears to have died off. Rip-rap was recently installed at dirt road edge to control erosion from road. Additional erosion prevention from road needs to be addressed. More rock installed along flow path and silt deposit at beehive catch basin removed. Representative was contacted in September (2017) and is aware of site condition. May-2018. | 2018-05-21 |
| 2016-045 | MCES Blue Lake Interceptor Rehab - Government - Linear See attached multiple , Minnesota 55354 Construction complete. Silt fences installed/bio-logs in place. Bare soils covered with spray-tac. Some vegetation growth observed. (May-2018) | 2018-05-22 |
| 2016-047 | 9507 Sky Lane Eden Prairie - Existing Single-Family 9507 Sky Lane Eden Prairie, Minnesota 55347 Construction complete/landscaping needs to be completed. Silt fences down in some areas but secondary containment is good. Catch basin protection at road needs to be maintained --it's not installed-- just laying over CB. (street side CB). Catch basin between properties has been protected. Runoff from bare soils going around and offsite from this property-- south property is landscaped. Minor tracking to street. Site representative was notified after August inspection-no corrective action taken except for landscaping of 9527 Sky Lane. Same conditions exist. Landscaping around house is complete--soil grading has occurred-no sod installed to date. Site Representative is aware of conditions. Wetland buffer signage has been installed. No sod installed to date at 9507 Sky Lane. May-2018 | 2018-05-21 |
| 2017-001 | Kopesky 2nd Addition - Private - Residential 18340 82nd St Eden Prairie, Minnesota 55347 | 2018-05-21 |

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Site has been cleared and perimeter control—silt fence has been installed. No earthwork to date. Rock entrance installed. Heavy equipment onsite. May-2018.

2017-002 **7012 Dakota Ave - Existing Single-Family** **2018-05-22**
7012 Dakota Ave Chanhassen, Minnesota 55317

Construction complete. Area near street and city water shut off that needs bare soils covered. Site representative was notified-November-2017; no response. No activity on this area as of May-2018 inspection.

2017-003 **18761 Heathcote Dr Building Addition - Existing Single-Family** **2018-05-23**
18761 Heathcote Dr Wayzata, Minnesota 55391

House construction complete. Pool installation complete. Landscaping complete—sod and shrubs installed. Temporary BMP's have not been removed. May-2018.

2017-006 **6687 Horseshoe Curve Chanhassen - Existing Single-Family** **2018-05-22**
18761 Heathcote Dr Wayzata, Minnesota 55391

No activity observed to date.

2017-009 **Emerson Chanhassen East Renovation - Private - Commercial/Industrial** **2018-05-22**
8200 Market Boulevard Chanhassen, Minnesota 55317

Construction nearing completion. BMP's installed. Landscaping underway. West infiltration basin installed and complete-BMP's are good. Bare soils onsite covered with matting and bio-logged. May-2018

2017-010 **Riley Lake Park Renovations - Government - Other** **2018-05-21**
9100 Riley Lake Rd Eden Prairie, Minnesota 55347

Construction complete. BMP's installed and look good. Grading and landscaping in is complete. Vegetation growing in some areas. Soils have been spray-tac'd. Vegetation is sparse in areas and mostly likely need reseeding. (May-2018)

2017-011 **Galpin Blvd Watermain Improvements - Government - Linear** **2018-05-22**
Galpin Blvd & Lake Harrison Road Chanhassen, Minnesota 55317

Construction complete. Soils covered with erosion control mats-some growth observed to date. Silt fence still installed in one area. Some areas have had additional matting laid down. May-2018.

2017-022 **Chanhassen High School Stormwater Reuse - Government - Other** **2018-05-22**
220 Lyman Blvd Chanhassen, Minnesota 55317

No activity observed to date.

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| 2017-023 | Eden Prairie Assembly of God - Private - Commercial/Industrial 16591 Duck Lake Trail Eden Prairie, Minnesota 55346 Construction continues. Perimeter control silt fence and rock entrance installed. BMP's look good. (May-2018) | 2018-05-23 |
| 2017-024 | Prairie Bluffs Senior Living - Private - Residential 10280 Hennepin Town Rd Eden Prairie, Minnesota 55347 Additional survey activity observed. No other site activity observed to date. | 2018-05-21 |
| 2017-025 | 735 Pleasantview Road - Existing Single-Family 735 Pleasant View Dr Chanhassen, Minnesota 55317 Construction complete. Landscaping complete. Driveway installed and areas neat it graded and seeded or covered. All temporary BMP's have been removed. (May-2018) | 2018-05-22 |
| 2017-026 | 6135 Ridge Road - Existing Single-Family 735 Pleasant View Dr Chanhassen, Minnesota 55317 Open CA(s): Rock entrance needs to be "refreshed and graded so flow is slowed due to slope. Silt fence down in multiple areas and overtopping. Washout gully on north side of site needs to be addressed. Bare soils on site and slopes need to be covered and stabilized. Email and photos were sent to site representative on May 4, 2018--no response received. Deadline: 6/2/2018 Construction continues. Foundation in and rock entrance installed--rock entrance needs to be "refreshed and graded so flow is slowed due to slope. Silt fence down in multiple areas and overtopping. Washout gully on north side of site needs to be addressed. Bare soils on site and slopes need to be covered and stabilized. Email and photos were sent to site representative on May 4, 2018--no response received. | 2018-05-23 |
| 2017-027 | 7500 Chanhassen Road - Existing Single-Family 7500 CHANHASSEN RD Chanhassen, Minnesota 55317-8576 Open CA(s): Silt fence down in several areas. Deadline: 6/2/2018 Construction continues. Some site grading conducted in early November. Silt fence down in several areas-- site representative was notified. (May-2018) | 2018-05-22 |
| 2017-029 | Tweet Pediatric Dentistry - Private - Commercial/Industrial 7845 Century Blvd. Chanhassen, Minnesota 55317 Construction complete . BMP's are installed and good. Catch basin protection installed in this area. Infiltration areas installed. Parking lot grading and curb/gutter installation complete. Landscaping continues - bare soils have not been covered. (May-2018) | 2018-05-22 |

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| | | |
|----------|--|------------|
| 2017-030 | Elevate - Private - Commercial/Industrial 12900 Technology Drive Eden Prairie, Minnesota 55344 Demolition complete and earthwork underway. Perimeter control installed. Catch basin protection installed. Some catch basins have bladders installed and drainage will be directed to other basins. BMP's look good. New (additional rock entrance installed) No catch basin protection installed downstream of entrance. Spoke with site personnel and they will get protection installed. | 2018-05-21 |
| 2017-032 | 11193 Bluestem Lane - Government - Other 11193 Bluestem Lane Eden Prairie, Minnesota 55347 Construction complete. All exposed soils on slope are covered and stabilized--vegetation has sprouted and growing. Bio-logs installed at toe of slope. Site is in good condition. | 2018-05-21 |
| 2017-034 | Park Road Overlay Chanhassen - Government - Linear Park Road Chanhassen, Minnesota 554317 Work complete at creek crossing and Park Rd. Culvert. BMP's installed are good. -inlet protection installed. Road overlay underway. (May-2018) | 2018-05-22 |
| 2017-036 | Minnetonka HS Upper Field Access Road - Government - Other 18301 State Hwy No 7 Minnetonka, Minnesota 55345 Open CA(s): Bare soils susceptible to erosion. Tracking to gutter. Deadline: 6/15/2018 Construction complete. Vegetation has sprouted and is growing--sparse in many areas--will need to be addressed in spring-2018. Bare areas are observed and susceptible to erosion -- photo taken and CA created. Site representative was notified. May, 2018. | 2018-05-23 |
| 2017-038 | West Park - Private - Residential 760& 781 Lake Susan Drive 8601 Great Plains Blvd Chanhassen, Minnesota 55317 Construction continues. Street installation complete. Rock entrance installed on south side and to individual house sites. Perimeter control installed. Catch basin protection reinstalled. BMP's look good. Minor tracking observed on --onsite streets. Many areas of exposed soils have been blown with straw. May, 2018 | 2018-05-22 |
| 2017-039 | Mission Hill Senior Living - Private - Residential 8600 Grate Plains Boulevard Chanhasen, Minnesota 55317 Construction underway. Earthwork and roadway construction. BMP's installed. Site perimeter control installed. Catch basin protection installed. Site is in good shape. | 2018-05-22 |
| 2017-044 | 17064 Weston Bay Road - Private - Residential 17064 weston Bay Road Eden Prairie, Minnesota 55427 Construction complete. Landscaping is complete--majority of | 2018-05-23 |

To: RPBCWD Board of Managers
From: Dave Melmer
Subject: May 21-23, 2018—Erosion Inspection
Date: May 29, 2018
Page: 8

ares has been hydro-seeded -grass has sprouted and is growing. BMP's in place- silt fences at lake shoreline. (May-2018)

2017-047 **Fawn Hill - Private - Residential** **2018-05-22**
7240 Galpin Road Chanhassen, Minnesota 55331

Open CA(s): Tracking to street and no catch basin protection.
Deadline: 6/2/2018

Earthwork completed/roadway installed. Perimeter silt fence install. Exposed soils blown with straw. BMP's to date look good-with exception of major tracking to street and no catch basin protection installed. Site representative was notified. May-2018

2017-052 **Old Excelsior Senior Living - Private - Residential** **2018-05-23**
17705 Hutchins Drive Minnetonka , Minnesota 55345

Earthwork and construction continues. Perimeter control installed. Second entrance does not have rock-- spoke with site rep.-stated that they are not using it and will put bio-logs across it at road side. Minor areas of exposed soils with no containment on NW corner-- he will address that too. (May-2018)

2017-053 **Mastercraft - Private - Commercial/Industrial** **2018-05-23**
17717 State Hwy 7 Minnetonka, Minnesota 55345

Construction continues. Perimeter control installed. Inlet protection installed. Bio-logs in place. BMP's look good. (May-2018)

2017-056 **Covington Rd Culvert Replacement - Government -** **2018-05-23**
Linear

Covington Road Minnetonka, Minnesota 55345
Construction complete. Vegetation matting installed. Wetland buffer signage installed on downstream side of Covington. Installed BMP's look good. Vegetation sprouted and growing thru matting. (May-2018)

2017-064 **Scenic Heights Elementary School Forest Restoration -** **2018-05-23**
Government - Other

5650 Scenic Heights Drive Minnetonka, Minnesota 55345
Site has been selectively cleared. Inflow area modified and BMP's installed.

2017-069 **Scheels Redevelopment - Private - Commercial/Industrial** **2018-05-21**
8301 Flying Cloud Dr. Eden Prairie, Minnesota 55344

Security fence installed. Heavy equipment staged onsite. No activity observed. No BMP's installed to date.

2018-008 **Staring Lake Park Play Court - Government - Other** **2018-05-21**
14800 Pioneer Trail Eden Prairie, Minnesota 55344

Construction underway. Security fence installed. Rock entrance installed. Temporary BMP's installed where needed.

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From: Dave Melmer
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Date: May 29, 2018
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| | | |
|----------|---|------------|
| 2018-011 | Maloney Shoreline Stabilization – Single Family Home 108 Pioneer Trail Chanhassen, Minnesota 55317 No construction observed to date. | 2018-05-21 |
| 2018-013 | Soccer Field 11 at Miller Park - Government - Other 8250 Shoreline Drive Eden Prairie, Minnesota 55344 Site has been surveyed and staked. No construction activity has begun. | 2018-05-23 |
| 2018-014 | Eden Prairie Road Reconstruction - Government - Other 10199-10139 Eden Prairie Rd Eden Prairie, Minnesota 55344 Construction activity observed at south end. BMP's installed. | 2018-05-21 |
| 2018-020 | 9770 Sky Lane - Single Family Home 9770 Sky Lane Eden Prairie, Minnesota 55344 Open CA(s): No catch basin protection. Deadline: 6/8/2018 Construction has begun. BMP's onsite are installed. No downstream catch basin protection installed. Site representative was notified. | 2018-05-21 |
| 2018-021 | 9810 Sky Lane - Single Family Home 9810 Sky Lane Eden Prairie, Minnesota 55344 Open CA(s): CB protection needs upgrade--SW corner of site. Deadline: 6/9/2018 Construction has begun. BMP's onsite are installed. No catch basin protection installed at southwest corner of site. Site representative was notified. | 2018-05-21 |
| 2018-024 | Kittelson Pool - Single Family Home 2165 Wynsong Lane Chanhassen, Minnesota 55317 No activity observed to date. | 2018-05-22 |

Please contact me at 952.832-2687 or dmelmer@barr.com if you have questions on the projects listed above or any additional items that need to be addressed for the erosion control inspections.

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-005

Received complete: May 9, 2018

Board Meeting: June 6, 2018

Applicant: D&T Eden Prairie

Consultant: Eric Kaul, Ramaker & Associates

Project: Hampton Inn Eden Prairie – Removal of existing site improvements and construction of a Hampton Inn hotel with an underground parking structure. An underground infiltration system will provide stormwater quantity, volume and quality control.

Location: 11825 Technology Drive, Eden Prairie

Reviewer: Terry Jeffery, Permit Coordinator

Rules: Applicable rules checked

| | | | |
|---|--|---|--|
| | Rule B: Floodplain Management | | Rule H: Appropriation of Public Waters |
| X | Rule C: Erosion and Sediment Control | | Rule I: Appropriation of Groundwater |
| X | Rule D: Wetland and Creek Buffers | X | Rule J: Stormwater Management |
| | Rule E: Dredging and Sediment Removal | X | Rule K: Variances and Exceptions |
| | Rule F: Shoreline/Streambank Stabilization | X | Rule L: Permit Fees |
| | Rule G: Waterbody Crossings | X | Rule M: Financial Assurances |

Recommendation

On May 9, 2018, D&T Eden Prairie submitted a complete permit application for construction of a new Hampton Inn and associated infrastructure.

Based on staff's review of the submitted plans, the latest site designs and stormwater management approach do not provide the required volume abstraction and water quality treatment. Further, at this point the District has not been provided with the Engineer's opinion of cost for the proprietary underground infiltration system. Therefore, staff is unable to calculate the Financial Assurance required for the project. The applicant is working to address these deficiencies but has not yet provided this information to the District for review.

The review period for Permit 2018-028 expires on July 8, 2018 which is before the Board's regular July meeting. Staff recommends that the Board extend, in accordance with Minnesota Statutes section 15.99, the review period by 60 days to September 8, 2018, for permit 2018-005 Hampton Inn in Eden Prairie to allow the Applicant time to supply revised submissions and give staff time to complete a review.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve a 60-day extension to the review of permit application No. 2018-005.



18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-015

Received complete: April 6, 2018

Applicant: Watson Vinehill, LLC ATTN: Dave Watson

Consultant: Craig Jochum, Hakanson Anderson

Project: Starbucks Coffee Store Shorewood – The project involves the demolition of two existing buildings to allow for the construction of a retail store with a drive thru. In addition to the construction of the new building and drive thru, the entire parking lot will be removed, reconfigured, and reconstructed. And underground infiltration BMP will also be installed.

Location: 19285 and 19245 Highway 7, Shorewood, 55401

Reviewer: Terry Jeffery, Permit Coordinator

Rules: Applicable rules checked

| | | | |
|---|--|---|--|
| | Rule B: Floodplain Management | | Rule H: Appropriation of Public Waters |
| X | Rule C: Erosion and Sediment Control | | Rule I: Appropriation of Groundwater |
| | Rule D: Wetland and Creek Buffers | X | Rule J: Stormwater Management |
| | Rule E: Dredging and Sediment Removal | | Rule K: Variances and Exceptions |
| | Rule F: Shoreline/Streambank Stabilization | X | Rule L: Permit Fees |
| | Rule G: Waterbody Crossings | X | Rule M: Financial Assurances |

Rule Conformance Summary

| Rule | Issue | Conforms to RBPCWD Rules? | Comments |
|------|-----------------------|---------------------------|--|
| C | Erosion Control Plan | See Comment | See Rule Specific Permit Condition C1. |
| J | Stormwater Management | Rate | Yes |
| | | Volume | Yes |
| | | Water Quality | Yes |
| | | Low Floor Elev. | Yes |
| | | Maintenance | See Comment |
| L | Permit Fee | Yes | \$1,500 was received on March 21, 2018. |
| M | Financial Assurance | See Comment | The financial assurance has been calculated at \$60,600. |

Project Description

The project site information is summarized below:

1. Total Site Area: 1.05 acres
2. Existing Site Impervious Area: 0.67 acres
3. Proposed Site Impervious Area(change): 0.55 acres (0.12 acre decrease in site impervious area)
4. New or Fully Reconstructed Impervious Area 0.55 acre (24,017 Sq Ft)
5. Total Disturbed Area: 0.95 acres (41,187 Sq Ft)

Exhibits:

1. Permit Application dated March 28, 2018.
2. Civil Design Plan Sheets count 9 dated March 20, 2018 (last revised April 26, 2018.)
3. Stormwater Management Narrative and Erosion Control Plan dated March 2, 2018 (last revised April 24, 2018).
4. Minnesota MIDS Calculator dated April 4, 2018 (last revised April 24, 2018).
5. Geotechnical Evaluation Report by Braun Intertec Corporation dated September 7, 2016.
6. Supplemental Geotechnical Exploration and Factual Engineering Review by Northern Technologies, LLC dated April 19, 2018

Rule Specific Permit Conditions

Rule C: Erosion and Sediment Control

Because the project will disturb 0.95 acres (41,187 square feet) of land-surface area the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan prepared by Hakanson Anderson includes installation of silt fence (pre-demolition and during construction of new facilities), inlet protection for storm sewer catch basins, protection of infiltration practices, rock construction entrance, placement of a minimum of 6 inches of topsoil, decompaction of areas compacted during construction, and retention of native topsoil onsite. To conform to the RPBCWD Rule C requirements the following revisions are needed:

- C1. The Applicant must provide the name and contact information of the individual responsible for erosion and sediment control at the site. RPBCWD must be notified if the responsible party changes during the permit term.

Rule J: Stormwater Management

Because the project will alter 0.95 acres (41,187 square feet) of land-surface area the project must meet the criteria of RPBCWD’s Stormwater Management rule (Rule J, Subsection 2.1). The criteria listed in Subsection 3.1 apply to the entire site because the project impacts all 0.67 acre of the existing impervious surface.

The developer is proposing the construction of an underground infiltration practice to meet the requirements of Rule J. Pretreatment of runoff is provided by sump manholes.

Rate Control

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site.

The applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the table below. The proposed project is in conformance with RPBCWD Rule J, Subsection 3.1.a.

| Modeled Discharge Location | 2-Year Discharge (cfs) | | 10-Year Discharge (cfs) | | 100-Year Discharge (cfs) | | 10-Day Snowmelt (cfs) | |
|----------------------------|------------------------|------|-------------------------|------|--------------------------|------|-----------------------|------|
| | Ex | Prop | Ex | Prop | Ex | Prop | Ex | Prop |
| Delton Avenue | 1.9 | 0.2 | 3.4 | 2.4 | 6.1 | 5.9 | 0.13 | 0.13 |
| Vinehill Road | 0.6 | 0.1 | 1.0 | 0.2 | 1.9 | 0.3 | 0.04 | 0.0 |

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the fully reconstructed and new impervious surface of the parcel. An abstraction volume of 2,202 cubic feet is required from the 0.55 acre (24,017 square feet) of impervious area on the project for volume retention. The Applicant is proposing a system that provides 2,319 cubic feet of volume.

Soil borings performed by NTI, LLC in the area where the proposed stormwater management practice is to be constructed show that soils in the project area poorly graded sand with silt (SP-SM) to a depth of 13.5 feet. In the geotechnical report, NTI recommends an infiltration rate of 0.7 inches/hour. The Minnesota Stormwater Manual indicates that SP soils have an infiltration rate of 0.8 inches per hour and SM soils have a rate of 0.45 inches per hour. The profile was primarily comprised of poorly graded sand

or SP soils with some inclusion of “occasional small clay balls” hence the SM qualifier. Given the boring logs provided, staff concurs that this rate is appropriate.

Groundwater was encountered at 967.0 feet where the stormwater management practice is proposed. This is 7.2 feet below the bottom of the BMP at 974.2 feet providing the required three feet of separation to groundwater. (Rule J, Subsection 3.1.b.ii). The table below summarizes the volume abstraction on the site. Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.3.a.

The proposed bio-infiltration feature will be used to achieve the 1.1-inch reduction. Pretreatment of runoff will be provided by two sump manholes immediately upstream of the practices (sub-criterion 3.1.b.i). The table below summarizes the volume abstraction on the site.

| Required Abstraction Depth (inches) | Required Abstraction Volume (cubic feet) | Provided Abstraction Depth (inches) | Provided Abstraction Volume (cubic feet) |
|-------------------------------------|--|-------------------------------------|--|
| 1.1 | 2,202 | 1.15 | 2,309 |

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff. The Applicant is proposing an underground infiltration practice to achieve the required TP and TSS removals and submitted a MIDS model to estimate the TP and TSS removals.

| Pollutant of Interest | Regulated Site Loading (lbs/yr) | Required Load Removal (lbs/yr) ¹ | Provided Load Reduction (lbs/yr) |
|------------------------------|---------------------------------|---|----------------------------------|
| Total Suspended Solids (TSS) | 198.57 | 178.71 (90%) | 179.56 (90%) |
| Total Phosphorus (TP) | 1.093 | 0.656 (60%) | 0.988 (90%) |

¹Required load reduction is calculated based on the removal criteria in Rule J, Subsection 3.1c and the new and reconstructed impervious area site load.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.c.

Low floor Elevation

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation and no stormwater management system may be constructed

or reconstructed in a manner that brings the low floor elevation of an adjacent structure into noncompliance according to Rule J, Subsection 3.6.

The low floor elevations of the structures and the adjacent stormwater management feature are summarized below.

| Location Riparian to Stormwater Facility | Low Floor Elevation of Building (feet) | 100-year Event Flood Elevation of Adjacent Stormwater Facility (feet) | Freeboard (feet) |
|--|--|---|------------------|
| Starbucks | 983.55 | 977.23 | 6.32 |
| Tino's Pizza | 984 | 977.23 | 6.77 |

The low floor elevation of the proposed of the proposed building is 6.32 feet higher than the 100-year flood elevation of the proposed BMP. The building on the adjoining property, Tino's Pizza is 6.77 feet higher. Staff finds that the proposed project is in conformance with Rule J, Subsection 3.6.

Maintenance

Subsection 3.7 of Rule J requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

J1. Permit applicant must provide a draft maintenance and inspection plan. Once approved by RPBCWD, the plan must be recorded on the deed in a form acceptable to the District.

Rule L: Permit Fee:

Fees for the project are:

Rule C & J\$1,500

Rule M: Financial Assurance:

Rules C: Silt fence: 1000 L.F. x \$2.50/L.F. =\$2,500

Restoration: 0.25 acre x \$2,500/acre =\$625

Rules J: UG Infiltration System: Engineer's Opinion of Cost =\$42,094

Contingency (10%)\$4,520

Administration (30%)\$13,985

Total Financial Assurance.....\$60,600

Applicable General Requirements:

1. The RPBCWD Administrator shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.
3. Return or allowed expiration of any remaining surety and permit close out is dependent on the permit holder providing proof that all required documents have been recorded and providing as-built drawings that show that the project was constructed as approved by the Managers and in conformance with the RPBCWD rules and regulations.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rules C and J if the Rule Specific Permit Conditions listed above are met.

Recommendation:

Approval, contingent upon:

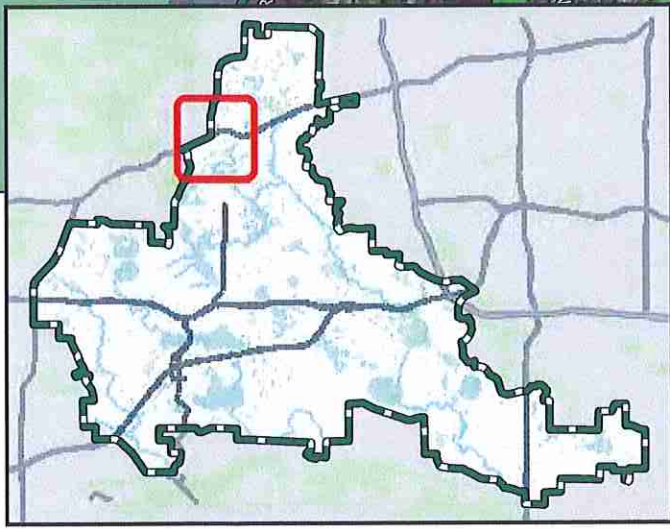
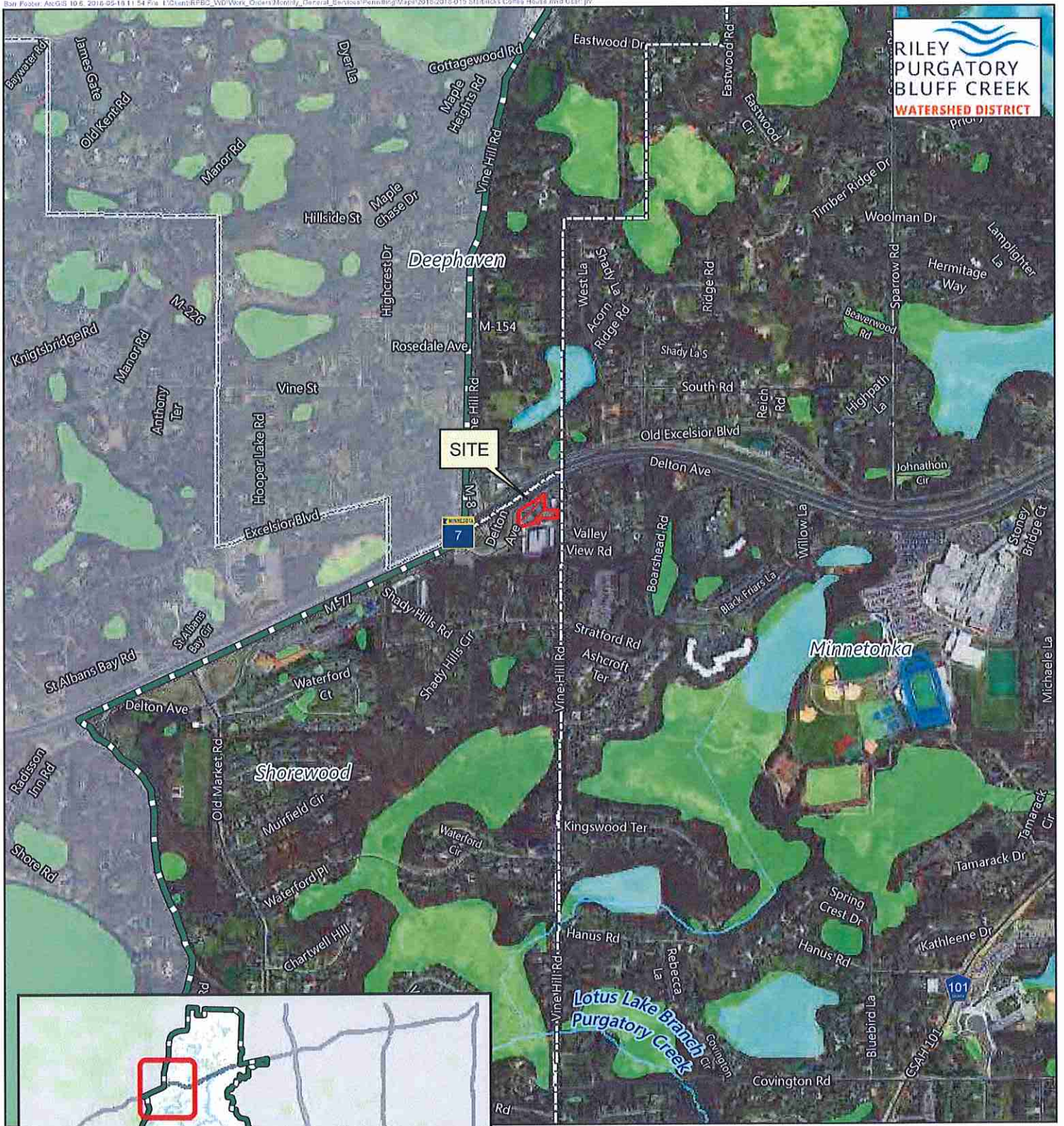
1. Continued compliance with General Requirements.
2. Financial Assurance in the amount of \$60,600.
3. Submission of the name and contact information of the individual responsible for erosion and sediment control for the site.
4. Receipt in recordation a maintenance declaration for the stormwater management facilities. A draft must be approved by the District prior to recordation.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications as approved by the District.

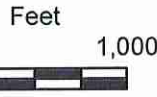
Board Action

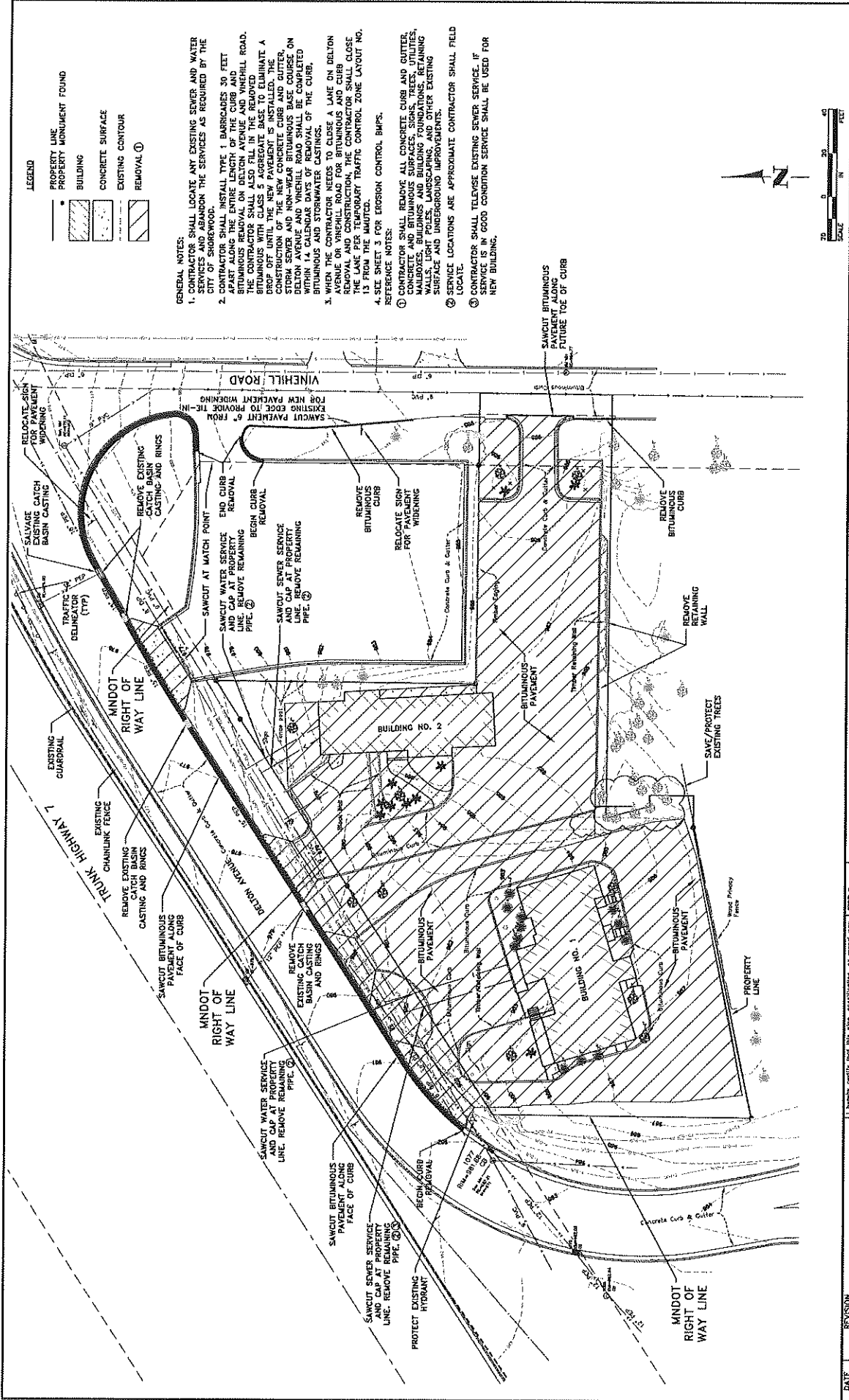
It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-015 with the conditions recommended by staff.



Permit Location Map

STARBUCKS COFFEE HOUSE
Permit 2018-015
Riley Purgatory Bluff Creek
Watershed District





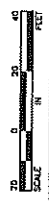
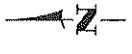
- LEGEND**
- PROPERTY LINE
 - PROPERTY MONUMENT FOUND
 - BUILDING
 - CONCRETE SURFACE
 - EXISTING CONTOUR
 - REMOVAL ①

GENERAL NOTES:

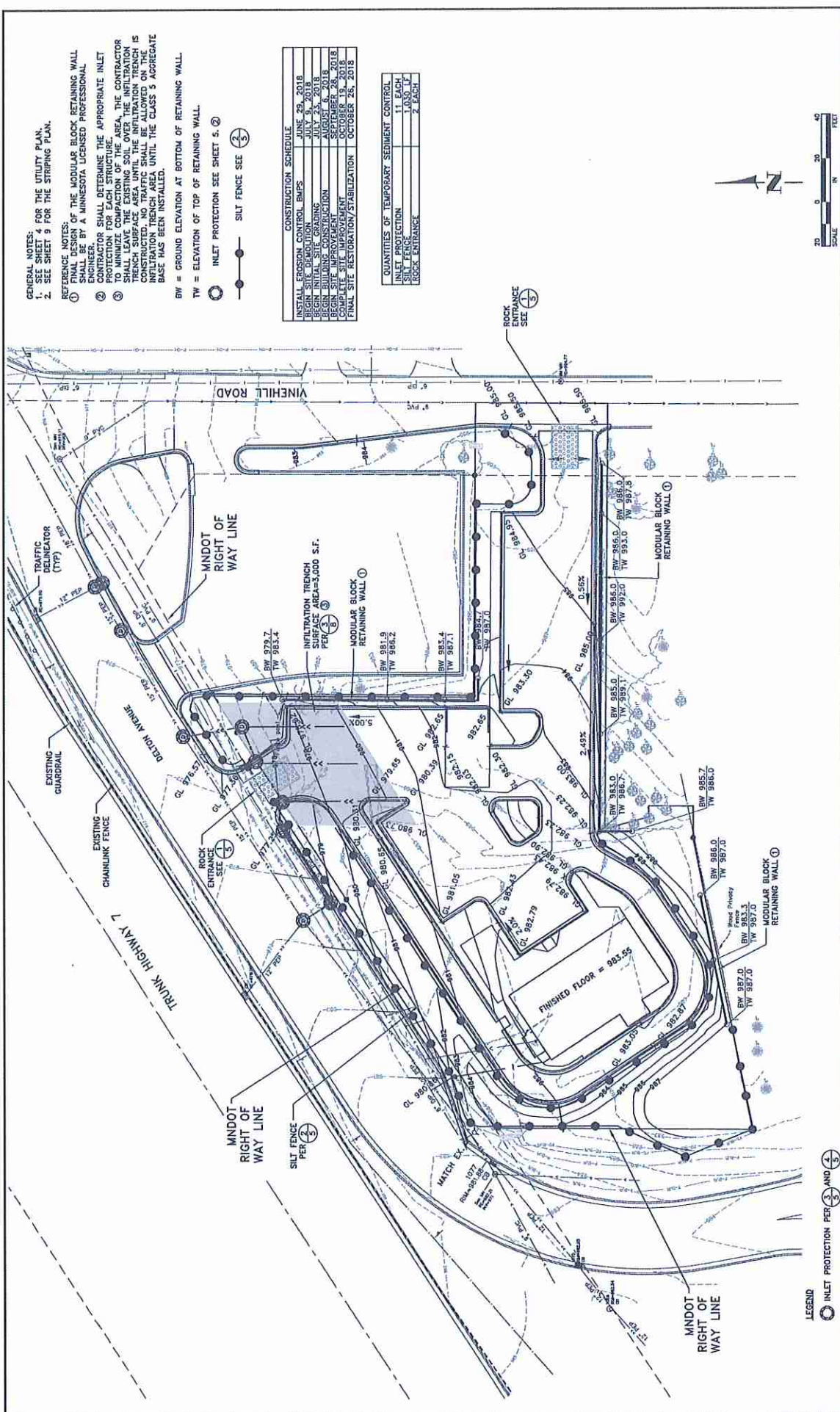
1. CONTRACTOR SHALL LOCATE ANY EXISTING SEWER AND WATER SERVICES AND ABANDON THE SERVICES AS REQUIRED BY THE CITY OF SHOREWOOD.
2. CONTRACTOR SHALL INSTALL TYPE 1 BARRICADES 30 FEET APART ALONG THE ENTIRE LENGTH OF THE CURB AND BITUMINOUS REMOVAL ON DELTON AVENUE AND VINHILL ROAD. BITUMINOUS REMOVAL SHALL BE PERFORMED IN THE FOLLOWING ORDER: (1) REMOVE EXISTING BITUMINOUS WITH CLASS 5 SEGREGANT BASE COURSE. (2) DROP OFF UNTIL THE NEW CONCRETE CURB AND GUTTER CONSTRUCTION OF THE NEW CONCRETE CURB AND GUTTER, STORM SEWER AND NON-WEAR BITUMINOUS BASE COURSE ON WITHIN 14 CALENDAR DAYS OF THE BEGINNING OF THE CURB, BITUMINOUS AND STORMWATER CASTINGS.
3. WHEN THE CONTRACTOR NEEDS TO CLOSE A LANE ON DELTON AVENUE OR VINHILL ROAD FOR BITUMINOUS AND CURB REMOVAL AND CONSTRUCTION, THE CONTRACTOR SHALL CLOSE 15' FROM THE MATCHLINE TO THE ADJACENT TRAFFIC CONTROL ZONE LAYOUT NO. 13 FROM THE MATCHLINE.
4. SEE SHEET 3 FOR EROSION CONTROL BMP'S.

REFERENCE NOTES:

- ① CONTRACTOR SHALL REMOVE ALL CONCRETE CURB AND GUTTER, CONCRETE AND BITUMINOUS SURFACES, SIGNS, TREES, UTILITIES, MAILBOXES, BUILDINGS AND BUILDING FOUNDATIONS, RETAINING WALLS, LIGHT POLES, LANDSCAPING, AND OTHER EXISTING STRUCTURES AND UNDERGROUND IMPROVEMENTS.
- ② SERVICE LOCATIONS ARE APPROXIMATE CONTRACTOR SHALL FIELD LOCATE.
- ③ CONTRACTOR SHALL TELETYPE EXISTING SEWER SERVICE IF SERVICE IS IN GOOD CONDITION SERVICE SHALL BE USED FOR NEW BUILDING.



| | |
|---|--|
| <p>EXISTING CONDITIONS AND REMOVALS PLAN</p> <p style="text-align: right;">SHEET 2</p> | |
| <p>CITY OF SHOREWOOD, MINNESOTA</p> | |
| <p>STARBUCKS COFFEE STORE</p> | |
| <p>Hakanson Anderson Civil & Mechanical Engineers 3601 Thurston Ave., Ancker, Minnesota 55303 763-437-5860 FAX 763-427-0520 www.hakanson-anderson.com</p> | |
| | |
| <p>DATE: 3/22/17 DRAWN BY: J. J. JENSEN CHECKED BY: J. J. JENSEN IN CHARGE: J. J. JENSEN</p> | <p>SCALE: 3/22/17 DATE: 3/22/17 L.S. No. 35481</p> |



GENERAL NOTES:
 1. SEE SHEET 4 FOR THE UTILITY PLAN.
 2. SEE SHEET 9 FOR THE STRIPING PLAN.

REFERENCE NOTES:
 ① FINAL DESIGN OF THE MODULAR BLOCK RETAINING WALL SHALL BE PROVIDED BY A MINNESOTA LICENSED PROFESSIONAL ENGINEER.

- ② CONTRACTOR SHALL DETERMINE THE APPROPRIATE INLET PROTECTION FOR EACH STRUCTURE.
- ③ CONTRACTOR SHALL DETERMINE THE APPROPRIATE INLET PROTECTION FOR EACH STRUCTURE. THE CONTRACTOR SHALL PROVIDE PROTECTION OVER THE INLET TRENCH SURFACE AREA UNTIL THE INFILTRATION TRENCH IS CONSTRUCTED. NO TRAFFIC SHALL BE ALLOWED ON THE INFILTRATION TRENCH SURFACE UNTIL THE CLASS 5 AGGREGATE BASE HAS BEEN INSTALLED.

BW = GROUND ELEVATION AT BOTTOM OF RETAINING WALL.
 TW = ELEVATION OF TOP OF RETAINING WALL.

○ INLET PROTECTION SEE SHEET 5, ②

● SILT FENCE SEE ③

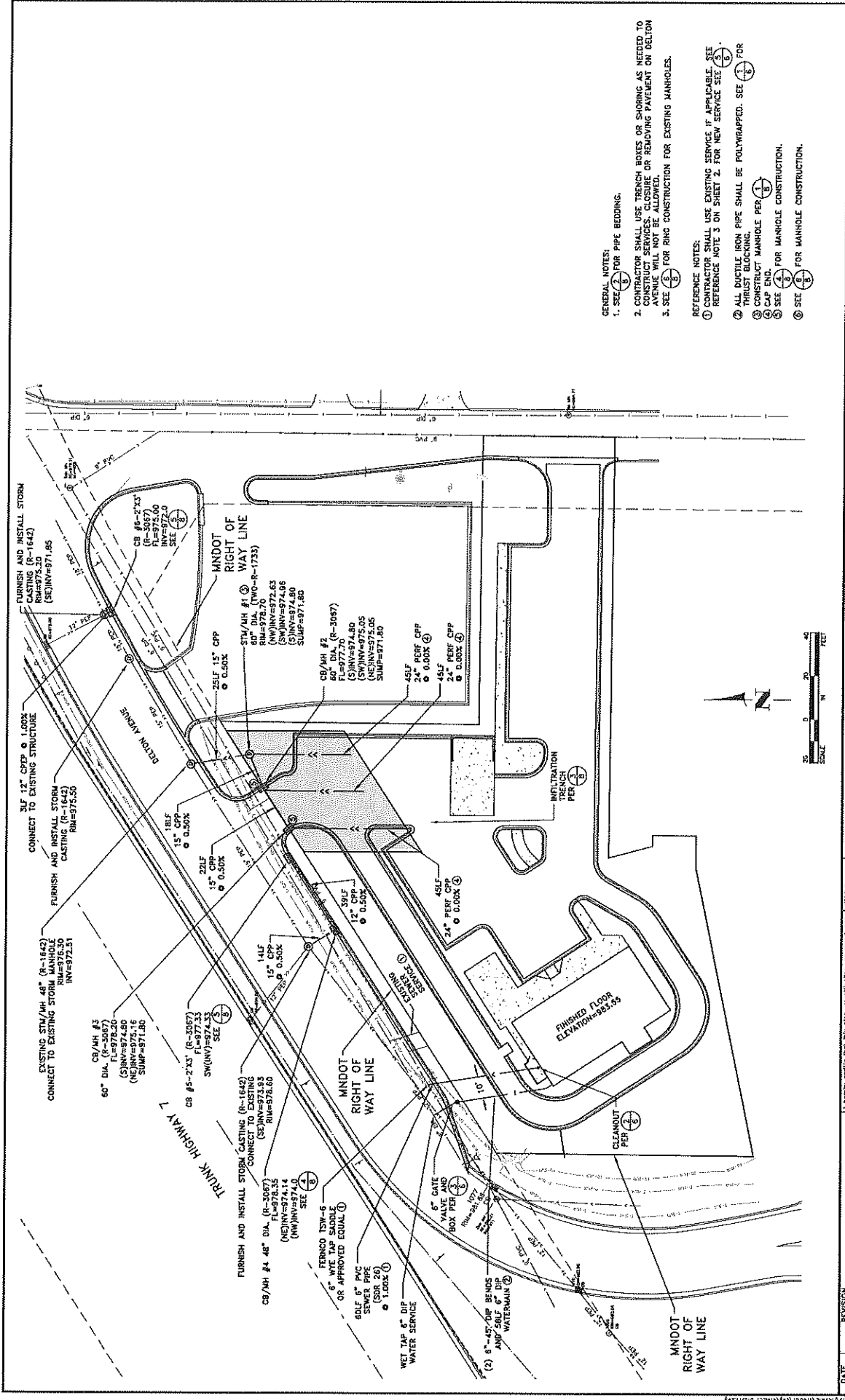
| CONSTRUCTION SCHEDULE | |
|--------------------------------------|--------------------|
| INSTALL EROSION CONTROL BMP'S | JUNE 29, 2018 |
| BEGIN SITE DEMOLITION | JULY 9, 2018 |
| BEGIN CONSTRUCTION | AUGUST 13, 2018 |
| BEGIN BUILDING CONSTRUCTION | AUGUST 27, 2018 |
| COMPLETE SITE IMPROVEMENT | SEPTEMBER 28, 2018 |
| FINAL SITE RESTORATION/STABILIZATION | OCTOBER 19, 2018 |
| | OCTOBER 29, 2018 |

| QUANTITIES OF TEMPORARY SEDIMENT CONTROL | |
|--|----------|
| INLET PROTECTION | 1.000 LF |
| SILT FENCE | 1.000 LF |
| ROCK ENTRANCE | 2 EACH |



| | | |
|--|--|---|
| STARBUCKS COFFEE STORE CITY OF SHOREWOOD, MINNESOTA | | SHEET 5 OF 9 SHEETS 4148.01 |
| Hokanson Anderson Civil Engineers and Land Surveyors 5601 763-427-5880 FAX 763-427-0520 www.hokanson-anderson.com | | |
| DATE 4/24/17 10/11/17 7/27/17 7/27/17 7/27/17 | REVISION 1. REVISED PER SCHEDULE 2. CORRECTED 3. CORRECTED 4. CORRECTED 5. WATERBURY SUBMITTALS | DRAWN BY C.J.J. CHECKED BY D.M.S. DATE 3/24/17 |
| 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. Date: 3/24/17 License No.: 233451 | | |

LEGEND
 ○ INLET PROTECTION PER ③ AND ④
 ● SILT FENCE PER ③



- GENERAL NOTES:**
- SEE 2 FOR PIPE BEDDING.
 - CONTRACTOR SHALL USE TRENCH BOXES OR SHORING AS NEEDED TO MAINTAIN EXISTING UTILITIES. CLOSURE OR REMOVING PAVEMENT ON DELTON AVENUE WILL NOT BE ALLOWED.
 - SEE 3 FOR RING CONSTRUCTION FOR EXISTING MANHOLES.
- REFERENCE NOTES:**
- CONTRACTOR SHALL USE EXISTING SERVICE IF APPLICABLE. SEE REFERENCE NOTE 3 ON SHEET 2 FOR NEW SERVICE SEE 3.
 - ALL DUCTILE IRON PIPE SHALL BE POLYWRAPPED. SEE 3 FOR THRUST BLOCKING.
 - CONSTRUCT MANHOLE PER 1.
 - SEE 4 FOR MANHOLE CONSTRUCTION.
 - SEE 5 FOR MANHOLE CONSTRUCTION.

| | | | | | | |
|---------|-------------------------|----|------|---------|----|------|
| DATE | REVISION | BY | CHKD | DATE | BY | CHKD |
| 3/20/17 | REVISED | JK | JK | 3/20/17 | JK | JK |
| 3/20/17 | ISSUED FOR PERMITS | JK | JK | 3/20/17 | JK | JK |
| 3/20/17 | ISSUED FOR CONSTRUCTION | JK | JK | 3/20/17 | JK | JK |

PROJECT: STARBUCKS COFFEE STORE
 LOCATION: 3601 THURSTON AVE., ANOKA, MINNESOTA 55303
 DRAWN BY: JACOB J. JOHNSON, P.E.
 DATE: 3/23/17, LIC. NO. 35451

STARBUCKS COFFEE STORE
 CITY OF SHOREWOOD, MINNESOTA

UTILITY PLAN
 SHEET 4 OF 9
 4148.DWG

GENERAL CONSTRUCTION AND SOILS NOTES:

- STRIP ALL INPLACE TOPSOIL IN AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING. IN COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY, ASTM D998, IN AT LEAST THE UPPER 3 FEET UNLESS RECOMMENDED IN THESE PLANS. THE GRADING SURFACE SHALL BE CONSTRUCTED OF SUITABLE STANDARD MATERIAL. THE FILL SHALL BE PLACED IN 8" TO 10" LOOSE LIFTS, AND COMPACTED TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
- SUITABLE GRADING MATERIAL FOR THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, SILT, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL.
- PROVIDE A SAW CUT WHEN PLACING NEW PAVEMENT TO PREVENT ADVANCEMENT OF UNDERLYING COURSE OF REMOVAL ITEMS DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED IN ACCORDANCE WITH MNDOT SPEC. 210A.3.0.3.
- USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.04 GAL/SY TO 0.06 GAL/SY BETWEEN BITUMINOUS LAYERS. THE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS (AS SUPPLIED FROM THE REFINERY) OR MC AND RC LIQUID ASPHALTS. THE ASPHALT EMULSION MAY BE FURTHER DILUTED IN THE FIELD IN ACCORDANCE WITH SPEC. 2537.
- CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITY LOCATIONS AND SHALL BE USED FOR ALL BITUMINOUS MIXTURES ON THIS PROJECT. SPECIFIC PG GRADINGS SHALL BE LISTED AT THE END OF THE MIX DESIGNATION NUMBER SHOWN ON THE TYPICAL SECTION.
- THE BITUMINOUS MIXTURES SHALL MEET THE REQUIREMENTS OF SPECIFICATIONS 2360 AND 3138.
- ALL DISTURBED AREAS SHALL BE RESTORED WITH 6" OF TOPSOIL AND SOD.
- THE CONTRACTOR SHALL WORK WITH THE UTILITY COMPANIES IF THEIR FACILITIES NEED TO BE RELOCATED.
- ALL EXCESS SOIL MATERIAL SHALL BE THE PROPERTY OF THE CONTRACTOR.

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT (DISTRICT) AND GENERAL EROSION CONTROL NOTES:

- EROSION CONTROL SHALL CONFORM TO THE "MNDOT EROSION CONTROL HANDBOOK", THE MINNESOTA POLLUTION CONTROL AGENCY'S "PROTECTING WATER QUALITY IN URBAN AREAS: THE MINNESOTA STORMWATER MANUAL" AS WELL AS THE DISTRICT'S "STORMWATER MANAGEMENT PLAN".
- BEFORE ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ACQUIRE THE NECESSARY MPCA NPDES STORMWATER PERMIT IF REQUIRED. AS DESIGNED, THE CONSTRUCTION DISTURBS 41,817 SQUARE FEET. IF THE CONTRACTOR KEEPS THEIR OPERATIONS WITHIN THAT FOOTPRINT A NPDES PERMIT IS NOT REQUIRED.
- THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) PRIOR TO GRADING AND REMOVAL/DEMOLITION ACTIVITIES. BMP'S SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES AND POTENTIAL FOR EROSION SHALL BE PASSED TO THE DISTRICT AT THE END OF CONSTRUCTION.
- CONTRACTOR SHALL SCHEDULE THEIR OPERATION TO MINIMIZE THE AMOUNT OF DISTURBED AREA AT ANY GIVEN TIME.
- NATURAL TOPOGRAPHY AND SOIL CONDITIONS MUST BE PROTECTED, INCLUDING RETENTION ONSITE OF NATIVE TOPSOIL TO THE GREATEST EXTENT POSSIBLE.
- ADDITIONAL MEASURES, SUCH AS HYDRAULIC MULCHING AND OTHER PRACTICES AS SPECIFIED BY THE DISTRICT MUST BE USED ON SLOPES OF 3:1 (H:V) OR STEEPER TO PROVIDE ADEQUATE STABILIZATION.
- SPREAD TACKS SHALL BE APPLIED TO ALL EXPOSED SOIL SURFACES TO PREVENT EROSION OR ORGANIC MATTER BEING WASHED INTO THE UNDERLYING SOIL DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED.
- CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED. SEE CITY PLATE ERO-09 FOR CONCRETE WASHOUT.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S MUST BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND VEGETATION IS ESTABLISHED SUFFICIENTLY TO ENSURE STABILITY OF THE SITE, AS DETERMINED BY THE DISTRICT.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S MUST BE REMOVED UPON FINAL STABILIZATION.
- ALL SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING PERVIOUS UPON COMPLETION OF CONSTRUCTION SHALL BE REVEGETATED WITHIN 14 DAYS OF COMPLETION OF CONSTRUCTION. REVEGETATION SHALL BE PERFORMED WHILE TAKING CARE TO WOOD UTILITIES, TREE ROOTS AND OTHER EXISTING VEGETATION PRIOR TO FINAL REVEGETATION OR OTHER STABILIZATION.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED ON A PROPERTY THAT DRAINS TO AN IMPAIRED WATER. WITHIN 14 DAYS TEMPORARILY OR PERMANENTLY STABILIZED WITH SOD WITHIN 7 DAYS OF COMPLETION AS DESCRIBED IN NOTE 11 ABOVE.
- THE PERMITTEE MUST, AT A MINIMUM, INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-DISTURBING ACTIVITY HAS CEASED. THEREAFTER, THE PERMITTEE MUST CONDUCT VISUAL INSPECTIONS OF ALL DISTURBED AREAS AT LEAST WEEKLY UNTIL THE DISTRICT IS SATISFIED THE PERMITTEE WILL MAINTAIN A LOG OF ACTIVITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST.

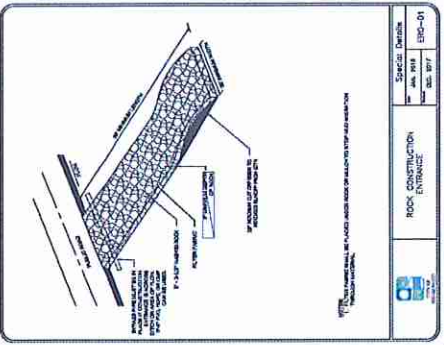
LEGEND

- 906 --- EXISTING CONTOUR
- 906 --- PROPOSED CONTOUR
- 906 --- DRAINAGE AND UTILITY EASEMENT
- 906 --- PROPERTY LINE
- P-BUR UNDERGROUND ELECTRIC
- T-BUR UNDERGROUND TELEPHONE
- G UNDERGROUND GAS LINE
- UTILITY PERESTALS
- ☆ LIGHT POLE
- EXISTING STORM SEWER
- >> --- DETAIL NUMBER
- 3 --- SHEET NUMBER
- 5 --- INLET PROTECTION
- 4 --- INLET PROTECTION
- 5 --- INLET PROTECTION
- 5 --- INLET PROTECTION
- 6 --- SOD INSTALLATION
- 5 --- SOD INSTALLATION
- 5 --- SOD INSTALLATION
- 5 --- SOD INSTALLATION

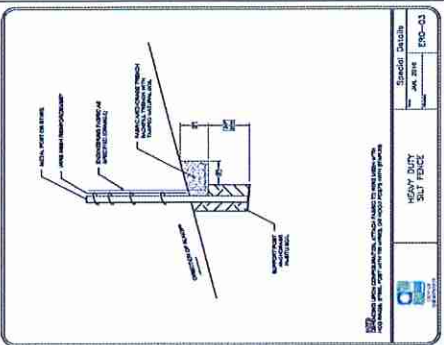
| DATE | REVISION | BY | CHK'D BY |
|----------|--------------------|----|----------|
| 11/27/18 | CITY COMMENTS | | |
| 11/27/18 | WATERSHED COMMENTS | | |

I hereby certify that this plan, specification, or report was prepared by me or a duly Licensed Professional Engineer under the laws of the State of Minnesota.

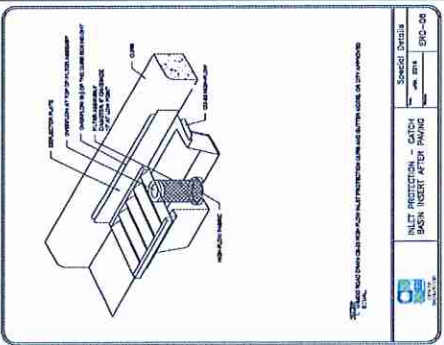
 Date: 3/24/17 License No. 23451



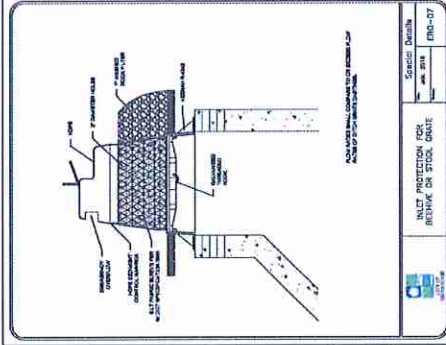
1 ROCK CONSTRUCTION ENTRANCE



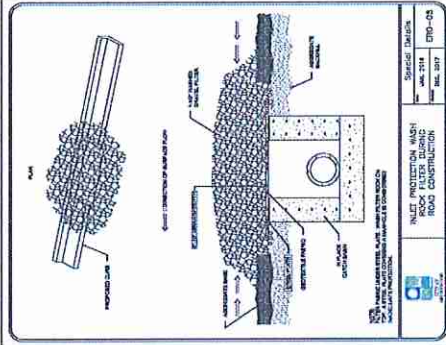
2 SILT FENCE DETAILS TO PROTECT AREAS FROM SILT FROM (SEE SPEC. 1049)



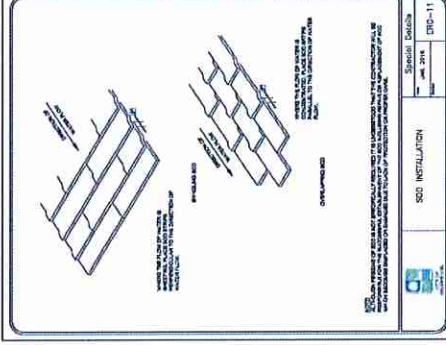
3 INLET PROTECTION



4 INLET PROTECTION



5 INLET PROTECTION



6 SOD INSTALLATION

Hakanson Anderson
 Civil Engineers and Land Surveyors
 3601 763-427-5860 FAX 763-427-0520
 www.hakanson-anderson.com

STARBUCKS COFFEE STORE
 CITY OF SHOREWOOD, MINNESOTA

GENERAL CONSTRUCTION NOTES, LEGEND, AND EROSION CONTROL DETAILS

SHEET 5 OF 9 SHEETS 4148.0



18681 Lake Drive East
 Chanhassen, MN 55317
 952-607-6512
 www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-022

Received complete: April 20, 2018

Board Meeting: June 6, 2018

Applicant: Bloomington Parks, ATTN: Randy Quale

Consultant: CEI Engineering Associates, Inc., ATTN: Brent Massey

Project: Sunrise Park Court Improvements – Bloomington Parks is proposing to remove an existing tennis court and install two pickle ball courts and a basketball court. A rain garden will be constructed to meet the District’s Rule J requirements.

Location: 9401 Bloomington Ferry Road, Bloomington, MN

Reviewer: Terry Jeffery, Permit Coordinator

Rules: Applicable rules checked

| | | | |
|---|--|---|--|
| | Rule B: Floodplain Management | | Rule H: Appropriation of Public Waters |
| X | Rule C: Erosion and Sediment Control | | Rule I: Appropriation of Groundwater |
| | Rule D: Wetland and Creek Buffers | X | Rule J: Stormwater Management |
| | Rule E: Dredging and Sediment Removal | | Rule K: Variances and Exceptions |
| | Rule F: Shoreline/Streambank Stabilization | X | Rule L: Permit Fees |
| | Rule G: Waterbody Crossings | X | Rule M: Financial Assurances |

Rule Conformance Summary

| Rule | Issue | Conforms to RBPCWD Rules? | Comments |
|------|-----------------------|---------------------------|--|
| C | Erosion Control Plan | See comment | See Rule Specific Permit Condition C1. |
| J | Stormwater Management | Rate | Yes |
| | | Volume | Yes |
| | | Water Quality | Yes |
| | | Low Floor Elev. | Yes |
| | | Maintenance | See Comment |
| L | Permit Fee | NA | Government Entity |
| M | Financial Assurance | NA | Government Entity |



Project Description

The City of Bloomington's Parks Department is proposing to remove an existing tennis court and replace it with two pickle ball courts and a basketball court. The project will result in the disturbance of 0.55 acre of land and the full reconstruction of 0.5 acre of impervious surface. The net impact on impervious surface will be a reduction of 0.02 acre. The project is located at 9401 Bloomington Ferry Road in Bloomington. Improvement will also include a bioretention feature and a connection to the existing storm sewer system. An existing manhole will be retrofit to include a SAFL Baffle and a mechanical skimmer/energy dissipater. No other additional improvements are proposed.

The project site information is summarized below:

1. Total Site Area: 7.84 acres (341,510 square feet)
2. Existing Site Impervious Area: 1.67 acre (72,878 square feet)
3. Post Construction Site Impervious: 1.65 acres (72,007 square feet)
4. New (Increase) in Site Impervious Area: -0.02 acre (-871 square feet) (1.2% decrease in site impervious area)
5. Disturbed impervious surface: 0.50 acre (21,780 square feet)
6. Total Disturbed Area: 0.55 acre (23,958 square feet)

Exhibits:

1. Permit Application from Bloomington Parks dated March 23, 2018
2. Demolition Plan sheet C1 dated January 17, 2018 (revised May 9, 2018)
3. Site Plan sheet C1.1 dated January 17, 2018 (revised May 9, 2018)
4. Grading and Erosion Plan sheet C1.2 dated January 17, 2018 (revised May 9, 2018)
5. Detail Plan sheet C5.2 dated January 17, 2018 (revised May 9, 2018)
6. MIDS Model dated April 20, 2018 (revised May 7, 2018)
7. Cover letter/project narrative from CEI Engineering dated March 30, 2018
8. Geotechnical Evaluation Report by Northern Technologies, LLC dated February 17, 2017
9. Response letter to District comments from CEI Engineering dated April 20, 2018
10. Response letter to District comments from CEI Engineering dated May 9, 2018

Rule Specific Permit Conditions

Rule C: Erosion and Sediment Control

Because the project will result in 0.55 acre of land disturbing activity the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan prepared by CEI Engineering includes installation of perimeter control where applicable, inlet protection for storm sewer catch basins, a rock construction entrance, placement of a minimum of 6 inches of topsoil, delineation of areas to be protected from compaction, decompaction of areas compacted during construction, retention of native topsoil onsite, and a plan for final stabilization including a planting plan. The contractor to be responsible for erosion control at the site needs to be determined. To conform to the RPBCWD Rule C requirements the following condition must be satisfied:

- C1. The Applicant must provide the name and contact information of the individual responsible for erosion and sediment control at the site. RPBCWD must be notified if the responsible party changes during the permit term.

Rule J: Stormwater Management

Because the project will result in 0.55 acre of land disturbing activity it must conform to the requirements of Rule J. As the project will fully reconstruct 0.48 acre of impervious area the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.3). As less than 50% of the existing 1.67 acres of the site impervious surface will be added as new impervious surface and/or reconstructed existing surfaces and less than 50 percent of the site will be disturbed, the criteria in section 3 applies only to the proposed new and newly reconstructed impervious surfaces. The total impervious area to be treated is 0.48acre or approximately 20,900 square feet.

The applicant is proposing bioretention feature (rain garden) and a sump manhole with a SAFL Baffle and snout mechanical skimmer/energy dissipater. Pretreatment will be provided through ten (10) feet of laminar sheet flow through turf grass. This practice will be used to provide the required rate control, volume abstraction, and water quality management on the site.

It is noteworthy that the impervious surface being treated by the bioretention basin will not be subject to typical winter maintenance practices such as salt or sand application.

Rate Control

To meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. As there is a decrease in impervious surface and there is no change in watershed areas or direction of drainage, there will be no increase in rates from the site.

The proposed project conforms to RPBCWD Rule J, Subsection 3.1.a

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from all new and disturbed impervious surface on the parcel. An abstraction volume of 1,897 cubic feet is required from

the 0.48 acre of reconstructed impervious area on the project for volume retention. The developer is proposing a bioretention basin. The table below summarizes the volume abstraction on the site.

| Required Abstraction Depth (inches) | Required Abstraction Volume (cubic feet) | Provided Abstraction Volume (cubic feet) | Depth Provided (inches) |
|-------------------------------------|--|--|-------------------------|
| 1.1 | 1,897 | 1,226 | 0.71 |

The site is considered restricted for the following reasons. Site constraints including grade change, proximity to drive aisle, proximity to parking lot, and proximity to the public street preclude additional increases in surface area of the biofiltration feature beyond what is proposed. The soils within the hydrologic group "D" preclude an increase in storage volume by increasing the depth of the feature as it would not draw down in 48 hours as required. The applicant considered multidirectional drainage of the pickleball court, however, given the engineering standards for these features, that was discredited as an option. The applicant evaluated locating the bioretention feature south of the reconstructed area, however, that would result in removal of baseball fields which is not a practicable alternative. The applicant did consider capturing runoff from other impervious surface on the site but in order to accomplish this, a best management practice would trigger RPBCWD's buffer requirements and would need to be located within an area that would need to be dedicate buffer of a wetland. (The wetland area is not downstream of the planned disturbance and, therefore, does not trigger the District's buffer requirements.) This area also has a relatively steep slope making design and constructability an issue. The engineer and staff both concur that the site is restricted and that the 0.71 inch of runoff from the fully reconstructed surface is the maximum extent practicable.

Soil borings performed by Braun Intertec show that soils in the location of the proposed BMP consist primarily of clayey sand (SC). This soil profile is in the hydrologic group "D" and has an infiltration rate of 0.06" per hour. The design was based upon this infiltration rate of 0.06 inch/hour. No groundwater was observed to the bottom of the boring at an elevation of 853.0 feet. The bottom of the infiltration feature is set at 857.5. As such, there is no less than 4.5 feet of separation to ground water at the site of the proposed underground infiltration system. This exceeds the 3 feet minimum separation required by Rule J, Subsection 3.1.b.ii. Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.b.

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff. The developer is proposing the construction of a bioretention feature to meet these requirements. The table below summarized the water quality treatment provided for the site. Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.c.

| Pollutant of Interest | Regulated Site Loading (lbs/yr) | Required Load Removal (lbs/yr) ¹ | Provided Load Reduction (lbs/yr) |
|------------------------------|---------------------------------|---|----------------------------------|
| Total Suspended Solids (TSS) | 165.3 | 148.8 (90%) | 151.8 (92%) |
| Total Phosphorus (TP) | 0.91 | 0.55 (60%) | 0.60 (66%) |

¹Required load reduction is calculated based on the removal criteria in Rule J, Subsection 3.1c and the new and reconstructed impervious area site load.

Low floor Elevation

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation and no stormwater management system may be constructed or reconstructed in a manner that brings the low floor elevation of an adjacent structure into noncompliance according to Rule J, Subsection 3.6.

There are no enclosed structures proximal to the bioretention feature.

The proposed improvements are compliant with Rule J, subsection 3.6.

Maintenance

Subsection 3.7 of Rule J requires the submission of maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

- J1. Permit applicant has provided a draft maintenance and inspection plan. Once approved by RPBCWD, the Applicant must enter into a written maintenance agreement with the District documenting the maintenance requirements.

Rule L: Permit Fee:

Bloomington is a governmental unit and per Rule M §2 is not required to supply a permit application fee.

Rule M: Financial Assurance:

Bloomington is a governmental unit and per Rule L §2 is not required to submit a financial assurance.

Applicable General Requirements:

1. The RPBCWD Administrator shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rule C and Rule J if the rule specific permit conditions listed above are met.

Recommendation:

Approval, contingent upon:

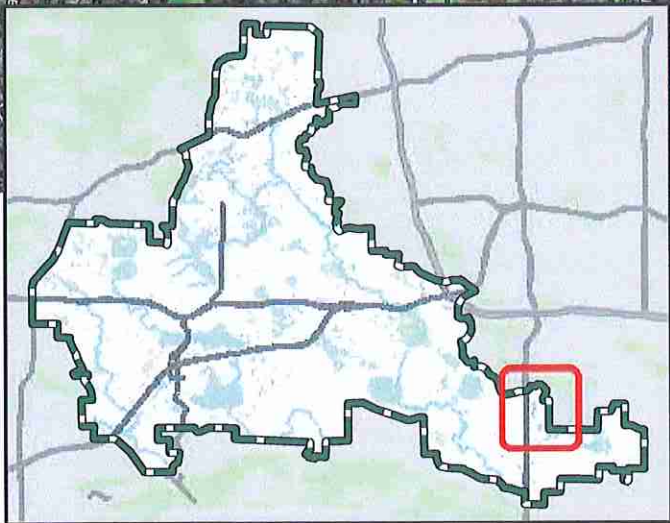
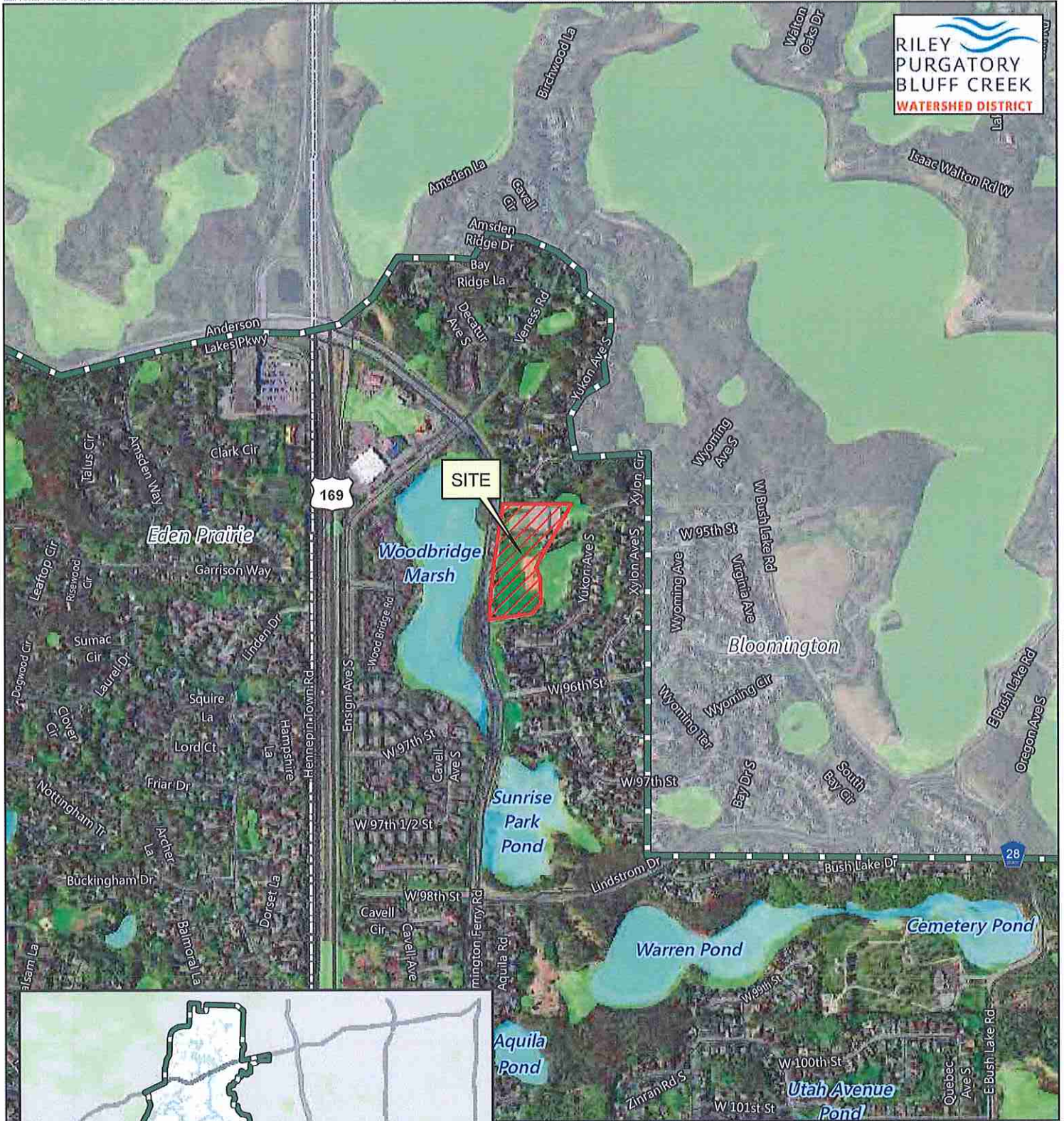
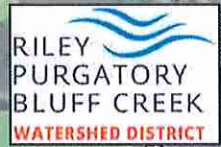
1. Continued compliance with General Requirements.
2. The Applicant must provide the name and contact information of the individual responsible for erosion and sediment control at the site. RPBCWD must be notified if the responsible party changes during the permit term.
3. The Applicant must enter into a written maintenance agreement with the District documenting the buffer areas and maintenance requirements and must also include an exhibit clearly showing the buffer area and monument locations. Stormwater facility maintenance requirements must also be documented in a maintenance agreement approved by RPBCWD prior to execution by both parties.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications as approved by the District.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-022 with the conditions recommended by staff.



Feet

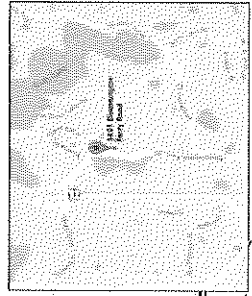


Permit Location Map

SUNRISE PARK COURT
IMPROVEMENT

Permit 2018-022

Riley Purgatory Bluff Creek
Watershed District



PROPOSED LEGEND

- Proposed Pavement
- Proposed Gravel
- Proposed Earthwork
- Proposed Erosion Control
- Proposed Utility

GENERAL DRAINAGE NOTES

1. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE MDT & DCSD SPECIFICATIONS.

2. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED TO A FINISH ELEVATION OF 1.0' ABOVE THE FINISH GRADE AT THE OUTLET.

3. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED WITH A MINIMUM OF 1.0' OF COVER OVER THE STRUCTURE.

4. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED WITH A MINIMUM OF 1.0' OF COVER OVER THE STRUCTURE.

GENERAL LANDSCAPE NOTES

1. ALL PLANTING SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE MDT & DCSD SPECIFICATIONS.

2. ALL PLANTING SHALL BE CONSTRUCTED TO A FINISH ELEVATION OF 1.0' ABOVE THE FINISH GRADE AT THE OUTLET.

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GENERAL EROSION NOTES

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SPACING & EROSION CONTROL DETAILS

1. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE MDT & DCSD SPECIFICATIONS.

2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED TO A FINISH ELEVATION OF 1.0' ABOVE THE FINISH GRADE AT THE OUTLET.

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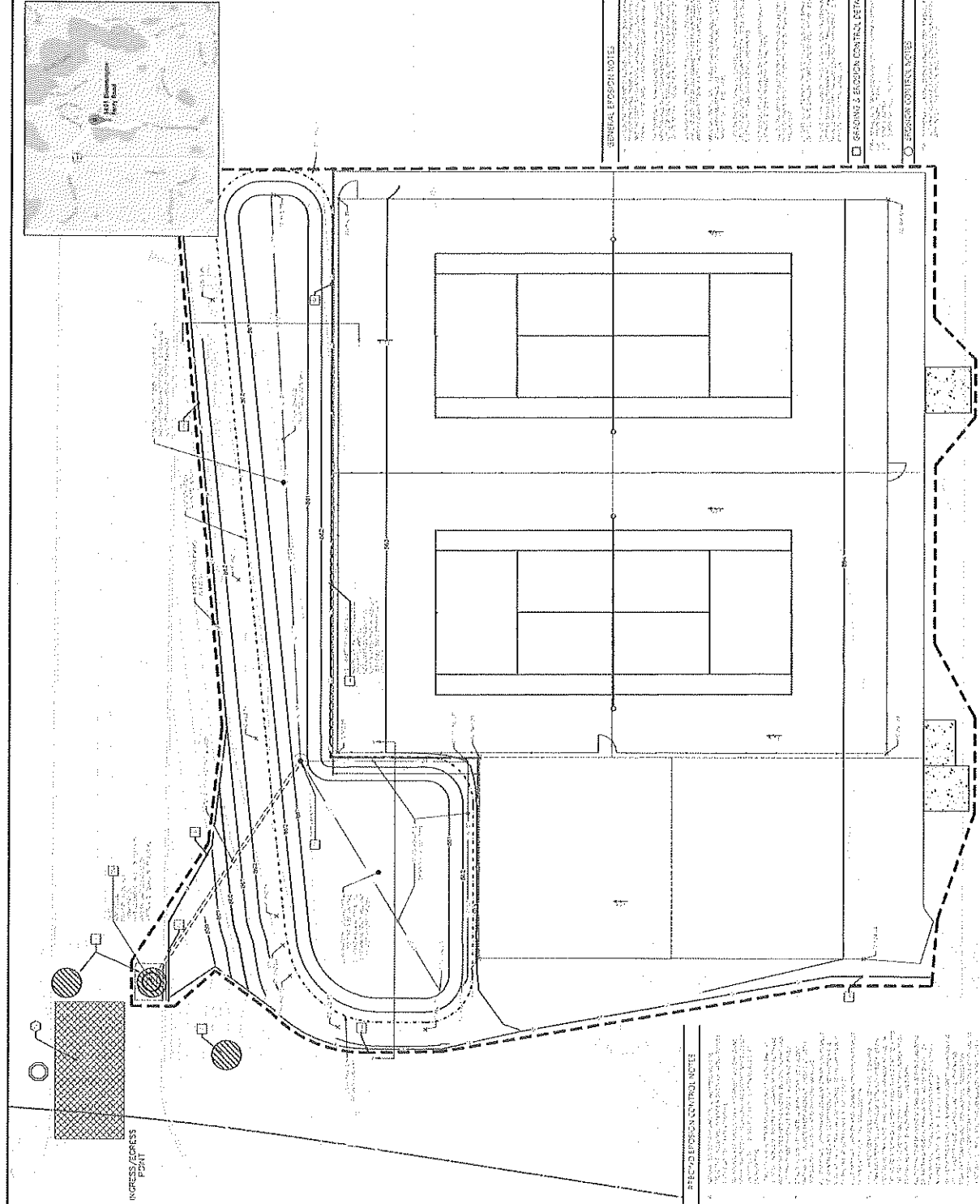
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INGRESS/EGRESS
E-PAV

EROSION CONTROL NOTES

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| | |
|---|---|
| | |
| Engineering Associates, Inc. 3401 BLOOMINGTON FERRY ROAD BLOOMINGTON, IN 47403-1100 TEL: (317) 344-0000 FAX: (317) 344-0001 WWW: www.ea-inc.com | |
| PROJECT NO.: DRAWING NO.: | CITY OF BLOOMINGTON 3401 BLOOMINGTON FERRY ROAD BLOOMINGTON, IN 47403-1100 PROJECT NO.: 15-0000000-0001-0001 DRAWING NO.: C17 |



18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-027

Application Received complete: April 25, 2018

Applicant: S. Asim Gul

Consultant: Robert Swanson, Andersen Engineering of Minnesota, LLC

Project: MAMAC Systems Addition – This project includes an addition to the existing MAMAC Systems building in Chanhassen. The project includes an expansion of the existing building, construction of additional parking spaces, and the installation of an infiltration basin with pretreatment to provide runoff volume abstraction, water quality treatment, and rate control.

Location: 8189 Century Boulevard, Chanhassen, Minnesota 55317

Reviewer: Scott Sobiech and Adam Howard, Barr Engineering

Rules: Applicable rules checked

| | | | |
|---|--|---|--|
| | Rule B: Floodplain Management | | Rule H: Appropriation of Public Waters |
| X | Rule C: Erosion and Sediment Control | | Rule I: Appropriation of Groundwater |
| | Rule D: Wetland and Creek Buffers | X | Rule J: Stormwater Management |
| | Rule E: Dredging and Sediment Removal | | Rule K: Variances and Exceptions |
| | Rule F: Shoreline/Streambank Stabilization | X | Rule L: Permit Fees |
| | Rule G: Waterbody Crossings | X | Rule M: Financial Assurances |

Rule Conformance Summary

| Rule | Issue | Conforms to RBPCWD Rules? | Comments | |
|------|-----------------------|---------------------------|--|--|
| C | Erosion Control Plan | See Comment | See Rule Specific Permit Condition C1. | |
| J | Stormwater Management | Rate | Yes | |
| | | Volume | See Comment | See Rule Specific Permit Condition J1. |
| | | Water Quality | Yes | |
| | | Low Floor Elev. | Yes | |
| | | Maintenance | See Comment | See Rule Specific Permit Condition J2. |
| L | Permit Fee | Yes | \$1,500 was received on 4/25/17. | |
| M | Financial Assurance | See Comment | The financial assurance has been calculated at \$51,095. | |

Project Description

This project includes an addition to the existing MAMAC Systems building in Chanhassen. The project includes an expansion of the existing building, construction of additional parking spaces, and the installation of an infiltration basin and filtration basin to provide runoff volume abstraction, water quality treatment, and rate control. Pretreatment of runoff prior to entering a multi-level infiltration basin/filtration basin is provided by proprietary settling manhole devices and a grass filter strip. The project site information is summarized below:

1. Total Site Area: 4.95 acres
2. Existing Site Impervious Area: 2.10 acres (91,476 square feet)
3. Post Construction Site Impervious: 2.67 acres (116,305 square feet)
4. New (Increase) in Site Impervious Area: 0.57 acres (24,829 square feet) (27% increase in site impervious area)
5. Disturbed impervious surface: 0.06 acres (2,614 square feet) (2.9% of existing site impervious area)
6. Total Disturbed Area: 1.06 acres

Exhibits:

1. Permit Application dated April 25, 2018.
2. Project Narrative and Stormwater Management Report: MAMAC Systems 2018 Building Addition dated April 25, 2018 (revised May 31, 2018)
3. Project Plan Set (1 sheet) dated April 25, 2018 (revised May 31, 2018)
4. Geotechnical Evaluation report Dated April 3, 2007 (Chosen Valley Testing, Inc.)
5. Geotechnical Exploration Borings dated April 20, 2018 (Geo Engineering Consultants, Inc.)
6. HydroCAD Models dated April 25, 2018 (revised May 31, 2018)
7. MIDS Model dated April 25, 2018 (revised May 31, 2018)
8. Parcel Impervious Impact drawing received April 25, 2018
9. Pre-development catchment drawing received April 25, 2018
10. Post-development catchment areas drawing received April 25, 2018
11. Response to comments received May 16, 2018

Rule Specific Permit Conditions

Rule C: Erosion and Sediment Control

Because the project will alter 1.06 acres of land-surface area the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan prepared by Andersen Engineering of Minnesota, LLC, includes installation of silt fence, inlet protection for storm sewer catch basins, daily inspection, placement of a minimum of 6 inches of topsoil, decompaction of areas compacted during construction, and retention of native topsoil onsite. To conform to the RPBCWD Rule C requirements the following revisions are needed:

- C1. The Applicant must provide the name and contact information of the individual responsible for erosion control at the site. RPBCWD must be notified if the responsible individual changes during the permit term.

Rule J: Stormwater Management

Because the project will alter 1.06 acres of land-surface area, increase the imperviousness of the entire site by less than 50% and disturb less than 50% of the existing impervious area, the project must meet the criteria of RPBCWD’s Stormwater Management rule (Rule J, Subsection 2.3) for the new and disturbed impervious surface on the site.

The project includes installation of an infiltration basin with pretreatment to provide runoff volume abstraction, water quality treatment, and rate control. The infiltration basin includes rain guardian devices for pretreatment of runoff from the parking and roadway surfaces. Pretreatment of roof runoff is provided by a grass filter strip.

Rate Control

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the table below.

| Discharge Location | Modeled Discharge IDs | | 2-Year Discharge (cfs) | | 10-Year Discharge (cfs) | | 100-Year Discharge (cfs) | | 10-Day Snowmelt (cfs) | |
|---------------------------|-----------------------|--------|------------------------|------|-------------------------|------|--------------------------|------|-----------------------|------|
| | Ex | Prop | Ex | Prop | Ex | Prop | Ex | Prop | Ex | Prop |
| Pipe toward off-site pond | 1S+3S | 10S+2P | 7.9 | 6.9 | 12.7 | 10.8 | 21.8 | 21.1 | 0.5 | 0.5 |
| Southeast overland | 2S | 20S | 1.5 | 1.3 | 3.2 | 2.8 | 6.7 | 5.9 | 0.2 | 0.1 |

The proposed project is in conformance with RPBCWD Rule J, Subsection 3.1.a.

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the fully reconstructed impervious surface of the parcel. An abstraction volume of 2,516 cubic feet is required from the combined 27,443 square feet of additional and disturbed impervious area on the project for volume retention. The project includes an infiltration basin, with pretreatment using proprietary manhole devices and grass filter strip, to abstract runoff from the site (Rule J, Subsection 3.1b.i).

The recent soil borings performed by Geo Engineering Consultants and other historic borings from Chosen Valley Testing show that soils in the project area consist primarily of clayey sands (SC) or sandy lean clay (CL) that extended to the termination depths of the borings. The MN Stormwater Manual indicates an infiltration rate of 0.06 inches per hour for sandy lean clay or clayey sands soils.

The Engineer concurs that soil information, existing site infrastructure, desire to maintain existing established trees, and steep adjacent slopes show that the abstraction standard in Subsection 3.1 of Rule J cannot practicably be met, the site is considered a restricted site and stormwater runoff volume must be managed in accordance with Subsection 3.3 of Rule J. For restricted sites, Subsection 3.3 of Rule J requires rate control in accordance with Subsection 3.1a and that abstraction and water quality protection be provided in accordance with the following sequence: (a) Abstraction of at least 0.55 inches of runoff from site impervious surface determined in accordance with paragraphs 2.3, 3.1 or 3.2, as applicable, and treatment of all runoff to the standard in paragraph 3.1c; or (b) Abstraction of runoff onsite to the maximum extent practicable and treatment of all runoff to the standard in paragraph 3.1c; or (c) Off-site abstraction and treatment in the watershed to the standards in paragraph 3.1b and 3.1c.

The soil borings extended to a depth of 21 feet within the proposed infiltration basin and did not encounter groundwater ensuring at least 3 feet separation of groundwater between the bottom of the proposed BMP (Rule J, Subsection 3.1.b.ii).

The use of multi-level infiltration basin/filtration basin provides abstraction for 1,258 cubic feet of runoff. To achieve at least 0.55 inches of abstraction from the regulated impervious surface (Rule J, Subsection 3.3a) the following revision is needed:

- J1. Permit applicant must revise the Infiltration Basin / Filtration Basin typical cross section on sheet C3 to elevate the 6-inch draintile 8 inches above the bottom of the 12" (min.) clean pea gravel (i.e., above native soils).

The table below summarizes the volume abstraction on the site.

| Required Abstraction Depth (inches) | Required Abstraction Volume (cubic feet) | Provided Abstraction Depth (inches) | Provided Abstraction Volume (cubic feet) |
|-------------------------------------|--|-------------------------------------|--|
| ≥0.55 | ≥1,258 | 0.55 | 1,258 |

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff. The Applicant is proposing an infiltration basin to achieve the required TP and TSS removals and submitted a MIDS model to support a determination that the proposed stormwater management system will provide the necessary TP and TSS removals.

| Pollutant of Interest | Regulated Site Loading (lbs/yr) | Required Load Removal (lbs/yr) ¹ | Provided Load Reduction (lbs/yr) |
|------------------------------|---------------------------------|---|----------------------------------|
| Total Suspended Solids (TSS) | 229.7 | 206.7 (90%) | 206.9 (90%) |
| Total Phosphorus (TP) | 1.26 | 0.76 (60%) | 0.97 (76%) |

¹Required load reduction is calculated based on the removal criteria in Rule J, Subsection 3.1c and the load generated from the disturbed impervious and pervious area on the site.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.c.

Low floor Elevation

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation according to Rule J, Subsection 3.6. The low floor elevation of the adjacent MAMAC Systems building and the adjacent stormwater management feature is summarized below. The information demonstrates the project meets the requirements of Rule J, Subsection 3.6.

| Location Riparian to Stormwater Facility | Low Floor Elevation of Building (feet) | 100-year Event Flood Elevation of Adjacent Stormwater Facility (feet) | Freeboard (feet) |
|--|--|---|------------------|
| MAMAC Systems Building | 979.9 | 975.78 | 4.12 |

Maintenance

Subsection 3.7 of Rule J requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

- J1. Permit applicant must provide a draft maintenance and inspection plan. Once approved by RPBCWD, the plan must be recorded on the deed in a form acceptable to the District.

Rule L: Permit Fee:

Fees for the project are:

Rule C & J\$1,500

Rule M: Financial Assurance:

Rule C: Perimeter Control: 965 L.F. x \$2.50/L.F. =\$2,406
 Restoration: 1.06 acres x \$2,500/acre =\$2,650
 Rule J: Infiltration: 5,240 sq. ft. x \$6/sq. ft. =\$31,440
 Contingency (10%)\$3,650
 Administration (30%)\$10,949
 Total Financial Assurance.....\$51,095

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.
3. Return or allowed expiration of any remaining surety and permit close out is dependent on the permit holder providing proof that all required documents have been recorded and providing as-built drawings that show that the project was constructed as approved by the Managers and in conformance with the RPBCWD rules and regulations.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rules C and J if the Rule Specific Permit Conditions listed above are met.

Recommendation:

Approval of the permit contingent upon:

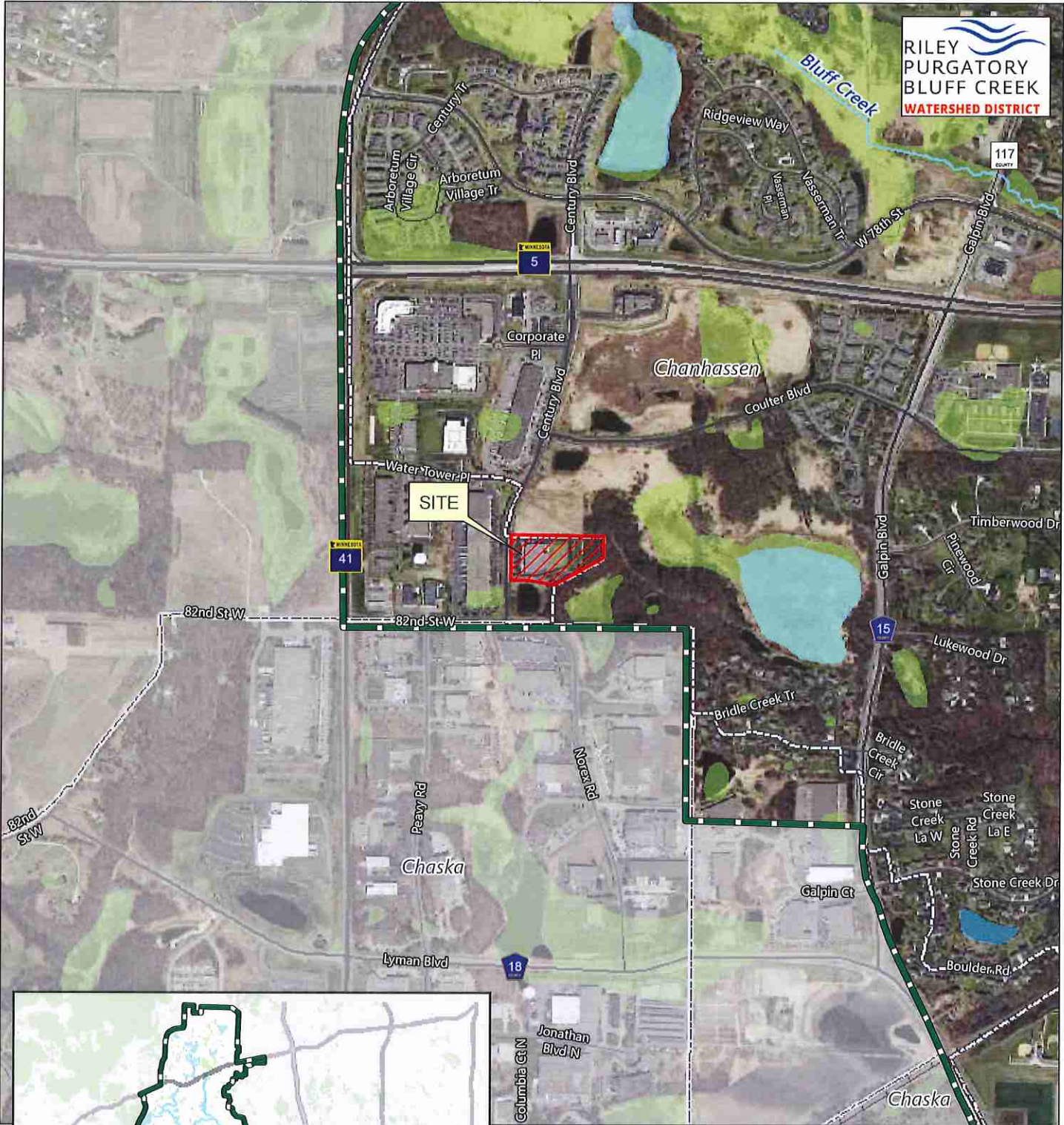
1. Continued compliance with General Requirements.
2. Financial Assurance in the amount of \$51,095.
3. Applicant providing the name and contact information of the individual responsible for erosion and sediment control at the site.
4. Receipt in recordation a maintenance declaration for the operation and maintenance of the stormwater management facilities. A draft must be approved by the District prior to recordation.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

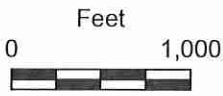
1. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications as approved by the District.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit modification for permit No. 2018-027 with the conditions recommended by staff at the June 6, 2018 RPBCWD Board of Managers meeting.



Permit Location Map



MAMAC
Permit 2018-027
Riley Purgatory Bluff Creek
Watershed District



Memorandum

To: Riley Purgatory Bluff Creek Watershed District Board of Managers
From: Barr Engineering Company
Subject: Permit Application 2018-028: Oak Point Elementary Parking Lot
Date: May 30, 2018
Project: 23270053.14

Project Description

Permit No: 2018 – 028

Received complete: April 25, 2018

Applicant: Eden Prairie Schools

Consultant: Anderson-Johnson Associates, Inc., Bill Diede

Project: Oak Point Elementary Parking Lot – Construction of a new parking lot consisting of approximately 100 additional spaces and a walkway in the southern portion of the Oak Point Elementary School site. Porous pavers will be constructed on a portion of the parking lot reducing the area of new impervious area.

Location: 13400 Staring Lake Parkway, Eden Prairie, Minnesota 55427

Rules Implicated:

| | | | |
|---|--|---|--|
| | Rule B: Floodplain Management | | Rule H: Appropriation of Public Waters |
| X | Rule C: Erosion and Sediment Control | | Rule I: Appropriation of Groundwater |
| X | Rule D: Wetland and Creek Buffers | X | Rule J: Stormwater Management |
| | Rule E: Dredging and Sediment Removal | | Rule K: Variances and Exceptions |
| | Rule F: Shoreline/Streambank Stabilization | X | Rule L: Permit Fees |
| | Rule G: Waterbody Crossings | | Rule M: Financial Assurances |

Recommendation

On April 25, 2018, Eden Prairie Schools submitted a complete permit application for construction of a new parking lot with approximately 100 parking spaces and a walkway at Oak Point Elementary School. Based on the Engineer's review of the submitted plans, the latest site designs and stormwater management approach do not provide the required rate control, volume abstraction, and water quality treatment.

To: Riley Purgatory Bluff Creek Watershed District Board of Managers
From: Barr Engineering Company
Subject: Permit Application 2018-028: Oak Point Elementary Parking Lot – Extension of Review Period
Date: May 30, 2018
Page: 2

The review period for Permit 2018-028 expires on June 24, 2018 which is before the Board's regular July meeting. Staff recommends that the Board extend, in accordance with Minnesota Statutes section 15.99, the review period by 60 days to August 23, 2018, for permit 2018-028 Oak Point Elementary Parking Lot to allow the Applicant time to supply revised submissions and give the Engineer time to complete a review.



18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-029

Received complete: April 25, 2018

Applicant: City of Bloomington, Shelly Hanson

Project: The proposed project is for the reconstruction of 98th Street from Colorado Road to Nesbitt Avenue and appurtenant features.

Location: 98th Street city right-of-way from Colorado Road to Nesbitt Avenue in Bloomington

Reviewer: Terry Jeffery, Permit Coordinator

Rules: Applicable rules checked

| | | | |
|---|--|---|--|
| | Rule B: Floodplain Management | | Rule H: Appropriation of Public Waters |
| X | Rule C: Erosion and Sediment Control | | Rule I: Appropriation of Groundwater |
| | Rule D: Wetland and Creek Buffers | X | Rule J: Stormwater Management |
| | Rule E: Dredging and Sediment Removal | | Rule K: Variances and Exceptions |
| | Rule F: Shoreline/Streambank Stabilization | X | Rule L: Permit Fees |
| | Rule G: Waterbody Crossings | X | Rule M: Financial Assurances |

Rule Conformance Summary

| Rule | Issue | Conforms to RPBCWD Rules? | Comments |
|------|-----------------------|---------------------------|---------------------------------------|
| C | Erosion Control Plan | See Comments | See Rule Specific Permit Condition C1 |
| J | Stormwater Management | See Comments | See Rule Specific Permit Condition J1 |
| L | Permit Fees | Not Applicable | Governmental Entity |
| M | Financial Assurances | Not Applicable | Governmental Entity |



Project Description

The proposed project is for the reconstruction of 98th Street from Colorado Road to Nesbitt Avenue. It will entail the removal of the bituminous surface and the aggregate base with soils corrections as needed. It is anticipated that as much as one foot of correction for the entire project area will be required. It is for this reason that they are reconstructing the road rather than rehabilitating the road surface. In addition to the replacement of the bituminous surface and aggregate base, the project will involve repairs to curb and gutter as well as sidewalk as needed. The proposed project will not add any additional new impervious surface. The project site information is summarized below:

1. Total Site Area: 0.53 acres
2. Existing Site Impervious Area: 0.46 acres (20,038 square feet)
3. Existing Impervious Area Disturbed: 0.46 acres (20,038 square feet)
4. New (Increase) in Site Impervious Area: 0.0 acres (0 square feet) (0% increase in site impervious area)
5. Total Disturbed Area: 0.53 acres

Exhibits:

1. Permit Application dated April 23, 2018.
2. Eight (8) Design Plans Sheets dated April 2, 2018.
3. Boring log from Element Materials Technology dated March 14, 2018
4. Drainage Area Map, undated
5. MIDS output dated April 11, 2018
6. P8 Model dated May 30, 2018
7. Cost share funding agreement executed September 8, 2016.
8. As-built survey of regional filtration feature dated December 21, 2016
9. Bathymetry Data of ponds.

Rule Specific Permit Conditions

Rule C: Erosion and Sediment Control

Because the project will alter 0.53 acre (\pm 20,038 square feet) of surface area and involves 1050 CY of excavation/ fill the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan and Surface Water Pollution Prevention Plan (SWPPP) prepared by the City of Bloomington includes installation of perimeter control as needed, inlet protection for storm sewer catch basins, placement of a minimum of 6 inches of topsoil, and retention of native topsoil onsite. The plan

addresses how changing site conditions will be addressed and how materials are to be stored and stockpiled. The plan will conform to the RPBCWD Rule C requirements upon meeting the following condition:

- C1. The name and contact information of the individual responsible for day-to-day maintenance of erosion prevention and sediment control measures must be provided to the District.

Rule J: Stormwater Management

Because the project will reconstruct 0.53 acre ($\pm 20,038$ square feet) of surface area and involves 1050 CY of excavation/ fill the project must conform to the requirements in the RPBCWD Stormwater Management (Rule J). Because the proposed work is a road reconstruction project within a right-of-way easement, it qualifies as a linear project, and because it creates more than 5,000 square feet and less than one acre of new and fully reconstructed impervious surface, the applicant must provide 1.1 inch of abstraction onsite from the net increase in impervious surface. As there is no increase in impervious surface as a result of this project, no abstraction is required. As there is no increase in impervious area nor any change to drainage patterns, rates will not increase at any point leaving the site. The applicant is proposing to utilize an existing regional filtration basin to achieve the necessary pollutant removals.

Rate Control

To meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The design will not result in an increase in impervious surface coverage. Nor will the design change drainage patterns. Given these two factors, rates will not increase over existing conditions at any location where runoff leaves the site.

The proposed project conforms to RPBCWD Rule J, Subsection 3.1.a

Volume Abstraction

Subsection 3.2.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the net increase in impervious surface on the site. Because there is no net increase in impervious surface as a result of this project, the applicant is not required to provide any abstraction.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.2.

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff. The applicant is proposing to utilize two storm water ponds located downstream of the site before discharging into Hyland Lake. Rule J, Subp. 3.1.c requires that the

applicant “Provide for at least sixty percent (60 percent) annual removal efficiency for total phosphorus, and at least ninety percent (90%) annual removal efficiency for total suspended solids from site runoff.” Rule J does not require that water quality treatment be provided on-site. These ponds were created in upland area specifically to treat this watershed draining to Hyland Lake. The City performed a bathymetric survey in the summer of 2017 to confirm storage volume. This data was provided to the district and is consistent with the model assumptions.

The table below summarized the water quality treatment provided by the stormwater ponds.

| Pollutant of Interest | Regulated Site Loading (lbs/yr) | Required Load Removal (lbs/yr) ¹ | Provided Load Reduction (lbs/yr) ² |
|------------------------------|---------------------------------|---|---|
| Total Suspended Solids (TSS) | 307.30 | 276.57 (90%) | 282.99 (92.1%) |
| Total Phosphorus (TP) | 1.00 | 0.60 (60%) | 0.65(65%) |

¹Required load reduction is calculated based on the removal criteria in Rule J, Subsection 3.1c and the new and reconstructed impervious area site load.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.c.

Low floor Elevation

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation and no stormwater management system may be constructed or reconstructed in a manner that brings the low floor elevation of an adjacent structure into noncompliance according to Rule J, Subsection 3.6.

There are no proposed modifications to the ponds, nor are any structures proposed for construction or reconstruction. The project conforms to Rule J, Subsection 3.6.

Maintenance

Subsection 3.7 of Rule J requires the submission of maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

- J1. Permit applicant must enter into a maintenance agreement with the District.

Rule L: Permit Fee:

No permit fees were required as Bloomington is a government entity and, under Section 2 of Rule L is exempted from the permit fee requirement.

Rule M: Financial Assurance:

No financial assurance is required as Bloomington is a government entity and, under Section 2 of Rule M is exempted from the Financial Assurance requirement.

Applicable General Requirements:

1. The RPBCWD Administrator shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rule C and Rule J if the Rule Specific Permit Conditions listed above are met.

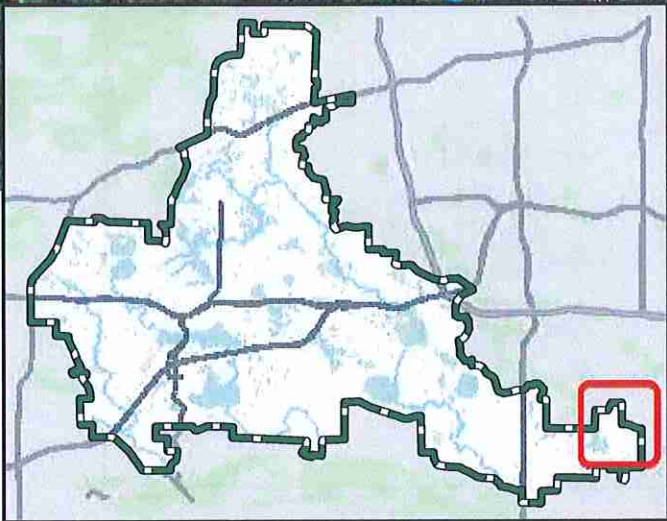
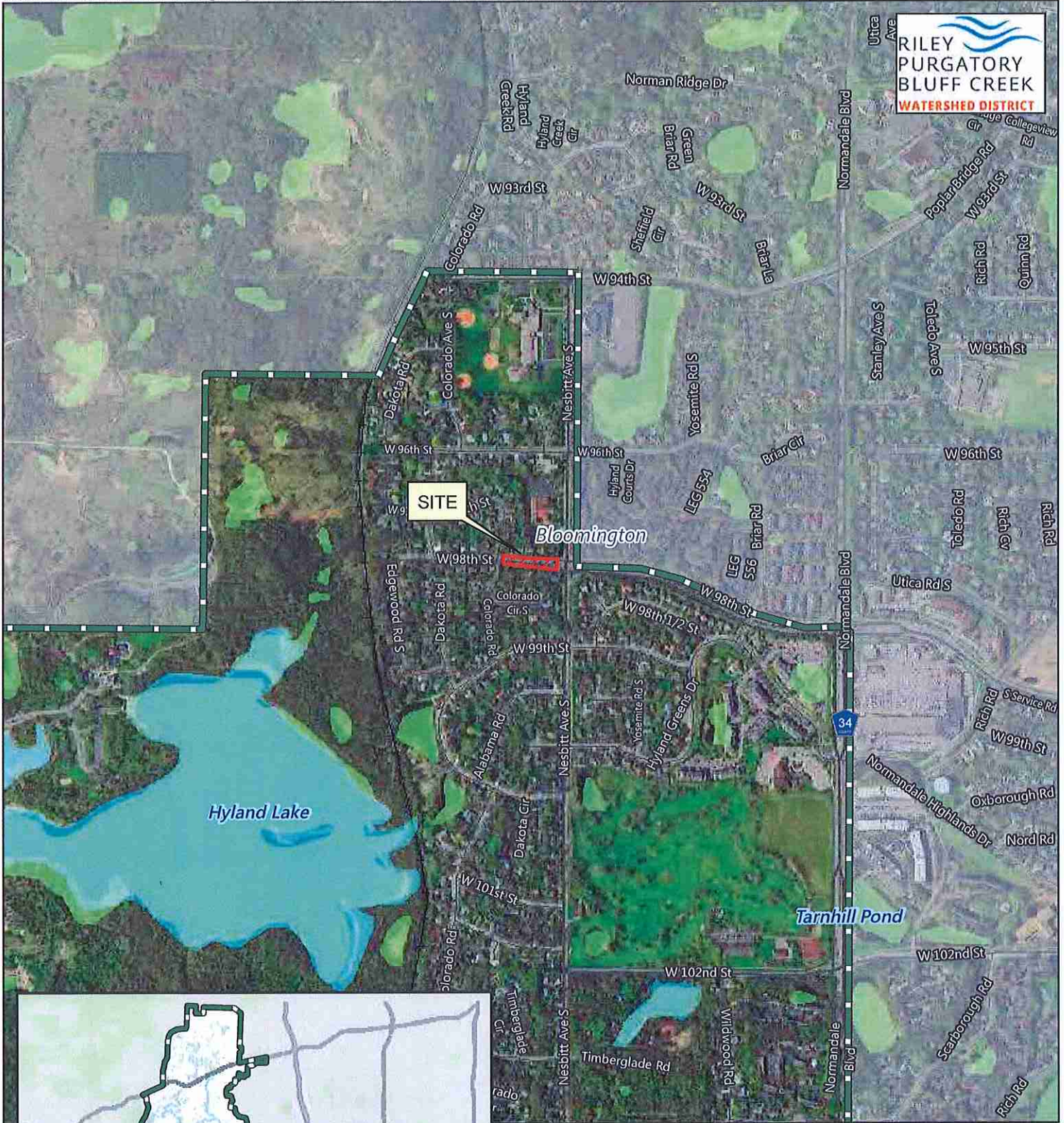
Recommendation:

Approval, contingent upon:

1. Continued compliance with General Requirements.
2. Permit applicant must enter into a maintenance agreement with the District.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-029 with the conditions recommended by staff.



Feet

0 1,000



Permit Location Map

BLOOMINGTON 98TH STREET RECONSTRUCTION
Permit 2018-029
Riley Purgatory Bluff Creek Watershed District



18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-029

Received complete: April 25, 2018

Applicant: City of Bloomington, Shelly Hanson

Project: The proposed project is for the reconstruction of 98th Street from Colorado Road to Nesbitt Avenue and appurtenant features.

Location: 98th Street city right-of-way from Colorado Road to Nesbitt Avenue in Bloomington

Reviewer: Terry Jeffery, Permit Coordinator

Rules: Applicable rules checked

| | | | |
|---|--|---|--|
| | Rule B: Floodplain Management | | Rule H: Appropriation of Public Waters |
| X | Rule C: Erosion and Sediment Control | | Rule I: Appropriation of Groundwater |
| | Rule D: Wetland and Creek Buffers | X | Rule J: Stormwater Management |
| | Rule E: Dredging and Sediment Removal | | Rule K: Variances and Exceptions |
| | Rule F: Shoreline/Streambank Stabilization | X | Rule L: Permit Fees |
| | Rule G: Waterbody Crossings | X | Rule M: Financial Assurances |

Rule Conformance Summary

| Rule | Issue | Conforms to RPBCWD Rules? | Comments |
|------|-----------------------|---------------------------|---------------------------------------|
| C | Erosion Control Plan | See Comments | See Rule Specific Permit Condition C1 |
| J | Stormwater Management | See Comments | See Rule Specific Permit Condition J1 |
| L | Permit Fees | Not Applicable | Governmental Entity |
| M | Financial Assurances | Not Applicable | Governmental Entity |



Project Description

The proposed project is for the reconstruction of 98th Street from Colorado Road to Nesbitt Avenue. It will entail the removal of the bituminous surface and the aggregate base with soils corrections as needed. It is anticipated that as much as one foot of correction for the entire project area will be required. It is for this reason that they are reconstructing the road rather than rehabilitating the road surface. In addition to the replacement of the bituminous surface and aggregate base, the project will involve repairs to curb and gutter as well as sidewalk as needed. The proposed project will not add any additional new impervious surface. The project site information is summarized below:

1. Total Site Area: 0.53 acres
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3. Existing Impervious Area Disturbed: 0.46 acres (20,038 square feet)
4. New (Increase) in Site Impervious Area: 0.0 acres (0 square feet) (0% increase in site impervious area)
5. Total Disturbed Area: 0.53 acres

Exhibits:

1. Permit Application dated April 23, 2018.
2. Eight (8) Design Plans Sheets dated April 2, 2018.
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4. Drainage Area Map, undated
5. MIDS output dated April 11, 2018
6. P8 Model dated May 30, 2018
7. Cost share funding agreement executed September 8, 2016.
8. As-built survey of regional filtration feature dated December 21, 2016
9. Bathymetry Data of ponds.

Rule Specific Permit Conditions

Rule C: Erosion and Sediment Control

Because the project will alter 0.53 acre (\pm 20,038 square feet) of surface area and involves 1050 CY of excavation/ fill the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan and Surface Water Pollution Prevention Plan (SWPPP) prepared by the City of Bloomington includes installation of perimeter control as needed, inlet protection for storm sewer catch basins, placement of a minimum of 6 inches of topsoil, and retention of native topsoil onsite. The plan

addresses how changing site conditions will be addressed and how materials are to be stored and stockpiled. The plan will conform to the RPBCWD Rule C requirements upon meeting the following condition:

- C1. The name and contact information of the individual responsible for day-to-day maintenance of erosion prevention and sediment control measures must be provided to the District.

Rule J: Stormwater Management

Because the project will reconstruct 0.53 acre ($\pm 20,038$ square feet) of surface area and involves 1050 CY of excavation/ fill the project must conform to the requirements in the RPBCWD Stormwater Management (Rule J). Because the proposed work is a road reconstruction project within a right-of-way easement, it qualifies as a linear project, and because it creates more than 5,000 square feet and less than one acre of new and fully reconstructed impervious surface, the applicant must provide 1.1 inch of abstraction onsite from the net increase in impervious surface. As there is no increase in impervious surface as a result of this project, no abstraction is required. As there is no increase in impervious area nor any change to drainage patterns, rates will not increase at any point leaving the site. The applicant is proposing to utilize an existing regional filtration basin to achieve the necessary pollutant removals.

Rate Control

To meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The design will not result in an increase in impervious surface coverage. Nor will the design change drainage patterns. Given these two factors, rates will not increase over existing conditions at any location where runoff leaves the site.

The proposed project conforms to RPBCWD Rule J, Subsection 3.1.a

Volume Abstraction

Subsection 3.2.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the net increase in impervious surface on the site. Because there is no net increase in impervious surface as a result of this project, the applicant is not required to provide any abstraction.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.2.

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff. The applicant is proposing to utilize two storm water ponds located downstream of the site before discharging into Hyland Lake. Rule J, Subp. 3.1.c requires that the

applicant "Provide for at least sixty percent (60 percent) annual removal efficiency for total phosphorus, and at least ninety percent (90%) annual removal efficiency for total suspended solids from site runoff." Rule J does not require that water quality treatment be provided on-site. These ponds were created in upland area specifically to treat this watershed draining to Hyland Lake. The City performed a bathymetric survey in the summer of 2017 to confirm storage volume. This data was provided to the district and is consistent with the model assumptions.

The table below summarized the water quality treatment provided by the stormwater ponds.

| Pollutant of Interest | Regulated Site Loading (lbs/yr) | Required Load Removal (lbs/yr) ¹ | Provided Load Reduction (lbs/yr) ² |
|------------------------------|---------------------------------|---|---|
| Total Suspended Solids (TSS) | 307.30 | 276.57 (90%) | 282.99 (92.1%) |
| Total Phosphorus (TP) | 1.00 | 0.60 (60%) | 0.65(65%) |

¹Required load reduction is calculated based on the removal criteria in Rule J, Subsection 3.1c and the new and reconstructed impervious area site load.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.c.

Low floor Elevation

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation and no stormwater management system may be constructed or reconstructed in a manner that brings the low floor elevation of an adjacent structure into noncompliance according to Rule J, Subsection 3.6.

There are no proposed modifications to the ponds, nor are any structures proposed for construction or reconstruction. The project conforms to Rule J, Subsection 3.6.

Maintenance

Subsection 3.7 of Rule J requires the submission of maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

- J1. Permit applicant must enter into a maintenance agreement with the District.

Rule L: Permit Fee:

No permit fees were required as Bloomington is a government entity and, under Section 2 of Rule L is exempted from the permit fee requirement.

Rule M: Financial Assurance:

No financial assurance is required as Bloomington is a government entity and, under Section 2 of Rule M is exempted from the Financial Assurance requirement.

Applicable General Requirements:

1. The RPBCWD Administrator shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rule C and Rule J if the Rule Specific Permit Conditions listed above are met.

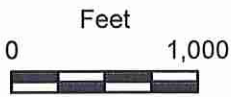
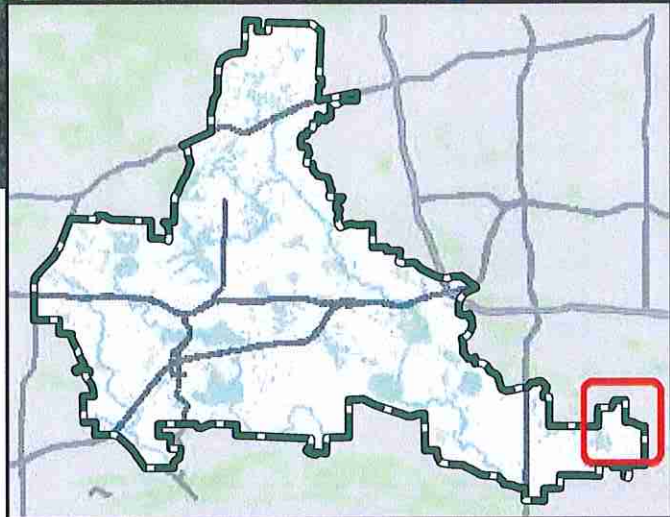
Recommendation:

Approval, contingent upon:

1. Continued compliance with General Requirements.
2. Permit applicant must enter into a maintenance agreement with the District.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-029 with the conditions recommended by staff.



Permit Location Map
BLOOMINGTON 98TH
STREET RECONSTRUCTION
Permit 2018-029
Riley Purgatory Bluff Creek
Watershed District

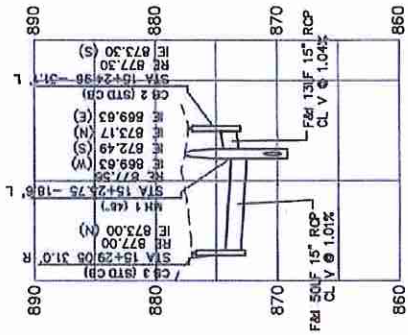
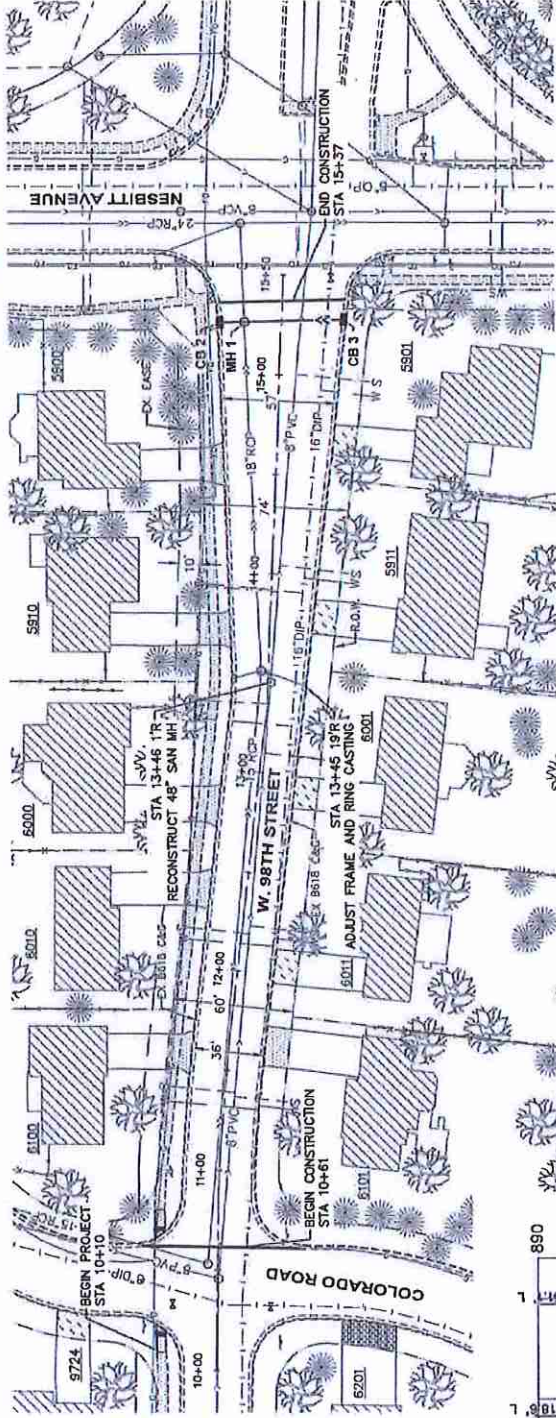
NOTES:
 1. ALL RESTORED BOULEVARDS WILL REQUIRE 6" LOAM TOPSOIL BORROW.

W. 98TH STREET
 FROM COLORADO ROAD
 TO NESSBITT AVENUE

Exhibit A-3



| SEWER STRUCTURE SCHEDULE | |
|--------------------------|-------------------------|
| NO. | DESIGN CASTING ASSEMBLY |
| MH 1 | 48" DIA SOLID COVER |
| CB 2 | 310 RECT CB |
| CB 3 | 310 RECT CB |



W. 98TH STREET
 STORM SEWER PROFILE
 STA 15+27

REVISIONS

| DATE | DESCRIPTION | BY |
|------|-------------|----|
| | | |
| | | |
| | | |

DATE: _____
 REVISIONS: _____

DESIGNED BY: _____
 CHECKED BY: _____
 APPROVED BY: _____

PROJECT: 2018-101 PMP STREET IMPROVEMENT PROJECT
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION
 BLOOMINGTON, MINNESOTA

PROJECT LOCATION: W. 98TH STREET FROM COLORADO ROAD TO NESSBITT AVENUE

DATE: 4/2/18
 LIC. # 49407

ROBERT P. SIMONS
 LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

SHEET: 50 OF 114
 SCHEDULE 1
 NON-PARTICIPATING



18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-030

Received complete: April 25, 2018

Applicant: City of Bloomington, Shelly Hanson

Project: The proposed project is for the reconstruction of Dakota Road from West 96th Street to Colorado Avenue and appurtenant features.

Location: Dakota Road city right-of-way from W. 96th St to Colorado Ave, Bloomington

Reviewer: Terry Jeffery, Permit Coordinator

Rules: Applicable rules checked

| | | | |
|---|--|---|--|
| | Rule B: Floodplain Management | | Rule H: Appropriation of Public Waters |
| X | Rule C: Erosion and Sediment Control | | Rule I: Appropriation of Groundwater |
| | Rule D: Wetland and Creek Buffers | X | Rule J: Stormwater Management |
| | Rule E: Dredging and Sediment Removal | | Rule K: Variances and Exceptions |
| | Rule F: Shoreline/Streambank Stabilization | X | Rule L: Permit Fees |
| | Rule G: Waterbody Crossings | X | Rule M: Financial Assurances |

Rule Conformance Summary

| Rule | Issue | Conforms to RPBCWD Rules? | Comments |
|------|-----------------------|---------------------------|---------------------------------------|
| C | Erosion Control Plan | See Comments | See Rule Specific Permit Condition C1 |
| J | Stormwater Management | See Comments | See Rule Specific Permit Condition J1 |
| L | Permit Fees | Not Applicable | Governmental Entity |
| M | Financial Assurances | Not Applicable | Governmental Entity |



Project Description

The proposed project is for the reconstruction of Dakota Road from West 96th Street to Colorado Avenue. It will entail the removal of the bituminous surface and the aggregate base with soils corrections as needed. It is anticipated that as much as one foot of correction for the entire project area will be required. It is this need for soils correction that prevented the City from simply rehabilitating the bituminous surface, instead undertaking a full reconstruction project. In addition to the replacement of the bituminous surface and aggregate base, the project will involve repairs to curb and gutter as well as sidewalk as needed. The proposed project will not add any additional new impervious surface. The project site information is summarized below:

1. Total Site Area: 0.91 acres
2. Existing Site Impervious Area: 0.79 acres (34,412 square feet)
3. Existing Impervious Area Disturbed: 0.79 acres (34,412 square feet)
4. New (Increase) in Site Impervious Area: 0.0 acres (0 square feet) (0% increase in site impervious area)
5. Total Disturbed Area: 0.91 acres

Exhibits:

1. Permit Application dated April 23, 2018.
2. Eight (8) Design Plans Sheets dated April 2, 2018.
3. Boring log from Element Materials Technology dated March 14, 2018
4. Drainage Area Map, undated
5. MIDS output dated April 11, 2018
6. Cost share funding agreement executed September 8, 2016.
7. As-built survey of regional filtration feature dated December 21, 2016

Rule Specific Permit Conditions

Rule C: Erosion and Sediment Control

Because the project will alter 0.91 acre ($\pm 39,640$ square feet) of surface area and involves 1620 CY of excavation/ fill the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan and Surface Water Pollution Prevention Plan (SWPPP) prepared by the City of Bloomington includes installation of perimeter control as needed, inlet protection for storm sewer catch basins, placement of a minimum of 6 inches of topsoil, and retention of native topsoil onsite. The plan addresses how changing site conditions will be addressed and how materials are to be stored and

stockpiled. The plan will conform to the RPBCWD Rule C requirements upon meeting the following condition:

- C1. The name and contact information of the individual responsible for day-to-day maintenance of erosion prevention and sediment control measures must be provided to the District.

Rule J: Stormwater Management

Because the project will reconstruct 0.91 acre (±39,640 square feet) of surface area and involves 1620 CY of excavation/ fill the project must conform to the requirements in the RPBCWD Stormwater Management (Rule J). Because the proposed work is a road reconstruction within a right-of-way easement, it qualifies as a linear project, and because it creates more than 5,000 square feet and less than one acre of new and fully reconstructed impervious surface, the applicant must provide 1.1 inch of abstraction onsite from the net increase in impervious surface. As there is no increase in impervious surface as a result of this project, no abstraction is required. As there is no increase in impervious area nor any change to drainage patterns, rates will not increase at any point leaving the site. The applicant is proposing to utilize an existing regional filtration basin to achieve the necessary pollutant removals.

Rate Control

To meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The design will not result in an increase in impervious surface coverage. Nor will the design change drainage patterns. Given these two factors, rates will not increase over existing conditions at any location where runoff leaves the site.

The proposed project conforms to RPBCWD Rule J, Subsection 3.1.a

Volume Abstraction

Subsection 3.2.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the net increase in impervious surface on the site. Because there is no net increase in impervious surface as a result of this project, the applicant is not required to provide any abstraction.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.2.

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff. The applicant is proposing to utilize two storm water ponds located downstream of the site before discharging into Hyland Lake. Rule J, Subp. 3.1.c requires that the applicant "Provide for at least sixty percent (60 percent) annual removal efficiency for total phosphorus,

and at least ninety percent (90%) annual removal efficiency for total suspended solids from site runoff.” (Rule J does not require that water-quality treatment be provided onsite.)

These ponds were created in upland area specifically to treat this watershed draining to Hyland Lake. The City performed a bathymetric survey in the summer of 2017 to confirm storage volume. This data was provided to the district and is consistent with the model assumptions.

The table below summarized the water quality treatment provided by the stormwater ponds.

| Pollutant of Interest | Regulated Site Loading (lbs/yr) | Required Load Removal (lbs/yr) ¹ | Provided Load Reduction (lbs/yr) |
|------------------------------|---------------------------------|---|----------------------------------|
| Total Suspended Solids (TSS) | 527.6 | 474.84 (90%) | 485.86 (92.1%) |
| Total Phosphorus (TP) | 1.70 | 1.02 (60%) | 1.11(65.2%) |

¹Required load reduction is calculated based on the removal criteria in Rule J, Subsection 3.1c and the new and reconstructed impervious area site load.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.c.

Low floor Elevation

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation and no stormwater management system may be constructed or reconstructed in a manner that brings the low floor elevation of an adjacent structure into noncompliance according to Rule J, Subsection 3.6.

There are no proposed modifications to the ponds, nor are any structures proposed for construction or reconstruction. The project conforms to Rule J, Subsection 3.6.

Maintenance

Subsection 3.7 of Rule J requires the submission of maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

- J1. Permit applicant must enter into a maintenance agreement with the District.

Rule L: Permit Fee:

No permit fees were required as Bloomington is a government entity and, under Section 2 of Rule L is exempted from the permit fee requirement.

Rule M: Financial Assurance:

No financial assurance is required as Bloomington is a government entity and, under Section 2 of Rule M is exempted from the Financial Assurance requirement.

Applicable General Requirements:

1. The RPBCWD Administrator shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rule C and Rule J if the Rule Specific Permit Conditions listed above are met.

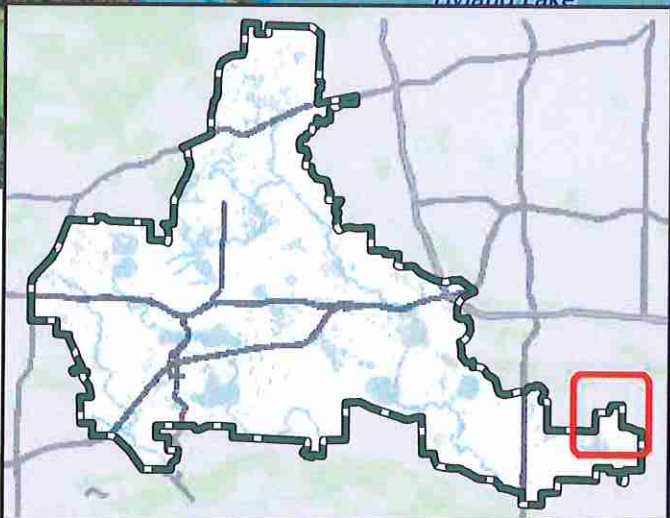
Recommendation:

Approval, contingent upon:

1. Continued compliance with General Requirements.
2. Permit applicant must enter into a maintenance agreement with the District.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-030 with the conditions recommended by staff.



Feet



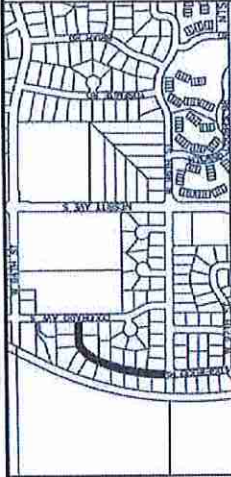
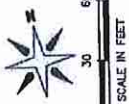
Permit Location Map

BLOOMINGTON DAKOTA ROAD RECONSTRUCTION
Permit 2018-030
Riley Purgatory Bluff Creek Watershed District

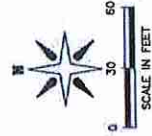
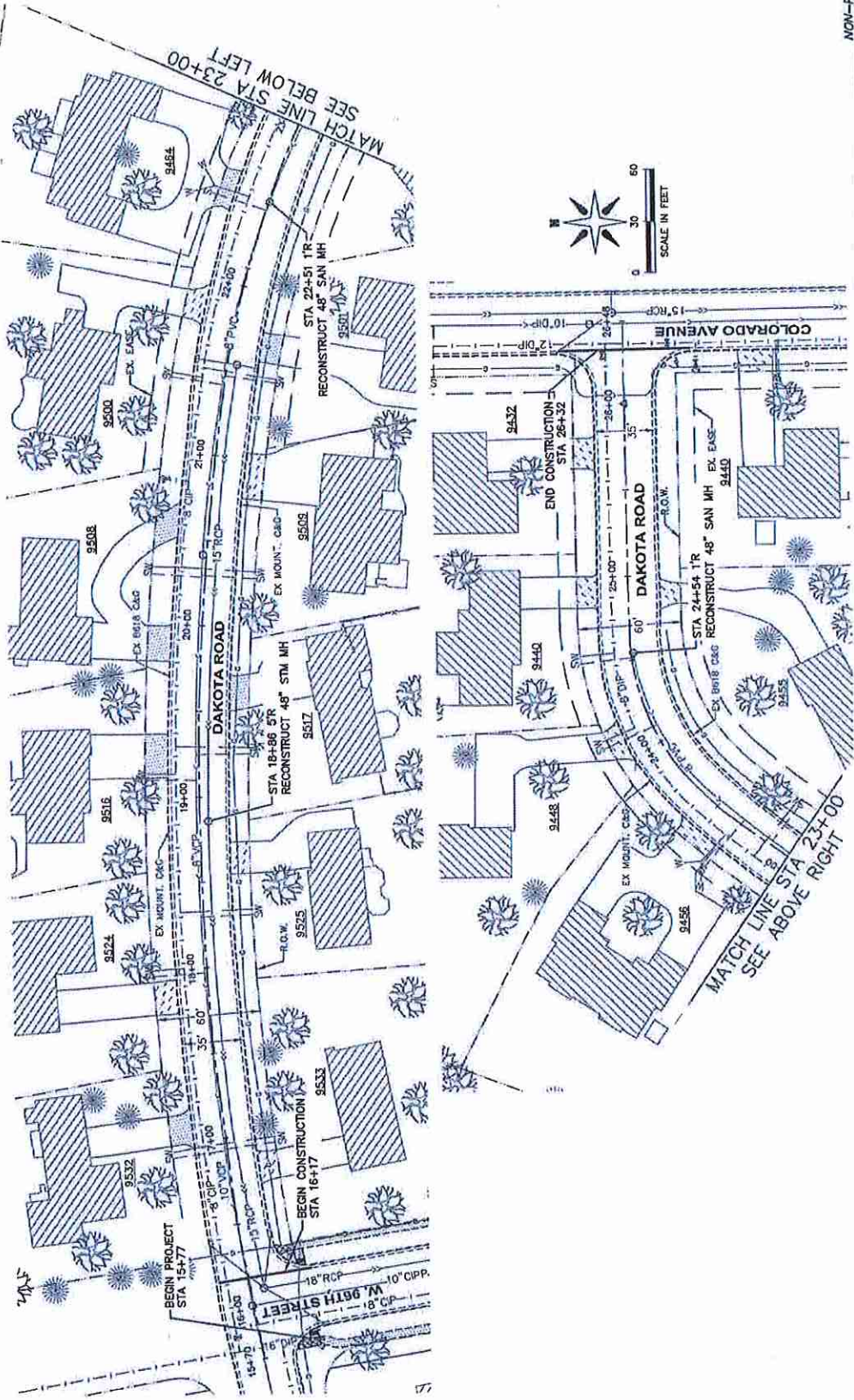
NOTES:
 1. ALL RESTORED BOULEVARDS WILL REQUIRE 6" LOAM TOPSOIL BORROW.

DAKOTA ROAD
 FROM W. 96TH STREET
 TO COLORADO AVENUE

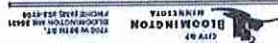
Exhibit A-2



STREET RECONSTRUCT FROM W. 96TH STREET TO COLORADO AVENUE



ENGINEERING DIVISION
 PUBLIC WORKS DEPARTMENT
 2018-101 PMP STREET IMPROVEMENT PROJECT



| DATE | DESCRIPTION | BY |
|------|-------------|----|
| | | |
| | | |
| | | |

DATE: 4/2/18
 LIG. # DATE: 4/2/18
 ROBERT P. SIMONS
 DRAWN: CDB
 CHECKED: RPS
 APPROVED: RPS
 SHEET: 49 OF 114
 SCHEDULE: NON-PARTICIPATING



18681 Lake Drive East
 Chanhassen, MN 55317
 952-607-6512
 www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-031

Received complete: April 26, 2018

Board Meeting: June 6, 2018

Applicant: Bloomington Public Schools

Consultant: Anderson-Johnson Associates, ATTN: Dave Rey

Project: Ridgeview Elementary Improvements – Bloomington Public Schools is proposing to construct a mechanical enclosure outside and detached from the existing elementary school building. The enclosure will protect and shield heating and cooling equipment for the existing building. The project is located at 9400 Nesbitt Ave South in Bloomington. Improvements include a new open top, brick clad enclosure, a concrete slab inside the enclosure, mechanical units, and piping systems between the mechanical units and the building. A rain garden will be constructed to meet the District’s Rule J requirements.

Location: 9400 Nesbitt Avenue, Bloomington, MN

Reviewer: Terry Jeffery, Permit Coordinator

Rules: Applicable rules checked

| | | | |
|---|--|---|--|
| | Rule B: Floodplain Management | | Rule H: Appropriation of Public Waters |
| X | Rule C: Erosion and Sediment Control | | Rule I: Appropriation of Groundwater |
| | Rule D: Wetland and Creek Buffers | X | Rule J: Stormwater Management |
| | Rule E: Dredging and Sediment Removal | | Rule K: Variances and Exceptions |
| | Rule F: Shoreline/Streambank Stabilization | X | Rule L: Permit Fees |
| | Rule G: Waterbody Crossings | X | Rule M: Financial Assurances |

Rule Conformance Summary

| Rule | Issue | Conforms to RBPCWD Rules? | Comments |
|------|-----------------------|---------------------------|--|
| C | Erosion Control Plan | See comment | See Rule Specific Permit Condition C1. |
| J | Stormwater Management | Rate | Yes |
| | | Volume | Yes |
| | | Water Quality | Yes |
| | | Low Floor Elev. | Yes |
| | | Maintenance | See Comment |
| L | Permit Fee | NA | Government Entity |
| M | Financial Assurance | NA | Government Entity |



Project Description

Bloomington Public Schools is proposing to construct a mechanical enclosure outside and detached from the existing elementary school building. The enclosure will protect and shield heating and cooling equipment for the existing building. The project is located at 9400 Nesbitt Ave South in Bloomington. Improvements include a new open top, brick clad enclosure, a concrete slab inside the enclosure, mechanical units, and piping systems between the mechanical units and the building. No other additional improvements are proposed.

The total area of disturbance for the proposed project is approximately 0.41 acres. There is 0.021 acres of additional impervious surface proposed as a result of this project. The disturbed existing impervious area for the site is 0.018 acres. The design includes treatment for all new and disturbed impervious areas which totals 0.039 acres.

The project site information is summarized below:

1. Total Site Area: 9.98 acres (434,704 square feet)
2. Existing Site Impervious Area: 0.77 acre (33,715 square feet)
3. Post Construction Site Impervious: 0.80 acres (34,630 square feet)
4. New (Increase) in Site Impervious Area: 0.021 acre (915 square feet) (2.7% increase in site impervious area)
5. Disturbed impervious surface: 0.018 acre (784 square feet)
6. Total Disturbed Area: 0.041 acre (1,771 square feet)

Exhibits:

1. Permit Application from Bloomington Public Schools dated April 19, 2018
2. Site Plan sheet C1.21 dated December 4, 2017 (revised May 18, 2018)
3. Grading Plan sheet C1.31 dated December 4, 2017 (revised May 18, 2018)
4. Stormwater Management Report dated April 10, 2018
5. P8 Urban Catchment Model run December 26, 2017
6. Volume Calculations date unknown
7. Existing and Proposed Conditions HydroCAD Model dated April 12, 2018
8. Geotechnical Evaluation Report by Braun Intertec Corporation dated December 7, 2017
9. Email responding to District comments dated April 16, 2018

Rule Specific Permit Conditions

Rule C: Erosion and Sediment Control

Because the project will excavate and fill approximately 250 cubic yards of material the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan prepared by Anderson Johnson Associates includes installation of perimeter control where applicable, inlet protection for storm sewer catch basins, a rock construction entrance, placement of a minimum of 6 inches of topsoil, delineation of areas to be protected from compaction, decompaction of areas compacted during construction, retention of native topsoil onsite, and a plan for final stabilization including a planting plan. The contractor to be responsible for erosion control at the site needs to be determined. To conform to the RPBCWD Rule C requirements the following condition must be satisfied:

- C1. The Applicant must provide the name and contact information of the individual responsible for erosion and sediment control at the site. RPBCWD must be notified if the responsible party changes during the permit term.

Rule J: Stormwater Management

Because the project will excavate and fill approximately 250 cubic yards of material, it must conform to section 3 of Rule J. As the project will construct an additional 0.021 acre (915 square feet) of impervious area on the site, and fully reconstruct an additional 0.018 acre (784 square feet) of impervious area the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.3). As less than 50% of the existing 0.77 acre of the site impervious surface will be added as new impervious surface and/or reconstructed existing surfaces and less than 50 percent of the site will be disturbed, the criteria in section 3 applies only to the proposed new and newly reconstructed impervious surfaces. The total impervious area to be treated is 16,980 square feet.

The developer is proposing bioretention feature (rain garden). Pretreatment will be provided through fifteen (15) feet of laminar sheet flow through turf grass. This practice will be used to provide the required rate control, volume abstraction, and water quality management on the site.

Rate Control

To meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The disturbance and rain garden are both within the same drainage boundary so there is just a single discharge point to be evaluated.

The Applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the following table.

| Modeled Discharge Location | 2-Year Discharge (cfs) | | 10-Year Discharge (cfs) | | 100-Year Discharge (cfs) | | 10-Day Snowmelt (cfs) | |
|----------------------------|------------------------|------|-------------------------|------|--------------------------|-------|-----------------------|------|
| | Ex | Prop | Ex | Prop | Ex | Prop | Ex | Prop |
| To Nesbit Ave | 3.65 | 3.53 | 6.97 | 6.79 | 13.67 | 13.39 | 0.43 | 0.43 |

The proposed project conforms to RPBCWD Rule J, Subsection 3.1.a

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from all new and disturbed impervious surface on the parcel. An abstraction volume of 160 cubic feet is required from the 0.39 acre (16,980 square feet) of reconstructed and new impervious area on the project for volume retention. The developer is proposing an underground retention/infiltration basin. The table below summarizes the volume abstraction on the site.

| Required Abstraction Depth (inches) | Required Abstraction Volume (cubic feet) | Provided Abstraction Volume (cubic feet) |
|-------------------------------------|--|--|
| 1.1 | 160 | 239 |

Soil borings performed by Braun Intertec show that soils in the location of the proposed BMP consist primarily of lean clay (CL) over silt (ML). This soil profile is in the hydrologic group “D” and have an infiltration rate of 0.06” per hour. The design was based upon this infiltration rate of 0.06 inch/hour. No groundwater was observed to the bottom of the boring at an elevation of 891.2 feet. The bottom of the infiltration feature is set at 904.9. As such, there is no less than 14.1 feet of separation to ground water at the site of the proposed underground infiltration system. This exceeds the 3 feet minimum separation required by Rule J, Subsection 3.1.b.ii. Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.b.

Water Quality Management

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff. The developer is proposing the construction of a bioretention

feature to meet these requirements. The table below summarized the water quality treatment provided for the site. Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.c.

| Pollutant of Interest | Regulated Site Loading (lbs/yr) | Required Load Removal (lbs/yr) ¹ | Provided Load Reduction (lbs/yr) |
|------------------------------|---------------------------------|---|----------------------------------|
| Total Suspended Solids (TSS) | 118 | 106.2 (90%) | 108.4 (92%) |
| Total Phosphorus (TP) | 0.4 | 0.24 (60%) | 0.3 (75%) |

¹Required load reduction is calculated based on the removal criteria in Rule J, Subsection 3.1c and the new and reconstructed impervious area site load.

Low floor Elevation

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation and no stormwater management system may be constructed or reconstructed in a manner that brings the low floor elevation of an adjacent structure into noncompliance according to Rule J, Subsection 3.6.

The low floor elevations of the structure and the adjacent stormwater management feature are summarized below.

| Location Riparian to Stormwater Facility | Low Floor Elevation of Building (feet) | 100-year Event Flood Elevation of Adjacent Stormwater Facility (feet) | Freeboard (feet) | Provided Distance Between Building and Adjacent Stormwater Feature (feet) | Required Separation to Ground water based on Appndx J, Plot 1 (feet) | Provided Separation to Ground water based on Appndx J, Plot 1 (feet) |
|--|--|---|------------------|---|--|--|
| East of ASC (2P) | 907.5 | 905.38 | 2.18 | NA | NA | NA |

The proposed freeboard separation is compliant with Rule J, subsection 3.6.

Maintenance

Subsection 3.7 of Rule J requires the submission of maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

- J1. Permit applicant has provided a draft maintenance and inspection plan. Once approved by RPBCWD, the Applicant must enter into a written maintenance agreement with the District documenting the maintenance requirements.

Rule L: Permit Fee:

Bloomington Public Schools is a governmental unit and per Rule M §2 is not required to supply a permit application fee.

Rule M: Financial Assurance:

Bloomington Public Schools is a governmental unit and per Rule L §2 is not required to submit a financial assurance.

Applicable General Requirements:

1. The RPBCWD Administrator shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rule C and Rule J if the rule specific permit conditions listed above are met.

Recommendation:

Approval, contingent upon:

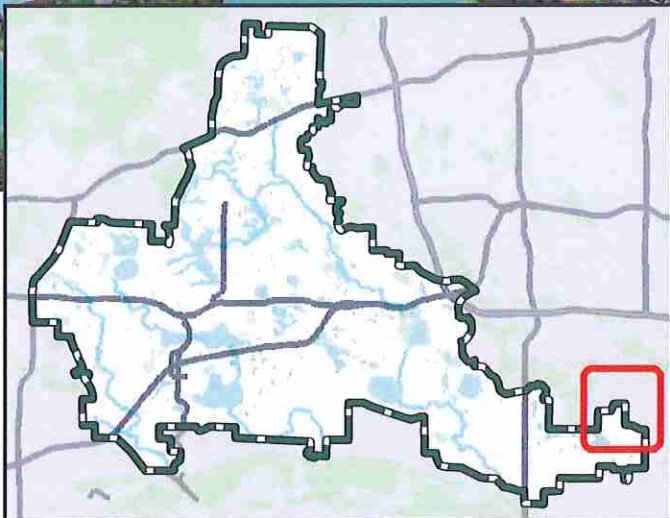
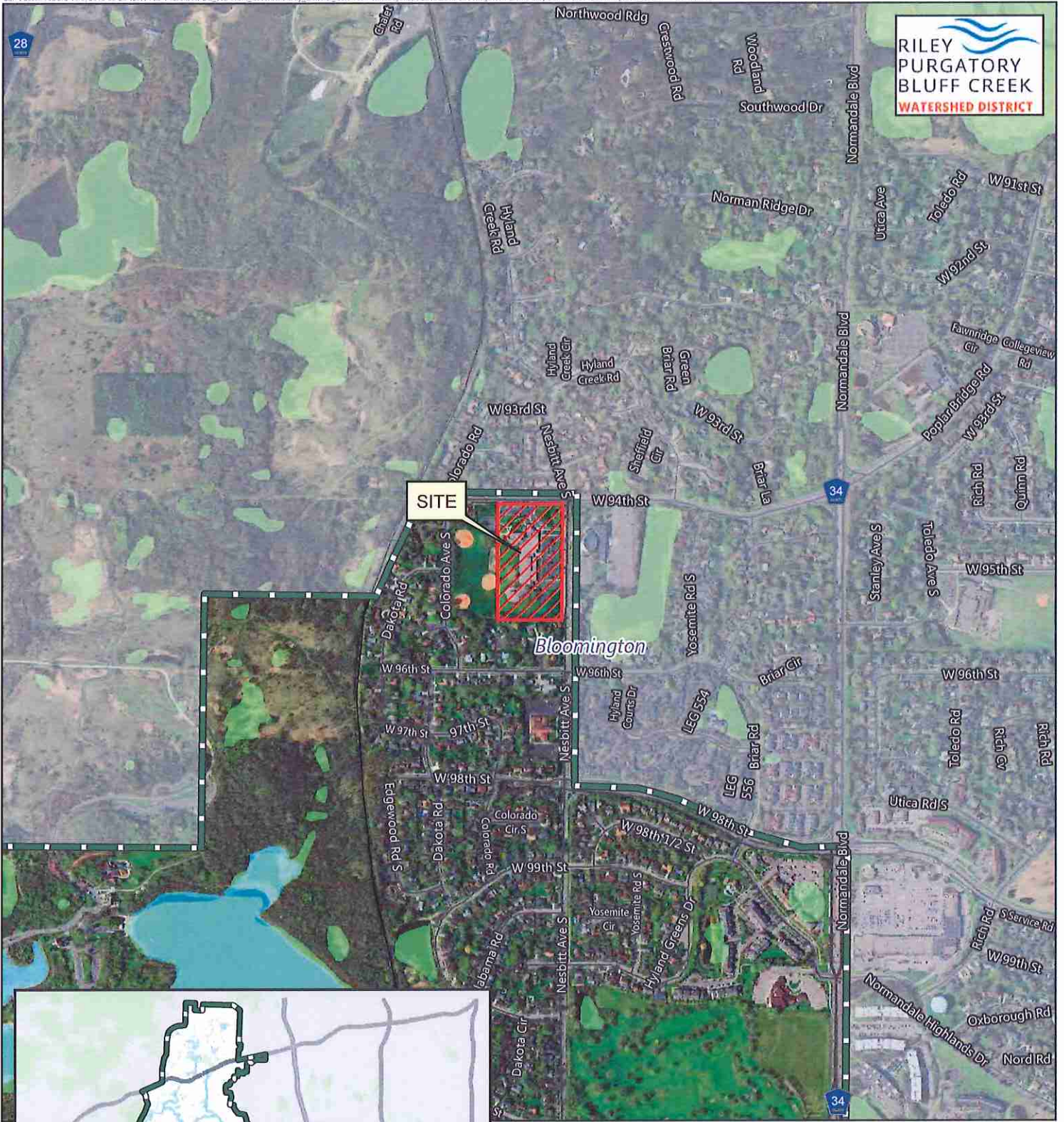
1. Continued compliance with General Requirements.
2. The Applicant must provide the name and contact information of the individual responsible for erosion and sediment control at the site. RPBCWD must be notified if the responsible party changes during the permit term.
3. The Applicant must enter into a written maintenance agreement with the District documenting the buffer areas and maintenance requirements and must also include an exhibit clearly showing the buffer area and monument locations. Stormwater facility maintenance requirements must also be documented in a maintenance agreement approved by RPBCWD prior to execution by both parties.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications as approved by the District.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-031 with the conditions recommended by staff.



Feet



Permit Location Map

RIDGEVIEW ELEMENTARY SCHOOL
MECHANICAL IMPROVEMENTS
Permit 2018-031
Riley Purgatory Bluff Creek
Watershed District

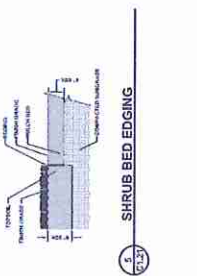
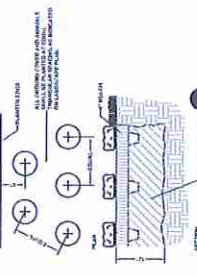
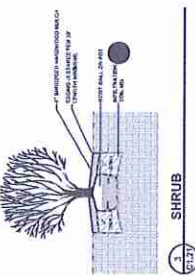
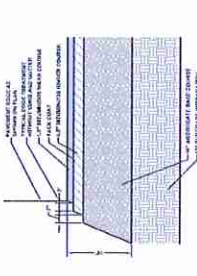
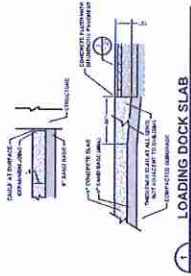
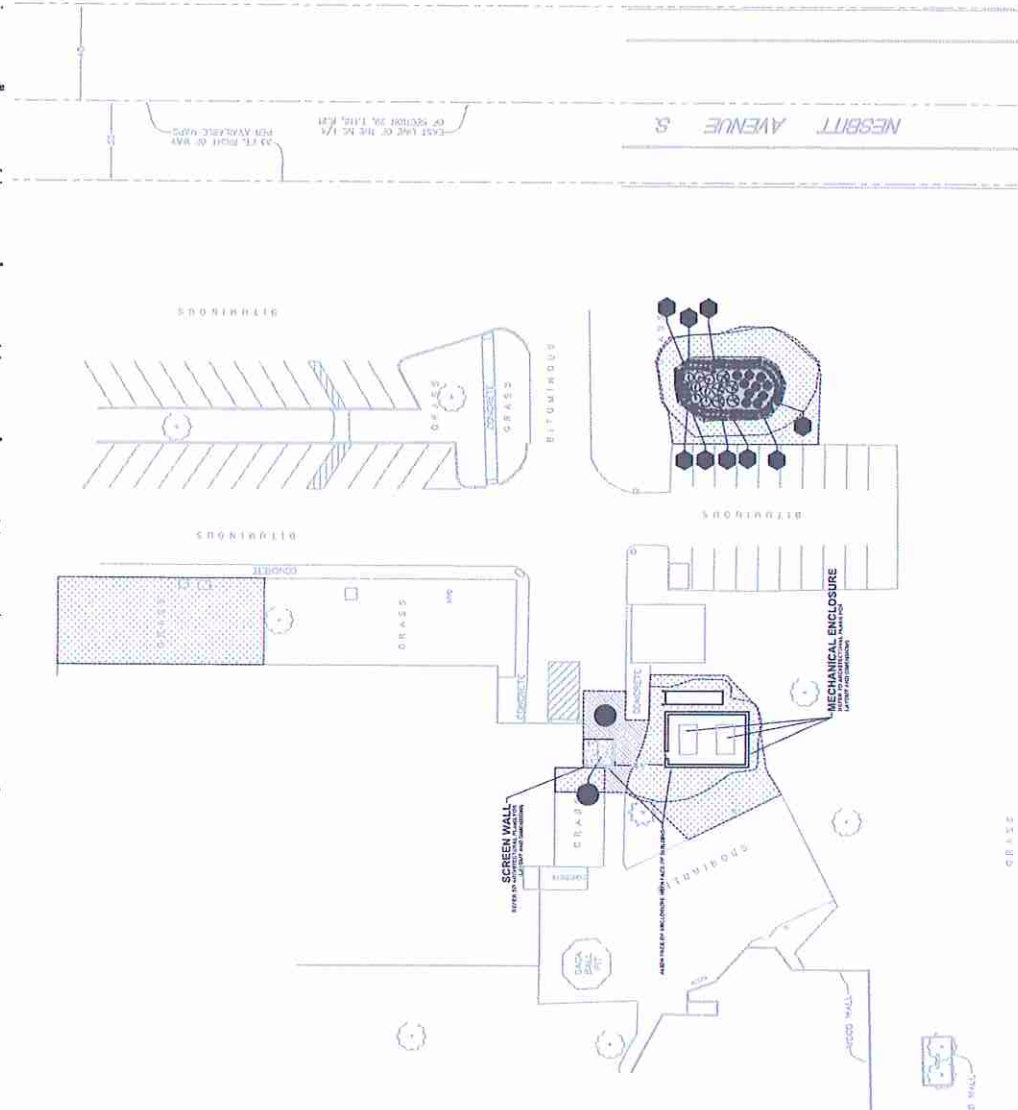
Ridgeview
Elementary School
Mechanical
Improvements
9620 Nesbitt Avenue South
Bloomington, MN 55423

Independent School
District #271
1350 West 10th Street
Bloomington, MN 55431



WOLD ARCHITECTS
AND ENGINEERS
1425 University Avenue, Suite 200
Bloomington, MN 55403
Tel: 763.551.1000
www.wold.com

AJA
ARCHITECTURAL
ASSOCIATION
1000 Hennepin Avenue, Suite 100
Bloomington, MN 55403
Tel: 763.551.1000
www.aja.com



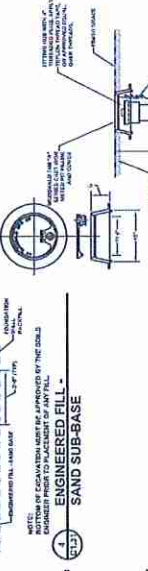
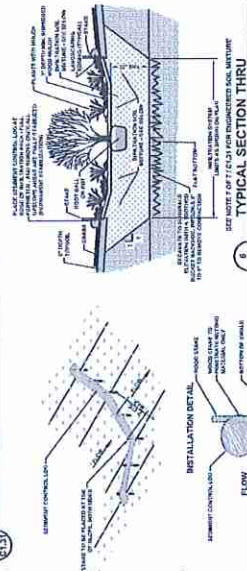
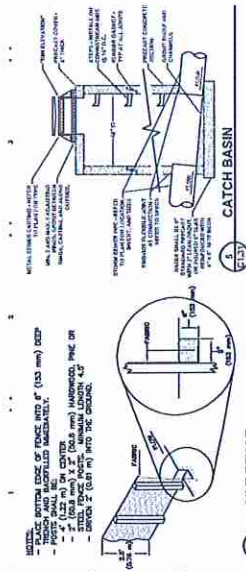
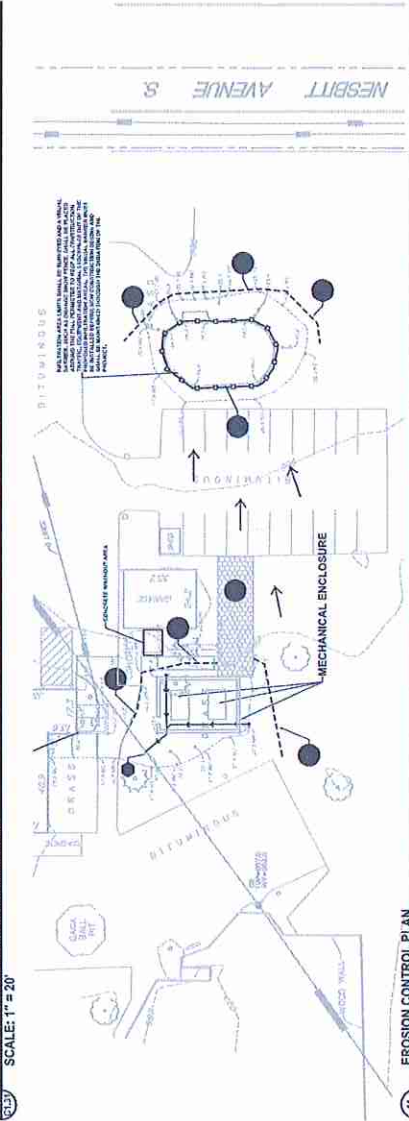
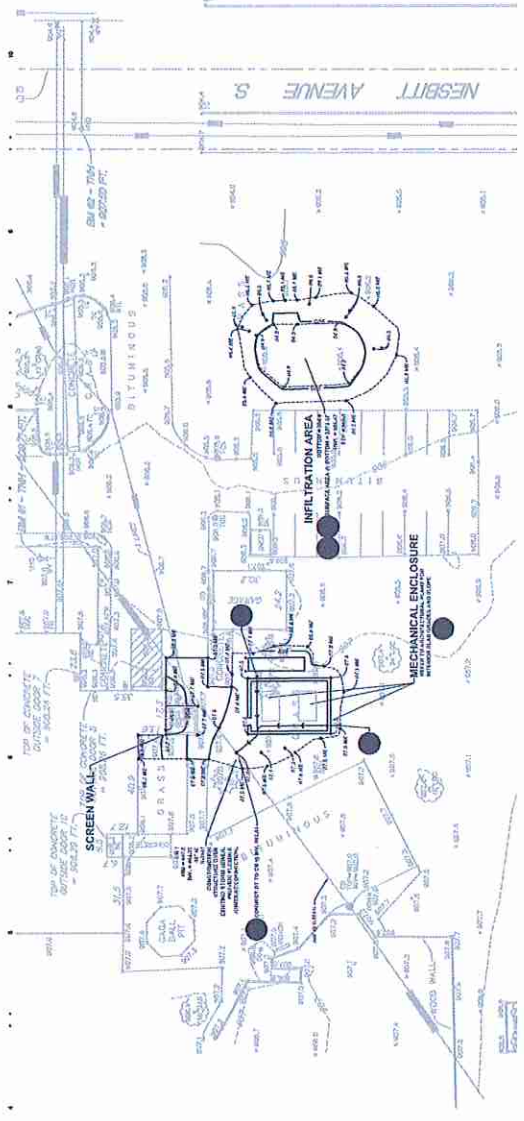
- NOTES:**
- REFER TO SHEET C1.1, GRADING, DRAINAGE, UTILITY, AND ERECTION CONTROL PLAN FOR ALL APPLICABLE ENCLOSURES ARE TO BE CONFORM WITH PROPERTY LINE UNLESS OTHERWISE NOTED.
 - CHECK ALL PLAN AND ACTUAL DIMENSIONS AND VERIFY SAME BEFORE FIELD LAYOUT.
 - ALL DETERMINED AREAS OUTSIDE THE MECHANICAL ENCLOSURE WHICH ARE NOT OTHERWISE NOTED SHALL BE CONFORM WITH LAYOUT OF THIS PLAN AND SHALL BE CONFORM WITH A CONSTRUCTION JUNCTION TREATMENT TOOLS AND/OR MATERIALS SHALL BE CONFORM WITH ALL APPLICABLE CODES AND REGULATIONS AND SHALL BE CONFORM WITH ALL APPLICABLE CODES AND REGULATIONS AND SHALL BE CONFORM WITH ALL APPLICABLE CODES AND REGULATIONS.
 - ALL USE OF YEAR EQUIPMENT IN THE EVENT THE CONTRACTOR FAILS TO PROVIDE AN APPROPRIATE SOLUTION TO THE OWNER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS.
 - BEFORE ANY INSTALLATION IMMEDIATELY AFTER INSTALLATION REFER TO SPECIFICATION FOR PERENNIALS.
 - BEFORE ANY INSTALLATION IMMEDIATELY AFTER INSTALLATION REFER TO SPECIFICATION FOR PERENNIALS.
 - ALL PLANT MATERIALS SHALL BE NO. 1 QUALITY, UNLESS OTHERWISE SPECIFIED IN THE SCHEDULE.



PLANT SCHEDULE

| PLANT NAME | QUANTITY | DATE | NO. |
|------------|----------|----------|-----|
| SHRUB | 1 | 11/11/20 | 1 |
| PERENNIAL | 1 | 11/11/20 | 1 |
| GRASS | 1 | 11/11/20 | 1 |

Site Plan



MN

LEGEND

APPROXIMATE EROSION CONTROL QUANTITIES

GENERAL NOTES

1. ALL CONSTRUCTION MUST COMPLY WITH MINNESOTA STATE AND LOCAL ORDINANCES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
3. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL RELATED CONSTRUCTION PERMITS.
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50. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL RELATED CONSTRUCTION PERMITS.

BENCHMARKS

1. Top of the wall of the building near southeast of Ridgeview Elementary School. Elevation = 886.71 feet.

2. Top of the wall of the building near west of Ridgeview Elementary School. Elevation = 887.12 feet.



18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-034

Received complete: May 18, 2018

Applicant: City of Eden Prairie, ATTN: Robert Ellis

Project: Basin 05-11-A Cleanout – The project is to remove approximately 720 cubic yards of accumulated soft sediment from a storm water detention pond identified in Eden Prairie’s Local Water Management Plan as 05-11-A. This project will restore the pond to its original water quality volume. The material will be removed from the site and disposed of.

Location: 6268 Sequoia Circle, Eden Prairie / PIN 0511622120091

Reviewer: Terry Jeffery, RPBCWD Permit Coordinator

Rules: Applicable rules checked

| | | | |
|---|--|---|--|
| | Rule B: Floodplain Management | | Rule H: Appropriation of Public Waters |
| X | Rule C: Erosion and Sediment Control | | Rule I: Appropriation of Groundwater |
| | Rule D: Wetland and Creek Buffers | X | Rule J: Stormwater Management |
| | Rule E: Dredging and Sediment Removal | | Rule K: Variances and Exceptions |
| | Rule F: Shoreline/Streambank Stabilization | X | Rule L: Permit Fees |
| | Rule G: Waterbody Crossings | X | Rule M: Financial Assurances |

Rule Conformance Summary

| C | Erosion Control Plan | See Comment | See Rule Specific Permit Condition C1 & C2. |
|---|-----------------------|-----------------|---|
| J | Stormwater Management | Rate | See comment No impervious surface will be added |
| | | Volume | See comment No impervious surface will be added |
| | | Water Quality | See comment No impervious surface will be added |
| | | Low Floor Elev. | Yes |
| | | Maintenance | See Comment See Rule Specific Permit Condition J1. |
| L | Permit Fee | NA | Government Entity |
| M | Financial Assurance | NA | Government Entity |

Project Description

The project proposes to remove accumulated sediment from a constructed stormwater detention pond. The project will utilize backhoes to mechanically remove the sediment. The sediment will be cast into the staging area, allowing the water to drain out prior to loading into dump trucks for removal off site. Upon completion of the work, the ingress/egress and staging areas will be restored by incorporating six inches of topsoil, blanketing the slopes and seeding all denuded areas. This project will restore the water quality volume within the pond back to the designed volume thus improving the treatment efficiency of the pond which is tributary to Purgatory Creek. Though the proposed excavation will disturb soils below the 100-year water level of the pond, RPBCWD floodplain-management requirements do not apply because the pond is a constructed feature, not a natural basin. Though the work will remove more than a cubic yard of sediment, the RPBCWD Dredging and Sediment Removal Rule does not apply because the pond from which it will be removed is not a public water. The project site information is summarized below:

1. Total Site Area: 10.05 acres
2. Existing Site Impervious Area: 0.0 acres
3. New (Increase) in Site Impervious Area: 0.0 acres (0 square feet) (0% increase in site impervious area)
4. Total Disturbed Area: 7,000 square feet

Exhibits:

1. Permit Application dated May 18, 2018.
2. Design Plan Sheets C1.0 through C3.0 dated May 8, 2018.
3. RPBCWD Permit Submittal Narrative for Basin C-05-11-A Cleanout Project dated May 23, 2017.
4. Wetland Conservation Act Notice of Decision – No Loss, Dated May 31, 2018.
5. Pond Sediment Sampling Report by Braun Intertec dated March 30, 2018.

Rule Specific Permit Conditions

Rule C: Erosion and Sediment Control

Because the project will excavate approximately 720 cubic yards of material and disturb 7,000 square feet of land the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan prepared by the City of Eden Prairie. includes installation of floating silt curtain and outlet control during dredging operations, inlet protection for storm sewer catch basins, a stabilized drainageway, placement of a minimum of 6 inches of topsoil, decompaction of areas compacted during site work, retention of native topsoil onsite, erosion control blanket, a rock entrance, and appropriate

final stabilization measures. In order to excavate the pond, the water will need to be drawn down and the substrate frozen. Without an appropriate dewatering plan, this has a strong likelihood of introducing sediment laden waters to downstream surface water. The City has provided a dewatering plan with the understanding that site conditions may dictate some revisions to the plan. To conform to the RPBCWD Rule C requirements the following revisions are needed:

- C1. The Applicant must provide the name and contact information of the individual responsible for erosion and sediment control at the site. RPBCWD must be notified if the responsible party changes during the permit term.
- C2. The District shall be notified 48 hours in advance of any dewatering activities.

Rule J: Stormwater Management

Because the project will remove approximately 720 cubic yards of soil material and disturbs 7,000 square feet of land, the project triggers the RPBCWD's Stormwater Management rule (Rule J, Subsection 2.1). But because there is no impervious surface either disturbed or added, no stormwater management requirements are imposed by the rule.

Rule L: Permit Fee:

Not applicable for a government entity

Rule M: Financial Assurance:

Not applicable for a government entity

Applicable General Requirements:

1. The RPBCWD Administrator shall be notified at least three days prior to commencement of work.
2. Implementation shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. Because the proposed excavation is in and from a constructed stormwater basin, the RPBCWD Rule B requirements do not apply, and no requirements are imposed by operation of Rule J.
3. The proposed project will conform to Rule C if the Rule Specific Permit Conditions listed above are met.

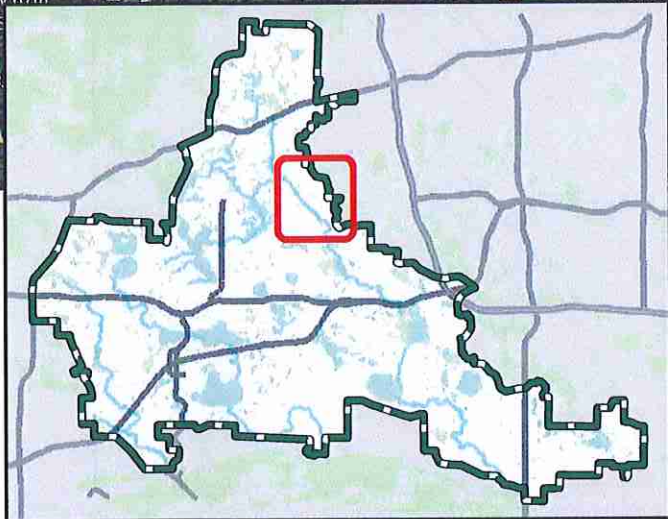
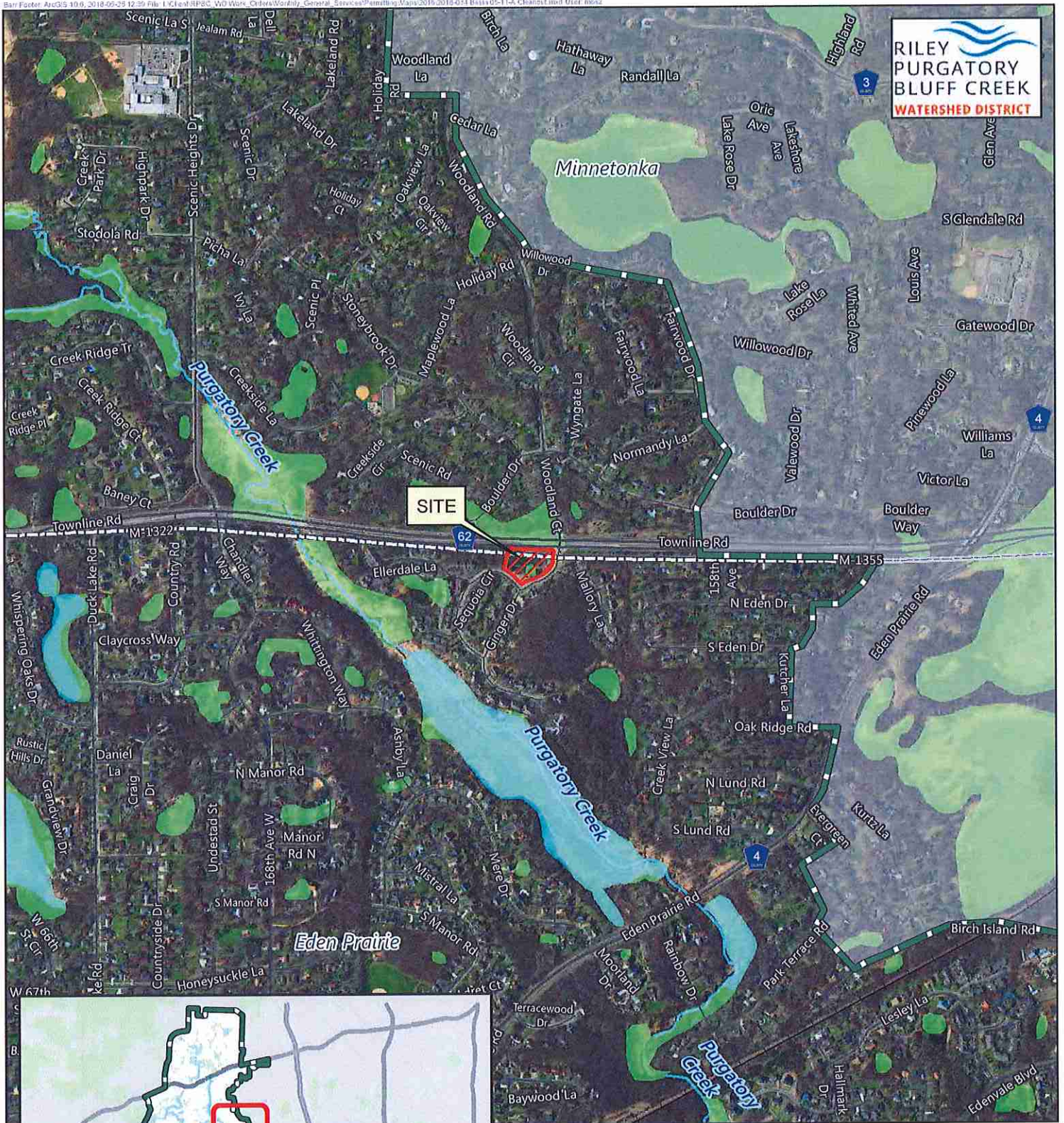
Recommendation:

Approval, contingent upon:

1. Continued compliance with General Requirements.
2. Submission of the name and contact information of the individual responsible for erosion and sediment control for the site.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-034 with the conditions recommended by staff.



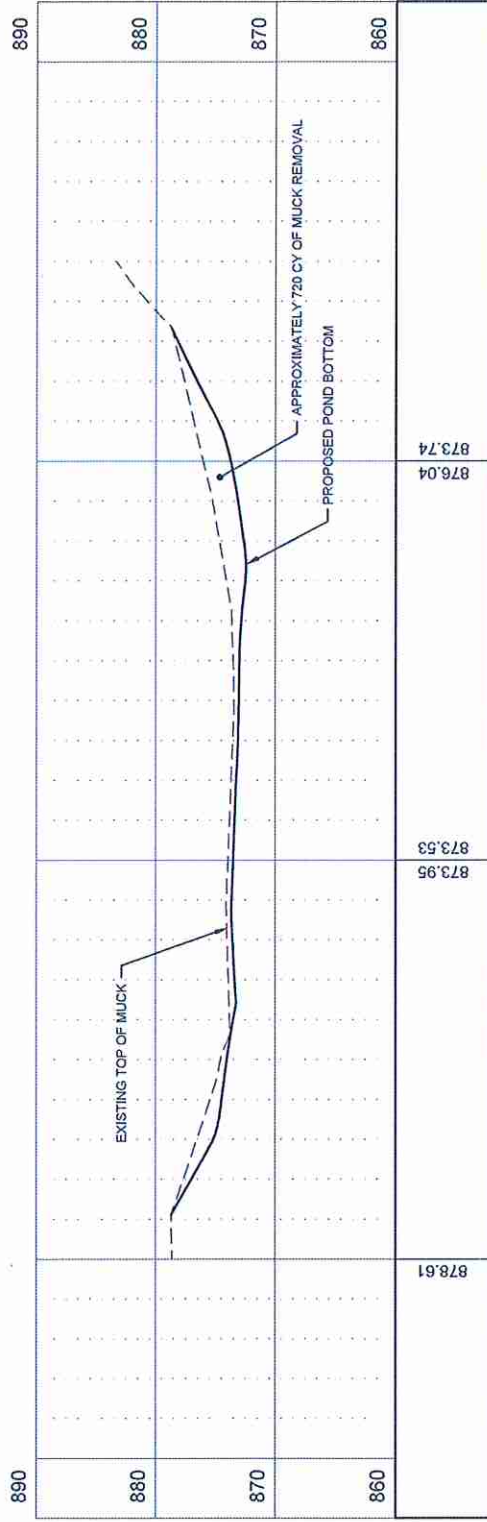
Feet



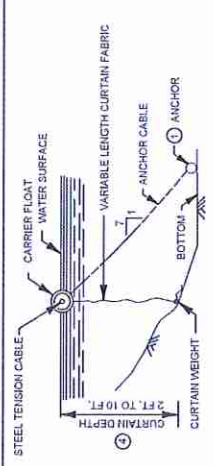
Permit Location Map

BASIN 05-11-A CLEANOUT
Permit 2018-034
Riley Purgatory Bluff Creek
Watershed District

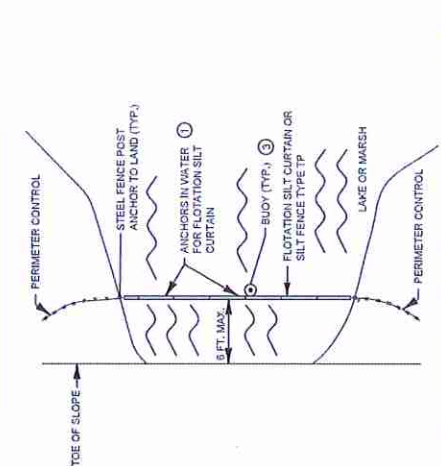
POND PROFILE W-E



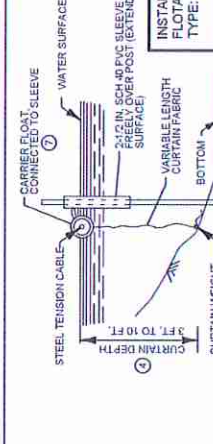
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| I hereby certify that the plans, specifications, or report and drawings are the work of me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Indiana. Print Name: <u>ROBERT B. ELLIS</u> License # <u>49732</u> Date: <u>05/09/2018</u> | | | | | | | |
| CITY PROJECT NO. <u>18813</u> | | | | CITY OF EDEN PRAIRIE POND 05-11-A DREDGING POND PROFILE PLAN | | | |
| DRAWN BY DESIGNED BY CHECKED BY DATE: 05/09/2018 | | | | EDEN PUBLIC PRAIRIE # 0-11-A-5 8200 MITCHELL ROAD, EDEN PRAIRIE, MN PCHIE, INC INDA500 | | | |
| SHEET C2.0 | | | | SHEET C2.0 | | | |



FLOATATION SILT CURTAIN DETAIL

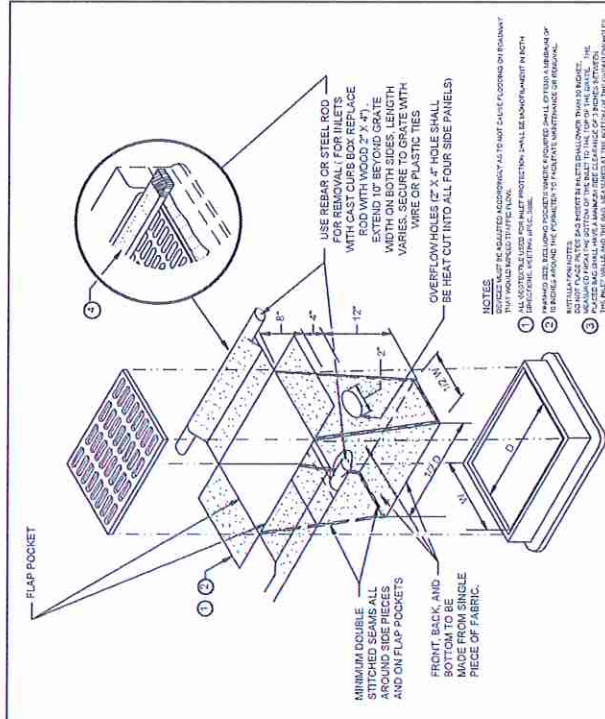


FLOATATION SILT CURTAIN DETAIL - PLAN VIEW



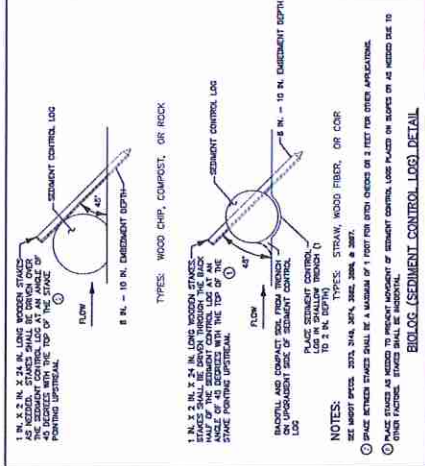
ALTERNATE FLOATATION SILT CURTAIN DETAIL

- INSTALLATION GUIDELINES FLOTATION SILT CURTAIN TYPE: STILL WATER**
- MINIMUM WATER DEPTH: 3 FT.
 - MAXIMUM WATER DEPTH: 10 FT.
 - MAXIMUM WATER VELOCITY: 2 FT./SEC.
 - MAXIMUM WAVE HEIGHT: 1 FT.
- INSTALLATION NOTES**
- FOR ANCHOR SPACING AND WEIGHT REQUIREMENTS, SEE SPEC. 5273.
 - IN AREAS WHERE THE PLAN CALLS FOR RIPRAP AT A BRIDGE, CULVERT, OR SLOPE, A TEMPORARY ROCK BERM CONSTRUCTED FROM THE RIPRAP CAN BE USED TO PROVIDE ADDITIONAL PROTECTION. WHEN THE WORK IS COMPLETE THE RIPRAP CAN THEN BE MOVED TO THE PERMANENT LOCATION INDICATED IN THE PLANS. THE TEMPORARY ROCK BERM IS INCIDENTAL.
 - ON U.S. COAST GUARD OR OTHER MOTORIZED WATERWAYS, BUOYS ARE REQUIRED TO MARK THE ENDS AND SPECIAL AREAS FOR VISIBILITY. PLACE BUOYS AS REQUIRED FOR NAVIGATIONAL PURPOSES.
 - MINIMUM WATER DEPTH APPLIES TO THE DEEPEST POINT ALONG THE FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB. FOR DETERMINING APPLICABILITY OF FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB.
 - SILT CURTAIN SHOULD BE REMOVED WHEN THE AREA CONTRIBUTING DIRECT RUNOFF HAS BEEN TEMPORARILY OR PERMANENTLY STABILIZED. SILT CURTAIN SHOULD ALSO BE REMOVED BEFORE WATER FLOWS UP OR ICE FLOWS ANTICIPATED.
 - EMBED POST INTO BOTTOM A MINIMUM OF 40% OF THE WATER DEPTH (INCLUDING WAVE HEIGHT), BUT IN NO CASE SHALL EMBEDMENT BE LESS THAN 2 FEET.
 - ANCHOR POST MUST BE CONNECTED SECURELY TO SLEEVE WITH A MINIMUM TENSILE STRENGTH OF 100 LBS.
 - CONNECTION METHOD MUST ALLOW FOR SLEEVE TO MOVE FREELY ON POST.
 - PROVIDE SUFFICIENT NUMBER OF POST ANCHORS TO MAINTAIN SILT CURTAIN POSITION.

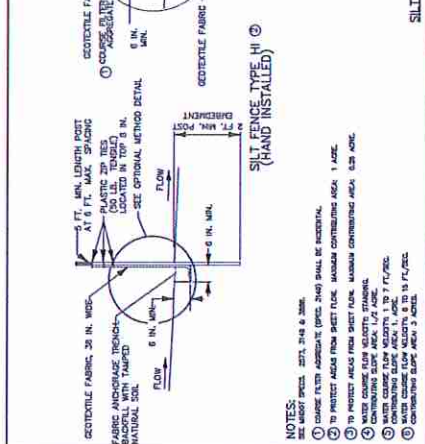


TEMPORARY INLET PROTECTION - FILTER BAG INSERT

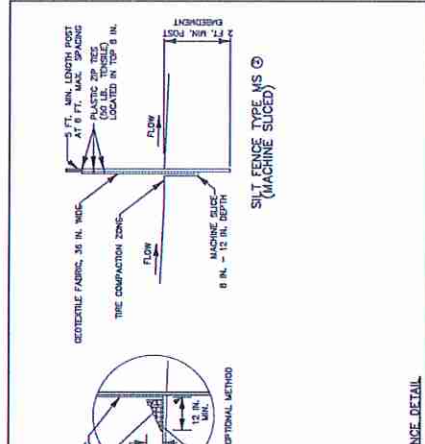
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)



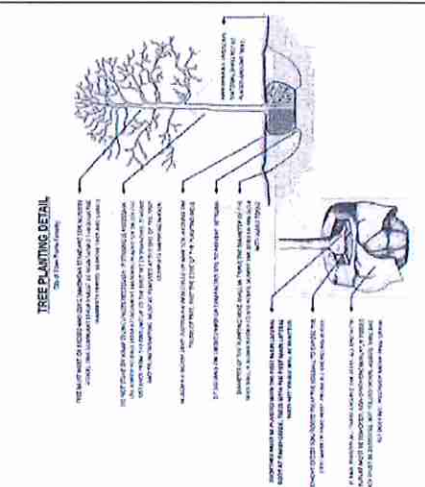
BIOLOG (SEDIMENT CONTROL LOG) DETAIL



SILT FENCE DETAIL



SILT FENCE TYPE MS (MACHINE SLICED)



TREE PLANTING DETAIL

| | | | |
|--|------|----------------------------------|-------------|
| CITY OF EDEN PRAIRIE POND 05-11-A DREDGING DETAILS | | SHEET C3.0 | |
| EDEN PUBLIC PRAIRIE 65743 | | DRAWN BY M.S. | |
| EDEN PRAIRIE | | DESIGNED BY S.M. | |
| EDEN PRAIRIE | | CHECKED BY R.B. | |
| EDEN PRAIRIE | | DATE: 05/09/2018 | |
| EDEN PRAIRIE | | CITY PROJECT NO. 18813 | |
| EDEN PRAIRIE | | PRINT NAME: ROBERT B. ELLIS | |
| EDEN PRAIRIE | | DATE: 05/09/2018 License # 45732 | |
| REV | DATE | BY | DESCRIPTION |
| | | | |

Minutes: Monday, May 21, 2018
RPBCWD Citizen's Advisory Committee Monthly Meeting
Location: RPBCWD offices: 18681 Lake Street, Chanhassen

CAC Members

| | | | | | |
|---------------|---|------------------|---|--------------------|---|
| Jim Boettcher | P | Curt Kobilarcsik | P | Marilynn Torkelson | P |
| Paul Bulger | P | Matt Lindon | P | Lori Tritz | P |
| Anne Deuring | P | Sharon McCotter | P | David Ziegler | P |
| Peter Iverson | ? | Joan Palmquist | P | | |

Others

| | | |
|-----------------|------------------|---|
| Michelle Jordan | District Liaison | P |
|-----------------|------------------|---|

Summary of key actions/motions for the Board of Managers:

Stormwater Pond Proposal from Dr. John Gulliver: The CAC expressed interest in helping to monitor which ponds have wildlife and how the wild life is affected during the iron filling field trial in RPBCWD.

Paul made a motion and Joan seconded to support the launch of the website based on the draft content presented tonight. The CAC made recommendations for additional web site improvements but feels the improvements can be made after the site is launched. Motion carried

David made a motion and Joan seconded to support the Groundwater Conservation Challenge to ideally start this year as a pilot, and if not possible this year, to tee it up for next year. Motion Carried

I. Opening

- A. Call CAC meeting to Order:** President Ziegler called the meeting to order at 6:03 p.m.
- B. Attendance:** As noted above
- C. Matters of general public interest:** None
- D. Approval of Agenda:** Sharon moved to approve the agenda. Second by Joan. Motion carried.
- E. Approval of April 16, 2018 CAC Meeting Minutes:** Paul moved to approve minutes. Second by Jim. Motion carried.

II. Old Business

- A. RPBCWD Board Workshop and Meeting information:** David reported that Leslie Yetka is resigning from the Board because of time constraints. June will be her last meeting. Her replacement will be appointed in July. If interested apply at www.hennepin.us/advisory_boards. Look for "CAC" positions. The City of Eden Prairie nominates Board candidates.

There was much discussion on the Stormwater Pond Proposal from Dr. John Gulliver of the University of Minnesota regarding effect on wildlife and whether iron filings are a contaminant, but ultimately approved to support testing in our watershed. Test sites haven't been chosen yet. The CAC expressed interest in helping to monitor which ponds have wildlife.

Lake Susan Park Pond Watershed Treatment and Stormwater Reuse Project was approved conditionally based on staff recommendations.

A new car was approved to be used for wetland inventories, permit inspections, and education and outreach.

- B. Recommendations for Interface with other CAC groups: Sharon suggested some areas that we have to offer other CACs: fundamentals (bylaws, etc.), how we communicate with Board and Staff, how we balance action (subcommittees) with reaction. At least 3 other CACs have expressed interest. Sharon and David will continue to work on it.
- C. Website review and update: Michelle walked us through the most recent iteration of the newly revamped website. Kelly from HDR is our web person. The site is moving from Concrete 5 to Concrete 6 and staff has started populating the new site. Lori suggested a calendar link on the front page. Matt suggested adding layers to the map to make it explorable: water quality, projects by year, invasive species. Are ADA requirements being incorporated? They are easier to address now than later. Lori wondered if we will offer opportunities to engage, such as the ability to adopt-a-drain, or sign up to volunteer. As we develop programs we can add in the engagement. Matt mentioned an app that will track harmful algal blooms to alert people sooner than later.

There was discussion on how the website could help answer questions on permits, timing, design, etc. Right now many people who want to do the right thing are confounded by how to get started. Sharon raised the concern on behalf of Steve Barnes, a homeowner on Lake Lucy. Resource people are available, but avenues to them by the public are not clear. Ideas included connecting with previous cost share grantees, updating the "pamphlet" (Michelle passed around a copy), ask DNR to train us to give guidance, have a FAQ component with DNR supplying the FAQs, have a "Submit a question" component. Michelle expressed appreciation for the feedback. Paul made a motion and Joan seconded to support the launch of the website based on the draft content presented tonight. Motion carried.

B. Updates from subcommittees as available

Joan reported that Speakers Bureau presentation "Watershed 101" has been transcribed and is ready to go. It is 30 slides and about 45 minutes. We looked through it on the screen. Univ of MN is the source for old aerial photos to use with customized presentations. We may be given training on how to give presentations. Michelle will review the transcribed notes this week.

Sharon met with Chanhassen Environmental Commission. They have chosen to sponsor the fall clean up. There will be three opportunities to promote it: July 3 will be a tabling event at City, July 21 Splash Bash, and August 15 free day for Chanhassen at the U of M Arboretum. We recommended getting the RPBCWD logo on all advertising.

Silver Lake Association (Dorothy Pederson's) wants to do adopt a drain for the 210 drains in the subdivision. Deirdre Coleman (freshwater.org) built a website that anyone can use which, will roll into metro adopt a drain when it goes live during the state fair. The SLA also wants to stencil the drains. A paint source has been determined. Next the proposal will go to the City of Shorewood. Chanhassen will support stenciling if they can see and approve the design. Sharon will continue work with the SLA providing them contact information and specifics on the stenciling and adopt-a-drain programs. The group would like to launch both adopt a drain and stenciling for at least the 30 drains closest to the lake, this Spring.

Silt Sock Solution or 24/7 Storm Drain Protection: Anne talked to Tom Dietrich, the water resource manager from the City of Minnetonka about the EZ-Flo mats and silt socks. He is interested in pursuing a pilot project and will be reaching out to the watersheds in the city.

III. New Business

- A. **Any new 2018 Cost Share reviews:** Michelle said there will be no new applications until after the next deadline in June.
- B. **Wetlands Walk:** Michelle reported that a new date has not yet been set. Terry Jeffery wonders whether a week night is preferential to a weekend day. Several members preferred Tuesday evenings.
- C. **A Master Water Steward is installing her capstone project** on June 18 and 19. Let Michelle know if you are interested in helping with ground prep and planting from 9:00 to 5:00. Food will be provided.
- D. **Local Leaders Water Institute:** Talk, Boat Tour, Bus Tour, Wed, Jun 20 2018 - 5:00 pm to 8:30 pm. No cost for CAC members but you need to register on the web site (<http://bit.ly/LocalLeaders2018>) if you plan to attend.
- E. **Splash Bash:** July 21 at Lake Ann Pavilion, everything water related, 1:00 to 4:00. Sharon reported that Chanhassen is hosting the event for the entire family and we are looking for someone to host the RPBCWD table. The sandbox will be at that event. The new intern Maya will be there and we need one more volunteer.
- F. **Ground Water Conservation Challenge:** Paul has imagineered a program to motivate groundwater conservation. The concept is to invite residents to limit summer water usage to a 50% increase or less over their winter usage (150% of winter usage) to win a \$100 gift card. Discussion included: could the gift card be for something sustainable, random selection rather than first 100 applicants, less than 50% rather than 50%, greater conservation might have greater chances, broaden the invite and verbiage beyond Eden Prairie, consider absolute number rather than percentage so residents don't increase winter usage to position themselves for summer usage. Michelle will bring the idea to Claire. Staff time may be an issue if we want to start it this year. We would need the Board of Managers to authorize the program including dollars and staff time at their June meeting. David made a motion and Joan seconded to support the Groundwater Conservation Challenge to ideally start this year as a pilot, and if not possible this year, to tee it up for next year. Motion Carried. Ideally, we would send helpful tips and reminders to applicants, so it is not forgotten over the course of the program.
- G. **Artic Meltdown:** David attended the MOOS Lecture on Arctic Meltdown and Minnesota Weather. He took excellent notes and distributed them to the CAC including a link to a video.

IV. Looking Forward

- A. **CAC 2018 agenda items for our May meeting**
 - 1. Update of the Watershed awareness pamphlet
 - 2. Michelle will let us know when the wetland walk is rescheduled
 - 3. 10 year plan status
- B. **Upcoming events**
 - 1. Wetlands Walk TBD
 - 2. RPBCWD Board of Managers meeting, June 6 at 7:00 pm, 18681 Lake Drive East
 - 3. RPBCWD CAC meeting June 18 at 6:00 pm, 18681 Lake Drive East
 - 4. Turf to Fescue Workshop Carver WMO and 9-Mile Creek, June 25, 6:30 to 8:00 pm, Chanhassen Library. (Second session July 12 at Southdale library)
 - 5. Splash Bash: July 21 at Lake Ann Pavilion, everything water related 1:00 to 4:00
 - 6. June 18, 19 Master Water Steward Capstone installation

- V. **Adjourn CAC meeting:** Motion to adjourn Paul. Lori seconded. Motion carried. Meeting adjourned at 8:32.

Groundwater Conservation Challenge Earn Amazon Appreciation Gift Cards

The Riley Purgatory Bluff Creek Watershed (RPBCW) invites residential homes to participate in a ground water conservation challenge in 2018, with the opportunity to earn a \$100 gift card.

Background

The City of Eden Prairie has 15 water supply wells drilled to an average depth of 398 feet. These wells obtain water from the Jordan – Prairie du Chien Aquifer (Figure 1). This same aquifer is used to supply water to 83 cities and towns in our area.

Aquifer Depletion

The Freshwater Foundation reviewed groundwater usage in the Twin Cities Metropolitan Area ([The Water Underground: Stretching Supplies](#)). The amount of water pumped from aquifers has increased dramatically over the decades.

The majority of water used in the Twin Cities metro area is consumed in the warm summer months as residential homeowners irrigate lawns. Figure 2 illustrates how summer water usage increases compared to winter volume.

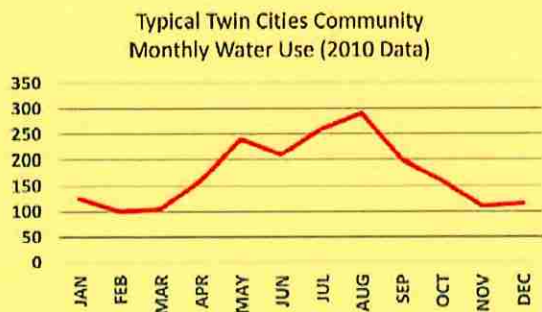


Figure 2 – Monthly Water Use (units million gallons per month) (source: Freshwater Foundation, 2017)

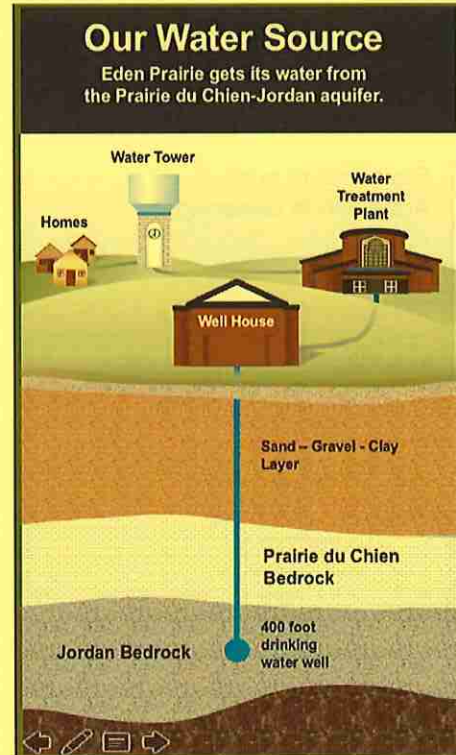


Figure 1 – Schematic of the Eden Prairie Water Supply Well

Reduced Consumption Gift Card Program

Residents are invited participate in this groundwater conservation program by reducing the amount of water used for lawn irrigation.

The program will compare the water volume your household used during winter and summer (see example):

| Season | Water Volume Used (gallons) |
|---------------------|-----------------------------|
| Winter (Jan to Mar) | 30,000 |
| Summer (Jul to Sep) | 45,000 |
| Increased Volume = | 15,000 |
| % Increase = | 50 |

Residents that limit their summer water volume to less than a 50% increase are invited to apply to RPBCWS for a \$100 Amazon Gift Card. The first 100 residential households to apply will receive the gift cards.

Cost Share Budget Request:

Option 1: 50x200 = \$10,000

Option 2: 100x100 = \$10,000

- Staff time to publish
- Advertise in newspapers

white bear lake



May 30, 2018

Claire Bleser
District Administrator
Riley Purgatory Bluff Creek Watershed District
18681 Lake Drive E.
Chanhassen, Minnesota 55317

Dear Claire:

Enclosed please find the checks and Treasurer's Report for Riley Purgatory Bluff Creek Watershed District for the one month and four months ending April 30, 2018.

Please examine these statements and if you have any questions or need additional copies, please call me.

Sincerely,

REDPATH AND COMPANY, LTD.

A handwritten signature in black ink that reads "Mark C. Gibbs". The signature is written in a cursive style.

Mark C. Gibbs, CPA
Enclosure



To The Board of Managers
Riley Purgatory Bluff Creek Watershed District
18681 Lake Drive E.
Chanhassen, Minnesota 55317

Accountant's Opinion

The Riley Purgatory Bluff Creek Watershed District is responsible for the accompanying April 30, 2018 Treasurer's Report in the prescribed form. We have performed a compilation engagement in accordance with the Statements on Standards for Accounting and Review promulgated by the Accounting and Review Services Committee of AICPA. We did not audit or review the Treasurer's Report nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by the Riley Purgatory Bluff Creek Watershed District. Accordingly, we do not express an opinion, a conclusion, nor provide any form of assurance on the Treasurer's Report.

Reporting Process

The Treasurer's Report is presented in a prescribed form mandated by the Board of Managers and is not intended to be a presentation in accordance with accounting principles generally accepted in the United States of America. The reason the Board of Managers mandates a prescribed form instead of GAAP (Generally Accepted Accounting Principles) is this format gives the Board of Managers the financial information they need to make informed decisions as to the finances of the watershed.

GAAP basis reports would require certain reporting formats, adjustments to accrual basis and supplementary schedules to give the Board of Managers information they need, making GAAP reporting on a monthly basis extremely cost prohibitive. An independent auditing firm is retained each year to perform a full audit and issue an audited GAAP basis report. This annual report is submitted to the Minnesota State Auditor, as required by Statute, and to the Board of Water and Soil Resources.

The Treasurer's Report is presented on a modified accrual basis of accounting. Expenditures are accounted for when incurred. For example, payments listed on the Cash Disbursements report are included as expenses in the Treasurer's Report even though the actual payment is made subsequently. Revenues are accounted for on a cash basis and only reflected in the month received.

REDPATH AND COMPANY, LTD.
St. Paul, Minnesota
May 30, 2018

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

Treasurers Report

April 30, 2018

REPORT INDEX

| <u>Page #</u> | <u>Report Name</u> |
|---------------|---|
| 1 | Cash Disbursements |
| 2 | Fund Performance Analysis – Table 1 |
| 3 | Multi-Year Project Performance Analysis – Table 2 |
| 4 | Balance Sheet |
| 5 | Klein Bank VISA Activity |

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
Cash Disbursements
April 30, 2018

Accounts Payable:

| Check # | Payee | Amount |
|--------------------------------|------------------------------------|----------------------------|
| 4457V | Southwest News Media | (\$338.10) |
| 4464 | Mary Andert | 250.00 |
| 4465 | Barr Engineering | 42,722.44 |
| 4466V | VOID (printer jam) | - |
| 4467 | CenterPoint Energy | 284.27 |
| 4468 | CenturyLink | 281.32 |
| 4469 | Richard Chadwick | 148.52 |
| 4470 | Chanhassen Elementary School | 172.20 |
| 4471 | CSM Financial, LLC | 7,353.70 |
| 4472 | Eden Prairie Schools | 219.13 |
| 4473 | Goeden Fisheries | 2,100.00 |
| 4474 | HealthPartners | 3,747.62 |
| 4475 | Amy Herbert, LLC | 831.00 |
| 4476 | Jennifer Heyer | 247.54 |
| 4477 | Iron Mountain | 39.95 |
| 4478 | Kari Jo Johnson | 375.00 |
| 4479 | Metro Sales, Inc. | 435.67 |
| 4480 | Metropolitan Council | 154.00 |
| 4481 | Minnetonka Public Schools ISD 276 | 486.03 |
| 4482 | NCI, Inc. | 2,256.30 |
| 4483 | Nine Mile Creek Watershed District | 5,299.31 |
| 4484 | Purchase Power | 743.95 |
| 4485 | Redpath & Company | 1,734.88 |
| 4486 | Carol Reno | 247.54 |
| 4487 | RMB Environmental Laboratories | 1,064.00 |
| 4488 | Smith Partners | 12,274.72 |
| 4489 | Wenck, Inc. | 945.50 |
| 4490 | Nick Windschitl | 250.00 |
| 4491 | Xcel Energy | 617.07 |
| 4492 | David Ziegler | 159.14 |
| 4493 | Burnsville Toyota | 26,630.00 |
| Total Accounts Payable: | | <u>\$111,732.70</u> |

Payroll Disbursements:

| | | |
|-------------------------------------|----------------------------------|---------------------------|
| | Payroll Processing Fee | 168.72 |
| | Employee Salaries | 27,646.73 |
| | Employer Payroll Taxes | 2,092.28 |
| | Employer Benefits (H.S.A. Match) | 525.00 |
| | Employee Benefit Deductions | (396.26) |
| | Staff Expense Reimbursements | 263.12 |
| | PERA Match | 1,976.58 |
| Total Payroll Disbursements: | | <u>\$32,276.17</u> |
| EFT | Klien Bank - VISA | 4,279.08 |

TOTAL DISBURSEMENTS:

\$148,287.95

Memos

The 2018 mileage rate is 54.5 per mile. The 2017 rate was .53.5.
Klein Bank VISA will be paid on-line.

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
Fund Performance Analysis - Table 1
April 30, 2018

| | 2018 Budget | Fund Transfers | Revised 2018 Budget | Current Month | Year-to-Date | Year-to Date Percent of Budget |
|--|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|-----------------------------------|
| REVENUES | | | | | | |
| Plan Implementation Levy | \$3,420,000.00 | | \$3,420,000.00 | - | - | 0.00% |
| Permit | 20,000.00 | | 20,000.00 | - | 17,803.00 | 89.02% |
| Grant Income | 373,175.00 | | 373,175.00 | - | 5,988.27 | 1.60% |
| Data Collection Income | - | | - | - | 171.78 | --- |
| Other Income | - | | - | - | 15,016.76 | --- |
| Investment Income | - | | - | 418.96 | 6,013.62 | --- |
| Past Levies | 1,736,968.00 | | 1,736,968.00 | - | 0.00 | 0.00% |
| Partner Funds | 445,000.00 | | 445,000.00 | - | 0.00 | 0.00% |
| TOTAL REVENUE | \$5,995,143.00 | \$0.00 | \$5,995,143.00 | \$418.96 | \$44,993.43 | 0.75% |
| EXPENDITURES | | | | | | |
| Administration | | | | | | |
| Accounting and Audit | 40,000.00 | | 40,000.00 | 1,903.60 | 23,685.66 | 59.21% |
| Advisory Committees | 4,000.00 | | 4,000.00 | 1,025.26 | 1,311.46 | 32.79% |
| Insurance and bonds | 12,000.00 | | 12,000.00 | - | - | 0.00% |
| Engineering Services | 103,000.00 | | 103,000.00 | 6,986.92 | 30,314.42 | 29.43% |
| Legal Services | 75,000.00 | | 75,000.00 | 3,115.30 | 11,744.94 | 15.66% |
| Manager Per Diem/Expense | 19,000.00 | | 19,000.00 | 642.02 | 1,230.65 | 6.48% |
| Dues and Publications | 8,000.00 | | 8,000.00 | (338.10) | 8,439.00 | 105.49% |
| Office Cost | 100,000.00 | | 100,000.00 | 10,526.61 | 42,485.56 | 42.49% |
| Permit Review and Inspection | 90,000.00 | | 90,000.00 | 12,518.61 | 58,490.75 | 64.99% |
| Recording Services | 15,000.00 | | 15,000.00 | 831.00 | 2,915.00 | 19.43% |
| Staff Cost | 434,000.00 | | 434,000.00 | 35,599.66 | 139,257.02 | 32.09% |
| Subtotal | \$900,000.00 | \$0.00 | \$900,000.00 | \$72,810.88 | \$319,874.46 | 35.54% |
| Programs and Projects | | | | | | |
| District Wide | | | | | | |
| 10-year Management Plan | 9,662.00 | | 9,662.00 | 7,544.37 | 24,837.29 | 257.06% |
| ALS Inspection and early response | 75,000.00 | | 75,000.00 | 370.87 | 25,405.64 | 33.87% |
| Cost-share | 200,000.00 | | 200,000.00 | - | 238.00 | 0.12% |
| Creek Restoration Action Strategies Phase | 20,000.00 | | 20,000.00 | - | - | 0.00% |
| Data Collection and Monitoring | 180,000.00 | | 180,000.00 | 10,594.06 | 43,842.56 | 24.36% |
| District Wide Floodplain Evaluation - Atlas 14/SMM model | 30,000.00 | | 30,000.00 | - | - | 0.00% |
| Education and Outreach | 115,000.00 | | 115,000.00 | 22,358.78 | 42,499.46 | 36.96% |
| Plant Restoration - U of M | 40,000.00 | | 40,000.00 | - | 10,287.09 | 25.72% |
| Repair and Maintenance Fund * | 177,005.00 | | 177,005.00 | - | - | 0.00% |
| Survey and Analysis Fund * | 13,092.00 | (13,092.00) | - | - | - | --- |
| Wetland Management* | 150,000.00 | | 150,000.00 | 13,513.89 | 14,453.89 | 9.64% |
| District Groundwater Assessment | - | | - | - | 166.38 | --- |
| Groundwater Conservation* | 130,000.00 | | 130,000.00 | - | - | 0.00% |
| Lake Vegetation Implementation | 75,000.00 | | 75,000.00 | - | - | 0.00% |
| Opportunity Project* | 100,000.00 | | 100,000.00 | - | - | 0.00% |
| TMDL - MPCA | 10,000.00 | | 10,000.00 | - | - | 0.00% |
| Stormwater Ponds - U of M | - | 22,092.00 | 22,092.00 | - | - | 0.00% |
| Subtotal | \$1,324,759.00 | \$9,000.00 | \$1,333,759.00 | \$54,381.97 | \$161,730.31 | 12.13% |
| Bluff Creek | | | | | | |
| Bluff Creek Tributary* | 236,741.00 | | 236,741.00 | 2,847.50 | 17,347.50 | 7.33% |
| Chanhassen Hlgh School * | 282,478.00 | | 282,478.00 | 1,022.30 | 22,074.13 | 7.81% |
| Subtotal | \$519,219.00 | \$0.00 | \$519,219.00 | \$3,869.80 | \$39,421.63 | 7.59% |
| Riley Creek | | | | | | |
| Lake Riley - Alum Treatment* | 22,424.00 | | 22,424.00 | - | 17,423.96 | 77.70% |
| Lake Susan Improvement Phase 1 * | 7,106.00 | | 7,106.00 | - | - | 0.00% |
| Lake Susan Water Quality Improvement Phase 2 * | 353,365.00 | 100,000.00 | 453,365.00 | 174.40 | 47,435.96 | 10.46% |
| Rice Marsh Lake in-lake phosphorus load | 150,000.00 | | 150,000.00 | 472.75 | 472.75 | 0.32% |
| Riley Creek Restoration (Reach E and D3) * | 1,427,987.00 | | 1,427,987.00 | 15,460.40 | 61,913.80 | 4.34% |
| Subtotal | \$1,960,882.00 | \$100,000.00 | \$2,060,882.00 | \$16,107.55 | \$127,246.47 | 6.17% |
| Purgatory Creek | | | | | | |
| Fire Station 2 (Eden Prairie) | 100,262.00 | | 100,262.00 | - | - | 0.00% |
| Purgatory Creek Rec Area- Berm/retention area - feasibility/design | 50,000.00 | | 50,000.00 | - | - | 0.00% |
| Lotus Lake in-lake phosphorus load control | 345,000.00 | | 345,000.00 | 472.75 | 25,282.05 | 7.33% |
| Lotus Lake - Feasibility Phase 1 | 18,802.00 | | 18,802.00 | - | - | 0.00% |
| Purgatory Creek at 101* | 246,259.00 | (100,000.00) | 146,259.00 | - | 50.00 | 0.03% |
| Silver Lake Restoration - Feasibility Phase 1 | 11,003.00 | | 11,003.00 | - | 7,597.50 | 69.05% |
| Scenic Heights | 208,957.00 | | 208,957.00 | 645.00 | 45,649.62 | 21.85% |
| Hyland Lake in-lake phosphorus load control | 20,000.00 | | 20,000.00 | - | - | 0.00% |
| Duck Lake watershed load | 220,000.00 | | 220,000.00 | - | - | 0.00% |
| Subtotal | \$1,220,283.00 | (\$100,000.00) | \$1,120,283.00 | \$1,117.75 | \$78,579.17 | 7.01% |
| Reserve | \$100,000.00 | (\$9,000.00) | 91,000.00 | - | - | 0.00% |
| TOTAL EXPENDITURE | \$6,025,143.00 | \$0.00 | \$6,025,143.00 | \$148,287.95 | \$726,852.04 | 12.06% |
| EXCESS REVENUES OVER (UNDER) EXPENDITURES | (\$30,000.00) | \$0.00 | (\$30,000.00) | (\$147,868.99) | (\$681,858.61) | |

*Denotes Multi-Year Project - See Table 2 for details

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
 Multi-Year Project Performance Analysis - Table 2
 April 30, 2018

| Programs and Projects | Total Project | FUNDING SOURCE | | | Month Ended | Year | Lifetime | Remaining |
|---|----------------|----------------|--------------|--------------|-------------|--------------|----------------|-----------|
| | | District Funds | Partner Fund | Grants | | | | |
| 10-year Management Plan | 187,000.00 | 187,000.00 | - | - | 7,544.37 | 202,175.38 | (15,175.38) | |
| District Wide | | | | | | | | |
| District Wide Floodplain Evaluation - Atlas 14/SMM model | 30,000.00 | 30,000.00 | - | - | - | - | 30,000.00 | |
| Repair and Maintenance Fund | 202,005.00 | 177,005.00 | - | - | - | 25,000.00 | 177,005.00 | |
| Survey and Analysis Fund | 37,257.00 | 37,257.00 | - | - | - | 23,792.63 | 13,464.37 | |
| Wetland Management | 150,000.00 | 150,000.00 | - | - | 13,513.89 | 14,453.89 | 135,546.11 | |
| Groundwater Conservation | 130,000.00 | 130,000.00 | - | - | - | - | 130,000.00 | |
| Opportunity Project* | 100,000.00 | 100,000.00 | - | - | - | - | 100,000.00 | |
| Subtotal | \$836,262.00 | \$813,262.00 | \$0.00 | \$0.00 | \$21,058.26 | \$39,291.18 | \$265,421.90 | |
| Bluff Creek Tributary* | 292,362.00 | 242,362.00 | 50,000.00 | - | 2,847.50 | 17,347.50 | 220,393.04 | |
| Chanassen High School* | 368,000.00 | 118,000.00 | 50,000.00 | 200,000.00 | 1,022.30 | 22,074.13 | 71,968.96 | |
| Subtotal | \$660,362.00 | \$360,362.00 | \$100,000.00 | \$200,000.00 | \$3,869.80 | \$39,421.63 | \$204,564.96 | |
| Riley Creek | | | | | | | | |
| Lake Riley - Alum Treatment 1st dose* | 260,000.00 | 260,000.00 | - | - | - | 17,423.95 | 254,999.82 | |
| Lake Susan Improvement Phase 1 | 275,000.00 | 275,000.00 | - | - | - | - | 267,894.28 | |
| Lake Susan Water Quality Improvement Phase 2* | 562,491.00 | 230,000.00 | 99,091.00 | 233,400.00 | 174.40 | 47,435.96 | 405,020.62 | |
| Rice Marsh Lake In-lake phosphorus load | 150,000.00 | 150,000.00 | - | - | 472.75 | 472.75 | 149,527.25 | |
| Riley Creek Restoration (Reach E and D3)* | 1,565,000.00 | 1,265,000.00 | 300,000.00 | - | 15,460.40 | 61,913.80 | 1,441,860.60 | |
| Subtotal | \$2,812,491.00 | \$2,180,000.00 | \$399,091.00 | \$233,400.00 | \$16,107.55 | \$127,246.46 | \$803,976.63 | |
| Purgatory Creek | | | | | | | | |
| Fire Station 2 (Eden Prairie) | 139,287.00 | 20,000.00 | 20,000.00 | 99,287.00 | - | - | 120,261.64 | |
| Purgatory Creek Rec Area - Berm/retention area - feasibility/design | 50,000.00 | 50,000.00 | - | - | - | - | 50,000.00 | |
| Lotus Lake In-lake phosphorus load control | 345,000.00 | 345,000.00 | - | - | 472.75 | 25,282.05 | 319,717.95 | |
| Purgatory Creek at 101* | 661,094.00 | 661,094.00 | - | - | - | 50.00 | 414,885.60 | |
| Scenic Heights | 260,000.00 | 165,000.00 | 45,000.00 | 50,000.00 | 645.00 | 45,649.62 | 96,692.56 | |
| Duck Lake watershed load | 220,000.00 | 220,000.00 | - | - | - | - | 220,000.00 | |
| Subtotal | \$1,675,381.00 | \$1,461,094.00 | \$65,000.00 | \$149,287.00 | \$1,117.75 | \$70,981.67 | \$555,885.57 | |
| Total Multi-Year Project Costs | \$5,984,496.00 | \$4,812,718.00 | \$564,091.00 | \$582,687.00 | \$42,153.36 | \$276,940.94 | \$1,829,849.06 | |

See Accountants Compilation Report

Riley Purgatory Bluff Creek Watershed District
Balance Sheet
As of April 30, 2018

ASSETS

Current Assets

| | |
|-----------------------------|--------------|
| General Checking-Klein | \$451,171.28 |
| Checking-Klein/BMW | 1,388,089.79 |
| Investments-FMV | 623.44 |
| Investments-Standing Cash | 13,436.89 |
| Investments-Wells Fargo | 2,467,505.46 |
| Accrued Investment Interest | 8,670.64 |
| Due From Other Governments | 154,436.00 |
| Taxes Receivable-Delinquent | 20,556.16 |
| Pre-Paid Expense | 17,508.63 |
| Security Deposits | 7,244.00 |

| | |
|------------------------------|------------------------------|
| Total Current Assets: | <u><u>\$4,529,242.29</u></u> |
|------------------------------|------------------------------|

LIABILITIES AND CAPITAL

Current Liabilities

| | |
|----------------------------|--------------|
| Accounts Payable | \$232,874.17 |
| Retainage Payable | 13,469.38 |
| Salaries Payable | 17,564.00 |
| Federal Withholding | (169.00) |
| FICA/Medicare | (217.93) |
| State Withholding | (70.00) |
| PERA Payable | 0.12 |
| Due to Other Governments | 32,650.00 |
| Permits & Sureties Payable | 704,352.00 |
| Deferred Revenue | 20,556.16 |
| Unavailable Revenue | 6,666.00 |

| | |
|-----------------------------------|------------------------------|
| Total Current Liabilities: | <u><u>\$1,027,674.90</u></u> |
|-----------------------------------|------------------------------|

Capital

| | |
|----------------------|----------------|
| Fund Balance-General | \$4,183,426.00 |
| Net Income | (681,858.61) |

| | |
|----------------------|------------------------------|
| Total Capital | <u><u>\$3,501,567.39</u></u> |
|----------------------|------------------------------|

| | |
|--|------------------------------|
| Total Liabilities & Capital | <u><u>\$4,529,242.29</u></u> |
|--|------------------------------|

RILEY PURGTORY BLUFF CREEK WATERSHED DISTRICT
Klein Bank VISA Activity
April 30, 2018

| DATE | PURCHASED FROM | AMOUNT | DESCRIPTION | ACCOUNT # | RECEIPT |
|----------|---------------------------------|-------------------|-------------------------------------|------------|---------------------|
| 04/03/18 | Office Depot | 50.70 | Office Materials | 10-00-4200 | Y |
| 04/04/18 | Kowalski's | 89.76 | Board Workshop | 10-00-4010 | Y |
| 04/10/18 | Microsoft | 80.64 | Software for computers | 10-00-4203 | Y |
| 04/12/18 | Breezy Point | (204.02) | Refund on Room | 10-00-4010 | Y |
| 04/19/18 | Randy's | 56.60 | Trash Hauler | 10-00-4215 | Y |
| 04/29/18 | The Thirsty Moose | 20.70 | Staff Conference Expense | 10-00-4321 | Y |
| 04/29/18 | Sam Adams Pub | 18.75 | Staff Conference Expense | 10-00-4321 | Y |
| 04/29/18 | The Manchester | 821.67 | Staff Conference Expense | 10-00-4321 | Y |
| 05/02/18 | The Thirsty Moose | 26.70 | Staff Conference Expense | 10-00-4321 | Y |
| 05/04/18 | Crust C Flushing | 36.79 | Staff Conference Expense | 10-00-4321 | N (lost in transit) |
| 05/07/18 | American Water Resources Assoc. | 50.00 | Staff Conference Abstract | 10-00-4321 | Y |
| 05/08/18 | Kowalski's | 6.90 | Office Supplies | 10-00-4200 | Y |
| 05/10/18 | Office Depot | 279.73 | Office Supplies | 10-00-4200 | Y |
| | | \$1,334.92 | General Administration Total | | |
| 03/28/18 | Amazon | 380.50 | Data Collection Supplies | 20-05-4201 | Y |
| 04/02/18 | Amazon | (9.67) | Refund/Double Charge | 20-08-4250 | Y |
| 04/03/18 | JoAnne's | 37.99 | Education Materials | 20-08-4275 | Y |
| 04/03/18 | Apple | 32.25 | Education Software for Design | 20-08-4203 | Y |
| 04/05/18 | Hach | 607.68 | Data Collection Equipment Maint. | 20-05-4201 | Y |
| 04/05/18 | Frattalone's | 23.64 | Data Collection | 20-05-4201 | Y |
| 04/06/18 | UPS | 150.99 | Ship Equipment for Maintenance | 20-05-4280 | Y |
| 04/06/18 | USPS | 35.00 | Stamps for Outreach Activities | 20-08-4280 | Y |
| 04/09/18 | Amazon | 69.27 | Education Supplies | 20-08-4201 | Y |
| 04/09/18 | Anderson Maket | 68.05 | Gas for Vehicle | 20-05-4322 | Y |
| 04/10/18 | Meter Group, Inc. | 956.31 | Equipment supply | 20-05-4201 | Y |
| 04/10/18 | Amazon | 34.55 | Education Supplies | 20-08-4205 | Y |
| 04/10/18 | Forestry Supplies | 364.92 | Supplies | 20-13-4201 | Y |
| 04/11/18 | Holiday | 63.63 | Gas for Vehicle | 20-05-4322 | Y |
| 04/11/18 | UPS | 166.26 | Ship Equipment for Maintenance | 20-05-4201 | Y |
| 04/16/18 | Walser Chrysler Jeep | 73.66 | Vehicle Maintenance | 20-05-4322 | Y |
| 04/16/18 | Cub Foods | 13.98 | Education & Outreach Food for Event | 20-08-4205 | Y |
| 04/18/18 | Potbelly | 230.32 | Education & Outreach Food for Event | 20-08-4205 | Y |
| 04/18/18 | Lakewinds | 59.31 | Education & Outreach Food for Event | 20-08-4205 | Y |
| 04/18/18 | Lakewinds | 7.55 | Education & Outreach Food for Event | 20-08-4205 | Y |
| 04/19/18 | Amazon | 899.99 | Laptop/Tablet | 20-13-4635 | Y |
| 04/19/18 | Forestry Supplies | 72.85 | Wetland Soil Sampler | 20-13-4201 | Y |
| 04/20/18 | Home Depot | 68.70 | Education Materials | 20-08-4205 | Y |
| 04/20/18 | Home Depot | 10.73 | Data Collection Supplies | 20-05-4201 | Y |
| 04/20/18 | Target | 68.18 | Education Materials | 20-08-4205 | Y |
| 04/23/18 | Home Depot | 25.20 | Data Collection Supplies | 20-05-4201 | Y |
| 04/23/18 | Menards | 14.47 | Data Collection Supplies | 20-05-4201 | Y |
| 04/24/18 | Amazon | 120.89 | Education Materials | 20-08-4201 | Y |
| 04/25/18 | Hach | 224.00 | Data Collection Supplies | 20-05-4201 | Y |
| 04/25/18 | Hach | 554.00 | Data Collection Supplies | 20-05-4201 | Y |
| 04/25/18 | Amazon | 10.74 | Education Materials | 20-08-4201 | Y |
| 04/25/18 | Amazon | 88.67 | Data Collection Supplies | 20-05-4201 | Y |
| 04/26/18 | Amazon | 33.88 | Education Materials | 20-08-4260 | Y |
| 04/27/18 | Amazon | 26.42 | Data Collection Supplies | 20-05-4201 | Y |
| 04/27/18 | Amazon | 7.50 | Safety Kit/New Vehicle | 20-05-4201 | Y |
| 04/29/18 | Amazon | 61.55 | Data Collection Supplies | 20-05-4201 | Y |
| 05/01/18 | Amazon | 14.53 | Data Collection Supplies | 20-05-4201 | Y |
| 05/08/18 | Hach | 393.93 | Data Collection Equipment Maint. | 20-05-4530 | Y |
| 05/09/18 | Amazon | 60.09 | Data Collection Supplies | 20-05-4201 | Y |
| 05/09/18 | Amazon | 24.50 | Vehicle Maintenance | 20-13-4201 | Y |
| 05/15/18 | Holiday | 75.55 | Gas for Vehicle | 20-05-4322 | Y |
| | | \$6,222.56 | District-Wide Total | | |
| | | | | | |
| | | \$7,557.48 | GRAND TOTAL | | |

Resolution Authorizing Membership in the 4M Fund

WHEREAS, Minnesota Statutes (the Joint Powers Act) provides that governmental units may jointly exercise any power common to the contracting parties; and

WHEREAS, the Minnesota Municipal Money Market Fund (the 4M Fund) was formed in 1987, pursuant to the Joint Powers Act and in accordance with Minnesota Investment Statutes, by the adoption of a joint powers agreement in the form of a Declaration of Trust; and

WHEREAS, the Declaration of Trust, which has been presented to this Board, authorizes municipalities of the State of Minnesota to become Participants of the Fund and make use from time to time including the 4M Liquid Asset Fund, the 4M Plus Fund, the Term Series, the Fixed Rate Programs, and other Fund services offered by the Fund; and

WHEREAS, this Board deems it to be in the best interest for the municipality to make use of, from time to time, the approved services provided by the 4M Fund's service providers including the Investment Advisor (Prudent Man Advisors, Inc.) or Sub-Advisor (RBC Global Asset Management (U.S.) Inc.), the Administrator (PMA Financial Network, Inc.), the Distributor (PMA Securities, Inc.) or the Fixed Rate Program Providers, PMA Financial Network, Inc. and PMA Securities, Inc., and the Custodian, U.S. Bank National Association, ("Service Providers") and/or their successors.

WHEREAS, this Board deems it advisable for this municipality to enter into the Declaration of Trust and become a Participant of the Fund for the purpose of joint investment with other municipalities so as to enhance the investment earnings accruing to each; now, therefore BE IT RESOLVED AS FOLLOWS:

Section 1. This municipality shall become a Participant of the Fund and adopt and enter into the Declaration of Trust, a copy of which shall be filed in the minutes of this meeting. The appropriate officials are hereby authorized to execute those documents necessary to effectuate entry into the Declaration of Trust and the participation of all Fund programs.

Section 2. This municipality is authorized to invest monies from time to time and to withdraw such monies from time to time in accordance with the provisions of the Declaration of Trust. The following officers of the municipality or their successors are designated as "Authorized Officials" with authority to effectuate investments and withdrawals in accordance with the Declaration of Trust:

| Print Name | Title | Signature |
|------------|-------|-----------|
|------------|-------|-----------|

| Print Name | Title | Signature |
|------------|-------|-----------|
|------------|-------|-----------|

| Print Name | Title | Signature |
|------------|-------|-----------|
|------------|-------|-----------|

(Additional names may be added on a separate list. The treasurer shall advise the Fund of any changes in Authorized Officials in accordance with Fund procedures.)

Section 3. The Trustees of the Fund are designated as having official custody of those monies invested in accordance with the Declaration of Trust.

Section 4. That the municipality may open depository and other accounts, enter into wire transfer agreements, safekeeping agreements, third party surety agreements securing deposits, collateral agreements, letters of credit, lockbox agreements, or other applicable or related documents with institutions participating in Fund programs including U.S. Bank National Association, or its successor, or programs of PMA Financial Network, Inc. or PMA Securities, Inc. for the purpose of transaction clearing and safekeeping, or the purchase of certificates of deposit ("CDs") or other deposit products and that these institutions shall be deemed eligible depositories for the municipality. PMA Financial Network, Inc. and PMA Securities, Inc. and their successors are authorized to act on behalf of this municipality as its agent with respect to such accounts and agreements. Monies of this entity

may be deposited in such depositories, from time to time in the discretion of the Authorized Officials, pursuant to the Fund's Programs available through its Services Providers.

It is hereby certified that the Board of the Riley Purgatory Bluff Creek Watershed District adopted this Resolution at a duly convened meeting of the Board held on the ____ day of _____, 201_, and that such Resolution is in full force and effect on this date, and that such Resolution has not been modified, amended, or rescinded since its adoption.

Secretary to the Board

Dated: _____