



FEBRUARY						
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# RCWD BOARD OF MANAGERS REGULAR MEETING AGENDA

Wednesday, February 25, 2026, 9:00 a.m.

**Mounds View City Hall Council Chambers  
2401 County Road 10, Mounds View, Minnesota  
Virtual Monitoring via Zoom Webinar**

**Join Zoom Webinar:**  
<https://us06web.zoom.us/j/82914591631?pwd=0NcczXuLaFZZ3nC2EqLx0yDxNBHX7l.1>  
**Passcode: 418168**  
**+1 312 626 6799 US (Chicago)**  
**Webinar ID: 829 1459 1631**  
**Passcode: 418168**

## Agenda

### CALL TO ORDER

### OATH OF OFFICE FOR JANET HEGLAND (JOHN KOLB)

### ROLL CALL

### OPEN MIC/PUBLIC COMMENT

*Any RCWD resident may address the Board in his or her individual capacity, for up to three minutes, on any matter not on the agenda. Speakers are requested to come to the podium, state their name and address for the record. Additional comments may be solicited and accepted 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 an upcoming agenda.*

### SETTING OF THE AGENDA

### APPROVAL OF MINUTES: FEBRUARY 9, 2026, WORKSHOP; FEBRUARY 11, 2026, REGULAR MEETING

### CONSENT AGENDA

The following items will be acted upon without discussion in accordance with the staff recommendation and associated documentation unless a Manager or another interested person requests opportunity for discussion:

#### Table of Contents-Permit Applications Requiring Board Action

No.	Applicant	Location	Plan Type	Recommendation
26-001	James & Kathleen Nelson Rehbein Properties	Lino Lakes	Final Site Drainage Plan Land Development Wetland Alteration Floodplain Alteration	CAPROC 10 items

*It was moved by Manager \_\_\_\_\_ and seconded by Manager \_\_\_\_\_, to approve the consent agenda as outlined in the above Table of Contents in accordance with RCWD District Engineer’s Findings and Recommendations, dated February 17, 2026.*

**PUBLIC HEARING: ANOKA COUNTY DITCH 55 (ACD55) DRAINAGE SYSTEM  
PARTIAL TRANSFER PETITION**

**ITEMS REQUIRING BOARD ACTION**

1. Manager Hegland RCWD Officer Assignment (Nick Tomczik)
2. 2026 Agreement for Carp Management Services (Matt Kocian)
3. 2026 Curlyleaf Pondweed Management (Matt Kocian)
4. 2026 Stormwater Management Grant Program Applications - Recommendation (Will Roach)
5. RCWD Lobbying Efforts - Update (David Petry)
6. 2025 Financial Report – Metro Shooting / Trost Settlements (Nick Tomczik)
7. Check Register Dated February 25, 2026, in the Amount of \$375,908.54 and February Interim Financial Statements Prepared by Redpath and Company

**ITEMS FOR DISCUSSION AND INFORMATION**

1. Staff Reports
2. March Calendar
3. Administrator Updates
4. Manager Updates

**OATH OF OFFICE FOR JANET HEGLAND (JOHN KOLB)**

RICE CREEK WATERSHED DISTRICT  
BOARD OF MANAGER'S OATH OF OFFICE  
JANET HEGLAND

I, Janet Hegland, having been appointed by the Anoka County, Minnesota Board of Commissioners, a manager of the Rice Creek Watershed District, do hereby swear or affirm to support the constitutions of the United States and the State of Minnesota and to discharge faithfully the duties of watershed district manager, according to law and to the best of my judgment and ability, my appointment commencing February 17, 2026, and expiring January 17, 2028, or as soon thereafter as the Anoka County Board of Commissioners makes a new appointment for my position on the Board.

This 25<sup>th</sup> day of February, 2026 \_\_\_\_\_  
Janet Hegland

Witnessed this 25<sup>th</sup> day of February, 2026, by the Board of Managers of the Rice Creek Watershed District, at its Regular Meeting at the Mounds View City Council Chambers in Mounds View, Minnesota.

RICE CREEK WATERSHED DISTRICT

\_\_\_\_\_  
Jess Robertson, Its Secretary

cc: Official File  
County Auditor/Administrator  
Board of Water and Soil Resources

**APPROVAL OF MINUTES: FEBRUARY 9, 2026, WORKSHOP;  
FEBRUARY 11, 2026, REGULAR MEETING**

DRAFT

## RCWD BOARD OF MANAGERS WORKSHOP

Monday, February 9, 2026

Rice Creek Watershed District Conference Room  
4325 Pheasant Ridge Drive NE, Suite 611, Blaine, Minnesota  
and

Meeting also conducted by alternative means  
(teleconference or video-teleconference) from remote locations

1 The Board convened the workshop at 9:00 a.m.

2 Attendance: Jess Robertson, John Waller, Marcie Weinandt

3 Absent: Mike Bradley (with prior notice)

4 Staff: Administrator Nick Tomczik, Drainage & Facilities Manager Tom Schmidt,  
5 Project Manager David Petry, Program Support Technician Emmet Hurley

6 Consultants: District Engineer Chris Otterness-Houston Engineering Inc., District Attorney  
7 John Kolb-Rinke Noonan

8 Visitors: Molly Jansen-Park Street Public

9

### 10 Rice Creek Watershed District Lobbying Efforts

11 District Administrator Tomczik discussed the current status of the Jones Lake project and  
12 lobbying efforts for the \$8 million project, noting that many state grants require a 50% match. As  
13 a part of this effort, the Board considered a proposal from Molly Jansen, a lobbyist for Park Street  
14 Public. Molly Jansen discussed their lobbying services and explained the role of a lobbyist as an  
15 advocate, or “the eyes and ears,” at the Capitol.

16 The Board discussed her proposal, current lobbying efforts, cost, and potential for a bonding bill.  
17 The Board by majority consensus agreed it wasn’t the right time to hire a lobbyist.

18

### 19 Anoka County Ditch 55 Transfer Petition Cost Apportionment

20 Drainage & Facilities Manager Schmidt stated that the District has accepted the City of Lino Lakes  
21 petition for partial drainage system transfer of ACD 55 Branch #8 and has initiated the  
22 proceedings.

23 Staff explained that Minnesota Statutes requires the petitioner to cover these costs. The Board  
24 by consensus agreed that the City should cover the costs associated with the petition per state  
25 statute.

26

### 27 Administrator Updates

- 28 • Administrator Tomczik provided a 2027 budget schedule to the Board.
- 29 • Administrator Tomczik continues to review MNPFL plan options for 2027 including private
- 30 options.
- 31 • A plaque was created/purchased for Steve Wagamon to recognize him for his years of
- 32 service as a board member. Staff will engage Mr. Wagamon to deliver it to him; the Board
- 33 may direct staff on anything further.

34

35 The workshop was adjourned at 10:14 a.m.

36

# DRAFT

1  
2 For Consideration of Approval at the February 25, 2026 Board Meeting.  
3 Use these minutes only for reference until that time.  
4

## REGULAR MEETING OF THE RCWD BOARD OF MANAGERS

Wednesday, February 11, 2026

Mounds View City Hall Council Chambers  
2401 County Road 10, Mounds View, Minnesota  
and  
Meeting also conducted by alternative means  
(teleconference or video-teleconference) from remote locations

## Minutes

### CALL TO ORDER

1st Vice-Pres. John Waller called the meeting to order, a quorum being present, at 9:00 a.m.

### ROLL CALL

Present: 1st Vice-Pres. John Waller, Treasurer Marcie Weinandt, and Secretary Jess Robertson

Absent: President Michael Bradley (with prior notice)

Staff Present: Administrator Nick Tomczik, Regulatory Manager Patrick Hughes, Outreach & Grant Technician Molly Nelson, Watershed Technician/Inspector Will Roach, Project Manager David Petry, Program Technician Emmet Hurley (video-conference), Office Manager Theresa Stasica

Consultants: District Engineer Chris Otterness (video-conference) from Houston Engineering, Inc. (HEI) & District Attorney John Kolb-Rinke Noonan

Visitors: Tom Wesolowski-City of Shoreview, Brian Ludwig, David Swearingen-City of Arden Hills, Tim Payne-City of Lino Lakes

### OPEN MIC/PUBLIC COMMENT

### SETTING OF THE AGENDA

*Motion by Manager Weinandt, seconded by Manager Robertson, to approve the agenda as presented. Motion carried 3-0.*

### READING OF THE MINUTES AND THEIR APPROVAL

*Minutes of the January 28, 2026, Board of Managers Regular Meeting. Motion by Manager Robertson, seconded by Manager Weinandt, to approve the minutes as presented. Motion carried 3-0.*

**CONSENT AGENDA**

The following items will be acted upon without discussion in accordance with the staff recommendation and associated documentation unless a Manager or another interested person requests an opportunity for discussion:

**Table of Contents-Permit Applications Requiring Board Action**

No.	Applicant	Location	Plan Type	Recommendation
25-123	Lexington Meadows, LLC	Blaine	Final Site Drainage Plan	CAPROC 8 items

*It was moved by Manager Waller and seconded by Manager Robertson, to approve the consent agenda as outlined in the above Table of Contents in accordance with RCWD District Engineer’s Findings and Recommendations, dated February 4, 2026. Motion carried 3-0.*

**Water Quality Grant Program Cost Share Application**

No.	Applicant	Location	Project Type	Eligible Total Project Cost	Pollutant Reduction	Funding Recommendation
R26-01	Scott Barnes	1472 County Road C2 W, Roseville	Raingarden & Porous Pavers	\$19,939.75	Vol: 3,695 Cu-ft/yr TSS: 70.76 Lbs./yr TP: 0.28 lbs./yr	Cost share of \$9,969.87 not to exceed 50% of total eligible cost; or \$10,000, whichever cost is lower.
R26-02	White Bear Township	W Bald Eagle Blvd & St. Anthony Ave	Shoreline Stabilization & Restoration	\$16,390.00	Vol: 3,931 Cu-ft/yr TSS: 1,614.83 Lbs./yr TP: 0.92 lbs./yr	Cost share of \$8,195.00 not to exceed 50% of total eligible cost; or \$10,000, whichever cost is lower.

Outreach & Grant Technician Nelson gave a brief overview of the proposed projects as part of the Water Quality Grant cost-sharing program.

*It was moved by Manager Weinandt and seconded by Manager Robertson, to approve the consent agenda as outlined in the above Table of Contents in accordance with RCWD Outreach and Grants Technician’s Recommendations, dated February 3rd, 2026. Motion carried 3-0.*

**PUBLIC HEARING: 2026 STORMWATER MANAGEMENT GRANT PROGRAM**

1st Vice-Pres. Waller recessed the regular Board meeting and opened the public hearing on the Rice Creek Watershed District’s proposed selection of projects for funding through the District’s Stormwater Management Grant Program. The public hearing was noticed in accordance with state law.

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1st Vice-Pres. Waller stated the purpose of this hearing was to receive comments from the public on the projects that the Board is considering for cost-share assistance in the Cities of Arden Hills, Shoreview, New Brighton, and Lino Lakes. Before the District can provide funds for the capital work of these applicants, state law requires that the board of managers hold a public hearing, receive public comments, and make a judgment that each selected project is a sound and cost-effective project to help fulfill our water resource goals.

1st Vice-Pres. Waller turned the meeting over to Watershed Technician/Inspector Roach.

Watershed Technician/Inspector Roach reviewed the 2026 Stormwater Management Grant Program goals and guidelines. He noted the District received six applications from four different applicants for funding through its 2026 Stormwater Management Grant program.

Watershed Technician/Inspector Roach provided a presentation and answered questions regarding the six applications:

Arden Hills – 2026 PMP Street & Utility Improvements (Karth Pond)

This project proposes to construct a stormwater pond to provide water quality treatment by reducing sediment and phosphorus reduction prior to runoff entering Karth Lake. The target waterbody is both Karth Lake and Valentine Lake. The total estimated project cost is \$174,582, and the request is for \$87,291.50. The project benefit would be annual removal of 1,596.8 pounds of total suspended solids (TSS) and 5.211 pounds of total phosphorus (TS).

Arden Hills – 2026 PMP Street & Utility Improvements (Karth SAFLs)

This project proposed the installation of two sump storm sewer structures with SAFL baffles on Karth Lake Circle and Karth Lake Drive for the targeted waterbodies of Karth Lake, Valentine Lake, and the adjacent wetland. The estimated project cost is \$61,105, and the request is for \$30,552.50. The projected water quality benefits are the annual removal of 514.12 pounds of TSS to Karth Lake and 1,616.76 pounds of TSS to the wetland area.

Lino Lakes – Regenerative Air Sweeper & Enhanced Street Sweeping

This project proposes purchasing a regenerative air sweeper to initiate an enhanced sweeping program with the area of focus including subdivisions with fully developed tree canopies, areas where storm sewer discharges to receiving bodies without treatment, and areas that have a combination of both, which totals 28.2 miles. The targeted waterbodies are the Rice Creek chain of lakes, including Peltier, Baldwin, Bald Eagle, and others. The estimated project costs are \$425,000, and the request is for \$100,000, with the projected water quality benefit to be the annual removal of 1,987 pounds of TP.

New Brighton – Knollwood Pond Overflow

97 This project proposed a flood control project that would provide a primary means of protection  
 98 to an existing pond that does not allow for adequate low-floor protection to adjacent properties  
 99 during rainfall events for the targeted waterbodies of Rice Creek/Knollwood Pond. The  
 100 estimated total project cost is \$250,000, and the grant request is for \$100,000. The projected  
 101 flood control benefit would be a reduction in 100 year high water level of 887.93 to 887.15.  
 102

103 Shoreview- Target Pond Improvements

104 This project proposes the conversion of an existing sand filter into an iron-enhanced sand filter  
 105 to improve the scope of water quality treatment for Valentine Lake. The estimated project  
 106 cost is \$163,545, and the grant fund request is for \$81,722.50. The projected water quality  
 107 benefit would be the annual removal of 6.4 pounds of TP.  
 108

109 Shoreview – 2026 Storm Improvements

110 This project proposes to replace the existing roadway asphalt with permeable pavers to allow  
 111 water to infiltrate through the underlying material and reduce runoff to Island Lake. The  
 112 estimated total project cost is \$570,000, and the request is for \$100,000. The projected water  
 113 quality benefit would be 10,300 cubic feet of stormwater storage and a reduction in TP loading  
 114 to Island Lake.  
 115

116 Watershed Technician/Inspector Roach explained that each application had been reviewed by District staff,  
 117 the District Engineer, as well as the Citizen Advisory Committee (CAC), and scored and ranked according to  
 118 a weighted average. He stated that Lino Lakes received a score of 92.6; Arden Hills Karth Pond received a  
 119 score of 82.5; Shoreview Pervious Pavers received a score of 82.3; Shoreview ISEF Pond and Arden Hills  
 120 Karth SAFL received a score of 81.6; and New Brighton Knollwood Pond received a score of 63.2. He briefly  
 121 reviewed the funding recommendations for each request, including: Lino Lakes - \$100,000; Arden Hills  
 122 PMP street and utility improvements for Karth Pond - \$89,447.50; Shoreview pond improvements -  
 123 \$75,000; Arden Hills PMP street and utility improvements – Karth SAFL - \$30,552.50; Shoreview storm  
 124 improvements - \$75,000; New Brighton - \$50,000.  
 125

126 Manager Weinandt noted that she and Manager Waller attended the CAC meeting and reviewed the  
 127 applications along with them. She stated that relating to Karth Lake, she believed it had been  
 128 communicated that it was a closed watershed and asked if it was a built outlet to Valentine Lake.  
 129

130 Project Manager Petry explained that the city of Arden Hills was looking to take on a project to retrofit its  
 131 pumping operations. He stated that currently, when the lake fills up, the City, with a permit from the DNR,  
 132 will periodically go out and pump the lake down to Valentine Lake. He noted that it was all part of a larger  
 133 project for them.  
 134

135 David Swearingen, Public Works Director/City Engineer for the City of Arden Hills, gave an overview of their  
 136 plans for a larger 2026 PMP street and utility project.  
 137

138 Brian Ludwig, 2605 County Road H, New Brighton, shared some of his concerns with runoff and noted that  
139 it seems like Knollwood pond system just doesn't work anymore. He stated that the problems started  
140 around 2017, and he would like something to be done about this issue. He noted that there had not been  
141 maintenance done, so he assumes some of the issues could just be sediment and debris that are making  
142 the overall system not work anymore. He stated that he had photographs on his phone that would help  
143 explain what had been happening.

144  
145 1<sup>st</sup> Vice-President Waller asked Mr. Ludwig to share the photographs with District Administrator Tomczik  
146 following the meeting.

147  
148 1st Vice-Pres. Waller stated board action to select projects for funding is tentatively scheduled for the  
149 February 25, 2026, regular board meeting. He closed the public hearing and reconvened the regular board  
150 meeting.

151  
152 District Administrator Tomczik noted that if the Board had any input regarding the proposed funding of the  
153 projects would be helpful for staff before the next Board meeting.

154  
155 Manager Weinandt noted that the Board had increased the yearly budget for this grant by \$100,000 and  
156 felt that the applications showed that there continued to be a need and interest from the city partners. She  
157 stated that she would like to see all of the projects receive some funding and suggested that staff contact  
158 the cities and see if their projects would still be doable with the recommended funding levels.

159  
160 Manager Robertson stated that the recommended funding level information was not included in the packet,  
161 which would have been helpful for any potential discussion. She suggested that the better place to discuss  
162 that information may be at a workshop, so they had time to digest the information shared by staff regarding  
163 the scoring and the recommended funding levels, and also allow President Bradley to share his input.

164  
165 District Administrator stated that staff's shared funding levels are based on the Board's program structure  
166 and the Board can hold their full discussion on this item at their next meeting.

167  
168 Manager Robertson stated that when the Board discusses this, she would also like to hear about the  
169 byproducts of the flooding concerns shared by Mr. Ludwig during the public hearing.

170

171 **ITEMS REQUIRING BOARD ACTION**

172 **1. Annual Designation of Depository and Newspaper**

173 District Administrator Tomczik explained that the designation of the official depository and  
174 newspaper was an annual requirement. He noted that staff were recommending that the District  
175 continue with their current depository and newspaper. He explained that when it was appropriate  
176 and would serve a public benefit, the District also publishes legal notices in some of the smaller  
177 circulatory papers.

178

179 ***Motion by Manager Weinandt, seconded by Manager Robertson, to designate PMA Financial***  
 180 ***Network, LLC. administering the 4M Fund with US Bank as the financial institution as the official***  
 181 ***depository, and St. Paul Pioneer Press, as the official newspaper of the Rice Creek Watershed***  
 182 ***District. Motion carried 3-0.***  
 183

184 **2. Jones Lake Outlet Modification, Dredging, and Restoration Project – Environmental Assessment**  
 185 **Worksheet (EAW) Findings of Fact**

186 Project Manager Petry reviewed the Jones Lake Outlet modification, dredging, and restoration  
 187 project related to the EAW and findings of fact and the comments received from the MN  
 188 Department of Health, the Met Council, MN Pollution Control Agency, and the DNR. He stated that  
 189 staff was recommending that the Board adopt the Negative Environmental Impact Statement  
 190 Declaration, Findings of Fact, and Conclusions of Law and Order. He noted that District Engineer  
 191 Otterness was ill and wasn't able to attend today's meeting in person, but was available online to  
 192 walk through the comments.  
 193

194 District Engineer Otterness briefly reviewed the comments that the District had received and the  
 195 responses prepared by Houston Engineering.  
 196

197 Manager Weinandt asked if District Engineer Otterness was surprised by the comments submitted  
 198 by the DNR.  
 199

200 District Engineer Otterness noted that the only surprise was that there were a number of things  
 201 that had already been discussed with other DNR staff members.  
 202

203 District Attorney Kolb stated that there is criteria within the Environmental Quality Board  
 204 regulations that he felt was specifically relevant to the DNR comments, which is that they may  
 205 consider the extent to which the environmental effects are subject to mitigation by ongoing public  
 206 regulatory authority. He explained that staff concluded that the majority of substantive  
 207 comments are subject to subsequent regulation.  
 208

209 ***Motion by Manager Waller, seconded by Manager Weinandt, to adopt the Jones Lake Outlet***  
 210 ***Modification, Dredging, and Restoration Project Negative Environmental Impact Statement***  
 211 ***Declaration, Findings of Fact, and Conclusions of Law and Order, and authorize the Administrator***  
 212 ***and Board President to execute the Order. Motion carried 3-0.***  
 213

214 **3. Memorials to RCWD**

215 District Administrator Tomczik stated that the District was informed of the passing of Gary  
 216 Krejcarek, who was a former member of the CAC. He noted that Mr. Krejcarek's obituary  
 217 included the opportunity for those grieving his passing to issue memorials to the Rice Creek  
 218 Watershed District and outlined the proposed process for such donations.  
 219

220 **Motion by Manager Waller, seconded by Manager Weinandt, to adopt Resolution 2026-02**  
221 **Krejcarek Memorial Donations:**

222 **THEREFORE**, the Board authorizes receipt and deposit of such funds; and

223 **FURTHER**, at such later date as a full accounting of donated funds is possible, the Board directs its  
224 Treasurer and staff to provide a final accounting for approval by the Board, and

225 **FURTHER**, unless conditioned upon a specific use furthering the public purposes of the Watershed  
226 District, the Board shall, at the time of final accounting, designate how such funds shall be used.

227 **ROLL CALL:**

228 **Manager Bradley – Absent**

229 **Manager Robertson – Aye**

230 **Manager Waller – Aye**

231 **Manager Weinandt – Aye**

232 **Motion carried 3-0.**

233

234 **4. Check Register Dated February 11, 2026, in the Amount of \$252,912.98, Prepared by Redpath and**  
235 **Company**

236

237 **Motion by Manager Weinandt, seconded by Manager Robertson, to approve the check register**  
238 **dated February 11, 2026, in the Amount of \$252,912.98 prepared by Redpath and Company.**

239 **Motion carried 3-0.**

240

241 **ITEMS FOR DISCUSSION AND INFORMATION**

242 **1. District Engineer Updates and Timeline**

243

244 **2. Administrator Updates**

245 District Administrator Tomczik stated that the City-County Partner meeting was held on February  
246 10, 2026, which was well attended. He noted that the Board had considered the District’s lobbying  
247 efforts at their workshop meeting on Monday. He explained that they had reviewed the Park  
248 Street proposal, and the consensus was not to proceed with it. He noted that he had been  
249 contacted by a staff member from the City of New Brighton who asked if the Board would be willing  
250 to reconsider a lobbyist if the cities helped pay for the lobbying efforts. He noted that after he got  
251 the message from the City of New Brighton, he had reached out to the City of Roseville, which also  
252 indicated a willingness to bring this before their city council. He reminded the Board that he was  
253 sharing this as an informational item and explained that staff would see what the cities may bring  
254 forth. He stated that the regulatory program is undertaking some outreach efforts and asked  
255 Regulatory Manager Hughes to share some details with the Board.

256

257 Regulatory Manager Hughes stated that in 2 weeks, they will host an outreach event for folks who  
258 have gone through the permit process before and other general partners/stakeholders. He stated  
259 that they would like to get feedback on what people value about water resources, what they are  
260 concerned about, and how that ties into the District's regulatory program.

261  
262 Manager Weinandt asked what feedback Regulatory Manager Hughes had gotten from the City-  
263 County partner meeting, and asked if they had included the CAC in their invitations to this outreach  
264 event.

265  
266 Regulatory Manager Hughes stated that he had not received any direct feedback from the City-  
267 County partner meeting, but many of the folks in attendance at that meeting will also be coming to  
268 the outreach event.

269  
270 District Administrator Tomczik stated that they could engage the CAC for this event, but clarified  
271 that staff were technically looking for entities that have gone through the process. He noted that  
272 he had just found out that the Minnesota Watersheds Summer Tour is scheduled for August 26,  
273 2026, conflicting with the board's meeting schedule and noted that this may result in the need to  
274 change that and the budget schedule a bit.

275  
276 **3. Manager Updates**

277 Manager Weinandt complimented staff on what she felt was a very successful City-County Partner  
278 meeting. She reiterated that she and Manager Waller attended the CAC meeting and appreciated  
279 the CAC's intent to advise the Board. She noted that the CAC has requested that if the Board has  
280 something that they want the CAC to take a closer look at or garner community feedback, they do  
281 so.

282  
283 1<sup>st</sup> Vice-President Waller at the Washington County Consortium meeting, there was a presentation  
284 regarding rainwater falls and their intensity, and he felt it was important to look into. He shared  
285 information from the District's plan dated July 1974 and noted that at the last Board meeting, his  
286 misspoke and clarified that the lake he mentioned with salt problems he was referring to was  
287 actually Marshan Lake, which is on the 10-22-32 system.

288  
289 **ADJOURNMENT**

290 ***Motion by Manager Robertson, seconded by Manager Weinandt, to adjourn the meeting at 10:20 a.m.***  
291 ***Motion carried 3-0.***

292

# CONSENT AGENDA

The following items will be acted upon without discussion in accordance with the staff recommendation and associated documentation unless a Manager or another interested person requests opportunity for discussion:

## Table of Contents-Permit Applications Requiring Board Action

No.	Applicant	Location	Plan Type	Recommendation
26-001	James & Kathleen Nelson Rehbein Properties	Lino Lakes	Final Site Drainage Plan Land Development Wetland Alteration Floodplain Alteration	CAPROC 10 items

*It was moved by Manager \_\_\_\_\_ and seconded by Manager \_\_\_\_\_, to approve the consent agenda as outlined in the above Table of Contents in accordance with RCWD District Engineer's Findings and Recommendations, dated February 17, 2026.*

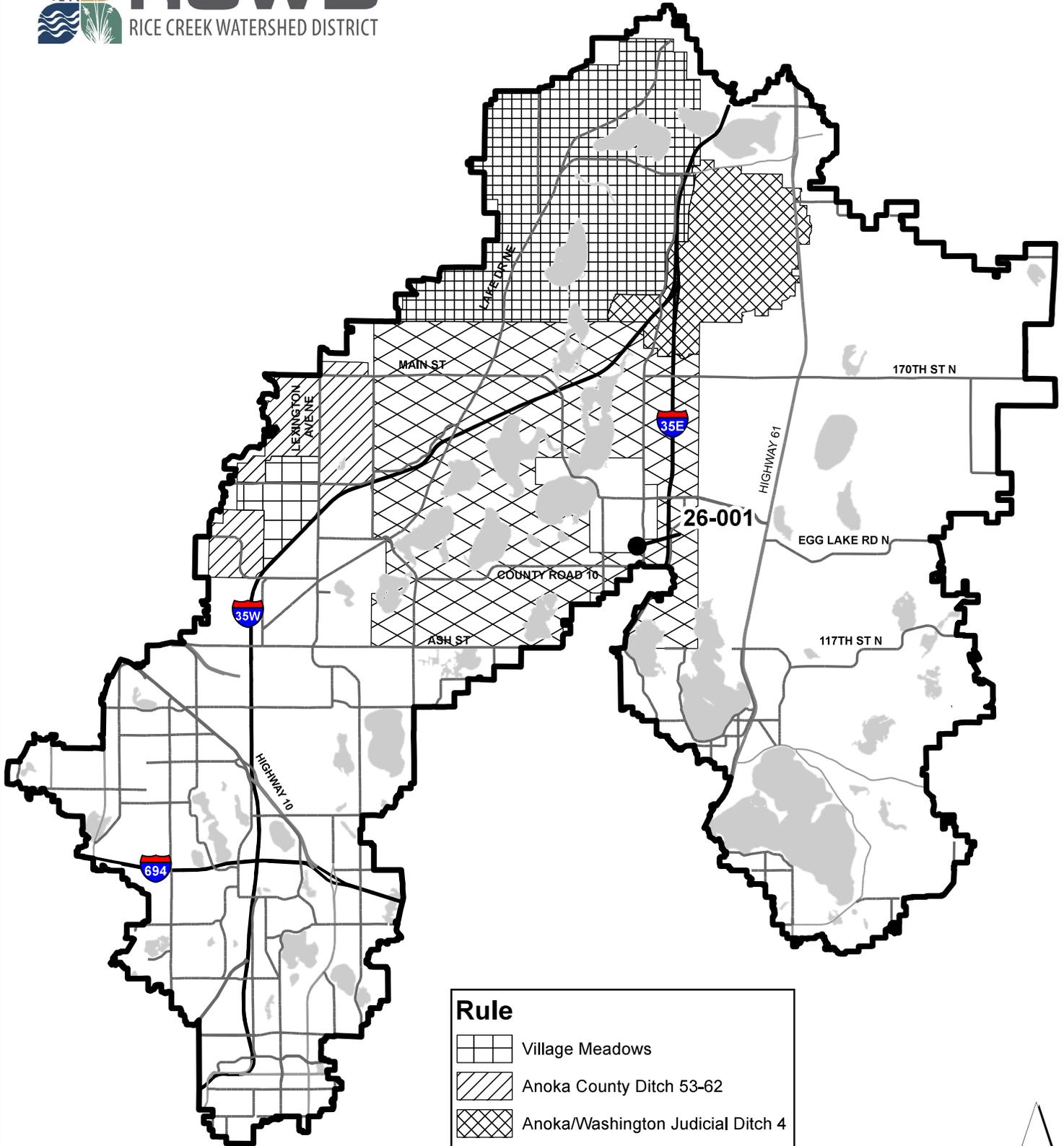
**RICE CREEK WATERSHED DISTRICT  
CONSENT AGENDA**

**February 25, 2026**

It was moved by \_\_\_\_\_ and seconded by \_\_\_\_\_  
\_\_\_\_\_ to Approve, Conditionally Approve Pending Receipt  
Of Changes, or Deny, the Permit Application noted in the following Table of Contents, in  
accordance with the District Engineer’s Findings and Recommendations, as contained in  
the Engineer’s Findings and Recommendations, as contained in the Engineer’s Reports  
dated February 17, 2026.

**TABLE OF CONTENTS**

<b>Permit Application Number</b>	<b>Applicant</b>	<b>Page</b>	<b>Recommendation</b>
Permit Location Map		18	
26-001	James & Kathleen Nelson Rehbein Properties	19	CAPROC



Rule	
	Village Meadows
	Anoka County Ditch 53-62
	Anoka/Washington Judicial Ditch 4
	Lino Lakes CWPMP
	Columbus CWPMP

**Permit Reviews**  
**02/25/2026 Agenda**





WORKING DOCUMENT: This Engineer's report is a draft or working document of RCWD staff and does not necessarily reflect action by the RCWD Board of Managers.

Permit Application Number:

26-001

Permit Application Name:

Harvest Grange

---

Applicant/Landowner:

James R. & Kathleen M. Nelson  
6747 20th Ave  
Hugo, MN 55038  
Ph: 651-230-8331  
jrngi3@msn.com

Permit Contact:

TLCD Land Holdings LLC  
Attn: Ben Schmidt & Christine Cook  
4800 Olson Memorial Highway, Suite 100  
Golden Valley, MN 55422  
Ph: 612-710-0685  
ben@tclanddev.com/ christine@tclanddev.com

Rehbein Properties  
Attn: Matt & Rick Rehbein  
PO Box 368  
Hugo, MN 55038  
Ph: 651-426-0896  
matt@rehbeinag.com/rehbeinag@me.com

Carlson Engineering  
Attn: Justin Olson  
3890 Pheasant Ridge Drive NE Suite 100  
Blaine, MN 55449  
Ph: 763-489-7942  
jolson@carlson-engineering.com

Project Name: Harvest Grange

Purpose: FSD – Final Site Drainage, LD – Land Development, WA – Wetland Alteration, FA – Floodplain Alteration; Construction of a residential development including single-family and townhomes with corresponding streets, utilities, and stormwater ponds

Site Size: 24.98± acre parcel / 22.13 ± acres of disturbed area; existing and proposed impervious areas are 0.71 ± acres and 8.28 ± acres, respectively

Location: 6747 20th Ave, Lino Lakes, MN

T-R-S: NE ¼, Section 26, T31N, R22W

District Rule: C, D, E, F

---

Recommendation: CAPROC

It is recommended that this Permit Application be given Conditional Approval Pending Receipt of Changes (CAPROC) and outstanding items related to the following items:

Conditions to be Met Before Permit Issuance:

Rule C - Stormwater

1. Per Rule C.9(g), for basin 500 and borrow area 11, the applicant must have permanent stabilization prior to discharge into the wetland. Additionally, since basins are used for rate control, the applicant must add detail to plans to match the HydroCAD model.

Rule D – Erosion and Sediment Control

2. Submit the following information per Rule D.4:

- (c) Name, address and phone number of party responsible for maintenance of all erosion and sediment control measures.
- (h) Provide documentation that an NPDES Permit has been applied for and submitted to the Minnesota Pollution Control Agency (MPCA).

Rule F – Wetland Alteration

- 3. Applicant must provide shape file of wetland boundaries; a condition of approval of the type and boundary delineation.
- 4. Applicant must provide a “Standard Credit Withdrawal Form”, which is signed by the bank user and the bank seller
- 5. The applicant must provide proof of BWSR debiting wetland bank for the correct amount and type of wetland credit.

Administrative

- 6. Email one final, signed full-sized pdf of the construction plan set. Include a list of changes that have been made since approval by the RCWD Board. Final plans must include the following:
  - Ensure the bottom contour of Pond 200 is labeled correctly.
- 7. Submit a copy of the recorded plat or easements establishing drainage or flowage over stormwater management facilities, stormwater conveyances, ponds, wetlands, on-site floodplain up to the 100-year flood elevation, or any other hydrologic feature (if easements are required by the City of Lino Lakes).
- 8. The applicant must submit a Draft Declaration for Maintenance of Stormwater Management Facilities acceptable to the District for proposed onsite stormwater management and pretreatment features.
- 9. The applicant must provide an attested copy of any and all signed and notarized legal document(s) from the County Recorder. Applicant may wish to contact the County Recorder to determine recordation requirements prior to recordation.
- 10. The applicant must submit a surety of \$45,350 along with an original executed escrow agreement acceptable to the District. If the applicant desires an original copy for their records, then two original signed escrow agreements should be submitted. The applicant must provide the first \$5000 in the form of a check and has the option of providing the remainder of the surety amount in the form of a check or a Performance Bond or Letter of Credit. The surety is based on \$8,500 for 22.13 acres of disturbance, \$16,100 for 32,234 CF of storm water treatment, and \$20,750 for 2,764 CY of floodplain mitigation.

Stipulations: The permit will be issued with the following stipulations as conditions of the permit. By accepting the permit, applicant agrees to these stipulations:

- 1. Provide an as-built survey of all stormwater BMPs (ponds, rain gardens, trenches, swales, etc.) to the District for verification of compliance with the approved plans before return of the surety
- 2. Provide an as-built survey and computation of the floodplain fill and mitigation storage areas and volume for verification of compliance with the approved plans before return of the surety
- 3. Provide an as-built survey of wetland boundaries, quantifying the wetland impact area for verification of compliance with the approved plans

Exhibits:

1. Plan set containing 20 sheets dated 01-02-2026 and received 01-05-2026.
2. Revised floodplain mitigation summary received 02-05-2026.
3. Permit applications, dated 01-05-2026 and received 01-05-2026
4. Stormwater Calculations, dated 01-02-2026 and received 01-05-2026, containing narrative, drainage maps, HydroCAD report for the 2-year, 10-year, and 100-year rainfall events for proposed and existing conditions. Geotechnical information dated 12-26-2025 and received 01-05-2026.
5. SWPPP dated 01-02-2026 and received 01-05-2026
6. Review files 21-291R and 25-058R

Findings:

1. Description – The project proposes to demolish an existing house and garage and construct 31 new single-family homes and 55 shared wall multi-family units with corresponding streets, utilities, and stormwater management on a 24.98± acre parcel located in Lino Lakes, MN. The project will increase the impervious area from 0.71± acres to 8.28± acres and disturb 22.13± acres overall. The proposed site drainage will be routed to one of two wet sedimentation ponds before flowing off-site through a private drainage ditch. The private ditch ultimately drains to Clearwater Creek, which outlets to Peltier Lake, the Resource of Concern. The applicant has submitted a \$5,400 application fee for a Rule C permit creating 5 or more acres of new and/or reconstructed impervious surface.
2. Stormwater – The applicant is proposing the BMPs as described below for the project:

Proposed BMP Description	Location	NURP requirement	Volume provided	EOF
Stormwater (NURP) Pond 100	Northern property line	1.23 ac-ft	5.68 ac-ft	902.2
Stormwater (NURP) Pond 200	Northern property line	0.59 ac-ft	1.69 ac-ft	902.2
Borrow Area 11	Southwest corner of parcel	For rate control only		
Basin 500	Southeast corner of parcel	For rate control only		

Soils on site are primarily HSG D consisting of clayey sand (SC) and sandy lean clay (CL). Thus, infiltration is not considered feasible and NURP ponds are acceptable to meet the water quality requirement. The new/reconstructed area is 8.08± acres. Per Rule C.6(c)(1), the Water Quality requirement is governed by the NURP sizing requirement of run-off volume from the 2.5-inch rainfall event over the contributing area to the pond.

The pond sizing, outlets and overflows are consistent with the design criteria of Rule C.9(d). The applicant has treated 93% of the required impervious area. Additional TSS removal is not practicable. Otherwise, the applicant has met all the Water Quality requirements of Rule C.6 and the design criteria of Rule C.9(d).

Point of Discharge	2-year (cfs)		10-year (cfs)		100-year (cfs)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
West	9.2	2.7	20.8	6.8	41.1	20.5
North	22.7	10.4	45.6	24.5	90.6	30.7
Totals	30.6	11.8	64.8	28.7	129.	67.1

The project is not located within the Flood Management Zone. The applicant has complied with the rate control requirements of Rule C.7.

The applicant has complied with the freeboard requirements of Rule C.9(h). The project will comply with the bounce and inundation criteria of C.8 (moderately susceptible for wetland 11, and slightly susceptible for all others).

3. Wetlands –Wetlands were delineated under review files 21-291R & 25-084R with boundary decision, issued on 11-24-2021 and 06-10-2025, respectively. Both decisions remain valid.

The project area is located within the Lino Lakes CWPMP boundary; however, no preliminary WMC areas are located in the project area; therefore, Rule F.6(b) requirements do not apply.

A replacement plan application was submitted to the District for 0.8562 acres of proposed wetland impacts. The application was noticed to the TEP on 01-08-2026 and the comment period closed 02-02-2026. The applicant has provided an alternatives analysis, including discussion of impact avoidance, minimization and mitigation. The TEP requested additional information regarding efforts to minimize impact by modifying project configuration on 01-29-2026. Additional information was provided on 2-5-2026. The applicant has addressed all comments and reasonably avoided and minimized wetland impacts to the extent possible.

Impact/Mitigation Table

Wetland Name (Location)	Impact Amount (ac)	Replacement Ratio	Required (ac)
Wetlands 1 & 2	0.1527	1:1	0.1527
Wetland 3-1	0.0062	1:1	0.0062
Wetland 3-2	0.0177	1:1	0.0177
Wetland 3-3	0.0151	1:1	0.0151
Wetland 3-4	0.0171	1:1	0.0171
Wetland 4-S & 4b	0.1598	1:1	0.1598
Wetland 4-N	0.0051	1:1	0.0051
Wetland 7	0.0640	1:1	0.0640
Wetland-8-W	0.3809	1:1	0.3809
Wetland 8-E	0.0012	1:1	0.0012
Wetland 9	0.0048	1:1	0.0048
Wetland 10	0.0208	1.5:1	0.0312
Wetland 11	0.0108	1.5:1	0.0162

Wetland replacement will occur via wetland bank account 1762, in the amount of 0.8720 acres. The wetland bank is within the contributing drainage area of the CWPMP consistent with Rule F 6(d)(5). The applicant must provide the final BWSR withdrawal transaction form and demonstrate final withdrawal from the BWSR Bank.

4. Floodplain – The regulatory floodplain elevation is 901.2 (NAVD88). The applicant is proposing 2,764 cubic yards of floodplain fill and 3,491 cubic yards of floodplain mitigation, resulting in a net increase of floodplain storage of 723 cubic yards. The project complies with Rule E.
5. Erosion Control – Proposed erosion control methods include silt fence, rock construction entrances, inlet protection and rip rap. The project will disturb more than 1 acre; an NPDES permit is required. The SWPPP is located on plan sheet 6. The information listed under the Rule D – Erosion and Sediment Control section above must be submitted. Otherwise, the project complies with RCWD Rule D requirements. The project is within 1 mile of Clearwater Creek which is impaired for nutrients.
6. Regional Conveyances – Rule G is not applicable.
7. Public Drainage Systems – Rule I is not applicable.
8. Documenting Easements and Maintenance Obligations – Applicant must provide a draft maintenance declaration for approval, and a receipt showing recordation of the approved maintenance declaration and the drainage and flowage easements
9. Previous Permit Information – Wetlands were delineated under review files 25-084R and 21-291R. Pre-application information is found under review file 25-047R The development south of the site was permitted under 20-002

I assisted in the preparation of this report under the supervision of the District Engineer.

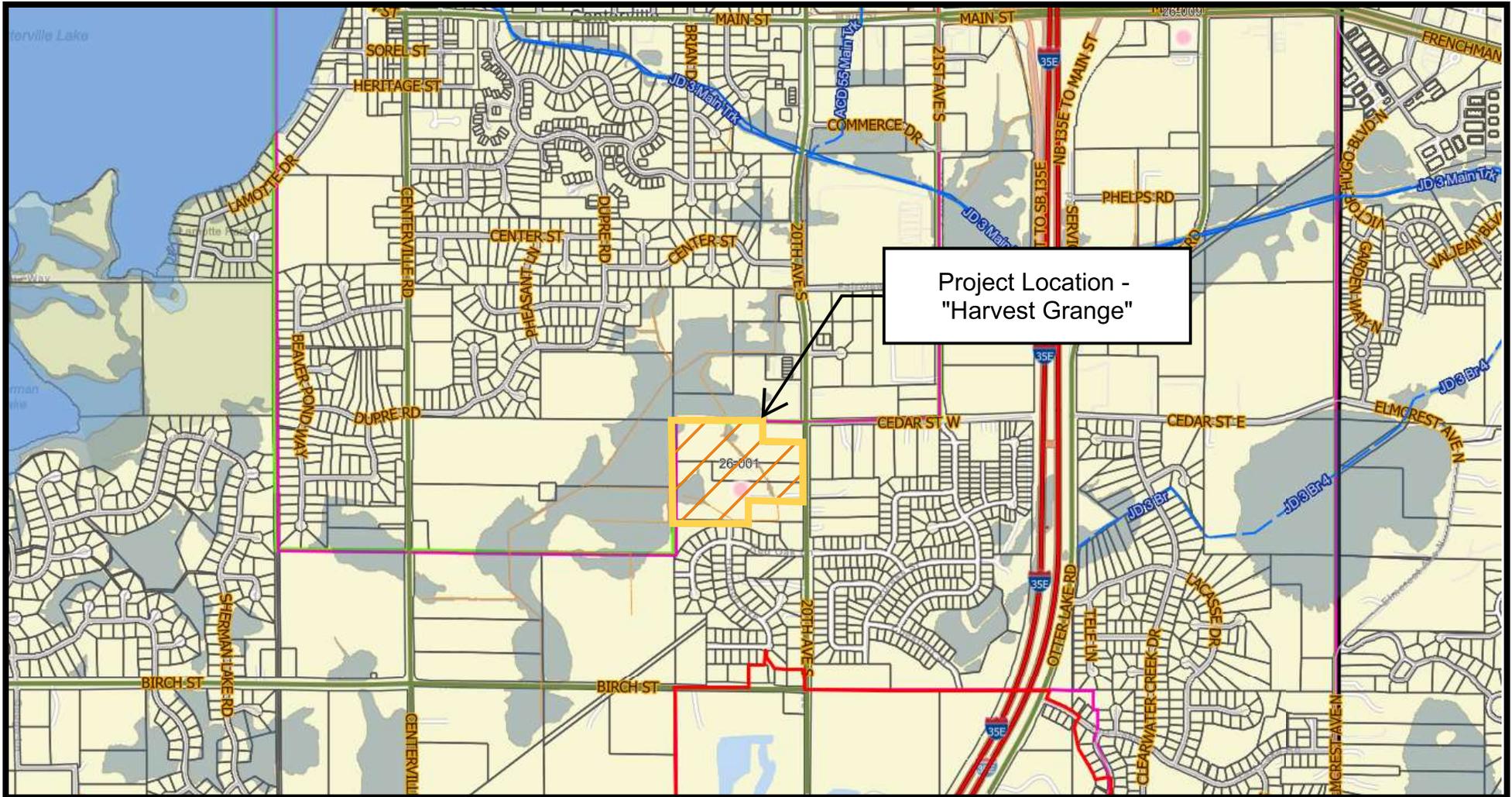
 02/17/2026

Josephine Khan, EIT

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

 02/17/2026

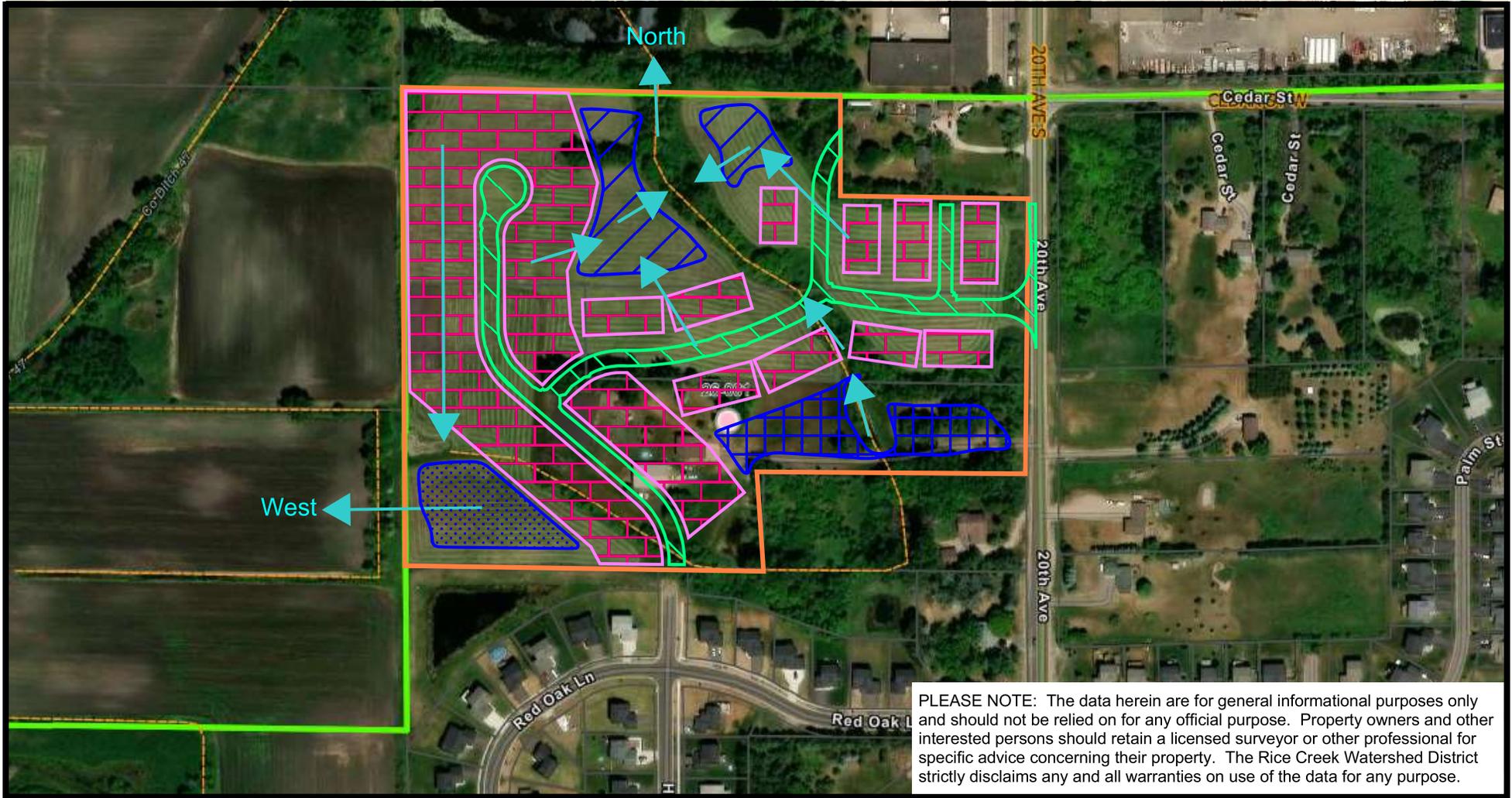
Katherine MacDonald, MN Reg. No 44590



### Legend

- District Boundary
- ~ Public Waterway
- Private Ditch
- Public Ditch - Open Channel
- Project Location

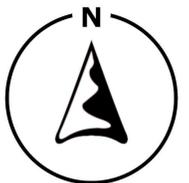




PLEASE NOTE: The data herein are for general informational purposes only and should not be relied on for any official purpose. Property owners and other interested persons should retain a licensed surveyor or other professional for specific advice concerning their property. The Rice Creek Watershed District strictly disclaims any and all warranties on use of the data for any purpose.

### Legend

-  Project Location
-  New Impervious Area
-  Proposed Housing
-  Proposed NURP Pond
-  Borrow Area
-  Basin
-  Drainage Arrow



**PUBLIC HEARING: ANOKA COUNTY DITCH 55 (ACD55) DRAINAGE  
SYSTEM PARTIAL TRANSFER PETITION**

# Technical Memorandum

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**To:** Nick Tomczik, District Administrator  
Rice Creek Watershed District

**Cc:** Tom Schmidt  
John Kolb

**From:** Chris Otterness, PE

**Subject:** Partial Anoka County Ditch 55 Transfer Petition  
to City of Lino Lakes - Engineer's Report

**Date:** January 22, 2026

**Project:** 5555-0082 Phase 012

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



Reg. No. 41961

January 22, 2026

## INTRODUCTION

The City of Lino Lakes (City) submitted a petition to the RCWD as the drainage authority for Anoka County Ditch 55 (ACD 55) to transfer management authority of portions of ACD 55 from RCWD to the City under M.S. 103E.812. The specific portion requested for transfer is Branch 8.

The RCWD Board of Managers appointed Houston Engineering to review the proposed transfer and prepare a report and recommendations for the Board's review and consideration. The purpose of this report is to identify and describe considerations in evaluating whether the petitioned transfer is necessary for the orderly management of storm, surface, or floodwaters, including for water quality purposes.

## CONSIDERATIONS

### ACD 55 Branch 8 Location

The segment of ACD 55 proposed for transfer (Branch 8) lies entirely within the City of Lino Lakes. It generally drains west from the NE quarter of the NE quarter of Section 24, Township 31, Range 22, Anoka County, MN, crosses Interstate 35E, and terminates with its connection to the Main Trunk of ACD 55. The total length of the proposed transfer is approximately 4,600 feet (**Exhibit 1**). In addition to portions of Sections 13 and 24 in Lino Lakes, the tile receives surface water from a portion of the City of Hugo in Washington County. However, all of the benefits allocated in the original establishment of ACD 55 were within Anoka County. There is no record of a redetermination of benefits.

The system is currently 100% drain tile, but due to impending development, the alignment of the system is likely to be changed and its makeup converted from drain tile to urban stormwater infrastructure, including storm sewer, open channel, and ponds.

### **As-Constructed and Subsequently Improved Condition**

The as-constructed and subsequently improved condition (ACSIC) of ACD 55 was detailed in the Houston Engineering, Inc. report *Anoka County Ditch (ACD) 55 Historical Review* dated August 7, 2012. This report identified the alignment, tile size, and grade of each system component, include Branch 8. An excerpt of this report showing the ACSIC grade of Branch 8 is provided in **Exhibit 2**. The ACSIC within this report was adopted as the corrected record of the drainage system on December 12, 2012 via RCWD Resolution 2012-46.

Approximately 3,000 feet of Branch 8 is 10-inches in diameter, with the remaining 1,600 feet consisting of 8-inch tile. The originally constructed tile was of clay construction; however, portions of Branch 8 have been repaired using smooth-wall polyethylene pipe. Branch 8 tile provides a maximum capacity of roughly 0.9 cubic feet per second, though degradation of the tile decreases this efficiency.

The establishment of the drainage system by Anoka County likewise established a right-of-entry (i.e. drainage easement) over the ACD 55 system. The transfer of the system from Anoka County to the RCWD in 1973 likewise transferred this drainage easement. The extent of this established drainage easement is not described within any recorded documents, but is generally considered to be 40 feet centered on the alignment of the tile.

In 2022, an easement was recorded over a portions of Branch 8 a condition of RCWD permit issuance on the property, as follows:

- Document 2346632.001: Parcel 24-32-22-11-0005 in the NE ¼ of the NE ¼ of Section 24, Township 31, Range 22

### **Drainage System Management Authority**

While the RCWD as both a drainage authority and a watershed district has wider-ranging water management authority than the City, those additional authorities are not necessary to provide for the orderly management of the segment of ACD 55 being considered under this petition.

Conversely, the City of Lino Lakes as a municipal water management authority has some additional flexibilities in management not afforded to the RCWD as a M.S. 103E drainage authority. In particular, the City may engage in improvements and other drainage system modifications outside of the M.S. 103E petition process. This flexibility aids in the speed and viability of land development which is impending in the area.

The proposed transfer is consistent with the letter *Ditch Authority Transfer Petition for ACD 55 Branch 8*, dated December 11, 2025 by WSB. This letter identifies the orderly stormwater management practices necessary to accommodate changing land use in locations of the City that

drain to ACD 55 Branch 8. Necessary management includes the replacement of the remaining tile portions of the public drainage system to accommodate the stormwater management infrastructure. The report identifies the need to transfer remaining portions of the tile system, consistent with prior transfers of portions of the system from RCWD to the City, to facilitate the necessary modifications to the system.

### **Urban Stormwater Infrastructure**

The City and/or private developers will likely replace most of the segment in question with urban stormwater infrastructure (storm sewer, open channels, and ponds) to accommodate future development in the area. The design of the new stormwater infrastructure will be in adherence to the Comprehensive Stormwater Management Plan (CSMP) prepared by the City and approved by the RCWD in 2018.

The City is currently responsible for operating and maintaining an extensive amount of storm sewer, ponds and other stormwater infrastructure in its jurisdiction. Because of the City's extensive urban stormwater management program, the City has necessary equipment, staffing, experience, and procedures in place to inspect these systems and promptly address inadequacies. The City's management objectives of their existing storm sewer systems and pond and associated maintenance practices are consistent with the needs of drainage systems managed by RCWD.

Current development plans for this location anticipate redirecting stormwater to an existing City-managed trunk system which drains directly to Peltier Lake (bypassing ACD 55). Until and as that occurs, flows to ACD 55 are physically limited by the capacity of the tile crossings under I-35E. The current ACD 55 Main Trunk tile outlet is sufficiently sized to convey the maximum capacity of the two I-35E tile crossings (Main Trunk and Branch 8).

### **Water Quality**

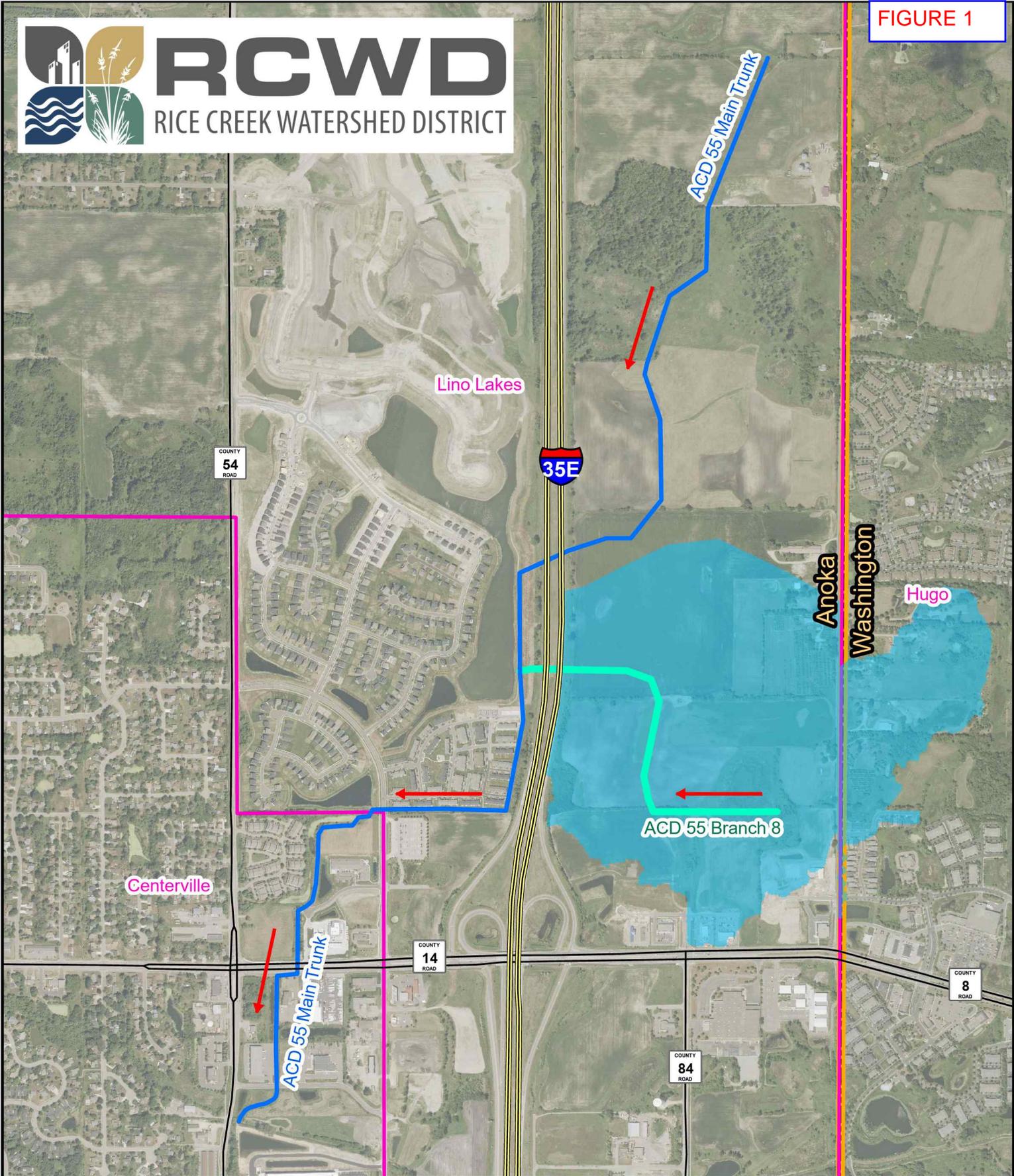
The City is required to follow National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit requirements and limit pollutants entering the storm water conveyance system in their jurisdiction. Given this obligation, the City will adhere to objectives similar to RCWDs for managing the water quality of stormwater runoff. Additionally, the City's obligations and authorities to manage sediment in the future storm sewer ponds along ACD 55 are in alignment with the water quality objectives of the ACD 55 system as a whole.

## **RECOMMENDATIONS**

Due to planned land development, stormwater management and routing will evolve as urbanization occurs. The subsequent infrastructure will be managed by the City of Lino Lakes. As the local land use authority, the City is uniquely situated to manage stormwater during this transition period and upon full build-out, and it is in the interest of benefitting lands that the City by transferred the Branch 8 portion of ACD 55. Therefore, HEI recommends that the RCWD transfer authority for portions of

ACD 55 to the City, specifically Branch 8, as shown on **Exhibit 1**. Additionally, the RCWD should coordinate with the City to transfer easements it holds over transferred portions of the drainage system.

**FIGURE 1**



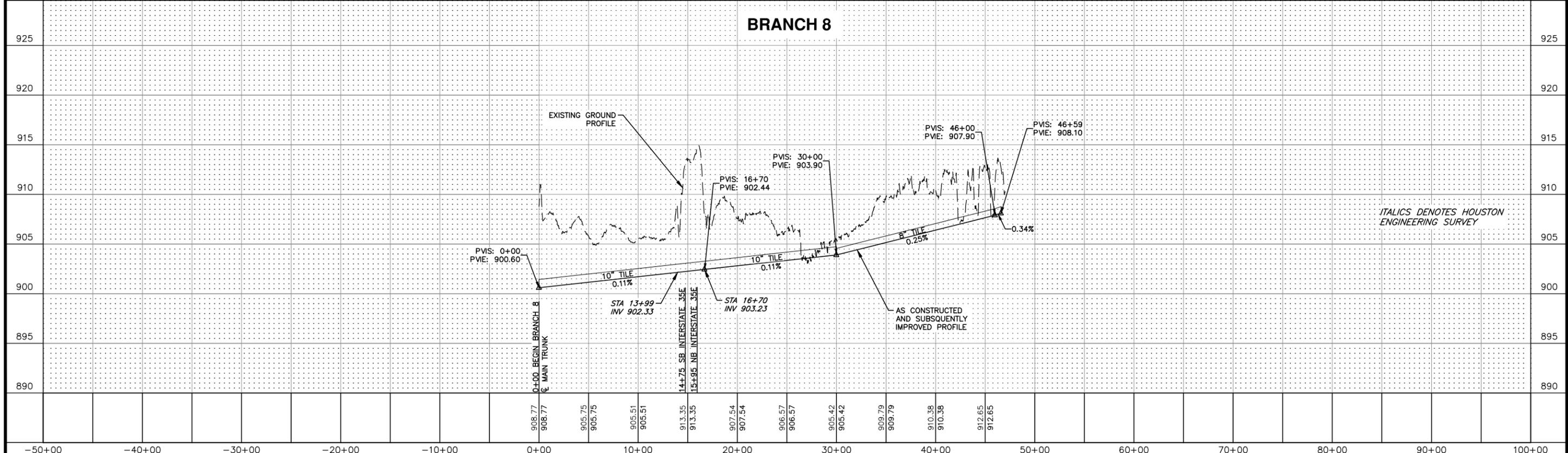
- Legend**
-  ACD 55 Branch 8
  -  ACD 55 Main Trunk
  -  Branch 8 Subwatershed
  -  City Boundaries
  -  Counties
  -  Flow Direction



**ACD 55 Branch 8**

Scale: AS SHOWN	Drawn by: DRO	Checked by: CCO	Project No.: 5555-0082	Date: 1/20/2026	Sheet:
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FIGURE 2



No.		Revision		Date	By			Maple Grove		Drawn by DJI	Date 5-15-12	ACD 55 HISTORICAL REVIEW CENTERVILLE/LINO LAKES, MINNESOTA RICE CREEK WATERSHED DISTRICT		BRANCH 8 PROFILE PROJECT NO. 5555-080.003		SHEET 1 of 1	
										P: 763.493.4522 F: 763.493.5572	Checked by CCO	Scale AS SHOWN					

S:\5555-080.003\_ACD\_35\_Repair\_Report\CAD\Repair\_Report\5555-080.003\_pandp.dwg - pandp (2) - Save Date: 7/5/2012 11:23 AM - Plot Date: 8/8/2012 12:42 PM - (caterinas)



December 11, 2025

Mr. Tom Schmidt  
Drainage and Facilities Manager  
Rice Creek Watershed District  
4325 Pheasant Ridge Drive NE, #611  
Blaine, MN 55449

Re: Ditch Authority Transfer Petition for ACD 55 Branch 8  
City of Lino Lakes, MN  
WSB Project No. 023584-000

Dear Mr. Schmidt:

Enclosed for your review is the transfer petition for Anoka County Ditch (ACD) 55 Branch. The transfer of drainage authority from RCWD to the City of Lino Lakes is sought due to planned improvements along the current Branch 8 alignment. Included in this letter is a description of the existing and proposed conditions of Branch 8 and the City's reasoning for transfer.

**EXISTING CONDITIONS**

ACD 55 was initially established in 1914 to provide drainage for agricultural needs of properties, replacing ACD 33. No records indicate any major permitted impacts to Branch 8. The latest detailed information on Branch 8 is a historical review memo from Houston Engineering dated 8/7/2012. The ditch starts as 8" clay tile at 0.25% slope for approximately the first 1,500 feet. From there, the ditch consists of 10" clay tile at 0.11% slope until it connects into the ACD 55 Main Trunk.

Based on Manning's calculations, the 8" section of Branch 8 has a flow capacity of 0.6 cfs and the 10" section a capacity of 0.7 cfs. The ditch runs under Wetland 3, 4, and 7 based on a 2022 delineation from WSB. During this delineation it was noted that the draintile daylights to an open ditch running north-south through the middle of Wetland 4, then goes back underground.

These wetlands and surrounding agricultural land are drained by ACD 55 Branch 8. There is no positive drainage for the area due to I-35E preventing ponded water from flowing west.

**PROPOSED CONDITIONS**

The City of Lino Lakes is proposing to extend Otter Lake Road north from Main Street (CSAH 14) past the intersection of Heritage Parkway and 24<sup>th</sup> (Elmcrest) Avenue. Along with this extension, the City seeks to construct components of a regional drainage system in accordance with a 2018 Comprehensive Stormwater Management Plan (CSMP) covering the area. Implementing this regional system consists of regional wetland floodplain storage, an open conveyance ditch, and regional pond with an outlet under I-35E. This will serve to provide a surface flow outlet for land in the region for the first time since the construction of the interstate. The regional system roughly follows the alignment of Branch 8.

The most upstream component of this regional system is Wetland 3, which flows under the proposed roadway via culverts and into an open ditch. The ditch is proposed with a 4' wide bottom and 3:1 slopes on the sides. This ditch is proposed functionally flat at 906.6 due to elevation constraints up and downstream. The ditch outlets into Wetland 4 which provides additional floodplain storage before flowing west into the regional pond via a stabilized overflow at

701 XENIA AVENUE S | SUITE 300 | MINNEAPOLIS, MN | 55416 | 763.541.4800 | WSBENG.COM

906.6. The regional pond is the final step before outletting west under I-35E via a 42" RCP culvert.

As described above, the surface flow-based regional system will provide much greater conveyance capacity than the existing clay tile. Calculations in HydroCAD show a capacity of 14 cfs for the open ditch. The overflow from Wetland 4 has a capacity of up to 75 cfs and the outlet pipe for the regional pond can pass flows up to 72 cfs. This increased conveyance capacity will support current and future land use in the region by providing improved drainage of runoff.

#### **AUTHORITY TRANSFER**

The City of Lino Lakes is undertaking the design, construction, and maintenance of the regional CSMP system in this area. As such, the transfer of authority over ACD 55 Branch 8 from RCWD to the City is a requisite component of constructing and operating this system.

The City is filing this petition for transfer of drainage authority in accordance with Minnesota Statute 103E.812. The narrative and calculations provided above are intended to support the argument for transfer of authority, though review and approval from RCWD as the current authority and feedback from Branch 8 beneficiaries is sought.

This is anticipated to be the start of the transfer process with room for comments and questions on the proposed change. Please contact me at 612-258-8154 or [hmeeker@wsbeng.com](mailto:hmeeker@wsbeng.com) as this effort progresses.

Sincerely,  
Henry Meeker, PE

**RESOLUTION NO. 2026-03**

**RICE CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**FINDINGS AND ORDER GRANTING PETITION, TRANSFERRING A PORTION OF ANOKA COUNTY  
DITCH 55 PURSUANT TO MINNESOTA STATUTES §103E.812; AND ADOPTING CONDITIONS**

Manager \_\_\_\_\_ offered the following Resolution and moved its adoption, seconded by Manager \_\_\_\_\_:

**FINDINGS**

1. The Rice Creek Watershed District Board of Managers (Board) is the Drainage Authority for Anoka County Ditch 55 (ACD 55).
2. The Board received the petition of the City of Lino Lakes (City) to transfer to the City, as water management authority, a portion of ACD 55 located within the City.
3. The petition requests transfer of approximately 4,600 feet of buried 8” and 10” tile – Branch 8 of ACD 55 – from the NE quarter of the NE quarter of Section 24, Township 31, Range 22, Anoka County, MN, to the terminus of Branch 8 on the west side of Interstate Highway 35E where it discharges to the Main Trunk of ACD 55 .
4. There are no portions of ACD 55 lying upstream of the proposed transfer under the jurisdiction of the Board.
5. By resolution 2026-01, the Board accepted the petition and appointed Houston Engineering, Inc., to review the proposed transfer.
6. Upon receipt of the engineer’s report, the Board noticed and held a hearing on the petition pursuant to Minnesota Statutes section 103E.812.
7. The Board held the public hearing on February 25, 2026, reviewed the engineer’s report and solicited comment from the public.
8. Members of the public attended the hearing and asked questions or made comments regarding the redetermination of benefits.
9. The Board, or its staff responded to questions and comments as appropriate during the hearing. The Board noted and considered all comments as part of these proceedings.
10. No specific objections were made to the proposed transfer.
11. No comments or other evidence was received calling into question the City’s ability to capably manage storm, surface, or flood-waters along the drainage system or within the benefited

area of the drainage system, including management practices or modifications to the drainage system that facilitate development, municipal storm water management, flood damage reduction and water quality protection.

12. The City has adopted a local water management plan that is consistent with the District's Comprehensive Watershed Management Plan (CWMP) and addresses the City's use of its existing authorities to manage storm, surface, or flood-waters, including management practices and official controls that facilitate municipal storm water management, flood damage reduction and water quality protection.
13. The City has demonstrated its competence as a water management authority and has demonstrated its commitment both to the Board's water management objectives and standards as detailed in its CWMP and to working with the Board to address water management challenges within the City and sub-watershed area draining to ACD 55.
14. The Board, having reviewed the petition, the engineer's report and the evidence in the proceedings, finds that the portion of ACD 55 petitioned to be transferred to the City will be competently managed by the City as part of its municipal stormwater system.

Therefore, the RCWD Board of Managers makes the following:

#### **ORDER**

- A. The Board of Managers hereby grants the City's petition and transfers Branch 8 of ACD 55 to the City of Lino Lakes as Water Management Authority, subject to the following conditions and provisions of statutes section 103E.812:
  - a. Following an accounting of the costs in these proceedings being presented to the City, the City shall pay to the District such costs as required by statutes section 103E.812, subd. 6.
  - b. In any action to modify the transferred portion of ACD 55 to meet the City's water management or other objectives, the City shall preserve an adequate and efficient outlet for properties draining to the transferred portion of the system as required by statutes section 103E.812, subd. 7(a).
  - c. Though the present action does not result in any loss of drainage benefit, the City shall compensate any owner of property benefitted by the transferred portion of ACD 55 for the loss or impairment of any drainage rights occurring after transfer of the drainage system as required by statutes section 103E.812, subd. 7(c).
  - d. Unless otherwise approved by subsequent action of the Board, the City's stormwater discharges to ACD 55 from the watershed area currently served by Branch 8 shall be limited to the capacity limitations currently provided by Branch 8 (a 10" tile outlet).

The question was on the adoption of the Resolution and there were \_\_\_ yeas and \_\_\_ nays as follows:

	<u>Yea</u>	<u>Nay</u>	<u>Absent</u>	<u>Abstain</u>
BRADLEY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HEGLAND	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ROBERTSON	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WALLER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WEINANDT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Upon vote, the President declared the Resolution \_\_\_\_\_.

\_\_\_\_\_  
Jessica Robertson, Secretary

Dated: February 25, 2026

\* \* \* \* \*

I, Jessica Robertson, Secretary of the Rice Creek Watershed District, do hereby certify that I have compared the above resolution with the original thereof as the same appears of record and on file with the District and find the same to be a true and correct transcript thereof.

IN TESTIMONY WHEREOF, I hereunto set my hand this 25<sup>th</sup> day of February, 2026.

\_\_\_\_\_  
Jessica Robertson, Secretary

## **ITEMS REQUIRING BOARD ACTION**

1. Manager Hegland RCWD Officer Assignment (Nick Tomczik)

## **ITEMS REQUIRING BOARD ACTION**

2. 2026 Agreement for Carp Management Services (Matt Kocian)

# MEMORANDUM

## Rice Creek Watershed District



**Date:** February 11, 2026  
**To:** RCWD Board of Managers  
**From:** Matt Kocian, Lake and Stream Manager  
**Subject:** 2026 Agreement for Carp Management Services

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### Introduction

Seeking Board approval for a professional services agreement for carp management services in 2026.

### Background

The District is continuing its carp management program in 2026 in accordance with the Board-approved Carp Management Plan (Dec 2018, rev. 2022). The Long Lake / Lino Chain of Lakes plan calls for the removal of at least 50% of the adult carp population annually. Additionally, the plan calls for management in other lakes as needed. The attached proposal from Carp Solutions provides labor and specialized services to meet the District's goals.

Carp Solutions contract highlights for Long and Lino Chain of Lakes:

- Maintaining existing monitoring infrastructure, such as Passive Integrated Transponder systems and antennas to monitor carp migration
- Maintaining existing fish trap associated with the ProCom electronic guidance system (also referred to as the 'electric barrier') and remove aggregated carp
- Remove aggregated carp at new Johanna Creek barrier
- Possible summer box netting in Long Lake
- Labor for carp removal, transport, and disposal
- Population assessment
- Data analysis and reporting

The carp population of the Long Lake / Lino Chain of Lakes system is down by 80-90%, from our starting point. With that, District costs have been declining. The proposed 2026 Carp Solutions' costs for the Long Lake / Lino system are approximately \$67,000, down from \$114,000 in 2024. All proposed costs fit within the approved 2026 budget – no new or unbudgeted costs are proposed.

The District is also asking Carp Solutions to assist with carp removal in Silver Lake (St. Anthony / Columbia Heights). Recent population surveys by the DNR and WSB indicate a significant increase in the carp population on Silver Lake, likely associated with a winterkill event from the winter of 2022/2023. The District contracted with WSB in 2025 to perform population estimates, surveys, and ageing. Staff propose continuing to work with WSB<sup>1</sup> on population surveys and tracking, but work with Carp Solutions for summer box-net removals. The proposed 2026 Carp Solutions' cost for carp removal on Silver Lake is \$48,000. The Silver Lake Association is very supportive of carp management, and shares the District's goals for water clarity improvements and native plant regrowth. The proposed work by Carp Solutions and WSB follows the *integrated pest management* approach, developed by the U of MN.

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<sup>1</sup> A potential WSB scope of services and agreement would be presented at a future Board meeting, and would fit within the overall approved 2026 carp management budget.

**MEMORANDUM**  
**Rice Creek Watershed District**



Staff Recommendation

The proposed work is consistent with the approved RCWD Carp Management Plan, and necessary to achieve Plan goals. District staff recommend approving a professional services agreement with Carp Solutions for \$115,940.

Proposed Motion

Manager \_\_\_\_\_ moves to authorize the Administrator, on advice of counsel, to enter into a professional services agreement with Carp Solutions, LLC for an amount not-to-exceed \$115,940. The Administrator is further authorized to approve contract amendments, not to exceed 15% of the original contract price (\$17,391).

Attachments

Carp Solutions, LLC Proposal:  
2026 Proposal for Carp Management Services in the Rice Creek Watershed District, February 10, 2026



## **2026 Proposal for Carp Management in Rice Creek Watershed District**

February 10, 2026

Prepared For: Rice Creek Watershed District

Attn.: Matt Kocian

Prepared by: Carp Solutions LLC

[www.carpsolutionsmn.com](http://www.carpsolutionsmn.com)

### **Objective 1: Spring removal of carp in Rice Creek**

From 2019-2023, carp removals at the EGS site in Rice Creek have proven to be highly successful and more efficient than box netting in Long Lake itself. This efficiency has been partly due to the fact that the methods have been continually refined. However, in 2024 and 2025, this removal efficiency dropped as the spawning run has been greatly decreased. To reverse this trend, in 2026, experimentation with the trap entrance will be conducted to attempt to create an efficient one-way gate.

At the end of the 2025 field season the EGS electrodes were replaced due to corrosion. However, the electrodes were not able to be installed before winter weather arrived, and are currently on the bank ready to be stretched across the stream. In order to prevent carp migration up Rice Creek in the spring, the electrodes need to be stretched across Rice Creek as soon as the ice melts at the site. Due to the weight and size of the electrode areas, RCWD will provide some staff and equipment, especially winches, while Carp Solutions will provide staff and a boat, if necessary, to get the electrodes stretched across the stream. Once the electrodes are stretched, Carp Solutions will help activate and test the EGS to ensure its effectiveness as a barrier to carp migration. Additionally, Carp Solutions will install a fence on the opposite (river right) bank of Rice Creek to ensure that carp cannot burrow around the EGS.

In order to monitor carp movement and system success, Carp Solutions will install one PIT system downstream of the EGS that can be remotely monitored and another one inside the trap. The second unit will be used to evaluate the new one-way entrance/aggregation system. We will also re-tune and if necessary replace the Old Highway 8 PIT antenna upstream of the EGS. To ensure the smooth operation of the aggregation system inside the trap, Carp Solutions will check, repair, and put the electrodes back into the trap. After the preparation, Carp Solutions will remotely monitor the site for fish aggregations, and will be responsible for removals and disposal (including supplying a dump trailer). To increase the percentage of the run captured, Carp Solutions will experiment with one-way barrier designs inside the trap. The objective of these experiments will be to figure out a design that will let carp into the trap but not back out so that all carp that enter the trap will be removed the next morning. Until the one-way gate is proven to be effective at trapping carp, the gate at the entrance that has been successfully used since 2023 will be re-installed. As in 2025, this gate will be remotely controlled with the CATCH system so that the gate can be closed remotely when carp are

detected on the PIT antenna or seen on the camera. In the future, this gate may not be required if an effective one-way gate is found.

RCWD will be responsible for maintaining the security fence, site security, and rental of equipment to move carp to the trailer. All carp will be scanned for PIT tags, and 10 carp will be measured for length on each removal day until 100 carp have been measured for the season.

**Cost Objective 1: \$44,220**

**Objective 2: Removing carp at the Johanna Creek barrier**

After data from 2022 showed a significant migration of carp up Johanna Creek, a barrier was installed by RCWD near the New Brighton Community Center. In 2023-2025, 753 carp were removed from the creek around the barrier. To continue this in 2026, a remote access camera and PIT antenna will be installed on the downstream side of this barrier. Carp Solutions will remotely monitor the site for fish aggregations, and will be responsible for removals and disposal. All carp will be scanned for PIT tags, and up to 100 carp will be measured for length for the season.

**Cost objective 2: \$14,620**

**Objective 3: Population estimate for carp in Long Lake and implantation of PIT tags for future surveys**

To track management progress, it is important to conduct standard annual surveys of carp in Long Lake. We will conduct three days of boat electrofishing surveys to estimate carp abundance (from catch per effort) and length distribution (to estimate the possible influx of young carp into the population). During these surveys, carp will also be marked with a fresh fin clip and PIT tag for use in future mark-recapture estimates and migration tracking.

**Cost objective 3: \$5,600**

**Objective 5: Box Net Removal of carp in Silver Lake**

In 2026, baited box net removals will be conducted in Silver Lake due to high sampling observed during surveys by the MN DNR in 2024. Box netting will consist of 16 net pulls, with ideally four nets being pulled four times through the summer and/or fall of 2026. Carp Solutions will be responsible for installation, baiting, monitoring, removals, disposal, and removal of box nets at the end of the season including decontamination of material.

**Cost objective 5: \$48,000**

**Conditional Objective 1: Box Net Removal in Long Lake**

If spring removals in the Long Lake system at the Rice Creek EGS and Johanna Creek sites remain limited as in 2025, remaining funds could be rolled over into baited box net removals within Long Lake. These removals would be conducted similar to in 2025, with two box nets and three rounds of removals. Carp Solutions would be responsible for installation, baiting, monitoring, removals, disposal, and removal of box nets at the end of the season including decontamination of material if this optional objective was approved.

**Cost objective: \$18,000**

**Other (Coordination, cloud data fees, PIT monitoring): \$1,000**

**Report**

At the conclusion of this effort, we will provide a written report with management recommendations. The report will be submitted by January 31, 2027.

**Cost: \$2,500**

**Cost**

This work will be conducted at a not-to-exceed budget of **\$115,940**. Detailed budget is presented below.

		Hours	People	Rate per person	Hourly rate	\$	Totals
<b>1. Spring Removal in Rice Creek</b>							
Task 1	Re-install EGS electrodes	8	4	115	460	\$3,680	
Task 2	Build fence on opposite bank	8	2	115	230	\$1,840	
Task 3	Site prep (install gate, check/repair trap electrodes, connect, check field)	8	2	115	230	\$1,840	
Task 4	Build, install, help tune the new HWY 8 PIT antenna	4	2	115	230	\$920	
Task 5	Installation/maintenance of two PIT antennas below EGS	8	2	115	230	\$1,840	
	Monitoring migration with two PIT systems (\$1000/month; 3 months)					\$6,000	
	CATCH system for remote closing of carp trap gate & informing new aggregation system					\$2,000	
	Data plan for CATCH					\$720	
	Install and maintain camera for monitoring carp in the trap					\$300	
Task 6	Constructing and experimenting with one-way entrance	24	2	115	230	\$5,520	
Task 7	Removing carp x 15 days (4h per day)	72	2	115	230	\$16,560	
	Carp disposal (\$300/day)	10			300	\$3,000	

<i>Spring Subtotal</i>							<b>\$44,220</b>
<b>2. Monitoring migration and removals in Johanna Creek</b>							
Task 1	Install PIT antenna	4	2	115	230	\$920	
Task 2	Monitor carp migration with remote monitoring (\$1,000/month; 3 months)					\$3,000	
Task 3	Carp removal (5 d; 4h per day)	20	4	115	460	\$9,200	
	Carp disposal (\$300/day)	5			300	\$1,500	
							<b>\$14,620</b>
<b>4. Electrofishing survey on Long Lake</b>							
	3 days of boat electrofishing/ marking	24	2	115	230	\$5,520	
	PIT tags (40 @ \$2 each)					\$80	
							<b>\$5,600</b>
<b>5. Box netting in Silver Lake</b>							
	4 nets 4 times @ \$3,000 per net pull including all costs					\$48,000	
							<b>\$48,000</b>
Report and analysis							<b>\$2,500</b>
Coordination, permitting							<b>\$1,000</b>
<b>TOTAL</b>							<b>\$115,940</b>
<b>Conditional</b>							

Box netting in Long Lake (2 nets)	Round 1, \$3,000 per net lift including net install, uninstall, baiting, tripping, carp removal	2	1	3000	6000	\$6,000	
* if unused funds remain from spring carp removal	Round 2, \$3,000 per net lift including net install, uninstall, baiting, tripping, carp removal	2	1	3000	6000	\$6,000	
	Round 3, \$3,000 per net lift including net install, uninstall, baiting, tripping, carp removal	2	1	3000	6000	\$6,000	<b>\$18,000</b>

## **ITEMS REQUIRING BOARD ACTION**

3. 2026 Curlyleaf Pondweed Management (Matt Kocian)

# MEMORANDUM

## Rice Creek Watershed District



**Date:** February 12, 2026  
**To:** RCWD Board of Managers  
**From:** Matt Kocian, Lake and Stream Manager  
**Subject:** 2026 Curlyleaf Pondweed Management

### Introduction

Seeking Board approval for 2026 curlyleaf pondweed management activities – vendor contracts and lake association cost-share agreements

### Background

Curlyleaf pondweed (*Potamogeton crispus*) is an invasive aquatic plant found in many Twin Cities Metro Area lakes. Curlyleaf has an unusual life cycle; unlike native aquatic plants, which grow early-summer through late-fall, curlyleaf *begins* growing late in autumn. It survives under the ice during the winter and grows rapidly after ice-out, often creating dense mats that displace native plants. Around mid-summer the plant dies and decomposes, releasing accumulated phosphorus into the water column. The phosphorus contributes to algae growth and declines in water clarity. Additionally, the void in aquatic plants created by the mid-summer decline in curlyleaf further exacerbates algae blooms by exposing nutrient-rich lake sediments to resuspension, and by reducing habitat for algae-eating zooplankton. For this reason, the RCWD has actively managed curlyleaf using aquatic herbicides. Permanent control (i.e. eradication) is not possible. However, annual herbicide treatments are effective at reducing the impacts of curlyleaf pondweed.



The purpose of managing curlyleaf pondweed is 1) to improve water clarity, via the mechanisms described above, and 2) to promote the growth of healthy, native lake plants. Although the herbicide used to control curlyleaf is not selective, it is applied during the early-spring when only curlyleaf is growing. Non-target impact to native plants is minimal, and RCWD collaborates with other scientists to use best management practices, consistent with the latest research.

Managing curlyleaf pondweed is consistent with RCWD's Aquatic Invasive Species Policy, as well as RCWD's goals for protecting and improving water quality. The RCWD has partnered with lake associations for over 20 years to reduce the abundance of curlyleaf pondweed using aquatic herbicides. Lakes are selected for management based on need (a problem exists), and lake association desire and

## MEMORANDUM

### Rice Creek Watershed District



willingness to financially partner; costs are split 50/50 between the District and lake associations, after applicable DNR grants.

For 2026, District costs are *estimated* to be \$15,000 – \$25,000. However, the District must pay upfront costs, prior to reimbursements from DNR grants and lake associations. Thus, we are asking the Board to approve total estimated costs of up to \$40,000. The District’s 2026 budget for curlyleaf pondweed management is \$40,000.

#### **Notes on cost:**

- The estimated 2026 costs are conservative. The actual 2026 costs will depend on early-season curlyleaf pondweed surveys and lake homeowner willingness to cost-share. It’s common for actual costs to be much lower than estimated costs. For example, the total *estimated costs* in 2020 were \$35,000, but the total *actual costs* were about \$18,300.
- As in past years, if curlyleaf pondweed is not found in sufficiently large and dense patches, or if lake homeowners do not wish to financially partner, treatment will not occur.
- Consistent with the RCWD Aquatic Invasive Species Policy, only large (> 1 acre), dense, and monotypic areas of curlyleaf pondweed are managed.
- Also per our policy, the District does not treat near-shore areas on lakes (within 150 feet); by DNR rule, treatment in these areas requires the permission of the landowner.

#### **Staff Recommendation**

Staff recommend that the Board approve RCWD 2026 curlyleaf pondweed management activities and expenditures outlined in this memo.

#### **Proposed Motions**

1. Manager \_\_\_\_\_ moves to authorize the Administrator to enter into cost-share agreements with lake associations for curlyleaf pondweed treatments in 2026.
2. Manager \_\_\_\_\_ moves to authorize the Administrator to enter into professional services agreements for herbicide treatment of curlyleaf pondweed with the total costs not to exceed \$40,000.

## **ITEMS REQUIRING BOARD ACTION**

4. 2026 Stormwater Management Grant Program Applications - Recommendation (Will Roach)

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 12th, 2026  
**To:** RCWD Board of Managers  
**From:** Will Roach, Watershed Technician/Inspector  
**Subject:** 2026 Stormwater Management Grant Program Applications – Recommendation

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**Introduction**

The Rice Creek Watershed District (RCWD) Board of Managers is considering approval of Resolution 2026-04; ordering and allocating grant funds to selected Stormwater Management Grant Program applications.

**Background**

At its regular meeting on September 24, 2025, the RCWD Board authorized staff to solicit proposals for the 2026 Stormwater Management Grant Program. A request for proposals was released and four applicants submitted a total of six proposals by the application deadline of December 30, 2025. Proposals were requested to be preliminary in nature, so as to not require large outlays of capital by applicants only to have their proposal denied. Further planning and design may occur upon approval by the RCWD Board.

The RCWD budgeted \$400,000 for the 2026 Stormwater Management Program Year. A total of \$499,616.50 was requested through the six eligible applications. A public hearing was held on February 11, 2026, to receive public comments on the applications pursuant to M.S. 103B.251. District staff presented a potential funding option (Table 1) that would award full or partial funding for all six applications based on their rankings while not exceeding the allotted program budget.

RCWD Project Program staff independently reviewed and scored proposals consistent with the scoring criteria identified in the Program Guidelines. RCWD staff discussed the applications with the RCWD CAC during its meeting on February 4, 2026. The CAC's individual scoring on each application was tabulated during the meeting, resulting in a final aggregate CAC score for each application. Houston Engineering, Inc. (HEI) has also completed an independent review of each application. HEI's technical review memo for each is included in the packet for the Board's consideration.

The purpose of this agenda item is to provide an opportunity for additional discussion among the Board members regarding the six eligible grant applications, resulting in a final decision about which projects will be awarded funding and in which amount.

**Recommendation**

Staff recommend all six applications be awarded Stormwater Management Grant funds for the 2026 program in the amounts shown in Table 1. All input from the CAC and Engineer has been considered by the RCWD staff and incorporated into the final funding recommendations..

**MEMORANDUM**  
**Rice Creek Watershed District**



**Table 1. Final Project Rankings and Funding Recommendation**

Applicant	Project Name	Scores				Funding		Source
		Staff	HEI	CAC	Final	Requested	Recommended	
Lino Lakes	RAS & Enhanced Sweeping	94.7	95	88	<b>92.6</b>	\$100,000	\$100,000	60-15
Arden Hills	2026 PMP -Karth Stormwater Pond	86.3	75	86.3	<b>82.5</b>	\$87,291.50	\$69,447.50	60-15
Shoreview	2026 Storm Improvements	81	81	85	<b>82.3</b>	\$100,000	\$75,000	60-15
Arden Hills	2026 PMP - Karth SAFL Baffle	82.7	73	89	<b>81.6</b>	\$30,552.50	\$30,552.50	60-15
Shoreview	Target Pond Improvements	83.7	74	87	<b>81.6</b>	\$81,772.50	\$75,000	60-15
New Brighton	Knollwood Pond Overflow	63	51	75.5	<b>63.2</b>	\$100,000	\$50,000	60-15
						<b>Total Available</b>	<b>\$400,000</b>	
						<b>Total Requested</b>	<b>\$499,616.5</b>	
						<b>Total Recommended</b>	<b>\$400,000</b>	

**Proposed Motion**

“I offer resolution 2026-04 and move its adoption.”

**Attachments**

- Draft Resolution 2026-04
- Draft Cost – Share Agreement Template
- HEI Review Summary of Eligible Grant Applications (6)
- Eligible Grant Applications (6)

**RESOLUTION 2026-04**

**RICE CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**ORDERING 2026 STORMWATER MANAGEMENT GRANT PROJECTS  
PURSUANT TO MINNESOTA STATUTES §103B.251**

Manager \_\_\_\_\_ offered the following Resolution and moved its adoption, seconded by Manager \_\_\_\_\_,

WHEREAS the Rice Creek Watershed District (“District”) has adopted a watershed management plan (“WMP”) in accordance with Minnesota Statutes §103B.231; and,

WHEREAS the WMP’s capital improvement program identifies a cost-share program to improve and remedy stormwater management systems in developed urban environments and, on September 24, 2025, the Board of Managers (“Board”) authorized staff to initiate the program and solicit proposals; and,

WHEREAS the City of Arden Hills “ 2026 PMP Street & Utility Improvements – Stormwater Pond”, the City of Arden Hill’s “2026 PMP Street & Utility Improvements – SAFL Baffles”, the City of New Brighton’s “Knollwood Pond Overflow”, the City of Lino Lake’s “Regenerative Air Sweeper and Enhanced Sweeping” , the City of Shoreview’s “2026 Storm Improvements”, and the City of Shoreview’s “Target Pond Improvements” (together, the “Projects”) each has been reviewed by District Staff, the District Citizen Advisory Committee and the Board and found to meet program criteria; and,

WHEREAS in accordance with Minnesota Statutes §103B.251, subdivision 3, the District held a duly noticed public hearing on ordering of the Projects on February 11, 2026, at the Mounds View City Council Chambers, at which time all interested parties had the opportunity to speak for and against any of the Projects; and,

WHEREAS the District Engineer has evaluated each of the Projects, including its technical elements and cost-effectiveness, and the Engineer’s views have been fully considered by the Board; and,

WHEREAS the Board has reviewed and approved a cost-share agreement template for use with each of the entities proposing a project, providing generally that on the Board’s ordering of a Project and its completion by the proponent, the District will provide reimbursement for 50 percent of approved project costs up to a specified amount through RCWD’s Stormwater Management Grant Program, and that the proponent will maintain its project in accordance with a maintenance plan approved by the District; and,

WHEREAS the Board finds that each of the Projects, as completed and maintained in accordance with the terms and responsibilities of the cost-share agreement, will be conducive to public health and promote the general welfare, and is in compliance with Minnesota Statutes §§103B.205 to 103B.255 and the WMP adopted pursuant to §103B.231.

THEREFORE, BE IT RESOLVED that pursuant to Minnesota Statutes §103B.251 and the WMP, each of the Projects is ordered; and,

BE IT FURTHER RESOLVED that the Board of Managers hereby authorizes the Administrator to execute each of the respective cost-share agreements between the Rice Creek Watershed District and the City of Arden Hills, City of Lino Lakes, City of New Brighton, City of Shoreview with any final non-material changes and on advice of counsel; and,

BE IT FINALLY RESOLVED that the limit of the District’s contribution to each Project is as follows:

City of Lino Lakes – Regenerative Air Sweeper and Enhanced Street Sweeping	\$ 100,000
City of Arden Hills - 2026 PMP Street & Utility Improvements (Karth Stormwater Pond)	\$ 69,447.50
City of Shoreview – 2026 Stormwater Improvements	\$ 75,000
City of Arden Hills – 2026 PMP Street & Utility Improvements (Karth SAFL Baffles)	\$ 30,552.50
City of Shoreview – Target Pond Improvements	\$ 75,000
City of New Brighton – Knollwood Pond Overflow	\$ 50,000

The question was on the adoption of the resolution and there were \_\_\_\_yeas and \_\_\_\_nays as follows:

	Yea	Nay	Absent	Abstain
BRADLEY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HEGLAND	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ROBERTSON	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WALLER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WEINANDT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Upon vote, the President declared the Resolution \_\_\_\_\_.

\_\_\_\_\_  
 Jess Robertson, Secretary

Dated: \_\_\_\_\_, 2026

\* \* \* \* \*

I, Jess Robertson, Secretary of the Rice Creek Watershed District, do hereby certify that I have compared the above resolution with the original thereof as the same appears of record and on file with the District and find the same to be a true and correct transcript thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand this \_\_\_\_\_ day of \_\_\_\_\_, 2026.

\_\_\_\_\_  
 Jess Robertson, Secretary

**2026 STORMWATER MANAGEMENT  
GRANT AGREEMENT**

GRANT AGREEMENT between the Rice Creek Watershed District, 4325 Pheasant Ridge Drive NE, Suite 611, Blaine, Minnesota 55449 and           [insert grantee]          ,           [insert address]          .

**RECITALS**

WHEREAS, the           [insert grantee]           (Grantee) intends to construct a project titled "          [insert project title]          " (Project); and,

WHEREAS, the Rice Creek Watershed District (District) operates a Stormwater Management Grant Program for the improvement and remediation of stormwater management systems throughout the Rice Creek Watershed; and,

WHEREAS, in accordance with District program guidelines, the District desires to provide the Grantee financial assistance for the Project.

THEREFORE, in consideration of mutual promises set forth herein and other good and valuable consideration, the District and the Grantee agree as follows:

**I. GRANTEE RESPONSIBILITIES.**

- A. *Design Plan, Operation Plan and Maintenance Plan.* Design plans for the project must be signed by a licensed professional engineer or landscape architect. The Grantee will submit (1) final signed plans and specifications for the Project, and (2) an operations and maintenance plan to the District for the Administrator's written approval, not to be unreasonably withheld. The Project plans and specifications must include a public education component. The District, in its discretion, may approve a non-structural public education component.
- B. *Construction and Maintenance.* The Grantee, through its own personnel and/or contractors, will construct the Project in accordance with the approved Project plans and specifications and maintain it indefinitely in accordance with the approved maintenance plan. In doing so, the Grantee will comply with all applicable laws and regulations and will be responsible for acquiring all permits, approvals and temporary and permanent rights of access or easement.
- C. *Perpetual Access for Maintenance.* The Grantee shall submit to the District, in a form acceptable to the District, legal assurance that the Grantee has perpetual access to the Project's location for construction, operation and maintenance and that the Project will be maintained in perpetuity.
- D. *Completion of Construction.* The Grantee's staff or consulting engineer will certify the completion of Project construction in accordance with the approved plans and specifications no later than October 31, 2028. The Grantee will submit to the District documentation of Project expenditures and the certification of completion no later than December 29, 2028.

## II. DISTRICT RESPONSIBILITIES.

- A. *Grant Funds.* To defray the Project cost to the Grantee, the District will provide the Grantee financial assistance in the amount of fifty (50) percent of the Project's eligible costs, as determined by the District, with the total amount of District assistance not to exceed \$ [insert grant amount].
- B. *Payment Schedule.* On District approval of the Project plans, specifications, and operations and maintenance plan, certification by the Grantee that it has obtained all necessary permits and approvals, District approval of the Grantee's perpetual access and maintenance assurance, and receipt of the Grantee's issued notice to proceed, the District may disburse fifty (50) percent of the RCWD Board approved grant amount upon request of the Grantee. On District receipt of the certification of completion and review of such Project documentation as it may require, the District will disburse the remaining RCWD Board approved funds.
- C. *Contingencies.* The District's obligation to provide grant funds is contingent on the Grantee's compliance with the terms of this agreement, including but not limited to Project completion in accordance with the District-approved plans and specifications by October 30, 2026, and Project maintenance in accordance with the approved maintenance plan. The Grantee will return to the District any grant funds already received if this condition is not satisfied.

## III. MISCELLANEOUS.

- A. *Relationship of Parties.* Nothing in this agreement creates or establishes a partnership, joint venture or agency relationship between the parties. District review or approval of design plans and specifications, a maintenance plan and any other Project-related documents is solely for the District's own accounting for funds expended. As between the parties, the Grantee is solely responsible for selection of the Project design and the means, method and manner of construction. Nothing in this agreement creates any right in any third party or affects any immunity, defense or liability limitation enjoyed by either party.
- B. *Employees.* The Grantee represents that it has or will secure, at its own expense, all personnel and/or contractors required for the performance of this agreement. No Grantee personnel or contractor will be considered an agent, representative or employee of the District.
- C. *Liability.* The Grantee agrees to hold harmless and indemnify the District, and its managers, staff and representatives, up to the maximum liability limits of Minnesota Statutes Section 466.04, against any claim, expense or damage, including attorney fees, arising from the performance of this agreement.
- D. *Assignment or Modification.* This agreement binds and inures to the benefit of the Grantee and the District, and their respective successors and assigns. Neither party may assign this agreement without the prior written consent of the other. Any modification of the agreement must be in writing and signed by both parties.
- E. *Public Documents.* All submitted information, including application, conceptual design, cost estimates, bid tabulations, final designs and specifications, copies of permits and proof of expenditures will become a part of the public record. Grantee will not claim intellectual property rights in any such information.

F. *Effective Date.* This agreement is effective as of the date all signatures below have been provided.

Dated: \_\_\_\_\_, 2026

**INSERT GRANTEE]**

By: \_\_\_\_\_

Its: \_\_\_\_\_

Dated: \_\_\_\_\_, 2026

**RICE CREEK WATERSHED DISTRICT**

By: \_\_\_\_\_

Nick Tomczik, Administrator

DRAFT

# Memorandum

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**To:** Will Roach, Watershed Technician  
Rice Creek Watershed District

**From:** Belle Reeve

**Through:** Chris Otterness, P.E.

**Subject:** City of Arden Hills - 2026 RCWD Stormwater  
Management Grant – 2026 PMP Street & Utility  
Improvements: SAFL Baffle

**Date:** January 22, 2026

**Project:** File 5555-0061

Houston Engineering Inc. (HEI) is providing a technical review of the 2026 Stormwater Management Grant (SMG) applications on behalf of the Rice Creek Watershed District (District). The review includes not only evaluating consistency with the goals of the SMG program, but the technical merits and feasibility of the proposed project. Based upon our review of the application by the City of Arden Hills, we offer the following comments for your use:

- The project proposes the installation of two sump storm sewer structures with SAFL Baffles. The project would construct the SAFL Baffles with sumps for a water quality treatment project, one of which discharges directly to Karth Lake and the other discharging to a wetland upstream of Karth Lake. Both locations are upstream of Valentine Lake, which is a nutrient impaired water.
- The applicant indicated that the project would remove 2,131 lbs of TSS per year using the MIDS model. This equates to \$0.96/lb of TSS removal over a 30-year life. No calculations of TP removal were provided.
- The project is part of the 2026 Street & Utility Improvement project and anticipated to be constructed over the 2026 construction season. No permits are required for the SAFL Baffle sump structures, but permitting will be required for other work on the project.
- The project has a low educational opportunity. The project is located in a low visibility location. The applicant is proposing a project summary in the Community Newsletter.
- The applicant is requesting \$30,552.50 to complete the project, a 50% cost share.

Note: The work proposed in this application and in the City's other application (pond construction) are components of the same construction project.

# Memorandum

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**To:** Will Roach, Watershed Technician  
Rice Creek Watershed District

**From:** Belle Reeve

**Through:** Chris Otterness, P.E.

**Subject:** City of Arden Hills– 2026 RCWD Stormwater Management Grant – 2026 PMP Street & Utility Improvements: Stormwater Pond Construction

**Date:** January 22, 2026

**Project:** File 5555-0061

Houston Engineering Inc. (HEI) is providing a technical review of the 2026 Stormwater Management Grant (SMG) applications on behalf of the Rice Creek Watershed District (District). The review includes not only evaluating consistency with the goals of the SMG program, but the technical merits and feasibility of the proposed project. Based upon our review of the application by the City of Arden Hills, we offer the following comments for your use:

- The project proposes constructing a new stormwater pond with the 2026 PMP Street & Utility Improvement project. The project would construct the new stormwater pond for a water quality treatment project and discharges directly to Karth Lake and ultimately Valentine Lake, which is a nutrient impaired water. The pond is not required to meet RCWD rule requirements.
- The applicant indicated that the project would remove 1,597 lbs of TSS and 5 lbs of TP per year using the MIDS model. This equates to \$3.64/lb of TSS and \$1,117/lb of TP removal over a 30-year life.
- The project is part of the 2026 Street & Utility Improvement project and anticipated to be constructed over the 2026 construction season. No permits are required for the stormwater pond work but permitting will be required for other work for the project.
- The project has a moderate educational opportunity. The project is located in a high visibility location. The applicant is proposing a project summary in the Community Newsletter.
- The applicant is requesting \$87,291.50 to complete the project, a 50% cost share.

Note: The work proposed in this application and in the City's other application (SAFL Baffles) are components of the same construction project.

# Memorandum

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**To:** Will Roach, Watershed Technician  
Rice Creek Watershed District

**From:** Belle Reeve

**Through:** Chris Otterness, P.E.

**Subject:** City of Lino Lakes– 2026 RCWD Stormwater  
Management Grant

**Date:** January 22, 2026

**Project:** File 5555-0061

Houston Engineering Inc. (HEI) is providing a technical review of the 2026 Stormwater Management Grant (SMG) applications on behalf of the Rice Creek Watershed District (District). The review includes not only evaluating consistency with the goals of the SMG program, but the technical merits and feasibility of the proposed project. Based upon our review of the application by the City of Lino Lakes, we offer the following comments for your use:

- The project proposes to initiate an enhanced sweeping program with the purchase of a regenerative air sweeper (RAS). The project would use an additional RAS with existing mechanical sweepers in targeted areas throughout the streets of Lino Lakes. The targeted areas include streets that discharge to George Watch, Marshan, Reshanau, Rice, Otter, Bald Eagle, Peltier, and Baldwin Lakes as well as Rice Creek. Peltier, George Watch, Marshan, Reshanau, Rice and Baldwin Lakes are all impaired for nutrients.
- The applicant indicated that the project would remove an additional 729 lbs of TP using MPCA Phosphorus Credit Calculator and the Clean Sweep Quick Estimating Tool. This equates to \$19.43/lb of TP removal.
- If approved, the RAS will take up to one year to obtain after purchasing.
- The project has a high educational opportunity. The applicant is proposing possibly posting a project summary on the City-wide newsletter, posting educational video on website, bringing sweeper to local community events for “touch a truck” type functions, creating a decal on the sweeper, and a name the sweeper contest.
- The applicant is requesting \$100,000 to complete the project, a 24% cost share.

# Memorandum

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**To:** Will Roach, Watershed Technician  
Rice Creek Watershed District

**From:** Belle Reeve

**Through:** Chris Otterness, P.E.

**Subject:** City of New Brighton– 2026 RCWD Stormwater Management Grant

**Date:** January 22, 2026

**Project:** File 5555-0061

Houston Engineering Inc. (HEI) is providing a technical review of the 2026 Stormwater Management Grant (SMG) applications on behalf of the Rice Creek Watershed District (District). The review includes not only evaluating consistency with the goals of the SMG program, but the technical merits and feasibility of the proposed project. Based upon our review of the application by the City of New Brighton, we offer the following comments for your use:

- The project is proposing to provide a primary outlet for Knollwood Pond, which will provide protection from flooding for existing nearby homes.
- The applicant indicated by a HydroCAD model that the project would lower the 100yr HWL from the existing pond by 0.78 feet, which would provide protection to the lowest adjacent floor elevation for the 100-year flood event.
- The project will require an RCWD permit. The City will enter a cooperative agreement with Ramsey County for the project.
- The project has low educational opportunities. The applicant is proposing to create a one-page info graphic describing the proposed project benefits for the surrounding homes.
- The applicant is requesting \$100,000 to complete the project, a 40% cost share.

# Memorandum

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**To:** Will Roach, Watershed Technician  
Rice Creek Watershed District

**From:** Belle Reeve

**Through:** Chris Otterness, P.E.

**Subject:** City of Shoreview– 2026 RCWD Stormwater  
Management Grant – 2026 Storm  
Improvements

**Date:** January 22, 2026

**Project:** File 5555-0061

Houston Engineering Inc. (HEI) is providing a technical review of the 2026 Stormwater Management Grant (SMG) applications on behalf of the Rice Creek Watershed District (District). The review includes not only evaluating consistency with the goals of the SMG program, but the technical merits and feasibility of the proposed project. Based upon our review of the application by the City of Shoreview, we offer the following comments for your use:

- The project proposes replacing existing asphalt within a roadway with pervious pavers, removing 12,450 square feet of impervious pavement. The project would construct pervious pavers for water quality treatment and runoff volume control which directly discharges to Island Lake, which is a RCWD Resource of Concern. The pervious pavers are not required to meet RCWD Rules.
- The project is intended to reduce surface drainage from Milton Street and Randy Avenue by infiltrating and storing water in the pervious pavers. Pervious pavers are effective for removing TSS and TP, however no removal calculations were provided. Reducing surface discharge and the removal of TP and TSS will improve the water quality to Island Lake.
- The project is funded and has completed 30% of construction plans with an anticipated construction to occur in the summer of 2026. No permits are expected.
- The project has a medium educational opportunity. The applicant is proposing a project summary on the City website and social media and possibly posting educational signage at the end of Milton Street.
- The applicant is requesting \$100,000 to complete the project, an 18% cost share.

# Memorandum

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**To:** Will Roach, Watershed Technician  
Rice Creek Watershed District

**From:** Belle Reeve

**Through:** Chris Otterness, P.E.

**Subject:** City of Shoreview– 2026 RCWD Stormwater  
Management Grant – Target Pond  
Improvements

**Date:** January 22, 2026

**Project:** File 5555-0061

Houston Engineering Inc. (HEI) is providing a technical review of the 2026 Stormwater Management Grant (SMG) applications on behalf of the Rice Creek Watershed District (District). The review includes not only evaluating consistency with the goals of the SMG program, but the technical merits and feasibility of the proposed project. Based upon our review of the application by the City of Shoreview, we offer the following comments for your use:

- The project proposes to convert an existing sand filtration system to an iron-enhanced filtration system (IESF). The project would construct the IESF for a water quality treatment project which ultimately discharges Valentine Lake, which is a nutrient impaired water.
- The applicant indicated that the project would remove an additional 6.4 lbs of TP per year using the MIDS model. This equates to \$851.8/lb of TP removal over a 30-year life.
- The project has completed 30% of construction plans and anticipated construction will occur in the summer of 2026. No permits are required from RCWD. County ROW permits may be required by the contractor during construction.
- The project has a medium educational opportunity. The project is located in a high visibility location. The applicant is proposing a project summary on the City website and possibly posting educational signage around the BMP.
- The applicant is requesting \$81,772.50 to complete the project, a 50% cost share.



# Rice Creek Watershed District

## Stormwater Management Grant Program

### 2026 Application Form

#### I. APPLICANT INFORMATION

Organization (to be named as Grantee): City of Arden Hills  
 Street Address: 1245 West Highway 96  
 City, State, Zip: Arden Hills, MN 55112  
 Tax Status: Local Government Tax ID#: 9047998  
*(e.g., local government, non-profit 501(c)(3), private business, etc.)*

#### II. PROJECT CONTACTS

Project Officer: David Swearingen Financial Officer: Jessica Jagoe  
 Title: Public Works Director/City Engineer Title: City Administrator/Finance Director  
 Telephone: 651-792-7847 Telephone: 651-792-7810  
 Fax: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: dswearingen@cityofardenhills.org Email: jjagoe@cityofardenhills.org

#### III. PROJECT INFORMATION

Project Name: 2026 PMP Street & Utility Improvements  
 Location(s) of Project: Karth Lake  
 City: Arden Hills State: MN County: Ramsey  
 Project Start Date: Spring 2026 Project Completion Date: Fall 2026  
 Project Type (check only those that directly apply):  
 Water Quality Treatment Project     Stormwater Reuse Irrigation Project  
 Peak Runoff Rate Control Project     Runoff Volume Control / Flood Storage Project  
 Other: \_\_\_\_\_  
 Is a RCWD Rule C permit required for this project?     YES     NO     UNKNOWN

#### IV. GRANT REQUEST

RCWD Grant Funding Requested: \$ 87,291.50  
 Applicant Match Funding Committed: \$ 87,291.50  
 Total Estimated Project Cost: \$ 174,583.00  
 Would you be willing to accept grant funding in an amount less than requested?     YES     NO

#### V. SIGNATURE OF APPLICANT

I certify that the information contained within this application is true and accurate.

David Swearingen    Digitally signed by David Swearingen  
Date: 2025.12.24 08:21:40 -06'00'  
 Signature of Project Officer

12/24/2025  
 Date

## VI. Executive Summary / Abstract

Include a brief Executive Summary (100 words or less) that summarizes the main goals and activities of the project and the expected environmental outcomes that will be achieved. Identification of the total amount of funds being requested along with the required match. The summaries will be used in the grant review process and on the RCWD website-for projects that are funded.

The City of Arden Hills proposes a stormwater pond with the 2026 PMP Street & Utility Improvements project. This pond will provide water quality treatment by reducing sediment and phosphorus before runoff enters Karth Lake. The improvement supports watershed protection goals, aligns with recommendations from the Southwest Urban Lakes Study, and complements other planned BMPs with the project, including sump structures with SAFL Baffles and the Karth

## VII. Description (10 points)

The RCWD has established guidelines for prioritizing projects based on location. Water quality improvement projects should be located to benefit a RCWD lake classified as either "Protection" or "Restoration" (see Table 2-4 in the RCWD 2020 Watershed Management Plan), and/or a waterbody with an approved Total Maximum Daily Load (TMDL) study or other recognized diagnostic water quality study. Flood storage and runoff rate control projects should focus on reducing peak flood elevations in known regional flood hazard areas and/or documented local problem areas. Describe the specific watershed management, water quality or quantity need(s) that the project will address and its impact on the target water resource within the District.

Name the target waterbody benefiting from this project: Karth Lake & Valentine Lake

List and describe the Best Management Practices (BMPs) to be incorporated into this project

The 2026 PMP Street & Utility Improvements project includes the construction of a stormwater pond designed to provide dedicated water quality treatment before runoff discharges to Karth Lake and ultimately Valentine Lake. Stormwater ponds improve water quality through physical, biological, and chemical processes, with the primary treatment occurring as sediment and associated pollutants settle to the bottom of the pond

If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.

The project maintains a net-zero increase in impervious surface, ensuring no additional runoff is generated within the watershed. The stormwater pond is designed to maximize

Provide drawings, maps and/or schematics which graphically illustrate the location and conceptual design of the project. **(Attach separate sheets.)**

Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.

The stormwater pond is designed to reduce sediment and phosphorus loading prior to discharge into Karth Lake, and ultimately Valentine Lake. By capturing and settling sediment within the pond, the amount of material reaching Karth Lake will be reduced, lowering long-term sediment accumulation and decreasing the frequency and cost of future lake maintenance activities such as dredging. Routine inspections and sediment removal will be completed by City staff in

### VIII. Prioritization (20 points)

How does the project support existing regional planning efforts such as the RCWD Watershed Management Plan, municipal surface water management plans, TMDLs, or other recognized diagnostic studies? Is the project included on the Member Community Project List (Appendix G) within the RCWD Watershed Management Plan? Please provide citations where possible.

This project supports RCWD goals identified in the Watershed Management Plan by advancing water quality protections for Karth Lake, and ultimately Valentine Lake, resources highlighted for improvement in local and regional planning. The stormwater pond is Phase 2 of the previously completed Karth Lake BMP #1 project, included on the Member Community

### IX. Targeting (15 points)

Describe the critical pollution or flooding sources and risks addressed by this project. Explain why the proposed project is the most cost-effective and feasible means to attain the expected resource benefits. Has a formal analysis been conducted to substantiate this position?

Runoff from the contributing drainage areas currently carries sediment and phosphorus to Karth Lake, affecting water quality and contributing to long-term maintenance needs such as dredging. The proposed stormwater pond will help address these issues by capturing sediment and providing permanent pool treatment before water reaches Karth Lake and, ultimately, Valentine Lake. Because the pond is being constructed as part of the larger 2026 PMP Street & Utility Improvements project, it offers a cost-effective opportunity to add

### X. Measurable Outcomes (20 points)

Provide a detailed estimate and description of the anticipated pollutant reduction, stormwater rate/volume reduction, groundwater withdrawal reduction, and/or other environmental or natural resource benefits associated with the project. Describe the methods and cite the sources (i.e. P8 model, HydroCAD, XP-SWMM, MIDS, MN Stormwater Manual, etc.) used to calculate or estimate the pollutant reductions and/or hydrologic outcomes. **(Mandatory for RCWD to consider your proposal!)**

The proposed BMPs will significantly reduce pollutant loading to Karth Lake, and ultimately Valentine Lake. Modeling using MIDS indicates an estimated removal of 84% Total Suspended Solids (1596.8 lbs) and 50% Total Phosphorus (5.211 lbs) to Karth Lake, and ultimately Valentine Lake, annually from the contributing drainage areas. These reductions will improve water quality and reduce sediment accumulation in downstream systems, minimizing future dredging and maintenance costs. Effectiveness will be monitored through routine inspections and sediment removal records, ensuring measurable and sustained water quality benefits.

**XI. Cost-Effectiveness (15 points)**

Provide a detailed budget that lists each item for which funding is being requested. You must also list the sources of required local matching contributions. Please provide a summary that demonstrates why this is the most cost-effective approach to solving the problem. Or, have other alternatives been explored, and if so, why were they determined to not be the best alternative? What is the anticipated lifespan of the practice? **(Attach separate sheets if needed.)**

See attached cost estimate for the project elements which funding is being requested for. Matching funds will be provided from a combination of the City of Arden Hills Surface Water Management Utility Fund and its PIR Fund. This is the most cost effective solution because the pond is being constructed as part of the larger 2026 PMP Street & Utility Improvements project and therefore does not have the additional expense of a standalone project. This stormwater improvement approach provides substantial pollutant reduction while minimizing new infrastructure costs.

**XII. Project Readiness (10 points)**

Please describe the anticipated timeline for implementing this project. What steps have been taken to ensure that the project can be implemented according to this timeline? Are any permits needed? (If permits are required please cite from what agency and where the project is in that process).

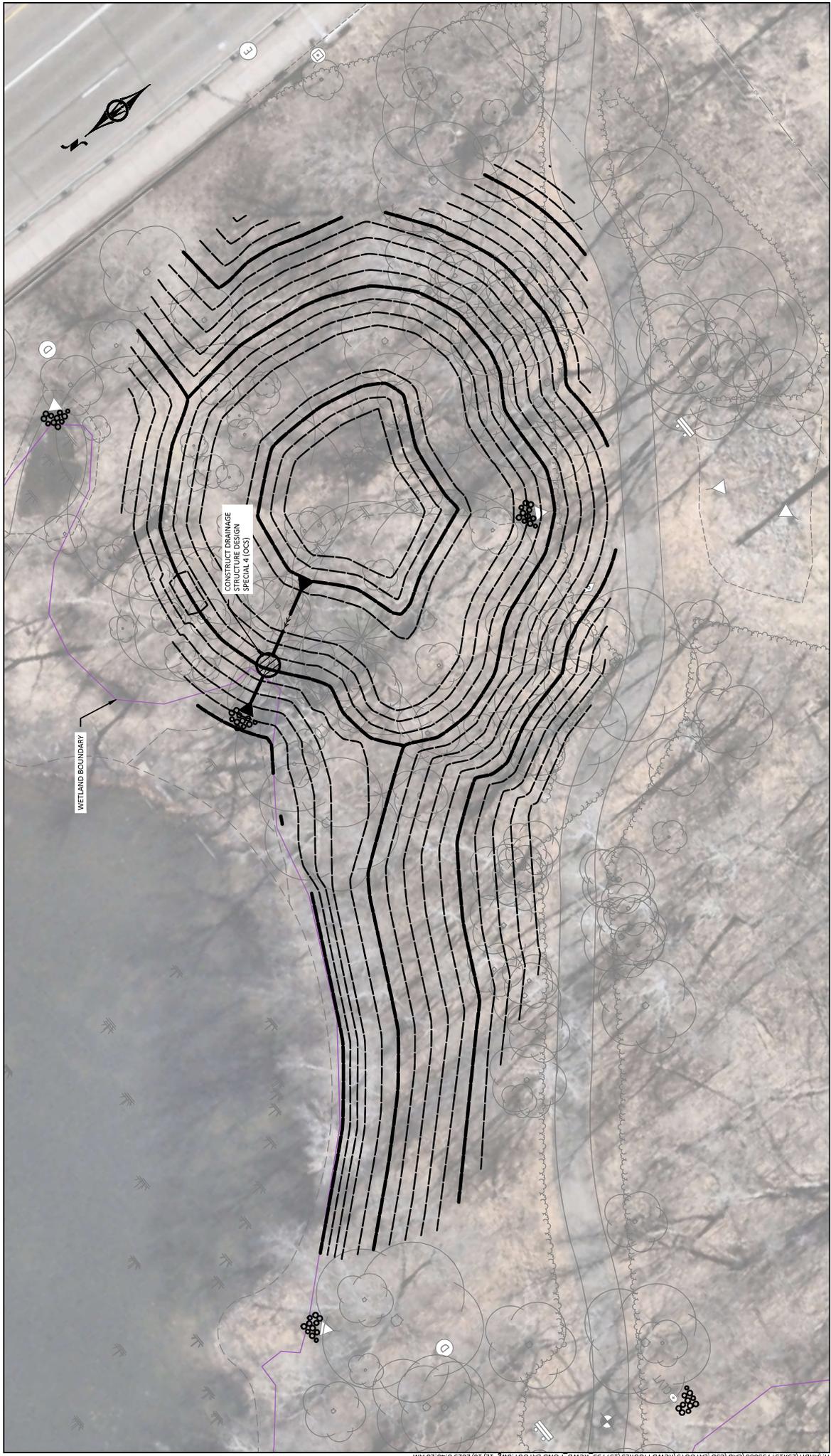
The work identified is part of the City of Arden Hills 2026 PMP Street & Utility Improvements project which is scheduled to be constructed over the 2026 construction season. This overall project is already under design and will be bid in late winter/early spring of 2026. The overall project requires some permits but the stormwater pond work described does not require any permits to proceed.

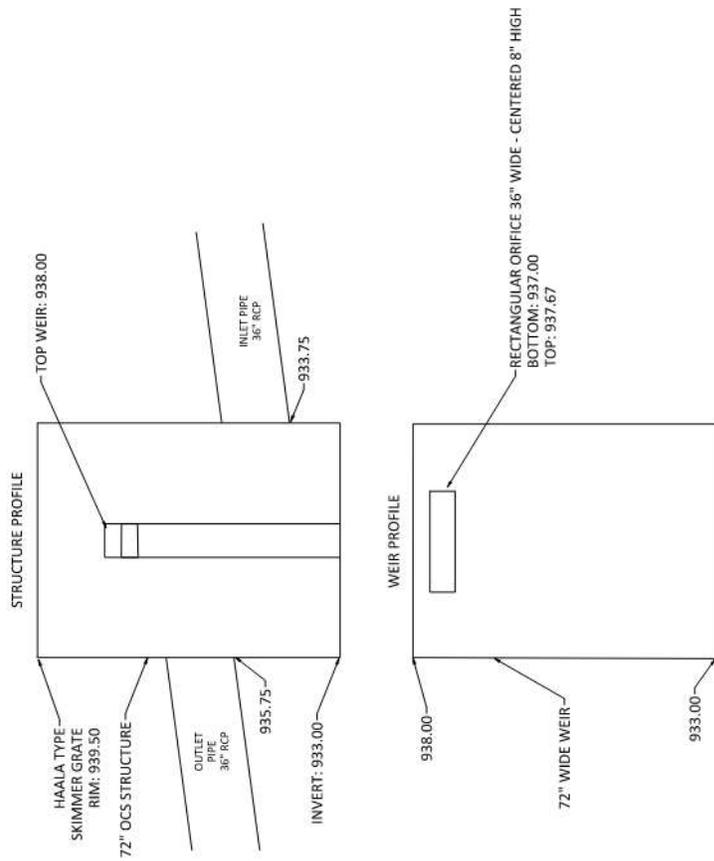
**XIII. Engagement Opportunities (10 points)**

Demonstrate any potential for public engagement, education and demonstration and describe what methods will be used to ensure that the purpose and success of the project are made known to the public. Applicants must incorporate a public engagement component into the project.

The purpose of the stormwater pond and the reason for inclusion in the project will be made known to the public through a project summary included in a Community Newsletter.

FIGURE 3: STORMWATER POND BMP  
DECEMBER 2025





DRAINAGE STRUCTURE DESIGN SPECIAL 4 (OCS)  
NOT TO SCALE

**2026 Arden Hills PMP Street & Utility Improvements Project  
MIDS Calculator - Water Quality Removals - Stormwater Pond Results**

Summary Information:		Site Information	Schematic	Results				
Impervious area not routed to a BMP	0 acres	Project Name:	Arden Hills PMP 2026					
Pervious area not routed to a BMP	0 acres	User Name/Company Name:	BMI					
Performance goal requirement	21744 ft <sup>3</sup>	Date:	12/10/2025					
Performance goal reduction achieved	ft <sup>3</sup>	Project Description:	Wet Pond for Boston Scientific Site.					
Percent TP reduction achieved	50 %	Are you using the calculator to determine compliance with a Construction Stormwater permit?	No					
Percent TSS reduction achieved	84 %	Retention Requirement (inches)	1.1					
		Site's Zip Code	55112					
		Annual Rainfall (inches)	31.5					
		Phosphorus EMC (mg/l)	0.3					
		TSS EMC (mg/l)	54.5					
		Land Cover	A soils (acres)	B soils (acres)	C soils (acres)	D soils (acres)	Total (acres)	
		Forest/Open Space - Undisturbed, protected forest/open space or reforested land		4.97524			4.97524	
		Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		0.527261			0.527261	
							Impervious Area	5.445601
							Total Area	10.94810

Summary Information:		Site Information	Schematic	Results
Impervious area not routed to a BMP	0 acres	BMPs		
Pervious area not routed to a BMP	0 acres	Schematic		
Performance goal requirement	21744 ft <sup>3</sup>	<p>1 - Constructed stormwater pond</p>		
Performance goal reduction achieved	ft <sup>3</sup>			
Percent TP reduction achieved	50 %			
Percent TSS reduction achieved	84 %			

**Project Information**

Calculator Version:	Version 4: July 2020
Project Name:	Arden Hills PMP 2026
User Name / Company Name:	BMI
Date:	12/10/2025
Project Description:	Wet Pond for Boston Scientific Site.
Construction Permit?:	No

**Site Information**

Retention Requirement (inches):	1.1
Site's Zip Code:	55112
Annual Rainfall (inches):	31.5
Phosphorus EMC (mg/l):	0.3
TSS EMC (mg/l):	54.5

**Total Site Area**

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land		4.97524			4.97524
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		0.527261			0.527261
			Impervious Area (acres)		5.445601
			Total Area (acres)		10.948102

**Site Areas Routed to BMPs**

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land		4.97524			4.97524
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		0.527261			0.527261
			Impervious Area (acres)		5.445601
			Total Area (acres)		10.948102

**Summary Information**

**Performance Goal Requirement**

Performance goal volume retention requirement: 21744 ft3  
 Volume removed by BMPs towards performance goal: ft<sup>3</sup>  
**Percent volume removed towards performance goal** %

**Annual Volume and Pollutant Load Reductions**

Post development annual runoff volume 12.8237 acre-ft  
 Annual runoff volume removed by BMPs: 0 acre-ft  
**Percent annual runoff volume removed:** 0 %

Post development annual particulate P load: 5.7553 lbs  
 Annual particulate P removed by BMPs: 4.834 lbs  
 Post development annual dissolved P load: 4.709 lbs  
 Annual dissolved P removed by BMPs: 0.377 lbs  
 Total P removed by BMPs 5.211 lbs  
**Percent annual total phosphorus removed:** 50 %

Post development annual TSS load: 1901 lbs  
 Annual TSS removed by BMPs: 1596.8 lbs  
**Percent annual TSS removed:** 84 %

**BMP Summary**

**Performance Goal Summary**

BMP Name	BMP Volume Capacity (ft3)	Volume Recieved (ft3)	Volume Retained (ft3)	Volume Outflow (ft3)	Percent Retained (%)
1 - Constructed stormwater pond	0	21744	0	21744	0

**Annual Volume Summary**

BMP Name	Volume From Direct Watershed (acre-ft)	Volume From Upstream BMPs (acre-ft)	Volume Retained (acre-ft)	Volume outflow (acre-ft)	Percent Retained (%)
1 - Constructed stormwater pond	12.8237	0	0	12.8237	0

**Particulate Phosphorus Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Constructed stormwater pond	5.7553	0	4.8345	0.9208	84

**Dissolved Phosphorus Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Constructed stormwater pond	4.7089	0	0.3767	4.3322	8

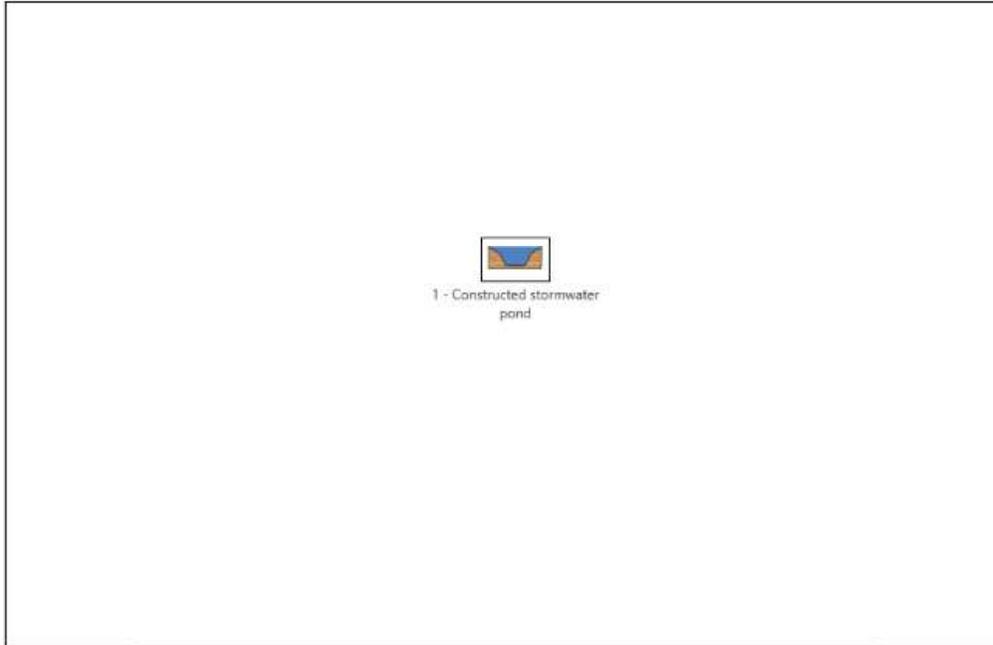
**Total Phosphorus Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Constructed stormwater pond	10.4642	0	5.2112	5.253	46

**TSS Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Constructed stormwater pond	1900.99	0	1596.83	304.16	84

**BMP Schematic**



BMP Properties: 1 - Constructed stormwater pond



Watershed | **BMP Parameters** | BMP Summary

BMP Name

Routing/downstream BMP

[Minnesota Stormwater Manual Wiki](#)

**BMP Watershed Area**

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land		4.97524			4.97524
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		0.527261			0.527261
Impervious Cover (acres)					5.445601
Total Area (acres)					10.9481

BMP Properties: 1 - Constructed stormwater pond



Watershed | **BMP Parameters** | BMP Summary

**Constructed Stormwater Pond**



Bypass %  %

Have amendments to attenuate phosphorus be incorporated?

Pond Design Level

Percent annual particulate P removal rate  %

Percent annual dissolved P removal rate  %

Percent annual TSS removal rate  %

**This BMP does not provide volume reduction towards the performance goal or on an annual basis. Please select a Design Level to determine pollutant removal rates.**

**Requirements for each Design Level are explained in the Requirements, recommendations, and information for using sand filter as a BMP in the MIDS Calculator page in the Minnesota Stormwater Manual wiki. To access hit the Help button below.**

BMP Properties: 1 - Constructed stormwater pond



Watershed | **BMP Parameters** | BMP Summary

**Performance Goal Summary**

Water volume from direct watershed:	21744	ft <sup>3</sup>
Water volume from upstream BMPs:	0	ft <sup>3</sup>
Total water volume routed to BMP:	21744	ft <sup>3</sup>
Retention volume provided by BMP:	0	ft <sup>3</sup>
Outflow volume:	21744	ft <sup>3</sup>
<b>Percent of Performance Goal achieved:</b>	<b>0</b>	<b>%</b>

**Annual Summary**

Annual water volume from direct watershed:	12.8237	acre-ft
Annual water volume from upstream BMPs:	0	acre-ft
Annual retention volume provided by BMP:	0	acre-ft
Annual outflow volume:	12.8237	acre-ft
<b>Percent annual runoff volume retained:</b>	<b>0</b>	<b>%</b>
Percent annual Particulate P reduction (via non volume reduction treatment)	84	%
Particulate P load from direct watershed:	5.755	lbs
Particulate P load from upstream BMPs:	0	lbs
Particulate P load reduction:	4.834	lbs
Particulate P load bypass	0	lbs
Particulate P load outflow:	0.921	lbs
<b>Total percent annual Particulate P reduction:</b>	<b>84</b>	<b>%</b>
Percent annual Dissolved P reduction (via non volume reduction treatment)	8	%

BMP Properties: 1 - Constructed stormwater pond



Watershed | **BMP Parameters** | BMP Summary

Particulate P load from upstream BMPs:	0	lbs
Particulate P load reduction:	4.834	lbs
Particulate P load bypass	0	lbs
Particulate P load outflow:	0.921	lbs
<b>Total percent annual Particulate P reduction:</b>	<b>84</b>	<b>%</b>
Percent annual Dissolved P reduction (via non volume reduction treatment)	8	%
Dissolved P load from watershed:	4.709	lbs
Dissolved P load from upstream BMPs:	0	lbs
Dissolved P load reduction:	0.3767	lbs
Dissolved P Bypass	0	lbs
Dissolved P load outflow:	4.3322	lbs
<b>Total percent annual Dissolved P reduction:</b>	<b>8</b>	<b>%</b>
<b>Total percent annual TP reduction:</b>	<b>50</b>	<b>%</b>
Percent annual TSS reduction (via non volume reduction treatment)	84	%
TSS load from watershed:	1900.99	lbs
TSS load from upstream BMPs:	0	lbs
TSS load reduction:	1596.83	lbs
TSS Annual Bypass:	0	lbs
TSS load outflow:	304.16	lbs
<b>Total percent annual TSS reduction</b>	<b>84</b>	<b>%</b>

**ENGINEER'S ESTIMATE FOR RCWD STORMWATER GRANTS**

2026 PMP STREET & UTILITY IMPROVEMENTS

CITY OF ARDEN HILLS, MINNESOTA

CITY PROJECT NO. PW-26-0100

BMI PROJECT NO. 25X.137753

12/23/2025

ITEM NO.	SPEC. REF	DESCRIPTION	UNIT	RESIDENTIAL MILL AREAS SUMP/SAFLS		RESIDENTIAL RECLAMATION AREAS SUMP/SAFLS		RETAINING WALL/SHORELINE STABILIZATION	STORMWATER POND BMP	TOTAL ESTIMATED QUANTITY	ESTIMATED UNIT PRICE	ESTIMATED TOTAL PRICE
				STREET	STORM	STREET	STORM					
<b>SCHEDULE "A" - GRANT ELIGIBLE ITEMS</b>												
1	2101.505	CLEARING	ACRE	0	0	0	0	0	0.62	0.62	\$25,000.00	\$ 15,500.00
2	2101.505	GRUBBING	ACRE	0	0	0	0	0	0.62	0.62	\$15,000.00	\$ 9,300.00
3	2104.502	REMOVE METAL APRON	EACH	0	0	0	0	0	1	1.00	\$250.00	\$ 250.00
4	2104.502	REMOVE MANHOLE OR CATCH BASIN	EACH	0	1	0	0	0	0	2.00	\$550.00	\$ 1,100.00
5	2104.503	REMOVE SEWER PIPE (STORM)	LIN FT	0	16	0	0	0	0	32.00	\$15.00	\$ 480.00
6	2104.503	REMOVE CURB & GUTTER (SPOT)	LIN FT	20	0	20	0	0	0	40.00	\$12.00	\$ 480.00
7	2104.503	REMOVE RETAINING WALL	LIN FT	0	0	0	0	72	0	72.00	\$40.00	\$ 2,880.00
8	2106.507	EXCAVATION - CHANNEL AND POND	CU YD	0	0	0	0	0	1900	1900.00	\$20.00	\$ 38,000.00
9	2106.507	COMMON EMBANKMENT (POND)	CU YD	0	0	0	0	0	200	200.00	\$12.00	\$ 2,400.00
10	2501.502	12" HDPE PIPE APRON	EACH	0	0	0	0	0	1	1.00	\$650.00	\$ 650.00
11	2501.502	36" RC PIPE APRON	EACH	0	0	0	0	0	2	2.00	\$3,700.00	\$ 7,400.00
12	2501.502	ADJUST PIPE APRON	EACH	0	0	0	0	0	1	1.00	\$850.00	\$ 850.00
13	2503.503	15" RC PIPE SEWER	LIN FT	0	16	0	0	0	0	16.00	\$80.00	\$ 1,280.00
14	2503.503	24" RC PIPE SEWER	LIN FT	0	0	0	8	0	0	8.00	\$105.00	\$ 840.00
15	2503.503	27" RC PIPE SEWER	LIN FT	0	0	0	8	0	0	8.00	\$125.00	\$ 1,000.00
16	2503.503	36" RC PIPE SEWER	LIN FT	0	0	0	0	0	34	34.00	\$200.00	\$ 6,800.00
17	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	0	2	0	0	0	1	5.00	\$1,500.00	\$ 7,500.00
18	2506.502	CASTING ASSEMBLY (STORM)	EACH	0	1	0	0	0	0	2.00	\$1,300.00	\$ 2,600.00
19	2506.602	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 1 (SAFL BAFFLE W/ SUMP)	EACH	0	1	0	0	0	0	1.00	\$12,000.00	\$ 12,000.00
20	2506.602	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 2 (SAFL BAFFLE W/ SUMP)	EACH	0	0	0	1	0	0	1.00	\$15,000.00	\$ 15,000.00
21	2506.602	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 4 (OCS)	EACH	0	0	0	0	0	1	1.00	\$9,000.00	\$ 9,000.00
22	2511.507	RANDOM RIPRAP CLASS III	CU YD	0	0	0	0	0	40	40.00	\$110.00	\$ 4,400.00
23	2551.503	CONCRETE CURB & GUTTER DESIGN B618 (SPOT)	LIN FT	20	0	20	0	0	0	40.00	\$40.00	\$ 1,600.00
24	2550.501	PUMP ELECTRIC SYSTEM PANEL (REMOVE & REPLACE)	LUMP SUM	0	0	0	0	1	0	1.00	\$45,000.00	\$ 45,000.00
25	2573.503	FLOTATION SILT CURTAIN TYPE STILL WATER	LIN FT	0	0	0	0	150	200	350.00	\$30.00	\$ 10,500.00
26	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBER	LIN FT	110	0	110	0	170	660	1050.00	\$4.00	\$ 4,200.00
27	2574.507	COMMON TOPSOIL BORROW	CU YD	4	0	4	0	67	317	392.00	\$40.00	\$ 15,680.00
28	2575.504	ROLLED EROSION PREVENTION CATEGORY 20 W/ SEED MIXTURE (XX-XXX)	SQ YD	20	0	20	0	400	1900	2240.00	\$4.00	\$ 9,360.00
29	2575.604	SHORELINE STABILIZATION (GEOWEB BY PRESTO)	SQ YD	0	0	0	0	110	0	110.00	\$160.00	\$ 17,600.00
<b>ESTIMATED SCHEDULE "A" - CONSTRUCTION SUBTOTAL</b>				\$ 1,720.00	\$ 16,570.00	\$ 1,720.00	\$ 21,930.00	\$ 74,940.00	\$ 124,970.00	\$ 124,970.00	\$ 245,850.00	\$ 245,850.00
<b>10% CONTINGENCY</b>				\$ 172.00	\$ 1,657.00	\$ 172.00	\$ 2,193.00	\$ 7,494.00	\$ 12,497.00	\$ 12,497.00	\$ 24,365.00	\$ 24,365.00
<b>ESTIMATED SCHEDULE "A" - CONSTRUCTION TOTAL</b>				\$ 1,892.00	\$ 18,227.00	\$ 1,892.00	\$ 24,123.00	\$ 82,434.00	\$ 137,467.00	\$ 137,467.00	\$ 265,015.00	\$ 265,015.00
<b>27% OVERHEAD</b>				\$ 511.00	\$ 5,456.00	\$ 511.00	\$ 6,513.00	\$ 22,257.00	\$ 37,116.00	\$ 37,116.00	\$ 72,364.00	\$ 72,364.00
<b>ESTIMATED SCHEDULE "A" - PROJECT TOTAL</b>				\$ 2,403.00	\$ 25,683.00	\$ 2,403.00	\$ 30,636.00	\$ 104,691.00	\$ 174,583.00	\$ 174,583.00	\$ 340,379.00	\$ 340,379.00

## **Expanded Answers: Arden Hills Karth Pond**

### **Section VI Executive Summary & Abstract**

The City of Arden Hills proposes a stormwater pond with the 2026 PMP Street & Utility Improvements project. This pond will provide water quality treatment by reducing sediment and phosphorus before runoff enters Karth Lake. The improvement supports watershed protection goals, aligns with recommendations from the Southwest Urban Lakes Study, and complements other planned BMPs with the project, including sump structures with SAFL Baffles and the Karth Lake pumping system retrofit. The total cost for the proposed work is estimated to be \$174,583.00. Arden Hills requests \$87,291.50 in RCWD grant funding (50% of eligible costs) to implement this BMP.

### **Section VII Description**

**List and describe the Best Management Practices (BMPs) to be incorporated into this project.**

The 2026 PMP Street & Utility Improvements project includes the construction of a stormwater pond designed to provide dedicated water quality treatment before runoff discharges to Karth Lake and ultimately Valentine Lake. Stormwater ponds improve water quality through physical, biological, and chemical processes, with the primary treatment occurring as sediment and associated pollutants settle to the bottom of the permanent pool. The permanent pool prevents resuspension, increasing long-term pollutant removal effectiveness.

**If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.**

The project maintains a net-zero increase in impervious surface, ensuring no additional runoff is generated within the watershed. The stormwater pond is designed to maximize treatment within the available project area by slowing, storing, and filtering runoff before it reaches Karth Lake and, ultimately, Valentine Lake. Together with the SAFL Baffle BMPs proposed elsewhere in the project, the pond enhances pollutant removal and reduces downstream loading, supporting RCWD goals for lake protection and restoration identified in the Watershed Management Plan and the Southwest Urban Lakes Study.

**Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.**

The stormwater pond is designed to reduce sediment and phosphorus loading prior to discharge into Karth Lake, and ultimately Valentine Lake. By capturing and settling sediment within the pond, the amount of material reaching Karth Lake will be reduced, lowering long-term sediment accumulation and decreasing the frequency and cost of future lake maintenance activities such as dredging. Routine inspections and sediment removal will be completed by City staff in accordance with MS4 requirements, including annual inspections of structural stormwater BMPs and additional inspections as needed.

### **Section VIII Prioritization**

This project supports RCWD goals identified in the Watershed Management Plan by advancing water quality protections for Karth Lake, and ultimately Valentine Lake, resources highlighted for improvement in local and regional planning. The stormwater pond is Phase 2 of the previously completed Karth Lake BMP #1 project, included on the Member Community Project List, reinforcing its priority status within the watershed. The pond also aligns with recommendations in the Southwest Urban Lakes Study, which identifies the need for enhanced stormwater treatment to protect and restore urban lake systems. In addition, the BMP complements other coordinated improvements in the Karth Lake subwatershed, including the planned pumping retrofit/cost-share effort and installation of sump structures with SAFL Baffles. Collectively, these actions strengthen pollutant removal, increase watershed resilience, and advance RCWD priorities for long-term lake protection.

### **Section IX Targeting**

Runoff from the contributing drainage areas currently carries sediment and phosphorus to Karth Lake, affecting water quality and contributing to long-term maintenance needs such as dredging. The proposed stormwater pond will help address these issues by capturing sediment and providing permanent pool treatment before water reaches Karth Lake and, ultimately, Valentine Lake. Because the pond is being constructed as part of the larger 2026 PMP Street & Utility Improvements project, it offers a cost-effective opportunity to add meaningful water quality treatment without the additional expense of a standalone project. This coordinated approach provides substantial pollutant reduction while minimizing new infrastructure costs.



# Rice Creek Watershed District

## Stormwater Management Grant Program

### 2026 Application Form

#### I. APPLICANT INFORMATION

Organization (to be named as Grantee): City of Arden Hills  
 Street Address: 1245 West Highway 96  
 City, State, Zip: Arden Hills, MN 55112  
 Tax Status: Local Government Tax ID#: 9047998  
*(e.g., local government, non-profit 501(c)(3), private business, etc.)*

#### II. PROJECT CONTACTS

Project Officer: David Swearingen Financial Officer: Jessica Jagoe  
 Title: Public Works Director/City Engineer Title: City Administrator/Finance Director  
 Telephone: 651-792-7847 Telephone: 651-792-7810  
 Fax: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: dswearingen@cityofardenhills.org Email: jjagoe@cityofardenhills.org

#### III. PROJECT INFORMATION

Project Name: 2026 PMP Street & Utility Improvements  
 Location(s) of Project: Karth Lake Circle & Karth Lake Drive  
 City: Arden Hills State: MN County: Ramsey  
 Project Start Date: Spring 2026 Project Completion Date: Fall 2026  
 Project Type (check only those that directly apply):

- Water Quality Treatment Project     Stormwater Reuse Irrigation Project  
 Peak Runoff Rate Control Project     Runoff Volume Control / Flood Storage Project  
 Other: \_\_\_\_\_

Is a RCWD Rule C permit required for this project?     YES     NO     UNKNOWN

#### IV. GRANT REQUEST

RCWD Grant Funding Requested: \$ 30,552.50  
 Applicant Match Funding Committed: \$ 30,552.50  
 Total Estimated Project Cost: \$ 61,105  
 Would you be willing to accept grant funding in an amount less than requested?     YES     NO

#### V. SIGNATURE OF APPLICANT

I certify that the information contained within this application is true and accurate.

David Swearingen    Digitally signed by David Swearingen  
Date: 2025.12.24 08:28:03 -06'00'  
 Signature of Project Officer

12/24/2025  
 Date

## VI. Executive Summary / Abstract

Include a brief Executive Summary (100 words or less) that summarizes the main goals and activities of the project and the expected environmental outcomes that will be achieved. Identification of the total amount of funds being requested along with the required match. The summaries will be used in the grant review process and on the RCWD website-for projects that are funded.

The City of Arden Hills proposes installing two sump storm sewer structures with SAFL Baffles as part of the 2026 PMP Street & Utility Improvements project. These BMPs will remove sediment and phosphorus from stormwater before it enters Karth Lake and adjacent wetlands, improving water quality and reducing long-term maintenance needs. The total cost for the proposed work is estimated to be \$61,105. Arden Hills requests \$30,552.50 in RCWD grant funding (50% of

## VII. Description (10 points)

The RCWD has established guidelines for prioritizing projects based on location. Water quality improvement projects should be located to benefit a RCWD lake classified as either "Protection" or "Restoration" (see Table 2-4 in the RCWD 2020 Watershed Management Plan), and/or a waterbody with an approved Total Maximum Daily Load (TMDL) study or other recognized diagnostic water quality study. Flood storage and runoff rate control projects should focus on reducing peak flood elevations in known regional flood hazard areas and/or documented local problem areas. Describe the specific watershed management, water quality or quantity need(s) that the project will address and its impact on the target water resource within the District.

Name the target waterbody benefiting from this project: Karth Lake, Valentine Lake & Wetland

List and describe the Best Management Practices (BMPs) to be incorporated into this project

The 2026 PMP Street & Utility Improvements project addresses water quality concerns by installing two sump storm sewer structures with SAFL Baffles upstream of outfalls to Karth Lake and an adjacent wetland. SAFL Baffles are a stormwater pretreatment systems that are installed with a sump storm sewer manhole structure to provide stormwater quality treatment by removing sediment, and harmful chemicals (such as phosphorus) that enter the

If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.

The project will maintain net-zero impervious surface and enhance regional water quality. The sump & SAFL Baffle structure improvements, along with a planned stormwater pond

Provide drawings, maps and/or schematics which graphically illustrate the location and conceptual design of the project. (Attach separate sheets.)

Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.

Each structure will be inspected at least annually (or more frequently if deemed necessary over the first season of operation) by city maintenance staff. As the SAFL Baffle captures sediment which settles into the sump, staff will utilize a Vac Truck to remove the accumulated sediment and ensure proper operation of the structure is maintained. By capturing sediment and phosphorus before discharging to surrounding water bodies, the sump & SAFL Baffle structures

### VIII. Prioritization (20 points)

How does the project support existing regional planning efforts such as the RCWD Watershed Management Plan, municipal surface water management plans, TMDLs, or other recognized diagnostic studies? Is the project included on the Member Community Project List (Appendix G) within the RCWD Watershed Management Plan? Please provide citations where possible.

This project supports RCWD's Watershed Management Plan goals for lake protection and restoration by improving water quality in Karth Lake, and ultimately Valentine Lake, resources identified in regional planning efforts. The proposed BMPs align with recommendations in the Southwest Urban Lakes Study, which highlights the need for enhanced stormwater treatment. 

### IX. Targeting (15 points)

Describe the critical pollution or flooding sources and risks addressed by this project. Explain why the proposed project is the most cost-effective and feasible means to attain the expected resource benefits. Has a formal analysis been conducted to substantiate this position?

The current stormwater system conveys sediment and pollutants to lakes and wetlands, creating pollution risks that degrade water quality and increase dredging and maintenance needs. These pollutants impact aquatic habitats and reduce system performance. Installing sump structures with SAFL Baffles offers a practical, cost-effective solution by capturing sediment at the source without major infrastructure changes. SAFL Baffles retrofit easily into existing structures and provide measurable pollutant reduction at a relatively low cost. 

### X. Measurable Outcomes (20 points)

Provide a detailed estimate and description of the anticipated pollutant reduction, stormwater rate/volume reduction, groundwater withdrawal reduction, and/or other environmental or natural resource benefits associated with the project. Describe the methods and cite the sources (i.e. P8 model, HydroCAD, XP-SWMM, MIDS, MN Stormwater Manual, etc.) used to calculate or estimate the pollutant reductions and/or hydrologic outcomes. **(Mandatory for RCWD to consider your proposal!)**

The proposed BMPs will significantly reduce pollutant loading to Karth Lake and the adjacent wetland. Modeling using SHSAM and MIDS indicates an estimated removal of 54% Total Suspended Solids (514.12 lbs) to Karth Lake and 48% Total Suspended Solids (1616.76 lbs) to adjacent wetlands annually from the contributing drainage areas. These reductions will improve water quality and reduce sediment accumulation in downstream systems, minimizing future dredging and maintenance costs. Effectiveness will be monitored through routine inspections and sediment removal records, ensuring measurable and sustained water quality benefits.

### **XI. Cost-Effectiveness (15 points)**

Provide a detailed budget that lists each item for which funding is being requested. You must also list the sources of required local matching contributions. Please provide a summary that demonstrates why this is the most cost-effective approach to solving the problem. Or, have other alternatives been explored, and if so, why were they determined to not be the best alternative? What is the anticipated lifespan of the practice? (Attach separate sheets if needed.)

See attached cost estimate for the project elements which funding is being requested for. Matching funds will be provided from a combination of the City of Arden Hills Surface Water Management Utility Fund and its PIR Fund. This is the most cost-effective approach because it provides a high pollutant reduction performance without significant additional project costs, when compared to other relevant BMP's. SAFL Baffle devices come with a 20 year guarantee from the manufacturer. <https://upstreamtechnologies.us/docs/SAFL-Baffle-Guarantee.pdf>

### **XII. Project Readiness (10 points)**

Please describe the anticipated timeline for implementing this project. What steps have been taken to ensure that the project can be implemented according to this timeline? Are any permits needed? (If permits are required please cite from what agency and where the project is in that process).

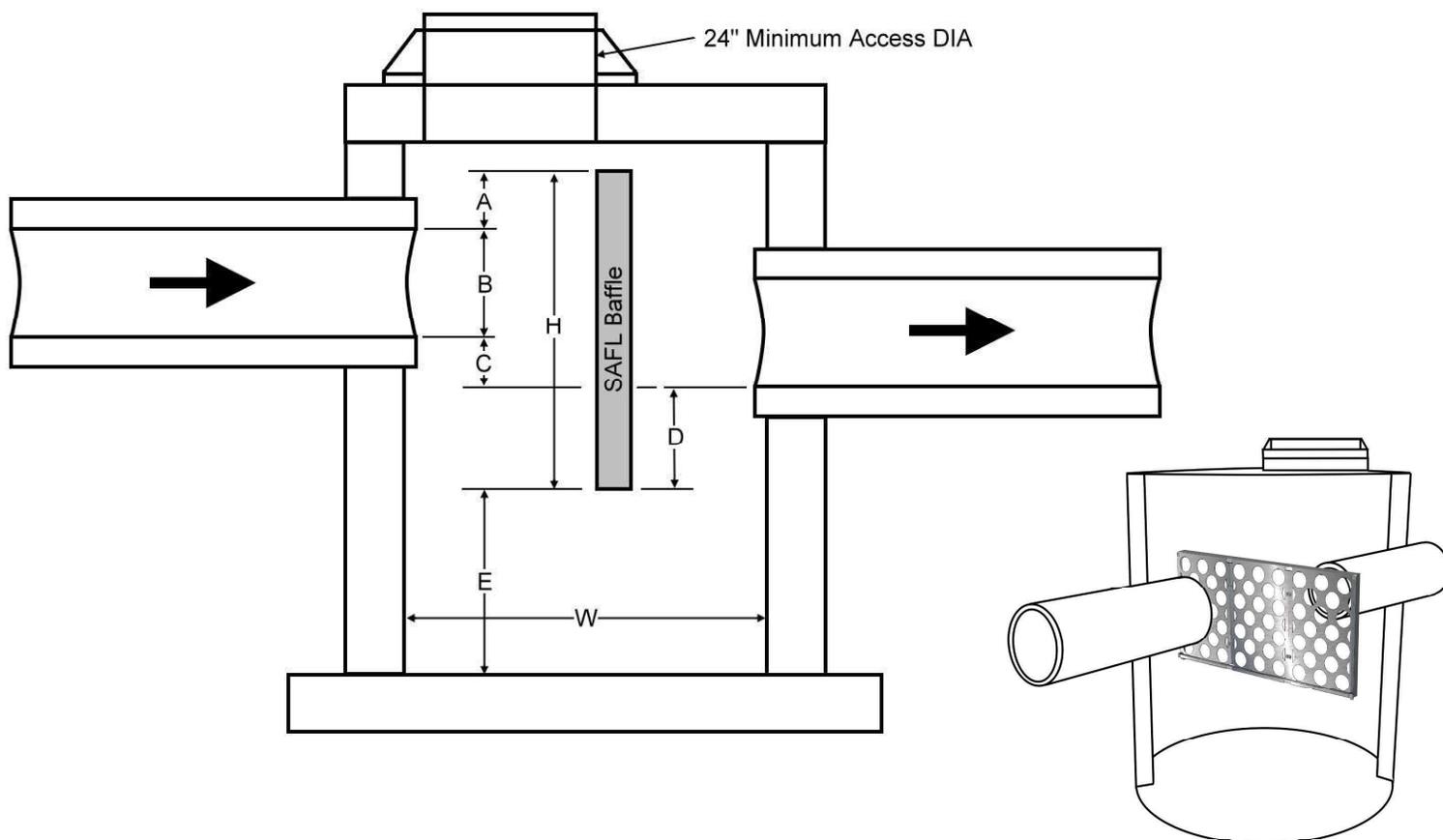
The work identified is part of the City of Arden Hills 2026 PMP Street & Utility Improvements project which is scheduled to be constructed over the 2026 construction season. This overall project is already under design and will be bid in late winter/early spring of 2026. The overall project requires some permits but the SAFL Baffle work described does not require any permits to proceed.

### **XIII. Engagement Opportunities (10 points)**

Demonstrate any potential for public engagement, education and demonstration and describe what methods will be used to ensure that the purpose and success of the project are made known to the public. Applicants must incorporate a public engagement component into the project.

The purpose of the SAFL Baffles and the reason for inclusion in the project will be made known to the public through a project summary included in a Community Newsletter.

# SAFL BAFFLE SIZING REQUIREMENTS



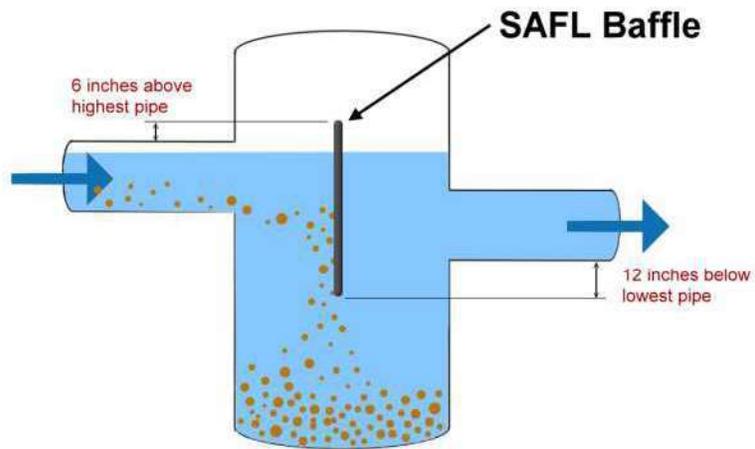
A	0 to 6" 6" is ideal
B	Inlet pipe inside diameter
C	0 to 6" 0" is ideal
D	12"
E	36" Minimum. 48" or greater is ideal and results in less frequent sump cleanout
W	W = Sump diameter if round or width if rectangular
H	Baffle height = A + B + C + D
Purchase Baffle Size	W x H View the complete list of <a href="#">Available Baffle Sizes</a>
	Also see: <a href="#">Bracing Guide</a> & <a href="#">Stacking Guide</a>
NOTE 1	If H is greater than 57" two SAFL Baffles may be stacked.
NOTE 2	75% of flow must be horizontal. No more than 25% falling from above
NOTE 3	This detail does not cover sizing the sump for sediment removal efficiency. Contact Upstream for sump sizing or use <a href="#">SHSAM Software</a>
NOTE 4	For more information, see our <a href="#">Design Guide</a>

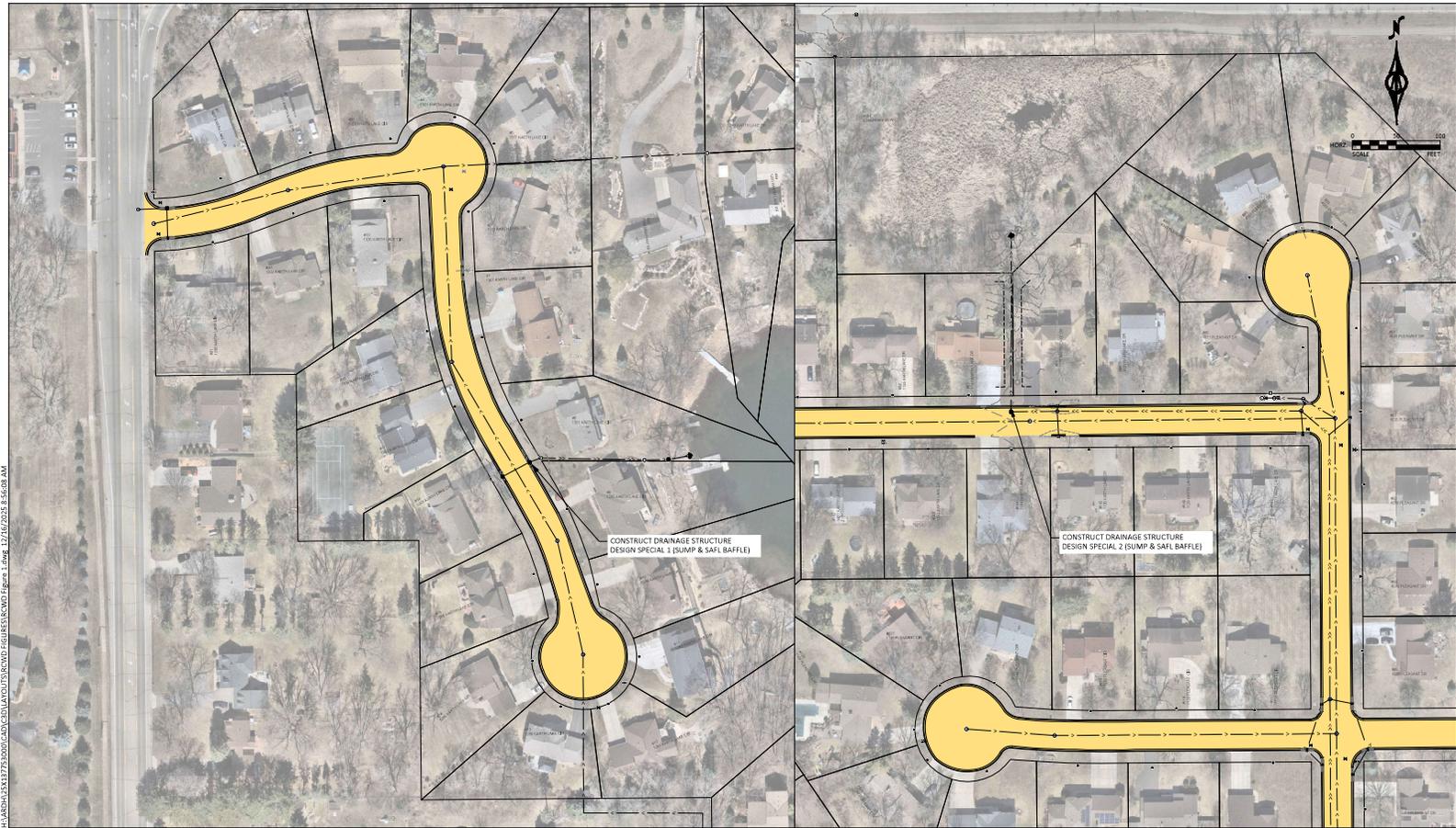
PATENT PROTECTED Patents: US #8663466B2 - US #8715507B2 - US #9506237B2 - CA #2742207

This generic detail does not encompass the sizing, fit, and applicability of the SAFL Baffle for this specific project. It is the ultimate responsibility of the design engineer to assure that the design is in compliance with all applicable laws and regulations. The SAFL Baffle is a patented technology of Upstream Technologies, Inc. Upstream Technologies does not approve plans, sizing, or system designs.

**SAFL BAFFLE SIZING DETAIL**  
 UPSTREAM TECHNOLOGIES INC.  
 5201 EAST RIVER ROAD, SUITE 303  
 FRIDLEY, MN 55421  
 651-237-5123







**2026 Arden Hills PMP Street & Utility Improvements Project  
MIDS Calculator - Water Quality Removals - SAFL Baffle Results**

**Summary Information:**

Impervious area not routed to a BMP  
0 acres

Pervious area not routed to a BMP  
0 acres

Performance goal requirement  
34859 ft<sup>3</sup>

Performance goal reduction achieved  
ft<sup>3</sup>

Percent TP reduction achieved  
0 %

Percent TSS reduction achieved  
49 %

Site Information | Schematic | Results

Project Name: Arden Hills PMP

User Name/Company Name: BMI

Date: 12/10/2025

Project Description:  
Sump & SAFL Baffle Structures

Are you using the calculator to determine compliance with a Construction Stormwater permit? No

Retention Requirement (inches)	1.1
Site's Zip Code	55126
Annual Rainfall (inches)	31.6
Phosphorus EMC (mg/l)	0.3
TSS EMC (mg/l)	54.5

Land Cover	A soils (acres)	B soils (acres)	C soils (acres)	D soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/ open space or reforested land		0			0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		20.37			20.37
Impervious Area					8.73
Total Area					29.1

**Summary Information:**

Impervious area not routed to a BMP  
0 acres

Pervious area not routed to a BMP  
0 acres

Performance goal requirement  
34859 ft<sup>3</sup>

Performance goal reduction achieved  
ft<sup>3</sup>

Percent TP reduction achieved  
0 %

Percent TSS reduction achieved  
49 %

Site Information | Schematic | Results

Schematic

BMPs

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Other

Karth Lake Sump & SAFL Baffle Structure

Other

Wetland Sump & SAFL Baffle Structure

**Project Information**

Calculator Version:	Version 4: July 2020
Project Name:	Arden Hills PMP
User Name / Company Name:	BMI
Date:	12/10/2025
Project Description:	Sump & SAFL Baffle Structures
Construction Permit?:	No

**Site Information**

Retention Requirement (inches):	1.1
Site's Zip Code:	55126
Annual Rainfall (inches):	31.6
Phosphorus EMC (mg/l):	0.3
TSS EMC (mg/l):	54.5

**Total Site Area**

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land		0			0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		20.37			20.37
			Impervious Area (acres)		8.73
			Total Area (acres)		29.1

**Site Areas Routed to BMPs**

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land					0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		20.37			20.37
			Impervious Area (acres)		8.73
			Total Area (acres)		29.1

## Summary Information

### Performance Goal Requirement

Performance goal volume retention requirement:	34859	ft <sup>3</sup>
Volume removed by BMPs towards performance goal:		ft <sup>3</sup>
<b>Percent volume removed towards performance goal</b>		<b>%</b>

### Annual Volume and Pollutant Load Reductions

Post development annual runoff volume	29.311	acre-ft
Annual runoff volume removed by BMPs:	0	acre-ft
<b>Percent annual runoff volume removed:</b>	<b>0</b>	<b>%</b>

Post development annual particulate P load:	13.1548	lbs
Annual particulate P removed by BMPs:	0	lbs
Post development annual dissolved P load:	10.763	lbs
Annual dissolved P removed by BMPs:	0	lbs
Total P removed by BMPs:	0	lbs
<b>Percent annual total phosphorus removed:</b>	<b>0</b>	<b>%</b>

Post development annual TSS load:	4345.1	lbs
Annual TSS removed by BMPs:	2130.9	lbs
<b>Percent annual TSS removed:</b>	<b>49</b>	<b>%</b>

## BMP Summary

### Performance Goal Summary

BMP Name	BMP Volume Capacity (ft <sup>3</sup> )	Volume Recieved (ft <sup>3</sup> )	Volume Retained (ft <sup>3</sup> )	Volume Outflow (ft <sup>3</sup> )	Percent Retained (%)
Karth Lake Sump & SAFL Baffle Structure	0	7667	0	7667	0
Wetland Sump & SAFL Baffle Structure	0	27192	0	27192	0

### Annual Volume Summary

BMP Name	Volume From Direct Watershed (acre-ft)	Volume From Upstream BMPs (acre-ft)	Volume Retained (acre-ft)	Volume outflow (acre-ft)	Percent Retained (%)
Karth Lake Sump & SAFL Baffle Structure	6.4464	0	0	6.4464	0
Wetland Sump & SAFL Baffle Structure	22.8646	0	0	22.8646	0

**Particulate Phosphorus Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
Karth Lake Sump & SAFL Baffle Structure	2.8931	0	0	2.8931	0
Wetland Sump & SAFL Baffle Structure	10.2616	0	0	10.2616	0

**Dissolved Phosphorus Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
Karth Lake Sump & SAFL Baffle Structure	2.3671	0	0	2.3671	0
Wetland Sump & SAFL Baffle Structure	8.3959	0	0	8.3959	0

**Total Phosphorus Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
Karth Lake Sump & SAFL Baffle Structure	5.2602	0	0	5.2602	0
Wetland Sump & SAFL Baffle Structure	18.6575	0	0	18.6575	0

**TSS Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
Karth Lake Sump & SAFL Baffle Structure	955.61	0	514.12	441.49	54
Wetland Sump & SAFL Baffle Structure	3389.44	0	1616.76	1772.68	48

BMP Properties: Karth Lake Sump SAFL Baffle Structure

Other

Watershed | **BMP Parameters** | BMP Summary

BMP Name:

Routing/downstream BMP:

[Minnesota Stormwater Manual Wiki](#)

**BMP Watershed Area**

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land		0			0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		4.48			4.48
Impervious Cover (acres)					1.92
Total Area (acres)					6.4

BMP Properties: Karth Lake Sump SAFL Baffle Structure

Other

Watershed | **BMP Parameters** | BMP Summary

**Other (User Defined Reductions)**

Required treatment volume	<input type="text" value="7667"/>	ft <sup>3</sup>
Volume reduction capacity of BMP [V]	<input type="text" value="0"/>	ft <sup>3</sup>
Volume of retention provided by BMP	<input type="text" value="0"/>	ft <sup>3</sup>
Annual runoff volume retained	<input type="text" value="0"/>	%
Particulate P removal rate via non volume reduction treatment	<input type="text" value="0"/>	%
Dissolved P removal rate via non volume reduction treatment	<input type="text" value="0"/>	%
TSS removal rate via non volume reduction treatment	<input type="text" value="53.800"/>	%

BMP Properties: Karth Lake Sump SAFL Baffle Structure

Other

Watershed | **BMP Parameters** | BMP Summary

**Performance Goal Summary**

Water volume from direct watershed:	7667	ft <sup>3</sup>
Water volume from upstream BMPs:	0	ft <sup>3</sup>
Total water volume routed to BMP:	7667	ft <sup>3</sup>
Retention volume provided by BMP:	0	ft <sup>3</sup>
Outflow volume:	7667	ft <sup>3</sup>
<b>Percent of Performance Goal achieved:</b>	<b>0</b>	<b>%</b>

**Annual Summary**

Annual water volume from direct watershed:	6.4464	acre-ft
Annual water volume from upstream BMPs:	0	acre-ft
Annual retention volume provided by BMP:	0	acre-ft
Annual outflow volume:	6.4464	acre-ft
<b>Percent annual runoff volume retained:</b>	<b>0</b>	<b>%</b>
Percent annual Particulate P reduction (via non volume reduction treatment)	0	%
Particulate P load from direct watershed:	2.893	lbs
Particulate P load from upstream BMPs:	0	lbs
Particulate P load reduction:	0	lbs
Particulate P load bypass	0	lbs
Particulate P load outflow:	2.893	lbs
<b>Total percent annual Particulate P reduction:</b>	<b>0</b>	<b>%</b>
Percent annual Dissolved P reduction (via non volume reduction treatment)	0	%

BMP Properties: Karth Lake Sump SAFL Baffle Structure

Other

Watershed | **BMP Parameters** | BMP Summary

Particulate P load from upstream BMPs:	0	lbs
Particulate P load reduction:	0	lbs
Particulate P load bypass	0	lbs
Particulate P load outflow:	2.893	lbs
<b>Total percent annual Particulate P reduction:</b>	<b>0</b>	<b>%</b>
Percent annual Dissolved P reduction (via non volume reduction treatment)	0	%
Dissolved P load from watershed:	2.367	lbs
Dissolved P load from upstream BMPs:	0	lbs
Dissolved P load reduction:	0	lbs
Dissolved P Bypass	0	lbs
Dissolved P load outflow:	2.3671	lbs
<b>Total percent annual Dissolved P reduction:</b>	<b>0</b>	<b>%</b>
<b>Total percent annual TP reduction:</b>	<b>0</b>	<b>%</b>
Percent annual TSS reduction (via non volume reduction treatment)	54	%
TSS load from watershed:	955.61	lbs
TSS load from upstream BMPs:	0	lbs
TSS load reduction:	514.12	lbs
TSS Annual Bypass:	0	lbs
TSS load outflow:	441.49	lbs
<b>Total percent annual TSS reduction</b>	<b>54</b>	<b>%</b>

BMP Properties: Wetland Sump SAFL Baffle Structure

Other

Watershed | **BMP Parameters** | BMP Summary

BMP Name:

Routing/downstream BMP:

[Minnesota Stormwater Manual Wiki](#)

**BMP Watershed Area**

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land		0			0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed		15.89			15.89
Impervious Cover (acres)					6.81
Total Area (acres)					22.7

BMP Properties: Wetland Sump SAFL Baffle Structure

Other

Watershed | **BMP Parameters** | BMP Summary

**Other (User Defined Reductions)**

Required treatment volume	<input type="text" value="27192"/>	ft <sup>3</sup>
Volume reduction capacity of BMP [V]	<input type="text" value="0"/>	ft <sup>3</sup>
Volume of retention provided by BMP	<input type="text" value="0"/>	ft <sup>3</sup>
Annual runoff volume retained	<input type="text" value="0"/>	%
Particulate P removal rate via non volume reduction treatment	<input type="text" value="0"/>	%
Dissolved P removal rate via non volume reduction treatment	<input type="text" value="0"/>	%
TSS removal rate via non volume reduction treatment	<input type="text" value="47.700"/>	%

OK

HELP

BMP Properties: Wetland Sump SAFL Baffle Structure

Other

Watershed | **BMP Parameters** | BMP Summary

**Performance Goal Summary**

Water volume from direct watershed:	27192	ft <sup>3</sup>
Water volume from upstream BMPs:	0	ft <sup>3</sup>
Total water volume routed to BMP:	27192	ft <sup>3</sup>
Retention volume provided by BMP:	0	ft <sup>3</sup>
Outflow volume:	27192	ft <sup>3</sup>
<b>Percent of Performance Goal achieved:</b>	<b>0</b>	<b>%</b>

**Annual Summary**

Annual water volume from direct watershed:	22.8646	acre-ft
Annual water volume from upstream BMPs:	0	acre-ft
Annual retention volume provided by BMP:	0	acre-ft
Annual outflow volume:	22.8646	acre-ft
<b>Percent annual runoff volume retained:</b>	<b>0</b>	<b>%</b>
Percent annual Particulate P reduction (via non volume reduction treatment)	0	%
Particulate P load from direct watershed:	10.262	lbs
Particulate P load from upstream BMPs:	0	lbs
Particulate P load reduction:	0	lbs
Particulate P load bypass	0	lbs
Particulate P load outflow:	10.262	lbs
<b>Total percent annual Particulate P reduction:</b>	<b>0</b>	<b>%</b>
Percent annual Dissolved P reduction (via non volume reduction treatment)	0	%

BMP Properties: Wetland Sump SAFL Baffle Structure

Other

Watershed | **BMP Parameters** | BMP Summary

Particulate P load from upstream BMPs:	0	lbs
Particulate P load reduction:	0	lbs
Particulate P load bypass	0	lbs
Particulate P load outflow:	10.262	lbs
<b>Total percent annual Particulate P reduction:</b>	<b>0</b>	<b>%</b>
Percent annual Dissolved P reduction (via non volume reduction treatment)	0	%
Dissolved P load from watershed:	8.396	lbs
Dissolved P load from upstream BMPs:	0	lbs
Dissolved P load reduction:	0	lbs
Dissolved P Bypass	0	lbs
Dissolved P load outflow:	8.3959	lbs
<b>Total percent annual Dissolved P reduction:</b>	<b>0</b>	<b>%</b>
<b>Total percent annual TP reduction:</b>	<b>0</b>	<b>%</b>
Percent annual TSS reduction (via non volume reduction treatment)	48	%
TSS load from watershed:	3389.44	lbs
TSS load from upstream BMPs:	0	lbs
TSS load reduction:	1616.76	lbs
TSS Annual Bypass:	0	lbs
TSS load outflow:	1772.68	lbs
<b>Total percent annual TSS reduction</b>	<b>48</b>	<b>%</b>

**ENGINEER'S ESTIMATE FOR RCWD STORMWATER GRANTS**

2026 PMP STREET & UTILITY IMPROVEMENTS

CITY OF ARDEN HILLS, MINNESOTA

CITY PROJECT NO, P1W-26-0100

BMI PROJECT NO, 25X.137753

12/23/2025

ITEM NO.	SPEC. REF	DESCRIPTION	UNIT	RESIDENTIAL MILL AREAS SUMP/SAFLS		RESIDENTIAL RECLAMATION AREAS SUMP/SAFLS		RETAINING WALL/SHORELINE STABILIZATION	STORMWATER POND BMP	TOTAL ESTIMATED QUANTITY	ESTIMATED UNIT PRICE	ESTIMATED TOTAL PRICE
				STREET	STORM	STREET	STORM					
<b>SCHEDULE "A" - GRANT ELIGIBLE ITEMS</b>												
1	2101.505	CLEARING	ACRE	0	0	0	0	0	0.62	0.62	\$25,000.00	\$ 15,500.00
2	2101.505	GRUBBING	ACRE	0	0	0	0	0	0.62	0.62	\$15,000.00	\$ 9,300.00
3	2104.502	REMOVE METAL APRON	EACH	0	0	0	0	0	1	1.00	\$250.00	\$ 250.00
4	2104.502	REMOVE MANHOLE OR CATCH BASIN	EACH	0	1	0	1	0	0	2.00	\$550.00	\$ 1,100.00
5	2104.503	REMOVE SEWER PIPE (STORM)	LN FT	0	16	0	16	0	0	32.00	\$15.00	\$ 480.00
6	2104.503	REMOVE CURB & GUTTER (SPOT)	LN FT	20	0	20	0	0	0	40.00	\$12.00	\$ 480.00
7	2104.503	REMOVE RETAINING WALL	LN FT	0	0	0	0	72	0	72.00	\$40.00	\$ 2,880.00
8	2106.507	EXCAVATION - CHANNEL AND POND	CU YD	0	0	0	0	0	1900	1900.00	\$20.00	\$ 38,000.00
9	2106.507	COMMON EMBANKMENT (POND)	CU YD	0	0	0	0	0	200	200.00	\$12.00	\$ 2,400.00
10	2501.502	12" HDPE PIPE APRON	EACH	0	0	0	0	0	1	1.00	\$650.00	\$ 650.00
11	2501.502	36" RC PIPE APRON	EACH	0	0	0	0	0	2	2.00	\$3,700.00	\$ 7,400.00
12	2501.602	ADJUST PIPE APRON	EACH	0	0	0	0	0	1	1.00	\$850.00	\$ 850.00
13	2503.503	15" RC PIPE SEWER	LN FT	0	16	0	0	0	0	16.00	\$90.00	\$ 1,280.00
14	2503.503	24" RC PIPE SEWER	LN FT	0	0	0	8	0	0	8.00	\$105.00	\$ 840.00
15	2503.503	27" RC PIPE SEWER	LN FT	0	0	0	8	0	0	8.00	\$125.00	\$ 1,000.00
16	2503.503	36" RC PIPE SEWER	LN FT	0	0	0	0	0	34	34.00	\$200.00	\$ 6,800.00
17	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	0	2	0	2	0	1	5.00	\$1,500.00	\$ 7,500.00
18	2506.502	CASTING ASSEMBLY (STORM)	EACH	0	1	0	1	0	0	2.00	\$1,300.00	\$ 2,600.00
19	2506.602	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 1 (SAFL BAFFLE W/ SUMP)	EACH	0	1	0	0	0	0	1.00	\$12,000.00	\$ 12,000.00
20	2506.602	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 2 (SAFL BAFFLE W/ SUMP)	EACH	0	0	0	1	0	0	1.00	\$15,000.00	\$ 15,000.00
21	2506.602	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 4 (OCS)	EACH	0	0	0	0	0	1	1.00	\$9,000.00	\$ 9,000.00
22	2511.507	RANDOM RIPRAP CLASS III	CU YD	0	0	0	0	0	40	40.00	\$110.00	\$ 4,400.00
23	2531.503	CONCRETE CURB & GUTTER DESIGN B616 (SPOT)	LN FT	20	0	20	0	0	0	40.00	\$40.00	\$ 1,600.00
24	2550.501	PUMP ELECTRIC SYSTEM PANEL (REMOVE & REPLACE)	LUMP SUM	0	0	0	0	1	0	1.00	\$45,000.00	\$ 45,000.00
25	2573.503	FLOTATION SILT CURTAIN TYPE STILL WATER	LN FT	0	0	0	0	150	200	350.00	\$30.00	\$ 10,500.00
26	2573.503	SEDIMENT CONTROL LOG TYPE WOOD FIBER	LN FT	110	0	110	0	170	660	1050.00	\$4.00	\$ 4,200.00
27	2574.507	COMMON TOPSOIL BORROW	CU YD	4	0	4	0	67	317	392.00	\$40.00	\$ 15,680.00
28	2575.504	ROLLED EROSION PREVENTION CATEGORY 20 W/ SEED MIXTURE (XX-XXX)	SQ YD	20	0	20	0	400	1900	2340.00	\$4.00	\$ 9,360.00
29	2575.604	SHORELINE STABILIZATION (GEOWEB BY PRESTO)	SQ YD	0	0	0	0	110	0	110.00	\$160.00	\$ 17,600.00
<b>ESTIMATED SCHEDULE "A" - CONSTRUCTION SUBTOTAL</b>				\$ 1,720.00	\$ 18,370.00	\$ 1,720.00	\$ 21,930.00		74,940.00	\$ 124,970.00		\$ 243,660.00
<b>10% CONTINGENCY</b>				\$ 172.00	\$ 1,837.00	\$ 172.00	\$ 2,193.00		7,494.00	\$ 12,497.00		\$ 24,365.00
<b>ESTIMATED SCHEDULE "A" - CONSTRUCTION TOTAL</b>				\$ 1,892.00	\$ 20,207.00	\$ 1,892.00	\$ 24,123.00		82,434.00	\$ 137,467.00		\$ 268,015.00
<b>27% OVERHEAD</b>				\$ 511.00	\$ 5,466.00	\$ 511.00	\$ 6,513.00		22,257.00	\$ 37,116.00		\$ 72,384.00
<b>ESTIMATED SCHEDULE "A" - PROJECT TOTAL</b>				\$ 2,403.00	\$ 25,663.00	\$ 2,403.00	\$ 30,636.00		104,691.00	\$ 174,583.00		\$ 340,378.00

## **Expanded Answers: Arden Hills Karth SAFL**

### **Section VI Executive Summary & Abstract**

The City of Arden Hills proposes installing two sump storm sewer structures with SAFL Baffles as part of the 2026 PMP Street & Utility Improvements project. These BMPs will remove sediment and phosphorus from stormwater before it enters Karth Lake and adjacent wetlands, improving water quality and reducing long-term maintenance needs. The total cost for the proposed work is estimated to be \$61,105. Arden Hills requests \$30,552.50 in RCWD grant funding (50% of eligible costs) to implement these improvements alongside a planned stormwater pond BMP, supporting regional water quality goals identified in the Southwest Urban Lakes Study.

### **Section VII Description**

#### **List and describe the Best Management Practices (BMPs) to be incorporated into this project.**

The 2026 PMP Street & Utility Improvements project addresses water quality concerns by installing two sump storm sewer structures with SAFL Baffles upstream of outfalls to Karth Lake and an adjacent wetland. SAFL Baffles are a stormwater pretreatment systems that are installed with a sump storm sewer manhole structure to provide stormwater quality treatment by removing sediment, and harmful chemicals (such as phosphorus) that cling to the surface area of sediment, from stormwater, which keeps it out of downstream water bodies. It works by capturing and retaining sediment, by stopping the rotating scour action that takes place during high flow conditions.

#### **If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.**

The project will maintain net-zero impervious surface and enhance regional water quality. The sump & SAFL Baffle structure improvements, along with a planned stormwater pond BMP within the same project, maximize treatment benefits to Karth Lake, an adjacent wetland, and ultimately, Valentine Lake. Together, these measures support RCWD goals for lake protection and restoration identified in the Watershed Management Plan and the Southwest Urban Lakes Study.

**Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.**

Each structure will be inspected at least annually (or more frequently if deemed necessary over the first season of operation) by city maintenance staff. As the SAFL Baffle captures sediment which settles into the sump, staff will utilize a Vac Truck to remove the accumulated sediment and ensure proper operation of the structure is maintained. By capturing sediment and phosphorus before discharging to surrounding water bodies, the sump & SAFL Baffle structures will reduce pollutant loading and long-term maintenance needs for Karth Lake and adjacent wetlands.

## **Section VIII Prioritization**

This project supports RCWD's Watershed Management Plan goals for lake protection and restoration by improving water quality in Karth Lake, and ultimately Valentine Lake, resources identified in regional planning efforts. The proposed BMPs align with recommendations in the Southwest Urban Lakes Study, which highlights the need for enhanced stormwater treatment in urban lake watersheds. Additionally, these improvements complement the City's broader efforts in the Karth Lake area, including a planned pumping retrofit and cost-share initiative, and the installation of a stormwater pond BMP within the 2026 PMP project. Together, these actions advance RCWD objectives for pollutant reduction and watershed resilience. The sump & SAFL Baffle structure improvements are not identified on the Member Community Project List.

## **Section IX Targeting**

The current stormwater system conveys sediment and pollutants to lakes and wetlands, creating pollution risks that degrade water quality and increase dredging and maintenance needs. These pollutants impact aquatic habitats and reduce system performance. Installing sump structures with SAFL Baffles offers a practical, cost-effective solution by capturing sediment at the source without major infrastructure changes. SAFL Baffles retrofit easily into existing structures and provide measurable pollutant reduction at a relatively low cost. Additional research can be found at the following website:  
<https://upstreamtechnologies.us/docs/SAFL/SAFL-Baffle-Research-Summary.pdf>



# Rice Creek Watershed District

## Stormwater Management Grant Program

### 2026 Application Form

**I. APPLICANT INFORMATION**

Organization (to be named as Grantee): City of Lino Lakes  
 Street Address: 600 Town Center Parkway  
 City, State, Zip: Lino Lakes MN 55014  
 Tax Status: Local Government Tax ID#: 8924122  
*(e.g., local government, non-profit 501(c)(3), private business, etc.)*

**II. PROJECT CONTACTS**

Project Officer: Timothy Payne Financial Officer: Tracy Thoma  
 Title: Streets & Stormwater Supervisor Title: Finance Director  
 Telephone: (651) 982-2455 Telephone: (651) 982-2411  
 Fax: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: tpayne@linolakes.us Email: tthoma@linolakes.us

**III. PROJECT INFORMATION**

Project Name: Regenerative Air Sweeper and Enhanced Sweeping  
 Location(s) of Project: City of Lino Lakes  
 City: Lino Lakes State: MN County: Anoka  
 Project Start Date: Spring 2026 Project Completion Date: Ongoing  
 Project Type (check only those that directly apply):

- Water Quality Treatment Project
- Stormwater Reuse Irrigation Project
- Peak Runoff Rate Control Project
- Runoff Volume Control / Flood Storage Project
- Other: Sweeping for Water Quality

Is a RCWD Rule C permit required for this project?  YES  NO  UNKNOWN

**IV. GRANT REQUEST**

RCWD Grant Funding Requested: \$ 100,000  
 Applicant Match Funding Committed: \$ \$325,000  
 Total Estimated Project Cost: \$ 425,000  
 Would you be willing to accept grant funding in an amount less than requested?  YES  NO

**V. SIGNATURE OF APPLICANT**

I certify that the information contained within this application is true and accurate.

\_\_\_\_\_  
 Signature of Project Officer

12/4/2025  
 \_\_\_\_\_  
 Date

## VI. Executive Summary / Abstract

Include a brief Executive Summary (100 words or less) that summarizes the main goals and activities of the project and the expected environmental outcomes that will be achieved. Identification of the total amount of funds being requested along with the required match. The summaries will be used in the grant review process and on the RCWD website-for projects that are funded.

The City of Lino Lakes wishes to initiate an enhanced sweeping program with the purchase of a regenerative air sweeper (RAS). The additional sweeper would be used in tandem with our existing mechanical sweeper to more efficiently and frequently remove pollutants citywide and within priority areas designated to receive additional sweeping throughout the sweeping season. The City is requesting \$100,000 to help facilitate the purchase of the sweeper. Lino Lakes will

## VII. Description (10 points)

The RCWD has established guidelines for prioritizing projects based on location. Water quality improvement projects should be located to benefit a RCWD lake classified as either "Protection" or "Restoration" (see Table 2-4 in the RCWD 2020 Watershed Management Plan), and/or a waterbody with an approved Total Maximum Daily Load (TMDL) study or other recognized diagnostic water quality study. Flood storage and runoff rate control projects should focus on reducing peak flood elevations in known regional flood hazard areas and/or documented local problem areas. Describe the specific watershed management, water quality or quantity need(s) that the project will address and its impact on the target water resource within the District.

Rice Creek Chain of Lakes, Peltier & Baldwin Lakes, Bald Eagle & Otter Lakes

Name the target waterbody benefiting from this project: \_\_\_\_\_

List and describe the Best Management Practices (BMPs) to be incorporated into this project

The City intends to incorporate a Regenerative Air Sweeper (RAS) into our street sweeping practices. By utilizing both a mechanical and RAS sweeper, the City would more efficiently remove phosphorus and other pollutants from our roadways. Regenerative Air Sweepers are proven to remove the fine dust/particles that are left behind by a mechanical sweeper. It is these fine particles that carry and release the highest concentrations of pollutants to the

If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.

Enhanced sweeping would provide additional opportunities to remove pollutants before they reach our infiltration BMPs, thereby protecting groundwater resources. Removing

Provide drawings, maps and/or schematics which graphically illustrate the location and conceptual design of the project. **(Attach separate sheets.)**

Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.

Currently Public Works staff sweeps twice annually utilizing two full time employees. If approved, resources would be prioritized to allow for three FTE to be assigned to sweeping duties as necessary to accomplish the goals of our increased/targeted sweeping program.

### VIII. Prioritization (20 points)

How does the project support existing regional planning efforts such as the RCWD Watershed Management Plan, municipal surface water management plans, TMDLs, or other recognized diagnostic studies? Is the project included on the Member Community Project List (Appendix G) within the RCWD Watershed Management Plan? Please provide citations where possible.

The Lino Lakes Chain of Lakes TMDL, the Peltier and Centerville Lakes TMDL, and the Bald Eagle TMDL each identify excess nutrients as a primary impairment. The adoption of an increased/targeted sweeping program by the City would directly reduce phosphorus and other nutrients discharged to each of the lakes included in these TMDLs. 99.6% of Lino

### IX. Targeting (15 points)

Describe the critical pollution or flooding sources and risks addressed by this project. Explain why the proposed project is the most cost-effective and feasible means to attain the expected resource benefits. Has a formal analysis been conducted to substantiate this position?

The critical pollutant targeted with sweeping is phosphorus. The risk addressed is the accelerated eutrophication caused by the presence of excess phosphorus. As a first line of defense, sweeping is recognized to be the most cost-effective practice to reduce phosphorus loading. The University of Minnesota Water Resources Center suggests that street sweeping can be up to 10 times more cost effective than structural phosphorus removal practices. The second most efficient phosphorus removal practice, catch basin cleaning structures, are

### X. Measurable Outcomes (20 points)

Provide a detailed estimate and description of the anticipated pollutant reduction, stormwater rate/volume reduction, groundwater withdrawal reduction, and/or other environmental or natural resource benefits associated with the project. Describe the methods and cite the sources (i.e. P8 model, HydroCAD, XP-SWMM, MIDS, MN Stormwater Manual, etc.) used to calculate or estimate the pollutant reductions and/or hydrologic outcomes. **(Mandatory for RCWD to consider your proposal!)**

The City of Lino Lakes has kept meticulous records of the volume of material removed from our streets. Using volume to mass calculation guidance provided within the MN Stormwater Manual, along with the MPCA Phosphorus Credit Calculator, we estimated the lbs phosphorus collected by our mechanical sweeper for each of the past three seasons and compared the data to the anticipated results of a regenerative air sweeper (supporting calculations attached). Per the previously cited 2011 sweeper comparison study, we assume a 35% pick up efficiency with our existing mechanical sweeper and a 75% pick up efficiency with a proposed regenerative air sweeper. Calculations estimate 579 lbs P are currently removed on average annually with our mechanical sweeper compared to the expected average of 1,242 lbs P removal per year with a regenerative air sweeper. This represents a 114% increase in phosphorus yield by simply replacing our existing sweeper with a

### **XI. Cost-Effectiveness (15 points)**

Provide a detailed budget that lists each item for which funding is being requested. You must also list the sources of required local matching contributions. Please provide a summary that demonstrates why this is the most cost-effective approach to solving the problem. Or, have other alternatives been explored, and if so, why were they determined to not be the best alternative? What is the anticipated lifespan of the practice? **(Attach separate sheets if needed.)**

Sweeping is recognized as the most cost-effective nonstructural practice to remove pollutants before they enter runoff. Studies cited in the Minnesota Stormwater Manual-Street Sweeping for Trees (Kalinovsky et al 2012, 2013) show that spring & fall sweeping yield removal rates at \$18 - 28 per lbs. of P removed, mid-summer rates can be "several hundred" \$ per lbs., and an average optimized rate could be \$40 to \$110 per lbs. P removed. The months of March, April, October and November are shown to have a cost efficiency of less than \$100/lbs of phosphorus removed (Kalinovsky et al.,2013 Prior Lake).

Our own cost-effectiveness calculations using data generated from the phosphorus credit



### **XII. Project Readiness (10 points)**

Please describe the anticipated timeline for implementing this project. What steps have been taken to ensure that the project can be implemented according to this timeline? Are any permits needed? (If permits are required please cite from what agency and where the project is in that process).

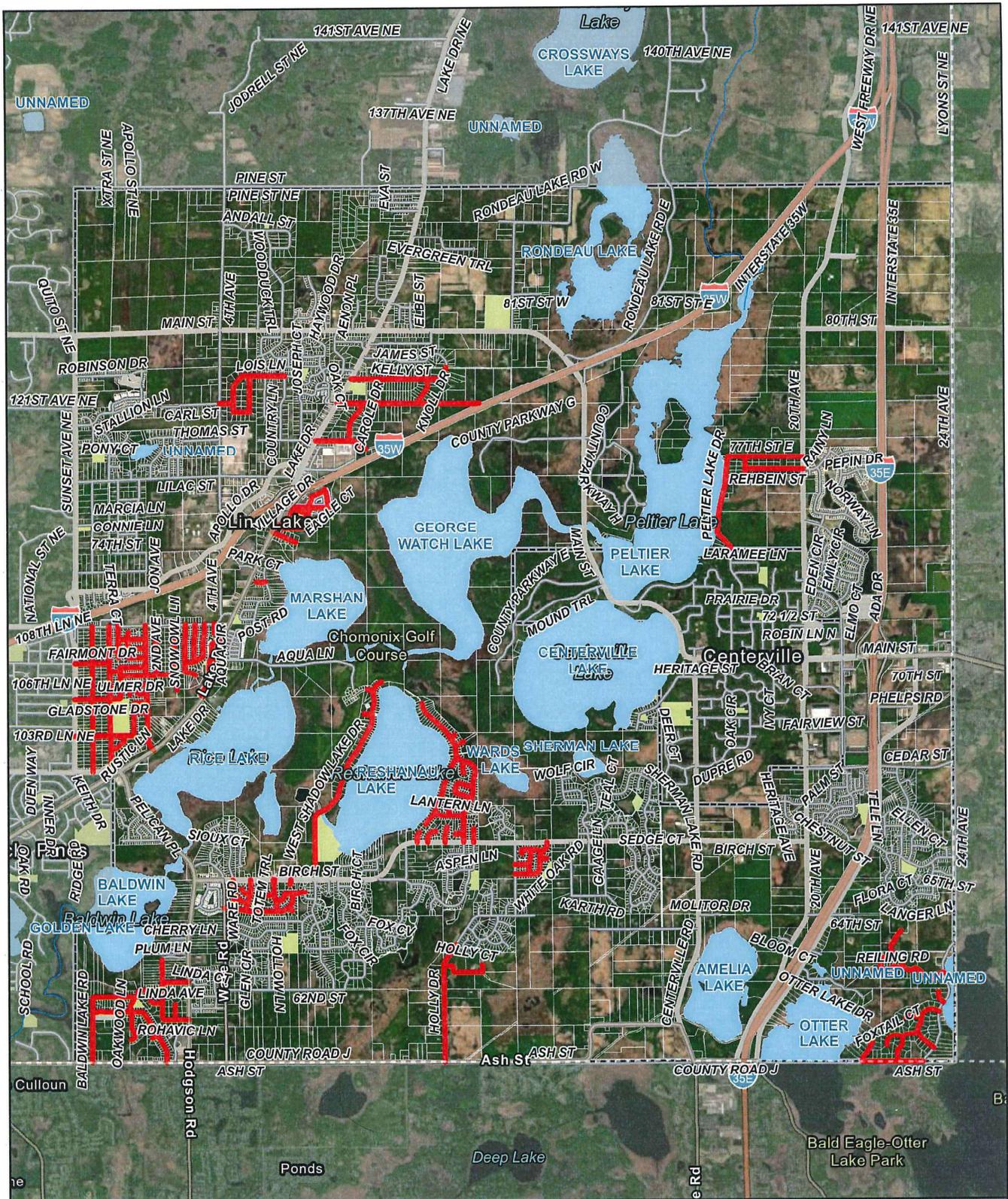
If approved, it is anticipated it may take up to one year for the city to take possession of a sweeper after placing the order. An enhanced sweeping program can be implemented almost immediately after acquiring an additional sweeper.

### **XIII. Engagement Opportunities (10 points)**

Demonstrate any potential for public engagement, education and demonstration and describe what methods will be used to ensure that the purpose and success of the project are made known to the public. Applicants must incorporate a public engagement component into the project.

We would welcome new public engagement opportunities as they are a component of our MS4 program. Opportunities may include:

- A citywide newsletter article pertaining to sweeping, equipment and RCWD collaboration.
- Local catv or website video pertaining to sweeping, equipment and RCWD collaboration.
- Make sweeper available at local community events and school "touch a truck" type functions
- Affix a decal to the sweeper with a tasteful environmental slogan or statement
- Name the sweeper contest



<p><b>Legend</b></p> <p> Targets Sweeping Roads</p>	<h1 style="text-align: center;">Targeted Sweeping</h1>	
	<p>Earthstar Geographics, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (e) OpenStreetMap contributors, and the GIS User Community, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community</p> <p style="text-align: center; font-size: 2em; font-weight: bold;">2025</p> <p>Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere</p>	 <p>0 0.05 0.1 Mi 0 0.1 0.2 Km</p>

## Annual Comparisons of Phosphorus Yield (per volume calculations) for mechanical sweeper versus Projected RAS

	2022		2023		2024		2025	
	Mechanical Sweeper (lbs)	Projected RAS (lbs)						
spring	145.16	311.06	163.99	351.4	159.48	341.75	185.27	397.01
summer	149.93	321.29	202.05	432.96	76.4	163.71	150.89	323.33
fall	257.55	551.89	292.44	626.66	289.41	624.21	301.78	646.67
total	552.64	1184.24	658.48	1411.02	525.29	1129.67	637.94	1367

Calculated average with Mechanical sweeper = **593.6 lbs/year**

Projected average with regenerative air sweeper = **1272.9 lbs/year**

	Annual Operation Cost*	Total P Yield (mech sweeper)	\$/lb P Spring	\$/lb P Summer	\$/lb P Fall
2022	\$65,059	552 lbs	\$192.08	\$123.98	\$72.17
2023	\$91,819	658 lbs	\$157.47	\$163.31	\$112.83
2024	\$84,692	525 lbs	\$157.35	\$328.45	\$119.22
2025	\$100,151	638 lbs	\$151.04	\$263.40	\$107.31

\*Annual cost for each years sweeping activities derived from Cartegraph

(Lino Lakes asset management software - accounts for labor, equipment cost, fuel & depreciation)

## **Expanded Answers: Lino Lakes Regenerative Air Sweeper**

### **Section VI Executive Summary & Abstract**

The City of Lino Lakes wishes to initiate an enhanced sweeping program with the purchase of a regenerative air sweeper (RAS). The additional sweeper would be used in tandem with our existing mechanical sweeper to more efficiently and frequently remove pollutants citywide and within priority areas designated to receive additional sweeping throughout the sweeping season. The City is requesting \$100,000 to help facilitate the purchase of the sweeper. Lino Lakes will contribute the balance of the purchase (approx. \$325,000) if the grant were approved.

### **Section VII Description**

**List and describe the Best Management Practices (BMPs) to be incorporated into this project.**

The City intends to incorporate a Regenerative Air Sweeper (RAS) into our street sweeping practices. By utilizing both a mechanical and RAS sweeper, the City would more efficiently remove phosphorus and other pollutants from our roadways. Regenerative Air Sweepers are proven to remove the fine dust/particles that are left behind by a mechanical sweeper. It is these fine particles that carry and release the highest concentrations of pollutants to the environment. A sweeper comparison study\* found regenerative air sweepers showed significantly higher debris pick up efficiency (75%) compared to a mechanical broom sweeper (35%). A similar study\*\* shows when RAS sweepers are used in tandem with mechanical sweepers, cleaning efficiency can approach 90%.

Areas proposed to receive additional fall sweeping include subdivisions discharging stormwater to receiving waters without treatment and subdivisions with fully developed tree canopies. In some locations both conditions occur. The priority areas total 28.2 miles of curbed road. This is currently 30.6% of our curbed roadways.

The increase in efficiency along with more frequent sweeping efforts, particularly in the fall, will result in a substantially improved street sweeping program.

\*City of Los Angeles/Larry Walker Associates

\*\*Roger Sutherland MSCE, P.E. Cascade Water Resources

**If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.**

Enhanced sweeping would provide additional opportunities to remove pollutants before they reach our infiltration BMPs, thereby protecting groundwater resources. Removing sediment from the road before it is deposited in infiltration BMPs would also help extend the life of those BMPs. Areas with raingardens, permeable pavers and our underground storm chamber are included in our targeted sweeping area.

## **Section VIII Prioritization**

The Lino Lakes Chain of Lakes TMDL, the Peltier and Centerville Lakes TMDL, and the Bald Eagle TMDL each identify excess nutrients as a primary impairment. The adoption of an increased/targeted sweeping program by the City would directly reduce phosphorus and other nutrients discharged to each of the lakes included in these TMDLs. 99.6% of Lino Lakes maintained roads are within the RCWD.

## **Section IX Targeting**

The critical pollutant targeted with sweeping is phosphorus. The risk addressed is the accelerated eutrophication caused by the presence of excess phosphorus. As a first line of defense, sweeping is recognized to be the most cost-effective practice to reduce phosphorus loading. The University of Minnesota Water Resources Center suggests that street sweeping can be up to 10 times more cost effective than structural phosphorus removal practices. The second most efficient phosphorus removal practice, catch basin cleaning structures, are known to be 6 to 40 times more expensive per pound P removed (John Sansalone University of Florida 2019). Sweeping operations should be optimized for maximum pollutant removal before structural practices are considered. Lino Lakes is able to reduce nutrients delivered to any one of three approved TMDLs nearly every time the sweeper is utilized.

## **Section X Measurable Outcomes**

The City of Lino Lakes has kept meticulous records of the volume of material removed from our streets. Using volume to mass calculation guidance provided within the MN Stormwater Manual, along with the MPCA Phosphorus Credit Calculator, we estimated the lbs phosphorus collected by our mechanical sweeper for each of the past three seasons

and compared the data to the anticipated results of a regenerative air sweeper (supporting calculations attached). Per the previously cited 2011 sweeper comparison study, we assume a 35% pick up efficiency with our existing mechanical sweeper and a 75% pick up efficiency with a proposed regenerative air sweeper. Calculations estimate 579 lbs P are currently removed on average annually with our mechanical sweeper compared to the expected average of 1,242 lbs P removal per year with a regenerative air sweeper. This represents a 114% increase in phosphorus yield by simply replacing our existing sweeper with a regenerative air sweeper and continuing with our existing program. After consulting with MPCA staff familiar with the comparison study, it was suggested this increase may be slightly high for a RAS alone but is certainly achievable with a tandem sweeping program.

Further, our enhanced sweeping plan targets 28.2 miles of asphalt for additional sweeping efforts. The Clean Sweep quick estimating tool (QET) predicts an additional 60% increase in Phosphorus removal by adding three additional fall sweeping efforts to our target area, increasing our estimated phosphorus yield to 1,987 lbs annually.

In summary, estimates via the MPCA Phosphorus Credit Calculator and the Clean Sweep Quick Estimating Tool show that we can reasonably expect to triple our phosphorus yield with the integration of a regenerative air sweeper into an enhanced sweeping program.

If approved, staff with the U of M and the Clean Sweep program have expressed a willingness to include Lino Lakes in extensive free material testing for a research study on street sweeping materials. This would allow us to monitor our phosphorus yield and ensure we are achieving our reduction goals. Lino Lakes has independently submitted 11 sweeping samples to the U of M laboratory for analysis from our fall 2026 sweeping efforts. We intend to continue to collect samples throughout the seasons to obtain the most representative results from the MPCA Phosphorus Credit Calculator.

## **Section XI Cost Effectiveness**

Sweeping is recognized as the most cost-effective nonstructural practice to remove pollutants before they enter runoff. Studies cited in the Minnesota Stormwater Manual- Street Sweeping for Trees (Kalinovsky et al 2012, 2013) show that spring & fall sweeping yield removal rates at \$18 - 28 per lbs. of P removed, mid-summer rates can be "several hundred" \$ per lbs., and an average optimized rate could be \$40 to \$110 per lbs. P removed. The months of March, April, October and November are shown to have a cost efficiency of less than \$100/lbs of phosphorus removed (Kalinovsky et al., 2013 Prior Lake).

Our own cost-effectiveness calculations using data generated from the phosphorus credit calculator and our city asset management software (Cartegraph) range from \$72 to \$328 per lb total P removed. Our overall average is \$158 per lb P removed.

In comparison, catch basin cleaning structures (generally regarded as the second most efficient BMP for phosphorus removal) are shown to range from \$1,600 to \$12,000 per lb P removed (John Sansalone University of Florida 2019).



# Rice Creek Watershed District

## Stormwater Management Grant Program

### 2026 Application Form

**I. APPLICANT INFORMATION**

Organization (to be named as Grantee): City of New Brighton  
 Street Address: 803 Old Highway 8 NW  
 City, State, Zip: New Brighton, MN 55012  
 Tax Status: local government Tax ID#: \_\_\_\_\_  
*(e.g., local government, non-profit 501(c)(3), private business, etc.)*

**II. PROJECT CONTACTS**

Project Officer: Craig Schlichting Financial Officer: Gina Foschi  
 Title: Director DCAD Title: Finance Director  
 Telephone: 651-638-2056 Telephone: 651-638-2105  
 Fax: 651-638-2044 Fax: same  
 Email: craig.schlichting@newbrightonmn.gov Email: gina.foschi@newbrightonmn.gov

**III. PROJECT INFORMATION**

Project Name: Knollwood Pond Overflow  
 Location(s) of Project: County Road H and Knollwood  
 City: New Brighton/ Mounds View State: MN County: Ramsey  
 Project Start Date: 6/1/2026 Project Completion Date: 10/1/2026

Project Type (check only those that directly apply):

- Water Quality Treatment Project       Stormwater Reuse Irrigation Project
- Peak Runoff Rate Control Project       Runoff Volume Control / Flood Storage Project
- Other: Flood Risk Protection

Is a RCWD Rule C permit required for this project?       YES     NO     UNKNOWN

**IV. GRANT REQUEST**

RCWD Grant Funding Requested: \$ 100000  
 Applicant Match Funding Committed: \$ 150000  
 Total Estimated Project Cost: \$ 250,000

Would you be willing to accept grant funding in an amount less than requested?     YES     NO

**V. SIGNATURE OF APPLICANT**

I certify that the information contained within this application is true and accurate.

  
 Signature of Project Officer

12/8/2025  
 Date

## VI. Executive Summary / Abstract

Include a brief Executive Summary (100 words or less) that summarizes the main goals and activities of the project and the expected environmental outcomes that will be achieved. Identification of the total amount of funds being requested along with the required match. The summaries will be used in the grant review process and on the RCWD website-for projects that are funded.

Provide a primary outlet for an existing pond that currently does not allow for adequate low floor protection of local residences during rainfall/flood events. The pond receives runoff from 3 local agencies including New Brighton, Mounds View, and Ramsey County. The total grant funds requested is \$100,000 with a match that will exceed \$100,000 meeting RCWD requirements.

## VII. Description (10 points)

The RCWD has established guidelines for prioritizing projects based on location. Water quality improvement projects should be located to benefit a RCWD lake classified as either "Protection" or "Restoration" (see Table 2-4 in the RCWD 2020 Watershed Management Plan), and/or a waterbody with an approved Total Maximum Daily Load (TMDL) study or other recognized diagnostic water quality study. Flood storage and runoff rate control projects should focus on reducing peak flood elevations in known regional flood hazard areas and/or documented local problem areas. Describe the specific watershed management, water quality or quantity need(s) that the project will address and its impact on the target water resource within the District.

Name the target waterbody benefiting from this project: Rice Creek

List and describe the Best Management Practices (BMPs) to be incorporated into this project

The peak rate leaving the proposed pipe network will flow through the system before regional flows arrive in Rice Creek.

If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.

NA

Provide drawings, maps and/or schematics which graphically illustrate the location and conceptual design of the project. **(Attach separate sheets.)**

Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.

The stormwater pipes will be installed in New Brighton and Ramsey County ROW and will adhere to the the current maintenance standards established. The outlet will be maintained by New Brighton.

### VIII. Prioritization (20 points)

How does the project support existing regional planning efforts such as the RCWD Watershed Management Plan, municipal surface water management plans, TMDLs, or other recognized diagnostic studies? Is the project included on the Member Community Project List (Appendix G) within the RCWD Watershed Management Plan? Please provide citations where possible.

Section 5 of New Brighton's Surface Water Management Plan includes provisions to prevent flooding, protect public health and safety and minimize public capital expenditures. Without additional infrastructure the existing homes are subject to future and increased flooding potential.

### IX. Targeting (15 points)

Describe the critical pollution or flooding sources and risks addressed by this project. Explain why the proposed project is the most cost-effective and feasible means to attain the expected resource benefits. Has a formal analysis been conducted to substantiate this position?

The new outlet will allow for most stormwater events to be collected and discharged without reaching the secondary/emergency overflow. The route selected minimizes initial investment and places the pipes in publicly owned ROW. This allows for long term maintenance and flood protection.

### X. Measurable Outcomes (20 points)

Provide a detailed estimate and description of the anticipated pollutant reduction, stormwater rate/volume reduction, groundwater withdrawal reduction, and/or other environmental or natural resource benefits associated with the project. Describe the methods and cite the sources (i.e. P8 model, HydroCAD, XP-SWMM, MIDS, MN Stormwater Manual, etc.) used to calculate or estimate the pollutant reductions and/or hydrologic outcomes. **(Mandatory for RCWD to consider your proposal!)**

The 100 yr HWL from the existing pond is 887.93, and with the proposed pond pipe outlet the HWL is reduced to 887.15. The lowest adjacent floor elevation is 887.6, and is only protected from flooding with sandbags and homeowner/city pumping efforts. The proposed pipe will provide the homeowner with some level of insurance that they don't need to watch the weather so closely, which will significantly improve their quality of life. The City has currently installed a water elevation monitor to help understand when mechanical pumping may be required.

**XI. Cost-Effectiveness (15 points)**

Provide a detailed budget that lists each item for which funding is being requested. You must also list the sources of required local matching contributions. Please provide a summary that demonstrates why this is the most cost-effective approach to solving the problem. Or, have other alternatives been explored, and if so, why were they determined to not be the best alternative? What is the anticipated lifespan of the practice? (Attach separate sheets if needed.)

MOBILIZATION 1 LUMP SUM \$10,000.00  
CLEARING 8 EA 500 \$4,000.00  
GRUBBING 8 EA 300 \$2,400.00  
SAWING BIT PAVEMENT (FULL DEPTH) 700 LF 4 \$2,800.00  
REMOVE BITUMINOUS PAVEMENT 780 SQ YD 10 \$7,800.00  
REMOVE BITUMINOUS DRIVEWAY PAVEMENT 45 SQ YD 15 \$675.00  
AGGREGATE BASE CLASS 5 400 TON 30 \$12,000.00  
TYPE SP 12.5 NON WEAR COURSE MIX (4;B) 224 TON 125 \$28,000.00  
TYPE SP 12.5 WEARING COURSE MIX (4;F) 100 TON 150 \$15,000.00  
18" RC PIPE SEWER DES 3006 CL V 701 LF 85 \$67,235.00

**XII. Project Readiness (10 points)**

Please describe the anticipated timeline for implementing this project. What steps have been taken to ensure that the project can be implemented according to this timeline? Are any permits needed? (If permits are required please cite from what agency and where the project is in that process).

A RCWD permit will be required, and New Brighton has worked with Mounds View and Ramsey County on this solution. New Brighton will enter a cooperative agreement with Ramsey County for this project.

**XIII. Engagement Opportunities (10 points)**

Demonstrate any potential for public engagement, education and demonstration and describe what methods will be used to ensure that the purpose and success of the project are made known to the public. Applicants must incorporate a public engagement component into the project.

The City will create a one-page info graphic describing the proposed project benefits for the surrounding homes.

## William Roach

---

**From:** Craig Schlichting <craig.schlichting@newbrightonmn.gov>  
**Sent:** Monday, December 8, 2025 3:05 PM  
**To:** William Roach  
**Subject:** RE: New Brighton 2026 Stormwater Management Grant Pre-Application Follow Up  
**Attachments:** Knollwood Pond Outlet.pdf; application 2026.pdf; Knollwood Pond Drainage.pdf; Knollwood Pond Hard Cover.pdf; KNOLLWOOD POND CERT (9-23-25).pdf; pipe alignment.png

William:

Consider this our submittal for Knollwood Pond.

This item seems to be cutoff on the pdf

XI

CLEARING	8	EA	500	\$4,000.00				
GRUBBING	8	EA	300	\$2,400.00				
SAWING BIT PAVEMENT (FULL DEPTH)	700	LF	4	\$2,800.00				
REMOVE BITUMINOUS PAVEMENT	780	SQ YD	10	\$7,800.00				
REMOVE BITUMINOUS DRIVEWAY PAVEMENT	45	SQ YD	15	\$675.00				
AGGREGATE BASE CLASS 5	400	TON	30	\$12,000.00				
TYPE SP 12.5 NON WEAR COURSE MIX (4;B)	224	TON	125	\$28,000.00				
TYPE SP 12.5 WEARING COURSE MIX (4;F)	100	TON	150	\$15,000.00				
18" RC PIPE SEWER DES 3006 CL V	791	LF	85	\$67,235.00				
18" RC PIPE APRON	2	EA	2500	\$5,000.00				
CASTING ASSEMBLY	3	EA	2500	\$7,500.00				
CONST DRAINAGE STRUCTURE DES 48-4020	9	LF	750	\$6,750.00				
RANDOM RIPRAP CLASS III	10	CY	200	\$2,000.00				
CONCRETE CURB & GUTTER DESIGN B618	633	LF	30	\$18,990.00				
4" SOLID LINE PAINT	613	LF	4	\$2,452.00				
SEDIMENT CONTROL LOG TYPE WOOD FIBER	613	LF	10	\$6,130.00				
INLET PROTECTION	5	EA	200	\$1,000.00				
COMPOST BLANKET	700	SQ YD	3	\$2,100.00				
SEED MIXTURE 21-111	500	LB	15	\$7,500.00				
TRAFFIC CONTROL	1	LS	5000	\$5,000.00				
TOTAL				\$214,332.00				
CONTINGENCY				\$246,481.80				

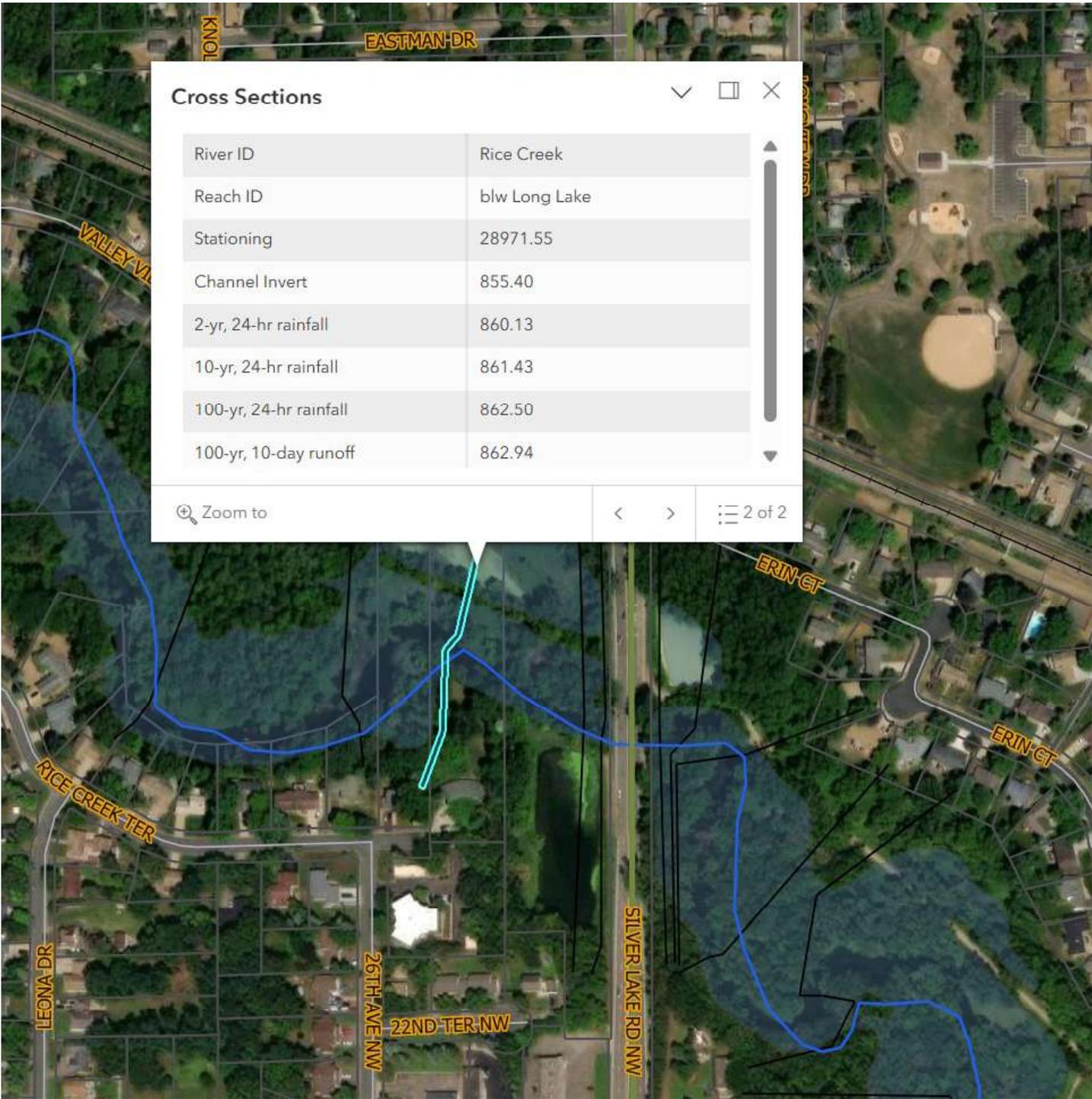
Other routes were explored with higher costs and doing nothing has the potential to repeatedly costs 10's of thousands in flood clean up and restoration. Concrete pipes can last for several centuries.

The information below is from RCWD on the local HWL and time of concentrations for Rice Creek. Our peak will happen in advance of these times meaning our water will have exited the area before larger volumes from the entire watershed reach this location.

<b>Event</b>	<b>HWL (NAVD 88)</b>	<b>Peak Timing Relative to Start of Storm <sup>[1]</sup> (days)</b>	<b>Peak Timing Relative Peak Intensity of Rainfall/Runoff <sup>[2]</sup> (days)</b>
2-year	860.13	1.5	1.0
10-year	861.43	1.5	1.0
100-year	862.50	1.9	1.4
100-year, 10-day	862.94	10.7	5.7

[1] Starting from hour 0, when the event begins.

[2] 12-hours from the beginning of the storm for the 24-hour events. 5-days from the beginning of the storm for the 10-day event.





### Craig Schlichting, P.E.

Director of Community Assets and Development | City of New Brighton

803 Old Highway 8 NW | New Brighton, MN 55112

651-638-2056 | [www.newbrightonmn.gov](http://www.newbrightonmn.gov) | [Find us on Facebook](#)

**From:** William Roach <wroach@ricecreek.org>

**Sent:** Monday, December 1, 2025 1:25 PM

**To:** Craig Schlichting <craig.schlichting@newbrightonmn.gov>

**Subject:** New Brighton 2026 Stormwater Management Grant Pre-Application Follow Up

Craig,

Thank you again for your time during the pre-application process to discuss the city's two proposals. In discussing with the District Program Managers there was additional data points identified that would be beneficial to include in the full applications. For the Knollwood Creek project, be sure to include the elevations of the outlet control structure, and as previously discussed, modeling that demonstrates no negative effect downstream because of the 'bounce'.

For the proposed WaterOx systems, as noted in the pre-application meeting, please ensure the expected water quality improvement (e.g., total phosphorus load reduction) can be demonstrated to further District goals for the program. There was also concern expressed that this treatment technique may be still considered experimental, and it was suggested that the [UMN Stormwater Research Council](#) may be an alternative project partner. Lastly, full applications are due by no later than 4:30pm, Dec 30<sup>th</sup>. If you have any additional questions, please let me know.

Best,

Will Roach  
Watershed Technician/Inspector  
4325 Pheasant Ridge Dr. NE #611  
Blaine, MN 55449  
Direct: (763)398-3085  
[wroach@ricecreek.org](mailto:wroach@ricecreek.org)



# CERTIFICATE OF SURVEY - POND AS-BUILT

for ~ THE CITY OF NEW BRIGHTON  
~ of ~ KNOLLWOOD POND

## PROPERTY DESCRIPTION

Lots 4, 5, 6 and 7, KNOLLWOOD PARK NO. 2, Ramsey County, Minnesota.

## POND RICE 002

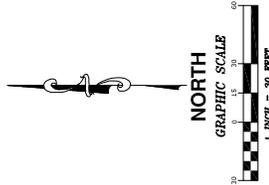
(APPROXIMATE NORMAL WATER LEVEL AREA = 0.25 ACRES)  
VOLUME DATA  
DEAD STORAGE TO TOP OF MUCK = 5,217 CU. YDS.  
DEAD STORAGE TO TOP OF MUCK + 4,238 CU. YDS.  
NWL = 886.4

## NOTES

- PMS survey was completed by E.G. Rud and Sons, Inc. on 1/8/2025.
- Bearings shown are on Ramsey County datum.
- This survey was prepared without the benefit of title work. Additional statements, restrictions and/or encumbrances may exist other than those shown herein. Surveyor subject to revision upon receipt of a current title commitment or an attorney's title opinion.
- All work has been checked by the title assistant. When it may be improved in addition to those shown that were not reliable due to snow and ice conditions characteristic of Minnesota winters.

## LEGEND

- DENOTES MOUND FOUND (AS LABELED)
- DENOTES AIR CONDITIONING UNIT
- DENOTES CATCH BASIN
- DENOTES ELECTRIC METER
- DENOTES GUY WIRE
- DENOTES HYDRANT
- DENOTES LIGHT POLE
- DENOTES EXISTING SPOT ELEVATION
- DENOTES FIBER OPTIC BOX
- DENOTES SANITARY SEWER MANHOLE
- DENOTES SIGN
- DENOTES STORM SEWER AIRRON
- DENOTES WATER VALVE
- DENOTES FENCE
- DENOTES EXISTING SANITARY SEWER
- DENOTES EXISTING STORM SEWER
- DENOTES BITUMINOUS SURFACE
- DENOTES CONCRETE SURFACE
- DENOTES PAVES SURFACE
- DENOTES DEPTH TO BOTTOM OF POND



I hereby certify that this survey, plan or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Land Surveyor in the State of Minnesota.

**Preliminary**  
08/23/2025 11:37:06 AM

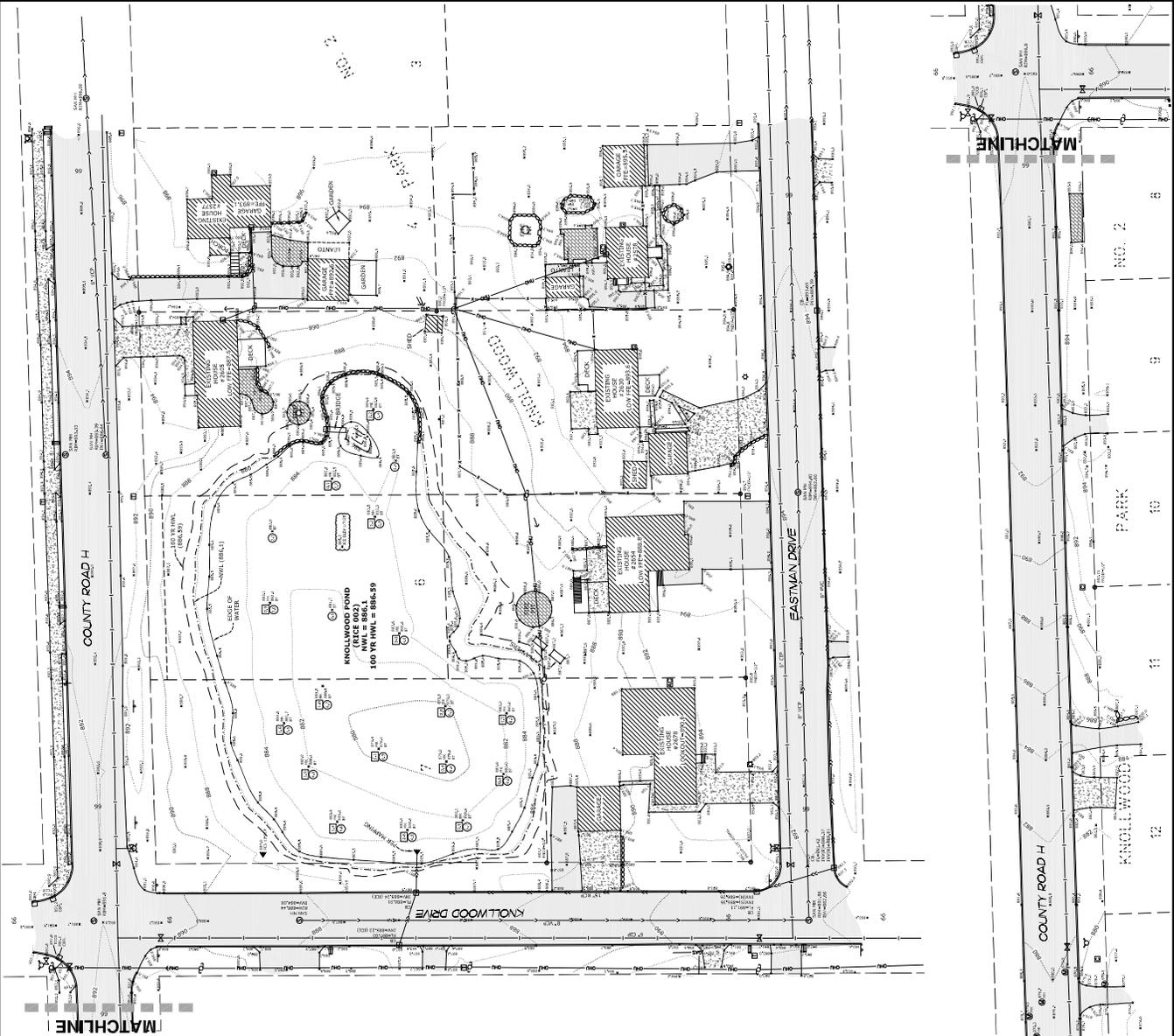
Date: 9/23/2025 License No. 41579

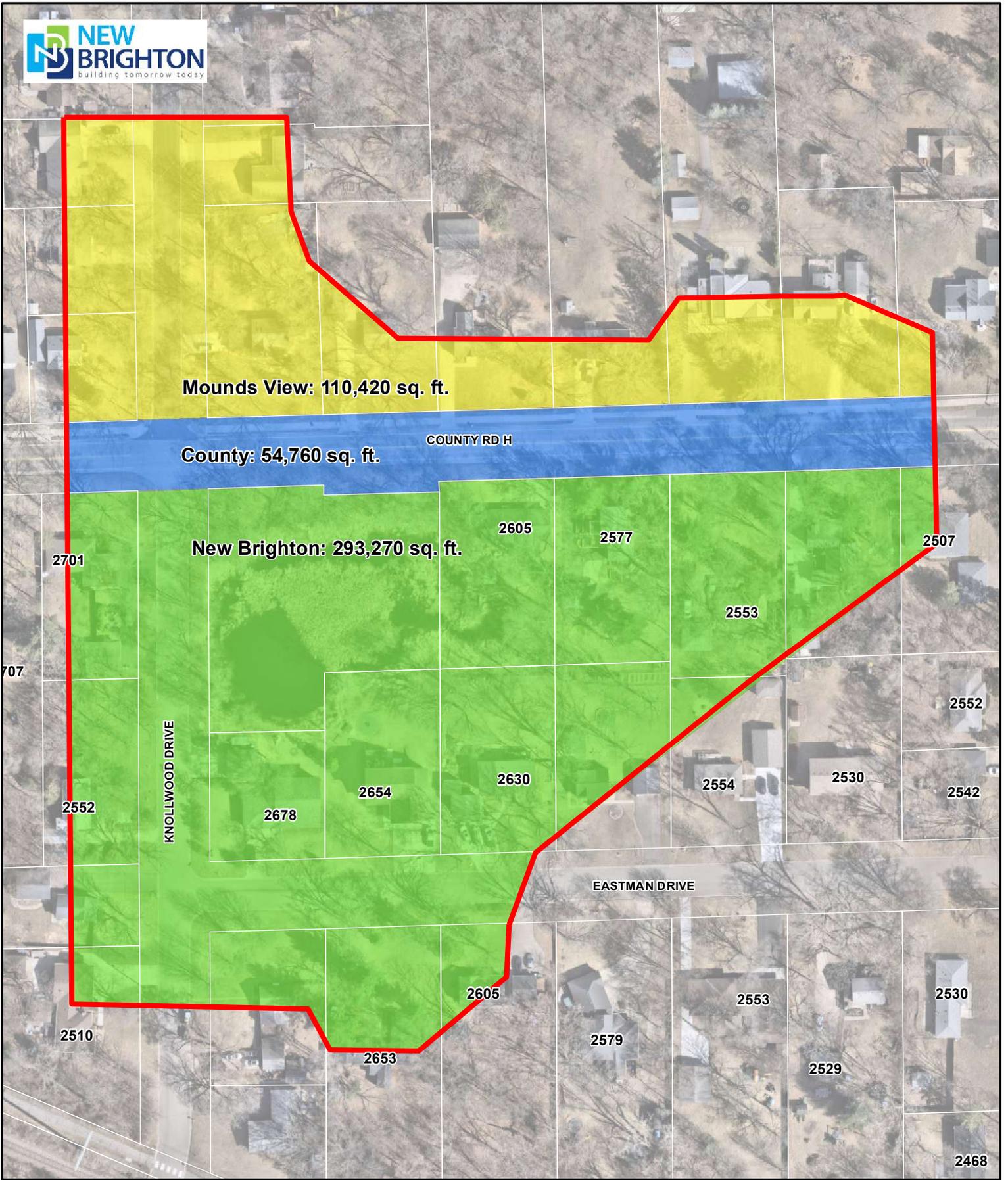
## BENCHMARK

MARKER NO. 108  
ELEVATION = 894.22 (MVD 88 DATUM)

NO.	DATE	MARKER	DESCRIPTION	BY
1	9/23/25	FIELD CHECK MARK AND SET		
2				
3				

**E. G. RUD & SONS, INC.**  
Professional Land Surveys  
6776 Lake Drive NE, Suite 110  
Lino Lakes, MN 55014  
Tel. (651) 361-8200 Fax (651) 361-8701

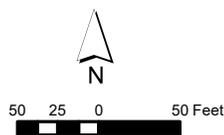




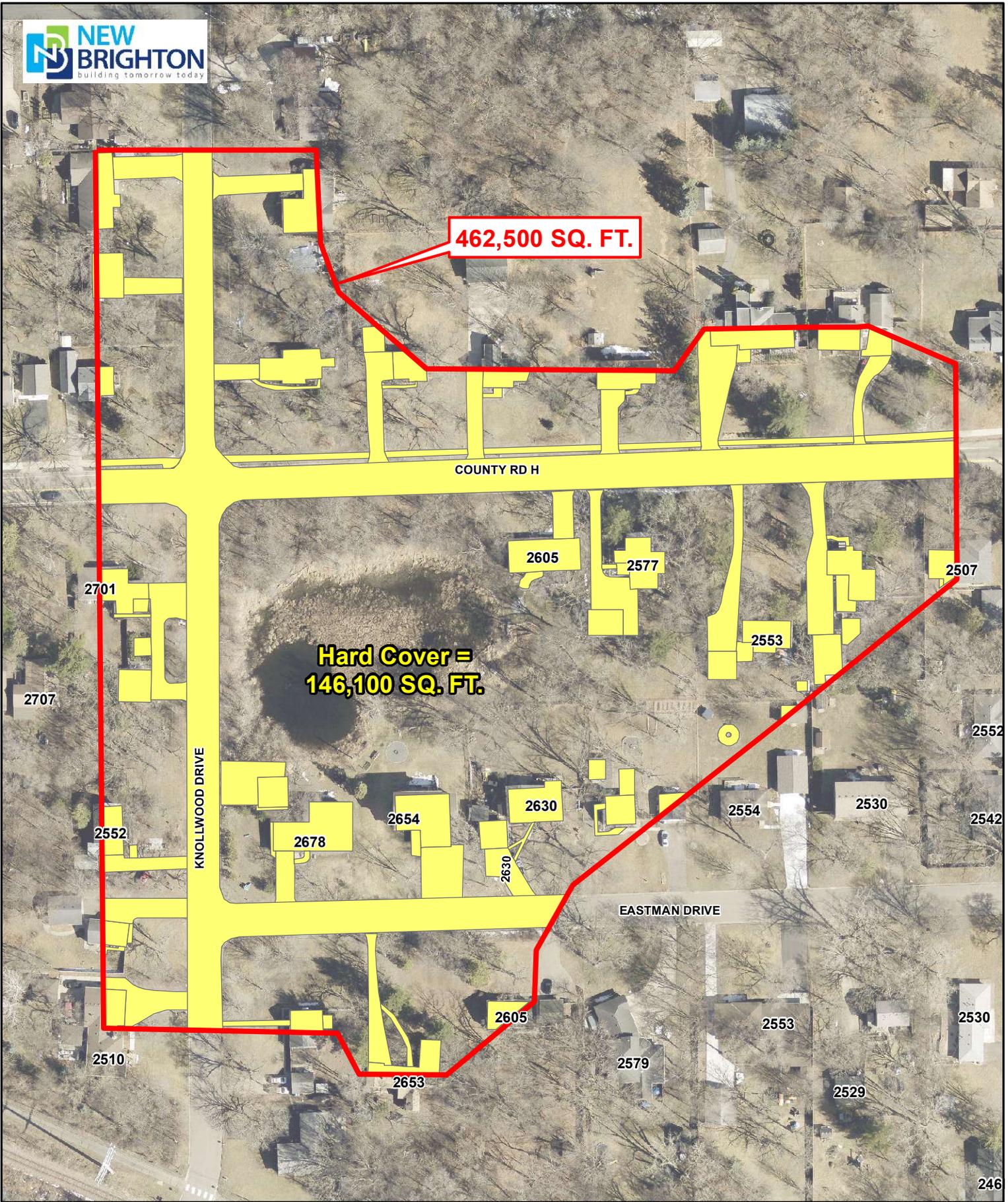
**Ownership**

- Mounds View
- Ramsey County
- New Brighton

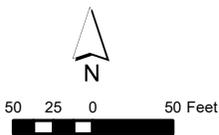
Drainage Boundary



**Knollwood Pond  
Drainage Area**

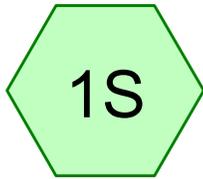


— Drainage Boundary  
— Hard Cover

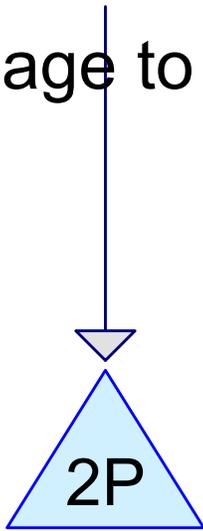


Knollwood Pond  
Hard Cover

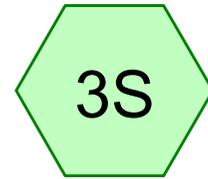




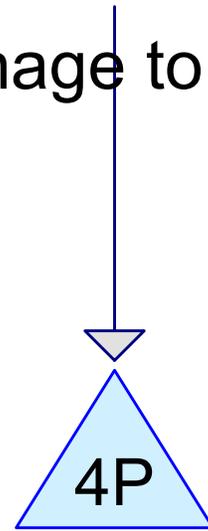
Drainage to Pond



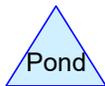
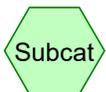
Knollwood Pond



Drainage to Pond



Proposed  
Knollwood Pond



**Routing Diagram for Knollwood**  
Prepared by City Of New Brighton, Eng Dept, Printed 12/8/2025  
HydroCAD® 10.20-6a s/n 04460 © 2024 HydroCAD Software Solutions LLC

# Knollwood

Prepared by City Of New Brighton, Eng Dept

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Page 2

## Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	Type II 24-hr		Default	24.00	1	2.46	2
2	2-yr	Type II 24-hr		Default	24.00	1	2.83	2
3	10-day Snowmelt	Spillway 1-day 10-day		Default	240.00	1	7.20	4
4	10-yr	Type II 24-hr		Default	24.00	1	4.22	2
5	100-yr	Type II 24-hr		Default	24.00	1	7.33	2
6	NURP	Type II 24-hr		Default	24.00	1	2.50	2

# Knollwood

## Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
12.625	61	>75% Grass cover, Good, HSG B (1S, 3S)
6.708	98	Paved parking, HSG B (1S, 3S)
1.716	98	Water Surface, HSG B (1S, 3S)
<b>21.049</b>	<b>76</b>	<b>TOTAL AREA</b>

# Knollwood

Prepared by City Of New Brighton, Eng Dept

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Page 4

## Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
21.049	HSG B	1S, 3S
0.000	HSG C	
0.000	HSG D	
0.000	Other	
<b>21.049</b>		<b>TOTAL AREA</b>

# Knollwood

Prepared by City Of New Brighton, Eng Dept

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Printed 12/8/2025

Page 5

## Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	12.625	0.000	0.000	0.000	12.625	>75% Grass cover, Good	1S, 3S
0.000	6.708	0.000	0.000	0.000	6.708	Paved parking	1S, 3S
0.000	1.716	0.000	0.000	0.000	1.716	Water Surface	1S, 3S
<b>0.000</b>	<b>21.049</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>21.049</b>	<b>TOTAL AREA</b>	

# Knollwood

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## Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	4P	885.00	874.27	750.0	0.0143	0.012	0.0	12.0	0.0	

**Knollwood**

Type II 24-hr 1-yr Rainfall=2.46"

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Time span=0.00-200.00 hrs, dt=0.05 hrs, 4001 points  
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth=1.00"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min CN=61/98 Runoff=11.46 cfs 0.880 af

**Subcatchment 3S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth=1.00"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min CN=61/98 Runoff=11.46 cfs 0.880 af

**Pond 2P: Knollwood Pond** Peak Elev=886.40' Storage=129,122 cf Inflow=11.46 cfs 0.880 af  
Discarded=0.02 cfs 0.327 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.327 af

**Pond 4P: Proposed Knollwood Pond** Peak Elev=885.66' Storage=98,402 cf Inflow=11.46 cfs 0.880 af  
Discarded=0.02 cfs 0.005 af Primary=1.51 cfs 1.271 af Secondary=0.00 cfs 0.000 af Outflow=1.53 cfs 1.276 af

**Total Runoff Area = 21.049 ac Runoff Volume = 1.760 af Average Runoff Depth = 1.00"**  
**59.98% Pervious = 12.625 ac 40.02% Impervious = 8.424 ac**

**Knollwood**

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Type II 24-hr 1-yr Rainfall=2.46"

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**Summary for Subcatchment 1S: Drainage to Pond**

Runoff = 11.46 cfs @ 12.06 hrs, Volume= 0.880 af, Depth= 1.00"  
 Routed to Pond 2P : Knollwood Pond

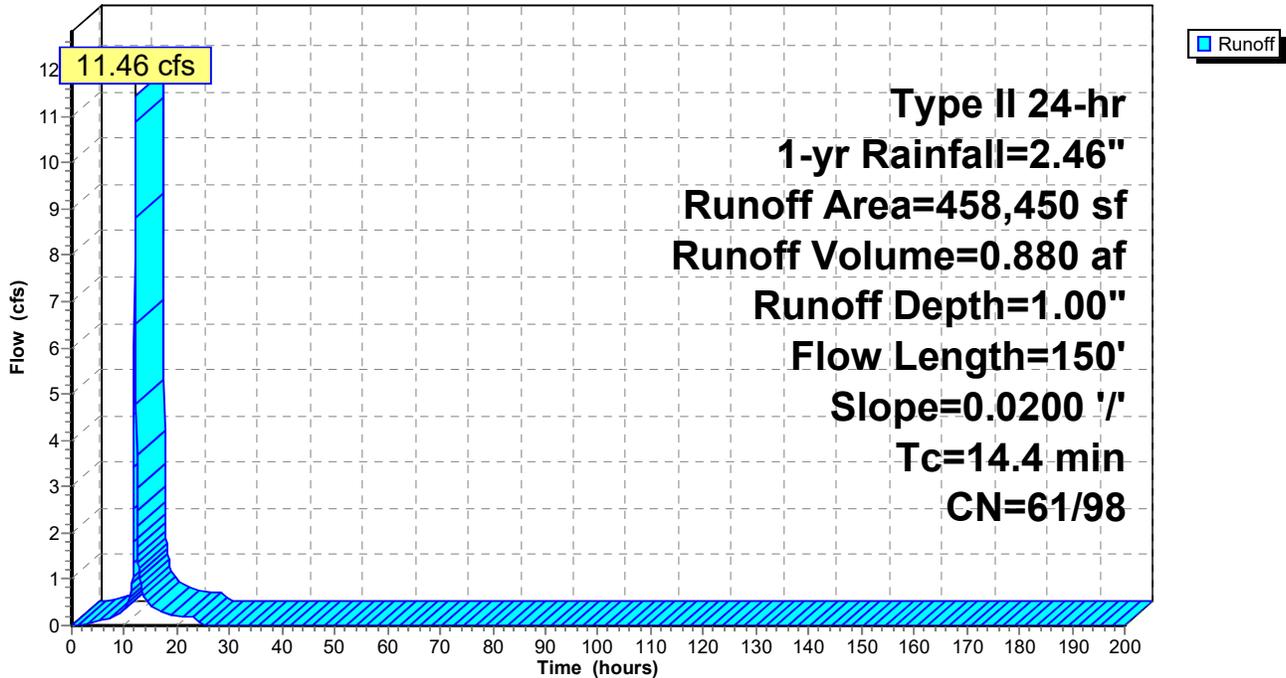
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 1-yr Rainfall=2.46"

Area (sf)	CN	Description
146,100	98	Paved parking, HSG B
37,370	98	Water Surface, HSG B
274,980	61	>75% Grass cover, Good, HSG B
458,450	76	Weighted Average
274,980	61	59.98% Pervious Area
183,470	98	40.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 1S: Drainage to Pond**

Hydrograph



**Knollwood**

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Type II 24-hr 1-yr Rainfall=2.46"

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**Summary for Subcatchment 3S: Drainage to Pond**

Runoff = 11.46 cfs @ 12.06 hrs, Volume= 0.880 af, Depth= 1.00"

Routed to Pond 4P : Proposed Knollwood Pond

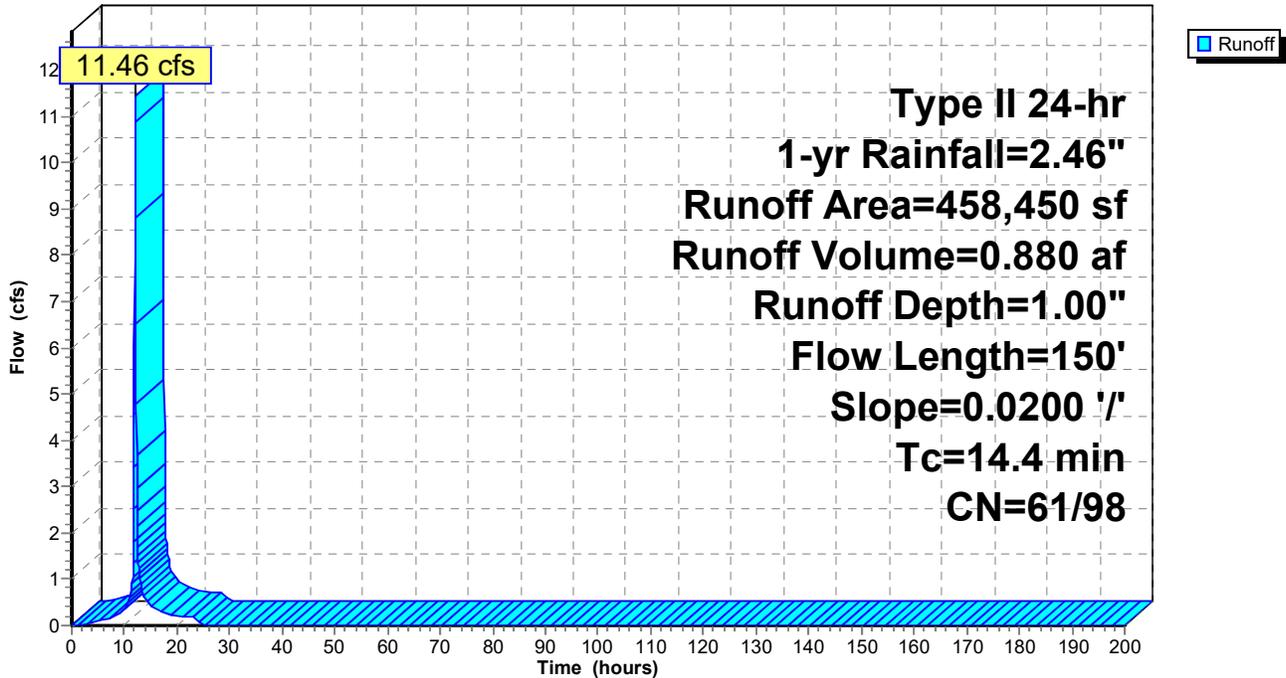
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
Type II 24-hr 1-yr Rainfall=2.46"

Area (sf)	CN	Description
146,100	98	Paved parking, HSG B
37,370	98	Water Surface, HSG B
274,980	61	>75% Grass cover, Good, HSG B
458,450	76	Weighted Average
274,980	61	59.98% Pervious Area
183,470	98	40.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 3S: Drainage to Pond**

Hydrograph



**Knollwood**

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Type II 24-hr 1-yr Rainfall=2.46"

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**Summary for Pond 2P: Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth = 1.00" for 1-yr event  
 Inflow = 11.46 cfs @ 12.06 hrs, Volume= 0.880 af  
 Outflow = 0.02 cfs @ 6.30 hrs, Volume= 0.327 af, Atten= 100%, Lag= 0.0 min  
 Discarded = 0.02 cfs @ 6.30 hrs, Volume= 0.327 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf  
 Peak Elev= 886.40' @ 24.35 hrs Surf.Area= 46,094 sf Storage= 129,122 cf (36,721 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)  
 Center-of-Mass det. time= 5,274.5 min ( 6,063.0 - 788.5 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>

**Discarded OutFlow** Max=0.02 cfs @ 6.30 hrs HW=885.52' (Free Discharge)  
 ↳ **2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=885.50' (Free Discharge)  
 ↳ **1=Orifice/Grate** ( Controls 0.00 cfs)

**Knollwood**

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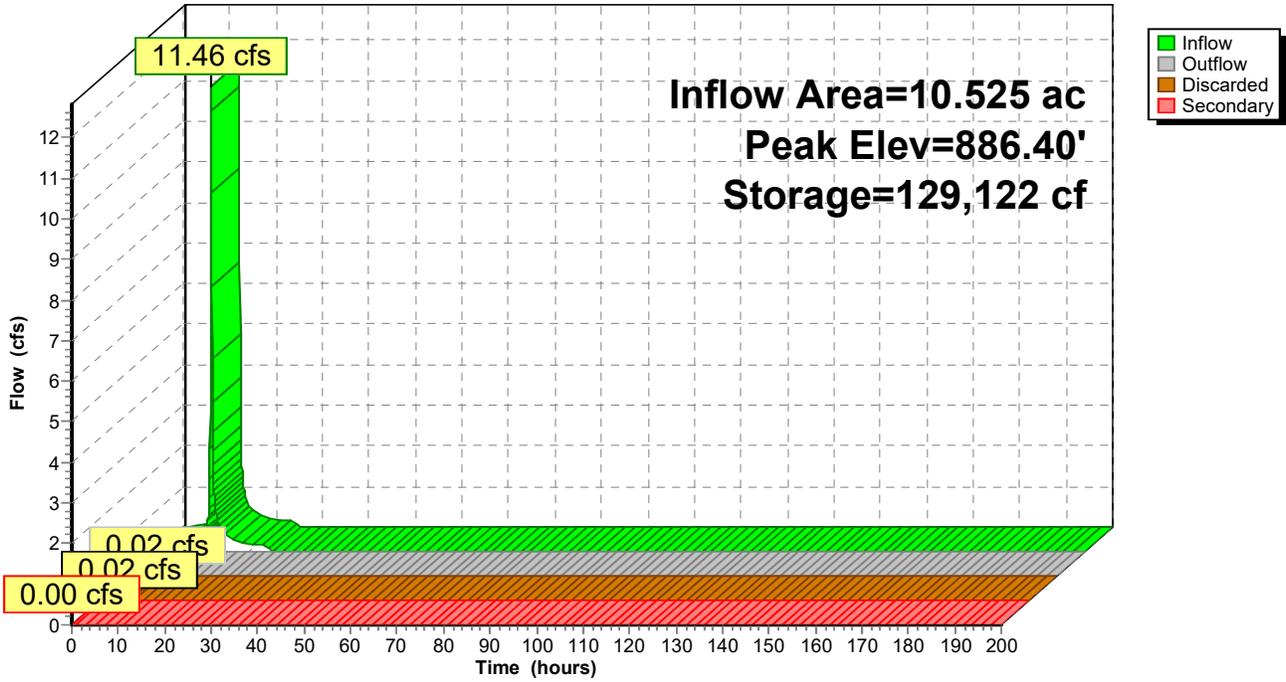
Type II 24-hr 1-yr Rainfall=2.46"

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**Pond 2P: Knollwood Pond**

Hydrograph



**Knollwood**

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Type II 24-hr 1-yr Rainfall=2.46"

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**Summary for Pond 4P: Proposed Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth = 1.00" for 1-yr event  
 Inflow = 11.46 cfs @ 12.06 hrs, Volume= 0.880 af  
 Outflow = 1.53 cfs @ 12.59 hrs, Volume= 1.276 af, Atten= 87%, Lag= 32.0 min  
 Discarded = 0.02 cfs @ 12.10 hrs, Volume= 0.005 af  
 Primary = 1.51 cfs @ 12.59 hrs, Volume= 1.271 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf

Peak Elev= 885.66' @ 12.59 hrs Surf.Area= 38,438 sf Storage= 98,402 cf (6,002 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= 229.6 min ( 1,018.1 - 788.5 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>
#3	Primary	885.00'	<b>12.0" Round Culvert</b> L= 750.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 885.00' / 874.27' S= 0.0143 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

**Discarded OutFlow** Max=0.02 cfs @ 12.10 hrs HW=885.53' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 0.02 cfs)**Primary OutFlow** Max=1.51 cfs @ 12.59 hrs HW=885.66' (Free Discharge)↑**3=Culvert** (Inlet Controls 1.51 cfs @ 2.76 fps)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=885.50' (Free Discharge)↑**1=Orifice/Grate** ( Controls 0.00 cfs)

**Knollwood**

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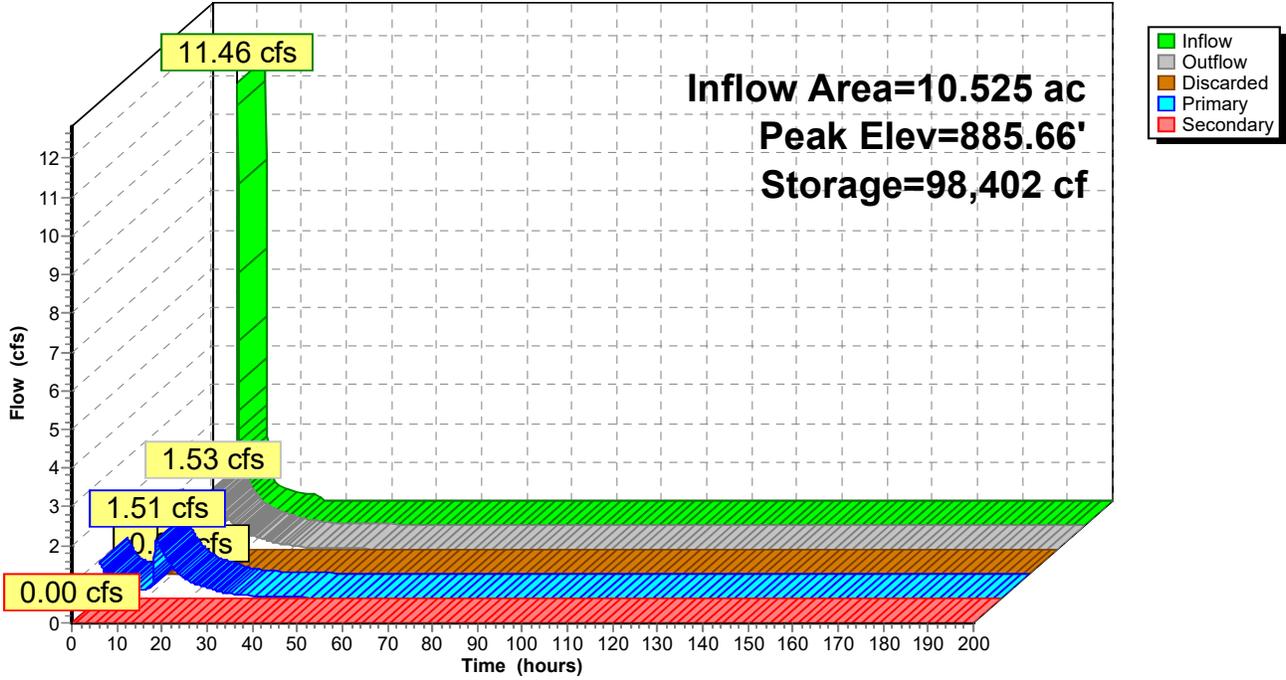
Type II 24-hr 1-yr Rainfall=2.46"

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**Pond 4P: Proposed Knollwood Pond**

Hydrograph



**Knollwood**

Type II 24-hr 2-yr Rainfall=2.83"

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Time span=0.00-200.00 hrs, dt=0.05 hrs, 4001 points  
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth=1.22"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min CN=61/98 Runoff=13.98 cfs 1.072 af

**Subcatchment 3S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth=1.22"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min CN=61/98 Runoff=13.98 cfs 1.072 af

**Pond 2P: Knollwood Pond** Peak Elev=886.57' Storage=137,448 cf Inflow=13.98 cfs 1.072 af  
Discarded=0.02 cfs 0.328 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.328 af

**Pond 4P: Proposed Knollwood Pond** Peak Elev=885.75' Storage=102,107 cf Inflow=13.98 cfs 1.072 af  
Discarded=0.02 cfs 0.007 af Primary=1.88 cfs 1.461 af Secondary=0.00 cfs 0.000 af Outflow=1.90 cfs 1.468 af

**Total Runoff Area = 21.049 ac Runoff Volume = 2.143 af Average Runoff Depth = 1.22"**  
**59.98% Pervious = 12.625 ac 40.02% Impervious = 8.424 ac**

**Knollwood**

**Summary for Subcatchment 1S: Drainage to Pond**

Runoff = 13.98 cfs @ 12.06 hrs, Volume= 1.072 af, Depth= 1.22"  
 Routed to Pond 2P : Knollwood Pond

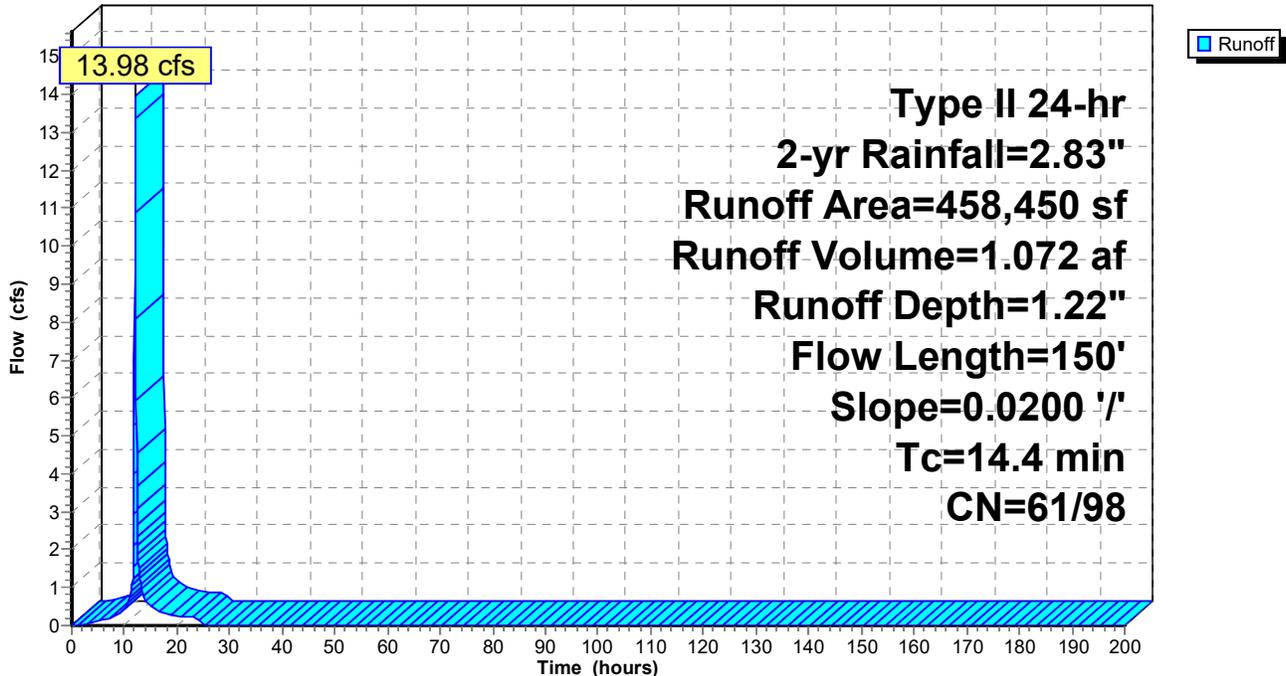
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 2-yr Rainfall=2.83"

Area (sf)	CN	Description
146,100	98	Paved parking, HSG B
37,370	98	Water Surface, HSG B
274,980	61	>75% Grass cover, Good, HSG B
458,450	76	Weighted Average
274,980	61	59.98% Pervious Area
183,470	98	40.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 1S: Drainage to Pond**

Hydrograph



**Knollwood**

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Type II 24-hr 2-yr Rainfall=2.83"

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**Summary for Subcatchment 3S: Drainage to Pond**

Runoff = 13.98 cfs @ 12.06 hrs, Volume= 1.072 af, Depth= 1.22"

Routed to Pond 4P : Proposed Knollwood Pond

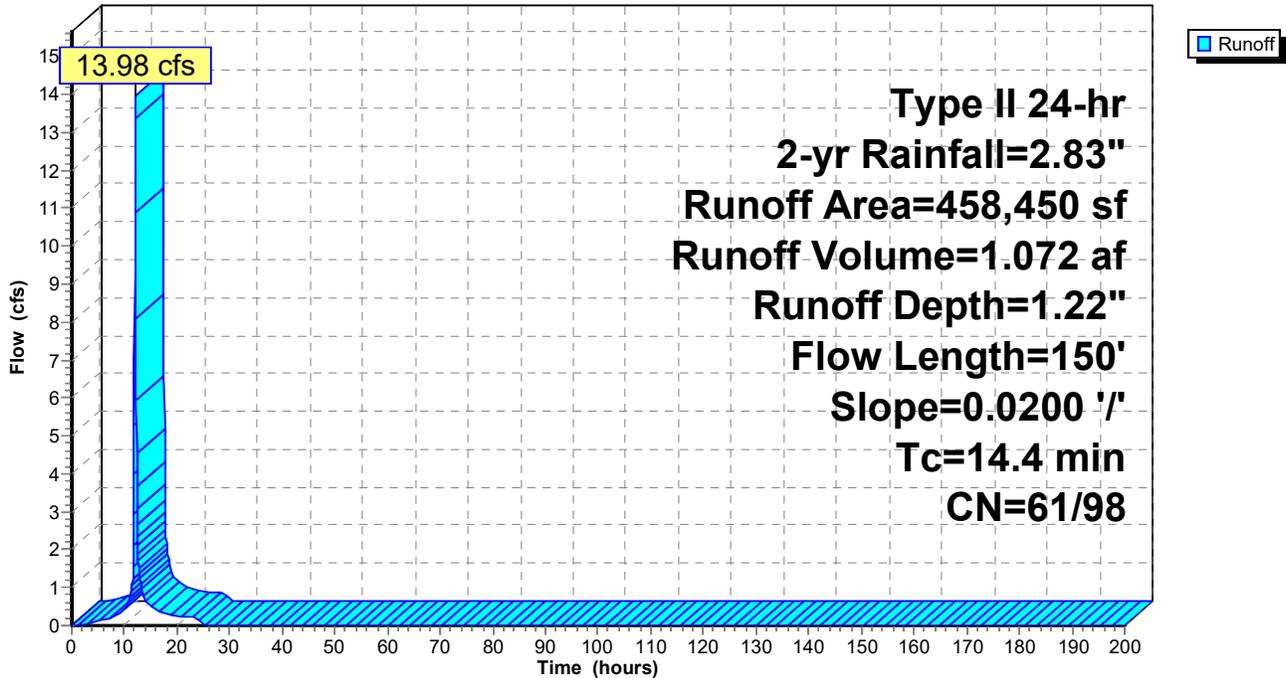
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
Type II 24-hr 2-yr Rainfall=2.83"

Area (sf)	CN	Description
146,100	98	Paved parking, HSG B
37,370	98	Water Surface, HSG B
274,980	61	>75% Grass cover, Good, HSG B
458,450	76	Weighted Average
274,980	61	59.98% Pervious Area
183,470	98	40.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 3S: Drainage to Pond**

Hydrograph



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Type II 24-hr 2-yr Rainfall=2.83"

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**Summary for Pond 2P: Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth = 1.22" for 2-yr event  
 Inflow = 13.98 cfs @ 12.06 hrs, Volume= 1.072 af  
 Outflow = 0.02 cfs @ 5.60 hrs, Volume= 0.328 af, Atten= 100%, Lag= 0.0 min  
 Discarded = 0.02 cfs @ 5.60 hrs, Volume= 0.328 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf  
 Peak Elev= 886.57' @ 24.37 hrs Surf.Area= 48,475 sf Storage= 137,448 cf (45,048 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)  
 Center-of-Mass det. time= 5,265.9 min ( 6,055.2 - 789.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>

**Discarded OutFlow** Max=0.02 cfs @ 5.60 hrs HW=885.52' (Free Discharge)  
 ↳ **2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=885.50' (Free Discharge)  
 ↳ **1=Orifice/Grate** ( Controls 0.00 cfs)

**Knollwood**

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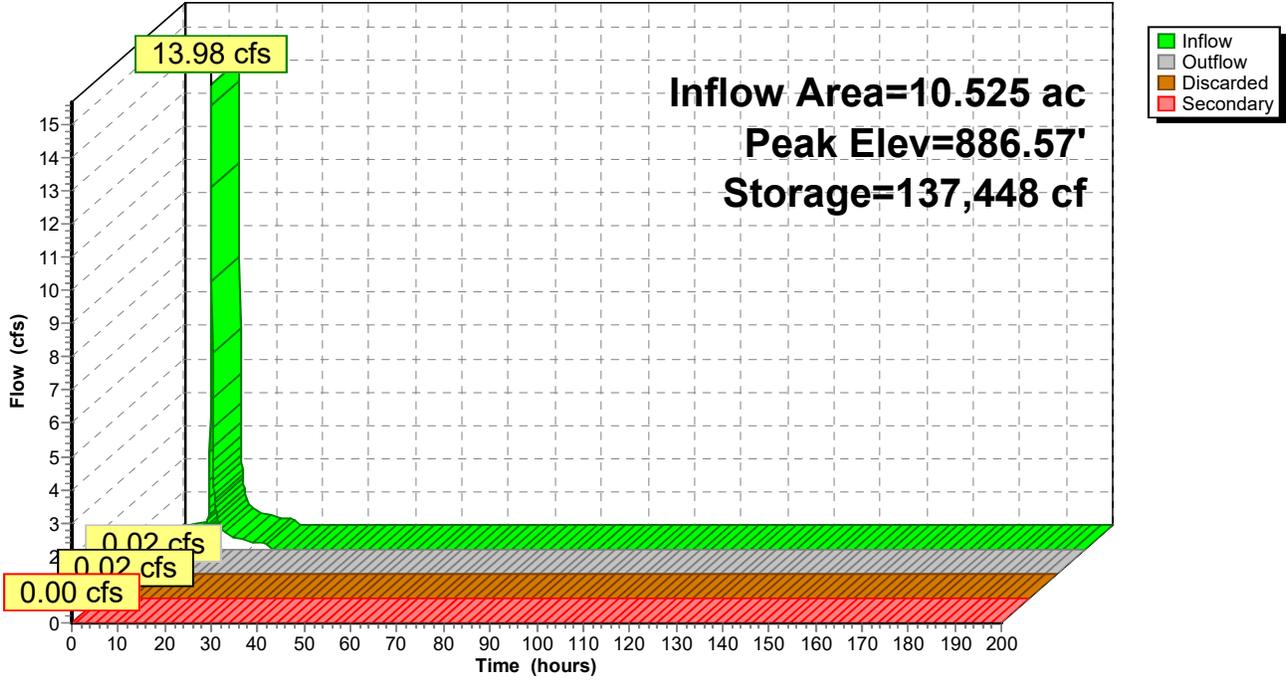
Type II 24-hr 2-yr Rainfall=2.83"

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**Pond 2P: Knollwood Pond**

Hydrograph



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Type II 24-hr 2-yr Rainfall=2.83"

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**Summary for Pond 4P: Proposed Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth = 1.22" for 2-yr event  
 Inflow = 13.98 cfs @ 12.06 hrs, Volume= 1.072 af  
 Outflow = 1.90 cfs @ 12.60 hrs, Volume= 1.468 af, Atten= 86%, Lag= 32.0 min  
 Discarded = 0.02 cfs @ 12.05 hrs, Volume= 0.007 af  
 Primary = 1.88 cfs @ 12.60 hrs, Volume= 1.461 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf  
 Peak Elev= 885.75' @ 12.60 hrs Surf.Area= 39,082 sf Storage= 102,107 cf (9,707 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)  
 Center-of-Mass det. time= 228.8 min ( 1,018.1 - 789.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>
#3	Primary	885.00'	<b>12.0" Round Culvert</b> L= 750.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 885.00' / 874.27' S= 0.0143 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

**Discarded OutFlow** Max=0.02 cfs @ 12.05 hrs HW=885.54' (Free Discharge)  
 ↑**2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Primary OutFlow** Max=1.88 cfs @ 12.60 hrs HW=885.75' (Free Discharge)  
 ↑**3=Culvert** (Inlet Controls 1.88 cfs @ 2.96 fps)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=885.50' (Free Discharge)  
 ↑**1=Orifice/Grate** ( Controls 0.00 cfs)

**Knollwood**

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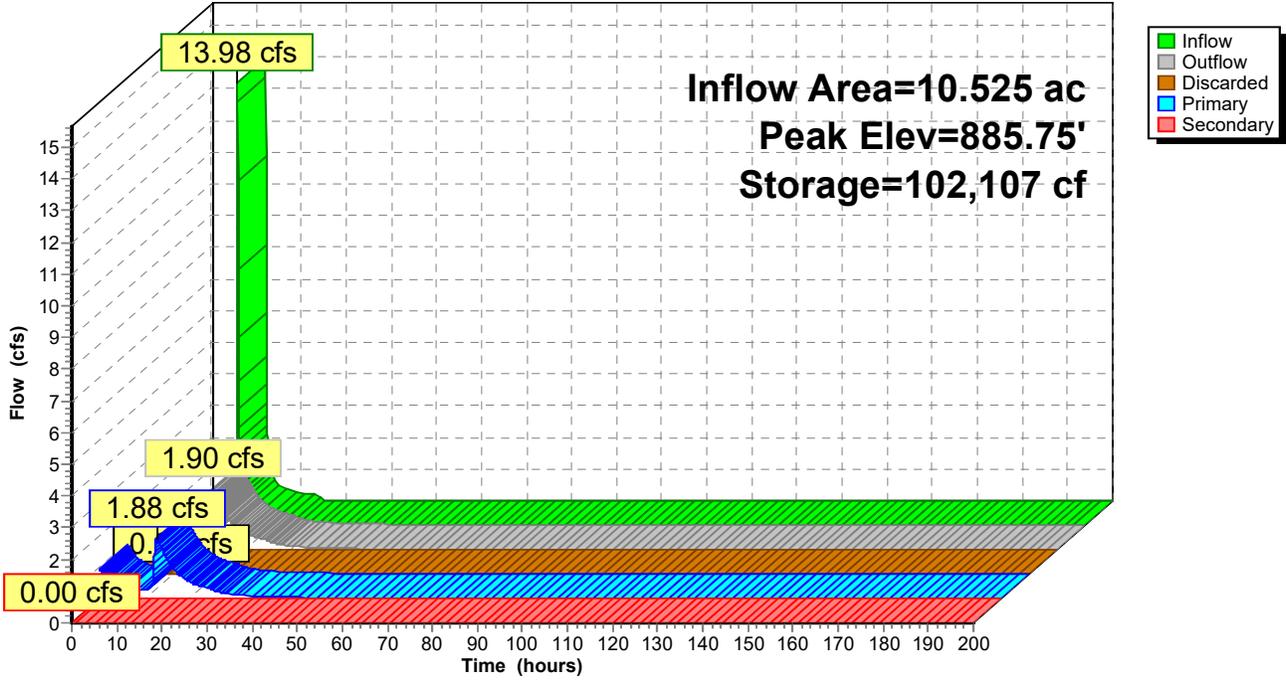
Type II 24-hr 2-yr Rainfall=2.83"

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**Pond 4P: Proposed Knollwood Pond**

Hydrograph



**Knollwood**

Spillway 1-day 10-day 10-day Snowmelt Rainfall=7.20", AMC=4

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Time span=0.00-200.00 hrs, dt=0.05 hrs, 4001 points  
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth>6.47"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min AMC Adjusted CN=98/98 Runoff=4.98 cfs 5.679 af

**Subcatchment 3S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth>6.47"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min AMC Adjusted CN=98/98 Runoff=4.98 cfs 5.679 af

**Pond 2P: Knollwood Pond** Peak Elev=887.70' Storage=201,031 cf Inflow=4.98 cfs 5.679 af  
Discarded=0.02 cfs 0.322 af Secondary=1.47 cfs 4.023 af Outflow=1.49 cfs 4.345 af

**Pond 4P: Proposed Knollwood Pond** Peak Elev=886.05' Storage=113,776 cf Inflow=4.98 cfs 5.679 af  
Discarded=0.02 cfs 0.019 af Primary=2.79 cfs 5.908 af Secondary=0.00 cfs 0.000 af Outflow=2.81 cfs 5.927 af

**Total Runoff Area = 21.049 ac Runoff Volume = 11.357 af Average Runoff Depth = 6.47"**  
**59.98% Pervious = 12.625 ac 40.02% Impervious = 8.424 ac**

**Summary for Subcatchment 1S: Drainage to Pond**

Runoff = 4.98 cfs @ 121.42 hrs, Volume= 5.679 af, Depth> 6.47"  
 Routed to Pond 2P : Knollwood Pond

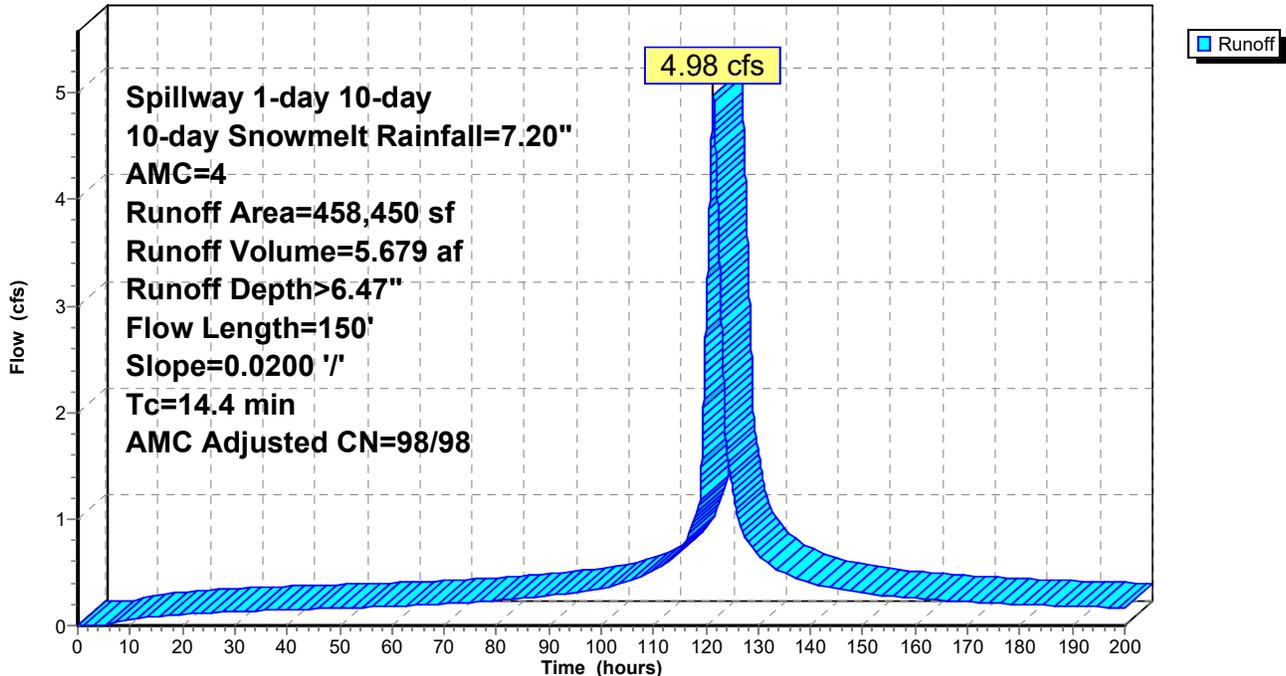
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Spillway 1-day 10-day 10-day Snowmelt Rainfall=7.20", AMC=4

Area (sf)	CN	Adj	Description
146,100	98		Paved parking, HSG B
37,370	98		Water Surface, HSG B
274,980	61		>75% Grass cover, Good, HSG B
458,450	76	98	Weighted Average, AMC Adjusted
274,980	61	98	59.98% Pervious Area, AMC Adjusted
183,470	98	98	40.02% Impervious Area, AMC Adjusted

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 1S: Drainage to Pond**

Hydrograph



**Summary for Subcatchment 3S: Drainage to Pond**

Runoff = 4.98 cfs @ 121.42 hrs, Volume= 5.679 af, Depth> 6.47"  
 Routed to Pond 4P : Proposed Knollwood Pond

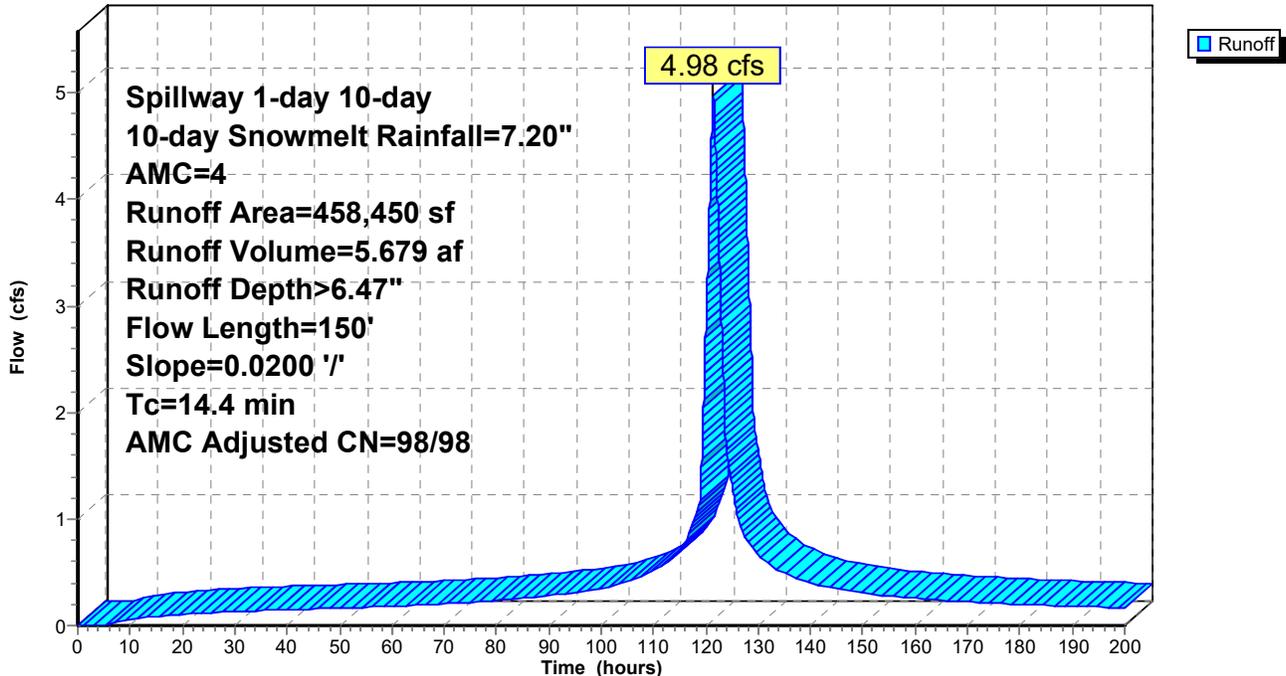
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Spillway 1-day 10-day 10-day Snowmelt Rainfall=7.20", AMC=4

Area (sf)	CN	Adj	Description
146,100	98		Paved parking, HSG B
37,370	98		Water Surface, HSG B
274,980	61		>75% Grass cover, Good, HSG B
458,450	76	98	Weighted Average, AMC Adjusted
274,980	61	98	59.98% Pervious Area, AMC Adjusted
183,470	98	98	40.02% Impervious Area, AMC Adjusted

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 3S: Drainage to Pond**

Hydrograph



**Knollwood**

Spillway 1-day 10-day 10-day Snowmelt Rainfall=7.20", AMC=4

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**Summary for Pond 2P: Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth > 6.47" for 10-day Snowmelt event  
 Inflow = 4.98 cfs @ 121.42 hrs, Volume= 5.679 af  
 Outflow = 1.49 cfs @ 124.36 hrs, Volume= 4.345 af, Atten= 70%, Lag= 176.0 min  
 Discarded = 0.02 cfs @ 12.90 hrs, Volume= 0.322 af  
 Secondary = 1.47 cfs @ 124.36 hrs, Volume= 4.023 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf  
 Peak Elev= 887.70' @ 124.36 hrs Surf.Area= 63,786 sf Storage= 201,031 cf (108,631 cf above start)

Plug-Flow detention time= 4,430.8 min calculated for 2.224 af (39% of inflow)  
 Center-of-Mass det. time= 1,232.4 min ( 8,228.3 - 6,995.9 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

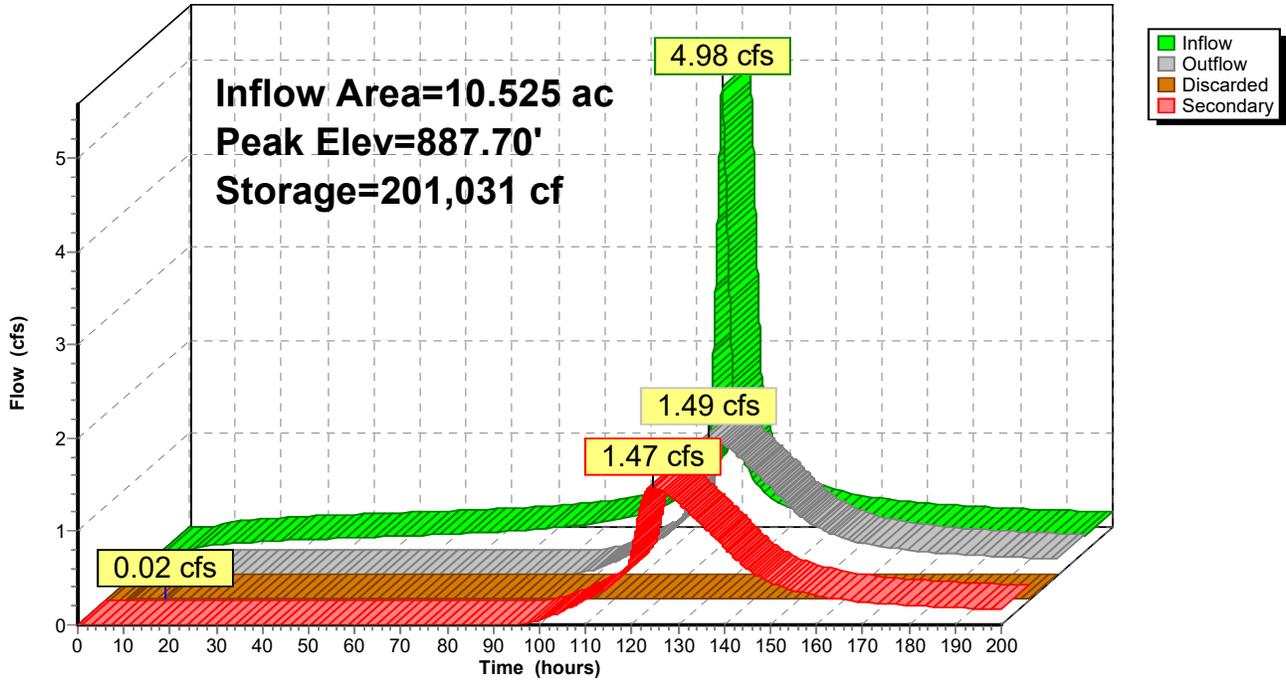
Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>

**Discarded OutFlow** Max=0.02 cfs @ 12.90 hrs HW=885.52' (Free Discharge)  
 ↳ **2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Secondary OutFlow** Max=1.47 cfs @ 124.36 hrs HW=887.70' (Free Discharge)  
 ↳ **1=Orifice/Grate** (Orifice Controls 1.47 cfs @ 4.20 fps)

### Pond 2P: Knollwood Pond

Hydrograph



**Summary for Pond 4P: Proposed Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth > 6.47" for 10-day Snowmelt event  
 Inflow = 4.98 cfs @ 121.42 hrs, Volume= 5.679 af  
 Outflow = 2.81 cfs @ 123.03 hrs, Volume= 5.927 af, Atten= 44%, Lag= 96.5 min  
 Discarded = 0.02 cfs @ 119.70 hrs, Volume= 0.019 af  
 Primary = 2.79 cfs @ 123.03 hrs, Volume= 5.908 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf  
 Peak Elev= 886.05' @ 123.03 hrs Surf.Area= 41,350 sf Storage= 113,776 cf (21,375 cf above start)

Plug-Flow detention time= 2,464.0 min calculated for 3.806 af (67% of inflow)  
 Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>
#3	Primary	885.00'	<b>12.0" Round Culvert</b> L= 750.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 885.00' / 874.27' S= 0.0143 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

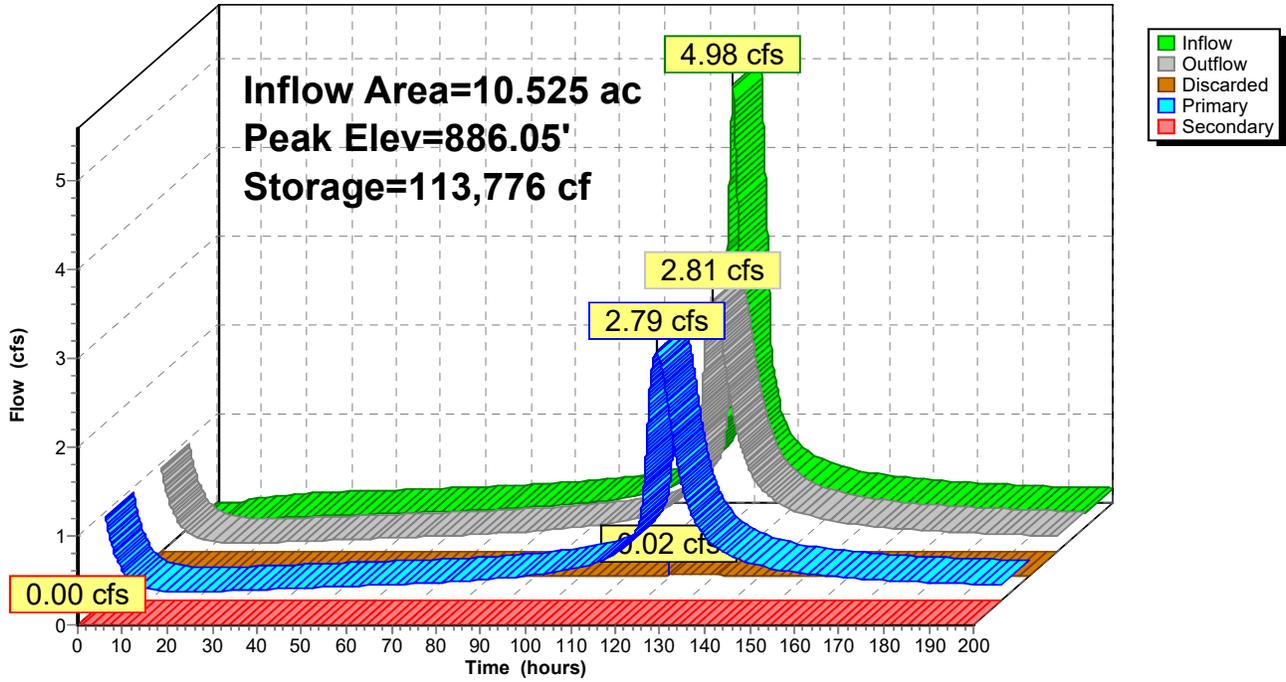
**Discarded OutFlow** Max=0.02 cfs @ 119.70 hrs HW=885.52' (Free Discharge)  
 ↳ **2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Primary OutFlow** Max=2.79 cfs @ 123.03 hrs HW=886.04' (Free Discharge)  
 ↳ **3=Culvert** (Inlet Controls 2.79 cfs @ 3.55 fps)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=885.50' (Free Discharge)  
 ↳ **1=Orifice/Grate** ( Controls 0.00 cfs)

### Pond 4P: Proposed Knollwood Pond

Hydrograph



**Knollwood**

Type II 24-hr 10-yr Rainfall=4.22"

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Time span=0.00-200.00 hrs, dt=0.05 hrs, 4001 points  
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth=2.15"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min CN=61/98 Runoff=25.78 cfs 1.886 af

**Subcatchment 3S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth=2.15"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min CN=61/98 Runoff=25.78 cfs 1.886 af

**Pond 2P: Knollwood Pond** Peak Elev=886.99' Storage=158,846 cf Inflow=25.78 cfs 1.886 af  
Discarded=0.02 cfs 0.329 af Secondary=0.43 cfs 0.652 af Outflow=0.45 cfs 0.980 af

**Pond 4P: Proposed Knollwood Pond** Peak Elev=886.17' Storage=118,859 cf Inflow=25.78 cfs 1.886 af  
Discarded=0.02 cfs 0.013 af Primary=3.09 cfs 2.269 af Secondary=0.00 cfs 0.000 af Outflow=3.11 cfs 2.282 af

**Total Runoff Area = 21.049 ac Runoff Volume = 3.772 af Average Runoff Depth = 2.15"**  
**59.98% Pervious = 12.625 ac 40.02% Impervious = 8.424 ac**

**Knollwood**

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Type II 24-hr 10-yr Rainfall=4.22"

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**Summary for Subcatchment 1S: Drainage to Pond**

Runoff = 25.78 cfs @ 12.06 hrs, Volume= 1.886 af, Depth= 2.15"  
 Routed to Pond 2P : Knollwood Pond

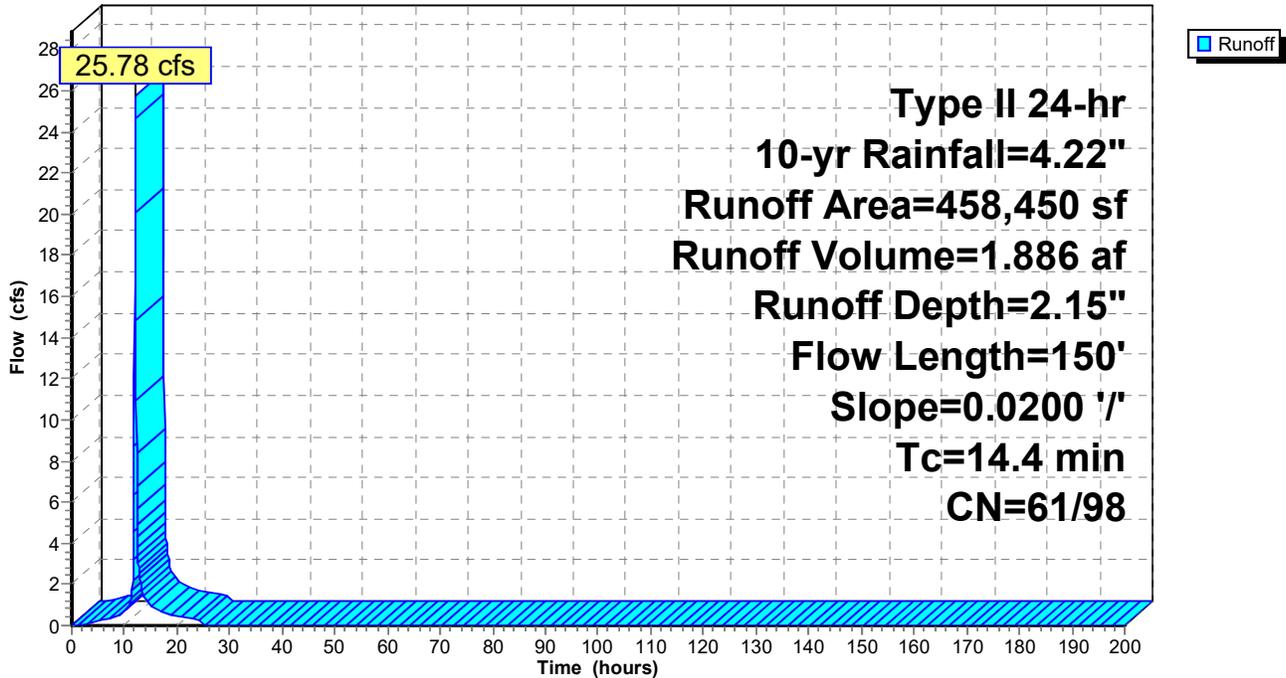
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 10-yr Rainfall=4.22"

Area (sf)	CN	Description
146,100	98	Paved parking, HSG B
37,370	98	Water Surface, HSG B
274,980	61	>75% Grass cover, Good, HSG B
458,450	76	Weighted Average
274,980	61	59.98% Pervious Area
183,470	98	40.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 1S: Drainage to Pond**

Hydrograph



**Knollwood**

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Type II 24-hr 10-yr Rainfall=4.22"

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**Summary for Subcatchment 3S: Drainage to Pond**

Runoff = 25.78 cfs @ 12.06 hrs, Volume= 1.886 af, Depth= 2.15"

Routed to Pond 4P : Proposed Knollwood Pond

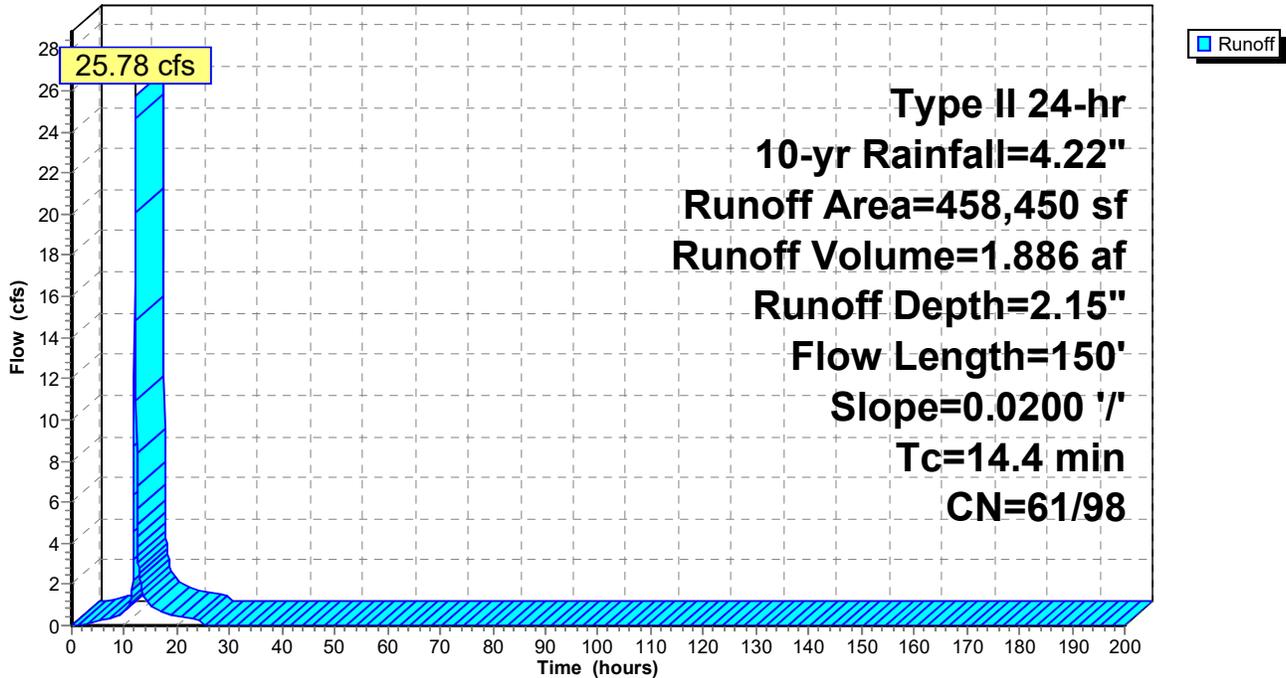
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
Type II 24-hr 10-yr Rainfall=4.22"

Area (sf)	CN	Description
146,100	98	Paved parking, HSG B
37,370	98	Water Surface, HSG B
274,980	61	>75% Grass cover, Good, HSG B
458,450	76	Weighted Average
274,980	61	59.98% Pervious Area
183,470	98	40.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 3S: Drainage to Pond**

Hydrograph



**Knollwood**

Type II 24-hr 10-yr Rainfall=4.22"

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**Summary for Pond 2P: Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth = 2.15" for 10-yr event  
 Inflow = 25.78 cfs @ 12.06 hrs, Volume= 1.886 af  
 Outflow = 0.45 cfs @ 19.71 hrs, Volume= 0.980 af, Atten= 98%, Lag= 458.6 min  
 Discarded = 0.02 cfs @ 4.00 hrs, Volume= 0.329 af  
 Secondary = 0.43 cfs @ 19.71 hrs, Volume= 0.652 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf  
 Peak Elev= 886.99' @ 19.71 hrs Surf.Area= 54,113 sf Storage= 158,846 cf (66,446 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)  
 Center-of-Mass det. time= 2,299.9 min ( 3,089.7 - 789.9 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>

**Discarded OutFlow** Max=0.02 cfs @ 4.00 hrs HW=885.52' (Free Discharge)  
 ↳ **2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Secondary OutFlow** Max=0.43 cfs @ 19.71 hrs HW=886.99' (Free Discharge)  
 ↳ **1=Orifice/Grate** (Orifice Controls 0.43 cfs @ 2.10 fps)

**Knollwood**

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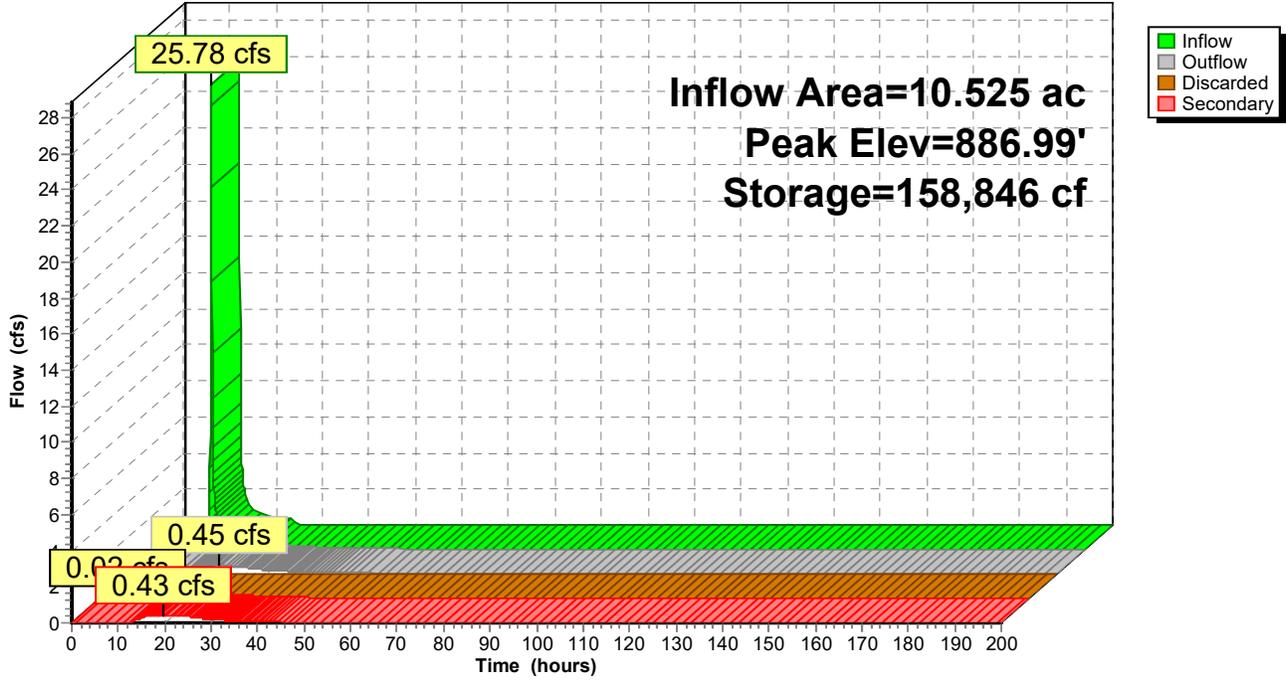
Type II 24-hr 10-yr Rainfall=4.22"

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**Pond 2P: Knollwood Pond**

Hydrograph



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Type II 24-hr 10-yr Rainfall=4.22"

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**Summary for Pond 4P: Proposed Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth = 2.15" for 10-yr event  
 Inflow = 25.78 cfs @ 12.06 hrs, Volume= 1.886 af  
 Outflow = 3.11 cfs @ 12.64 hrs, Volume= 2.282 af, Atten= 88%, Lag= 34.9 min  
 Discarded = 0.02 cfs @ 11.90 hrs, Volume= 0.013 af  
 Primary = 3.09 cfs @ 12.64 hrs, Volume= 2.269 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf  
 Peak Elev= 886.17' @ 12.64 hrs Surf.Area= 42,980 sf Storage= 118,859 cf (26,459 cf above start)

Plug-Flow detention time= 2,508.4 min calculated for 0.161 af (9% of inflow)  
 Center-of-Mass det. time= 224.9 min ( 1,014.8 - 789.9 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>
#3	Primary	885.00'	<b>12.0" Round Culvert</b> L= 750.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 885.00' / 874.27' S= 0.0143 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

**Discarded OutFlow** Max=0.02 cfs @ 11.90 hrs HW=885.53' (Free Discharge)  
 ↑**2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Primary OutFlow** Max=3.09 cfs @ 12.64 hrs HW=886.17' (Free Discharge)  
 ↑**3=Culvert** (Inlet Controls 3.09 cfs @ 3.93 fps)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=885.50' (Free Discharge)  
 ↑**1=Orifice/Grate** ( Controls 0.00 cfs)

**Knollwood**

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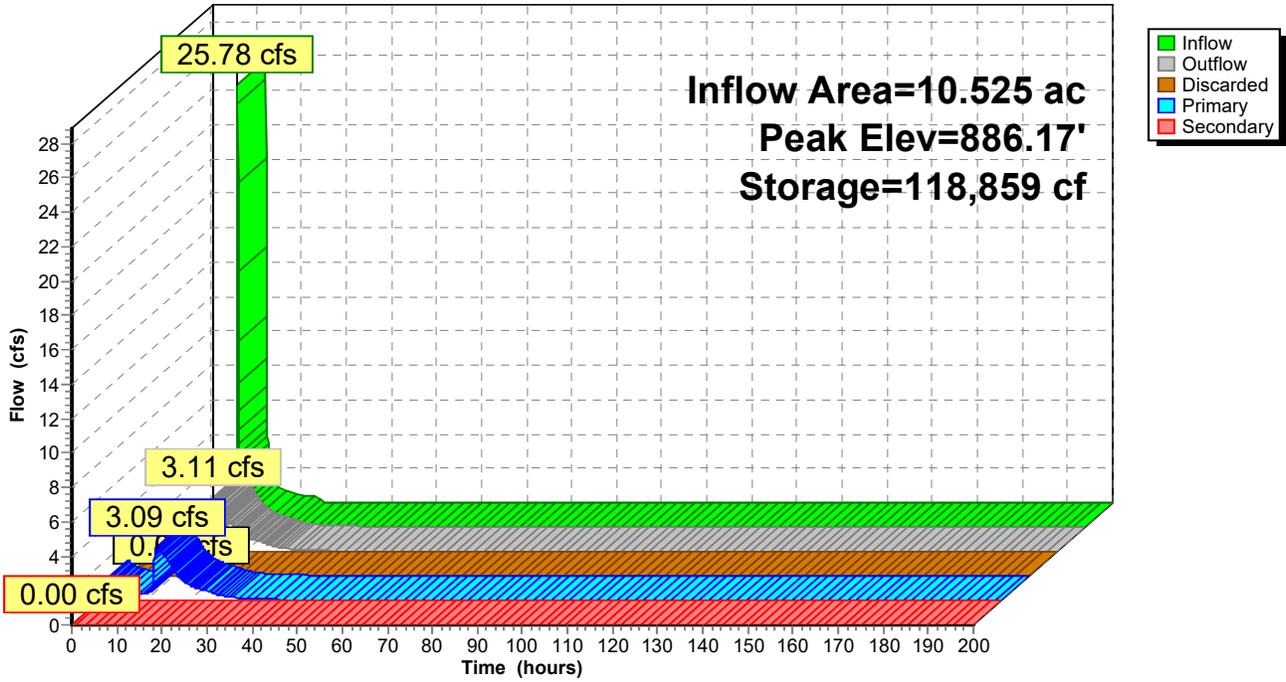
Type II 24-hr 10-yr Rainfall=4.22"

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**Pond 4P: Proposed Knollwood Pond**

Hydrograph



**Knollwood**

Type II 24-hr 100-yr Rainfall=7.33"

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Time span=0.00-200.00 hrs, dt=0.05 hrs, 4001 points  
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth=4.60"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min CN=61/98 Runoff=57.58 cfs 4.037 af

**Subcatchment 3S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth=4.60"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min CN=61/98 Runoff=57.58 cfs 4.037 af

**Pond 2P: Knollwood Pond** Peak Elev=887.93' Storage=215,733 cf Inflow=57.58 cfs 4.037 af  
Discarded=0.02 cfs 0.329 af Secondary=1.67 cfs 2.781 af Outflow=1.69 cfs 3.111 af

**Pond 4P: Proposed Knollwood Pond** Peak Elev=887.15' Storage=167,627 cf Inflow=57.58 cfs 4.037 af  
Discarded=0.02 cfs 0.023 af Primary=4.68 cfs 4.281 af Secondary=0.75 cfs 0.128 af Outflow=5.45 cfs 4.433 af

**Total Runoff Area = 21.049 ac Runoff Volume = 8.073 af Average Runoff Depth = 4.60"**  
**59.98% Pervious = 12.625 ac 40.02% Impervious = 8.424 ac**

**Knollwood**

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Type II 24-hr 100-yr Rainfall=7.33"

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**Summary for Subcatchment 1S: Drainage to Pond**

Runoff = 57.58 cfs @ 12.06 hrs, Volume= 4.037 af, Depth= 4.60"  
 Routed to Pond 2P : Knollwood Pond

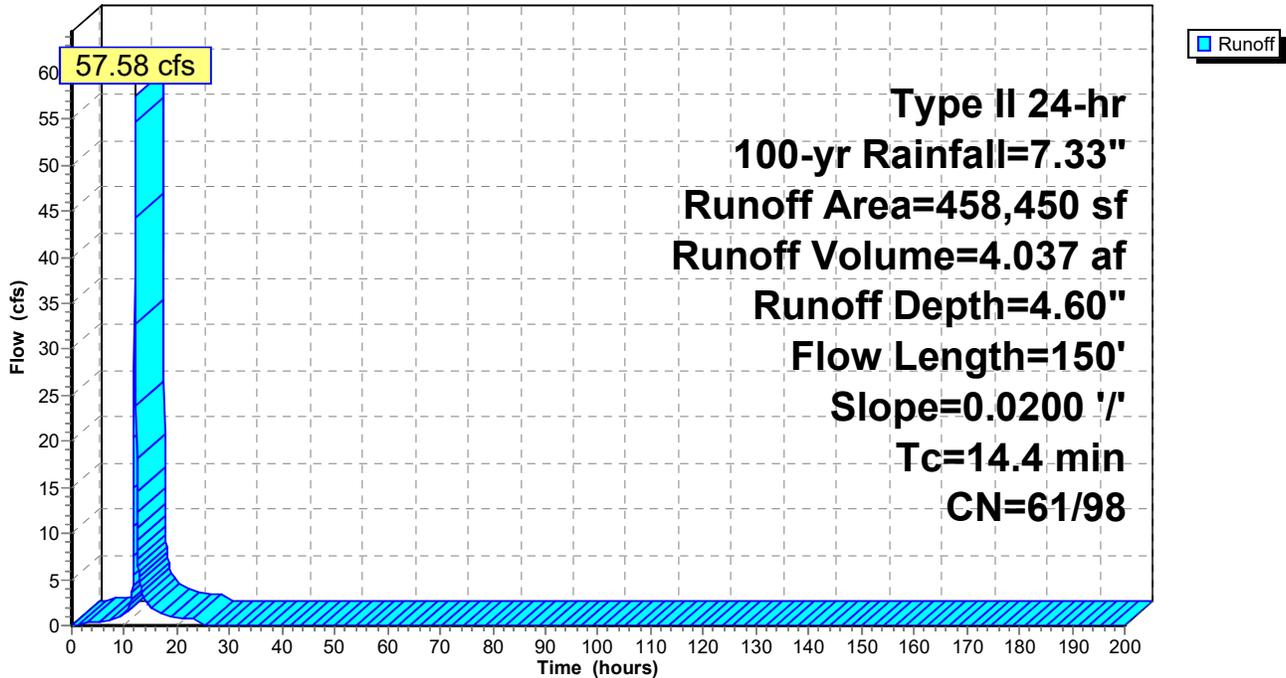
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Type II 24-hr 100-yr Rainfall=7.33"

Area (sf)	CN	Description
146,100	98	Paved parking, HSG B
37,370	98	Water Surface, HSG B
274,980	61	>75% Grass cover, Good, HSG B
458,450	76	Weighted Average
274,980	61	59.98% Pervious Area
183,470	98	40.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 1S: Drainage to Pond**

Hydrograph



**Knollwood**

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Type II 24-hr 100-yr Rainfall=7.33"

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**Summary for Subcatchment 3S: Drainage to Pond**

Runoff = 57.58 cfs @ 12.06 hrs, Volume= 4.037 af, Depth= 4.60"

Routed to Pond 4P : Proposed Knollwood Pond

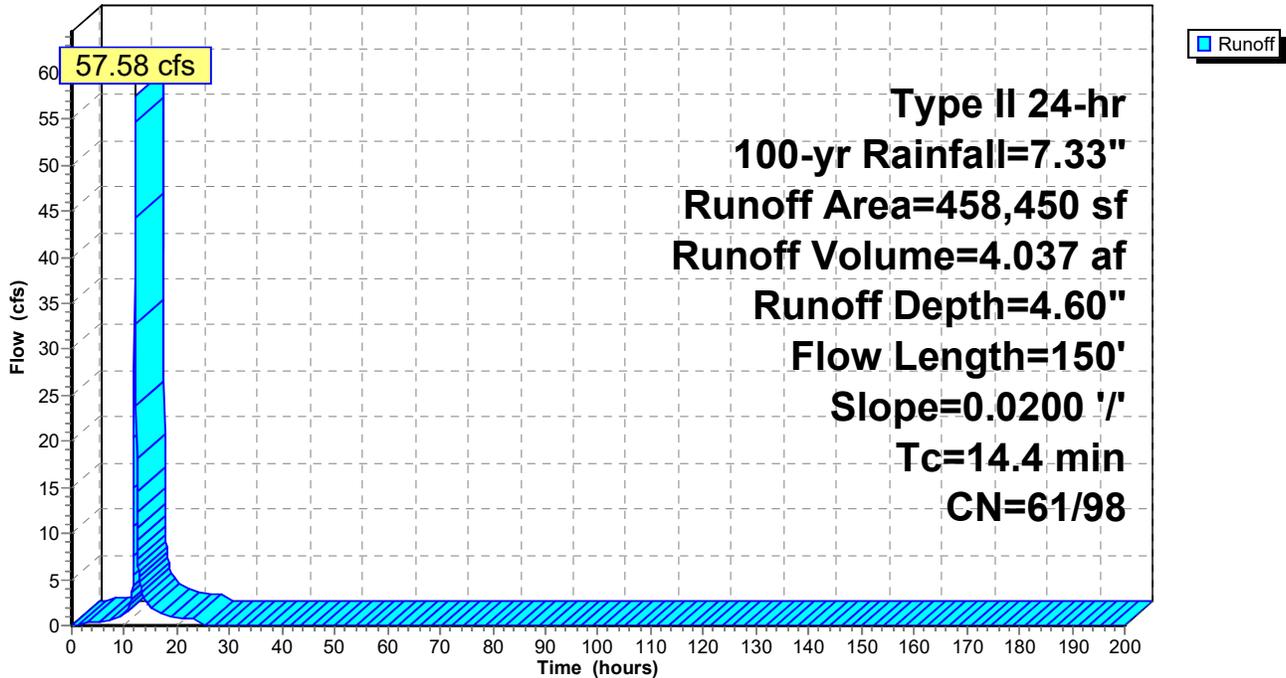
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
Type II 24-hr 100-yr Rainfall=7.33"

Area (sf)	CN	Description
146,100	98	Paved parking, HSG B
37,370	98	Water Surface, HSG B
274,980	61	>75% Grass cover, Good, HSG B
458,450	76	Weighted Average
274,980	61	59.98% Pervious Area
183,470	98	40.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 3S: Drainage to Pond**

Hydrograph



**Knollwood**

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Type II 24-hr 100-yr Rainfall=7.33"

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**Summary for Pond 2P: Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth = 4.60" for 100-yr event  
 Inflow = 57.58 cfs @ 12.06 hrs, Volume= 4.037 af  
 Outflow = 1.69 cfs @ 15.69 hrs, Volume= 3.111 af, Atten= 97%, Lag= 217.9 min  
 Discarded = 0.02 cfs @ 2.45 hrs, Volume= 0.329 af  
 Secondary = 1.67 cfs @ 15.69 hrs, Volume= 2.781 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf  
 Peak Elev= 887.93' @ 15.69 hrs Surf.Area= 66,829 sf Storage= 215,733 cf (123,333 cf above start)

Plug-Flow detention time= 3,042.4 min calculated for 0.990 af (25% of inflow)  
 Center-of-Mass det. time= 1,184.0 min ( 1,971.0 - 787.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>

**Discarded OutFlow** Max=0.02 cfs @ 2.45 hrs HW=885.52' (Free Discharge)  
 ↳ **2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Secondary OutFlow** Max=1.67 cfs @ 15.69 hrs HW=887.93' (Free Discharge)  
 ↳ **1=Orifice/Grate** (Orifice Controls 1.67 cfs @ 4.78 fps)

**Knollwood**

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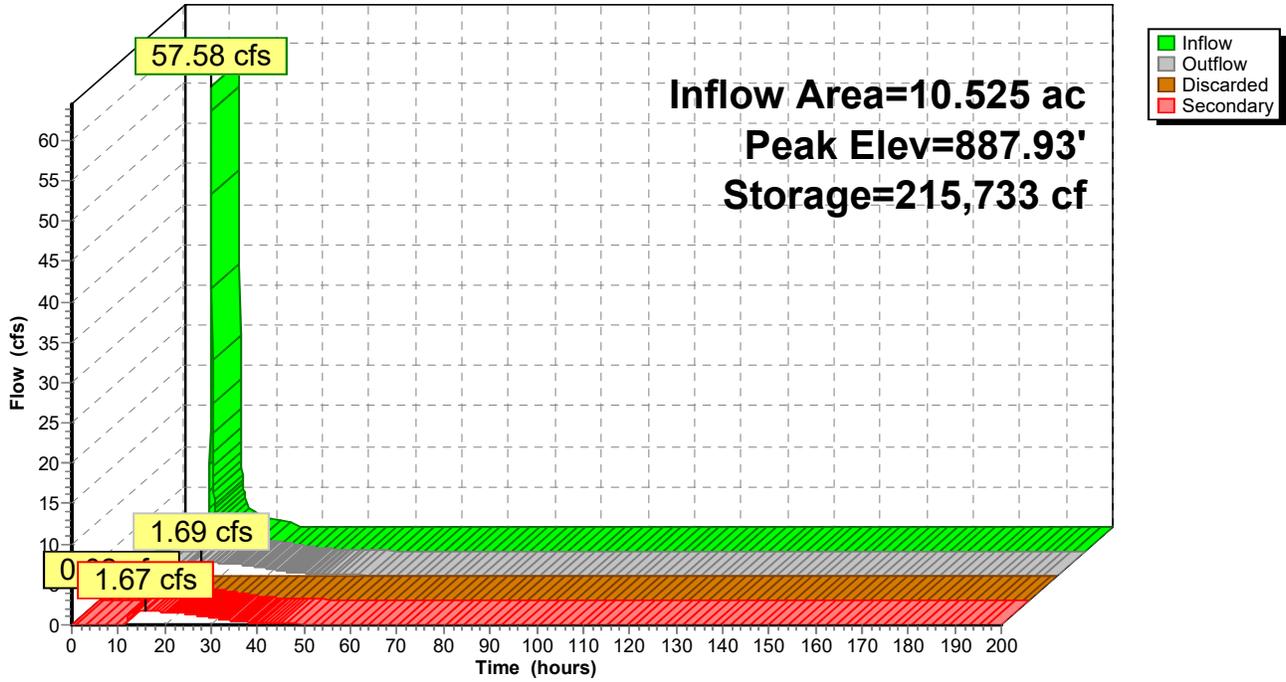
Type II 24-hr 100-yr Rainfall=7.33"

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**Pond 2P: Knollwood Pond**

Hydrograph



**Knollwood**

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Type II 24-hr 100-yr Rainfall=7.33"

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**Summary for Pond 4P: Proposed Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth = 4.60" for 100-yr event  
 Inflow = 57.58 cfs @ 12.06 hrs, Volume= 4.037 af  
 Outflow = 5.45 cfs @ 12.76 hrs, Volume= 4.433 af, Atten= 91%, Lag= 42.1 min  
 Discarded = 0.02 cfs @ 11.25 hrs, Volume= 0.023 af  
 Primary = 4.68 cfs @ 12.76 hrs, Volume= 4.281 af  
 Secondary = 0.75 cfs @ 12.76 hrs, Volume= 0.128 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf

Peak Elev= 887.15' @ 12.76 hrs Surf.Area= 56,264 sf Storage= 167,627 cf (75,227 cf above start)

Plug-Flow detention time= 668.4 min calculated for 2.311 af (57% of inflow)

Center-of-Mass det. time= 243.7 min ( 1,030.7 - 787.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>
#3	Primary	885.00'	<b>12.0" Round Culvert</b> L= 750.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 885.00' / 874.27' S= 0.0143 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

**Discarded OutFlow** Max=0.02 cfs @ 11.25 hrs HW=885.53' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 0.02 cfs)**Primary OutFlow** Max=4.68 cfs @ 12.76 hrs HW=887.15' (Free Discharge)↑**3=Culvert** (Barrel Controls 4.68 cfs @ 5.96 fps)**Secondary OutFlow** Max=0.75 cfs @ 12.76 hrs HW=887.15' (Free Discharge)↑**1=Orifice/Grate** (Orifice Controls 0.75 cfs @ 2.50 fps)

**Knollwood**

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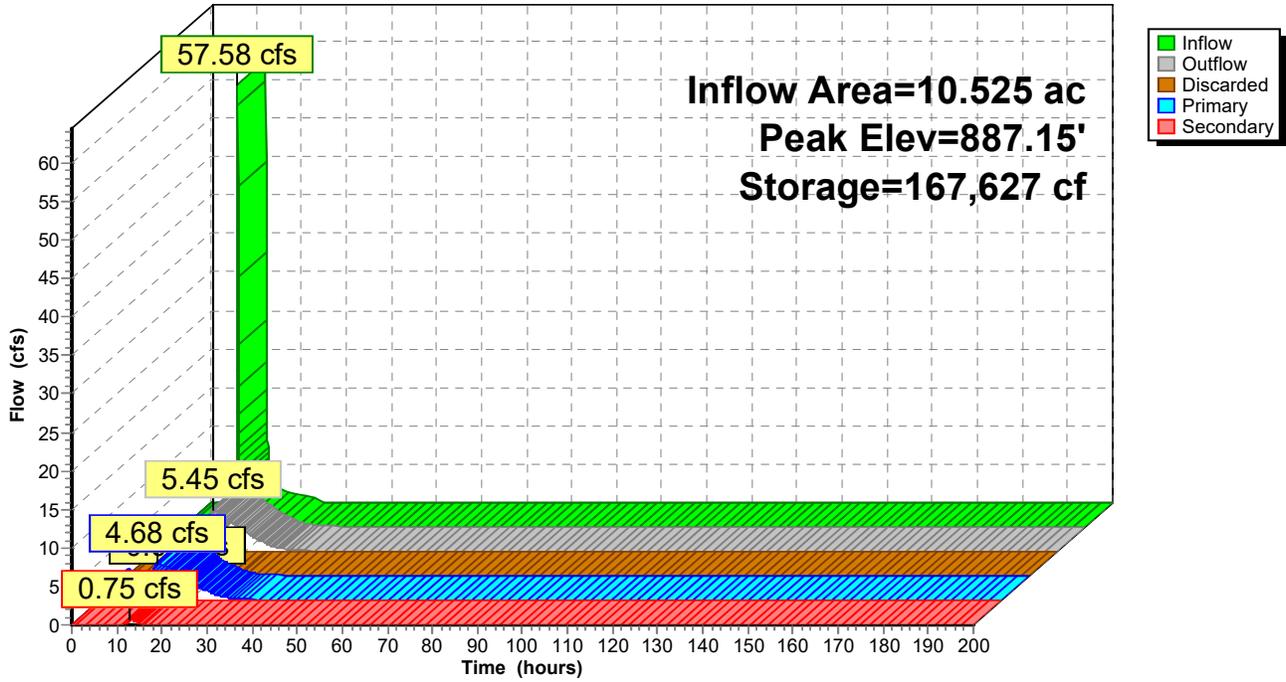
Type II 24-hr 100-yr Rainfall=7.33"

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**Pond 4P: Proposed Knollwood Pond**

Hydrograph



**Knollwood**

Type II 24-hr NURP Rainfall=2.50"

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Time span=0.00-200.00 hrs, dt=0.05 hrs, 4001 points  
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.  
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

**Subcatchment 1S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth=1.03"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min CN=61/98 Runoff=11.71 cfs 0.900 af

**Subcatchment 3S: Drainage to Pond** Runoff Area=458,450 sf 40.02% Impervious Runoff Depth=1.03"  
Flow Length=150' Slope=0.0200 '/' Tc=14.4 min CN=61/98 Runoff=11.71 cfs 0.900 af

**Pond 2P: Knollwood Pond** Peak Elev=886.41' Storage=129,994 cf Inflow=11.71 cfs 0.900 af  
Discarded=0.02 cfs 0.327 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.327 af

**Pond 4P: Proposed Knollwood Pond** Peak Elev=885.67' Storage=98,788 cf Inflow=11.71 cfs 0.900 af  
Discarded=0.02 cfs 0.006 af Primary=1.55 cfs 1.291 af Secondary=0.00 cfs 0.000 af Outflow=1.57 cfs 1.296 af

**Total Runoff Area = 21.049 ac Runoff Volume = 1.800 af Average Runoff Depth = 1.03"**  
**59.98% Pervious = 12.625 ac 40.02% Impervious = 8.424 ac**

**Knollwood**

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Type II 24-hr NURP Rainfall=2.50"

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**Summary for Subcatchment 1S: Drainage to Pond**

Runoff = 11.71 cfs @ 12.06 hrs, Volume= 0.900 af, Depth= 1.03"  
 Routed to Pond 2P : Knollwood Pond

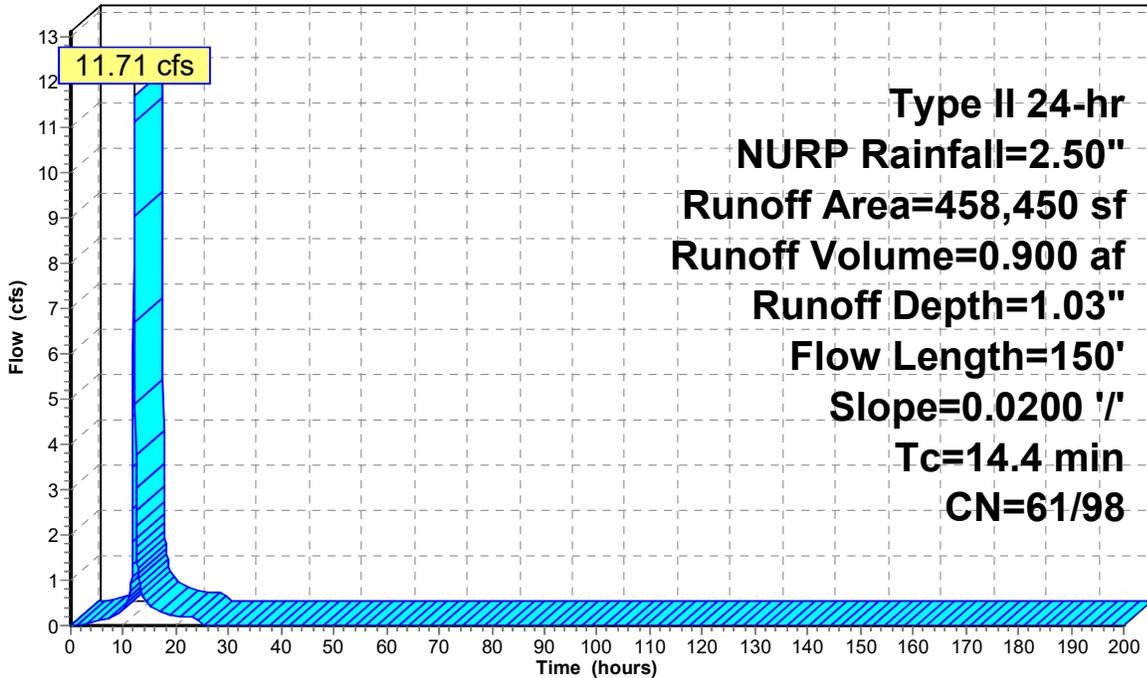
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Type II 24-hr NURP Rainfall=2.50"

Area (sf)	CN	Description
146,100	98	Paved parking, HSG B
37,370	98	Water Surface, HSG B
274,980	61	>75% Grass cover, Good, HSG B
458,450	76	Weighted Average
274,980	61	59.98% Pervious Area
183,470	98	40.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 1S: Drainage to Pond**

Hydrograph



Runoff

**Knollwood**

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Type II 24-hr NURP Rainfall=2.50"

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**Summary for Subcatchment 3S: Drainage to Pond**

Runoff = 11.71 cfs @ 12.06 hrs, Volume= 0.900 af, Depth= 1.03"

Routed to Pond 4P : Proposed Knollwood Pond

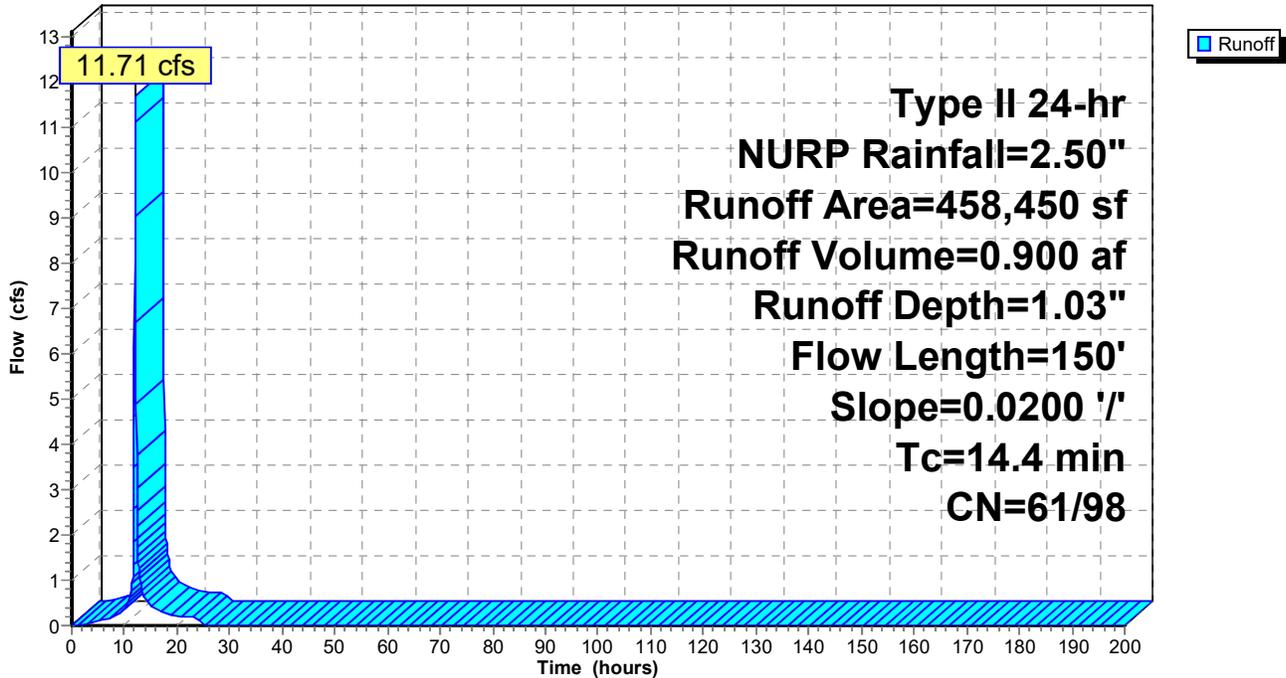
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
Type II 24-hr NURP Rainfall=2.50"

Area (sf)	CN	Description
146,100	98	Paved parking, HSG B
37,370	98	Water Surface, HSG B
274,980	61	>75% Grass cover, Good, HSG B
458,450	76	Weighted Average
274,980	61	59.98% Pervious Area
183,470	98	40.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	150	0.0200	0.17		Sheet Flow, Grass: Short n= 0.150 P2= 2.83"

**Subcatchment 3S: Drainage to Pond**

Hydrograph



# Knollwood

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Type II 24-hr NURP Rainfall=2.50"

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## Summary for Pond 2P: Knollwood Pond

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth = 1.03" for NURP event  
 Inflow = 11.71 cfs @ 12.06 hrs, Volume= 0.900 af  
 Outflow = 0.02 cfs @ 6.20 hrs, Volume= 0.327 af, Atten= 100%, Lag= 0.0 min  
 Discarded = 0.02 cfs @ 6.20 hrs, Volume= 0.327 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf

Peak Elev= 886.41' @ 24.35 hrs Surf.Area= 46,350 sf Storage= 129,994 cf (37,594 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= 5,273.4 min ( 6,062.0 - 788.6 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>

**Discarded OutFlow** Max=0.02 cfs @ 6.20 hrs HW=885.52' (Free Discharge)

↳ **2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=885.50' (Free Discharge)

↳ **1=Orifice/Grate** ( Controls 0.00 cfs)

**Knollwood**

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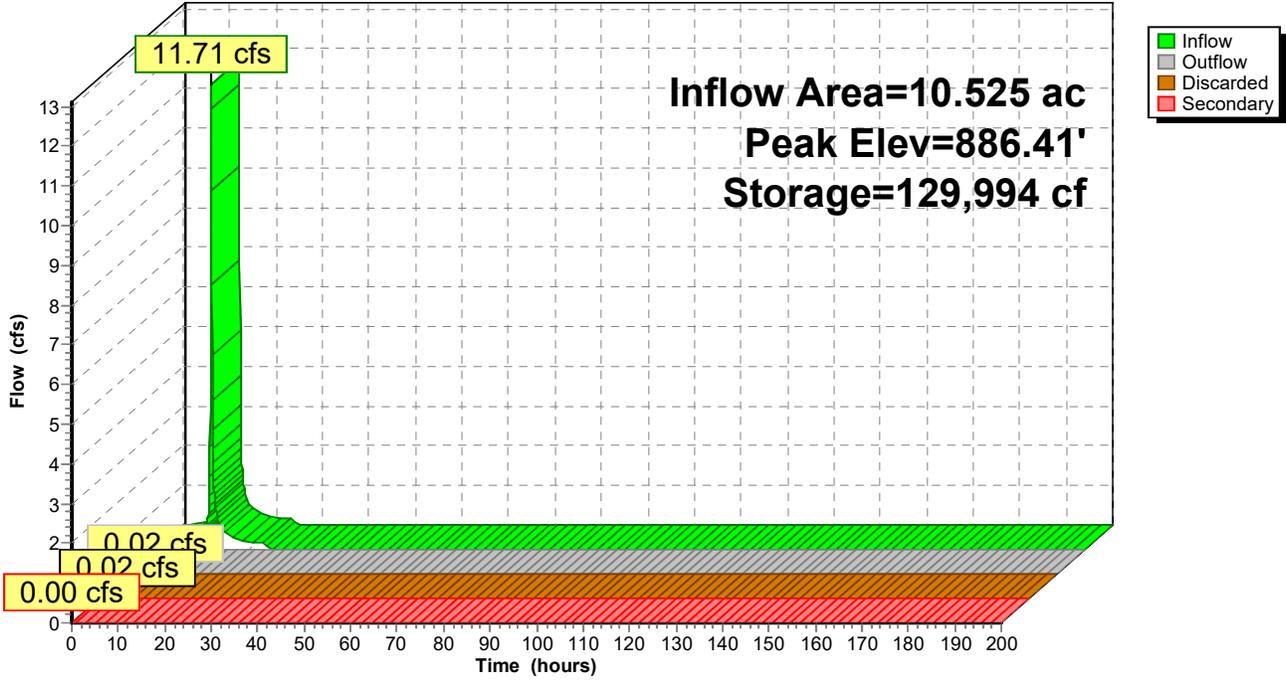
Type II 24-hr NURP Rainfall=2.50"

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**Pond 2P: Knollwood Pond**

Hydrograph



**Knollwood**

Type II 24-hr NURP Rainfall=2.50"

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**Summary for Pond 4P: Proposed Knollwood Pond**

Inflow Area = 10.525 ac, 40.02% Impervious, Inflow Depth = 1.03" for NURP event  
 Inflow = 11.71 cfs @ 12.06 hrs, Volume= 0.900 af  
 Outflow = 1.57 cfs @ 12.59 hrs, Volume= 1.296 af, Atten= 87%, Lag= 32.0 min  
 Discarded = 0.02 cfs @ 12.10 hrs, Volume= 0.006 af  
 Primary = 1.55 cfs @ 12.59 hrs, Volume= 1.291 af  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs  
 Starting Elev= 885.50' Surf.Area= 37,370 sf Storage= 92,400 cf  
 Peak Elev= 885.67' @ 12.59 hrs Surf.Area= 38,506 sf Storage= 98,788 cf (6,388 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)  
 Center-of-Mass det. time= 229.6 min ( 1,018.2 - 788.6 )

Volume	Invert	Avail.Storage	Storage Description
#1	880.00'	220,445 cf	<b>Custom Stage Data (Prismatic)</b> Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
880.00	2,361	0	0
882.00	10,012	12,373	12,373
884.00	23,993	34,005	46,378
885.50	37,370	46,022	92,400
886.00	40,742	19,528	111,928
888.00	67,775	108,517	220,445

Device	Routing	Invert	Outlet Devices
#1	Secondary	886.61'	<b>8.0" Vert. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	885.50'	<b>0.02 cfs Exfiltration when above 885.50'</b>
#3	Primary	885.00'	<b>12.0" Round Culvert</b> L= 750.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 885.00' / 874.27' S= 0.0143 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

**Discarded OutFlow** Max=0.02 cfs @ 12.10 hrs HW=885.54' (Free Discharge)  
 ↑**2=Exfiltration** (Exfiltration Controls 0.02 cfs)

**Primary OutFlow** Max=1.55 cfs @ 12.59 hrs HW=885.67' (Free Discharge)  
 ↑**3=Culvert** (Inlet Controls 1.55 cfs @ 2.78 fps)

**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=885.50' (Free Discharge)  
 ↑**1=Orifice/Grate** ( Controls 0.00 cfs)

**Knollwood**

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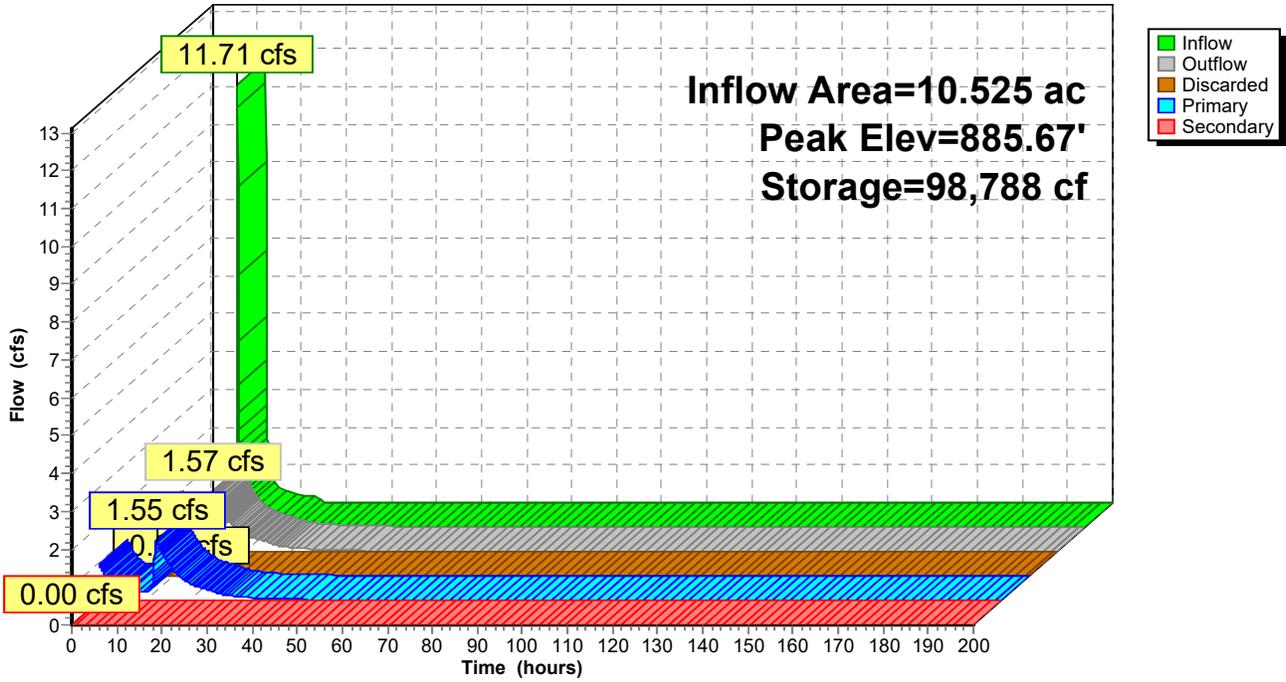
Type II 24-hr NURP Rainfall=2.50"

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**Pond 4P: Proposed Knollwood Pond**

Hydrograph





# Rice Creek Watershed District

## Stormwater Management Grant Program

### 2026 Application Form

**I. APPLICANT INFORMATION**

Organization (to be named as Grantee): City of Shoreview  
 Street Address: 4600 Victoria St N  
 City, State, Zip: Shoreview, MN, 55126  
 Tax Status: Local Government Tax ID#: 41-6008808  
*(e.g., local government, non-profit 501(c)(3), private business, etc.)*

**II. PROJECT CONTACTS**

Project Officer: Stephanie Smith Financial Officer: Kevin Knopik  
 Title: city engineer Title: finance director  
 Telephone: 651-490-4651 Telephone: 651-490-4622  
 Fax: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: ssmith@shroeviewmn.gov Email: kknopik@shoreviewmn.gov

**III. PROJECT INFORMATION**

Project Name: Target Pond Improvements  
 Location(s) of Project: Southeast corner of Lexington Avenue and Red Fox Road  
 City: City of Shoreview State: MN County: Ramsey  
 Project Start Date: 06/15/2025 Project Completion Date: 8/15/2025

Project Type (check only those that directly apply):

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Water Quality Treatment Project | <input type="checkbox"/> Stormwater Reuse Irrigation Project           |
| <input type="checkbox"/> Peak Runoff Rate Control Project           | <input type="checkbox"/> Runoff Volume Control / Flood Storage Project |
| <input type="checkbox"/> Other: _____                               |  |

Is a RCWD Rule C permit required for this project?  YES  NO  UNKNOWN

**IV. GRANT REQUEST**

RCWD Grant Funding Requested: \$ 81,772.50  
 Applicant Match Funding Committed: \$ 81,772.50  
 Total Estimated Project Cost: \$ 163,545.00

Would you be willing to accept grant funding in an amount less than requested?  YES  NO

**V. SIGNATURE OF APPLICANT**

I certify that the information contained within this application is true and accurate.

\_\_\_\_\_  
 Signature of Project Officer

12/29/2025  
 \_\_\_\_\_  
 Date

## VI. Executive Summary / Abstract

Include a brief Executive Summary (100 words or less) that summarizes the main goals and activities of the project and the expected environmental outcomes that will be achieved. Identification of the total amount of funds being requested along with the required match. The summaries will be used in the grant review process and on the RCWD website-for projects that are funded.

The City of Shoreview intends to convert an existing sand filtration system in the southeast corner of Red Fox Road and Lexington Avenue North into an iron-enhanced filtration system. The existing system receives runoff from the surrounding roadways and ultimately outlets into Valentine Lake, which has been on the MPCA's Impaired Water list since 2002. The goal of this project is to provide additional treatment for runoff outletting into Valentine Lake to work towards

## VII. Description (10 points)

The RCWD has established guidelines for prioritizing projects based on location. Water quality improvement projects should be located to benefit a RCWD lake classified as either "Protection" or "Restoration" (see Table 2-4 in the RCWD 2020 Watershed Management Plan), and/or a waterbody with an approved Total Maximum Daily Load (TMDL) study or other recognized diagnostic water quality study. Flood storage and runoff rate control projects should focus on reducing peak flood elevations in known regional flood hazard areas and/or documented local problem areas. Describe the specific watershed management, water quality or quantity need(s) that the project will address and its impact on the target water resource within the District.

Name the target waterbody benefiting from this project: Valentine Lake

List and describe the Best Management Practices (BMPs) to be incorporated into this project

Iron-enhanced filtration system: The existing sand filtration system will be converted into an iron-enhanced filtration system. The proposed filter will be designed and installed per the MPCA design standards as feasible. The system receives flow from an existing pretreatment wet pond directly south via five existing culverts. The existing sand will be removed and replaced with iron-enhanced sand. The existing drain tile will be replaced to

If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.

An iron-enhanced sand filter provides additional removal of Total Phosphorus than the existing system, which will limit the amount of phosphorus entering RCWD groundwater

Provide drawings, maps and/or schematics which graphically illustrate the location and conceptual design of the project. **(Attach separate sheets.)**

Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.

A maintenance agreement will be executed that requires the following:

The City of Shoreview will perform annual inspections of the filter bed, inlets, and outlets. Staff will remove accumulated sediment to maintain a clean filter bed and replace structural components, as necessary.

City staff will visually inspect the filter and surrounding area on a monthly basis. Staff will verify

### VIII. Prioritization (20 points)

How does the project support existing regional planning efforts such as the RCWD Watershed Management Plan, municipal surface water management plans, TMDLs, or other recognized diagnostic studies? Is the project included on the Member Community Project List (Appendix G) within the RCWD Watershed Management Plan? Please provide citations where possible.

The receiving water body, Valentine Lake, has TMDLs for excess nutrients and chlorine, per the RCWD WMP and MPCA Impaired Waters List. The existing sand filter system receives a significant amount of runoff from surrounding roadways and industrial areas, which ultimately discharge into Valentine Lake. This project will provide additional water quality benefit to this

### IX. Targeting (15 points)

Describe the critical pollution or flooding sources and risks addressed by this project. Explain why the proposed project is the most cost-effective and feasible means to attain the expected resource benefits. Has a formal analysis been conducted to substantiate this position?

The proposed system will treat runoff from the neighboring Target and Raising Cane's parking lots, a portion of Red Fox Road, and a portion of Lexington Avenue. Runoff from each of these areas introduce trash, debris, oil, grease, and sediment from cars and other vehicle into the downstream storm system. This project is able to treat all these pollutants in one central location with the existing wet pond and proposed iron-enhanced sand filter. A central location is more cost-effective and space-efficient than multiple smaller systems. The project's location

### X. Measurable Outcomes (20 points)

Provide a detailed estimate and description of the anticipated pollutant reduction, stormwater rate/volume reduction, groundwater withdrawal reduction, and/or other environmental or natural resource benefits associated with the project. Describe the methods and cite the sources (i.e. P8 model, HydroCAD, XP-SWMM, MIDS, MN Stormwater Manual, etc.) used to calculate or estimate the pollutant reductions and/or hydrologic outcomes. **(Mandatory for RCWD to consider your proposal!)**

The proposed iron-enhanced provides a higher pollutant reduction than the existing sand filter. A MIDS model was created to analyze the existing and proposed pollutant reduction. The TP and TSS removal through the existing sand filter is 21% and 71%, respectively. The TP and TSS removal through the proposed iron-enhanced sand filter is 39% and 71%, respectively. The results in an additional 6.4 pounds of TP removal on an annual basis, nearly double the amount of TP removal provided by the existing sand filter.

**XI. Cost-Effectiveness (15 points)**

Provide a detailed budget that lists each item for which funding is being requested. You must also list the sources of required local matching contributions. Please provide a summary that demonstrates why this is the most cost-effective approach to solving the problem. Or, have other alternatives been explored, and if so, why were they determined to not be the best alternative? What is the anticipated lifespan of the practice? (Attach separate sheets if needed.)

See attached for the budget breakdown. Due to the presence of the existing sand filter and wet basin, construction costs are limited to what is required for this retrofit. This results in lower costs than what would be required for a new iron-enhanced sand filter elsewhere. With the proposed operation and maintenance agreement, this BMP has an anticipated lifespan of 20-30 years.

**XII. Project Readiness (10 points)**

Please describe the anticipated timeline for implementing this project. What steps have been taken to ensure that the project can be implemented according to this timeline? Are any permits needed? (If permits are required please cite from what agency and where the project is in that process).

30% construction plans for this project have been completed. Project implementation is anticipated to occur in the summer of 2026. The project footprint is less than 10,000 square feet and does not trigger the NPDES or Rice Creek Watershed Permitting process. County permit for ROW will be applied by contractor along with any traffic control needed. No other permits are anticipated.

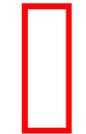
**XIII. Engagement Opportunities (10 points)**

Demonstrate any potential for public engagement, education and demonstration and describe what methods will be used to ensure that the purpose and success of the project are made known to the public. Applicants must incorporate a public engagement component into the project.

Educational signage may be placed around the BMP to provide a location for interaction with the public. Additional interactive displays are not recommended due to the site's proximity to Lexington Ave N, a major roadway, due to a safety concern.

The City of Shoreview will feature this project on its website and highlight the collaboration with the Rice Creek Watershed District.

Figure 1: Project Location



Project Location

Target Pond Improvements  
City of Shoreview



Kimley»Horn



## Project Information

Calculator Version:	Version 4: July 2020
Project Name:	RCWD Grant Application - Existing Conditions
User Name / Company Name:	H.Beikircher/Kimley-Horn
Date:	12/17/2025
Project Description:	Existing Conditions - Shoreview Target Pond Improvements
Construction Permit?:	Yes

## Site Information

Retention Requirement (inches):	1.1
Site's Zip Code:	55126
Annual Rainfall (inches):	31.6
Phosphorus EMC (mg/l):	0.3
TSS EMC (mg/l):	54.5

### Total Site Area

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land					0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed				1	1
			Impervious Area (acres)		20
			Total Area (acres)		21

### Site Areas Routed to BMPs

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land					0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed				1	1
			Impervious Area (acres)		20
			Total Area (acres)		21

## Summary Information

### Performance Goal Requirement

Performance goal volume retention requirement:	79860	ft <sup>3</sup>
Volume removed by BMPs towards performance goal:		ft <sup>3</sup>
<b>Percent volume removed towards performance goal</b>		<b>%</b>

### Annual Volume and Pollutant Load Reductions

Post development annual runoff volume	45.6225	acre-ft
Annual runoff volume removed by BMPs:	0	acre-ft
<b>Percent annual runoff volume removed:</b>	<b>0</b>	<b>%</b>

Post development annual particulate P load:	20.4754	lbs
Annual particulate P removed by BMPs:	7.975	lbs
Post development annual dissolved P load:	16.753	lbs
Annual dissolved P removed by BMPs:	0	lbs
Total P removed by BMPs	7.975	lbs
<b>Percent annual total phosphorus removed:</b>	<b>21</b>	<b>%</b>

Post development annual TSS load:	6763.1	lbs
Annual TSS removed by BMPs:	4818.7	lbs
<b>Percent annual TSS removed:</b>	<b>71</b>	<b>%</b>

## BMP Summary

### Performance Goal Summary

BMP Name	BMP Volume Capacity (ft <sup>3</sup> )	Volume Recieved (ft <sup>3</sup> )	Volume Retained (ft <sup>3</sup> )	Volume Outflow (ft <sup>3</sup> )	Percent Retained (%)
1 - Sand filter	0	79860	0	79860	0

### Annual Volume Summary

BMP Name	Volume From Direct Watershed (acre-ft)	Volume From Upstream BMPs (acre-ft)	Volume Retained (acre-ft)	Volume outflow (acre-ft)	Percent Retained (%)
1 - Sand filter	45.6225	0	0	45.6225	0

### Particulate Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Sand filter	20.4754	0	7.9752	12.5002	39

**Dissolved Phosphorus Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Sand filter	16.7526	0	0	16.7526	0

**Total Phosphorus Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Sand filter	37.228	0	7.9752	29.2528	20

**TSS Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Sand filter	6763.08	0	4818.69	1944.39	71

**BMP Schematic**



1 - Sand filter

## Project Information

Calculator Version: Version 4: July 2020  
 Project Name: RCWD Grant Application - Proposed Conditions  
 User Name / Company Name: H.Beikircher/Kimley-Horn  
 Date: 12/17/2025  
 Project Description: Proposed Conditions - Shoreview Target Pond Improvements  
 Construction Permit?: Yes

## Site Information

Retention Requirement (inches): 1.1  
 Site's Zip Code: 55126  
 Annual Rainfall (inches): 31.6  
 Phosphorus EMC (mg/l): 0.3  
 TSS EMC (mg/l): 54.5

### Total Site Area

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land					0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed				1	1
			Impervious Area (acres)		20
			Total Area (acres)		21

### Site Areas Routed to BMPs

Land Cover	A Soils (acres)	B Soils (acres)	C Soils (acres)	D Soils (acres)	Total (acres)
Forest/Open Space - Undisturbed, protected forest/open space or reforested land					0
Managed Turf - disturbed, graded for yards or other turf to be mowed/managed				1	1
			Impervious Area (acres)		20
			Total Area (acres)		21

## Summary Information

### Performance Goal Requirement

Performance goal volume retention requirement:	79860	ft <sup>3</sup>
Volume removed by BMPs towards performance goal:		ft <sup>3</sup>
<b>Percent volume removed towards performance goal</b>		<b>%</b>

### Annual Volume and Pollutant Load Reductions

Post development annual runoff volume	45.6225	acre-ft
Annual runoff volume removed by BMPs:	0	acre-ft
<b>Percent annual runoff volume removed:</b>	<b>0</b>	<b>%</b>

Post development annual particulate P load:	20.4754	lbs
Annual particulate P removed by BMPs:	7.975	lbs
Post development annual dissolved P load:	16.753	lbs
Annual dissolved P removed by BMPs:	6.366	lbs
Total P removed by BMPs	14.341	lbs
<b>Percent annual total phosphorus removed:</b>	<b>39</b>	<b>%</b>

Post development annual TSS load:	6763.1	lbs
Annual TSS removed by BMPs:	4818.7	lbs
<b>Percent annual TSS removed:</b>	<b>71</b>	<b>%</b>

## BMP Summary

### Performance Goal Summary

BMP Name	BMP Volume Capacity (ft <sup>3</sup> )	Volume Recieved (ft <sup>3</sup> )	Volume Retained (ft <sup>3</sup> )	Volume Outflow (ft <sup>3</sup> )	Percent Retained (%)
1 - Sand filter	0	79860	0	79860	0

### Annual Volume Summary

BMP Name	Volume From Direct Watershed (acre-ft)	Volume From Upstream BMPs (acre-ft)	Volume Retained (acre-ft)	Volume outflow (acre-ft)	Percent Retained (%)
1 - Sand filter	45.6225	0	0	45.6225	0

### Particulate Phosphorus Summary

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Sand filter	20.4754	0	7.9752	12.5002	39

**Dissolved Phosphorus Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Sand filter	16.7526	0	6.36595	10.3867	38

**Total Phosphorus Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Sand filter	37.228	0	14.34115	22.8869	38

**TSS Summary**

BMP Name	Load From Direct Watershed (lbs)	Load From Upstream BMPs (lbs)	Load Retained (lbs)	Outflow Load (lbs)	Percent Retained (%)
1 - Sand filter	6763.08	0	4818.69	1944.39	71

**BMP Schematic**

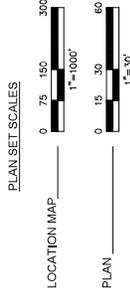
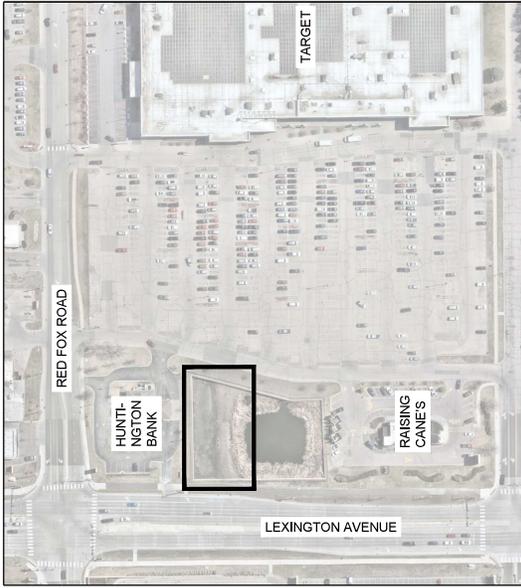


# CITY OF SHOREVIEW, MN TARGET POND IMPROVEMENTS

SHOREVIEW PROJECT NO. 26-10  
CONSTRUCTION PLANS FOR: IRON ENHANCED SAND FILTER STORMWATER BMP RETROFIT.

LOCATED ON: LEXINGTON AVENUE FROM RED FOX ROAD TO GREY FOX ROAD

- LEGEND**
- M EXISTING GATE VALVE
  - EXISTING HYDRANT
  - EXISTING CURB BOX
  - ⊙ EXISTING WATERMAIN MANHOLE
  - ⊙ EXISTING SANITARY MANHOLE
  - ⊙ EXISTING STORM MANHOLE
  - ⊙ EXISTING GAS MANHOLE
  - ⊙ EXISTING CATCH BASIN
  - ⊙ EXISTING POWER POLE
  - ⊙ EXISTING CABLE TV BOX
  - ⊙ EXISTING TELEPHONE BOX
  - ⊙ EXISTING ELECTRICAL MANHOLE
  - ⊙ EXISTING ELECTRICAL TRANSFORMER
  - ⊙ EXISTING LIGHT POLE
  - ⊙ EXISTING MAILBOX
  - ⊙ EXISTING SANITARY SEWER
  - ⊙ EXISTING STORM SEWER
  - ⊙ EXISTING WATERMAIN
  - ⊙ EXISTING CURB AND GUTTER
  - ⊙ EXISTING FIBER OPTIC
  - ⊙ EXISTING GAS MAIN
  - ⊙ EXISTING OVERHEAD POWER/COMMUNICATION
  - ⊙ EXISTING UNDERGROUND POWER
  - ⊙ EXISTING FENCE
  - ⊙ EXISTING TREE
  - ⊙ EXISTING TREE LINE
  - ⊙ EXISTING STREET SIGN
  - ⊙ EXISTING RIGHT-OF-WAY
  - ⊙ CONSTRUCTION LIMITS



PLAN REVISIONS		APPROVED BY
DATE	SHEET NO.	

CITY PROJ. NO. 26-10

**GOVERNING SPECIFICATIONS**

THE 2022 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL DEVICES.

THE MOST RECENT EDITIONS OF THE CITY ENGINEERS' ASSOCIATION OF MINNESOTA STANDARD SPECIFICATIONS, THE LATEST EDITIONS OF THE MDOT AND MCTD STANDARD SPECIFICATIONS, AND THE LATEST EDITIONS OF THE MANSUETI AND ASSOCIATES STANDARD SPECIFICATIONS FOR CONSTRUCTION AMENDED BY THE CITY OF SHOREVIEW SPECIFICATIONS FOR CONSTRUCTION SHALL GOVERN.

**INDEX**

SHEET NO.	DESCRIPTION
1	GENERAL NOTES
2	STATEMENT OF ESTIMATED QUANTITIES
3	GENERAL DETAILS
4	STANDARD NOTES
5	PROPOSED IMPROVEMENTS
6-15	EXISTING CONDITIONS AND REMOVAL PLAN
16	CONSTRUCTION PLAN
17	CONSTRUCTION PLAN
18	RESTORATION PLAN

THIS PLAN SET CONTAINS 18 SHEETS

**Kimley-Horn**

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

DATE 12/30/2025 LIC. NO. 59337

ENGINEER

ADAM TARDEN

APPROVED

NAME OF CITY/ COUNTY ENGINEER \_\_\_\_\_ XXXX

SHEET NO. 1 OF 18 SHEETS



**GENERAL CONSTRUCTION NOTES:**

- EXCAVATE PLACE, COMPACT, TEST, FINISH, AND DISPOSE OF EMBANKMENT MATERIAL IN ACCORDANCE WITH CITY SPECIFICATION 02020.
- NON-STRUCTURAL EMBANKMENT SUCH AS MINERAL SOILS, EXCESS TOPSOIL, AND ORGANIC SOILS CAPABLE OF SUPPORTING CONSTRUCTION EQUIPMENT, SHALL ONLY BE USED AS EMBANKMENT IN A MANNER IN WHICH THE MATERIAL WILL MAINTAIN LONG TERM STABILITY.
- CONSTRUCTION LIMIT LINES SHOWN ON THE PLANS ARE FOR THE CONSTRUCTION OF PERMANENT LIMITS. TEMPORARY AND INTERMEDIATE LIMITS AND SLOPES WITHIN THE CONSTRUCTION LIMITS SHOWN IN THE PLANS ARE TO BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. EXCAVATION AND BACKFILL BEYOND THE LIMITS SHOWN IN THE PLAN SHALL BE CONSIDERED INCIDENTAL.
- NO EXTRA PAYMENT SHALL BE MADE FOR TEMPORARY STOCKPILING OF EXCAVATION, EMBANKMENT, AND/OR BORROW MATERIAL. ALL MATERIAL NOT UTILIZED ON THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF OFF THE RIGHT-OF-WAY IN ACCORDANCE WITH MNDOT SPECIFICATION 2104.
- BITUMINOUS PAVEMENT SHALL BE CONSTRUCTED IN LAYERS OF THE THICKNESS SPECIFIED ON THE PLANS IN ACCORDANCE WITH MNDOT SPECIFICATION 2360.
- PLACEMENT OF BITUMINOUS MATERIAL FOR TACK COAT SHALL BE IN ACCORDANCE WITH MNDOT SPECIFICATION 2367 AND INCIDENTAL.
- OBTAIN COMPACTION FOR AGGREGATE BASE BY THE PENETRATION INDEX COMPACTION METHOD.
- THE CONTRACTOR SHALL UTILIZE THE "ONE CALL EXCAVATION NOTICE SYSTEM" REQUIRED BY MINNESOTA STATUTE 2180.
- THE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY LEVEL INCLUDES ALL UTILITIES SHOWN ON THE PLANS AND DEPICTION OF EXISTING SUBSURFACE UTILITIES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA.
- UNDERGROUND UTILITIES EXIST WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL HAVE ALL UNDERGROUND UTILITIES LOCATED PRIOR TO EXCAVATION AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND COORDINATE THE WORK WITH THE UTILITY COMPANIES. THE CONTRACTOR SHALL CONTACT EACH RESPECTIVE UTILITY COMPANY AND SCHEDULE WORK AROUND WORK PERFORMED BY PRIVATE UTILITY COMPANIES. PRIVATE UTILITY WORK SHALL BE SHOWN ON THE CONTRACTOR'S PROJECT SCHEDULE AND UPDATED FOR EACH WEEKLY CONSTRUCTION MEETING.
- BITUMINOUS SURFACINGS, CONCRETE ITEMS, ABANDONED UTILITY ITEMS, OR ANY OTHER MATERIAL WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION THAT ARE NOT SUITABLE FOR SALVAGE OR FOR ROADWAY CONSTRUCTION MUST BE DISPOSED OF BY THE CONTRACTOR OUTSIDE OF RIGHT-OF-WAY IN ACCORDANCE WITH MNDOT SPECIFICATION 2104.
- PROVIDE A UNIFORM, FULL-DEPTH SAW CUT WHERE PLACING NEW PAVEMENT NEXT TO EXISTING PAVEMENT TO ENSURE A UNIFORM JOINT. COAT THE EXPOSED EDGE OF EXISTING SURFACING WITH TACK COAT PRIOR TO PLACING NEW BITUMINOUS SURFACING ADJACENT TO EXISTING SURFACING.
- CONCRETE TRUCKS THAT WASH OUT WITHIN THE PROJECT LIMITS MUST DO SO AT A LOCATION APPROVED BY THE ENGINEER. HARDENED CONCRETE WASTE MUST BE REMOVED FROM THE PROJECT LIMITS PRIOR TO PLACING NEW CONCRETE. CONCRETE WASTE MUST BE SPECIFICATION 2104. REMOVAL OF HARDENED CONCRETE WASTE SHALL BE INCIDENTAL.

**EARTHWORK NOTES:**

- ALL SHAPING AROUND CULVERT ENDS AND STORM SEWER INLETS & OUTLETS, AS DIRECTED BY THE ENGINEER, WILL BE CONSIDERED INCIDENTAL.
- NO WORK, INCLUDING THE STOCKPILING OF TOPSOIL, SHALL EXTEND BEYOND THE PROJECT LIMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS UNLESS THE CONTRACTOR HAS PROVIDED THE CITY WITH A COPY OF THE OWNERS WRITTEN PERMISSION FOR SUCH WORK.

**STORMWATER POLLUTION PREVENTION NOTES:**

- VALENTINE LAKE IS A SPECIAL OR IMPAIRED WATERS WITHIN 1 MILE OF THE PROJECT THAT RECEIVES RUNOFF FROM THE PROJECT.
  - EROSION AND SEDIMENT CONTROL MAINTENANCE REQUIREMENTS: CONTRACTOR SHALL, AT A MINIMUM, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL MANAGEMENT PRACTICES AND SOIL STABILIZATION REQUIREMENTS ARE AS FOLLOWS:
    - ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY ON THAT PORTION OF THE SITE HAS TEMPORARILY CEASED.
    - SWALE THAT DRAINS WATER FROM THE SITE, OR DRAINAGE WATER DITCH OR SWALE THAT DRAINS WATER FROM THE SITE, OR PERMANENTLY WASH DITCH OR STABILIZED, STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER. PORTIONS OF THE DITCH THAT ARE UNDER CONSTRUCTION MUST BE STABILIZED WITHIN 24 HOURS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION HAS CEASED.
    - SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS, INCLUDING CURB AND GUTTER SYSTEMS AND STORM SEWER INLETS.
    - SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWNGRADIENT PERIMETERS OF THE PROJECT. SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED UNTIL THE SITE SOILS REMAIN IN PLACE UNTIL THE CITY AND WATERSHED HAVE DETERMINED THAT THE SITE SOILS HAVE BEEN PERMANENTLY STABILIZED.
    - THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES THAT MUST BE COMPLETED AS SOON AS POSSIBLE AND OF THE SEDIMENT CONTROL PRACTICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETED.
    - WATERSHEDS TO BE APPROPRIATE DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.
    - PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION UNBROKEN SLOPE LENGTH OF GREATER THAN 30 FEET FOR SLOPES WITH A GRADE OF 3:1 OR STEEPER.
    - TEMPORARY SURFACE WATERS INCLUDING STORMWATER CONTAINERS SUCH AS CURB AND GUTTER.
    - VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE MUST BE MINIMIZED BY BMPs SUCH AS ROCK CONSTRUCTION ENTRANCES, WASH RACKS OR EQUIVALENT PRACTICES. SEDIMENT FROM BEING TRACKED OFF SITE.
    - DRAINAGE OR BASIN DRAINING (E.G. PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR LADEN DISCHARGE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN PRIOR TO DISCHARGE. WHERE POSSIBLE, WATERSHEDS SHOULD BE TREATED WITH THE APPROPRIATE BMPs, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM LANDOWNERS.
    - IF DETERMINED TO BE COMPLETED BY THE CITY OR WATERSHED, SITE SOILS SHALL BE STABILIZED IMMEDIATELY AFTER THE CONSTRUCTION ACTIVITY HAS COMPLETED. SOILS SHOULD BE BEFORE REVEGETATION. DECOMPACTION SHALL BE ACCOMPLISHED SOLELY BY INCORPORATION OF ORGANIC MATTER WITHIN THE DRIP LINE OR CRITICAL ROOT ZONE OF TREES OR WITHIN 10 FEET OF UNDERGROUND UTILITIES.
    - INLET PROTECTION DEVICES AND ALL PERIMETER CONTROL SHALL BE MAINTAINED ONCE SEDIMENT ACCUMULATES TO A DEPTH 1/3 OF THE DESIGN CAPACITY.
- EROSION AND SEDIMENT CONTROL INSPECTION REQUIREMENTS:
  - ROUTINELY INSPECT THE CONSTRUCTION SITE ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.
  - INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED IN WRITING AND THESE RECORDS MUST BE RETAINED WITH THE EROSION CONTROL PLAN. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:
    - DATE AND TIME OF INSPECTIONS;
    - NAME OF PERSON CONDUCTING INSPECTIONS;
    - NAME OF PERSONS CONDUCTING INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS;
    - CORRECTIVE ACTIONS TAKEN, INCLUDING DATES, TIMES AND PARTY COMPLETING MAINTENANCE ACTIVITIES; AND
    - DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS.
- NOTIFY RICE CREEK WATERSHED DISTRICT IN WRITING AT THE FOLLOWING STAGES:
  - PRIOR TO ANY SITE DEWATERING;
  - WHEN THE SITE HAS BEEN PERMANENTLY STABILIZED OR REVEGETATED; AND
  - WHEN ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS HAVE BEEN REMOVED FROM THE SITE.

**TURF ESTABLISHMENT NOTES:**

- ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS INCLUDING ACCESS ROUTES SHALL BE RESTORED ACCORDING TO THE FOLLOWING NOTES AND PROJECT SPECIFICATIONS. PAID FOR AS LANDSCAPE RESTORATION.
- UNLESS OTHERWISE SHOWN ON THE PLANS, ESTABLISH VEGETATIVE COVER BY SEEDING AND MULCHING. FERTILIZE THE AREAS WITH TYPE 3, SLOW RELEASE FERTILIZER IN ACCORDANCE WITH 3881.2B.3. TYPE 3 - SLOW RELEASE FERTILIZER, AT A RATE OF 350 LBS/ACRE. PLACE SEED MIXTURE 25-131 AS SPECIFIED AS SPECIFIED IN 3876, "SEED", AND PROVIDE 3882, MULCH MATERIAL, TYPE 3 MULCH WITH DISPERSED ANCHORING OR ROLLED EROSION PREVENTION PRODUCT 25 ON SLOPES 1:3 AND STEEPER, AND DITCH BOTTOMS.
- APPLY SEED MIXTURE OVER DESIGNATED AREAS AT A RATE CALLED FOR BY THE SEED MIXTURE.
- APPLY SEED UNIFORMLY BY MECHANICAL OR HYDRO-SPREADING METHOD.
- FIRM ALL SEEDING AREAS WITH A DRAG OR CULTIPACKER IMMEDIATELY AFTER SEEDING AND PRIOR TO MULCHING.

CITY OF SHOREVIEW STANDARD PLATES	
PLATE NO.	DESCRIPTION
ERO-1	BIOLOG DITCH CHECK
ERO-2	SILT FENCE
ERO-3	HEAVY DUTY SILT FENCE
STR-4	CONSTRUCTION ENTRANCE
STO-6	STRUCTURE INLET PROTECTION

**MNDOT STANDARD PLATES**

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
-----------	-------------



767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114  
WWW.KIMLEY-HORN.COM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION AND CONTRACT DOCUMENTS WERE 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: 12/29/2025 MIN. LIC. NO. 69337



CITY OF SHOREVIEW  
TARGET POND IMPROVEMENTS

GENERAL NOTES

26-10 SHEET NO. 3

18

### EROSION CONTROL BIOLOG DITCH CHECK

NOTES: 1. ENGINEER SHALL WATER PLANT OVER THE AREA AND NOT ABOVE THE DITCH.  
 2. PLACE 2" x 2" x 1/4" LONG WOODEN STAKES WITH A MINIMUM OF 14" SPACING ALONG THE LENGTH OF THE DITCH AT AN ANGLE OF 45° WITH THE TOP OF THE DITCH.  
 3. CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF EROSION CONTROL FOR THE DURATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

**SHOREVIEW**  
PUBLIC WORKS

TYPICAL EROSION BIOLOG DITCH CHECK INSTALLATION  
 STANDARD PLAN NO. 104-11 REVISED JANUARY 2000

### SILT FENCE

NOTES: 1. CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF SILT FENCES THROUGHOUT THE DURATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

**SHOREVIEW**  
PUBLIC WORKS

TYPICAL SILT FENCE INSTALLATION  
 STANDARD PLAN NO. 104-11 REVISED JANUARY 2000

### HEAVY DUTY SILT FENCE

NOTES: 1. CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF HEAVY DUTY SILT FENCES THROUGHOUT THE DURATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP).

**SHOREVIEW**  
PUBLIC WORKS

TYPICAL HEAVY DUTY SILT FENCE INSTALLATION  
 STANDARD PLAN NO. 104-11 REVISED JANUARY 2000

### CONSTRUCTION ENTRANCE

**SHOREVIEW**  
PUBLIC WORKS

TYPICAL CONSTRUCTION ENTRANCE INSTALLATION  
 STANDARD PLAN NO. 104-11 REVISED JANUARY 2000

### CRETEX PRO RING EXPANDED POLYETHYLENE (EPP) ADJUSTING RINGS FOR SANITARY SEWER, WATERMAIN MANHOLES, AND CATCH BASINS

NOTES: 1. CONTRACTOR SHALL VERIFY THE MANHOLE OR CATCH BASIN IS PROPERLY ADJUSTED BEFORE THE RINGS ARE INSTALLED.  
 2. THE RINGS SHALL BE INSTALLED IN THE ORDER SHOWN IN THE DRAWING.  
 3. THE RINGS SHALL BE INSTALLED IN THE ORDER SHOWN IN THE DRAWING.  
 4. THE RINGS SHALL BE INSTALLED IN THE ORDER SHOWN IN THE DRAWING.

**SHOREVIEW**  
PUBLIC WORKS

TYPICAL CRETEX PRO RING EXPANDED POLYETHYLENE (EPP) ADJUSTING RING INSTALLATION FOR SANITARY SEWER, WATERMAIN MANHOLES, AND CATCH BASINS  
 STANDARD PLAN NO. 104-11 REVISED JANUARY 2000

### STORM SEWER STRUCTURE INLET PROTECTION

NOTES: 1. CONTRACTOR SHALL VERIFY THE STRUCTURE IS PROPERLY ADJUSTED BEFORE THE PROTECTION IS INSTALLED.  
 2. THE PROTECTION SHALL BE INSTALLED IN THE ORDER SHOWN IN THE DRAWING.  
 3. THE PROTECTION SHALL BE INSTALLED IN THE ORDER SHOWN IN THE DRAWING.

**SHOREVIEW**  
PUBLIC WORKS

TYPICAL STORM SEWER STRUCTURE INLET PROTECTION INSTALLATION  
 STANDARD PLAN NO. 104-11 REVISED JANUARY 2000

No.	Date	Revisions

App: DRAWING NAME: TARGET-POND-DETAILS.dwg  
 DESIGNED BY: EWM  
 DRAWN BY: EWM  
 CHECKED BY: ART  
 DATE: 12/29/2025  
 PROJECT NO.: XXXXXXX

**Kimley»Horn**  
 767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114  
 PHONE: 651-645-4197  
 WWW.KIMLEY-HORN.COM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, AND DRAWING 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.

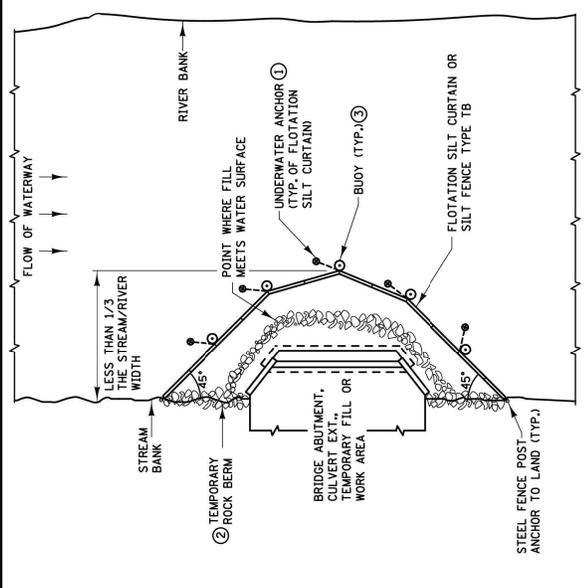
DATE: 12/29/2025 MIN. LIC. NO. 59337  
 EDWIN T. ADEN

**CITY OF SHOREVIEW**  
 TARGET POND IMPROVEMENTS  
 STANDARD DETAILS

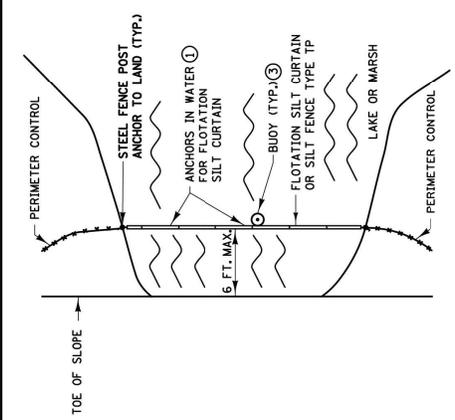
CITY PROJECT: 26-10 SHEET NO. 4

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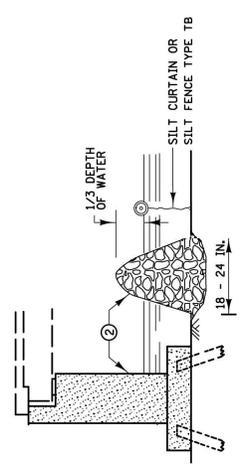
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PLAN VIEW FOR STREAM ⑤



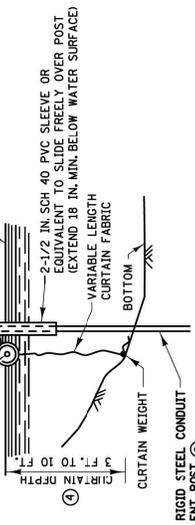
PLAN VIEW FOR LAKE OR MARSH ⑤



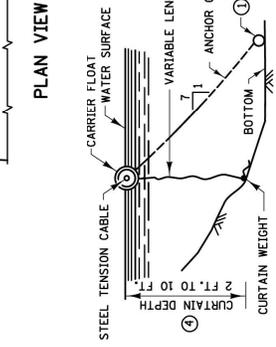
TEMPORARY ROCK BERM FOR SEDIMENT CONTROL

**INSTALLATION GUIDELINES SILT FENCE TYPE TB**  
 MINIMUM WATER DEPTH: 1 FT.  
 MAXIMUM WATER DEPTH: 3 FT.  
 MAXIMUM WATER VELOCITY: 5 FT./SEC.

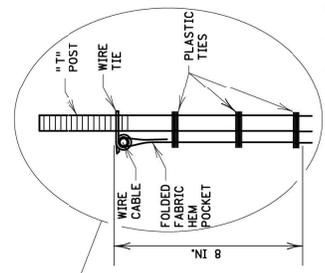
**INSTALLATION GUIDELINES FLOTATION SILT CURTAIN TYPE: MOVING WATER**  
 MINIMUM WATER DEPTH: 3 FT.  
 MAXIMUM WATER DEPTH: 10 FT.  
 MAXIMUM WATER VELOCITY: 5 FT./SEC.  
 MAXIMUM WAVE HEIGHT: 2 FT.



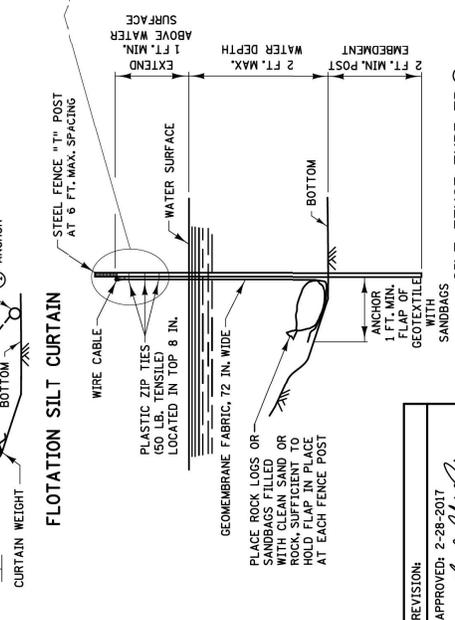
ALTERNATE FLOTATION SILT CURTAIN ⑥



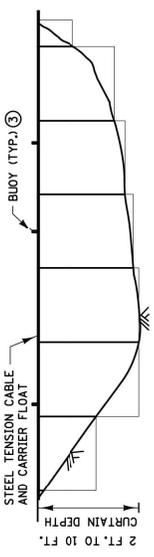
FLOTATION SILT CURTAIN



FABRIC/CABLE/POST CONNECTION



SILT FENCE TYPE TB ⑥



FRONT VIEW FOR FLOTATION SILT CURTAIN

NOTES:

- ① FOR ANCHOR SPACING AND WEIGHT REQUIREMENTS, SEE SPEC. 2573.
- ② IN AREAS WHERE THE PLAN CALLS FOR RIPRAP AT A SPODE 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.
- ③ 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.
- ④ 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.
- ⑤ SILT CURTAIN SHOULD BE REMOVED WHEN THE AREA CONTRIBUTING DIRECT RUNOFF HAS BEEN TEMPORARILY OR PERMANENTLY STABILIZED. SILT CURTAIN SHOULD ALSO BE REMOVED BEFORE WINTER IF ICE UP OR ICE FLOW IS ANTICIPATED.
- ⑥ 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.
- ⑦ ANCHOR FLOAT 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.
- ⑧ PROVIDE SUFFICIENT NUMBER OF POST ANCHORS TO MAINTAIN SILT CURTAIN POSITION.

STANDARD PLAN 5-297.405 1 OF 8

MINNESOTA DEPARTMENT OF TRANSPORTATION

APPROVED: 2-28-2017

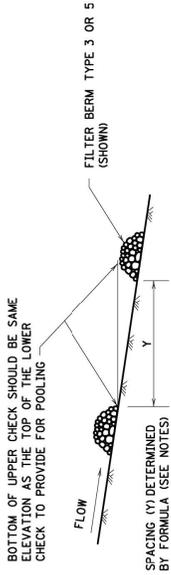
REVISION: 2-28-2017

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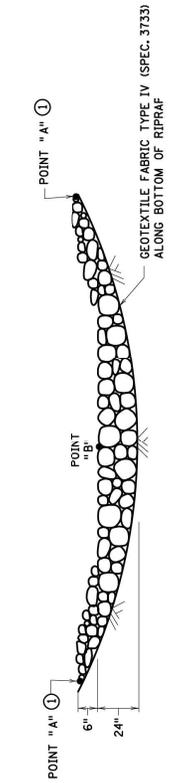
TEMPORARY SEDIMENT CONTROL  
 SILT CURTAIN OR SILT FENCE TYPE TB

TARGET POND IMPROVEMENTS - SHEET 5 OF 18

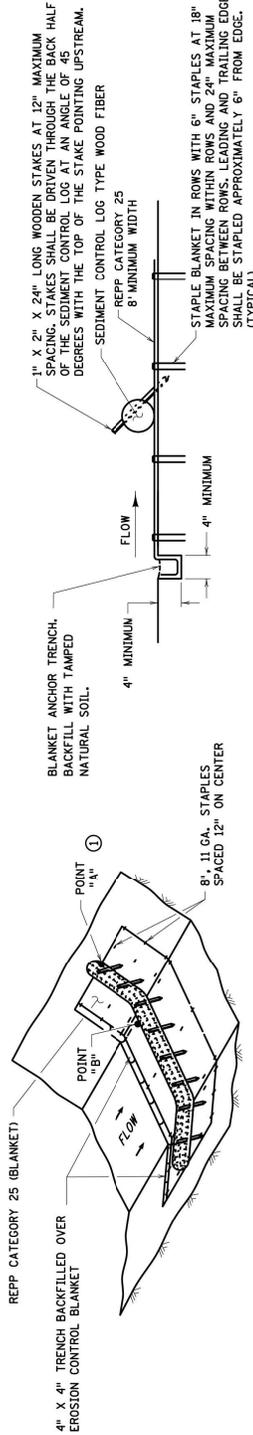




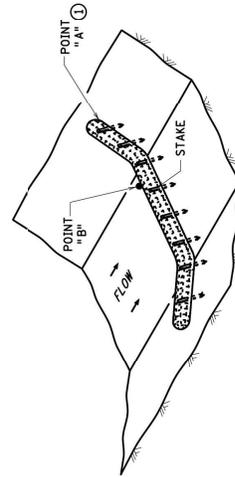
**DITCH CHECK SPACING**  
FOR ALL FILTER BERM TYPES



**ROCK DITCH CHECKS**  
**FILTER BERMS TYPE 3 (ROCK WEEPER) OR FILTER TYPE 5 (ROCK)**  
FOR USE ON ROUGH-GRADED AREAS  
ONLY FOR USE OUTSIDE CLEAR ZONE



**SEDIMENT CONTROL LOG TYPE REPP (BLANKET) SYSTEM**



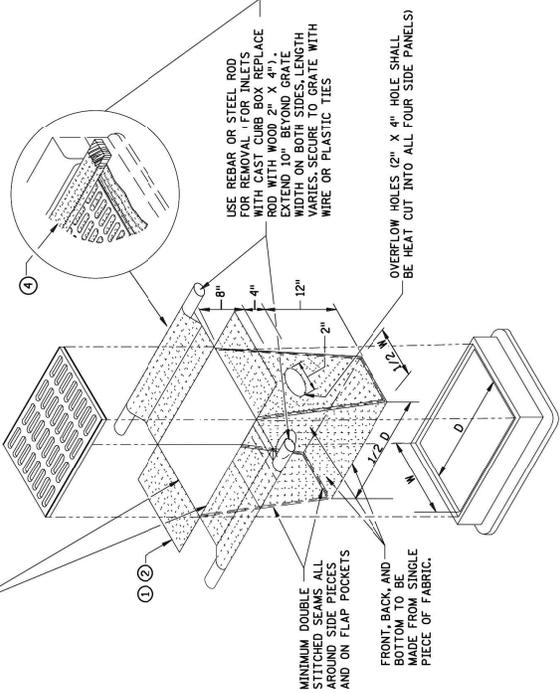
- NOTES:**
- REPP = ROLLED EROSION PREVENTION PRODUCT.
  - SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.
  - FOR DITCH CHECKS, PLACE SEDIMENT CONTROL LOG PERPENDICULAR TO FLOW AND IN A CRESCENT SHAPE WITH THE ENDS FACING UPSTREAM.
  - APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:
  - APPROXIMATE SPACING OF DITCH CHECKS (FT.) =  $Y = \frac{Z \text{ CHANNEL SLOPE}}{X} \times 100$
  - POINT "A" MUST BE A MINIMUM OF 6" HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
  - ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE ARE TO BE 18" OR LESS IN HEIGHT. A 1:6 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.
  - DITCH GRADE 3% - 5% MAX. FLOW VELOCITY 12 FT./SEC.
  - DITCH GRADE 1.5% - 3% MAX. FLOW VELOCITY 4.5 FT./SEC.
  - DITCH GRADE 1.5% - 3% MAX. FLOW VELOCITY 1.5 FT./SEC.

REVISION:  
APPROVED: JANUARY 8, 2020  
*M. K. Kowalski*  
MART KOWALSKI  
CHIEF ENVIRONMENTAL OFFICER

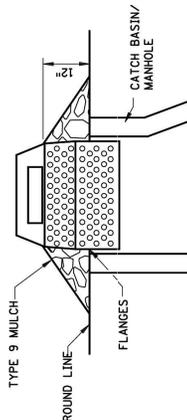
STANDARD PLAN 5-297.405 3 OF 8  
APPROVED: 1-8-2020  
REVISED:  
*Tom J. ...*  
THOMAS J. ...  
STATE DESIGN ENGINEER

**TEMPORARY SEDIMENT CONTROL**  
**DITCH CHECK**

INLET SPECIFICATIONS AS PER THE PLAN DIMENSION LENGTH AND WIDTH TO MATCH FLAP POCKET



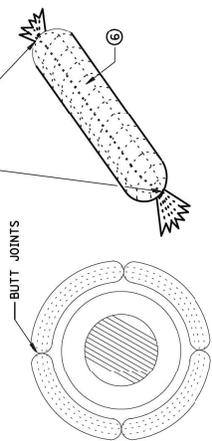
**FILTER BAG INSERT** ③  
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)



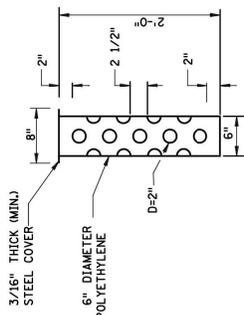
**SEDIMENT CONTROL INLET HAT**

NOTE:  
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.

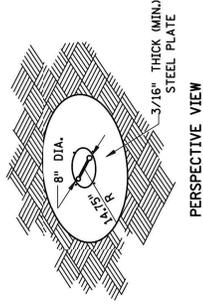
ENDS SECURELY CLOSED TO PREVENT LOSS OF OPEN GRADED AGGREGATE FILL, SECURED WITH 50 PSI. ZIP TIE.



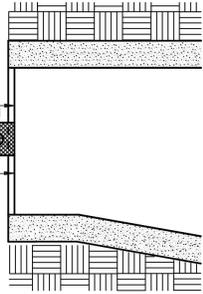
**ROCK LOG/COMPOST LOG**



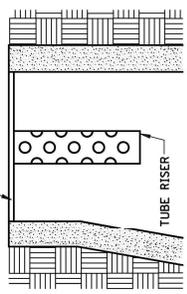
**TUBE RISER**



**PERSPECTIVE VIEW**



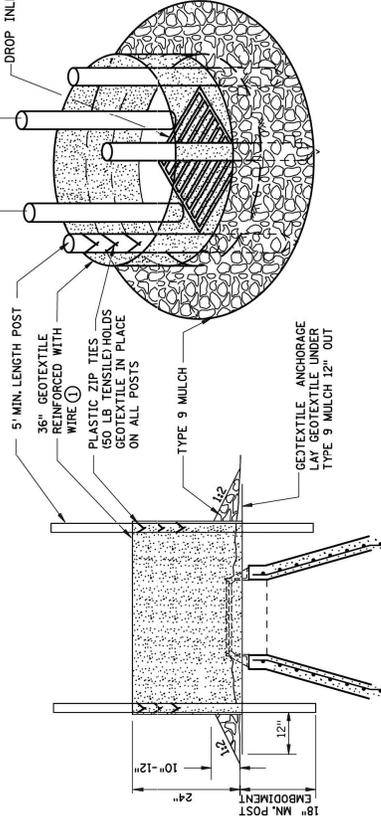
**SECTION (UP POSITION)**



**SECTION (DOWN POSITION)**

**SECTION (UP POSITION)**

**POP-UP HEAD**



**NOTES:**  
SEE SPECS. 2573, 3137, & 3886.  
DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY THAT WOULD IMPED TRAFFIC FLOW.

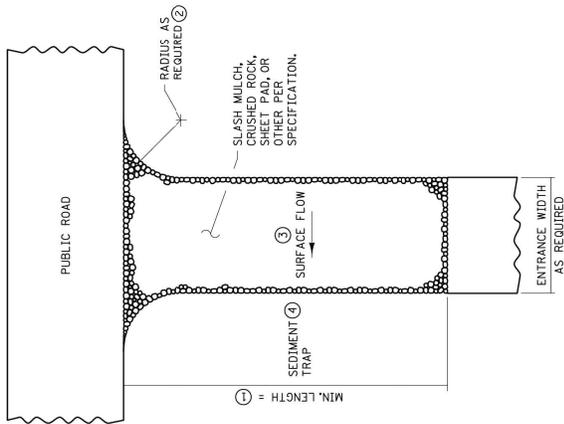
- ① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
- ② FINISHED SIZE INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ③ **INSTALLATION NOTES:** BAG INSERT IN INLETS SHALL BE SHALLOWER THAN 30 INCHES TO BE SURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
- ④ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE F-AP POCKETS.
- ⑤ SOCK HEIGHT MUST NOT BE 50 HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.
- ⑥ GEOTEXTILE SOCK SHOULD BE 4-10 FEET LONG AND 4-6 INCH DIAMETER SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM OR APPROVED EQUIVALENT. FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137-TABLE 3137-11-CA-3 GRADATION.

**SILT FENCE RING AND ROCK FILTER BERM**

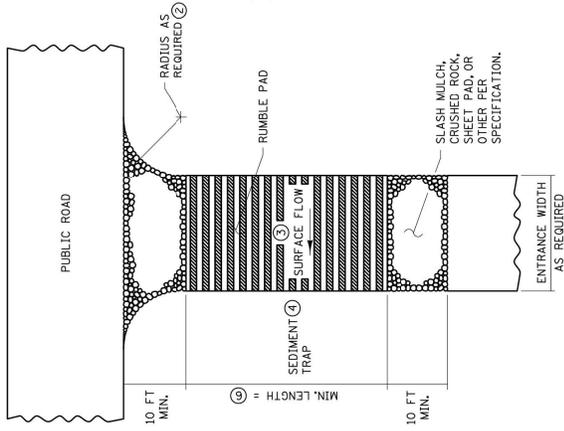
USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 OR LESS

	STANDARD PLAN 5-297.405	4 OF 8	TEMPORARY SEDIMENT CONTROL
	APPROVED: 2-28-2017	REVISED:	STORM DRAIN INLET PROTECTION
			TARGET POND IMPROVEMENTS - SHEET 8 OF 18
DEPARTMENT OF TRANSPORTATION STATE DESIGN ENGINEER			

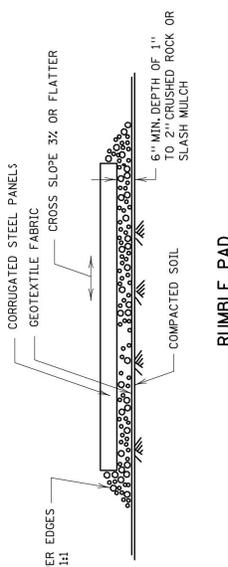
REVISION:
APPROVED: 2-28-2017
... CHIEF ENVIRONMENTAL OFFICER



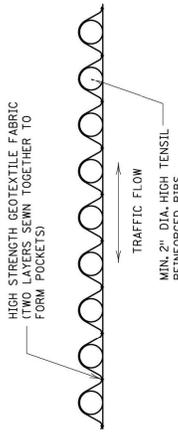
SLASH MULCH, CRUSHED ROCK, OR SHEET PAD CONSTRUCTION EXIT (1) (3) (4)



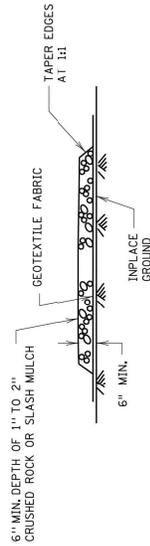
RUMBLE PAD CONSTRUCTION EXIT (2) (3) (4)



RUMBLE PAD



SHEET PAD



SLASH MULCH OR CRUSHED ROCK CONSTRUCTION EXIT (3) (4)

- NOTES:**  
SEE SPECS. 2573 & 3882.
- ① MINIMUM LENGTH SHALL BE THE GREATER OF 50 FEET OR A LENGTH SUFFICIENT TO ALLOW A MINIMUM OF 5 TIRE ROTATIONS ON THE PROVIDED PAD. MINIMUM LENGTH SHALL BE CALCULATED USING THE LARGEST TIRE WHICH WILL BE USED IN TYPICAL OPERATIONS.
  - ② PROVIDE RADIUS OR WIDEN PAD SUFFICIENTLY TO PREVENT VEHICLE TIRES FROM TRACKING OFF OF PAD WHEN LEAVING SITE.
  - ③ IF RUNOFF FROM DISTURBED AREAS FLOWS TOWARD CONSTRUCTION EXITS, PREVENT RUNOFF FROM DRAINING DIRECTLY TO THE ROAD OVER CONSTRUCTION EXIT BY CROWNING THE EXIT OR SLOPING TO ONE SIDE. IF SURFACE CROWDING IS INSUFFICIENT, PROVIDE OTHER MEANS OF INTERCEPTING RUNOFF.
  - ④ IF RUNOFF FROM CONSTRUCTION EXITS WILL DRAIN OFF OF PROJECT SITE, PROVIDE SEDIMENT TRAP WITH STABILIZED OVERTFLOW.
  - ⑤ IF A TIRE WASH OFF IS REQUIRED THE CONSTRUCTION EXITS SHALL BE GRADED TO DRAIN THE WASH WATER TO A SEDIMENT TRAP.
  - ⑥ MINIMUM LENGTH OF RUMBLE PAD SHALL BE 20 FEET, OR AS REQUIRED TO REMOVE SEDIMENT FROM TIRES. IF SIGNIFICANT SEDIMENT IS TRACKED FROM THE SITE, THE RUMBLE PAD SHALL BE LENGTHENED OR THE DESIGN MODIFIED TO PROVIDE ADDITIONAL VIBRATION. WASH-OFF LENGTH SHALL BE AS REQUIRED TO EFFECTIVELY REMOVE CONSTRUCTION SEDIMENT FROM VEHICLE TIRES.
  - ⑦ MAINTENANCE OF CONSTRUCTION EXITS SHALL OCCUR WHEN THE EFFECTIVENESS OF SEDIMENT REMOVAL HAS BEEN REDUCED. MAINTENANCE SHALL CONSIST OF REMOVING MULCH OR CRUSHED ROCK OVER SEDIMENT FILLED MATERIAL TO RESTORE EFFECTIVENESS.

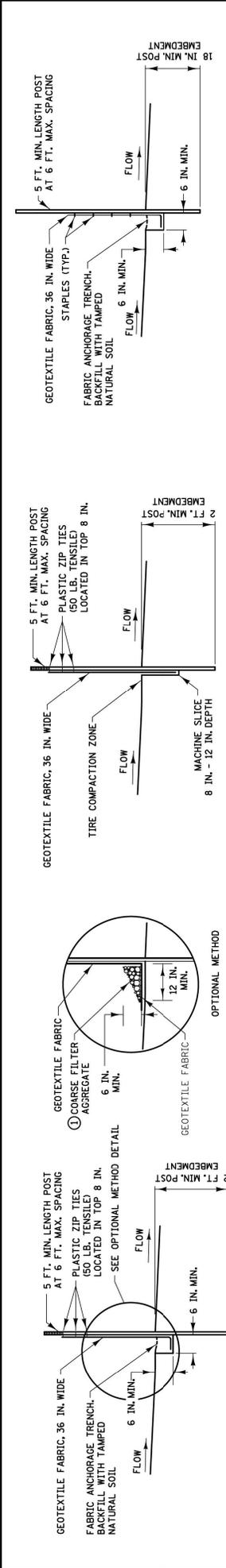


STANDARD PLAN 5-297.405 5 OF 8  
APPROVED: 2-28-2017  
REVISOR: [Signature]

TEMPORARY SEDIMENT CONTROL  
STABILIZED CONSTRUCTION EXIT

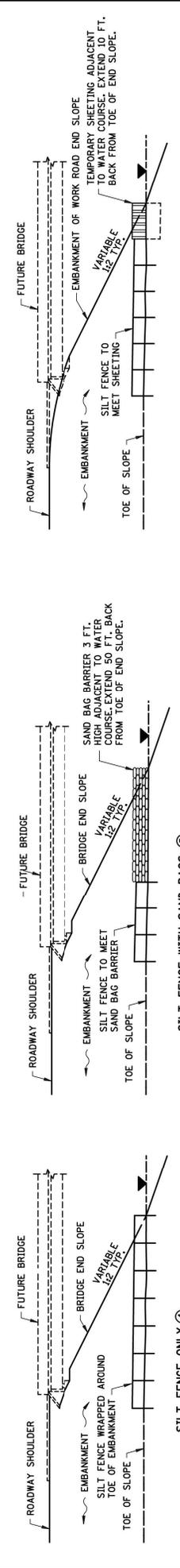
TARGET POND IMPROVEMENTS - SHEET 9 OF 18

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APPROVED: 2-28-2017  
... [Signature] ...  
CHIEF ENVIRONMENTAL OFFICER



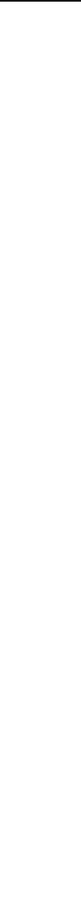
**SILT FENCE TYPE HI ②  
(HAND INSTALLED)**

**SILT FENCE TYPE MS ②  
(MACHINE SLICED)**

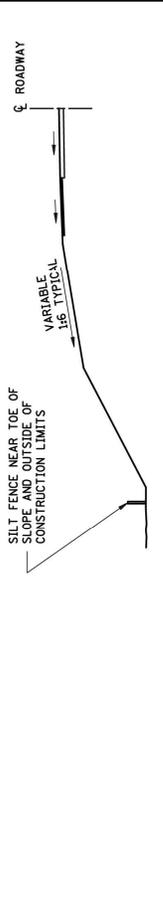


**SILT FENCE TYPE PA ③  
(PREASSEMBLED)**

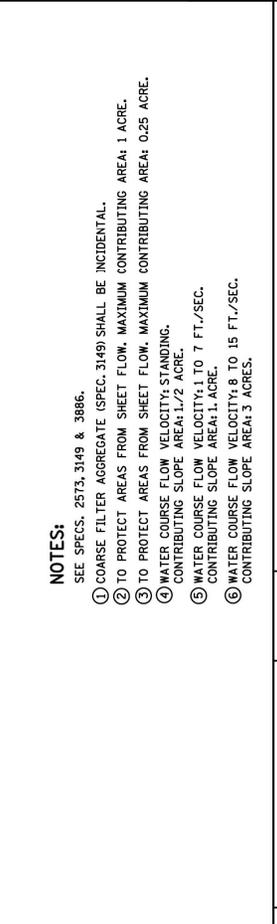
**SILT FENCE WITH SAND BAGS ⑤  
INSTALLATION AT BRIDGE EMBANKMENT ADJACENT TO WATER**



**SILT FENCE WITH SHEETING ⑥**



**LOCATION AT TOE OF ROADWAY EMBANKMENT**



**PLAN VIEW**

**PERSPECTIVE VIEW**

**NOTES:**  
 SEE SPECS. 2573, 3149 & 3886.  
 ① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.  
 ② TO PROTECT AREAS FROM SHEET FLOW, MAXIMUM CONTRIBUTING AREA: 1 ACRE.  
 ③ TO PROTECT AREAS FROM SHEET FLOW, MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.  
 ④ WATER COURSE FLOW VELOCITY: STANDING.  
 CONTRIBUTING SLOPE AREA: 1/2 ACRE.  
 ⑤ WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC.  
 CONTRIBUTING SLOPE AREA: 1 ACRE.  
 ⑥ WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC.  
 CONTRIBUTING SLOPE AREA: 3 ACRES.

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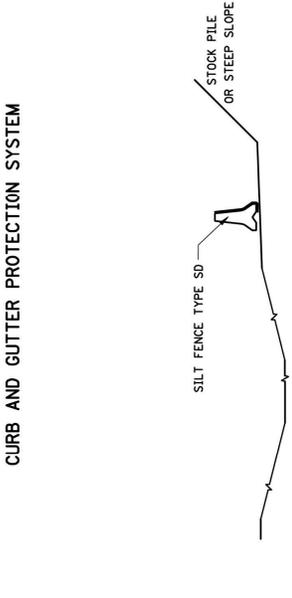
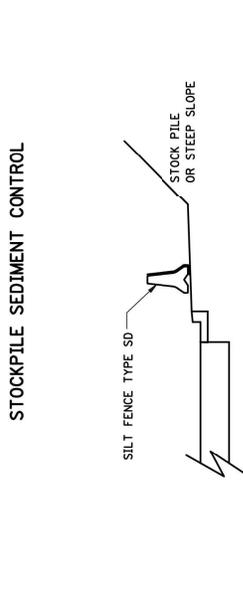
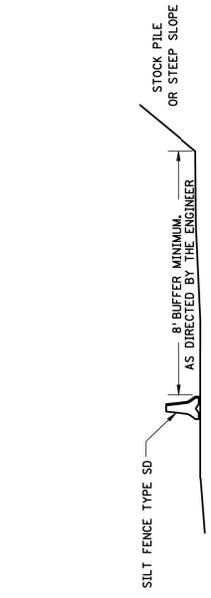
MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405 6 OF 8  
 APPROVED: 2-28-2017  
 REVISION: 2-28-2017

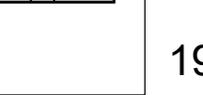
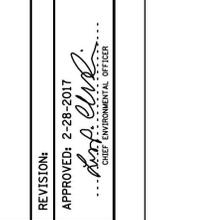
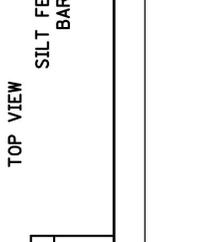
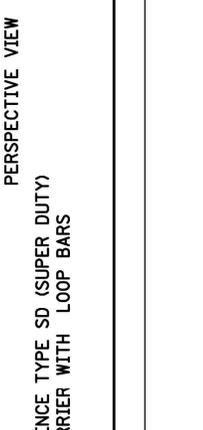
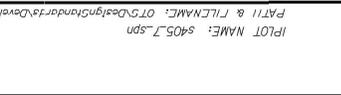
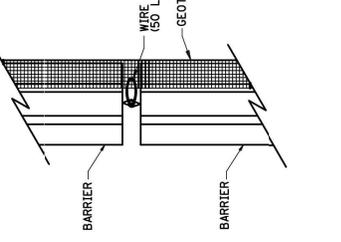
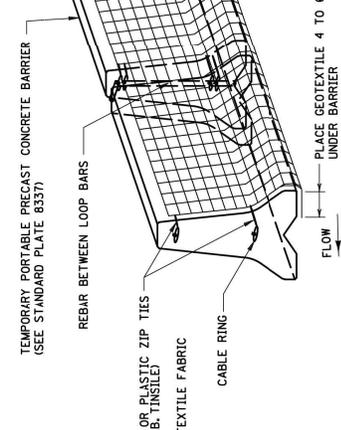
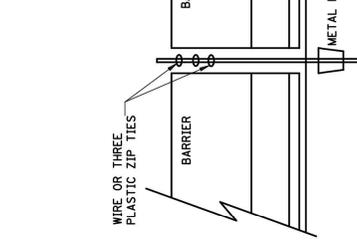
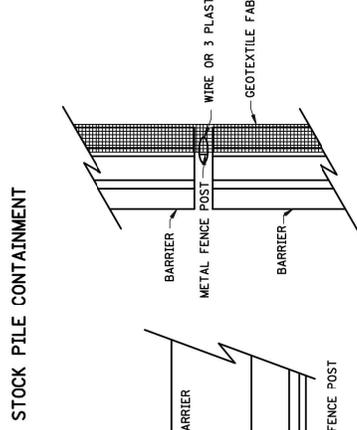
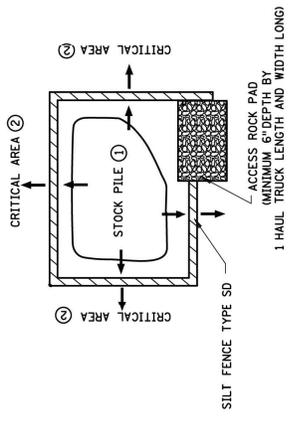
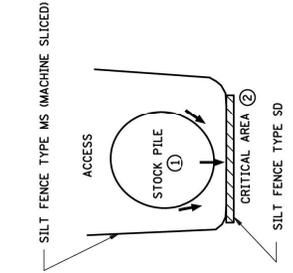
J-HOOK INSTALLATION

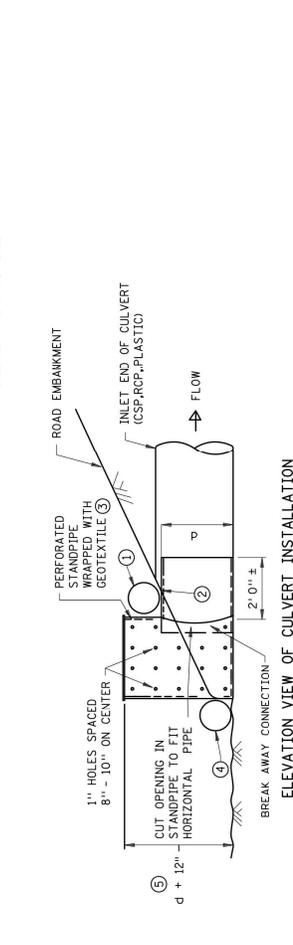
TEMPORARY SEDIMENT CONTROL  
 SILT FENCE

TARGET POND IMPROVEMENTS - SHEET 10 OF 18

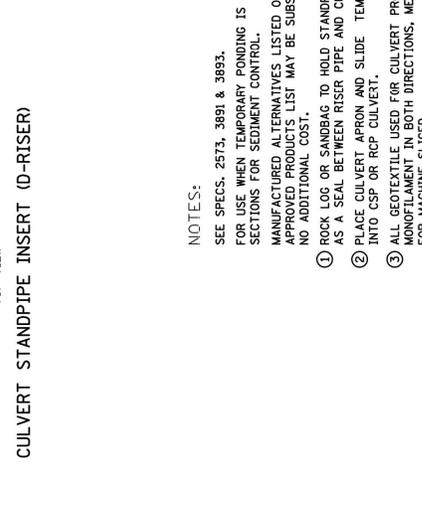
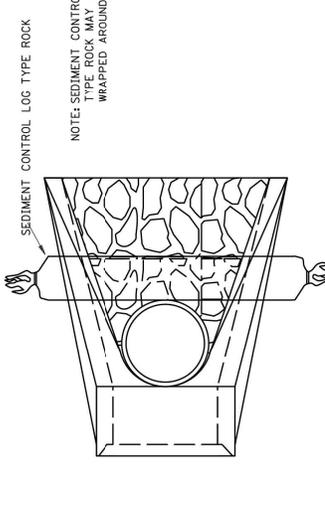
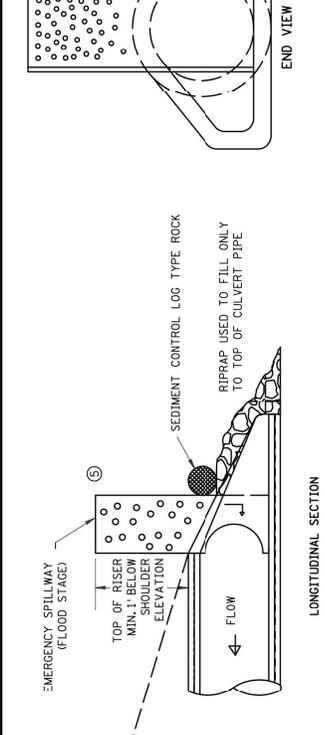


**NOTES:**  
 SEE SPECS. 2533, 2573 & 3886.  
 SILT FENCE TYPE SD USED TO PROTECT CRITICAL AREAS FROM SHEET FLOW, AND AREAS WHERE OTHER SILT FENCES CANNOT BE PLACED. MAXIMUM CONTRIBUTING AREA: 1 ACRE.  
 PLACE SILT FENCE TYPE SD ALONG A CONSTANT ELEVATION.  
 SILT FENCE TYPE SD CAN UTILIZE EITHER A CONCRETE, OR WATER FILLED, TEMPORARY MEDIAN BARRIER.  
 ① PLACING STOCK PILES NEXT TO AN ENVIRONMENTALLY SENSITIVE AREA IS NOT RECOMMENDED, WHEN THERE ARE NO FEASIBLE ALTERNATIVES, PLACE SILT FENCE SD AS SHOWN OR AS DIRECTED BY THE ENGINEER.  
 ② CRITICAL AREAS INCLUDE WETLANDS, JUDICIAL DITCHES, STREAMS, WATER BODIES AND OTHER AREAS REQUIRING PROTECTION.

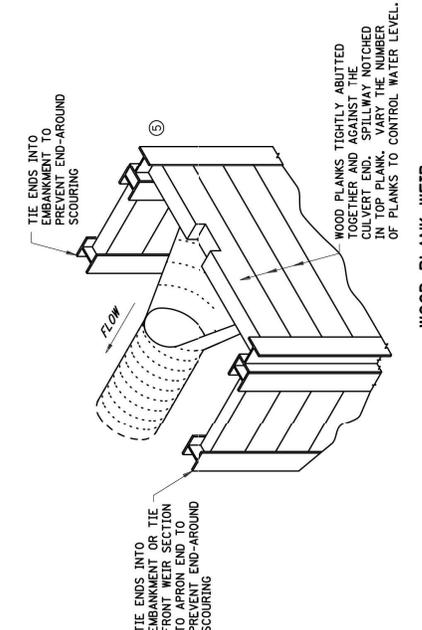




**CULVERT STANDPIPE INSERT (D-RISER)**  
d = CULVERT SIZE: 12" - 36"



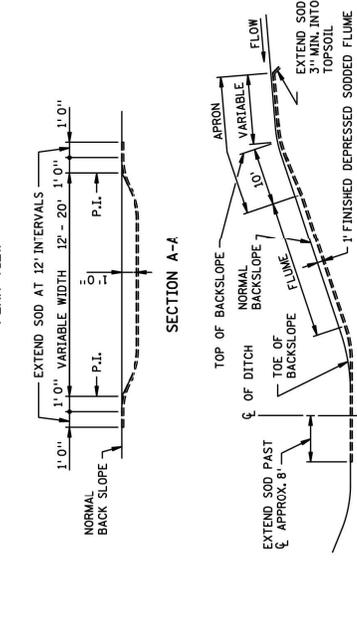
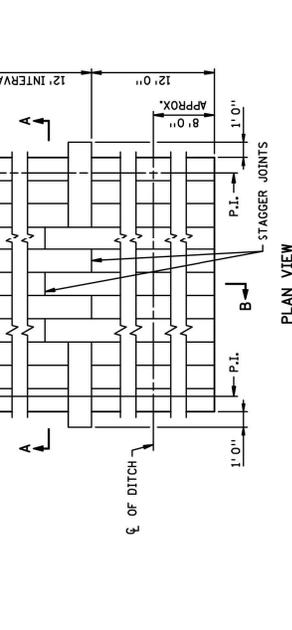
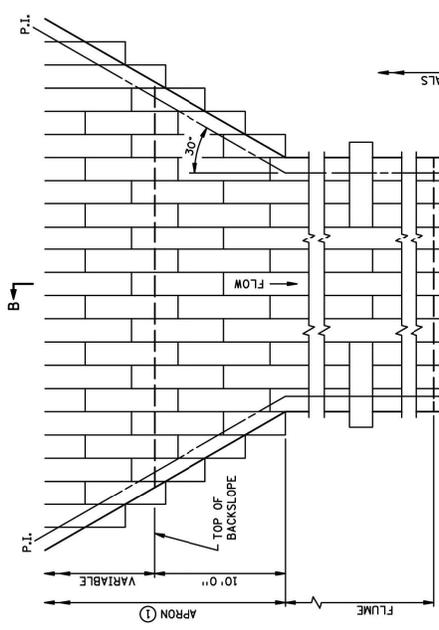
**SEDIMENT CONTROL LOG WEIR**  
(COMPOST, WOOD CHIP, OR ROCK)  
d = CULVERT SIZE: 12"-36"



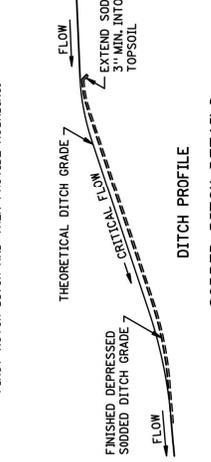
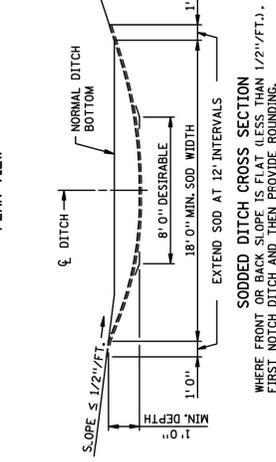
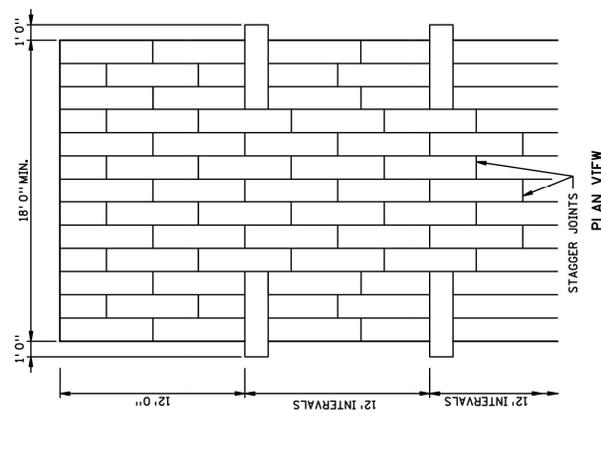
**CULVERT STANDPIPE INSERT (D-RISER)**

- NOTES:**
- SEE SPECS. 2573, 3891 & 3893.
  - FOR USE WHEN TEMPORARY PONDING IS NEEDED IN DITCH SECTIONS FOR SEDIMENT CONTROL.
  - MANUFACTURED ALTERNATIVES LISTED ON MDOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED AT NO ADDITIONAL COST.
  - ① ROCK LOG OR SANDBAG TO HOLD STANDPIPE AND ACT AS A SEAL BETWEEN RISER PIPE AND CULVERT.
  - ② PLACE CULVERT APRON AND SLIDE TEMPORARY STANDPIPE INTO CSP OR RCP CULVERT.
  - ③ ALL GEOTEXTILE USED FOR CULVERT PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886 FOR MACHINE SLICED.
  - ④ ROCK LOG OR RIP RAP TO HOLD STANDPIPE AND ACT AS A FILTER BETWEEN RISER PIPE AND CULVERT.
  - ⑤ HEIGHT OVERFLOW NOT TO CAUSE FLOODING OF ROAD OR ADJACENT PROPERTIES.

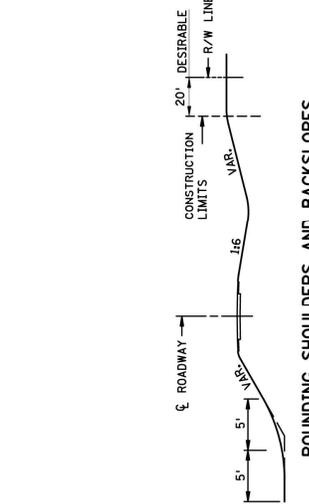
	<b>STANDARD PLAN 5-297.405</b>	<b>8 OF 8</b>	<b>TEMPORARY SEDIMENT CONTROL</b>
	APPROVED: 2-28-2017 REVISED:		<b>CULVERT END CONTROLS</b>
DEPARTMENT OF TRANSPORTATION STATE DESIGN ENGINEER			<b>TARGET POND IMPROVEMENTS - SHEET</b>
REVISION: APPROVED: 2-28-2017 CHIEF ENVIRONMENTAL OFFICER			<b>12 OF 18</b>



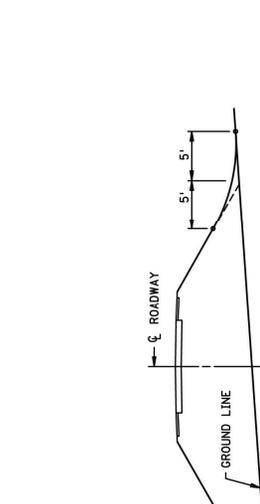
SOODED FLUME DETAILS



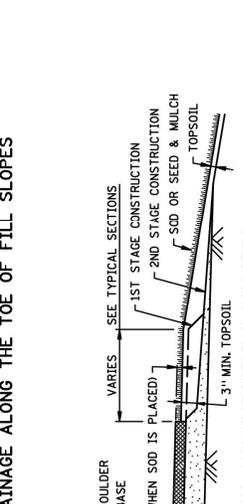
SOODED DITCH DETAILS



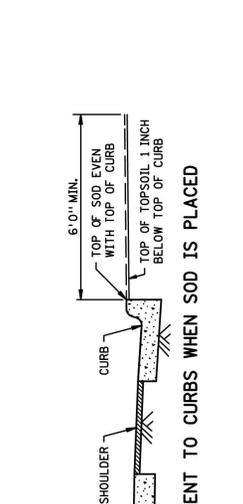
ROUNDING SHOULDERS AND BACKSLOPES



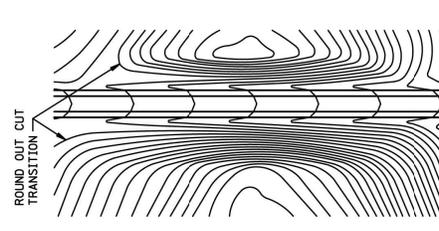
SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES



SHAPING AND TOPSOILING INSLOPES



SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED



CONTOURING ROAD CUTS

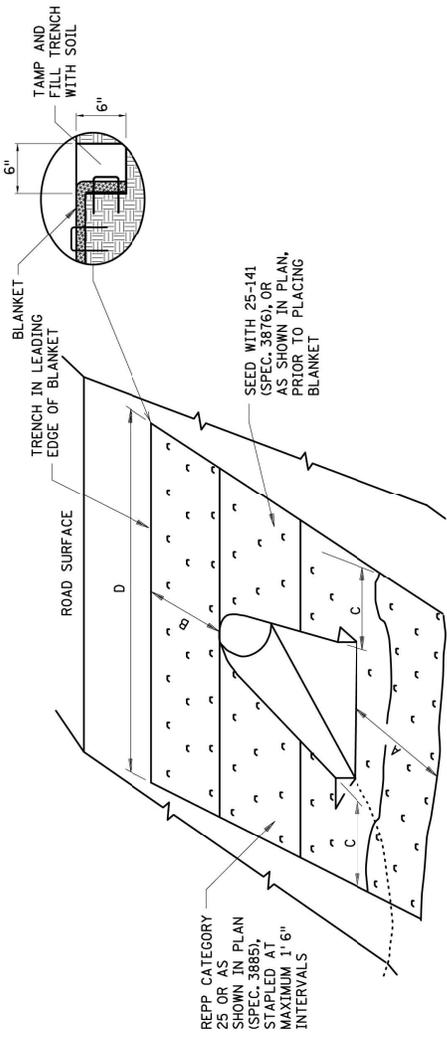
NOTES:  
 SEE SPEC. 2575.3 FOR ADDITIONAL INFORMATION.  
 ① CONSTRUCT TAPER AS DIRECTED BY THE ENGINEER.

REVISION:  
 APPROVED: 2-28-2017  
 ...  
 CHIEF ENVIRONMENTAL OFFICER

STANDARD PLAN 5-297.404 1 OF 3  
 APPROVED: 2-28-2017  
 REVISED:  
 ...  
 STATE DESIGN ENGINEER



PERMANENT EROSION CONTROL  
 ALONG ROADWAYS, DITCHES AND FLUMES  
 TARGET POND IMPROVEMENTS - SHEET

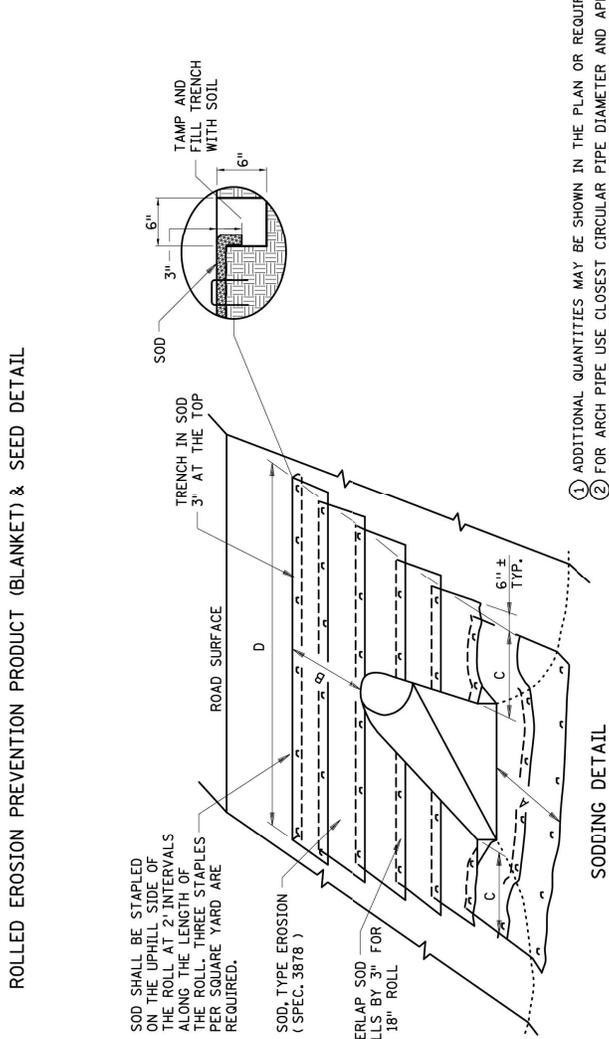


ROLLED EROSION PREVENTION PRODUCT (BLANKET) & SEED DETAIL

SOD SHALL BE STAPLED ON THE UPHILL SIDE OF THE ROLL AT 2' INTERVALS ALONG THE LENGTH OF THE ROLL. THREE STAPLES PER SQUARE YARD ARE REQUIRED.

SOD, TYPE EROSION (SPEC. 3878)

OVERLAP SOD ROLLS BY 3" FOR AN 18" ROLL



SODDING DETAIL

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

**CULVERT INLET APRON ①**

SOD OR REPP (SQ. YDS.)

CULVERT DIAMETER ②	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3123, PLATE 3128)		CIRCULAR AND ARCH PIPE METAL SAFETY APRON (PLATE 3148)		CIRCULAR AND CORRUGATED METAL PIPE SAFETY APRON (PLATE 3128)		CIRCULAR CORRUGATED METAL PIPE SAFETY APRON (PLATE 3128)		'A'	'B'	'C'	'D'
	9	12	14	16	8	10	12	14				
15"	9	12	14	16	8	10	12	14	3'	1.5'	3'	13'
18"	13	16	18	21	12	15	18	21	3'	3'	3'	16'
21"	16	19	22	25	15	18	21	24	3'	3'	3'	16'
24"	N/A	20	23	26	N/A	21	24	27	3'	4.5'	3'	18'
27"	23	26	29	32	20	23	26	29	4.5'	4.5'	4.5'	27'
30"	26	29	32	35	23	26	29	32	4.5'	4.5'	4.5'	30'
36"	32	35	38	41	29	32	35	38	4.5'	4.5'	4.5'	34'
42"	38	41	44	47	35	38	41	44	4.5'	4.5'	4.5'	37'
48"	44	47	50	53	41	44	47	50	4.5'	4.5'	4.5'	37'
54"	50	53	56	59	47	50	53	56	4.5'	4.5'	4.5'	37'
60"	56	59	62	65	53	56	59	62	4.5'	4.5'	4.5'	39'
66"	62	65	68	71	59	62	65	68	4.5'	4.5'	4.5'	39'
72"	68	71	74	77	65	68	71	74	4.5'	4.5'	4.5'	41'

**CULVERT OUTLET APRON ①**

SOD OR REPP (SQ. YDS.)

CULVERT DIAMETER ②	CIRCULAR AND ARCH PIPE CONCRETE APRON (PLATE 3123, PLATE 3128)		CIRCULAR AND ARCH PIPE METAL SAFETY APRON (PLATE 3148)		CIRCULAR AND CORRUGATED METAL PIPE SAFETY APRON (PLATE 3128)		CIRCULAR CORRUGATED METAL PIPE SAFETY APRON (PLATE 3128)		'A'	'B'	'C'	'D'
	9	12	14	16	8	10	12	14				
15"	9	12	14	16	8	10	12	14	4.5'	1.5'	3'	13'
18"	13	16	18	21	12	15	18	21	4.5'	1.5'	3'	14'
21"	16	19	22	25	15	18	21	24	6'	1.5'	3'	16'
24"	19	22	25	28	18	21	24	27	6'	1.5'	3'	16'
27"	N/A	20	23	26	N/A	21	24	27	7.5'	1.5'	3'	17'
30"	23	26	29	32	21	24	27	30	7.5'	1.5'	3'	17'
36"	29	32	35	38	27	30	33	36	9'	1.5'	3'	18'
42"	35	38	41	44	33	36	39	42	10.5'	1.5'	4.5'	23'
48"	41	44	47	50	39	42	45	48	12'	1.5'	4.5'	25'
54"	47	50	53	56	45	48	51	54	13.5'	1.5'	4.5'	27'
60"	53	56	59	62	51	54	57	60	15'	1.5'	4.5'	29'
66"	59	62	65	68	57	60	63	66	16.5'	1.5'	6'	33'
72"	65	68	71	74	63	66	69	72	16.5'	1.5'	6'	33'

**NOTES:**

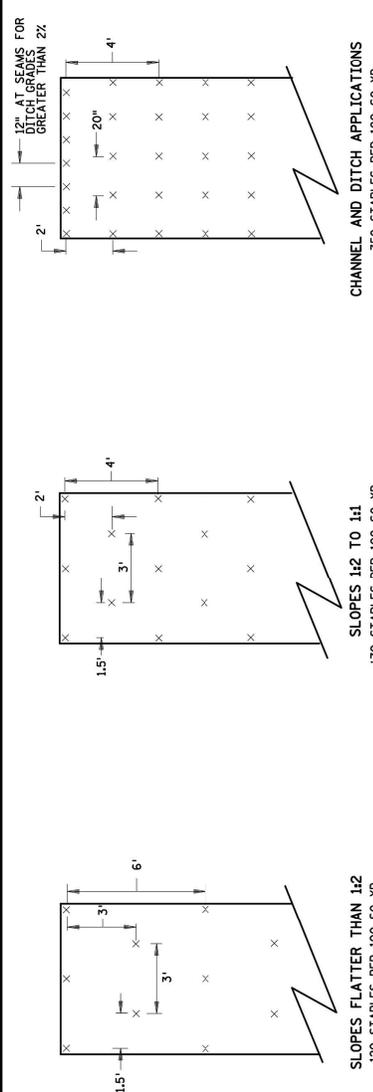
- REPP = ROLLED EROSION PREVENTION PRODUCT.
- AREA SHOWN IN SQUARE YARDS IS FOR ONE CULVERT END.
- QUANTITIES ARE CALCULATED TO INCLUDE SOD REQUIRED TO PROVIDE A 3" OVERLAP ON ALL 18" WIDE ROLLS. THIS ALLOWS FOR SHRINKAGE OF THE SOD.
- FOR PIPE ARCHES USE EQUIVALENT PIPE DIAMETER TO APPROXIMATE AREA.
- FOR CORRUGATED POLYETHYLENE PIPE METAL APRON (PLATE 3129), USE THE METAL APRON COLUMN (PLATE 3123).
- AREAS AND DIMENSIONS ARE APPROXIMATE AND ARE BASED ON APRON SIDE SLOPES OF NO STEEPER THAN 1:2, UNLESS INDICATED AS FOR SAFETY APRONS.
- CARE SHOULD BE TAKEN IN SELECTING SOD TO STABILIZE THE APRON. RIP-RAP SHOULD BE USED FOR FLOW VELOCITIES GREATER THAN 6 FPS.

REVISION: APPROVED: JANUARY 8, 2020  
  
 MATT KARPINSKI  
 CHIEF ENVIRONMENTAL OFFICER

**MINNESOTA**  
 DEPARTMENT OF TRANSPORTATION  
  
 THOMAS J. JOHNSON  
 STATE DESIGN ENGINEER

STANDARD PLAN 5-297.404 2 OF 3  
 APPROVED: 1-8-2020  
 REVISED:

**PERMANENT EROSION CONTROL**  
**TURF ESTABLISHMENT DETAIL AT CULVERT ENDS**

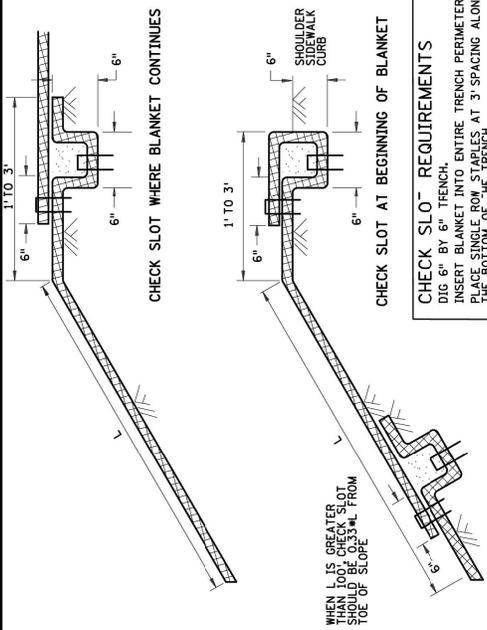


SLOPES FLATTER THAN 1:2  
120 STAPLES PER 100 SQ YD

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

CHANNEL AND DITCH APPLICATIONS  
350 STAPLES PER 100 SQ YD

**BLANKET STAPLE PATTERN**

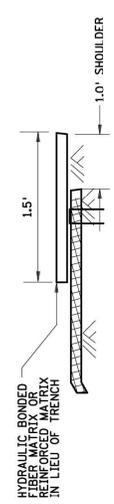


CHECK SLOT WHERE BLANKET CONTINUES

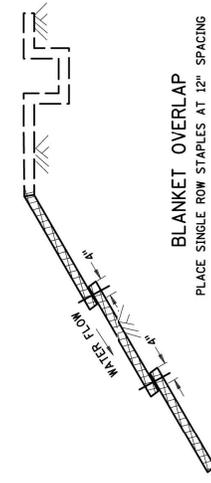
CHECK SLOT AT BEGINNING OF BLANKET

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

WHEN L IS GREATER THAN 100', CHECK SLOT SHOULD BE 0.33% FROM TOE OF SLOPE

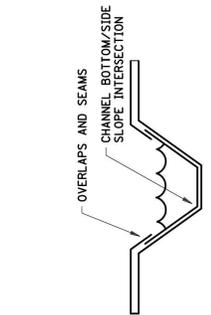


CHECK SLOT ALTERNATIVE  
PLACE SINGLE ROW STAPLES AT 12" SPACING  
CHECK SLOT DETAILS



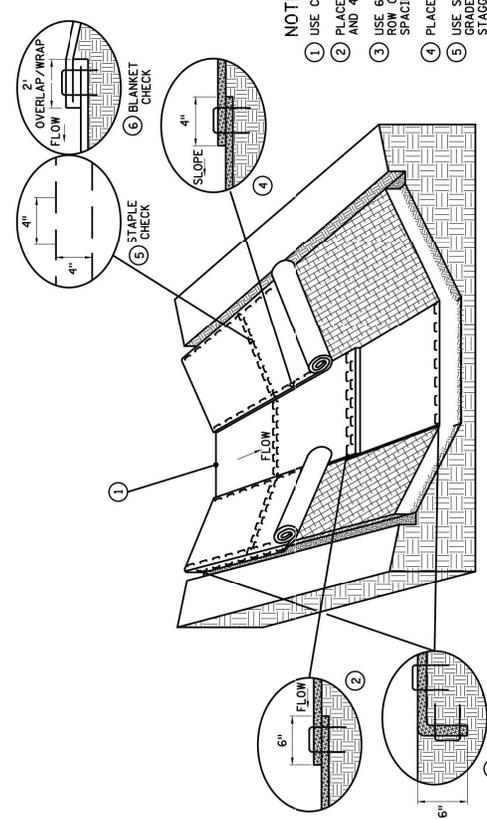
BLANKET OVERLAP  
PLACE SINGLE ROW STAPLES AT 12" SPACING

**GENERAL BLANKET INSTALLATION REQUIREMENTS**  
REPP = ROLLED EROSION PREVENTION PRODUCT.  
PREPARE SOIL AS PER SPECIFICATION 2874.  
LAY PARALLEL OR PERPENDICULAR TO THE DIRECTION OF WATER FLOW.  
OVERLAP ADJACENT STRIP EDGES A MINIMUM OF 4".  
OVERLAP BLANKET 6" (MINIMUM) AT EACH END, OVERLAP BOTTOM END OF UPPER BLANKET OVER TOP END OF LOWER BLANKET. STAPLE ALONG OVERLAP EVERY 1.5'.  
THE UPPERMOST BLANKET OF ALL SLOPE APPLICATIONS MUST START IN A CHECK SLOT.  
IF SLOPE LENGTH IS 100' OR GREATER, INSERT BLANKET INTO A CHECK SLOT 1/8 FROM THE BOTTOM OF THE SLOPE.



DITCH BLANKET CRITICAL POINTS (7)

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



DITCH BLANKET STAPLE DETAIL

STANDARD PLAN 5-297.404 3 OF 3 APPROVED: 1-8-2020 REVISED:		<b>PERMANENT EROSION CONTROL</b> REPP (BLANKET) STAPLE PATTERN FOR SLOPES TARGET POND IMPROVEMENTS - SHEET 15 OF 18	
		 MATT KARPINSKI CHIEF ENVIRONMENTAL OFFICER	
REVISION: APPROVED: JANUARY 8, 2020  MATT KARPINSKI CHIEF ENVIRONMENTAL OFFICER			

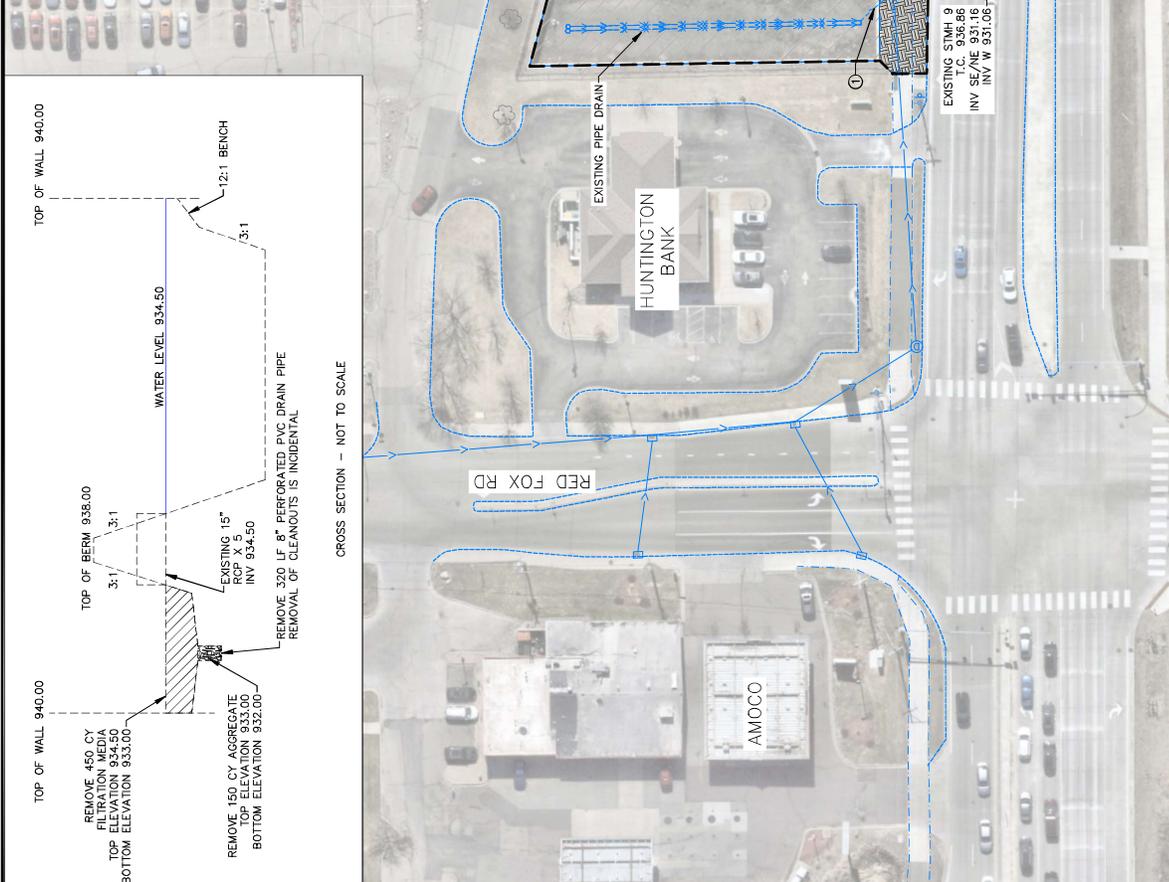
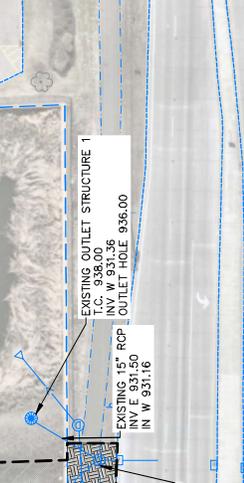
**LEGEND**

- REMOVE FILTRATION MEDIA PAID FOR AS EXCAVATION - COMMON
- STABILIZED CONSTRUCTION EXIT
- CONSTRUCTION LIMITS
- REMOVE PIPE DRAIN
- EXISTING RETAINING WALL
- EXISTING TRAIL
- EXISTING STORM SEWER
- EXISTING FLARED END SECTION
- EXISTING CATCH BASIN
- EXISTING MANHOLE
- EXISTING SIGN
- PROTECT INPLACE SEWER

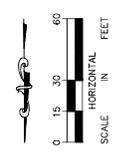
**NOTES:**

1. CONTRACTOR SHALL CALL GOPHER STAT ONE CALL AT 651-454-0002. ALL UTILITIES MUST BE LOCATED PRIOR TO THE START OF CONSTRUCTION. EXISTING UTILITY STRUCTURES SHALL BE NOTICED, EXISTING UTILITY STRUCTURES THAT ARE NOT BEING REMOVED OR RELOCATED.
2. CONTRACTOR TO VERIFY REMOVAL LIMITS WITH ENGINEER. BERTED AREAS WITHIN CONSTRUCTION LIMITS, INCLUDING ACCESS ROUTES, SHALL BE RESTORED AND PAID FOR AS LANDSCAPE RESTORATION.
3. REMOVAL OF DOWNED TREES AND OTHER DEBRIS WITHIN CONSTRUCTION LIMITS SHALL BE RESPONSIBLE FOR THE PROJECT CONTRACTOR'S RESPONSIBILITY FOR THE DAMAGE TO STREETS, CONCRETE CURB & GUTTER, TRAILS, AND TREES NOT SHOWN FOR REMOVAL.
4. WORK ASSOCIATED WITH PROTECTING AND/OR REMOVING EXISTING IRRIGATION SYSTEMS SHALL BE NOTICED PRIOR TO THE START OF CONSTRUCTION. EXISTING IRRIGATION SYSTEMS AND OTHER ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

**CROSS SECTION - NOT TO SCALE**



No.	Date	Revisions	App.



**Kimley»Horn**  
 767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114  
 PHONE: 651-645-4197  
 WWW.KIMLEY-HORN.COM

**CITY OF SHOREVIEW**  
 TARGET POND IMPROVEMENTS  
 EXISTING CONDITIONS AND REMOVAL PLAN

DATE: 12/30/2025 MIN. LIC. NO. 59337  
 ADAM TANDEN

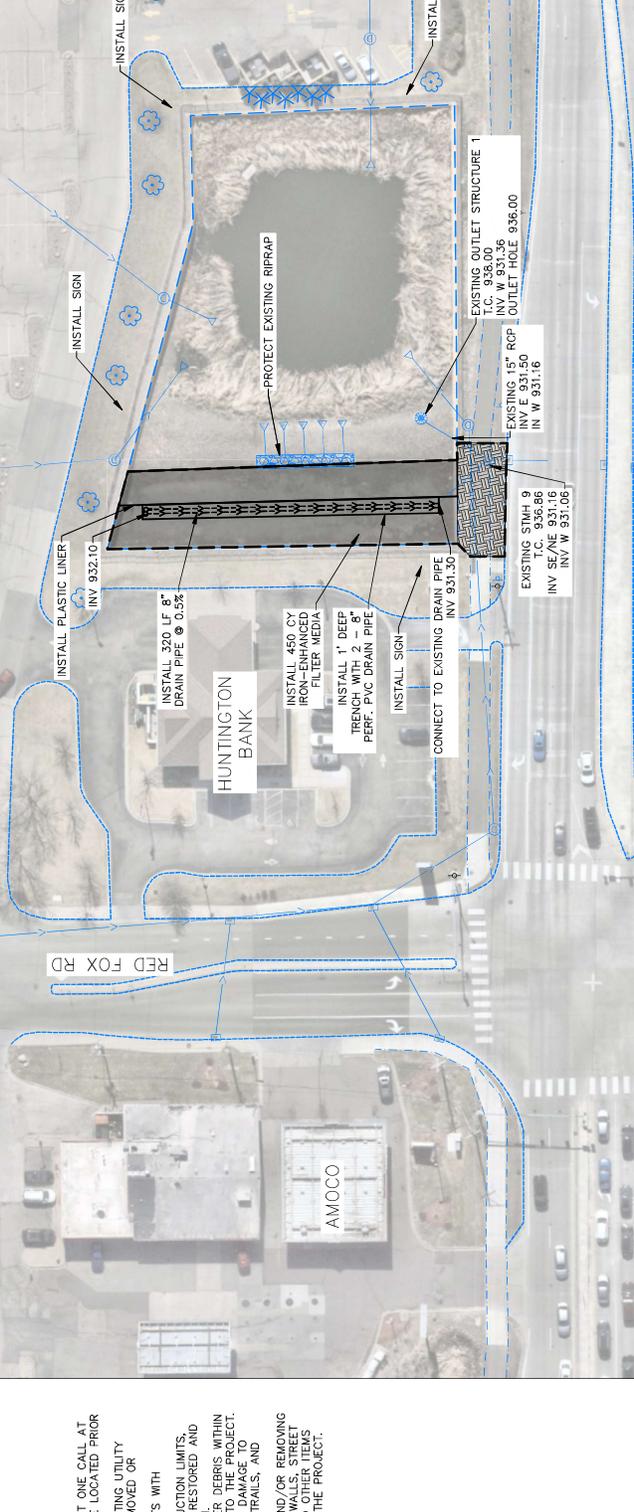
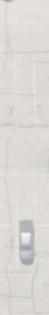
DRAWING NAME: TARGET\_POND-REMOV.dwg  
 DESIGNED BY: EWM  
 DRAWN BY: EWM  
 CHECKED BY: ART  
 DATE: 12/30/2025  
 PROJECT NO.: XXXXXXX

CITY PROJECT: 26-10 SHEET NO. 16  
 SHEET NO. 18

**LEGEND**

- IRON-ENHANCED FILTER MEDIA
- CONSTRUCTION ENTRANCE
- CONSTRUCTION LIMITS
- PROPOSED DRAIN PIPE
- EXISTING STORM SEWER
- EXISTING FLARED END SECTION
- EXISTING CATCH BASIN
- EXISTING MANHOLE

NOTES:  
 1. CONTRACTOR SHALL CALL GOPHER STAT ONE CALL AT 651-454-0002. ALL UTILITIES MUST BE LOCATED PRIOR TO THE START OF CONSTRUCTION.  
 2. EXISTING UTILITIES SHALL BE PROTECTED. EXISTING UTILITY STRUCTURES SHALL BE NOTICED. EXISTING UTILITIES THAT ARE NOT BEING REMOVED OR RELOCATED.  
 3. CONTRACTOR TO VERIFY REMOVAL LIMITS WITH INCLUDING ACCESS ROUTES. SHALL BE RESTORED AND PAID FOR AS LANDSCAPE RESTORATION.  
 4. REMOVAL OF DOWNED TREES AND OTHER DERRIS WITHIN PROJECT LIMITS SHALL BE RESPONSIBLE FOR THE DAMAGE TO STREETS, CONCRETE CURB & GUTTER, TRAILS, AND TREES NOT SHOWN FOR REMOVAL.  
 5. WORK ASSOCIATED WITH PROTECTING AND/OR REMOVING EXISTING UTILITIES SHALL BE RESTORED AND PAID FOR BY THE CONTRACTOR. EXISTING UTILITIES AND OTHER ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



No.	Date	Revisions

APP. TARGET-POND-CONST-PLAN.dwg

DESIGNED BY: EWM  
 DRAWN BY: EWM  
 CHECKED BY: ART  
 DATE: 12/30/2025  
 PROJECT NO. XXXXXX

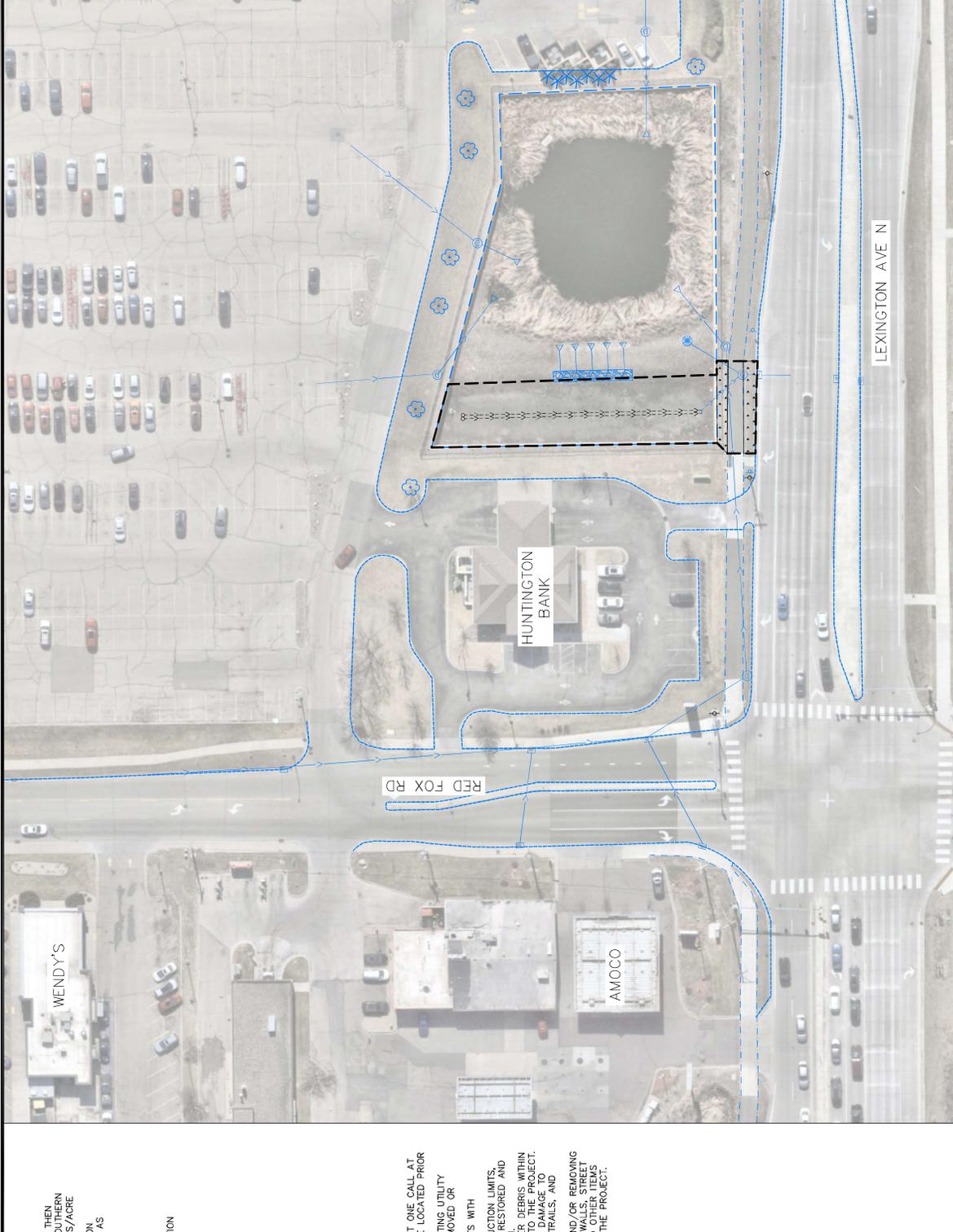
**Kimley»Horn**  
 767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114  
 WWW.KIMLEY-HORN.COM

ADAM TUGEN  
 DATE: 12/30/2025, MIN. LIC. NO. 59337

CITY OF SHOREVIEW  
 TARGET POND IMPROVEMENTS  
 CONSTRUCTION PLAN

CITY PROJECT 26-10 SHEET NO. 17

18



- LEGEND**
- HARROWED OR RAKED AND THEN CULTIVATED SEED MIX - SOUTHERN FERTILIZER TYPE 4 @ 160 LBS/ACRE WITH 10% IRON PREVENTION CATEGORY 2S PAID FOR AS LANDSCAPE RESTORATION
  - CONSTRUCTION LIMITS
  - - - EXISTING STORM SEWER
  - ▽ EXISTING FLARED END SECTION
  - EXISTING CATCH BASIN
  - ⊙ EXISTING MANHOLE

**NOTES:**

1. CONTRACTOR SHALL CALL GOPHER STAT ONE CALL AT 651-454-0002. ALL UTILITIES MUST BE LOCATED PRIOR TO THE START OF CONSTRUCTION. EXISTING UTILITY STRUCTURES SHALL BE RESTORED OR RELOCATED.
2. CONTRACTOR TO VERIFY REMOVAL LIMITS WITH INCLUDING ACCESS ROUTES SHALL BE RESTORED AND PAID FOR AS LANDSCAPE RESTORATION.
3. REMOVAL OF DOWNED TREES AND OTHER DERRIS WITHIN CONSTRUCTION LIMITS IS RESPONSIBLE FOR THE CONTRACTOR'S CONCRETE CURB & GUTTER, TRAILS, AND STREETS NOT SHOWN FOR REMOVAL.
4. WORK ASSOCIATED WITH PROTECTING AND/OR REMOVING EXISTING IRRIGATION SYSTEMS AND OTHER ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



No.	Date	Revisions

DRAWING NAME	TARGET-POND-RESTORATION.dwg
DESIGNED BY:	EWJ
DRAWN BY:	ART
CHECKED BY:	ART
DATE:	12/30/2025
PROJECT NO.	XXXXXX

**Kimley»Horn**  
 767 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114  
 PHONE: 651-625-4197  
 WWW.KIMLEY-HORN.COM

**CITY OF MINNEAPOLIS**

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION AND CONTRACT DOCUMENTS WERE PREPARED BY A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ADAM TACKEN  
 DATE: 12/30/2025, MIN. LIC. NO. 59337

**CITY OF SHOREVIEW**  
 TARGET POND IMPROVEMENTS  
 RESTORATION PLAN

CITY PROJECT: 26-10

SHEET NO. 18

18

## **Expanded Answers: Shoreview Target Pond IESF**

### **Section VI Executive Summary & Abstract**

The City of Shoreview intends to convert an existing sand filtration system in the southeast corner of Red Fox Road and Lexington Avenue North into an iron-enhanced filtration system. The existing system receives runoff from the surrounding roadways and ultimately outlets into Valentine Lake, which has been on the MPCA's Impaired Water list since 2002. The goal of this project is to provide additional treatment for runoff outletting into Valentine Lake to work towards improving its water quality and removing it from the Impaired Water List. A total of \$81,772.50 is requested, with a City match of \$81,772.50.

### **Section VII Description**

**List and describe the Best Management Practices (BMPs) to be incorporated into this project.**

Iron-enhanced filtration system: The existing sand filtration system will be converted into an iron-enhanced filtration system. The proposed filter will be designed and installed per the MPCA design standards as feasible. The system receives flow from an existing pretreatment wet pond directly south via five existing culverts. The existing sand will be removed and replaced with iron-enhanced sand. The existing draintile will be replaced to extend the lifetime of the system.

**If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.**

An iron-enhanced sand filter provides additional removal of Total Phosphorus than the existing system, which will limit the amount of phosphorus entering RCWD groundwater further downstream.

**Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.**

A maintenance agreement will be executed that requires the following:

The City of Shoreview will perform annual inspections of the filter bed, inlets, and outlets. Staff will remove accumulated sediment to maintain a clean filter bed and replace structural components, as necessary.

City staff will visually inspect the filter and surrounding area on a monthly basis. Staff will verify the system, inlets, and outlets are clear of debris and remove vegetation and grasses from the filter surface, per MPCA recommendations, as needed.

The top 2-5 inches of media will be removed and replaced every 3-5 years or as needed to remove clogged filter media.

## **Section VIII Prioritization**

The receiving water body, Valentine Lake, has TMDLs for excess nutrients and chlorine, per the RCWD WMP and MPCA Impaired Waters List. The existing sand filter system receives a significant amount of runoff from surrounding roadways and industrial areas, which ultimately discharge into Valentine Lake. This project will provide additional water quality benefit to this discharge, in line with the goal of removing Valentine Lake from the Impaired Waters List. The project is not included in the Member Community Project List within the RCWD WMP.

## **Section IX Targeting**

The proposed system will treat runoff from the neighboring Target and Raising Cane's parking lots, a portion of Red Fox Road, and a portion of Lexington Avenue. Runoff from each of these areas introduce trash, debris, oil, grease, and sediment from cars and other vehicle into the downstream storm system. This project is able to treat all these pollutants in one central location with the existing wet pond and proposed iron-enhanced sand filter. A central location is more cost-effective and space-efficient than multiple smaller systems. The project's location allows it to treat this runoff at its source prior to entering the downstream storm system and ultimately Valentine Lake.



# Rice Creek Watershed District

## Stormwater Management Grant Program

### 2026 Application Form

#### I. APPLICANT INFORMATION

Organization (to be named as Grantee): City of Shoreview  
 Street Address: 4600 Victoria Street N  
 City, State, Zip: Shoreview MN 55126  
 Tax Status: Exempt Tax ID#: 41-6008808  
*(e.g., local government, non-profit 501(c)(3), private business, etc.)*

#### II. PROJECT CONTACTS

Project Officer: Stephanie Smith Financial Officer: Kevin Knopik  
 Title: City Engineer Title: Finance Director  
 Telephone: 651-490-4651 Telephone: 651-490-4622  
 Fax: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: ssmith@shoreviewmn.gov Email: kknopik@shoreviewmn.gov

#### III. PROJECT INFORMATION

Project Name: 2026 Storm Improvements  
 Location(s) of Project: Milton Street and Randy Avenue  
 City: Shoreview State: MN County: Ramsey  
 Project Start Date: 8/1/2026 Project Completion Date: 10/1/2025  
 Project Type (check only those that directly apply):

- Water Quality Treatment Project      Stormwater Reuse Irrigation Project  
 Peak Runoff Rate Control Project      Runoff Volume Control / Flood Storage Project  
 Other: \_\_\_\_\_

Is a RCWD Rule C permit required for this project?      YES      NO      UNKNOWN

#### IV. GRANT REQUEST

RCWD Grant Funding Requested: \$ 100,000  
 Applicant Match Funding Committed: \$ 470,000  
 Total Estimated Project Cost: \$ 570,000

Would you be willing to accept grant funding in an amount less than requested?      YES      NO

#### V. SIGNATURE OF APPLICANT

I certify that the information contained within this application is true and accurate.

\_\_\_\_\_  
 Signature of Project Officer

12/30/2025  
 Date

## VI. Executive Summary / Abstract

Include a brief Executive Summary (100 words or less) that summarizes the main goals and activities of the project and the expected environmental outcomes that will be achieved. Identification of the total amount of funds being requested along with the required match. The summaries will be used in the grant review process and on the RCWD website-for projects that are funded.

The City of Shoreview proposes replacement of the existing roadway asphalt with pervious pavers in two neighborhoods that have direct stormwater discharge to surface waters. The stormwater currently flows off the road and into the storm system that outlets to Island Lake. The proposed pavers will allow the water to soak into the ground, rather than having it flow to the lake. This project will reduce pollutant loading to the lake, including phosphorus, by reducing

## VII. Description (10 points)

The RCWD has established guidelines for prioritizing projects based on location. Water quality improvement projects should be located to benefit a RCWD lake classified as either "Protection" or "Restoration" (see Table 2-4 in the RCWD 2020 Watershed Management Plan), and/or a waterbody with an approved Total Maximum Daily Load (TMDL) study or other recognized diagnostic water quality study. Flood storage and runoff rate control projects should focus on reducing peak flood elevations in known regional flood hazard areas and/or documented local problem areas. Describe the specific watershed management, water quality or quantity need(s) that the project will address and its impact on the target water resource within the District.

Name the target waterbody benefiting from this project: Island Lake

List and describe the Best Management Practices (BMPs) to be incorporated into this project

Pervious concrete pavers

If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.

The project will remove 12,450SF of impervious pavement. The installation of pervious pavers will allow infiltration of the stormwater runoff that drains to this area. The angular

Provide drawings, maps and/or schematics which graphically illustrate the location and conceptual design of the project. **(Attach separate sheets.)**

Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.

Shoreview has 17 installations of pervious pavers throughout the city. Staff has knowledge of installation and maintenance of this style pavers and is confident in the operation of the system. Maintenance and operations include application of a spray coating to protect the pavers from salt damage, use of a rubber snow plow blade to prevent damage during snow maintenance, annual inspection. replacement of individual blocks as needed. street sweeping five times per year in

### VIII. Prioritization (20 points)

How does the project support existing regional planning efforts such as the RCWD Watershed Management Plan, municipal surface water management plans, TMDLs, or other recognized diagnostic studies? Is the project included on the Member Community Project List (Appendix G) within the RCWD Watershed Management Plan? Please provide citations where possible.

By capturing stormwater runoff from Milton Street and Randy Avenue environmental benefits for the area are anticipated, including pollutant loading reduction and stormwater volume reduction. It is the intent of the project to continue to improve water quality and reduce discharge to address the TMDL for Island Lake, continuing the water quality protection work.

### IX. Targeting (15 points)

Describe the critical pollution or flooding sources and risks addressed by this project. Explain why the proposed project is the most cost-effective and feasible means to attain the expected resource benefits. Has a formal analysis been conducted to substantiate this position?

This project is targeted to reduce phosphorus load and stormwater volume directly discharged to Island Lake. The proposed project has been identified as the most cost-effective and feasible means to meet these goals, due to the levels high-reduction within the existing roadway footprint.

### X. Measurable Outcomes (20 points)

Provide a detailed estimate and description of the anticipated pollutant reduction, stormwater rate/volume reduction, groundwater withdrawal reduction, and/or other environmental or natural resource benefits associated with the project. Describe the methods and cite the sources (i.e. P8 model, HydroCAD, XP-SWMM, MIDS, MN Stormwater Manual, etc.) used to calculate or estimate the pollutant reductions and/or hydrologic outcomes. **(Mandatory for RCWD to consider your proposal!)**

The storage volume was calculated by assuming a 0.4 porosity of the angular rock area below the pavers. The storage area provided by the pervious paver BMPs is 10,300CF, with an assumed zero infiltration. The city has contracted a geotechnical firm to perform soil sampling in the area, so the design and/or performance of the BMPs may be adjusted to account for infiltration at that time.

### **XI. Cost-Effectiveness (15 points)**

Provide a detailed budget that lists each item for which funding is being requested. You must also list the sources of required local matching contributions. Please provide a summary that demonstrates why this is the most cost-effective approach to solving the problem. Or, have other alternatives been explored, and if so, why were they determined to not be the best alternative? What is the anticipated lifespan of the practice? **(Attach separate sheets if needed.)**

The city's funding will come from the city's surface water enterprise fund, as budgeted in the 2026 capital improvement plan. A cost estimate is attached.

As there is not currently city-owned land or right-of-way available for a stormwater pond or other large-footprint BMP, the most cost-effective method of volume abstraction was determined to be the installation of a pervious paver system within the existing roadway footprint of Milton Street and Randy Avenue. ROW purchasing is a significant cost, so this proposal aims to provide a highly-effective BMP within the existing right-of-way.

The pavers have an anticipated 25-year design life.



### **XII. Project Readiness (10 points)**

Please describe the anticipated timeline for implementing this project. What steps have been taken to ensure that the project can be implemented according to this timeline? Are any permits needed? (If permits are required please cite from what agency and where the project is in that process).

This project is anticipated for construction in late summer of 2026. Design and plans are underway, with a 30% plan attached. Geotechnical analysis is underway, which will assist with "right-sizing" the system.

City funding is available per the 2026 Capital Improvement Plan.

No permits are anticipated.

### **XIII. Engagement Opportunities (10 points)**

Demonstrate any potential for public engagement, education and demonstration and describe what methods will be used to ensure that the purpose and success of the project are made known to the public. Applicants must incorporate a public engagement component into the project.

Shoreview may install educational signage at the end of Milton Street. Shoreview will also post information on the website and social media, potentially including video package, that has educational components.

**2026 STORMWATER IMPROVEMENTS CP 26-10  
ENGINEER'S ESTIMATE (LAST UPDATE: 12/29/2025)**

<b>MILTON STREET</b>					
<b>BASE SCHEDULE A (DRAINAGE FUND)</b>					
<b>ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>UNITS</b>	<b>QUANTITY</b>	<b>UNIT PRICE</b>	<b>TOTAL COST</b>
2021.501	MOBILIZATION	LS	1	\$ 20,000.00	\$ 20,000.00
2104.503	REMOVE CURB AND GUTTER (CONCRETE)	LF	430	\$ 10.00	\$ 4,300.00
2104.501	REMOVE BITUMINOUS PAVEMENT (ROAD)	SY	729	\$ 11.50	\$ 8,383.50
2105.504	GEOTEXTILE FABRIC (MNDOT TYPE 11, RS380i)	SY	658	\$ 8.00	\$ 5,264.00
2106.507	EXCAVATION - COMMON	CY	492	\$ 35.00	\$ 17,220.00
2108.504	GEOGRID (MNDOT TYPE 2, BX1100, BX1200, BXG110, BXG120)	SY	545	\$ 5.50	\$ 2,997.50
2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HR	3	\$ 190.00	\$ 570.00
2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	10	\$ 10.00	\$ 100.00
2360.509	TYPE SP 9.5 WEARING COURSE MIX (SPWEA230C) 2.0" THICK	TON	24	\$ 100.00	\$ 2,400.00
2360.509	TYPE SP 9.5 WEARING COURSE MIX (SPWEA230C) 1.5" THICK	TON	18	\$ 100.00	\$ 1,800.00
2531.503	CONCRETE CURB AND GUTTER DESIGN B618	LF	430	\$ 36.50	\$ 15,695.00
2563.601	TRAFFIC CONTROL	LS	1	\$ 1,000.00	\$ 1,000.00
2573.502	STORM DRAIN INLET PROTECTION	EACH	2	\$ 200.00	\$ 400.00
2575.504	SODDING TYPE LAWN (WITH 6" TOPSOIL)	SY	145	\$ 21.00	\$ 3,045.00
2650.500	1-1/2" CLEAN ANGULAR ROCK (ASTM #2)	CY	363	\$ 103.00	\$ 37,389.00
2650.500	3/4" CLEAN ANGULAR ROCK (ASTM #57)	CY	91	\$ 108.00	\$ 9,828.00
2650.500	IMPERMEABLE GEOMEMBRANE LINER	SY	134	\$ 33.00	\$ 4,422.00
2650.500	PERMEABLE ARTICULATING CONCRETE BLOCK	SF	4900	\$ 18.00	\$ 88,200.00
<b>ESTIMATED TOTAL - MILTON STREET (BASE A)</b>					<b>\$ 223,014.00</b>

<b>RANDY AVENUE</b>					
<b>BASE SCHEDULE B (DRAINAGE FUND)</b>					
<b>ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>UNITS</b>	<b>QUANTITY</b>	<b>UNIT PRICE</b>	<b>TOTAL COST</b>
2021.501	MOBILIZATION	LS	1	\$ 30,000.00	\$ 30,000.00
2104.503	REMOVE CURB AND GUTTER (CONCRETE)	LF	760	\$ 10.00	\$ 7,600.00
2104.501	REMOVE BITUMINOUS PAVEMENT (ROAD)	SY	1060	\$ 11.50	\$ 12,190.00
2105.504	GEOTEXTILE FABRIC (MNDOT TYPE 11, RS380i)	SY	1034	\$ 8.00	\$ 8,272.00
2106.507	EXCAVATION - COMMON	CY	758	\$ 35.00	\$ 26,530.00
2108.504	GEOGRID (MNDOT TYPE 2, BX1100, BX1200, BXG110, BXG120)	SY	839	\$ 5.50	\$ 4,614.50
2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HR	3	\$ 190.00	\$ 570.00
2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	11	\$ 10.00	\$ 110.00
2360.509	TYPE SP 9.5 WEARING COURSE MIX (SPWEA230C) 2.0" THICK	TON	28	\$ 100.00	\$ 2,800.00
2360.509	TYPE SP 9.5 WEARING COURSE MIX (SPWEA230C) 1.5" THICK	TON	21	\$ 100.00	\$ 2,100.00
2531.503	CONCRETE CURB AND GUTTER DESIGN B618	LF	760	\$ 36.50	\$ 27,740.00
2563.601	TRAFFIC CONTROL	LS	1	\$ 1,000.00	\$ 1,000.00
2573.502	STORM DRAIN INLET PROTECTION	EACH	4	\$ 200.00	\$ 800.00
2575.504	SODDING TYPE LAWN (WITH 6" TOPSOIL)	SY	320	\$ 21.00	\$ 6,720.00
2650.500	1-1/2" CLEAN ANGULAR ROCK (ASTM #2)	CY	483	\$ 102.00	\$ 49,266.00
2650.500	3/4" CLEAN ANGULAR ROCK (ASTM #57)	CY	218	\$ 108.00	\$ 23,544.00
2650.500	IMPERMEABLE GEOMEMBRANE LINER	SY	81	\$ 33.00	\$ 2,673.00
2650.500	PERMEABLE ARTICULATING CONCRETE BLOCK	SF	7550	\$ 18.00	\$ 135,900.00
<b>ESTIMATED TOTAL - RANDY AVENUE (BASE B)</b>					<b>\$ 342,429.50</b>

**ESTIMATED TOTAL (BASE A + BASE B) \$ 565,443.50**

**NOTES:**

- (1) Estimate does not include Endurablend sealing.
- (2) Assuming no temporary mail boxes needed. Will ask mail carrier if they can deliver to mail boxes by foot.

# CITY OF SHOREVIEW

## RAMSEY COUNTY

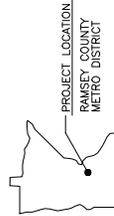
CONSTRUCTION PLANS FOR 2026 STORMWATER IMPROVEMENTS, CITY PROJECT NO. 26-10



### STANDARD SYMBOLS

- SECTION LINE
- RIGHT-OF-WAY LINE
- PROPERTY LINE
- VACATED PROPERTY LINE
- CONSTRUCTION LIMITS
- RAILROAD CENTER LINE
- RAILROAD RIGHT-OF-WAY
- TELEPHONE CABLE
- ELECTRIC CABLE
- POWER POLE
- STREET LIGHT
- EXISTING CABLE TIE
- EXISTING STREET SIGN
- PULL BOX (Elect. or Tele.)
- EXISTING SANITARY SEWER
- EXISTING SANITARY SEWER
- SANITARY CATCH BASIN
- NEW CATCH BASIN/STORM SEWER
- NEW WATER MAIN
- WATER SERVICE
- FIRE HYDRANT & ASSEMBLY
- GATE VALVE
- GATE VALVE MANHOLE
- AIR VENT
- METER PIT
- CREEK
- POND OR LAKE
- SWAMPY/LOW LAND AREA
- BRUSH AREA
- WOODED AREA
- EXISTING TREE (DECID. OR CONIF.)
- SILT FENCE
- CHAIN LINK FENCE
- WOOD FENCE
- NO SCALE
- RETAINING WALL

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL IS BASED ON THE STANDARD GUIDELINES OF O'JASCE 35-2, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".



NOTE:  
ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MNDOT, INCLUDING PERMITS, FOR THE APPROPRIATE TRAFFIC CONTROL ZONE LAYOUTS.

DATE	PLAN REVISIONS	APPROVED BY

GOVERNING SPECIFICATIONS  
THE 2025 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE 2025 CEAM STANDARD SPECIFICATIONS SHALL GOVERN

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL PROJECT MAP
3	STATEMENT OF ESTIMATED QUANTITIES & STD PLATES INDEX
4	SWPPP NOTES
5	TYPICAL SECTIONS
6-7	STANDARD DETAILS
8-9	CONSTRUCTION PLANS

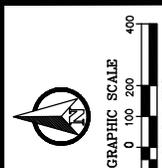
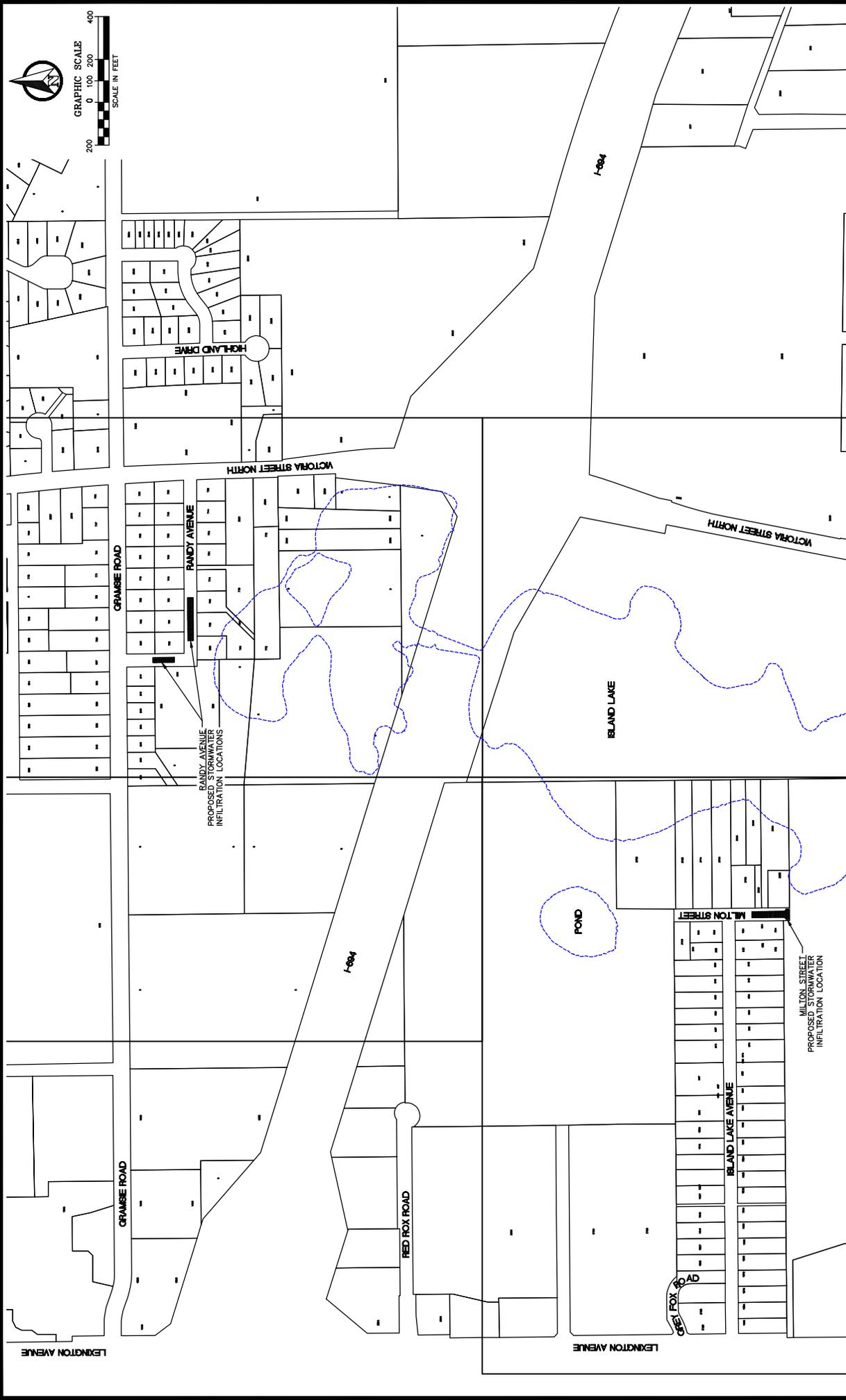
30% DRAFT PLANS  
NOT FOR CONSTRUCTION

THIS PLAN CONTAINS 9 SHEETS



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  
PRINT NAME: STEPHANIE SMITH  
SIGNATURE: \_\_\_\_\_  
DATE: FEBRUARY XX, 2026. REG NO.: 51837

CITY PROJECT NO. 26-10 SHEET NO. 1 OF 9 SHEETS



NO. DATE:	REVISIONS:	BY APP:	DATE:	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM DULY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF MICHIGAN.	DESIGNED BY: DDK	DRAWN BY: DDK	CHECKED BY: SS
<b>90% DRAFT PLANS - NOT FOR CONSTRUCTION</b> REG. NO. 51857 DATE: FEBRUARY 23, 2023				SHOREVIEW PUBLIC WORKS			
GENERAL PROJECT MAP				2026 STORMWATER IMPROVEMENTS			
CITY PROJECT NO. 26-10				SHEET NO. 2 OF 9			

RANDY AVENUE - BASE BD SCHEDULE A		
ITEM NO.	DESCRIPTION	TOTAL ESTIMATED QUANTITY
2021.501	MOBILIZATION	LUMP SUM 1
2104.503	REMOVE CURB AND GUTTER (CONCRETE)	LIN FT 430
2104.504	INSTALL PERMEABLE ROAD	CU YD 658
2104.504	GEOTEXTILE FABRIC (MINDOT TYPE U1, RS380)	CU YD 658
2106.507	EXCAVATION - COMMON	CU YD 492
2108.504	GEORID (MINDOT TYPE 2, BX1100, BX1200, BXG110, BXG120)	SQ YD 545
2123.610	STREET SWEEPER (WITH PICKUP BROOM)	3 HOUR 3
2360.508	PERMEABLE GEOMEMBRANE LINER (SPWEA2300) 2.0" THICK (ROAD)	TON 20
2360.508	TYPE SP 9.5 WEARING COURSE MIX. (SPWEA2300) 1.5" THICK (ROAD)	TON 18
2531.503	CONCRETE CURB AND GUTTER DESIGN BR18	LIN FT 430
2533.601	TRAFFIC CONTROL	LUMP SUM 1
2533.601	STREET LIGHT PROTECTION	LUMP SUM 1
2575.504	SOODING TYPE LAWN (W/ 8" TOPSOIL)	SQ YD 145
2600.500	1-1/2" CLEAN ANGULAR ROCK (AT PERMEABLE BLOCK SECTION)	CU YD 363
2600.500	3/4" CLEAN ANGULAR ROCK (AT PERMEABLE BLOCK SECTION)	CU YD 91
2600.500	IMPERMEABLE GEOMEMBRANE LINER	SQ YD 134
2600.500	PERMEABLE ARTICULATING CONCRETE BLOCKS	SQ FT 4900

MILTON STREET - BASE BD SCHEDULE B		
ITEM NO.	DESCRIPTION	TOTAL ESTIMATED QUANTITY
2021.501	MOBILIZATION	LUMP SUM 1
2104.503	REMOVE CURB AND GUTTER (CONCRETE)	LIN FT 760
2104.504	INSTALL PERMEABLE ROAD	CU YD 1034
2104.504	GEOTEXTILE FABRIC (MINDOT TYPE U1, RS380)	SQ YD 1034
2106.507	EXCAVATION - COMMON	CU YD 758
2108.504	GEORID (MINDOT TYPE 2, BX1100, BX1200, BXG110, BXG120)	SQ YD 839
2123.610	STREET SWEEPER (WITH PICKUP BROOM)	3 HOUR 3
2360.508	PERMEABLE GEOMEMBRANE LINER (SPWEA2300) 2.0" THICK (ROAD)	TON 28
2360.508	TYPE SP 9.5 WEARING COURSE MIX. (SPWEA2300) 1.5" THICK (ROAD)	TON 21
2531.503	CONCRETE CURB AND GUTTER DESIGN BR18	LIN FT 760
2533.601	TRAFFIC CONTROL	LUMP SUM 1
2533.601	STREET LIGHT PROTECTION	LUMP SUM 1
2575.504	SOODING TYPE LAWN (W/ 8" TOPSOIL)	SQ YD 320
2600.500	1-1/2" CLEAN ANGULAR ROCK (AT PERMEABLE BLOCK SECTION)	CU YD 483
2600.500	3/4" CLEAN ANGULAR ROCK (AT PERMEABLE BLOCK SECTION)	CU YD 218
2600.500	IMPERMEABLE GEOMEMBRANE LINER	SQ YD 81
2600.500	PERMEABLE ARTICULATING CONCRETE BLOCKS	SQ FT 7350

STATEMENT OF ESTIMATED QUANTITIES AND STANDARD PLATES INDEX



DESIGNED BY: DKY  
 DRAWN BY: DAY  
 CHECKED BY: SS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM FULLY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF MICHIGAN.  
 REG. NO. 51837 DATE: FEBRUARY 23, 2028

REVISIONS  
 00% DRAFT PLANS  
 NO FOR CONSTRUCTION

2026 STORMWATER IMPROVEMENTS  
 CITY PROJECT NO. 26-10 SHEET NO. 3 OF 9

**SWPPP OVERVIEW**  
 THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO ADDRESS THE REQUIREMENTS OF THE MINNESOTA NPDES/SOS CONSTRUCTION STORMWATER GENERAL PERMIT (MN R100001, PART III, SUBPART A).

**GENERAL PROJECT INFORMATION**  
 PROJECT NAME: 2026 STORMWATER IMPROVEMENTS, CP 26-10  
 LOCATION: SHOREVIEW, MN  
 PROJECT START DATE: TBD  
 PROJECT END DATE: TBD

THIS PROJECT WILL CONSIST OF INSTALLING ROAD PAVEMENT BLOCKS FOR STORMWATER INFILTRATION.

TOTAL PROJECT AREA: XXXX ACRES  
 TOTAL AREA DISTURBED BY CONSTRUCTION: XXXX ACRES  
 TOTAL PROPOSED IMPERVIOUS AREA: XXXX ACRES  
 TOTAL IMPERVIOUS AREA ADDED: XXXX ACRES

**PROJECT CONTACT INFORMATION**  
 OWNER: CITY OF SHOREVIEW  
 CITY ENGINEER: STEPHANIE SMITH  
 PHONE: 651-490-4651  
 EMAIL: TMSOLOWSKI@SHOREVIEWMN.GOV

STAFF ENGINEER: DAVID YANG  
 CITY OF SHOREVIEW  
 PHONE: 651-490-4684  
 EMAIL: 651-206-8287 (CELL)  
 DYANG@SHOREVIEWMN.GOV

PROJECT INSPECTOR: KETH RANK  
 CITY OF SHOREVIEW  
 PHONE: 651-490-4606  
 EMAIL: 651-206-8286 (CELL)  
 KRANK@SHOREVIEWMN.GOV

**IMPAIRED AND/OR SPECIAL WATERS**  
 IMPAIRED RECEIVING WATER: N.A.  
 IMPAIRED WATER: N.A.  
 TMDL: N.A.  
 REQUIRED INDU. ACTION: N.A.  
 SPECIAL RECEIVING WATER: N.A.  
 NPDES CLASSIFICATION: N.A.

REQUIRED ADDITIONAL BMP'S: N.A.  
 THIS PROJECT IS NOT LOCATED IN A KARST AREA, AND DOES NOT DISCHARGE TO A CALCAREOUS SEEPAGE FEN.  
 TRAINING REQUIREMENTS

PREPARED/DESIGNED BY SWPPP: DAVID YANG  
 AGENCY: CITY OF SHOREVIEW  
 SWPPP CERTIFICATION DATE: FEBRUARY 13, 2024

THE CONTRACTOR (OPERATOR) SHALL PROVIDE AT LEAST ONE TRAINED AND EXPERIENCED EROSION CONTROL SUPERVISOR TO WORK WITH THE PROJECT ENGINEER TO OVERSEE THE IMPLEMENTATION OF THE SWPPP AND TO DURING CONSTRUCTION.

AMENDMENTS TO THE SWPPP  
 THE SWPPP WILL BE AMENDED AS NEEDED AND/OR REQUIRED BY BOTH THE PROVISIONS OF THE PERMIT. AMENDMENTS WILL BE APPROVED BY BOTH THE OWNER AND THE CONTRACTOR (OPERATOR) AND WILL BE ATTACHED TO THE SWPPP AS AN ADDITIONAL SHEET. THE SWPPP AND AMENDMENTS WILL BE KEPT ON SITE BY THE CONTRACTOR WHENEVER CONSTRUCTION ACTIVITY IS IN PROGRESS.

**SITE INSPECTION AND MAINTENANCE**  
 ALL INSPECTIONS, MAINTENANCE, REPAIRS, REPLACEMENTS, AND REMOVAL ARE INCIDENTAL TO THE BMP BID ITEMS.  
 THE CONTRACTOR (OPERATOR) IS RESPONSIBLE FOR COMPLETING REQUIRED INSPECTIONS, MAINTENANCE, AND OBSERVATIONS OF WEATHER CONDITIONS AND RAINFALL AMOUNTS TO ENSURE COMPLIANCE WITH THE PERMIT REQUIREMENTS.

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTES**

- 1) THE CONTRACTOR (OPERATOR) SHALL DEVELOP A CHAIN OF RESPONSIBILITY WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE. THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND A NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE MPCA.
- 2) THE CONTRACTOR (OPERATOR) SHALL OBSERVE THE CONSTRUCTION SITE ONCE PER WEEK. OBSERVATIONS SHOULD BE CONDUCTED FOR 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.
- 3) THE CONTRACTOR (OPERATOR) SHALL RETAIN A WRITTEN RECORD OF ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION IN ACCORDANCE WITH PART III OF THE NPDES/SOS PERMIT.
- 4) THE CONTRACTOR (OPERATOR) SHALL KEEP THE SWPPP, ALL INSPECTION REPORTS, AND AMENDMENTS ON-SITE.
- 5) THE CONTRACTOR (OPERATOR) SHALL PREPARE AND SUBMIT A SITE PLAN FOR THE PROJECT ENGINEER'S APPROVAL AS PER MNDOT SPEC 1717.2E FOR PIPE JACKINGS, DEWATERING, AND AREAS SHOWN IN THE PLANS AS SPECIFIED BY THE PROJECT ENGINEER.
- 6) THE CONTRACTOR (OPERATOR) SHALL PREPARE AND SUBMIT A WRITTEN NOTIFICATION TO THE MPCA FOR ANY CONSTRUCTION ACTIVITY NOT ON THE MPCA'S SOILS LIST. APPROVAL AS PER MNDOT SPEC 1803.50.
- 7) ALL EROSION PREVENTION AND SEDIMENTATION CONTROL BMP'S MUST BE INSPECTED TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NON-FUNCTIONAL BMP'S MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMP'S. THE CONTRACTOR (OPERATOR) MUST INVESTIGATE AND COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:
  - 1) ALL SEDIMENT BARRIERS, INCLUDING SILT FENCE MUST BE REPAIRED, REPLACED OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/3 OF THE FENCE HEIGHT. THESE REPAIRS SHALL BE MADE WITHIN 72 HOURS OF DISCOVERY.
  - 2) TEMPORARY AND PERMANENT SEDIMENT BASINS MUST BE DRAINED AND SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL SHALL BE COMPLETED WITHIN 72 HOURS OF DISCOVERY.
  - 3) SURFACE WATERS, DRAINAGE DITCHES, AND CONVEYANCE SYSTEMS MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. THE OPERATOR SHALL REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE STRUCTURES. THE OPERATOR SHALL REPAIR AND MAINTAIN ALL OTHER DRAINAGE STRUCTURES. EXPOSED SOIL REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN 7 DAYS OF DISCOVERY, UNLESS PRECLUDED BY LEGAL REGULATORY OR PHYSICAL CONSTRAINTS. THE CONTRACTOR (OPERATOR) IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS PRIOR TO CONDUCTING ANY WORK.
- 8) CONSTRUCTION SITE VEHICLE EXIT LOCATIONS SHALL BE INSPECTED DAILY FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ON ALL PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY.
- 9) FOR THE DURATION OF THE CONSTRUCTION WORK AT THE SITE, THE CONTRACTOR (OPERATOR) SHALL MAINTAIN AND PERMANENT WATER QUALITY BMP'S, AS WELL AS EROSION AND SEDIMENT CONTROL BMP'S.
- 10) OFF-SITE ACCUMULATION OF SEDIMENT FROM THE CONSTRUCTION SITE MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.
- 11) ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITIES IS REACHING THE INFILTRATION AREAS. INFILTRATION AREAS MUST BE PROTECTED FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT DRIVING ACROSS THE INFILTRATION AREA.

**POLLUTION PREVENTION MANAGEMENT MEASURES**  
 THE CONTRACTOR (OPERATOR) SHALL BE RESPONSIBLE FOR ALL POLLUTION PREVENTION MANAGEMENT MEASURES, AND FOR INFORMING ALL VISITORS AND/OR PERSONNEL ON-SITE OF THE POLLUTION PREVENTION MANAGEMENT MEASURES. THE CONTRACTOR (OPERATOR) SHALL BE RESPONSIBLE TO BE CONSIDERED INCIDENTAL TO THE MOBILIZATION BID ITEM UNLESS OTHERWISE NOTED. POLLUTION PREVENTION MANAGEMENT MEASURES INCLUDES BUT ARE NOT LIMITED TO THE FOLLOWING:

- 1) THE CONTRACTOR (OPERATOR) SHALL DEVELOP A CHAIN OF RESPONSIBILITY WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE. THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND A NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE MPCA.
- 2) THE CONTRACTOR (OPERATOR) SHALL OBSERVE THE CONSTRUCTION SITE ONCE PER WEEK. OBSERVATIONS SHOULD BE CONDUCTED FOR 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.
- 3) THE CONTRACTOR (OPERATOR) SHALL RETAIN A WRITTEN RECORD OF ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION IN ACCORDANCE WITH PART III OF THE NPDES/SOS PERMIT.
- 4) THE CONTRACTOR (OPERATOR) SHALL KEEP THE SWPPP, ALL INSPECTION REPORTS, AND AMENDMENTS ON-SITE.
- 5) THE CONTRACTOR (OPERATOR) SHALL PREPARE AND SUBMIT A SITE PLAN FOR THE PROJECT ENGINEER'S APPROVAL AS PER MNDOT SPEC 1717.2E FOR PIPE JACKINGS, DEWATERING, AND AREAS SHOWN IN THE PLANS AS SPECIFIED BY THE PROJECT ENGINEER.
- 6) THE CONTRACTOR (OPERATOR) SHALL PREPARE AND SUBMIT A WRITTEN NOTIFICATION TO THE MPCA FOR ANY CONSTRUCTION ACTIVITY NOT ON THE MPCA'S SOILS LIST. APPROVAL AS PER MNDOT SPEC 1803.50.
- 7) ALL EROSION PREVENTION AND SEDIMENTATION CONTROL BMP'S MUST BE INSPECTED TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NON-FUNCTIONAL BMP'S MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMP'S. THE CONTRACTOR (OPERATOR) MUST INVESTIGATE AND COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:
  - 1) ANY FUEL OR CHEMICAL TANK STORED ON THE PROJECT AREA SHALL BE PROTECTED BY A SOIL BERM OR HAVE A NEGATIVE GRADIENT TO ANY WATER RESOURCE AREA, AS PER CORP OF ENGINEERS PERMIT 404, A CONTINGENCY PLAN MUST BE CREATED BY THE CONTRACTOR IN THE EVENT OF A SPILL OR LEAK OF ANY CHEMICAL, INCLUDING PETROCHEMICALS, DENSED HARMFUL TO THE ENVIRONMENT. ALL CHEMICALS MUST BE STORED IN ENCLOSED TANKS OR BUILT ON-SITE EQUIPMENT SHALL INCLUDE, BUT NOT LIMITED TO, BROOMS, MOPS, DUST PANS, RAAGS, GLOVES, GOGGLES, ABSORBENT (KITTY LITTER), OIL ABSORBENT BOOMS AND DIAPERS, AND BUCKETS.
  - 10) ALL SPILLS SHALL BE CONTAINED AND CLEANED UP IMMEDIATELY UPON DISCOVERY. SPILLS MUST BE REPORTED TO THE MINNESOTA DUTY OFFICER AT 1-800-422-0798.
  - 11) EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES AND ENGINE DEGREASING ARE PROHIBITED ON CONSTRUCTION SITE.
- 8) THE CONTRACTOR (OPERATOR) SHALL PROVIDE FOR TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMP'S AS SHOWN IN THE PLANS AND THE SWPPP. THE SWPPP SHALL BE KEPT ON-SITE AND ALL BMP'S SHALL BE MAINTAINED AND REPAIRED AS NEEDED. THE SWPPP MAY BE MODIFIED AS APPROPRIATE FOR CONSTRUCTION STAGING AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER. THE CONTRACTOR SHALL REMAIN IN COMPLIANCE WITH ALL NPDES AND OTHER PERMIT REQUIREMENTS AT ALL TIMES. EROSION PREVENTION MEASURES INCLUDES BUT ARE NOT LIMITED TO THE FOLLOWING:
  - 1) ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY, OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND CONSTRUCTION MATERIALS ARE ALLOWED TO REMAIN ON-SITE UNTIL THEY MUST COMPLY WITH PART IV.C.5.
  - 2) THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH THAT DRAINS WATER FROM A CONSTRUCTION SITE, OR DIVERTS WATER AROUND A SITE, SHALL BE STABILIZED WITHIN 72 HOURS OF CONSTRUCTION. THE PERIMETER OF DISCHARGE TO ANY SURFACE WATER STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER. THESE AREAS MUST BE KEPT STABILIZED AT ALL TIMES.
  - 3) ALL PIPE OUTLETS SHALL BE PROVIDED WITH TEMPORARY OR PERMANENT DRAINAGE DITCHES WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.
- 9) THE CONTRACTOR (OPERATOR) SHALL PROVIDE FOR TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMP'S AS SHOWN IN THE PLANS AND THE SWPPP. THE SWPPP SHALL BE KEPT ON-SITE AND ALL BMP'S SHALL BE MAINTAINED AND REPAIRED AS NEEDED. THE SWPPP MAY BE MODIFIED AS APPROPRIATE FOR CONSTRUCTION STAGING AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER. THE CONTRACTOR SHALL REMAIN IN COMPLIANCE WITH ALL NPDES AND OTHER PERMIT REQUIREMENTS AT ALL TIMES. EROSION PREVENTION MEASURES INCLUDES BUT ARE NOT LIMITED TO THE FOLLOWING:
  - 1) ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION BUT IN NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY, OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND CONSTRUCTION MATERIALS ARE ALLOWED TO REMAIN ON-SITE UNTIL THEY MUST COMPLY WITH PART IV.C.5.
  - 2) THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH THAT DRAINS WATER FROM A CONSTRUCTION SITE, OR DIVERTS WATER AROUND A SITE, SHALL BE STABILIZED WITHIN 72 HOURS OF CONSTRUCTION. THE PERIMETER OF DISCHARGE TO ANY SURFACE WATER STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER. THESE AREAS MUST BE KEPT STABILIZED AT ALL TIMES.
  - 3) ALL PIPE OUTLETS SHALL BE PROVIDED WITH TEMPORARY OR PERMANENT DRAINAGE DITCHES WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

4) ALL SLOPES NEAR ENVIRONMENTALLY SENSITIVE AREAS NEED TO BE IMMEDIATELY STABILIZED AS SHOWN IN THE PLANS OR DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER.

5) ALL SLOPES SHALL BE KEPT IN A SMOOTH, SHAPED CONDITION AT ALL TIMES TO LIMIT WIND AND WATER EROSION.

**SEDIMENT CONTROL MEASURES**

THE CONTRACTOR (OPERATOR) SHALL BE RESPONSIBLE FOR ALL SEDIMENT CONTROL MEASURES FOR THE PROJECT. SEDIMENT CONTROL MEASURES INCLUDES BUT ARE NOT LIMITED TO THE FOLLOWING:

- 1) SEDIMENT CONTROL DEVICES SHALL BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE DEVICES SHALL REMAIN IN PLACE UNTIL STABILIZATION HAS BEEN ESTABLISHED IN ACCORDANCE WITH PART IV.G OF THE NPDES PERMIT. THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL DEVICES MAY BE ADJUSTED TO ACCOMMODATE THE PROJECT SCHEDULE. ANY EROSION CONTROL DEVICES OR PASSAGE OF MATERIALS INTO ANY EXISTING OR NEW WATERWAY OR CHANNEL MUST BE STOPPED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL DEVICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL DEVICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.
- 2) ON SLOPES GREATER THAN 3:1 OR STEEP GRADES, THERE SHALL BE NO UNBROKEN SLOPE LENGTH GREATER THAN 75 FEET.
- 3) STOCKPILES SHALL BE PROVIDED WITH AN EFFECTIVE SEDIMENT PERIMETER CONTROL AND SHALL NOT BE PLACED IN ANY TYPE OF SURFACE WATER.
- 4) IF SEDIMENTS DEPOSIT IN WATERS OF THE STATE OR PRIVATE PROPERTY, THE MATERIAL MUST BE REMOVED COMPLETELY WITHIN SEVEN (7) DAYS IN ACCORDANCE WITH PART IV.E.5.C OF THE NPDES PERMIT.
- 5) ALL STORM DRAIN AND CULVERT INLETS SHALL BE PROTECTED BY APPROPRIATE BMP DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAS BEEN STABILIZED.
- 6) THE CONTRACTOR SHALL USE WATER AND CALCIUM CHLORIDE ON ROADWAY GRADED AREAS AND RAPID STABILIZATION METHOD 3 ON SLOPES FOR DUST CONTROL AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER.

**DEWATERING AND BASIN DRAINING MEASURES**

THE CONTRACTOR (OPERATOR) SHALL BE RESPONSIBLE FOR DEWATERING AND SURFACE DRAINAGE REGULATIONS FOR THE PROJECT, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- 1) DEWATERING AND CONCRETE TRUCK WASHING RELATED TO THE CONSTRUCTION ACTIVITY THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON-SITE WHEN POSSIBLE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN WITHIN 24 HOURS OF CONSTRUCTION, THE CONTRACTOR SHALL DISCHARGE WITH THE APPROPRIATE BMP'S, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER DOWNSTREAM.
- 2) ALL DISCHARGE POINTS SHALL BE PROTECTED FROM EROSION AND SCOUR. DISCHARGES SHALL BE DISPERSED OVER NATURAL ROCK RIPRAP, SAND BAGS, PLASTIC SHEETING OR OTHER ENERGY DISSIPATING MEASURES AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER. THE CONTRACTOR SHALL REMAIN IN COMPLIANCE WITH ALL NPDES AND OTHER PERMIT REQUIREMENTS AT ALL TIMES. EROSION PREVENTION MEASURES INCLUDES BUT ARE NOT LIMITED TO THE FOLLOWING:
  - 1) A WATER APPROPRIATION PERMIT WILL BE REQUIRED FROM MN DNR FOR CONSTRUCTION DEWATERING EXCEEDING 10,000 GAL/DAY.

**FINAL STABILIZATION**

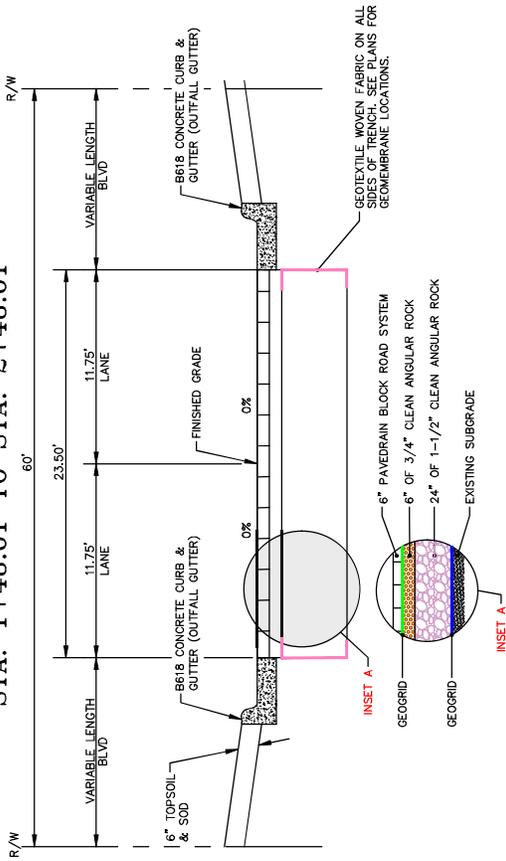
THE CONTRACTOR (OPERATOR) SHALL BE RESPONSIBLE FOR ENSURING FINAL STABILIZATION ON THE PROJECT SITE IN ACCORDANCE WITH PART IV.G OF THE NPDES PERMIT. FINAL STABILIZATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

- 1) VEGETATION SHALL BE MAINTAINED AT 70% OR GREATER COVERAGE AND MULCH SHALL BE MAINTAINED AT 90% OR GREATER COVERAGE BEFORE A NOTICE OF TERMINATION CAN BE SUBMITTED TO MPCA.
- 2) ALL TEMPORARY BMP'S HAVE BEEN REMOVED AND PROPERLY REPAIRED OR REPLACED. ALL DITCHES, CONDUITS AND OTHER WATER CONVEYANCE SYSTEMS HAVE BEEN CLEARED OF SEDIMENT.

RANDY AVENUE

PAVER BLOCKS SECTION 01

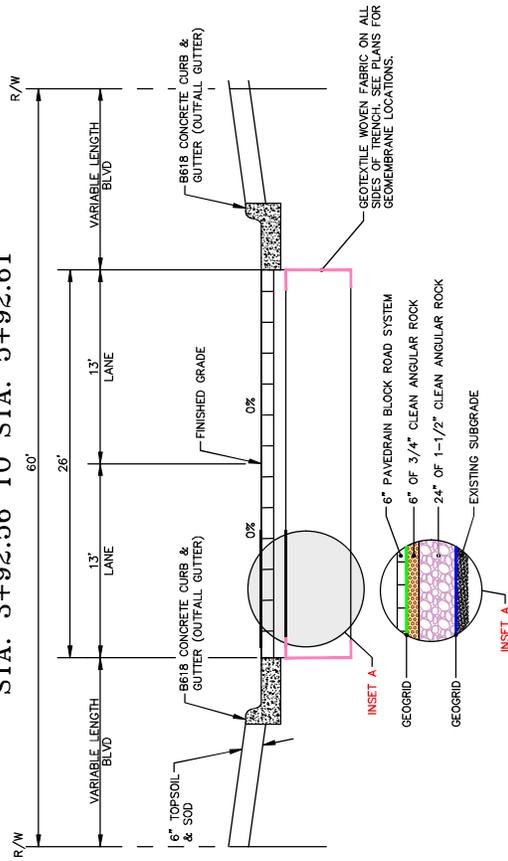
STA. 1+48.61 TO STA. 2+48.61



RANDY AVENUE

PAVER BLOCKS SECTION 02

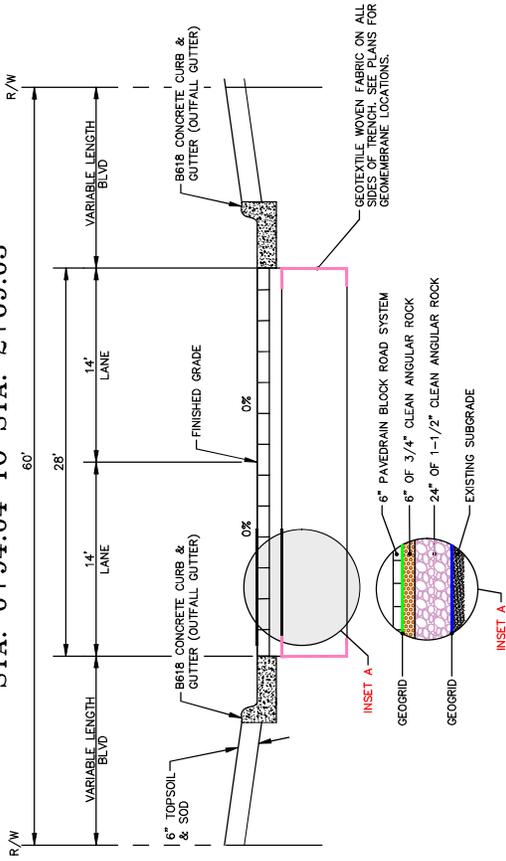
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MILTON STREET

PAVER BLOCKS SECTION

STA. 0+94.04 TO STA. 2+69.03



NO.	DATE:	REVISIONS
<b>90% DRAFT PLANS</b>		
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM FULLY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.		
DESIGNED BY:	DKY	
DRAWN BY:	DKY	
CHECKED BY:	SS	
DATE:	FEBRUARY 20, 2025	

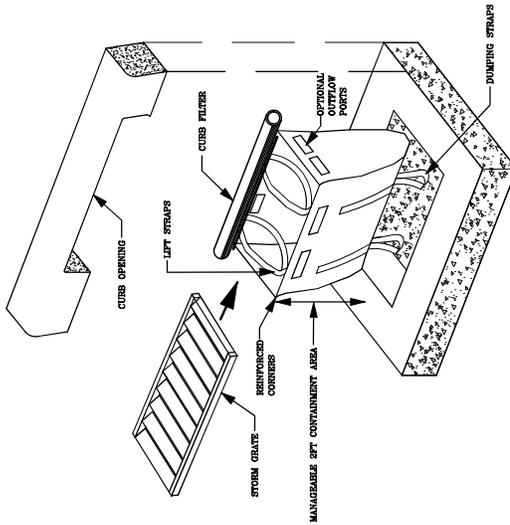


TYPICAL SECTIONS

2026 STORMWATER IMPROVEMENTS  
CITY PROJECT NO. 26-10  
SHEET NO. 5 OF 9

**STORM SEWER STRUCTURE INLET PROTECTION**

**NOTES:** 1. ALL EXISTING AND NEWLY INSTALLED STORM SEWER STRUCTURES SHALL HAVE A DANDY CUBB SACK INSTALLED (OR APPROVED EQUAL) FOR EROSION CONTROL PROTECTION.



**TYPICAL STORM SEWER INLET PROTECTION INSTALLATION**

STANDARD PLATE NO. STG-6 REVISED JANUARY 2020



NO. DATE: \_\_\_\_\_  
 REVISIONS: \_\_\_\_\_  
 BY APP: \_\_\_\_\_  
 DIRECT SUPERVISION AND THAT I AM FULLY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF MISSISSIPPI.  
 100% DRAFT PLANS  
 DATE: FEBRUARY 2020

DESIGNED BY: DDK  
 DRAWN BY: DDK  
 CHECKED BY: SS



STANDARD DETAILS

CITY PROJECT NO. 26-10

2026 STORMWATER IMPROVEMENTS  
 SHEET NO. 6 OF 9

**INF1-SHIELD EXTERNAL GATOR WRAP I&I BARRIER**

- EXTERNAL GATOR WRAP STYLE I&I BARRIER SHALL BE INSTALLED ON EXISTING PRECAST CONCRETE STORM SEWER STRUCTURES SEE DETAIL R-3246 FOR INSTALLATION AND OVERLAPPING INSTRUCTIONS.
- ALL STRUCTURES, RINGS AND CASTINGS WHERE RINGS ARE INSTALLED SHALL BE OVERLAPPED A MINIMUM OF 2 INCHES ON TRAPS AND 4 INCHES OVER THE OUTSIDE WALL OF THE STORM SEWER STRUCTURE.
- CASTINGS SHALL BE OVERLAPPED AND SET ON A FULL RING OF MORTAR, NO DRY SETTING OF RINGS OR CASTING IS ALLOWED.
- ALL EXTERNAL I&I BARRIER WRAPS INSTALLED SHALL BE INSPECTED BEFORE CONCRETE COLLAR IS INSTALLED.

INF1-SHIELD GATOR WRAP MATERIAL (OR APPROVED EQUAL) EXTERNAL I&I BARRIER SHALL BE INSTALLED AS SHOWN ON THIS DETAIL. THE BARRIER SHALL BE INSTALLED ON CAST BASK MANHOLES.

CASTING FRAMES SHALL BE NEMA#1 TYPE R-3246 WITH GRATE TYPE C OR V, AND R-3245 IF ROUND CASTING FRAME & STRUCTURE.

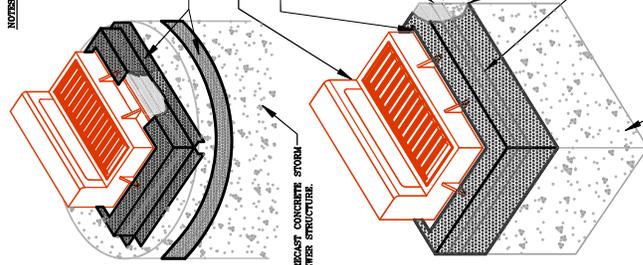
CASTING SHALL BE SET ON RAM-BLOCK (OR APPROVED EQUAL) AND SET ON A FULL RING OF MORTAR. ALL RINGS AND OUTSIDE ONLY PLASTIC SHEETS SHALL BE ACCEPTABLE. WOOD AND BLOCK SHEETS ARE NOT ACCEPTABLE.

PRECAST CONCRETE ADJUSTMENT RINGS SHALL BE SET WITH A FULL RING OF MORTAR BETWEEN EACH RING AND WEDGED TOGETHER TO PREVENT MOVEMENT. THE MAXIMUM OF 6" RINGS ARE ALLOWED. CONTRACTOR SHALL POUR A CONCRETE COLLAR AND GATOR WRAP -12 WESH POLYURETHANE (EP) ADJUSTING RING TO PROTECT THE CASTING FROM DRY SETTING OF THE CASTING AND RINGS AND DAMAGED ADJUSTING RINGS ARE NOT ACCEPTABLE.

EXTERNAL I&I BARRIER SHALL BE INSTALLED WITH A MINIMUM OF 4" OF BARRIER OVERLAPPING OUTSIDE EDGE OF THE STORM SEWER STRUCTURE.

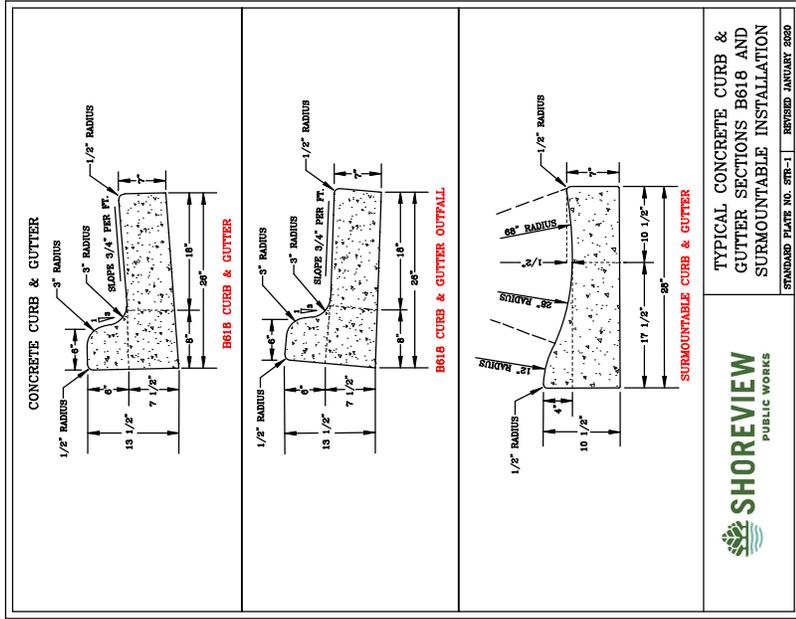
INF1-SHIELD GATOR WRAP MATERIAL SHALL BE INSTALLED AS SHOWN ON THIS DETAIL. THE BARRIER SHALL BE INSTALLED ON CAST BASK MANHOLES.

PRECAST CONCRETE STORM SEWER STRUCTURE.



**TYPICAL INF1-SHIELD EXTERNAL GATOR WRAP I&I BARRIER INSTALLATION**

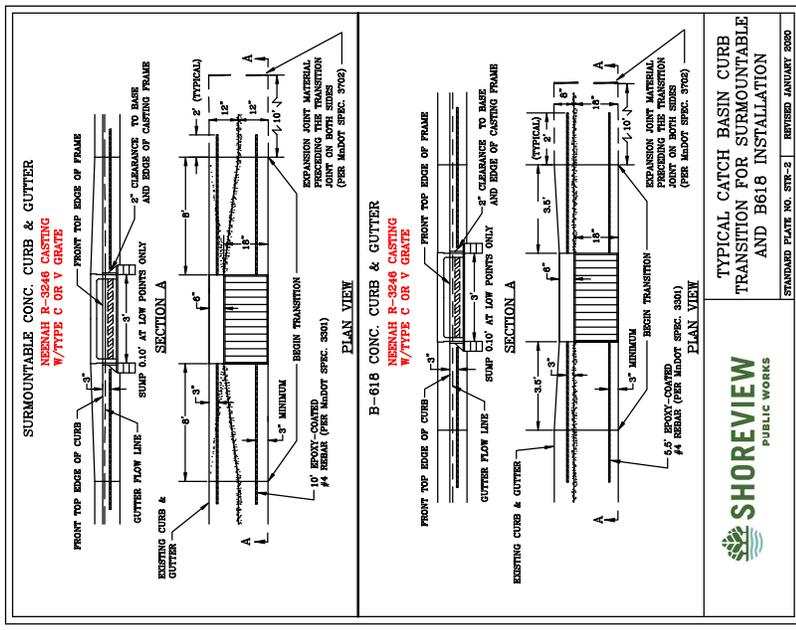
STANDARD PLATE NO. STG-7 REVISED MARCH 2023



**SHOREVIEW PUBLIC WORKS**

TYPICAL CONCRETE CURB & GUTTER SECTIONS B618 AND SURMOUNTABLE INSTALLATION

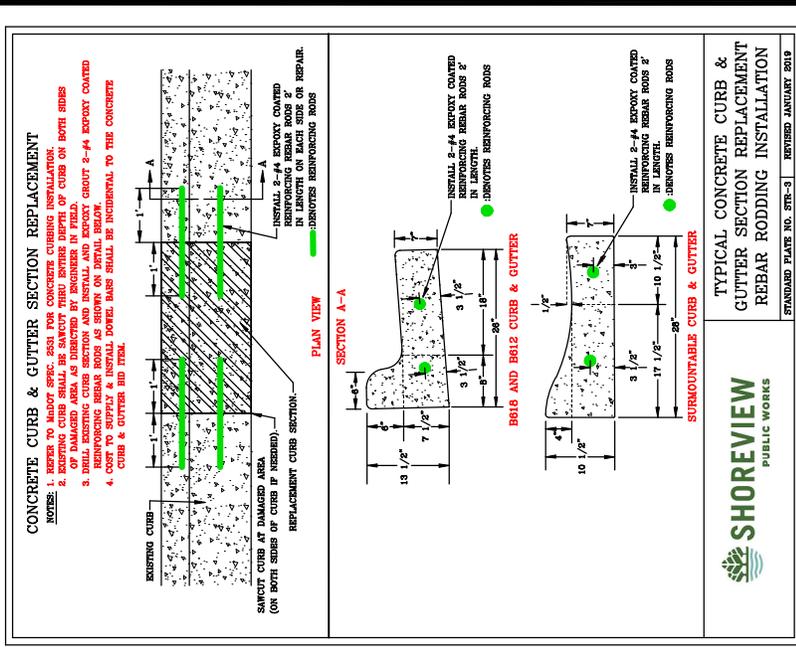
STANDARD PLATE NO. STR-1 | REVISED JANUARY 2020



**SHOREVIEW PUBLIC WORKS**

TYPICAL CATCH BASIN CURB TRANSITION FOR SURMOUNTABLE AND B618 INSTALLATION

STANDARD PLATE NO. STR-2 | REVISED JANUARY 2020



**SHOREVIEW PUBLIC WORKS**

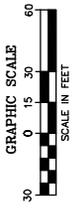
TYPICAL CONCRETE CURB & GUTTER SECTION REPLACEMENT REBAR RODDING INSTALLATION

STANDARD PLATE NO. STR-3 | REVISED JANUARY 2019

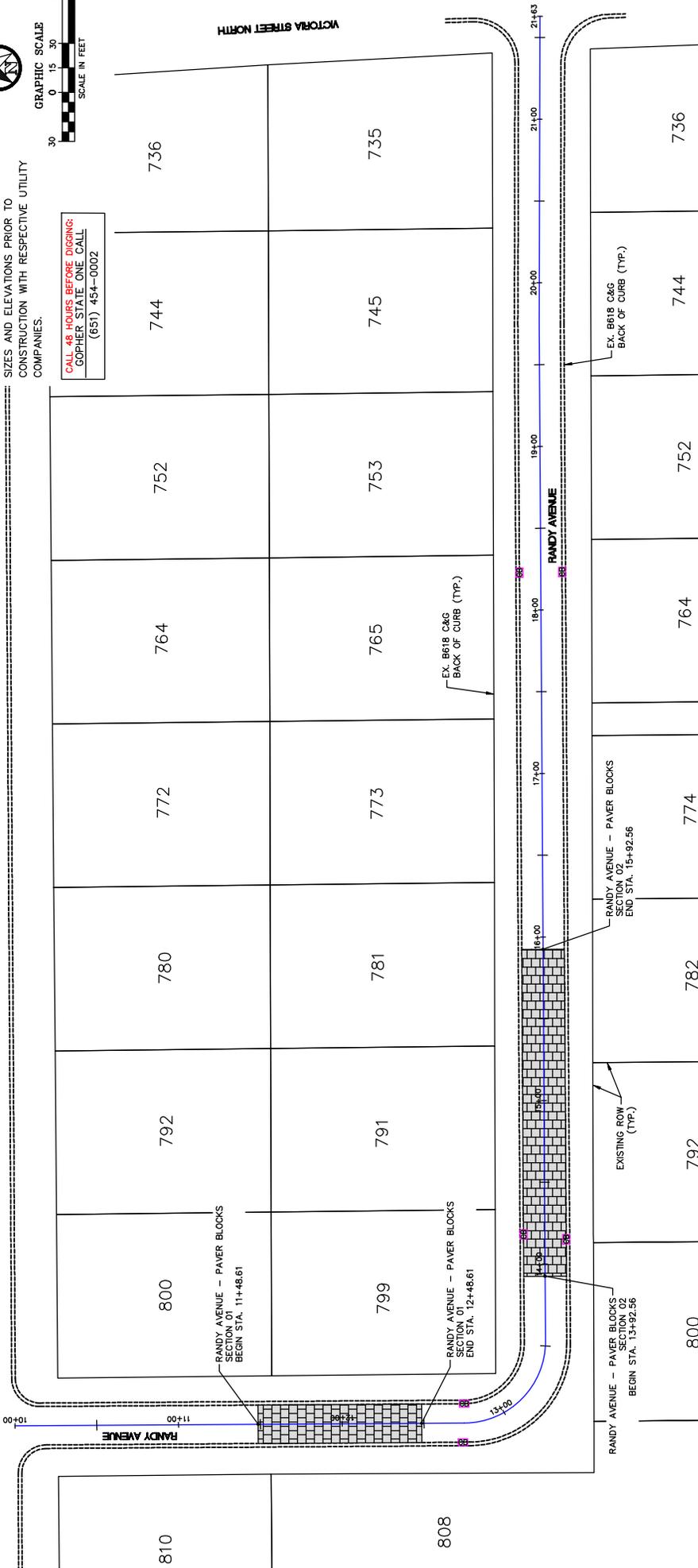
NO.	DATE:	REVISIONS:	BY:	APP.:	DESIGNED BY:	CHKD. BY:	DRWN BY:	CHKD. BY:	
00%	DRAFT PLANS	NO FOR CONSTRUCTION	STEPHANE SMITH	STEPHANE SMITH	DKY	DKY	DKY	SS	
NO. DATE:		I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM FULLY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OHIO.		DATE:		FEBRUARY 2020		REC. NO. 51837	
STANDARD DETAILS					2026 STORMWATER IMPROVEMENTS				
CITY PROJECT NO. 26-10					SHEET NO. 7 OF 9				

CONSTRUCTION PRIORITY :  
 CONTRACTOR SHALL VERIFY AND LOCATE  
 ALL UNDERGROUND UTILITY LOCATIONS,  
 SIZES AND ELEVATIONS PRIOR TO  
 CONSTRUCTION WITH RESPECTIVE UTILITY  
 COMPANIES.

CALL 48 HOURS BEFORE DIGGING:  
 GOPHER STATE ONE CALL  
 (851) 454-0002



ORANGE ROAD



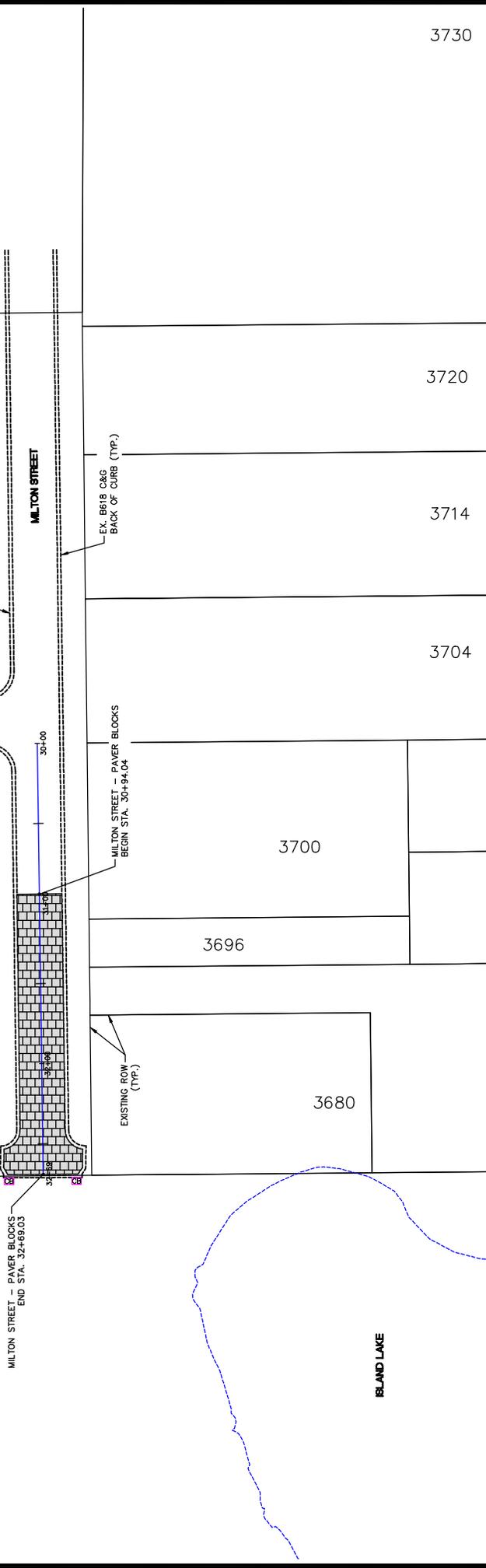
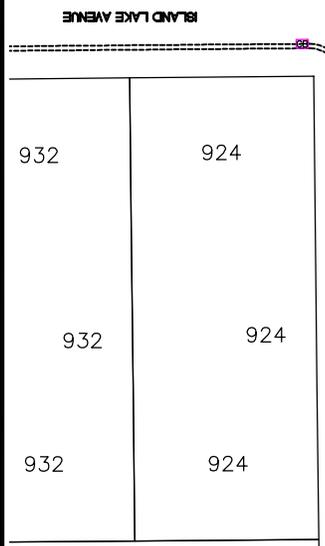
- GENERAL CONSTRUCTION NOTES:**
- 1) CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND PROTECT THEM.
  - 2) ACTUAL LIMITS OF REMOVALS FOR PAVEMENT AND C&G SHALL BE DETERMINED IN THE FIELD BY THE CITY'S ENGINEER.
  - 3) BOULEVARD RESTORATION SHALL INCLUDE A MINIMUM OF 6" TOPSOIL AND SOD.
  - 4) EXISTING PAVEMENT SHALL BE REPAIRED TO ORIGINAL CONDITION. ALL IRREGULAR AND FENCE COMPONENTS DAMAGED FROM ALL CURB REPLACEMENT WORK AT NO ADDITIONAL COMPENSATION FROM THE CITY.
  - 5) BITUMINOUS EDGES SHALL BE MILLED OR SAW CUT AT MATCH POINT. ALL COST FOR THIS WORK SHALL BE INCIDENTAL TO THE PROJECT.
  - 6) CONTROL OF TRAFFIC SHALL BE MAINTAINED THROUGHOUT THE TEMPORARY TRAFFIC CONTROL PERIOD IN ACCORDANCE WITH THE CURRENT MM MUTCD, AND ADJUST AS NECESSARY FOR ACTUAL FIELD CONDITIONS.
- LEGEND**
- CB EXISTING SANITARY MAINHOLE
  - S EXISTING STORM SEWER MAINHOLE
  - ⊗ EXISTING GATE VALVE
  - EXISTING CURB & GUTTER
  - EXISTING BITUMINOUS CURB
  - EXISTING BITUMINOUS TRAIL
  - EXISTING CONCRETE SIDEWALK
  - EXISTING CREEK
  - PROPOSED CONCRETE PAVER BLOCKS

REVISIONS NO. DATE: _____ BY: APP _____ DIRECT SUPERVISION AND THAT I AM FULLY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF MISSISSIPPI. SIGNED: STEPHANIE SMITH REG. NO. 51837 DATE: FEBRUARY 23, 2028		DESIGNED BY: _____ DDK DRAWN BY: _____ DDK CHECKED BY: _____ SS	
<b>90% DRAFT PLANS</b> <b>NO FOR CONSTRUCTION</b>		<b>SHOREVIEW PUBLIC WORKS</b>	
<b>RANDY AVENUE CONSTRUCTION PLAN</b>		<b>2026 STORMWATER IMPROVEMENTS</b>	
CITY PROJECT NO. 26-10		SHEET NO. 8 OF 9	



CONSTRUCTION PRIORITY :  
 CONTRACTOR SHALL VERIFY AND LOCATE  
 ALL UNDERGROUND UTILITY LOCATIONS,  
 SIZES AND ELEVATIONS PRIOR TO  
 CONSTRUCTION WITH RESPECTIVE UTILITY  
 COMPANIES.

CALL 48 HOURS BEFORE DIGGING:  
 GOPHER STATE ONE CALL  
 (851) 454-0002



- GENERAL CONSTRUCTION NOTES:**
- 1) CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND PROTECT THEM.
  - 2) ACTUAL LIMITS OF REMOVALS FOR PAVEMENT AND C&G SHALL BE DETERMINED IN THE FIELD BY THE CITY'S ENGINEER.
  - 3) BOULEVARD RESTORATION SHALL INCLUDE A MINIMUM OF 6" TOPSOIL AND SOD.
  - 4) CURB AND GUTTER SHALL BE REPLACED WITH 6" CONCRETE. ALL EXISTING CURB AND GUTTER SHALL BE COMPENSATED FOR DAMAGE TO THE CURB AND GUTTER. WORK AT NO ADDITIONAL COMPENSATION FROM THE CITY.
  - 5) BITUMINOUS EDGES SHALL BE MILLED OR SAW CUT AT MATCH POINT. ALL COST FOR THIS WORK SHALL BE INCIDENTAL TO THE PROJECT.
  - 6) CONTROL OF TRAFFIC SHALL BE MAINTAINED THROUGHOUT THE PROJECT. CONTROL TO BE IN ACCORDANCE WITH THE CURRENT MN MUTCD, AND ADJUST AS NECESSARY FOR ACTUAL FIELD CONDITIONS.

- LEGEND**
- CB EXISTING CATCH BASIN
  - 5 EXISTING SANITARY MANHOLE
  - ST EXISTING STORM SEWER MANHOLE
  - ⊗ EXISTING GATE VALVE
  - EXISTING CURB & GUTTER
  - EXISTING BITUMINOUS CURB
  - EXISTING BITUMINOUS TRAIL
  - EXISTING CONCRETE SIDEWALK
  - EXISTING CREEK
  - PROPOSED CONCRETE PAVER BLOCKS

REVISIONS NO. DATE	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM DULY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF MINNESOTA. SIGNED: STEPHANIE SMITH REG. NO. 51837 DATE: FEBRUARY 23, 2028	DESIGNED BY: DDK DRAWN BY: DDK CHECKED BY: SS		<b>MILTON STREET          CONSTRUCTION PLAN</b>	<b>2026 STORMWATER IMPROVEMENTS</b> CITY PROJECT NO. 26-10 SHEET NO. 9 OF 9
<b>90% DRAFT PLANS - NOT FOR CONSTRUCTION</b>					

## **Expanded Answers: Shoreview Pervious Pavers**

### **Section VI Executive Summary & Abstract**

The City of Shoreview proposes replacement of the existing roadway asphalt with pervious pavers in two neighborhoods that have direct stormwater discharge to surface waters. The stormwater currently flows off the road and into the storm system that outlets to Island Lake. The proposed pavers will allow the water to soak into the ground, rather than having it flow to the lake. This project will reduce pollutant loading to the lake, including phosphorus, by reducing stormwater discharge with the intent to improve water quality for the lake.

### **Section VII Description**

**If applicable, describe how the project impacts or protects RCWD groundwater resources, minimizes impervious surfaces, and/or maximizes infiltration.**

The project will remove 12,450SF of impervious pavement. The installation of pervious pavers will allow infiltration of the stormwater runoff that drains to this area. The angular rock under the pavers allows for 10,300CF of stormwater storage volume.

**Describe how long-term operation and maintenance of the project will be accomplished and identify the individual(s) responsible for maintenance activities if different than the project officer listed in section 2.**

Shoreview has 17 installations of pervious pavers throughout the city. Staff has knowledge of installation and maintenance of this style pavers and is confident in the operation of the system.

Maintenance and operations include application of a spray coating to protect the pavers from salt damage, use of a rubber snow plow blade to prevent damage during snow maintenance, annual inspection, replacement of individual blocks as needed, street sweeping five times per year in addition to a vacuum sweep as needed to prevent clogging.

### **Section VIII Prioritization**

By capturing stormwater runoff from Milton Street and Randy Avenue environmental benefits for the area are anticipated, including pollutant loading reduction and stormwater volume reduction. It is the intent of the project to continue to improve water quality and reduce discharge to address the TMDL for Island Lake, continuing the water quality protection work which has recently see the lake removed from the impaired waters list.

## **ITEMS REQUIRING BOARD ACTION**

5. RCWD Lobbying Efforts - Update (David Petry)



# MEMORANDUM

## Rice Creek Watershed District

**Date:** February 18, 2026  
**To:** RCWD Board of Managers  
**From:** David Petry, Project Manager  
**Subject:** RCWD Lobbying Efforts - Update

### Introduction

Rice Creek Watershed District has an interest in advancing specific legislative items that align with District goals and objectives.

### Background

Staff have previously engaged with local private lobbyists to request proposals for the 2026 Minnesota Legislative Session. The primary focus of the scope of work was to advance the bonding bills related to the Jones Lake project (see memo in the February 9, 2026 Board Workshop packet). One lobbying firm submitted a proposal for Board consideration.

Discussion at the workshop raised concerns such as the overall contract cost as well as the possibility that there may not be a bonding bill approved this year. Ultimately, the majority of the Managers present did not wish to pursue a contract with lobbying firm at that time.

This decision was shared with primary staff contacts with the Cities of New Brighton and Roseville (Ramsey County Ditches 2, 3, and 5 Basic Water Management Plan petitioning cities). While unable to speak for the City Council, the New Brighton and Roseville staff acknowledged the benefit of having an advocate that understands the political process necessary to secure bonding funds and highlighted having a unified approach, suggesting a three-way split of the contract fee for the lobbyist. They will each be approaching their city councils for consideration at a future meeting. If both Cities agree to contribute 1/3 of the contract cost for the lobbyist, the District would be the owner of the contract with the lobbyist and invoice the Cities accordingly.

Even if there is not a bonding bill passed this session, there is still work to be done and support to be gathered to ensure the Jones Lake bonding bills are as strong as possible heading into the session next year. A lobbyist's guidance through this process would set up the District in best possible position through continuous legislator connection and promotion.

### Staff Recommendation

With the legislative session resuming February 17, time is of the essence. The Board will be provided an update on municipal partner status at the board meeting. Upon confirmation from City of New Brighton and City of Roseville staff of City Council support for equal cost-share with the District, and upon the advice of counsel, staff recommend the Board of Managers authorize the Administrator to execute a contract with Park Street Public for professional services as a contract lobbyist for the 2026 Minnesota Legislative Session, not to exceed \$20,000.

### Proposed Motion

Manager \_\_\_\_\_ moves, upon confirmation from the Cities of New Brighton and Roseville of equal cost-share with the District, and upon the advice of counsel, to authorize the administrator to execute a contract with Park Street Public for professional services as a contract lobbyist for the 2026 Minnesota Legislative Session, not to exceed \$20,000, seconded by Manager \_\_\_\_\_.

## **ITEMS REQUIRING BOARD ACTION**

6. 2025 Financial Report – Metro Shooting / Trost Settlements (Nick Tomczik)

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 19, 2026  
**To:** RCWD Board of Managers  
**From:** Nick Tomczik, Administrator  
**Subject:** 2025 Financial Report - Metro Shooting / Trost Settlements

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**Introduction**

The Board established an annual review in February of the level of liability associated with the Metro Shooting and Trost settlements. This is the annual review for Board consideration and action.

**Background**

Rinke Noonan as District counsel has been in communication with staff and district engineer regarding the status of circumstances that are relevant to assessing District liability under the 2005 settlements.

There has been some change in the facts and circumstances relevant to the development of the subject parcels. The District has engaged with Metro Shooting landowner and its consultant's inquiries regarding potential development.

Currently, no specific development proposal has been put forth to the District.

**Staff Recommendation**

Staff recommend Board review of the current circumstance and discuss the District's potential liability. The attached Rinke Noonan memorandum outlines status and recommendation.

**Attachment**

- Rinke Noonan Memorandum February 19, 2026



RINKE NOONAN  
*attorneys at law*

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1015 W. St. Germain St., Ste. 300, P.O. Box 1497  
St. Cloud, Minnesota 56302-1497  
Telephone 320-251-6700, Fax 320-656-3500

**Memorandum**

To: Rice Creek Watershed District Board of Managers  
From: John C. Kolb (320) 656-3503  
Re: 16266-0074: 2025 Financial Report; Metro Shooting Complex Corp./Trost Settlements  
Date: February 19, 2026

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In 2005, the District entered into settlements with Blaine landowners Metro Shooting Center Corp. (MSCC) and John Trost with respect to those parties' claims concerning the District's management of Anoka County Ditch 53-62. Under the settlements, the District made a payment to each landowner and also, subject to certain terms, committed to supply wetland replacement credits if needed for a landowner to create a specified, contiguous non-wetland area<sup>1</sup>.

In late 2015, the District auditor and attorney advised you as to the circumstances under which this contingent liability should be identified in the District's annual financial reports. The District's prior general counsel, Smith Partners, supplied a memorandum dated December 2, 2015. In the interest of public accountability, you waived the attorney-client privilege for the memo.

In the memo, your attorney summarized its guidance as follows:

If it is reasonably possible that the District's obligation will result in a liability in the future, then the liability should be disclosed in its financial reports. If the amount of the liability cannot be reasonably estimated, the disclosure should

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<sup>1</sup> Though possibly a distinction without consequence, the settlements reference "non-wetland area" and not "upland area" as has been previously used by legal counsel. For purposes of our opinion and recommendations herein, we will use language consistent with the settlements. Similarly, prior legal counsel had articulated the obligation with reference to "100 contiguous upland acres for development." As discussed below, the 100 acres contiguous non-wetland achieved under the settlements may or may not be developable. Again, to avoid confusion, we will not address the obligation in terms of developable acres.

state that an estimate of the liability cannot be made. In making these determinations, the District may be guided by the advice of its engineer, counsel and auditor. When assumed in 2005, the MSCC and Trost liabilities were subject to a number of uncertainties, and that remains the case. It appears that the collective judgment to date has been that the various uncertainties render the triggering of this potential contingent future liability remote, and therefore not a matter that is required to be disclosed in the annual financial report.

At your December 7, 2015, workshop, by majority vote, you concurred in the finding that this contingent liability is remote and therefore not to be disclosed in the annual financial report. At your February 8, 2016, workshop, again by majority vote, you affirmed this finding for the purpose of the 2015 financial report. At the March 9, 2016, workshop, you passed a motion unanimously “to annually review the liability of the MSCC/Trost contingent liability in February of every year and take a formal vote at the Board meeting as to the remoteness of the liability.”

For the 2016 financial report, the Board of Managers adopted the following motion on February 22, 2017:

***That the Board of Managers finds the triggering of the potential contingent future liability to be remote, but nevertheless concludes that it should be referenced in the 2016 financial report as follows, or as modified in the auditor’s judgment:***

***In settlement agreements approved in 2005, the District committed that when development occurs on two tracts then owned by the Metro Shooting Center and Trost, the application of the District’s wetland rules will not have the result of affording the owner for the Metro Shooting parcel fewer than 100 contiguous upland acres for development, and the owner of the Trost parcel no fewer than 45 such acres. If additional wetland replacement is required to allow for consolidation of the stated acreage, the District will bear the cost of that replacement. The District is unable either to determine as this time the likelihood of this potential future contingent liability, or to estimate the District expense if and when the liability should arise.***

For the 2017, 2018, 2019, 2020 and 2021 financial reports, the Board of Managers adopted the same motion on, respectively, February 28, 2018; February 27, 2019; February 12, 2020; February 10, 2021; and February 9, 2022.

For the 2022 financial report, the Board of Managers adopted the following motion on February 8, 2023, changing the Board’s assessment from “remote” to “reasonably possible” as follows:

***That the Board of Managers finds that it is reasonably possible that one or more events will occur so as to cause the District to incur what is now a potential contingent future liability, and therefore that this liability should be referenced in the 2022 financial report as follows, or as modified in the***

**auditor's judgment:**

***In settlement agreements approved in 2005, the District committed that when development occurs on two tracts then owned by the Metro Shooting Center and Trost, the application of the District's wetland rules will not have the result of affording the owner for the Metro Shooting parcel fewer than 100 contiguous upland acres for development, and the owner of the Trost parcel no fewer than 45 such acres. If additional wetland replacement is required to allow for consolidation of the stated acreage, the District will bear the cost of that replacement. The District is unable at this time to estimate the District expense if and when the liability should arise.***

In 2023 and 2024, the Board revised its motion to better reflect known facts and analyses defining the liability – for the Trost property, insufficient information is available to quantify the District's obligations, if any. For the MSCC property, because there is ongoing development interest, both the owner and District staff have undertaken analyses to better quantify the District's potential obligation.

For the purpose of the 2025 financial report, pursuant to paragraph (5), American Bar Association Statement of Policy Regarding Lawyers' Responses to Auditors' Requests for Information (1999), the District Administrator has asked Rinke Noonan, as your general counsel, to include in our audit opinion letter an opinion as to the remoteness of this potential contingent future liability. For that purpose, we have made inquiry of the District's permit coordinator (Patrick Hughes) and engineer (Chris Otterness) as to any change in circumstances that may cause the liability to now be less remote so as to alter the District's treatment of it in the financial report. Specifically, our inquiry included:

1. Any facts (including permitting inquiries to the District or City of Blaine) or statements evidencing a specific intent to initiate development of either tract in the foreseeable future.
2. Any change in District Rule F/Minnesota Wetland Conservation Act or U.S. Army Corps of Engineers Section 404 requirements as concerns wetland impact sequencing, calculation of replacement requirements, or replacement credit location.
3. Any new information regarding the hydrology or soils on either tract as would be relevant to the geophysical suitability of a development footprint.
4. Any new regulatory wetland boundary data for either tract, or new field information suggesting a change in the regulatory wetland boundary.
5. Any new Federal Emergency Management Agency/regulatory floodplain affecting either tract.

As of this date, Mr. Hughes has reported continued interest of potential purchasers/developers and ongoing meetings and coordination with the landowner, interested purchasers/developers,

developers' consultant, the Anoka Technical Evaluation Panel and the Corps of Engineers.

In late 2024, a current, approved wetland delineation allowed the district to better estimate the mitigation needed to achieve the 100 acres of contiguous non-wetland on the MSCC property. Additionally, in late 2025, SRF on behalf of MSCC, submitted a functional assessment of wetlands on the MSCC property (MnRAM). For the MSCC property, under both prior and current rules implemented by the District, the engineer opines the mitigation requirements to be less than 30 acres – a portion of which (6.7 acres) is the City of Blaine's obligation.

As landowner, MSCC has no currently proposed development plan. Neither has any potential buyer/developer provided a current plan for review. As of the date of this memorandum, no application, concept plan or even the size or area of proposed development is under consideration. While the recent activity regarding the property indicates a more sincere intent to pursue development of the MSCC site, there is no basis from which the District can conclude the contingent liability is any more possible than in the past (reasonably possible).

The Board should consider all its potential wetland mitigation needs and how mitigation credits available either from the Brown's Preserve Wetland Bank or other sources may address those needs. If possible, credits available from the Brown's Preserve Wetland Bank should be protected to meet settlement obligations related to the MSCC and Trost properties. If insufficient credits are available from the Brown's Preserve Wetland Bank, the Board should begin to plan and budget for purchase of wetland credits.

As a reminder to the Board, the Settlement Agreement only obligates the District, applying its own wetland regulatory rules, to provide mitigation to achieve 100 contiguous non-wetland acres on the MSCC property. The Agreement does not obligate the District if some or all of the same mitigation is required by another entity under another law. It is possible, for example, that portions of the site are regulated under the Clean Water Act (Federal) and impacts under that law will also require mitigation. Current and prior Jurisdictional Determinations under the Clean Water Act do not address the whole site and all wetland areas therein.

Additionally, District's obligations do not require that the 100 acres of non-wetland be developable. The "where" and "what" of any development proposal is still subject to setbacks, buffer, stormwater management and other potential restrictions on development applied by zoning or other regulatory authorities.

Based on the foregoing, our opinion regarding a response to the auditor for the 2025 financial report is as follows:

When assumed in 2005, the Metro Shooting Complex Corp. (MSCC) and Trost liabilities were subject to uncertainty in a number of respects; this remains the case. More recent activities related to the MSCC property make the likelihood that this potential contingent future liability "reasonably possible." Our inquiry to the District staff and the District engineer confirm that while there is some exploration of potential development from the landowner and potential developers, there is not yet a formal development proposal justifying any change the

assessment of this issue. We have not otherwise received and are not aware of any additional information that would alter this assessment or otherwise suggest a change in circumstances making the realization of the potential liability more likely. ***We note, however, that receipt of a specific development proposal could change this assessment and receipt of additional information (the 2025 MnRAM analysis) has changed the assessment since 2024.***

For the purpose of formalizing the Board’s position regarding the potential liability for its financial statements, I recommend the Board adopt the following position regarding its 2025 audit (unchanged from 2024):

***That the Board of Managers finds that it is reasonably possible that one or more events will occur so as to cause the District to incur what is now a potential contingent future liability, and therefore that this liability should be referenced in the 2025 financial report as follows, or as modified in the auditor’s judgment:***

***In settlement agreements approved in 2005, the District committed that when development occurs on two tracts then owned by the Metro Shooting Center Corp. (MSCC) and Trost, the application of the District’s wetland rules will not have the result of affording the owner for the MSCC parcel fewer than 100 contiguous non-wetland acres, and the owner of the Trost parcel no fewer than 45 such acres. If additional wetland replacement/mitigation is required under regulatory programs administered by the District to attain the stated acreage, the District will bear the cost of that replacement/mitigation. Though the District is unable at this time to estimate its expense if and when the liability should arise, the District is reasonably confident that it will be able to meet its obligations for wetland mitigation from existing resources of the District.***

I am happy to answer any questions you may have regarding this matter.

cc: Nick Tomczik, RCWD Administrator

## **ITEMS REQUIRING BOARD ACTION**

7. Check Register Dated February 25, 2026, in the Amount of \$375,908.54 and February Interim Financial Statements Prepared by Redpath and Company

**Rice Creek Watershed District**  
**Check Register**  
**February 12, 2026 - February 25, 2026**  
**To Be Approved at the February 25, 2026 Board Meeting**

<b>Check #</b>	<b>Date</b>	<b>Payee</b>	<b>Description</b>	
26817	02/25/26	Apitz Garage, Inc.	Vehicle Expense	222.15
26818	02/25/26	Dunaway Construction	Contracted Services	45,810.00
26819	02/25/26	Houston Engineering, Inc.	Engineering	207,527.24
26820	02/25/26	NineNorth	Professional Services	494.00
26821	02/25/26	ODP Business Solutions, LLC	Office Supplies	75.73
26822	02/25/26	Premium Waters, Inc.	Meeting Supplies	75.98
26823	02/25/26	Press Publications	Legal Notices	263.06
26824	02/25/26	Redpath & Company, LLC	Audit & Accounting	7,917.18
26825	02/25/26	RMB Environmental Laboratories, Inc.	Lab Expense	70.00
26826	02/25/26	St. Paul Pioneer Press	Legal Notices	887.06
26827	02/25/26	Timesaver Off Site Secretarial	Professional Services	219.50
11519	02/25/26	Kurt Manufacturing	Surety Release - #96-102	2,000.00
11520	02/25/26	Warren or Wendy Watson	Surety Release - #01-109	500.00
Payroll	02/28/26	February 28th Payroll (estimate)	February 28th Payroll (estimate)	42,001.26
Payroll	02/28/26	Manager Per Diem/Expenses (estimate)	Manager Per Diem/Expenses (estimate)	2,887.44
EFT	01/21/26	Health Equity	Employee Benefits	121.60
EFT	01/28/26	Health Equity	Employee Benefits	51.27
EFT	02/04/26	Health Equity	Employee Benefits	402.01
EFT	02/06/26	Health Equity	Employee Benefits	331.00
EFT	02/18/26	Health Equity	Employee Benefits	2,003.15
EFT	02/19/26	Health Equity	Employee Benefits	5,000.00
EFT	02/19/26	Health Equity	Employee Benefits	331.00
EFT	02/09/26	Health Equity	Employee Benefits	40.00
EFT	02/25/26	Blaine Shopping Center, LLC	March Rent	10,447.03
EFT	02/25/26	First Unum Life Insurance Company	March Employee Benefits	778.60
EFT	02/25/26	Medica	March Employee Benefits	15,133.77
EFT	02/25/26	Metronet	Telecommunications	554.91
EFT	02/20/26	Verizon Wireless	Telecommunications	5.52
EFT	02/25/26	Verizon Wireless	Telecommunications	646.41
EFT	02/25/26	Xcel Energy	Telecommunications	9.42
EFT	02/28/26	4M Bank Fee (estimate)	Check Positive Pay-surety fee (estimate)	80.25
EFT	02/28/26	4M Bank Fee (estimate)	Check Positive Pay-admin fee (estimate)	81.50
EFT	02/28/26	4M Bank Fee	ACH Positive Pay-monthly fee	17.50
EFT	02/28/26	Internal Revenue Service (estimate)	2/28 Federal Withholding (estimate)	14,560.02
EFT	02/28/26	Minnesota Revenue (estimate)	2/28 State Withholding (estimate)	2,629.00
EFT	02/28/26	Empower Retirement	2/28 Deferred Compensation	860.00
EFT	02/28/26	Empower Retirement	2/28 Roth IRA	390.00
EFT	02/28/26	Health Equity	2/28 HSA	503.00
EFT	02/28/26	PERA (estimate)	2/28 PERA (estimate)	8,571.51
EFT	02/28/26	Voya Retirement (estimate)	February Health Care Savings (estimate)	1,409.47
<b>Total</b>				<b><u>\$375,908.54</u></b>

Rice Creek Watershed District Budget Status Report  
 Administrative & Program Budget  
 Fiscal Year 2026  
 2/28/2026

Combined General & Administrative	Budget Item	Account Number	Original Budget	Budget Adjustment	Current Month Expenses	Year-to-Date Expenses	Current Budget Balance	Percent of Budget
Manager	Per diems	4000	\$3,000.00	-	\$2,500.00	\$3,125.00	\$29,875.00	9.47%
	Manager expenses	4010-4011	11,000.00	-	196.19	448.88	10,551.12	4.08%
Employees	Staff salary/taxes/benefits	4100-4140	266,785.00	-	20,238.06	41,835.79	224,949.21	15.68%
	District training & education	4265	8,000.00	-	-	154.62	7,845.38	1.93%
	Employee expenses	4320	1,200.00	-	28.93	51.33	1,148.67	4.28%
Administration/Office	Office/Meeting/Software	4200-4205	6,626.00	-	91.13	91.13	6,534.87	1.38%
	Printing	4208	400	-	54.00	54.00	346.00	13.50%
	Rent/Office	4210	22,600	-	2,089.41	4,178.82	18,421.18	18.49%
	Telecommunications	4240	4,700	-	307.24	614.48	4,085.52	13.07%
	Dues	4245	16,368	-	-	15,297.00	1,071.00	93.46%
	Publications	4250	200	-	-	-	200.00	0.00%
	Insurance	4270	7,600.00	-	-	7,405.40	194.60	97.44%
	Postage	4280	200.00	-	-	-	200.00	0.00%
	Legal Notices	4290	1,500.00	-	-	-	1,500.00	0.00%
	Recruitment	4340	50.00	-	-	-	50.00	0.00%
	Equipment-Computer	4634	250.00	-	-	-	250.00	0.00%
	Office Equipment/Lease	4635	4,200.00	-	138.39	178.30	4,021.70	4.25%
	Bank Charges	4910	600.00	-	179.25	358.50	241.50	59.75%
	<b>Sub-Total-Administration:</b>		<b>385,279.00</b>	<b>-</b>	<b>25,822.60</b>	<b>73,793.25</b>	<b>311,485.75</b>	<b>19.15%</b>
Consultants	Auditor/Accounting	4330	25,000.00	-	1,583.44	1,754.14	23,245.86	7.02%
	Legal	4410	50,000.00	-	-	-	50,000.00	0.00%
	Consultants/Professional Serv.	4335-4337	24,000.00	-	1,096.00	1,096.00	22,904.00	4.57%
	Engineering-General	4500	57,000.00	-	3,400.00	3,400.00	53,600.00	5.96%
	<b>Sub-Total-Consultants:</b>		<b>156,000.00</b>	<b>-</b>	<b>6,079.44</b>	<b>6,250.14</b>	<b>149,749.86</b>	<b>4.01%</b>
<b>TOTAL</b>			<b>\$541,279.00</b>	<b>-</b>	<b>\$31,902.04</b>	<b>\$80,043.39</b>	<b>\$461,235.61</b>	<b>14.79%</b>

No Assurance is Provided On These Financial Statements

Rice Creek Watershed District Budget Status Report  
 Administrative & Program Budget  
 Fiscal Year 2026  
 2/28/2026

Revenue/Expenditures By Project	2026 Budget	2026 Year to date Revenue	2026 Current Month Expense	2026 Year to date Expense	Current Budget Balance	Percent of Budget
10 - General and Administrative	\$541,279.00	\$7,366.68	\$31,902.04	\$80,043.39	\$461,235.61	14.79%
30 - Environmental Education	314,720.00	1,045.95	12,770.99	38,375.84	276,344.16	12.19%
35 - Information Management	275,386.00	915.24	25,424.86	35,358.63	240,027.37	12.84%
60 - Restoration Projects	4,159,896.00	22,728.50	90,992.28	120,511.05	4,039,384.95	2.90%
70 - Regulatory	1,476,440.00	26,206.81	95,073.83	147,723.07	1,328,716.93	10.01%
80 - Ditch & Creek Maintenance	2,014,514.00	17,311.61	120,674.65	149,187.23	1,865,326.77	7.41%
90 - Lake & Stream Management	1,149,963.00	3,821.80	27,063.54	61,511.25	1,088,451.75	5.35%
95 - District Facilities	1,360,895.00	4,522.77	20,729.51	37,109.72	1,323,785.28	2.73%
<b>Total District Revenue/Expenditures</b>	<b>\$11,293,093.00</b>	<b>\$83,919.36</b>	<b>\$424,631.70</b>	<b>\$669,820.18</b>	<b>\$10,623,272.82</b>	<b>5.93%</b>

Current Fund Balances:

Fund:	Fund Balance @ 12/31/2025	2026 Fund Balance Transfers	2026 Year to date Revenue	2026 Current Month Expense	2026 Year to date Expense	Fund Balance @ 1/31/2026
10 - General Fund	\$792,907.35	(486,880.00)	\$7,366.68	\$31,902.04	\$80,043.39	\$233,350.64
30 - Environmental Education	309,659.12	(156,911.00)	1,045.95	12,770.99	38,375.84	115,418.23
35 - Information Management	455,222.69	(287,973.00)	915.24	25,424.86	35,358.63	132,806.30
60 - Restoration Projects	3,511,496.70	(509,660.00)	22,728.50	90,992.28	120,511.05	2,904,054.15
70 - Regulatory	1,424,741.12	(465,277.00)	26,206.81	95,073.83	147,723.07	837,947.86
80 - Ditch & Creek Maintenance	2,521,344.75	(1,368,998.00)	17,311.61	120,674.65	149,187.23	1,020,471.13
90 - Lake & Stream Management	1,387,738.69	(1,135,978.00)	3,821.80	27,063.54	61,511.25	194,071.24
95 - District Facilities	1,467,852.29	(791,264.00)	4,522.77	20,729.51	37,109.72	644,001.34
99 - Project Anticipation	4,500,000.00	5,202,941.00	-	-	-	9,702,941.00
<b>Total District Fund Balance:</b>	<b>\$16,370,962.71</b>	<b>\$0.00</b>	<b>\$83,919.36</b>	<b>\$424,631.70</b>	<b>\$669,820.18</b>	<b>\$15,785,061.89</b>

Rice Creek Watershed District

## **Interim Financial Statements**

*February 28, 2026*



4810 White Bear Parkway White Bear Lake, MN 55110 651.426.7000 [www.redpathcpas.com](http://www.redpathcpas.com)

Redpath and Company is an independent member of HLB International, a world-wide organization of professional accounting firms.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - General Fund - 10**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>GENERAL FUND - 10-00</u></b>				
Revenues				
General Property Tax	\$ 0.00	\$ 0.00	511,539.00	(511,539.00)
Interest Revenue	0.00	1,329.04	12,941.00	(11,611.96)
Investment Interest-Surety	0.00	5,567.77	0.00	5,567.77
Investment Income	0.00	469.87	16,799.00	(16,329.13)
	<hr/>	<hr/>	<hr/>	<hr/>
Total Revenues	0.00	7,366.68	541,279.00	(533,912.32)
Expenses				
Manager Per Diem	2,500.00	3,125.00	33,000.00	(29,875.00)
Manager Expense	40.60	208.75	6,000.00	(5,791.25)
Manager Travel	155.59	240.13	5,000.00	(4,759.87)
Wages	14,954.78	29,909.56	184,410.00	(154,500.44)
Benefits	2,010.50	4,324.09	31,393.00	(27,068.91)
PERA Expense	560.80	1,682.40	13,831.00	(12,148.60)
HCSA Contributions	1,409.47	2,818.94	17,273.00	(14,454.06)
Payroll Taxes	1,302.51	2,461.58	15,878.00	(13,416.42)
Payroll Taxes-Unemployment	0.00	639.22	4,000.00	(3,360.78)
Office Supplies	15.15	15.15	2,426.00	(2,410.85)
Field Supplies	0.00	0.00	250.00	(250.00)
Computer Software	0.00	0.00	250.00	(250.00)
Meeting Supplies	75.98	75.98	3,700.00	(3,624.02)
Printing	54.00	54.00	400.00	(346.00)
Rent	2,089.41	4,178.82	22,600.00	(18,421.18)
Telecommunications	307.24	614.48	4,700.00	(4,085.52)
Dues	0.00	15,297.00	16,368.00	(1,071.00)
Publications	0.00	0.00	200.00	(200.00)
Training & Education	0.00	154.62	8,000.00	(7,845.38)
Insurance & Bonds	0.00	7,405.40	7,600.00	(194.60)
Postage	0.00	0.00	200.00	(200.00)
Legal Notices	0.00	0.00	1,500.00	(1,500.00)
Staff Travel	28.93	51.33	1,200.00	(1,148.67)
Audit & Accounting	1,583.44	1,754.14	25,000.00	(23,245.86)
Professional Services	1,096.00	1,096.00	18,000.00	(16,904.00)
Contracted Services	0.00	0.00	6,000.00	(6,000.00)
Recruitment	0.00	0.00	50.00	(50.00)
Legal	0.00	0.00	50,000.00	(50,000.00)
Engineering	3,400.00	3,400.00	57,000.00	(53,600.00)
Computer Equipment	0.00	0.00	250.00	(250.00)
Equipment	0.00	0.00	2,000.00	(2,000.00)
Equipment Lease	138.39	178.30	2,200.00	(2,021.70)
Bank Charges	179.25	358.50	600.00	(241.50)
Transfers Out-Fund Balance	0.00	486,880.00	0.00	486,880.00
	<hr/>	<hr/>	<hr/>	<hr/>
Total Expenses	31,902.04	566,923.39	541,279.00	25,644.39
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - General Fund</b>	<b>(31,902.04)</b>	<b>(559,556.71)</b>	<b>0.00</b>	<b>(559,556.71)</b>
	<hr/>	<hr/>	<hr/>	<hr/>
<b>Total Revenue Over/(Under) Expenditure</b>	<b>\$ (31,902.04)</b>	<b>(559,556.71)</b>	<b>0.00</b>	<b>(559,556.71)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Communication & Outreach - 30**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>COMMUNICATION &amp; OUTREACH - 30-00</u></b>				
Revenues				
General Property Tax	\$ 0.00	\$ 0.00	183,928.00	(183,928.00)
Interest Income	0.00	772.75	7,524.00	(6,751.25)
Investment Income	0.00	273.20	9,767.00	(9,493.80)
	0.00	1,045.95	201,219.00	(200,173.05)
Total Revenues				
Expenses				
Wages	8,843.49	17,686.97	108,525.00	(90,838.03)
Interns	0.00	0.00	5,404.00	(5,404.00)
Benefits	870.56	1,889.18	12,730.00	(10,840.82)
PERA Expense	331.63	994.89	8,139.00	(7,144.11)
Payroll Taxes	658.51	1,317.03	9,809.00	(8,491.97)
Office Supplies	7.57	7.57	1,213.00	(1,205.43)
Field Supplies	0.00	0.00	250.00	(250.00)
Computer Software	0.00	0.00	500.00	(500.00)
Meeting Supplies	0.00	0.00	500.00	(500.00)
Printing	0.00	0.00	200.00	(200.00)
Rent	1,044.70	2,089.40	11,300.00	(9,210.60)
Telecommunications	153.62	307.24	2,350.00	(2,042.76)
Publications	0.00	0.00	100.00	(100.00)
Training & Education	0.00	0.00	4,000.00	(4,000.00)
Insurance and Bonds	0.00	3,702.70	3,800.00	(97.30)
Postage	0.00	0.00	100.00	(100.00)
Legal Notices	0.00	0.00	250.00	(250.00)
Staff Travel	0.00	0.00	600.00	(600.00)
Audit & Accounting	791.72	791.72	12,500.00	(11,708.28)
Professional Services	0.00	0.00	3,000.00	(3,000.00)
Contracted Services	0.00	0.00	6,000.00	(6,000.00)
Recruitment	0.00	0.00	50.00	(50.00)
Legal	0.00	0.00	6,000.00	(6,000.00)
Engineering	0.00	0.00	1,000.00	(1,000.00)
Computer Equipment	0.00	0.00	500.00	(500.00)
Equipment	0.00	0.00	1,000.00	(1,000.00)
Equipment-Lease	69.19	89.14	1,100.00	(1,010.86)
Bank Charges	0.00	0.00	300.00	(300.00)
Transfers Out-Fund Balance	0.00	156,911.00	0.00	156,911.00
	12,770.99	185,786.84	201,220.00	(15,433.16)
Total Expenses				
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Communication:</b>	<b>(12,770.99)</b>	<b>(184,740.89)</b>	<b>(1.00)</b>	<b>(184,739.89)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Communication & Outreach - 30**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>WATERSHED COMMUNICATION &amp; OUTREACH - 30-02</u></b>				
Revenues				
General Property Tax	0.00	0.00	13,000.00	(13,000.00)
Total Revenues	0.00	0.00	13,000.00	(13,000.00)
Expenses				
Computer Software	0.00	0.00	1,000.00	(1,000.00)
Printing	0.00	0.00	1,500.00	(1,500.00)
Training & Education	0.00	4,750.00	5,000.00	(250.00)
Professional Services	0.00	0.00	5,500.00	(5,500.00)
Total expenses	0.00	4,750.00	13,000.00	(8,250.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Watershed Communicati</b>	<b>0.00</b>	<b>(4,750.00)</b>	<b>0.00</b>	<b>(4,750.00)</b>
 <b><u>MASTER WATER STEWARD PROGRAM - 30-03</u></b>				
Revenues				
General Property Tax	0.00	0.00	17,000.00	(17,000.00)
Total Revenues	0.00	0.00	17,000.00	(17,000.00)
Expenses				
Training & Education	0.00	0.00	5,000.00	(5,000.00)
Professional Services	0.00	0.00	4,000.00	(4,000.00)
Contracted Services	0.00	0.00	8,000.00	(8,000.00)
Total expenses	0.00	0.00	17,000.00	(17,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Master Water:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
 <b><u>OUTREACH PARTNERSHIPS - 30-04</u></b>				
Revenues				
General Property Tax	0.00	0.00	42,000.00	(42,000.00)
Total Revenues	0.00	0.00	42,000.00	(42,000.00)
Expenses				
Training & Education	0.00	4,750.00	11,000.00	(6,250.00)
Contracted Services	0.00	0.00	35,000.00	(35,000.00)
Total expenses	0.00	4,750.00	46,000.00	(41,250.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Outreach:</b>	<b>0.00</b>	<b>(4,750.00)</b>	<b>(4,000.00)</b>	<b>(750.00)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Communication & Outreach - 30**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>MINI-GRANTS PROGRAM - 30-05</u></b>				
Revenues				
General Property Tax	0.00	0.00	30,000.00	(30,000.00)
Total Revenues	0.00	0.00	30,000.00	(30,000.00)
Expenses				
Construction	0.00	0.00	30,000.00	(30,000.00)
Total expenses	0.00	0.00	30,000.00	(30,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Mini-Grants:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b><u>ENGINEERING &amp; TECHNICAL SUPPORT - 30-06</u></b>				
Revenues				
General Property Tax	0.00	0.00	2,500.00	(2,500.00)
Total Revenues	0.00	0.00	2,500.00	(2,500.00)
Expenses				
Engineering	0.00	0.00	2,500.00	(2,500.00)
Total expenses	0.00	0.00	2,500.00	(2,500.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Eng. &amp; Technical:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b><u>WATERSHED PLAN MAINTENANCE - 30-08</u></b>				
Revenues				
General Property Tax	0.00	0.00	5,000.00	(5,000.00)
Total Revenues	0.00	0.00	5,000.00	(5,000.00)
Expenses				
Legal	0.00	0.00	1,000.00	(1,000.00)
Engineering	0.00	0.00	4,000.00	(4,000.00)
Total expenses	0.00	0.00	5,000.00	(5,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Watershed Plan:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total Revenue Over/(Under) Expenditure</b>	<b>\$ (12,770.99)</b>	<b>\$ (194,240.89)</b>	<b>(4,001.00)</b>	<b>(190,239.89)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Information Management - 35**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>INFORMATION MANAGEMENT - 35-00</u></b>				
Revenues				
General Property Tax	\$ 0.00	\$ 0.00	145,255.00	(145,255.00)
Interest Revenue	0.00	676.18	6,584.00	(5,907.82)
Investment Interest	0.00	239.06	8,547.00	(8,307.94)
Total Revenues	<u>0.00</u>	<u>915.24</u>	<u>160,386.00</u>	<u>(159,470.76)</u>
Expenses				
Wages	2,611.90	5,223.80	31,997.00	(26,773.20)
Benefits	192.52	450.45	4,443.00	(3,992.55)
PERA Expense	97.95	293.85	2,400.00	(2,106.15)
Payroll Taxes	194.11	388.23	2,755.00	(2,366.77)
Office Supplies	3.79	3.79	606.00	(602.21)
Computer Software	0.00	0.00	15,560.00	(15,560.00)
Printing	0.00	0.00	100.00	(100.00)
Rent	522.35	1,044.70	5,650.00	(4,605.30)
Telecommunications	76.81	153.62	1,175.00	(1,021.38)
Publications	0.00	0.00	50.00	(50.00)
Training & Education	0.00	0.00	2,000.00	(2,000.00)
Insurance and Bonds	0.00	1,851.35	1,900.00	(48.65)
Postage	0.00	0.00	50.00	(50.00)
Staff Travel	0.00	0.00	300.00	(300.00)
Audit & Accounting	395.86	395.86	6,250.00	(5,854.14)
Professional Services	3,255.97	6,379.40	58,900.00	(52,520.60)
Contracted Services	0.00	0.00	1,000.00	(1,000.00)
Recruitment	0.00	0.00	50.00	(50.00)
Legal	0.00	0.00	500.00	(500.00)
Engineering	0.00	0.00	500.00	(500.00)
Computer Equipment	0.00	0.00	22,000.00	(22,000.00)
Equipment	0.00	0.00	1,500.00	(1,500.00)
Equipment Lease	34.60	44.58	550.00	(505.42)
Bank Charges	0.00	0.00	150.00	(150.00)
Operating Transfer Out	0.00	287,973.00	0.00	287,973.00
Total Expenses	<u>7,385.86</u>	<u>304,202.63</u>	<u>160,386.00</u>	<u>143,816.63</u>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Information Management</b>	<u>(7,385.86)</u>	<u>(303,287.39)</u>	<u>0.00</u>	<u>(303,287.39)</u>
<b><u>BOUNDARY MANAGEMENT PROGRAM - 35-03</u></b>				
Revenues				
Total Revenues	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
Expenses				
Total Expenses	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Boundary Mgmt:</b>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Information Management - 35**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>DISTRICT-WIDE MODEL - 35-04</u></b>				
Revenues				
General Property Tax	0.00	0.00	45,000.00	(45,000.00)
Total Revenues	0.00	0.00	45,000.00	(45,000.00)
Expenses				
Legal	0.00	0.00	7,500.00	(7,500.00)
Engineering	1,118.00	1,118.00	52,500.00	(51,382.00)
Total Expenses	1,118.00	1,118.00	60,000.00	(58,882.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - District-Wide Model:</b>	<b>(1,118.00)</b>	<b>(1,118.00)</b>	<b>(15,000.00)</b>	<b>13,882.00</b>
<b><u>DATABASE &amp; VIEWER MAINTENANCE - 35-05</u></b>				
Revenues				
General Property Tax	0.00	0.00	30,000.00	(30,000.00)
Total Revenues	0.00	0.00	30,000.00	(30,000.00)
Expenses				
Legal	0.00	0.00	5,000.00	(5,000.00)
Engineering	16,766.00	16,766.00	35,000.00	(18,234.00)
Total expenses	16,766.00	16,766.00	40,000.00	(23,234.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Database &amp; Viewer:</b>	<b>(16,766.00)</b>	<b>(16,766.00)</b>	<b>(10,000.00)</b>	<b>(6,766.00)</b>
<b><u>DISTRICT WEBSITE - 35-15</u></b>				
Revenues				
General Property Tax	0.00	0.00	7,500.00	(7,500.00)
Total Revenues	0.00	0.00	7,500.00	(7,500.00)
Expenses				
Professional Services	155.00	1,245.00	13,500.00	(12,255.00)
Legal	0.00	0.00	1,000.00	(1,000.00)
Engineering	0.00	0.00	500.00	(500.00)
Total expenses	155.00	1,245.00	15,000.00	(13,755.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - District Website:</b>	<b>(155.00)</b>	<b>(1,245.00)</b>	<b>(7,500.00)</b>	<b>6,255.00</b>
<b>Total Revenue Over/(Under) Expenditure</b>	<b>\$ (25,424.86)</b>	<b>\$ (322,416.39)</b>	<b>(32,500.00)</b>	<b>(289,916.39)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Restoration Projects - 60**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>REGIONAL WATER MGMT.PARTNERSHIP PROJECTS - 60-11</u></b>				
Revenues				
Grants-Income`	0.00	0.00	16,665.00	(16,665.00)
Total Revenues	0.00	0.00	16,665.00	(16,665.00)
Expenses				
Legal Notices	0.00	0.00	500.00	(500.00)
Contracted Services	0.00	0.00	7,500.00	(7,500.00)
Legal	0.00	0.00	1,000.00	(1,000.00)
Engineering	3,697.50	3,697.50	9,832.00	(6,134.50)
Construction	0.00	0.00	29,500.00	(29,500.00)
Total expenses	3,697.50	3,697.50	48,332.00	(44,634.50)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Regional Water Mgmt.</b>	<b>(3,697.50)</b>	<b>(3,697.50)</b>	<b>(31,667.00)</b>	<b>27,969.50</b>
<b><u>STORMWATER MGMT. COST SHARE - 60-15</u></b>				
Revenues				
General Property Tax	0.00	0.00	400,000.00	(400,000.00)
Total Revenues	0.00	0.00	400,000.00	(400,000.00)
Expenses				
Legal Notices	1,150.12	1,150.12	3,000.00	(1,849.88)
Legal	0.00	0.00	500.00	(500.00)
Engineering	3,189.00	3,189.00	18,000.00	(14,811.00)
Construction	0.00	0.00	1,098,214.00	(1,098,214.00)
Total expenses	4,339.12	4,339.12	1,119,714.00	(1,115,374.88)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Stormwater Mgmt.:</b>	<b>(4,339.12)</b>	<b>(4,339.12)</b>	<b>(719,714.00)</b>	<b>715,374.88</b>
<b><u>SW URBAN LAKES IMPLEMENTATION - 60-24</u></b>				
Revenues				
Total Revenues	0.00	0.00	0.00	0.00
Expenses				
Legal Notices	0.00	0.00	500.00	(500.00)
Legal	0.00	0.00	1,000.00	(1,000.00)
Engineering	0.00	0.00	19,000.00	(19,000.00)
Construction	0.00	0.00	79,500.00	(79,500.00)
Total expenses	0.00	0.00	100,000.00	(100,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Southwest Urban Lake</b>	<b>0.00</b>	<b>0.00</b>	<b>(100,000.00)</b>	<b>100,000.00</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Restoration Projects - 60**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>CLEAR LAKE WATER MGMT.PROJECT - 60-29</u></b>				
Revenues				
Total Revenues	0.00	0.00	0.00	0.00
Expenses				
Contracted Services	0.00	0.00	10,000.00	(10,000.00)
Construction	0.00	0.00	75,000.00	(75,000.00)
Total expenses	0.00	0.00	85,000.00	(85,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Clear Lake Water Mgmt.</b>	<b>0.00</b>	<b>0.00</b>	<b>(85,000.00)</b>	<b>85,000.00</b>
 <b><u>STORMWATER MASTER PLANNING - 60-35</u></b>				
Revenues				
Grants	0.00	0.00	40,000.00	(40,000.00)
Total Revenues	0.00	0.00	40,000.00	(40,000.00)
<b>Total Revenues Over/(Under)</b>				
Contracted Services	0.00	0.00	7,000.00	(7,000.00)
Legal	0.00	0.00	3,000.00	(3,000.00)
Engineering	0.00	0.00	30,000.00	(30,000.00)
Total expenses	0.00	0.00	40,000.00	(40,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Stormwater Master:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Restoration Projects - 60**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>MUNICIPAL CIP EARLY COORDINATION - 60-36</u></b>				
Revenues				
General Property Tax	0.00	0.00	10,000.00	(10,000.00)
<b>Total Revenues</b>	<b>0.00</b>	<b>0.00</b>	<b>10,000.00</b>	<b>(10,000.00)</b>
Expenses				
Legal	0.00	0.00	2,000.00	(2,000.00)
Engineering	0.00	0.00	8,000.00	(8,000.00)
<b>Total expenses</b>	<b>0.00</b>	<b>0.00</b>	<b>10,000.00</b>	<b>(10,000.00)</b>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Municipal CIP:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b><u>GROUNDWATER MGMT. &amp; STORMWATER REUSE - 60-37</u></b>				
Revenues				
General Property Tax	0.00	0.00	5,000.00	(5,000.00)
Grants	0.00	0.00	50,000.00	(50,000.00)
<b>Total Revenues</b>	<b>0.00</b>	<b>0.00</b>	<b>55,000.00</b>	<b>(55,000.00)</b>
Expenses				
Contracted Services	0.00	0.00	49,000.00	(49,000.00)
Legal	0.00	0.00	3,000.00	(3,000.00)
Engineering	500.35	500.35	3,000.00	(2,499.65)
<b>Total expenses</b>	<b>500.35</b>	<b>500.35</b>	<b>55,000.00</b>	<b>(54,499.65)</b>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Groundwater Mgmt.:</b>	<b>(500.35)</b>	<b>(500.35)</b>	<b>0.00</b>	<b>(500.35)</b>
<b>Total Revenue Over/(Under) Expenditure</b>	<b>\$ (90,992.28)</b>	<b>\$ (607,442.55)</b>	<b>(2,362,048.00)</b>	<b>1,754,605.45</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Regulatory - 70**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>REGULATORY - 70-00</u></b>				
<b>Revenues</b>				
General Property Tax	\$ 0.00	\$ 0.00	555,319.00	(555,319.00)
Interest Revenue	0.00	3,625.16	35,299.00	(31,673.84)
Investment Interest	0.00	1,281.65	45,821.00	(44,539.35)
	<hr/>	<hr/>	<hr/>	<hr/>
Total Revenues	0.00	4,906.81	636,439.00	(631,532.19)
<b>Expenses</b>				
Wages	20,405.59	51,219.51	374,474.00	(323,254.49)
Interns	0.00	0.00	5,404.00	(5,404.00)
Benefits	4,342.69	9,107.09	61,137.00	(52,029.91)
PERA Expense	1,151.67	3,462.72	28,086.00	(24,623.28)
Payroll Taxes	2,231.34	4,470.56	32,707.00	(28,236.44)
Office Supplies	18.93	26.89	3,032.00	(3,005.11)
Field Supplies	0.00	0.00	1,000.00	(1,000.00)
Meeting Supplies	0.00	0.00	125.00	(125.00)
Printing	0.00	0.00	500.00	(500.00)
Rent	2,611.76	5,223.52	28,250.00	(23,026.48)
Telecommunications	384.05	768.10	5,875.00	(5,106.90)
Publications	0.00	0.00	250.00	(250.00)
Training & Education	0.00	190.00	10,000.00	(9,810.00)
Insurance and Bonds	0.00	9,256.75	9,500.00	(243.25)
Postage	0.00	0.00	250.00	(250.00)
Legal Notices	0.00	0.00	300.00	(300.00)
Staff Travel	0.00	0.00	1,500.00	(1,500.00)
Vehicle	42.26	62.51	15,000.00	(14,937.49)
Audit & Accounting	1,979.30	1,979.30	31,250.00	(29,270.70)
Professional Services	0.00	0.00	3,000.00	(3,000.00)
Contracted Services	0.00	0.00	16,000.00	(16,000.00)
Recruitment	0.00	0.00	50.00	(50.00)
Legal	0.00	0.00	2,000.00	(2,000.00)
Engineering	0.00	0.00	1,250.00	(1,250.00)
Equipment	0.00	0.00	2,000.00	(2,000.00)
Equipment Lease	172.99	222.87	2,750.00	(2,527.13)
Bank Charges	0.00	0.00	750.00	(750.00)
Operating Transfer Out	0.00	465,277.00	0.00	465,277.00
	<hr/>	<hr/>	<hr/>	<hr/>
Total Expenses	33,340.58	551,266.82	636,440.00	(85,173.18)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Regulatory Management</b>	<b>(33,340.58)</b>	<b>(546,360.01)</b>	<b>(1.00)</b>	<b>(546,359.01)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Regulatory - 70**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>RULE REVISION &amp; PERMIT GUIDANCE - 70-01</u></b>				
Revenues				
General Property Tax	0.00	0.00	10,000.00	(10,000.00)
Total Revenues	0.00	0.00	10,000.00	(10,000.00)
Expenses				
Legal	0.00	0.00	5,000.00	(5,000.00)
Engineering	0.00	0.00	10,000.00	(10,000.00)
Total Expenses	0.00	0.00	15,000.00	(15,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Rule/Permit:</b>	<b>0.00</b>	<b>0.00</b>	<b>(5,000.00)</b>	<b>5,000.00</b>
 <b><u>PERMIT REVIEW, INSPECT &amp; COOR. - 70-03</u></b>				
Revenues				
General Property Tax	0.00	0.00	528,800.00	(528,800.00)
Permit Fees	300.00	21,300.00	61,200.00	(39,900.00)
Total Revenues	300.00	21,300.00	590,000.00	(568,700.00)
Expenses				
Contracted Services	0.00	0.00	60,000.00	(60,000.00)
Legal	0.00	0.00	45,000.00	(45,000.00)
Legal-Audit	0.00	0.00	5,000.00	(5,000.00)
Engineering	58,262.50	58,262.50	675,000.00	(616,737.50)
Engineering-Reporting	3,470.75	3,470.75	20,000.00	(16,529.25)
Engineering-Audit	0.00	0.00	20,000.00	(20,000.00)
Total expenses	61,733.25	61,733.25	825,000.00	(763,266.75)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Permit Review</b>	<b>(61,433.25)</b>	<b>(40,433.25)</b>	<b>(235,000.00)</b>	<b>194,566.75</b>
 <b>Total Revenue Over/(Under) Expenditure</b>	<b>\$ (94,773.83)</b>	<b>\$ (586,793.26)</b>	<b>(240,001.00)</b>	<b>(346,792.26)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Ditch & Creek Maintenance - 80**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>DITCH &amp; CREEK MAINTENANCE - 80-00</u></b>				
<b>Revenues</b>				
General Property Tax	\$ 0.00	\$ 0.00	283,990.00	(283,990.00)
Interest Revenue	0.00	4,946.29	48,164.00	(43,217.71)
Investment Interest	0.00	1,748.73	62,520.00	(60,771.27)
<b>Total Revenues</b>	<b>0.00</b>	<b>6,695.02</b>	<b>394,674.00</b>	<b>(387,978.98)</b>
<b>Expenses</b>				
Wages	14,772.81	29,555.26	181,058.00	(151,502.74)
Benefits	1,704.74	3,609.53	29,658.00	(26,048.47)
PERA Expense	553.98	1,662.66	13,579.00	(11,916.34)
Payroll Taxes	1,107.54	2,215.84	15,589.00	(13,373.16)
Office Supplies	11.36	11.36	1,819.00	(1,807.64)
Field Supplies	0.00	0.00	250.00	(250.00)
Computer Software	0.00	0.00	400.00	(400.00)
Meeting Supplies	0.00	0.00	125.00	(125.00)
Printing	0.00	0.00	300.00	(300.00)
Rent	1,567.05	3,134.10	16,950.00	(13,815.90)
Telecommunications	235.95	466.38	3,525.00	(3,058.62)
Publications	0.00	0.00	150.00	(150.00)
Training & Education	0.00	144.90	6,000.00	(5,855.10)
Insurance and Bonds	0.00	5,554.05	5,700.00	(145.95)
Postage	0.00	0.00	150.00	(150.00)
Legal Notices	0.00	0.00	750.00	(750.00)
Staff Travel	0.00	0.00	900.00	(900.00)
Vehicle	42.26	124.26	15,000.00	(14,875.74)
Audit & Accounting	1,187.58	1,187.58	18,750.00	(17,562.42)
Professional Services	0.00	0.00	2,000.00	(2,000.00)
Contracted Services	0.00	0.00	10,000.00	(10,000.00)
Recruitment	0.00	0.00	50.00	(50.00)
Legal	0.00	0.00	2,500.00	(2,500.00)
Engineering	0.00	0.00	3,000.00	(3,000.00)
Equipment	0.00	0.00	2,000.00	(2,000.00)
Equipment Lease	103.79	133.72	1,650.00	(1,516.28)
Bank Charges	0.00	0.00	450.00	(450.00)
Operating Transfer Out	0.00	1,368,998.00	0.00	1,368,998.00
<b>Total Expenses</b>	<b>21,287.06</b>	<b>1,416,797.64</b>	<b>332,303.00</b>	<b>1,084,494.64</b>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Ditch &amp; Creek:</b>	<b>(21,287.06)</b>	<b>(1,410,102.62)</b>	<b>62,371.00</b>	<b>(1,472,473.62)</b>
<b><u>NATURAL WATERWAY MGMT. - 80-01</u></b>				
<b>Revenues</b>				
<b>Total Revenues</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Expenses</b>				
Legal	0.00	0.00	1,000.00	(1,000.00)
Construction	0.00	0.00	9,000.00	(9,000.00)
<b>Total expenses</b>	<b>0.00</b>	<b>0.00</b>	<b>10,000.00</b>	<b>(10,000.00)</b>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Natural Waterway:</b>	<b>0.00</b>	<b>0.00</b>	<b>(10,000.00)</b>	<b>10,000.00</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Ditch & Creek Maintenance - 80**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>DITCHES - MAINTENANCE - 80-02</u></b>				
Revenues				
General Property Tax	0.00	0.00	450,000.00	(450,000.00)
<b>Total Revenues</b>	<b>0.00</b>	<b>0.00</b>	<b>450,000.00</b>	<b>(450,000.00)</b>
Expenses				
Field Supplies	0.00	0.00	6,000.00	(6,000.00)
Vehicle	0.00	0.00	8,000.00	(8,000.00)
Professional Services	0.00	0.00	3,000.00	(3,000.00)
Contracted Services	45,810.00	47,810.00	362,500.00	(314,690.00)
Legal	0.00	0.00	10,500.00	(10,500.00)
Engineering	0.00	0.00	20,000.00	(20,000.00)
Construction	0.00	0.00	28,000.00	(28,000.00)
Equipment	0.00	0.00	12,000.00	(12,000.00)
<b>Total expenses</b>	<b>45,810.00</b>	<b>47,810.00</b>	<b>450,000.00</b>	<b>(402,190.00)</b>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Ditches - Maintenance:</b>	<b>(45,810.00)</b>	<b>(47,810.00)</b>	<b>0.00</b>	<b>(47,810.00)</b>
 <b><u>REPAIR REPORTS &amp; STUDIES - 80-03</u></b>				
Revenues				
General Property Tax	0.00	0.00	239,000.00	(239,000.00)
<b>Total Revenues</b>	<b>0.00</b>	<b>0.00</b>	<b>239,000.00</b>	<b>(239,000.00)</b>
Expenses				
Legal Notices	0.00	0.00	10,000.00	(10,000.00)
Legal	0.00	0.00	40,000.00	(40,000.00)
Engineering	13,181.00	13,181.00	154,000.00	(140,819.00)
Wetland Credits	0.00	0.00	5,000.00	(5,000.00)
<b>Total expenses</b>	<b>13,181.00</b>	<b>13,181.00</b>	<b>209,000.00</b>	<b>(195,819.00)</b>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Repair Reports</b>	<b>(13,181.00)</b>	<b>(13,181.00)</b>	<b>30,000.00</b>	<b>(43,181.00)</b>
 <b><u>ACD 10-22-32 WMD - 80-04</u></b>				
Revenues				
<b>Total Revenues</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Expenses				
<b>Total expenses</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - ACD 10-22-32</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Ditch & Creek Maintenance - 80**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>ACD 31 WMD - 80-05</u></b>				
Revenues				
Total Revenues	0.00	0.00	0.00	0.00
Expenses				
Total expenses	0.00	0.00	0.00	0.00
<b>Total Revenues Over/(Under) Expenditures - ACD 31:WMD:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
 <b><u>ACD 46 WMD - 80-06</u></b>				
Revenues				
Total Revenues	0.00	0.00	0.00	0.00
Expenses				
Contracted Services	0.00	0.00	37,451.00	(37,451.00)
Total expenses	0.00	0.00	37,451.00	(37,451.00)
<b>Total Revenues Over/(Under) Expenditures - ACD 46 WMD:</b>	<b>0.00</b>	<b>0.00</b>	<b>(37,451.00)</b>	<b>37,451.00</b>
 <b><u>RCD 4 WMD - 80-07</u></b>				
Revenues				
ROW Charges	0.00	9,595.92	9,500.00	95.92
Total Revenues	0.00	9,595.92	9,500.00	95.92
Expenses				
Construction	0.00	0.00	82,389.00	(82,389.00)
Total expenses	0.00	0.00	82,389.00	(82,389.00)
<b>Total Revenues Over/(Under) Expenditures - RCD 4 WMD:</b>	<b>0.00</b>	<b>9,595.92</b>	<b>(72,889.00)</b>	<b>82,484.92</b>
 <b><u>RCD 4 REPAIR - 80-08</u></b>				
Revenues				
Total Revenues	0.00	0.00	0.00	0.00
Expenses				
Total expenses	0.00	0.00	0.00	0.00
<b>Total Revenues Over/(Under) Expenditures - RCD 4 Repair:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Ditch & Creek Maintenance - 80**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>ARJD 1 REPAIR - 80-10</u></b>				
Revenues				
General Property Tax	0.00	0.00	70,000.00	(70,000.00)
Total Revenues	0.00	0.00	70,000.00	(70,000.00)
Expenses				
Legal	0.00	0.00	5,000.00	(5,000.00)
Engineering	0.00	0.00	10,000.00	(10,000.00)
Construction	0.00	0.00	55,000.00	(55,000.00)
Total expenses	0.00	0.00	70,000.00	(70,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - ARJD 1 Repair:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b><u>MUNICIPAL PDS MAINTENANCE - 80-15</u></b>				
Revenues				
General Property Tax	0.00	0.00	26,459.00	(26,459.00)
Total Revenues	0.00	0.00	26,459.00	(26,459.00)
Expenses				
Contracted Services	0.00	0.00	35,000.00	(35,000.00)
Total expenses	0.00	0.00	35,000.00	(35,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Municipal PDS</b>	<b>0.00</b>	<b>0.00</b>	<b>(8,541.00)</b>	<b>8,541.00</b>
<b><u>WJD BRANCH 1/2 REPAIR - 80-20</u></b>				
Revenues				
Total Revenues	0.00	0.00	0.00	0.00
Expenses				
Total expenses	0.00	0.00	0.00	0.00
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - WJD Branch 1/2:</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b><u>AWJD 3 REPAIR - 80-21</u></b>				
Revenues				
Total Revenues	0.00	0.00	0.00	0.00
Expenses				
Total expenses	0.00	0.00	0.00	0.00
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - AWJD 3</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Ditch & Creek Maintenance - 80**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>ACD 15 &amp; AWJD 4 WMD - 80-22</u></b>				
Revenues				
Total Revenues	0.00	0.00	0.00	0.00
Expenses				
Professional Services	0.00	0.00	8,370.00	(8,370.00)
Contracted Services	0.00	0.00	10,000.00	(10,000.00)
Total expenses	0.00	0.00	18,370.00	(18,370.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - AWCD 15</b>	<b>0.00</b>	<b>0.00</b>	<b>(18,370.00)</b>	<b>18,370.00</b>
<b><u>ACD 15 &amp; AWJD 4 - 80-23</u></b>				
Revenues				
Total Revenues	0.00	0.00	0.00	0.00
Expenses				
Professional Services	0.00	0.00	5,000.00	(5,000.00)
Contracted Services	0.00	0.00	45,000.00	(45,000.00)
Total expenses	0.00	0.00	50,000.00	(50,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - ACD 15 &amp; AWJD 4:</b>	<b>0.00</b>	<b>0.00</b>	<b>(50,000.00)</b>	<b>50,000.00</b>
<b><u>ACD 53-62 WMD - 80-24</u></b>				
Revenues				
Special Assessments	0.00	0.00	219,397.00	(219,397.00)
ROW Charges	0.00	1,020.67	2,845.00	(1,824.33)
Total Revenues	0.00	1,020.67	222,242.00	(221,221.33)
Expenses				
Professional Services	0.00	0.00	5,000.00	(5,000.00)
Legal	0.00	0.00	2,000.00	(2,000.00)
Engineering	24,237.95	24,237.95	10,000.00	14,237.95
Construction	0.00	0.00	355,000.00	(355,000.00)
Total expenses	24,237.95	24,237.95	372,000.00	(347,762.05)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - ACD 53-62 WMD:</b>	<b>(24,237.95)</b>	<b>(23,217.28)</b>	<b>(149,758.00)</b>	<b>126,540.72</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Ditch & Creek Maintenance - 80**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>ACD 53-62 REPAIR - 80-25</u></b>				
Revenues				
General Property Taxes	0.00	0.00	248,000.00	(248,000.00)
Total Revenues	<u>0.00</u>	<u>0.00</u>	<u>248,000.00</u>	<u>(248,000.00)</u>
Expenses				
Legal	0.00	0.00	15,000.00	(15,000.00)
Engineering	16,158.64	16,158.64	77,000.00	(60,841.36)
Construction	0.00	0.00	156,000.00	(156,000.00)
Total expenses	<u>16,158.64</u>	<u>16,158.64</u>	<u>248,000.00</u>	<u>(231,841.36)</u>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - ACD 53-62 Repair:</b>	<b><u>(16,158.64)</u></b>	<b><u>(16,158.64)</u></b>	<b><u>0.00</u></b>	<b><u>(16,158.64)</u></b>
 <b><u>ACD 10-22-32 REPAIR - 80-26</u></b>				
Revenues				
General Property Tax	0.00	0.00	100,000.00	(100,000.00)
Total Revenues	<u>0.00</u>	<u>0.00</u>	<u>100,000.00</u>	<u>(100,000.00)</u>
Expenses				
Legal	0.00	0.00	10,000.00	(10,000.00)
Engineering	0.00	0.00	10,000.00	(10,000.00)
Construction	0.00	0.00	80,000.00	(80,000.00)
Total expenses	<u>0.00</u>	<u>0.00</u>	<u>100,000.00</u>	<u>(100,000.00)</u>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - ACD 10-22-32 Repair:</b>	<b><u>0.00</u></b>	<b><u>0.00</u></b>	<b><u>0.00</u></b>	<b><u>0.00</u></b>
 <b>Total Revenue Over/(Under) Expenditure</b>	 <b><u>\$ (120,674.65)</u></b>	 <b><u>\$ (1,500,873.62)</u></b>	 <b><u>(254,638.00)</u></b>	 <b><u>(1,246,235.62)</u></b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Lake & Stream Management - 90**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>LAKE &amp; STREAM MANAGEMENT - 90-00</u></b>				
Revenues				
General Property Tax	\$ 0.00	\$ 0.00	333,542.00	(333,542.00)
Interest Income	0.00	2,823.55	27,494.00	(24,670.45)
Investment Income	0.00	998.25	35,689.00	(34,690.75)
	<hr/>	<hr/>	<hr/>	<hr/>
Total Revenues	0.00	3,821.80	396,725.00	(392,903.20)
	<hr/>	<hr/>	<hr/>	<hr/>
Expenses				
Wages	20,059.81	40,145.13	246,585.00	(206,439.87)
Interns	0.00	0.00	5,404.00	(5,404.00)
Benefits	2,269.87	4,994.63	34,962.00	(29,967.37)
PERA Expense	752.24	2,258.64	18,494.00	(16,235.36)
Payroll Taxes	1,432.80	2,867.56	21,696.00	(18,828.44)
Office Supplies	7.57	7.57	1,213.00	(1,205.43)
Field Supplies	0.00	0.00	250.00	(250.00)
Computer Software	0.00	0.00	250.00	(250.00)
Printing	0.00	0.00	200.00	(200.00)
Rent	1,044.70	2,089.40	11,300.00	(9,210.60)
Telecommunications	153.62	307.24	2,350.00	(2,042.76)
Publications	0.00	0.00	100.00	(100.00)
Training & Education	0.00	0.00	4,000.00	(4,000.00)
Insurance and Bonds	0.00	3,702.70	3,800.00	(97.30)
Postage	0.00	0.00	100.00	(100.00)
Legal Notices	0.00	0.00	250.00	(250.00)
Staff Travel	133.69	133.69	600.00	(466.31)
Vehicle	264.41	284.66	15,000.00	(14,715.34)
Audit & Accounting	791.72	791.72	12,500.00	(11,708.28)
Professional Services	0.00	0.00	2,500.00	(2,500.00)
Contracted Services	0.00	0.00	10,000.00	(10,000.00)
Recruitment	0.00	0.00	50.00	(50.00)
Legal	0.00	0.00	1,000.00	(1,000.00)
Engineering	0.00	0.00	1,250.00	(1,250.00)
Equipment	0.00	0.00	1,500.00	(1,500.00)
Equipment Lease	69.19	89.14	1,100.00	(1,010.86)
Bank Charges	0.00	0.00	300.00	(300.00)
Transfers Out-Fund Balance	0.00	1,135,978.00	0.00	1,135,978.00
	<hr/>	<hr/>	<hr/>	<hr/>
Total Expenses	26,979.62	1,193,650.08	396,754.00	796,896.08
	<hr/>	<hr/>	<hr/>	<hr/>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Lake &amp; Stream Mgmt.</b>	<b>(26,979.62)</b>	<b>(1,189,828.28)</b>	<b>(29.00)</b>	<b>(1,189,799.28)</b>
	<hr/>	<hr/>	<hr/>	<hr/>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Lake & Stream Management - 90**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>WATER QUALITY GRANT PROGRAM - 90-01</u></b>				
Revenues				
General Property Tax	0.00	0.00	250,000.00	(250,000.00)
Total Revenues	0.00	0.00	250,000.00	(250,000.00)
Expenses				
Contracted Services	0.00	0.00	64,000.00	(64,000.00)
Education & Communication	0.00	0.00	9,000.00	(9,000.00)
Legal	0.00	0.00	1,000.00	(1,000.00)
Engineering	0.00	0.00	1,000.00	(1,000.00)
Construction	0.00	0.00	198,328.00	(198,328.00)
Total expenses	0.00	0.00	273,328.00	(273,328.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Water Quality:</b>	<b>0.00</b>	<b>0.00</b>	<b>(23,328.00)</b>	<b>23,328.00</b>

<b><u>SURFACE WATER MONITORING &amp; MGMT. PROGRAM - 90-04</u></b>				
Revenues				
General Property Tax	0.00	0.00	240,000.00	(240,000.00)
Total Revenues	0.00	0.00	240,000.00	(240,000.00)
Expenses				
Field Supplies	0.00	0.00	2,500.00	(2,500.00)
Computer Software	0.00	0.00	6,000.00	(6,000.00)
Telecommunications	0.00	0.00	1,000.00	(1,000.00)
Publications	0.00	0.00	300.00	(300.00)
Training & Education	0.00	150.00	1,500.00	(1,350.00)
Contracted Services	0.00	3,605.25	120,000.00	(116,394.75)
Legal	0.00	0.00	500.00	(500.00)
Engineering	0.00	0.00	29,000.00	(29,000.00)
Computer Equipment	0.00	0.00	11,900.00	(11,900.00)
Equipment	0.00	0.00	2,000.00	(2,000.00)
Repairs & Maintenance	0.00	0.00	300.00	(300.00)
Lab Expense	70.00	70.00	65,000.00	(64,930.00)
Total expenses	70.00	3,825.25	240,000.00	(236,174.75)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Surface Water:</b>	<b>(70.00)</b>	<b>(3,825.25)</b>	<b>0.00</b>	<b>(3,825.25)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - Lake & Stream Management - 90**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>COMMON CARP MANAGEMENT - 90-26</u></b>				
Revenues				
General Property Tax	0.00	0.00	200,000.00	(200,000.00)
Total Revenues	0.00	0.00	200,000.00	(200,000.00)
Expenses				
Telecommunications	13.92	13.92	1,000.00	(986.08)
Staff Travel	0.00	0.00	100.00	(100.00)
Professional Services	0.00	0.00	150,000.00	(150,000.00)
Legal	0.00	0.00	500.00	(500.00)
Engineering	0.00	0.00	4,200.00	(4,200.00)
Construction	0.00	0.00	30,000.00	(30,000.00)
Equipment	0.00	0.00	14,200.00	(14,200.00)
Total expenses	13.92	13.92	200,000.00	(199,986.08)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Common Carp:</b>	<b>(13.92)</b>	<b>(13.92)</b>	<b>0.00</b>	<b>(13.92)</b>
 <b><u>CURLY LEAF PONDWEED MGMT. - 90-27</u></b>				
Revenues				
General Property Tax	0.00	0.00	25,000.00	(25,000.00)
Total Revenues	0.00	0.00	25,000.00	(25,000.00)
Expenses				
Contracted Services	0.00	0.00	40,000.00	(40,000.00)
Total expenses	0.00	0.00	40,000.00	(40,000.00)
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Common Carp:</b>	<b>0.00</b>	<b>0.00</b>	<b>(15,000.00)</b>	<b>15,000.00</b>
<b>Total Revenue Over/(Under) Expenditure</b>	<b>\$ (27,063.54)</b>	<b>\$ (1,193,667.45)</b>	<b>(38,357.00)</b>	<b>(1,155,310.45)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - District Facilities - 95**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>DISTRICT FACILITIES - 95-00</u></b>				
<b>Revenues</b>				
General Property Tax	\$ 0.00	\$ 0.00	160,163.00	(160,163.00)
Interest Revenue	0.00	3,341.43	32,537.00	(29,195.57)
Investment Interest	0.00	1,181.34	42,235.00	(41,053.66)
	<hr/>	<hr/>	<hr/>	<hr/>
Total Revenues	0.00	4,522.77	234,935.00	(230,412.23)
<b>Expenses</b>				
Wages	11,024.98	21,440.18	135,015.00	(113,574.82)
Interns	0.00	0.00	5,404.00	(5,404.00)
Benefits	1,079.25	2,307.14	22,469.00	(20,161.86)
PERA Expense	413.44	1,240.35	10,126.00	(8,885.65)
Payroll Taxes	839.91	1,679.83	12,090.00	(10,410.17)
Office Supplies	3.79	3.79	606.00	(602.21)
Field Supplies	0.00	0.00	250.00	(250.00)
Computer Software	0.00	0.00	250.00	(250.00)
Printing	0.00	0.00	100.00	(100.00)
Rent	522.36	1,044.72	5,650.00	(4,605.28)
Telecommunications	76.82	153.64	1,175.00	(1,021.36)
Publications	0.00	0.00	50.00	(50.00)
Training & Education	0.00	0.00	2,000.00	(2,000.00)
Insurance & Bonds	0.00	1,851.35	1,900.00	(48.65)
Postage	0.00	0.00	50.00	(50.00)
Legal Notices	0.00	0.00	1,000.00	(1,000.00)
Staff Travel	0.00	0.00	300.00	(300.00)
Vehicle Expense	42.26	42.26	15,000.00	(14,957.74)
Audit & Accounting	395.84	395.84	6,250.00	(5,854.16)
Professional Services	0.00	0.00	1,500.00	(1,500.00)
Contracted Services	0.00	0.00	7,000.00	(7,000.00)
Recruitment	0.00	0.00	50.00	(50.00)
Legal	0.00	609.78	1,000.00	(390.22)
Engineering	500.35	500.35	1,000.00	(499.65)
Equipment-Computer	0.00	0.00	500.00	(500.00)
Equipment	0.00	0.00	3,500.00	(3,500.00)
Equipment Lease	34.60	44.58	550.00	(505.42)
Bank Charges	0.00	0.00	150.00	(150.00)
Transfers Out-Fund Balance	0.00	791,264.00	0.00	791,264.00
	<hr/>	<hr/>	<hr/>	<hr/>
Total Expenses	14,933.60	822,577.81	234,935.00	587,642.81
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - District Facilities:</b>	<b>(14,933.60)</b>	<b>(818,055.04)</b>	<b>0.00</b>	<b>(818,055.04)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

**Rice Creek Watershed District**  
**Statement of Revenue and Expenditures - District Facilities - 95**  
**For the One Month and Two Months Ending February 28, 2026**  
**No Assurance Is Provided On These Financial Statements**

	Current Month	Year to Date	Annual Budget	Over/(Under) Budget
<b><u>DISTRICT FACILITIES REPAIR - 95-03</u></b>				
Revenues				
General Propety Tax	0.00	0.00	714,273.00	(714,273.00)
<b>Total Revenues</b>	<b>0.00</b>	<b>0.00</b>	<b>714,273.00</b>	<b>(714,273.00)</b>
Expenses				
Legal	0.00	0.00	25,000.00	(25,000.00)
Engineering	5,347.30	5,347.30	63,210.00	(57,862.70)
Construction	0.00	0.00	845,000.00	(845,000.00)
<b>Total expenses</b>	<b>5,347.30</b>	<b>5,347.30</b>	<b>933,210.00</b>	<b>(927,862.70)</b>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - District Facilities Repair</b>	<b>(5,347.30)</b>	<b>(5,347.30)</b>	<b>(218,937.00)</b>	<b>213,589.70</b>
<b><u>INSPECTION OPERATION &amp; MAINTENANCE - 95-04</u></b>				
Revenues				
General Propety Tax	0.00	0.00	192,750.00	(192,750.00)
<b>Total Revenues</b>	<b>0.00</b>	<b>0.00</b>	<b>192,750.00</b>	<b>(192,750.00)</b>
Expenses				
Field Supplies	0.00	0.00	6,500.00	(6,500.00)
Telecommunications	22.61	22.61	0.00	22.61
Contracted Services	0.00	0.00	100,000.00	(100,000.00)
Legal	0.00	0.00	3,750.00	(3,750.00)
Engineering	426.00	426.00	55,000.00	(54,574.00)
Construction	0.00	0.00	21,000.00	(21,000.00)
Equipment	0.00	0.00	6,500.00	(6,500.00)
<b>Total expenses</b>	<b>448.61</b>	<b>448.61</b>	<b>192,750.00</b>	<b>(192,301.39)</b>
<b>Total Revenues Over/(Under)</b>				
<b>Expenditures - Wall Wetland Restoration</b>	<b>(448.61)</b>	<b>(448.61)</b>	<b>0.00</b>	<b>(448.61)</b>
<b>Total Revenue Over/(Under) Expenditure</b>	<b>\$ (20,729.51)</b>	<b>\$ (823,850.95)</b>	<b>(218,937.00)</b>	<b>(604,913.95)</b>

Substantially all disclosures required by generally accepted accounting principles are not included.

## **ITEMS FOR DISCUSSION AND INFORMATION**

1. Staff Reports

# MEMORANDUM

## Rice Creek Watershed District



**Date: February 17, 2026**

**To: RCWD Board of Managers**

**From: Sara Belden, Project Technician**

**Subject: Staff Report 1/21/2025 – 2/17/2026**

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### **General**

- Reviewed the Valley Branch WD 2026-2035 Watershed Management Plan Update
  - Submitted comments on behalf of RCWD during the 60-day review period.
- WBIF/GIS Dashboard creation
  - Collaborated with staff to build a dashboard prototype to represent WBIF projects across the District and their related nutrient reduction data.
- Reviewed Stormwater Management Grant Applications
- Assisted with grant reporting materials for invoices and annual updates
- Strategize Project Team file transition to online SharePoint platform

### **Meetings and Workshops**

- Attended regularly scheduled staff meetings
- Attended biweekly Project Team meetings
- Attended monthly meetings for the Jones Lake/RCD 2, 3, and 5 project
- Attended Washington Cooperative Weed Management meeting
- Attended the Washington County Water Consortium meeting for February
- Attended St Anthony Falls Lab Stormwater Seminar Series
  - Seminar topic: Stormwater reduction and pollutant sourcing from trees

### **Upcoming**

- Review and comments requested by neighboring agencies to solicit feedback for updated planning documents
- Meeting with new BWSR Board Conservationist

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 17, 2026  
**To:** RCWD Board of Managers  
**From:** Ali Chalberg, Watershed Technician & Inspector  
**Subject:** Staff Report 1/15/2026 – 2/17/2026

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**Highlights from Preceding Month**

**Regulatory**

- ❖ Site Inspections
- ❖ As-Built Survey/Special Stipulation Coordination
- ❖ Permit Closures

**Lakes/Streams**

- ❖ Lake Chloride Sampling
- ❖ Survey Tool
  - Outreach Program – Shoreline surveys

**GIS**

- ❖ WBIF GIS Dashboard
- ❖ Safe Wake Maps

**Meetings**

- ❖ Minnesota Lake Management Symposium
- ❖ Staff Meetings
- ❖ Inspections Team Meeting
- ❖ Lake And Stream Team Meeting
- ❖ Ramsey County GIS User Group

**Other**

- ❖ Construction Installer Recertification Class

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 19<sup>th</sup>, 2025  
**To:** RCWD Board of Managers  
**From:** Anna Grace, Regulatory Technician  
**Subject:** Staff Report 1/20/25 – 2/18/26

- Created new permit files for online database and Laserfiche.
- Created new review files for online database and Laserfiche.
- Reviewed new permit applications and Initial Completeness Review Checklists were completed.
- Sent incomplete notice emails and continued working with applicants in tandem with RCWD staff and HEI consultants to receive all the required application materials.
- Continued coordinating with RCWD staff and inspectors with violations.
- Sent six permit applications to HEI for review.
- Sent two permit applications to RCWD for review.
- Received 12 new review file inquiries for permit/past file/landowner/consultant/violation/City.
- Assisted in Administrative/Board Notices, CAPROC Notices, CAPROC Review, Permit Review, and Permit Issuance.
- Phone and email correspondence.
- Attended 18 scheduled meetings:
  - Scheduled and attended virtual pre-application meetings:
    - HEI, RCWD, City of New Brighton, Kimley-Horn to discuss upcoming City Road project.
    - HEI, RCWD Westwood, landowner to discuss upcoming subdivision in New Brighton.
    - HEI, RCWD, City of White Bear Lake to discuss upcoming main street reconstruction project.
    - HEI, RCWD, Stantec to discuss potential site redevelopment / expansion in Blaine.
    - HEI, RCWD, Civil Site Group to discuss proposed Goodwill development in Lino Lakes.
  - Continued internal brainstorm and planning meets for upcoming Regulatory Work Group meeting.

# MEMORANDUM

## Rice Creek Watershed District



**Date:** February 18th, 2026  
**To:** RCWD Board of Managers  
**From:** Abel Green, Operations and Maintenance Inspector  
**Subject:** Staff Report

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- Following the districts public drainage inspection schedule inspecting and reporting of ditches and crossings as well as inspecting after rain events areas identified as potential problem sites, ensuring the system is still functioning as intended; continuously inspecting for and managing nuisance beaver
- Working through landowner phone calls with issues, problems, or complaints across the district; meeting on site to evaluate and figure out a solution
- Implementing and developing the vegetation maintenance plan for ditch ROW and district facilities including Iron Enhanced Sand Filters
- Bald Eagle IESF has been winterized
- Oasis IESF has been winterized, during spring start-up process we will be replacing and updating the Electronic Control System for smoother functionality
- Hansen IESF has been winterized, during spring set-up we will be changing the paddle wheel flow meter to a mag meter flow meter which will hopefully provide us with a more consistent flow measurement. All valves have been removed for maintenance
- Completed ditch maintenance and brush cutting for the stretch of 10-22-32 branch 4 that connects to the main trunk south of Pine street working with landowners to accommodate all needs of parties involved and working to strengthen relationships
- Worked with contractors on ACD 53-62 to complete work according to district requirements, identifying area's that need extra work or more complete work; also identified spots where the district would like to have a culvert crossing to allow future maintenance and access more reliable
- Started the tree removal project on JD2 between county road 4 and 165<sup>th</sup> street after speaking with all landowners on the public drainage system and working to get the public drainage system right of way back to district standards

**MEMORANDUM**  
**Rice Creek Watershed District**

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**Date:** February 17<sup>th</sup>, 2026  
**To:** RCWD Board of Managers  
**From:** Patrick Hughes, Regulatory Manager  
**Subject:** Staff Report for 1/20/26 to 2/17/26

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Summary

- Created new permit and review files for MS4Front
- Sent notice of exemption decision – 25-109
- Closed Permit 22-008 – Mounds View High School North Parking Lot
- Attended the 1/28/2026 and 2/11/2026 Board Meetings
- Attended aquatic resources impact discussion for Arden Hills 2026 PMP
- Met with Ramsey SWCD to discuss inspection services coverage
- Attended monthly watershed development review meeting with Forest Lake and CLFLWD
- Discussed new survey tool plan amongst program managers
- Attended WPA January Symposium
- Participated in Hugo TEP meeting (Busy B offsite aerial photo review)
- Met with Lino Lakes, WSB, BWSR regarding Winter’s Wetland Bank Hydrology
- Continued work on Regulatory Program Work Session; sent out invites
- Formatted new BWSR WCA forms for auto-population through MS4Front
- Hosted pre-application meeting for Rosedale Mall “Banana” lot redevelopment
- Attended Technical Training and Certification Program Basic Hydrology Course
- Participated in Anoka TEP (St. Clair Lakes monitoring, Harvest Grange)
- Hosted Washington TEP (Hidden Creek Phase 3/South)
- Submitted annual WCA report to BWSR
- Met with program managers to review Jones Lake EAW comments received
- Attended pre-application meeting for 4131 Pheasant Ridge Drive
- Attended JD3 floodplain and modeling meeting with Lino Lakes/WSB
- Attended pre-application meeting for White Bear Lake 2026 street project
- Met with DNR Conservation Officer to discuss open cases
- Hosted pre-application TEP meeting for Pine Oaks development in Lino Lakes
- Presented at RCWD City-County Partner Meeting
- Attended regular PMT meeting for Sunset Ave (CR 53) project
- Completed monthly IT trainings via curricula

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 19, 2026  
**To:** RCWD Board of Managers  
**From:** Emmet Hurley, Program Support Technician  
**Subject:** Staff Report 1/22/2026 – 2/19/2026

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- Facilitated phone upgrades for several RCWD staff
  - Polled all staff currently eligible for an upgrade
  - Researched and discussed options with RCWD staff to determine new devices
- Continued development of “10-Year Forecast” excel spreadsheet
  - Compiled data from multiple years of RCWD budget documents (Statement 7 of Annual Budget Reports)
  - Organized data and added functionality for data visualization
- Fulfilled several orders for both technology/hardware as well as general office supplies
- Assembled and distributed Agenda Packets for RCWD Board Workshops/Meetings and CAC meetings
  - Updated RCWD website via WordPress to reflect upcoming Board Meetings and Workshops
  - Notified RCWD mailing list through MailChimp; notified Managers Weinandt and Robertson of Packet availability at RCWD office; delivered agenda packets to Managers Bradley, Wagamon, and Waller
- Posted public notices on District website
- Monitored the District’s cybersecurity awareness and training program, along with simulated phishing attempts
  - Investigated real phishing events, and performed necessary remediation steps
- Administered Zoom Webinars for Board Workshops and Regular Meetings
  - Coordinated panelist allocations
  - Updated Outlook Zoom invitations with new Zoom Webinar Link; deleted old Zoom Meetings from Zoom Account to avoid confusion
  - Edited meeting recordings and posted on the RCWD YouTube channel; sent recording to local cable channels
- Attended various meetings
  - Monthly Staff meeting
  - Meetings with various IT contractors/vendors
  - Virtually attended Board Workshop, Board Meeting, etc.
- Troubleshooting various IT issues



# MEMORANDUM

## Rice Creek Watershed District

**Date:** 2/12/2026  
**To:** RCWD Board of Managers  
**From:** Matt Kocian, Lake and Stream Manager  
**Subject:** Staff Report 1/22 – 2/12/2026

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### Highlights for Preceding Month

**Bold** items required significant time & attention

- Monitoring
  - Data entry, analysis, and reporting
  - Equipment and supplies inventory and ordering
  - Finalize RCWD Monitoring Program QA/QC report
  - Lake monitoring - chloride
  
- **Carp Management**
  - 2025 report review and edits
  - 2026 scope development, budgeting, and Board memos
  
- **BWSR CWF Grant reporting** – 2022 WBIF (final grant report) and 2024 Centerville Alum
  
- Board meeting – present information on chloride pollution
  
- **City / County Partner Meeting** – present chloride and wakeboat information
  
- Centerville Lake Alum Project
  - Review 2025 coring data
  - Budget review and 2026 planning – 2<sup>nd</sup> half of alum application
  
- Long Lake Carp Management
  - **2025 data review and 2026 planning**
  
- Silver Lake management plan development with WSB / St. Anthony
  - **Partner meeting**
  
- Old Central / Lower Rice Creek project
  - Review HEI concept drawings
  - DNR / Anoka Co review
  
- Peltier Lake Management
  - Develop internal phosphorus load mitigation options – geochemical augmentation?
  
- Minnesota Lake Management Society – Annual Symposium
  
- Washington County AIS meeting – 10-year plan partner meeting

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 17, 2026  
**To:** RCWD Board of Managers  
**From:** Erik Larson, Watershed Inspector  
**Subject:** Staff Report 1/20/2026 – 2/17/2026

- Completed routine inspections for 25 active/issued permits, along with drive-by inspections to observe site conditions without sending reports.
- Two historic permits closed, with \$5,500.00 worth of surety returned.
- Found many permits incorrectly listed in the MS4 software which are either corrected or under investigation.
- Performed follow-up inspections for non-compliant sites.
- Phone and email correspondence with city staff and contractors.
- Attended scheduled meetings.
  - Attended RCWD staff meetings.
  - Meetings within the regulatory team.
- Further research into unresolved/historic permits in multiple municipalities with free time, also attended internal regular Unresolved permit meetings.
- Assisted permit intake and review staff with various tasks as able.

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 17th, 2026  
**To:** RCWD Board of Managers  
**From:** Molly Nelson, Outreach and Grants Technician  
**Subject:** Staff Report 1/21/26 to 2/17/26

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**Summary**

- Reviewed and presented 2 Water Quality Grant applications (R26-01, R26-02) to CAC and Board.
- Assisted with CAC February packet assembly, took minutes at the meeting, and followed up with questions from members.
- Reviewed and approved 12 Mini Grant applications. Assembled and mailed out award packages for all approved grantees.
- Updated MS4Front and internal tracking for all approved 2026 grants.
- Joined the panel for RSWCD interviews for the Environmental Resource Specialist role that will provide the technical services for the Water Quality Grant Program in the Ramsey County area.
- Provided feedback and comments on RCWD lakeshore survey questions conducted by the Communications and Outreach manager.
- Conducted North Metro pollinator Pathways admin work to coordinate with ACD on 2026 projects.
- 2/12/26 tabled at the Fridley Homeowners Resource fair to promote grants programs.

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** 2/13/26  
**To:** RCWD Board of Managers  
**From:** Catherine Nester, District Technician/Inspector  
**Subject:** Staff Report 1/20/26 – 2/12/26

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Highlights from the Preceding Month

- Conducted targeted chloride monitoring at Silver, East Moore, Island, and Valentine lakes.
- Conducted targeted chloride monitoring after thaw events at various stream and ditch monitoring stations across the district.
- Continued planning and coordinating with volunteers to monitor high priority lakes for the Community-Assisted Monitoring Program (CAMP) in 2026.
- Performed maintenance and calibration on lake and stream monitoring equipment and inventoried/restocked supplies.
- Continued importing 2025 monitoring data into the WISKI database and optimizing import configurations and processes.
- Continued modifying digital field data collection forms to optimize efficiency in the field and to allow for easier importing of data into the WISKI database.
- Finalized a technical memo assessing the results of quality assurance/quality control (QA/QC) sample results from both the previous and current labs.
- Ongoing communication with lab personnel about errors and interpretation of results.
- Completed the final review of 2023-2024 data submitted to the MPCA for storage in their online EQUIS database and communicated with MPCA staff about other upcoming data submittals.
- Attended a steering team meeting for the Twin Cities Water Monitoring and Data Assessment Group (TC-WaMoDaG) on January 21.
- Out on vacation February 2-10.

# MEMORANDUM

## Rice Creek Watershed District



**Date:** February 13, 2026  
**To:** RCWD Board of Managers  
**From:** David Petry, Project Manager  
**Subject:** Staff Report

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### General

- Jones Lake Project
  - Consideration of contract lobbyist
  - Subscription to senate and house committee agenda mailing lists
  - Compiling of committee members/contact information
  - EIS need decision submitted to EQB Monitor Feb. 12
- 2026 Stormwater Management Grant application reviews
- Jones Lake public engagement survey planning
- 2025 BWSR end-of-year grant reporting

### Meetings, Workshops, and Presentations

- Old Central Avenue Feasibility Study
  - BMPs reviewed with HEI, planning next steps
  - Reviewed initial BMP concepts with Anoka County partners
- Jones Lake Project
  - Monthly meeting (RCWD, HEI, New Brighton)
  - Regulatory Coordination (DNR/USACE/MPCA)
    - Investigating need for CLOMR with DNR/FEMA
  - EAW comment period closed
    - Negative EIS declaration, Findings of Fact, and Conclusions of Law and Order adopted at Feb. 11 Board Meeting
- New Brighton City Council Meeting – Presentation of 2025 MN Association of Floodplain Managers Project of the Year Award for the Hansen Park Project
- MN Lake Management Symposium, Focus: Shallow Lake Ecology, Feb. 3
- RCWD Project Team/Board/Staff/PDS meetings
- City/County Partner Meeting, New Brighton, Feb. 10
- AAEEES Future-Proofing Watersheds Workshop – Integrating Climate Resilience Planning with Modern Engineering, Feb. 11
- Empowering Small MN Communities Advisory Board Meeting, Centerville City Hall, Feb. 11
- RCLLG CLAW Meeting – Hennepin County chloride reduction strategies; 2026 legislative priorities, Feb. 12

### Upcoming

- UMN Project Management Certificate Program – Project Planning, Feb. 18-20
- TTCP Basic ArcGIS Pro Training, Monticello, Feb. 23
- New BWSR Board Conservationist, Josh Norman, Meet and Greet, Feb. 25
- MN Watersheds Day at the Capitol, Mar. 3-4
- RCWD CAC, Jones Lake Project Updates, Mar. 4
- 2025 RCWD Annual Report
- 2025 Audit field work

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 17, 2026  
**To:** RCWD Board of Managers  
**From:** Connor Price, Technical Field Assistant  
**Subject:** Staff Report

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- Completed several ditch inspections and will continue to monitor the district ditch network and crossings to ensure that the system is still flowing unobstructed so they may function as intended
- Met with Landowners on JD2 to discuss vegetation maintenance project from 170<sup>th</sup>-165<sup>th</sup> ave
- Oversaw much of the ongoing 53-62 Branches 5 & 6 repair project
- Met with contractor to discuss vegetation maintenance on 10-22-32 Branch 2
- Oversaw mulcher mowing and ditch excavation on both branch 4 and the main trunk of ACD 10-22-32
- Participated in a meeting between landowner and contractor for access to ditch on 53-62 Branch 5 Lateral 2
- Investigated several ditch banks for access and whether they'd be banks we could use our tow-behind mower to mow
- Met with a contractor on JD3 to discuss brush mowing going south from Frenchman Road in Hugo
- Renewed applicator license for 2026

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 13th, 2026  
**To:** RCWD Board of Managers  
**From:** Will Roach, Watershed Technician/Inspector  
**Subject:** February Staff Update

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**Inspections/Regulatory**

- Contacted applicants regarding projects that are close to their expiration date to inquire about status of work and whether an extension is needed.
- Planning of site inspections within the Forest Lake and Columbus areas.

**Project Management**

- Preparation of materials for the February 4<sup>th</sup> CAC and Feb 11<sup>th</sup> Board meetings for the 2026 Stormwater Grant Program.
- Responded to several questions from the CAC via email ahead of the February 4<sup>th</sup> discussion of the application to clarify on scope of work for certain applications.
- Presented to the CAC at their Feb 4<sup>th</sup> meeting to review and discuss stormwater grant applications, finalize application scores, and receive approval to present applications to Board of Managers.
- Presented stormwater grant program materials for the 2026 program year at a public hearing scheduled at the Feb 11<sup>th</sup> Board meeting. Following Board guidance, reached out to applicants regarding proposed adjusted funding amounts.
- Preparation of materials for the Feb 25<sup>th</sup> Board meeting packet.

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 18, 2026  
**To:** RCWD Board of Managers  
**From:** Tom Schmidt, Drainage and District Facilities Manager  
**Subject:** Staff Report February 2026

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**Highlights for this period**

Responded to and addressed constituent concerns/questions about the public drainage system and district facilities.

Completed maintenance on Branch #4 of ACD10-22-32 Through the Robinson Property north of Main Street.

Attended and presented at the RCWD City-County partner meeting.

Virtually attended, along with the district engineer, the Atty. Gen.'s water task force meeting.

Started winter/early spring Public Drainage and District Facilities Maintenance projects.

Contracted with Hugo's Tree Service for bank stabilization on AWJD #3 branch #4 continued preparation of the upcoming annual Drainage and Facilities report and presentation for the March Board workshop.

Worked with the district engineer on issues related to the ACD53-62 repair, specifically future access on the airport property.

Coordinated with the office manager and other staff on creating notice for the ACD 55 transfer public hearing.



**MEMORANDUM**  
**Rice Creek Watershed District**

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**Date:** February 17th, 2026  
**To:** RCWD Board of Managers  
**From:** Kendra Sommerfeld, Communications & Outreach Manager  
**Subject:** Staff Report 1/20/2026-2/17/2026

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**Partnerships/Collaborations**

- Planning 2026 workshops with Blue Thumb
- ISEF Workshops with Freshwater in progress
  - Next workshops and site visit planned
- Planning 2026 activities with Growing Green Hearts
- Community workshops and art project at West Hansen Park in progress
- Anoka County MS4 Partner Meetings
- Creating rain garden signs for Hayes Elementary/Anoka SWCD project collaboration
- Meeting with Wild Ones non-profit for rain garden maintenance collaboration
- Creating signs for silver view ponds stormwater management grant project
- Participating in Sacred Waters, Shared Future campaign with Mississippi River organizations
- Planning shoreline contractor workshop with EMWREP
- Watershed district survey tool for community engagement in progress
  - Planning first survey
- Participating in Roseville's Climate action planning
- Outreach activities at Lost Lake Water Quality Grant project planning with WCD and EMWREP

**Project/Program Outreach**

- Collaborating with upcoming projects for outreach and communication items like articles, press releases, public meetings, signs, etc.
- Working on WBIF ArcGIS dashboard with projects team for outreach and education about program and projects
- Created wake safe zone maps
- Assisting with a Regulatory Work Session for partners in 2026

**Other**

- ADA website compliant project in progress
- Completed City/County partner meeting in February



## **MEMORANDUM**

### **Rice Creek Watershed District**

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**Date:** February 17, 2026  
**To:** RCWD Board of Managers  
**From:** Theresa Stasica, Office Manager  
**Subject:** Staff Report 1/21/26 to 2/17/26

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- Code invoices for review.
- Gathered all timesheets and reviewed select employee timesheets for administrator's final review.
- Continued to provide administrative/HR support to employees.
- Provide minute templates to TimeSavers for meetings. Reviewed and edited regular Board minutes.
- Provided draft minutes for the Board workshop.
- Review agenda packet materials.
- Attending on-line cyber security courses
- Provide requested information to Board members and Administrator as needed.
- Assisted Board and Staff as needed.
- Attended board meetings and staff meetings.
- Placed orders for supplies as needed.
- Maintain Laserfiche filing system and scanned documents District receives into Laserfiche.

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 17, 2026  
**To:** RCWD Board of Managers  
**From:** Sarah Struntz, Watershed Inspector  
**Subject:** Staff Report 1/21/2026-2/17/2026

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- Continuing with conducting routine inspections of sites. Establishing contact with new permits and inspection sites.
- Getting sites wrapped up for winter that will not be doing active work and ensuring proper stabilization measures are in place.
- Attended various scheduled meetings:
  - Staff meeting on 1/29, 2/12
- Continuing to look into unresolved permits and reaching out to respective applicants or contacts to obtain any needed information. Conducting site visits for some sites to document conditions.
- Attended the virtual WCA 101 sessions on 2/3 & 2/4 for a nice refresher of wetland regulations and information.
- Signed up for the online Construction Installer Training/Certification through UMN Erosion & Sediment Control. Will begin working on that in my down time between inspections.
- Assisted Patrick with a Metro Watershed District Rule comparison.
- Set my SMART Goals for the year and working on reaching those.

**MEMORANDUM**  
**Rice Creek Watershed District**



**Date:** February 17, 2026  
**To:** RCWD Board of Managers  
**From:** Nick Tomczik, Administrator  
**Subject:** Staff Report – February 2026

Highlights for Month

- ✓ Administrative
  - Office Building (Pine Tree) Garage Door and HVAC Repairs, Improvement Allowance Office
  - Staff Meeting
  - Staff SMART Goals
  - Accounts Payable Review
  - Personnel Leave Requests
  - Board Meetings
  - Manager Appointment Communication
  - RCD 2,3,5 Capital Budget Request
  - PLOP Facility Maintenance - Communications
  - Minnesota Wetland Professional Certification Program Training
- ✓ Communication & Outreach
  - City, County, Partner Meeting
  - New Brighton Award Presentation
  - Website ADA Compliance
  - CAC Effectiveness Discussion
- ✓ Information Management
  - District Wide Model Updates
- ✓ Restoration Projects
  - Silver Lake Stakeholder Discussion
  - RCD 2, 3, & 5 On-going, Jones Lake
  - State Bonding - Representative and Senator Engagement
  - SMG Applications Discussions
- ✓ Regulatory
  - Permit Issuance
  - Permit Closures
- ✓ Drainage & Facilities Program
  - ACD 53-62 Br 5& 6 Repair
  - ACD 10-22-32 Maintenance Discussions & further City Engagement
  - PLOP Discussions
  - Public Drainage Maintenance
  - Biweekly Program Discussions with Consultants
- ✓ Lake & Stream Management
  - WBL Augmentation Data Support and Discussions

# MEMORANDUM

## Rice Creek Watershed District



**Date:** February 17<sup>th</sup>, 2026  
**To:** RCWD Board of Managers  
**From:** Kelsey White, Permit Technician  
**Subject:** Staff Report 1/20/2026 – 2/13/2026

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### Reviews

- Reviewed 3 permit applications for administrative approval.
- Drafted wetland section for 26-001 engineer's report.
- Coordinated submittal and review of CAPROC items for 4 permit applications.
- Reviewed one WCA replacement plan application for completeness.
- Created 4 review files in Laserfische.

### Communications

- Sent notice of permit issuance for 2 permit applications.
- Sent 5 CAPROC notices and 1 Amended CAPROC notice.
- Sent 5 administrative action notices to the Board.
- Sent one permit review cost notice.
- Sent TEP comments for the 26-001 replacement plan and 21-009 mitigation monitoring report.

### Meetings

- Attended 2 WCA TEP meetings.
- Attended a preapplication meeting for the Pine Oaks development.
- Participated in regulatory work group session meetings.
- Participated in weekly permit coordination meetings and monthly permit triage.
- Attended regular staff meetings.

### Other Duties

- Completed monthly IT security awareness training.
- Saved records of permit application communications to Laserfiche.
- Responded to email and telephone inquiries about RCWD permitting procedures and requirements.
- Responded to landowners about general WCA questions and questions regarding wetlands on or near their properties.

## **ITEMS FOR DISCUSSION AND INFORMATION**

### **2. March Calendar**



FEBRUARY						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

**MEMORANDUM**  
**Rice Creek Watershed District**

**Date:** February 19, 2026  
**To:** RCWD Board of Managers  
**From:** Emmet Hurley, Program Support Technician  
**Subject:** March 2026 Calendar

**Tuesday – Wednesday, March 3 – 4** MN Watersheds 2026 Legislative Briefing, Reception, Breakfast Networking Event and Meet with Legislators at Capitol Ridge Radisson Hotel, 161 Rondo Ave, St. Paul, MN

**Wednesday, March 4, 5:30 p.m.** Citizen Advisory Committee Meeting  
 Board Liaison Manager Robertson  
 RCWD District Conference Room and remotely\*

**Monday, March 9, 9 a.m.** Board Workshop  
 RCWD District Conference Room and remotely\*

**Wednesday, March 11, 9 a.m.** Regular Board of Managers Meeting  
 at Mounds View City Hall Council Chambers,  
 2401 County Road 10, Mounds View, MN and remotely\*

**Thursday, March 12, 4:30 p.m.** Deadline for Manager Per Diem & Milage Claim Forms

**Wednesday, March 25, 9 a.m.** Regular Board of Managers Meeting  
 at Mounds View City Hall Council Chambers,  
 2401 County Road 10, Mounds View, MN and remotely\*

\* Board members remotely=by alternative means (teleconference or video-teleconference) from remote locations; Public monitoring only.