



**City of North St. Paul
City Council
Workshop Meeting Agenda**

**June 4, 2024
5:15 PM**

The City Council Workshop Meeting will be conducted on **June 4, 2024** at 5:15 p.m. in the Council Chambers at City Hall, located at 2400 Margaret St., North St. Paul.

I. Call to Order

II. Roll Call

Council Member Cole
Council Member Schweer
Council Member Wong
Council Member Nordby
Mayor Monge

III. Adopt Agenda

IV. Topic(s)

- A. Ramsey Washington Metro Watershed District Project Updates: Kohlman Creek Flood Reduction Feasibility Study and Flood Preparedness
- B. Community Center Next Steps

V. Other Business

VI. Adjournment

The next regularly scheduled City Council Workshop meeting is June 18, 2024.



To	Date
Honorable Mayor Monge and City Council	June 4, 2024

Agenda Placement # IV.A

Topic(s)

Subject

Ramsey Washington Metro Watershed District Project Updates: Kohlman Creek Flood Reduction Feasibility Study and Flood Preparedness

Background/Facts

Ramsey Washington Metro Watershed District (RWMWD) representatives have shared their final engineering study and property-specific information with City staff regarding upcoming potential RWMWD capital improvement projects in Maplewood and North St. Paul aimed at reducing flood risk in these areas. A copy of the final feasibility study is attached. Staff will provide an overview and be available to answer any questions.

Recommended Action

No action. Council information and discussion only.

Attachments

1. Kohlman Creek Flood Risk Reduction Feasibility Study

Respectfully submitted,
Morgan Dawley, City Engineer



Kohlman Creek Flood-Risk-Reduction Feasibility Study

Prepared for
Ramsey-Washington Metro Watershed District

March 2024

Certification

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



Tyler Olsen
PE #: 61867

March 20, 2024

Date

Kohlman Creek Flood-Risk-Reduction Feasibility Study

March 2024

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Abbreviations

CFS	cubic feet per second
LiDAR	light detection and ranging
MnDNR	Minnesota Department of Natural Resources
MSL	mean sea level (Datum)
MWSE	maximum water surface elevation
RWMWD	Ramsey-Washington Metro Watershed District

Executive Summary

This report presents the findings and recommendations of the Kohlman Creek Flood Risk Reduction Feasibility Study. The study aimed to assess various flood-risk reduction projects utilizing the Ramsey Washington Metro Watershed District's XPSWMM (hydraulic and hydrologic) model, focusing on the removal of impacted structures from the 100-year floodplain. The primary objective of the study was to identify feasible flood-risk reduction projects to enhance the resilience of communities and infrastructure along Kohlman Creek in the Cities of North Saint Paul and Maplewood, MN.

The evaluation of flood-risk reduction projects was completed relative to applicable design criteria and flood-risk mitigation goals. For the context of this feasibility study, design criteria are the minimum requirements each flood-risk alternative must achieve based on the rules and requirements of entities with permitting authority. Flood-risk mitigation goals are objectives that go above and beyond minimum design criteria. The evaluation for each alternative considered floodplain impacts, regulatory approvals, affected property owners, wetland/upland impacts, and cost to construct. The modifications evaluated are included below, along with a recommendation for which projects to pursue as the most feasible and effective:

- PCU pond storm sewer improvements and 13th Avenue berm **(recommended)**
- PCU pond storage expansion **(not recommended)**
- PCU pond diversion **(not recommended)**
- Backyard berm and outlet **(recommended)**
- County Road C culvert replacement **(recommended)**
- Rate control projects **(not recommended)**

These recommendations are based on the flood-risk mitigation goals and design criteria, as well as the assessment of downstream impacts, site and wetland impacts, and flexibility for long-term management. In addition, other alternatives were considered and ultimately discarded because they did not meet the minimum design criteria. The recommended projects are shown in Figure E-1.

The engineer's opinion of probable cost range for the design, permitting, and construction of the recommended projects is \$1,290,000 to \$2,419,000, based on the current level of design. As plans and specifications for the recommended projects are prepared, the District should continue to collaborate with the Cities of North Saint Paul and Maplewood about design details and long-term maintenance of the projects. If the Board elects to pursue the recommended projects, it is recommended that coordination with the cities start in the near-term to develop a cooperative agreement in advance of project implementation, and coordination regarding easement acquisition begin prior to final design.

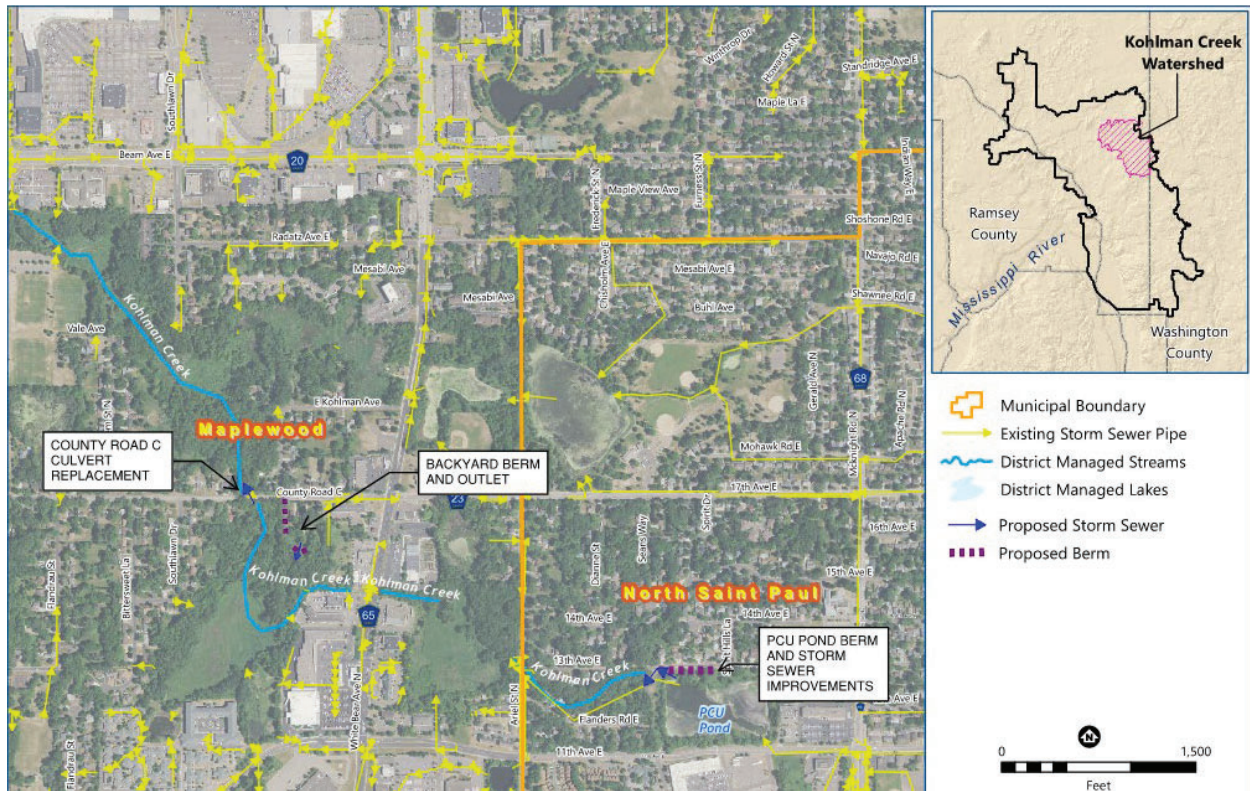


Figure E-1. Recommended projects for Kohlman Creek flood-risk reduction

1 Introduction

The Kohlman Creek watershed is approximately 3,563 acres and includes portions of North Saint Paul, Maplewood, and Oakdale. There are 45 structures within the 100-year floodplain in the Kohlman Creek watershed. This feasibility study was completed to evaluate flood-risk-mitigation alternatives along Kohlman Creek—removing flood-prone habitable structures from the floodplain within the City of North Saint Paul (NSP) near PCU Pond to the City of Maplewood (Maplewood) east of Highway 61. The total number of structures within the 100-year floodplain in the feasibility study area is 15. The existing drainage system within the study area is shown in Figure 1-1, and the existing 100-year inundation and flood-prone structures are shown in Figure 1-2.

Several flood-risk-mitigation alternatives were evaluated, including combinations of storm sewer modifications, culvert modifications, construction of retention best management practices (BMPs), and site-specific modifications for individual parcels. Each alternative was evaluated, considering flood-risk-reduction benefits, regulatory approvals, affected property owners, and construction costs. The goal of each system modification evaluated was to lower the 100-year floodplain elevation below the low adjacent grade of the lowest habitable structure. System modifications to provide freeboard above the flood elevation generated by the 100-year event were not evaluated. And, potential future increases to the 100-year floodplain as a result of climate change were not considered. Finally, the evaluation did not consider any system modifications that conveyed water to adjacent watersheds or the purchase of flood-prone structures.

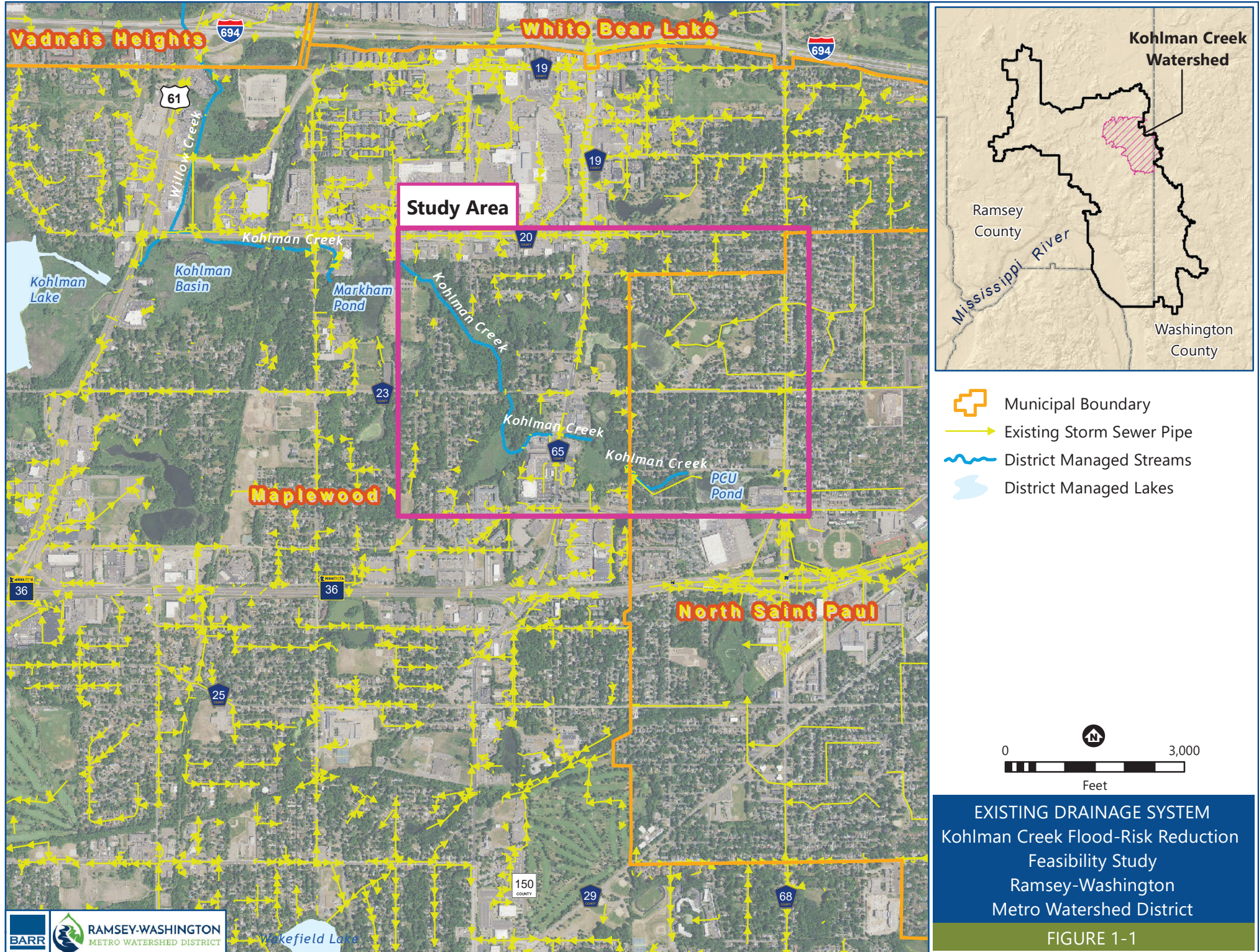
1.1 Background

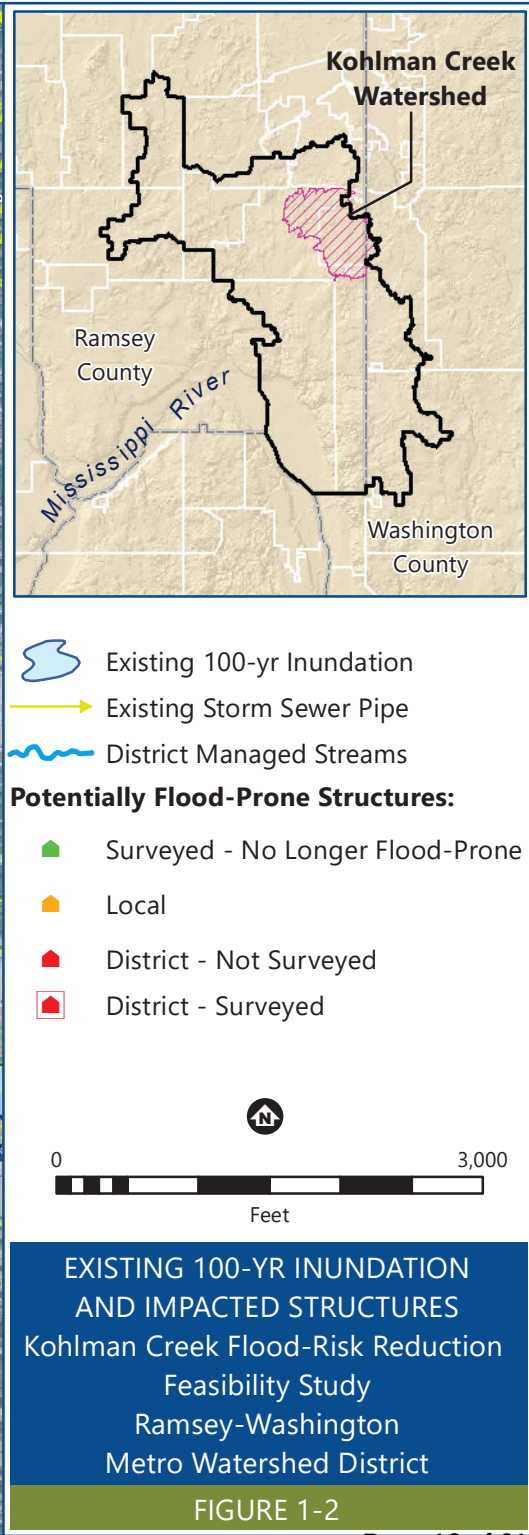
In 2018, the Ramsey-Washington Metro Watershed District (RWMWD or District) completed an evaluation to identify potentially flood-prone habitable structures based on updated rainfall depths published in Atlas 14 (NOAA, 2013). RWMWD defines the term “habitable” as:

Any enclosed space usable for living or business purposes, which includes but is not limited to: working, sleeping, eating, cooking, recreation, office, office storage, or any combination thereof. An area used only for storage incidental to a residential use is not included in the definition of Habitable.

Barr detailed this work in a technical memorandum dated September 4, 2018, titled “Identification and Prioritization of Potentially Flood-Prone Structures” (Barr, 2018). The District then completed the Beltline Resiliency Study in 2020, which evaluated potential system modifications that could be implemented in the Beltline watershed to reduce flood risk to habitable structures (Barr, 2020). Near the upstream end of the watershed, there are flood-prone structures near the North Saint Paul Ecology Center. Moving downstream, there are flood-prone structures near PCU Pond and east of White Bear Avenue North, Markham Pond, and Kohlman Basin. Detailed background information on this study can be found in the Barr report titled *System-Wide Evaluation of Flood-Risk Mitigation Options: Beltline Resiliency Study* (November, 2020). Since 2020, the District has conducted feasibility studies to evaluate system modifications proposed in the Beltline Resiliency Study further.

The District has completed several drainage improvement and flood-risk-reduction projects in the Kohlman Creek subwatershed. Previous projects include the Casey Lake outlet in 1991, Target Pond (now known as PCU Pond) in 1994, the White Bear Avenue control in 1994, and the Kohlman Basin pipeline in 1996.





2 Design Basis

2.1 Approach

Barr updated the 2020 existing conditions XPSWMM model in this area based on GIS data, as-built storm sewer plans from North Saint Paul and Maplewood, and topographic and utility surveys collected by Barr. These revisions added detail to the model, which allowed for a better characterization of the Kohlman Creek drainage system, including the neighborhood north of PCU Pond.

Barr used the updated model to calculate the 100-year peak water surface elevation along Kohlman Creek and compared the 100-year peak water surface elevations to the low-entry elevations of habitable structures. A structure is considered potentially flood-prone if the calculated 100-year peak water surface elevation is higher than the low entry elevation. Low elevations, which were surveyed, are the lowest openings at which water can enter a structure. If no survey information was available, they were estimated from 2011 LiDAR.

2.2 Design Goals and Criteria

The primary goal of this analysis was to determine infrastructure projects that would remove habitable structures from the 100-year floodplain. For this analysis, the Atlas-14 100-year, 96-hour storm was used as the critical storm.

There are criteria for alternatives evaluated to achieve flood-risk reduction goals.

- Alternatives should reduce freeboard for existing structures during the 100-year event. In locations where there are increases to the 100-year floodplain elevation, inundation extents are contained within public land.
- The 100-year peak discharge rate should not increase compared to existing conditions. Alternatives evaluated as part of this study also minimize the change in peak discharge rates for the 2-year and 10-year events. However, the primary goal of the study is to reduce flood risk during the 100-year events. In some instances, system modifications may result in an increase in peak discharge rate for more frequent events. Because the alternatives analysis consists of modifications throughout the study area, rate control was evaluated at the downstream end of the study area, just upstream of Markham Pond.

2.3 Study Limitations

The system modifications being considered and evaluated represent an approach for possible mitigation of flood risk for habitable structures within the Kohlman Creek watershed. However, as with any study and model of natural systems, there are limitations. There are practical limits on the level of detail used to achieve the study objectives. Although data sets for model inputs are frequently updated (see Section 3), they are not always complete or error free. Nonetheless, the data is useful and appropriate for the purpose of this study.

Acknowledgement of study limitations is important so that the findings and recommendations can be used with professional judgement in developing recommendations that are consistent with the intent of the study. Understanding the limitations also makes it easier for future evaluations to build on the results of this study.

Major assumptions for this study are listed below:

- Possible system modifications presented are intended to demonstrate options for mitigating flood risk. The alignment and configuration of options presented may change based on input from municipalities and stakeholders during the next phase of design.
- Possible system modifications may require permits and approvals from cities or agencies. During the evaluation, potential system modifications were not discussed in detail with other local permitting jurisdictions to determine permit requirements. It is possible that permit requirements may change the configuration or function of system modifications.

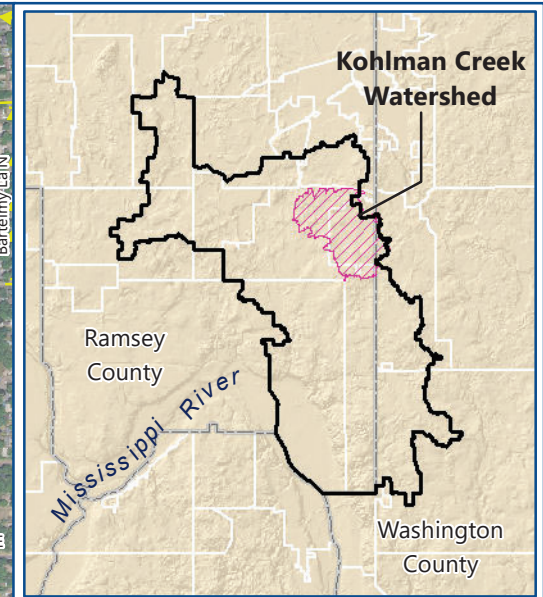
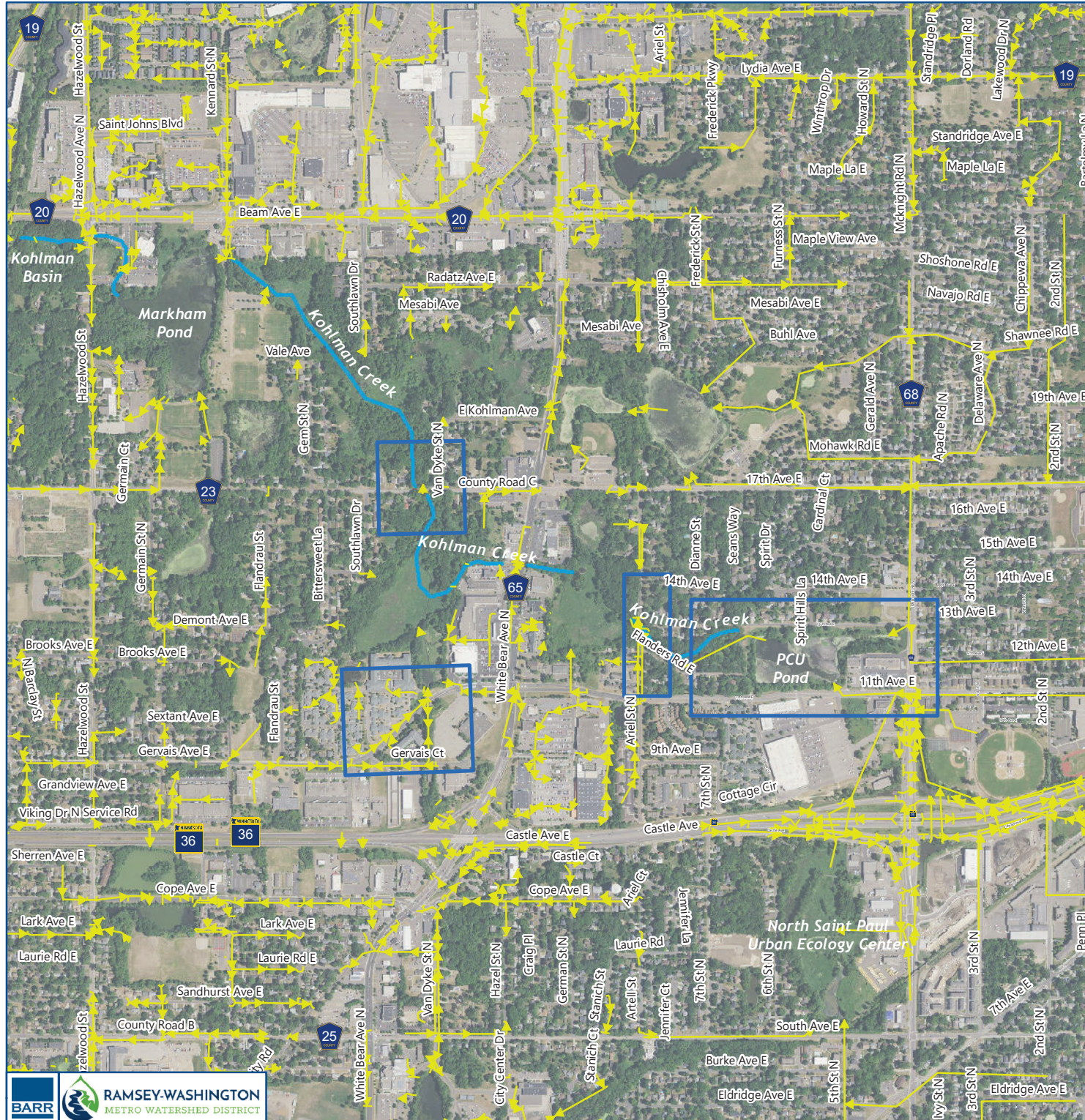
3 Data Sources

Multiple data sources were used to determine the feasibility of flood-risk-mitigation projects along Kohlman Creek. Data sets used for model updates are not always complete or error free. In general, the RWMWD stormwater model was updated using a combination of survey information, as-built plans, LiDAR, and GIS publicly accessible and/or provided by municipalities and other public agencies within the District. As additional information is collected or provided, the potential system modifications necessary to mitigate flood risk may change accordingly.

The list below identifies data sources and how they were used in this study:

- RWMWD XPSWMM model—The current XPSWMM model was used to evaluate existing flooding conditions throughout the study area. Barr made several updates to add additional detail to the model.
- 2011 LiDAR—LiDAR was used to estimate the ground elevation where topographic survey data was not available.
- As-builts for the project area—The City of Maplewood and the City of North Saint Paul provided as-built files to Barr. The as-builts were used to update the storm sewer information in the RWMWD XPSWMM model.
- Survey—Barr completed a topographic and utility survey of key areas throughout the study area to better inform the feasibility of each project alternative. A figure showing the surveyed areas is included in Figure 3-1.
- North Saint Paul Resiliency Study and Storage Area Locations—The City of North Saint Paul completed its Climate Resiliency and Vulnerable Population Projection in Flood Prevention and Mitigation Strategies report in June 2023. This report identified several flood-prone areas throughout the City and prioritized improvements based on the need to protect vulnerable populations from the impacts of flooding. The focus of this study did not overlap with RWMWD's Kohlman Creek feasibility study, but the City and its consultant provided several recommendations for potential flood storage project locations near the Kohlman Creek study area. The potential projects are discussed in more detail in Section 4.7.

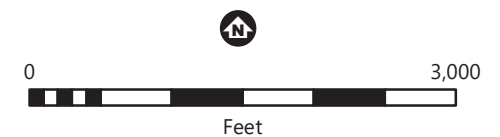
As part of this feasibility study, Barr did not perform a detailed topographic or utility survey for all sites (other than what is shown in Figure 3-1) or complete geotechnical investigations, wetland delineations, tree surveys, or other site characterizations. This data will be collected as part of the final design scope for each system modification.



- Surveyed Area
- Existing Storm Sewer Pipe
- ~ District Managed Streams

Surveyed areas include topography of major road overflows, storm sewer utility, and other critical infrastructure

See detailed survey data included in Appendix B



**SURVEYED AREAS
TOPOGRAPHY AND UTILITY
Kohlman Creek Flood-Risk Reduction
Feasibility Study
Ramsey-Washington
Metro Watershed District**

FIGURE 3-1

4 System Modifications

The primary criteria of this analysis was to determine infrastructure projects that would remove habitable structures from the 100-year floodplain. Flood-risk-mitigation goals are defined as objectives that go above and beyond the minimum criteria as set forth by regulatory entities. For example, a goal for a system modification may be to provide additional freeboard for the low home or reduce the frequency at which water levels extend onto private property. These are potential benefits that system modifications could provide but are not necessarily a requirement. For this evaluation, the following flood-risk-mitigation goals will be considered:

- Maintain or provide additional freeboard between the 100-year water level and the entry of the low structure
- Minimize floodplain impacts on non-public property, even if freeboard requirements are met
- Provide flexibility for future operation and management of the system
- Minimize impacts of project alternatives for less-frequent storm events (i.e., 10-year and 2-year, 24-hour events)
- Maintain rate control, where feasible, for the 2-year, 10-year, and 100-year storm events

Storage and diversion alternatives that together meet the flood-risk-mitigation goals defined above were evaluated as part of this study. Each project listed contributes to the removal of habitable structures from the 100-year floodplain. Some projects listed may not result in flood-risk-reduction benefits unless implemented in conjunction with another modification. The sequencing of system modifications is discussed in Section 5.

Barr evaluated the projects outlined in the subsections below. Barr's recommendations for if the project should be pursued by the RWMWD are included in the section titles in parentheses.

4.1 PCU Pond Storm Sewer Improvements and 13th Avenue Berm (recommended)

To prevent flood risk north of PCU pond, two options were considered:

1. Constructing a berm on the north side of PCU Pond
2. Storm sewer modifications on 13th Avenue East

These system modifications near PCU Pond are shown in Figure 4-1. The proposed berm runs between PCU pond and 13th Avenue and is designed to prevent overflow to the north. The proposed berm is constructed at 937 feet (mean sea level [MSL]).

Storm sewer modifications include rerouting the storm sewer northwest of PCU pond to convey water into Kohlman Creek. The channel outlet pipe will be upsized from 21 to 30 inches in diameter.

With the above modifications, seven homes north of 13th Avenue are removed from the 100-year floodplain. A summary of flood elevations throughout the study area with only PCU pond berm and storm sewer improvements is available in Table A-1

4.2 PCU Pond Storage Expansion (not recommended)

The third modification considered was grading within PCU pond. The proposed grading includes dredging sediment from the bottom of the pond and grading above the normal water level (NWL) to increase the live storage volume. Modifications to PCU pond could provide an additional 6.8 acre-feet of live storage. These modifications are shown in Figure 4-2.

Grading in PCU pond is not necessary to remove the seven homes north of 13th Avenue. Model tests of PCU pond improvements with and without grading indicate little effect on flooding for the 100-year, 96-hour storm. A summary of model results with PCU pond improvements with grading is available in Table A-2.

4.3 PCU Pond Diversion (not recommended)

While constructing a berm on the north side of PCU Pond can prevent the inundation of homes north of 13th Avenue, eliminating overflow to the north raises the 100-year maximum water surface elevation (MWSE) at PCU pond by 0.2 feet. PCU pond receives surface overflow from the roads and neighborhood directly to the east. During large storm events, the MWSE of the road flooding equalizes with PCU pond. By diverting volume downstream, the 100-year MWSE of PCU pond can be maintained, eliminating any potential freeboard reductions in the east neighborhood and on the roads.

The proposed diversion consists of two 60-inch reinforced concrete pipes (RCPs) diverting water from PCU pond directly east of Ariel Street. Both diversion pipes have an invert of 924 feet (MSL), 4 feet higher than PCU Pond's normal water level of 924 (MSL). The two diversion pipes run underneath 13th Avenue and outlet to the wetland east of Ariel Street with a downstream invert of 917.2 (MSL). The diversion pipes run in conjunction with the existing PCU pond outlet, a 66-inch RCP system also daylighting east of Ariel Street. The diversion alignment is shown in Figure 4-3Figure 4-1. A summary of model results with the proposed diversion is available in Table A-3.

Diversion is not necessary for the smaller events studied: the 2- and 10-year, 96-hour storms. If the system as described above is implemented passively, downstream conditions could be made worse under these events with no tangible benefits at or near PCU pond. An active gate control is proposed at the upstream end of the diversion to maximize available storage in PCU pond for the 2- and 10-year events. As proposed, the outlet gate control will remain completely closed until the water level in PCU pond exceeds the 10-year MWSE (934.1 feet, MSL). Once exceeded, the outlet gate will open completely, allowing for full capacity through the diversion. If the diversion is not constructed, the configuration of the berm and storm sewer modifications can be modified to mitigate impacts east of PCU Pond.

4.4 Backyard Berm and Outlet (recommended)

West of White Bear Ave, there are two habitable structures located just south of County Road C that experience inundation from their respective backyards via overflow from Kohlman Creek. The backyards of these structures are in a local low spot. The purpose of this alternative is to remove this low area from the 100-year floodplain to eliminate inundation of the surrounding structures.

Proposed improvements include building a berm around the low area to the south of County Road C and East of Kohlman Creek. The proposed berm will be built to an elevation of 913.5 feet and will include a 12-inch RCP outlet pipe with a backflow preventer. This configuration will allow drainage out of this low point while eliminating backflow from Kohlman Creek. The proposed improvements are shown in Figure 4-4.

This alternative should be implemented in conjunction with or after the proposed County Road C culvert. Without the associated culvert, water levels in Kohlman Creek may overtop the proposed berm for the 100-year event.

4.5 County Road C Culvert (recommended)

There are four habitable structures at risk for flood inundation during the 100-year event along Gervais Avenue and Gervais Court, west of White Bear Ave. These structures are inundated by Kohlman Creek to the north.

To provide a 100-year level of protection for the low homes on Gervais Avenue and Gervais Court, a 4x10-foot box culvert is required to divert the required volume of water. The culvert is constructed from reinforced concrete with an upstream invert of 899.26 feet and a downstream invert of 898.77 feet. The proposed design is shown in Figure 4-5.

A summary of model results with the proposed County Road C culvert and backyard berm is available in Table A-4.

4.6 Rate Control Projects (not recommended)

The two rate-control infrastructure components evaluated include a weir and orifice upstream and a berm and culvert downstream of County Road C.

Upstream of County Road C, a weir with a 42-inch orifice is required to match the existing rating curve for frequent events. The weir will be sharp crested with a top elevation of 911 feet. The 42-inch orifice will have an invert of 899.26 feet, matching the upstream invert of the proposed County Road C culvert. The outlet will provide rate control for frequent events while utilizing the full capacity of the box culvert at County Road C during large rainfall events.

Downstream, the proposed berm has a top elevation of 895 feet. The proposed berm is 8 feet wide with 4:1 H:V side slopes on the upstream and downstream faces. The flow through the berm will be controlled by a 24-inch RCP culvert at the existing channel bottom elevation. The proposed berm allows for the

Kohlman Creek floodplain to be used as storage during large events while permitting low flows to pass unimpeded during normal and dry periods. These projects are shown in Figure 4-6.

To reduce flood-risk for structures on the wetland upstream of County Road C, a berm at elevation 913.5 could be constructed in conjunction with the two rate-control projects. This berm will follow the extents of the grading shown in the emergency response plan (ERP) for this area. A summary of 100-year MWSE throughout the study area with all system modifications is available in Table 6-1

With the proposed projects, rate control is achieved for the 100-year, 96-hour critical storm. While the rate control projects work to reduce peak discharge rates, the more frequent events. A summary of peak downstream discharge rates is available in Table 6-2. System modifications are not recommended because the resulting change in flows do not result in conditions within the creek that would increase the potential for scour or erosion downstream of County Road C.

4.7 Other Suggested Projects (recommended)

As part of this study, Barr solicited feedback from North Saint Paul on locations where additional storage projects may be constructed. These projects would be upstream of the study area. Locations are shown in Figure 4-7. No conceptual designs have been created for these locations, so they would need to be evaluated at the time development or redevelopment occurs.

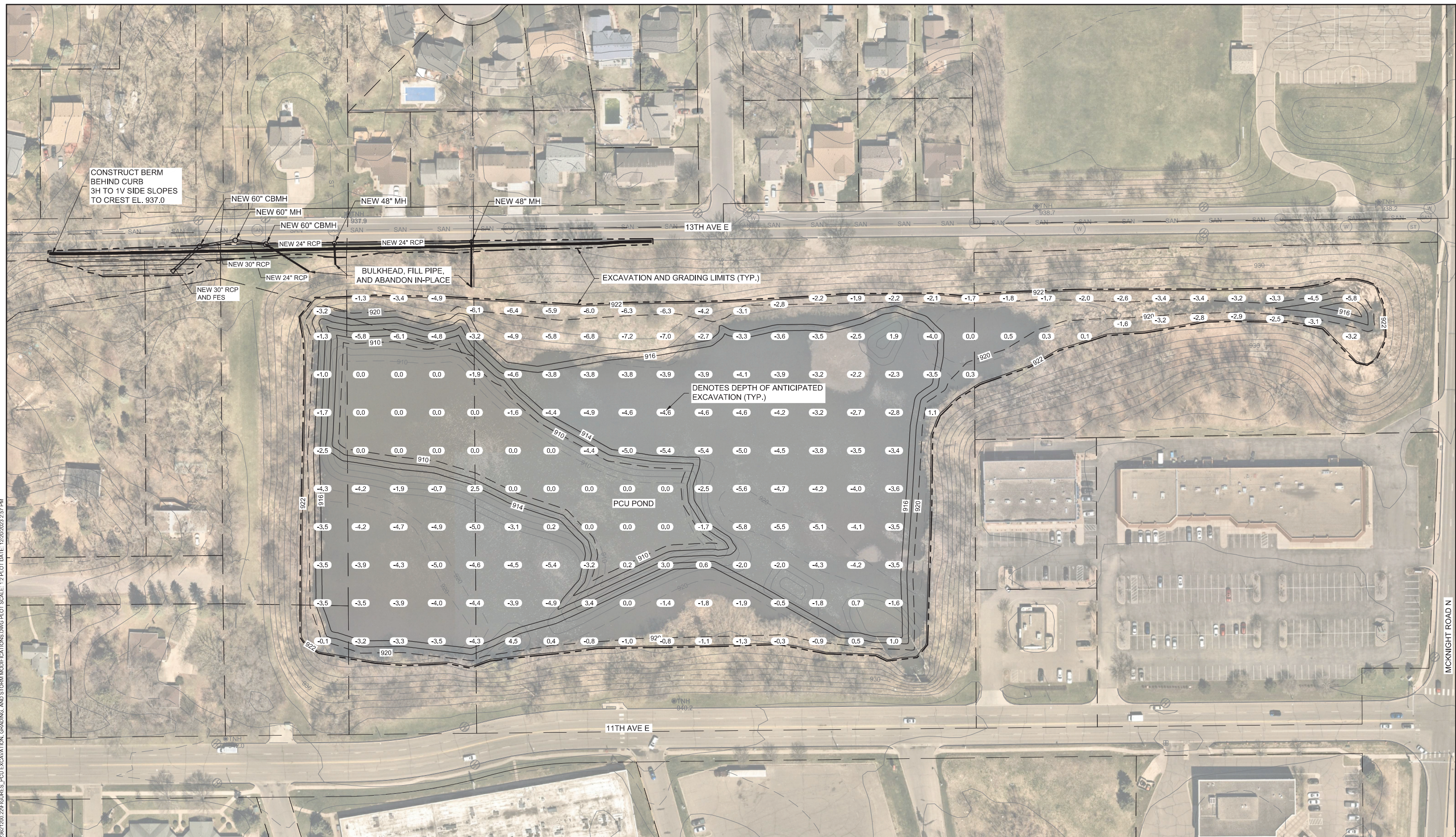
4.8 Other Evaluated Projects (not recommended)

Using the updated XPSWMM model, Barr evaluated several potential projects that are not recommended or presented in detail for several reasons including feasibility of construction, cost, minimal flood-risk-reduction benefit, and significant downstream impacts. Some of these alternatives focused on the structures that remain within the 100-year floodplain after the final proposed improvements are implemented. To remove these structures from being impacted, the District would have to significantly increase the conveyance capacity of the Kohlman Creek system including culverts, storm sewer, or channel capacity. However, because of limited options for providing additional floodplain storage volume to mitigate increases in 100-year water elevations and discharge rates outside of the study area, these options were not pursued.

The following projects were evaluated at a high-level in the XPSWMM model:

- **Berm around PCU pond** – Barr evaluated a berm around the entirety of PCU pond to contain 100-year flood levels within the pond. However, because of the hydraulics of the surrounding drainage area to PCU pond, the berm would have prevented water from entering the pond, causing increased water levels to the north and east of the pond. Additionally, the berm elevation would not have been feasible to construct given the space constraints around the pond.
- **Backflow Prevention from PCU pond** – Barr evaluated adding backflow prevent to the storm sewer connections east of PCU pond to prevent storm sewer surcharging. This option was not pursued because the water surfaces of the pond equalizes with the neighborhoods to the east via overland flow, limiting the option's effectiveness.

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- **Secondary PCU Pond Diversion Alignment** – Barr evaluated an additional alignment for the PCU Pond diversion (Section 4.3). This alignment would route the proposed trunklines through the backyards of properties south of 13th Avenue along the existing alignment of Kohlman Creek. This option was not pursued because additional easements would be needed to construct the trunkline in private property, and significant grading would be required to bury the trunkline beneath the creek.
 - **Ariel Street** – Barr evaluated increasing the culvert capacity under Ariel Street to reduce upstream flood levels in Kohlman Creek near PCU Pond. However, by increasing the culvert capacity under Ariel Street, flood levels west of Ariel Street and west of White Bear Avenue increased.
 - **White Bear Avenue** – Barr evaluated increasing the culvert capacity under White Bear Avenue to reduce upstream flood levels in Kohlman Creek near PCU Pond and west of Ariel Street. However, by increasing the culvert capacity under White Bear Avenue, flood levels south of County Road C increased. Barr also evaluated expanding storage in the wetland to reduce flood levels. The structures that are at-risk (one residential, one commercial) under existing conditions have low-opening elevations that are much lower than the maximum water surface elevation in the wetland and flood levels would have to be significantly reduced in order to remove these structures from the 100-year floodplain. The recommended improvements along Kohlman Creek do not negatively impact the structures east of White Bear Avenue. Barr also evaluated the impact of the improvements for more frequent storm events (e.g., 10-year and 2-year). For these events, the required freeboard of 2-feet to the low-entry elevation is maintained for the two structures.



CONSTRUCT BERM
BEHIND CURB
3H TO 1V SIDE SLOPES
TO CREST EL. 937.0

NEW 60" CBMH

NEW 60" MH

NEW 48" MH

NEW 48" MH



NEW 24

NEW 30" RCP
AND FES

BULKHEAD, FILL PIPE, AND ABANDON IN-PLACE

EXCAVATION AND GRADING LIMITS (TYP.)

DENOTES DEPTH OF ANTICIPATED
EXCAVATION (TYP.)

PCU POND

11TH AVE E



1 PLAN VIEW

0 60

SCALE IN



Scale	AS SHOWN
Date	12/20/2023
Drawn	GGN
Checked	--
Designed	BARR
Approved	--

Project Office:
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435
Ph: 1-800-632-2277
Fax: (952) 832-2601
www.barr.com

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

CLIENT	12/20/23						
PERMIT							
BID							
CONSTRUCTION							
RECORD							
RELEASED TO/FOR	A	B	C	0	1	2	3
	DATE RELEASED						

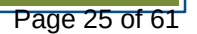
A	GGN	-	-	12/20/23	FEASIBILITY DESIGN, NOT FOR CONSTRUCTION
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

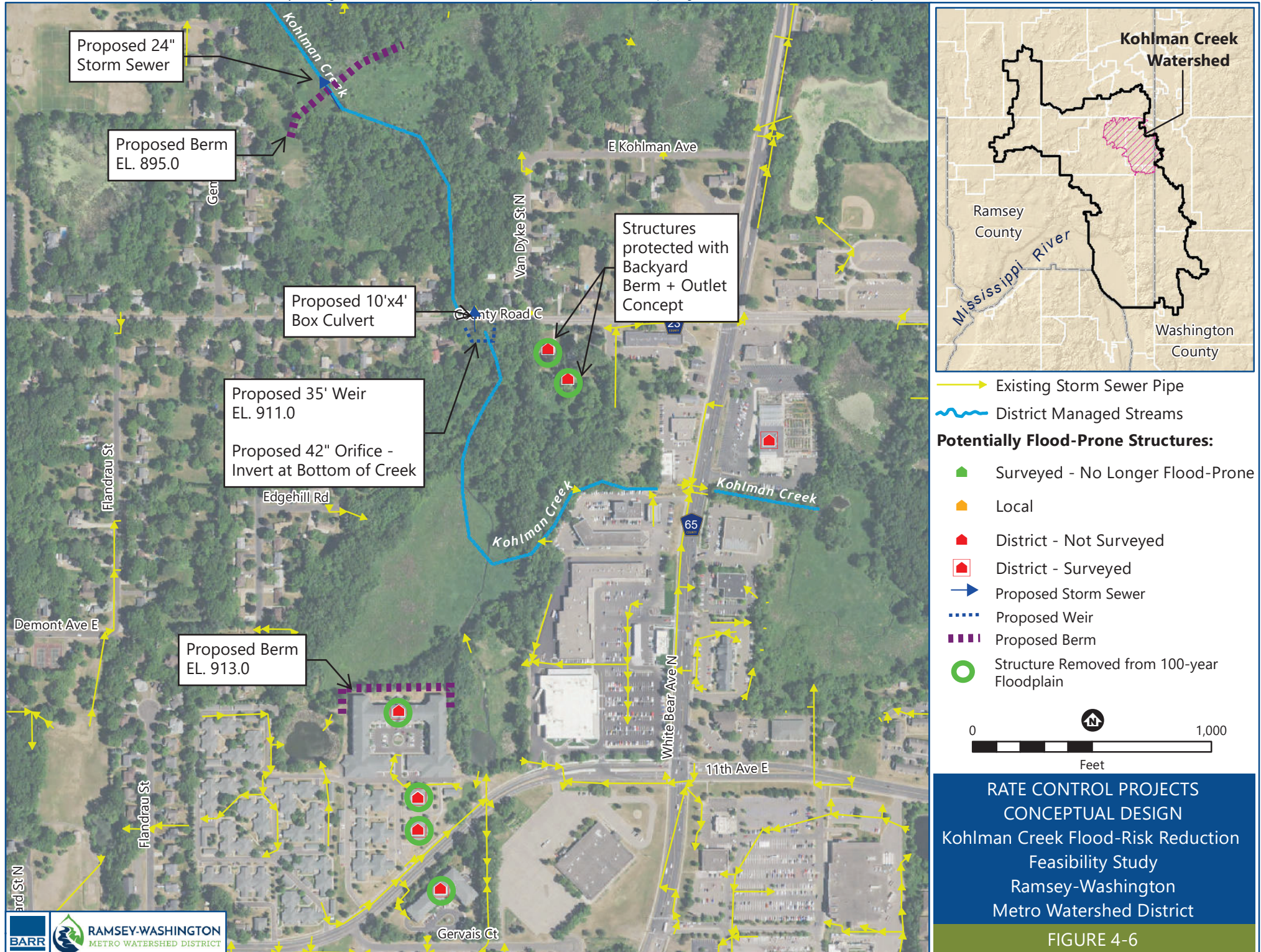
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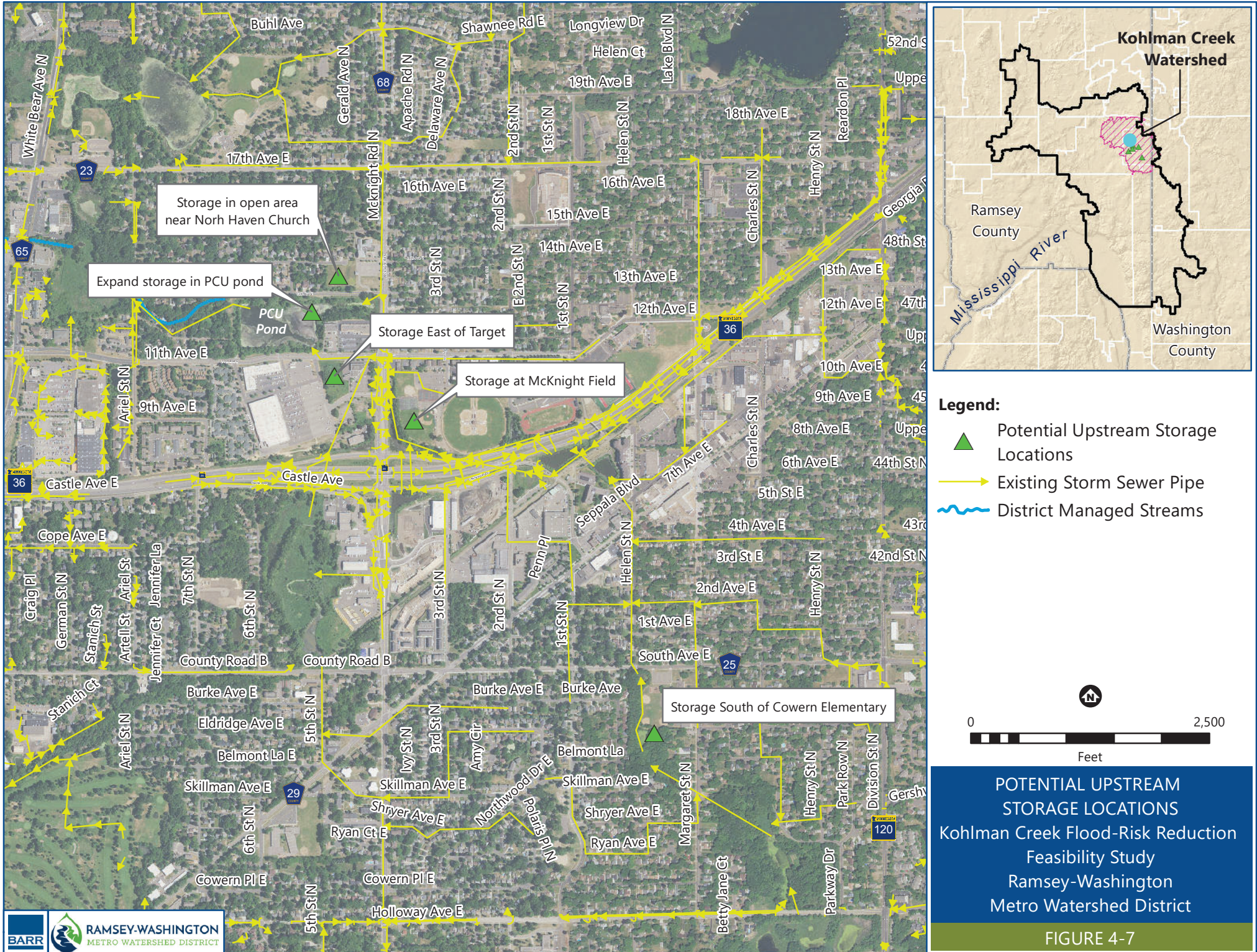
KOHLMAN CREEK
FLOOD REDUCTION

PCU POND MODIFICATIONS
POND EXCAVATION, GRADING, AND STORM

BARR PROJECT No. 23/62-1200.22	
CLIENT PROJECT No.	
DWG. No. FIGURE 4-1 & 4-2	REV. No. A







5 Project Sequencing

To ensure the successful implementation of the flood mitigation projects listed below and to prevent any negative flood impacts along Kohlman Creek, it is essential to sequence the implementation of each project rather than implement projects independent of each other. The proposed sequence takes into consideration the dependencies among the projects while meeting the flood-risk project goals. The list below outlines the order in which the proposed projects should be constructed:

1. **County Road C Culvert and Temporary Weir**—The first project involves the installation of a box culvert under County Road C to improve conveyance and reduce flood levels upstream along Kohlman Creek. Additionally, this project will include the installation of a temporary weir and orifice at the upstream end of County Road C to maintain existing drainage patterns until additional projects are implemented. The RWMWD will complete the design and construction for this project in conjunction with Ramsey County's pavement improvement program in 2024.
2. **Backyard Berm and Outlet**—The construction of a berm at the southern property boundary of 1862 County Road C in the natural low area can be implemented to reduce overland flow from the wetland. This adds an outlet to the low area, which drains to the wetland south of County Road C.
3. **PCU Pond 13th Avenue Berm and Storm Sewer Improvements**—The construction of the berm on the north side of the pond and improvements to the storm sewer along 13th Avenue reduce flood levels around PCU pond, removing structures from the 100-year flood plain.

6 Project Benefits (Modeling Results)

This section summarizes the proposed flood-risk-reduction benefits achieved by implementing all of the proposed projects, following the sequencing described in Section 5. Table 6-1 shows the subwatersheds along the Kohlman Creek corridor within the study area, as well as the existing and proposed MWSE and the number of structures removed from the 100-year floodplain. The results in Table 6-1 are also represented with inundation areas and structure points in Figure 6-1 through Figure 6-3. Overall, the combination of all proposed projects removes 11 structures from the 100-year floodplain and reduces flood levels along the Kohlman Creek corridor. Appendix A includes results summarized for implementation of projects at a specific location (i.e., PCU pond, County Road C) without the addition of other upstream or downstream projects.

Table 6-1 Summary of Existing and Proposed 100-Year MWSE with Recommended Concepts Implemented

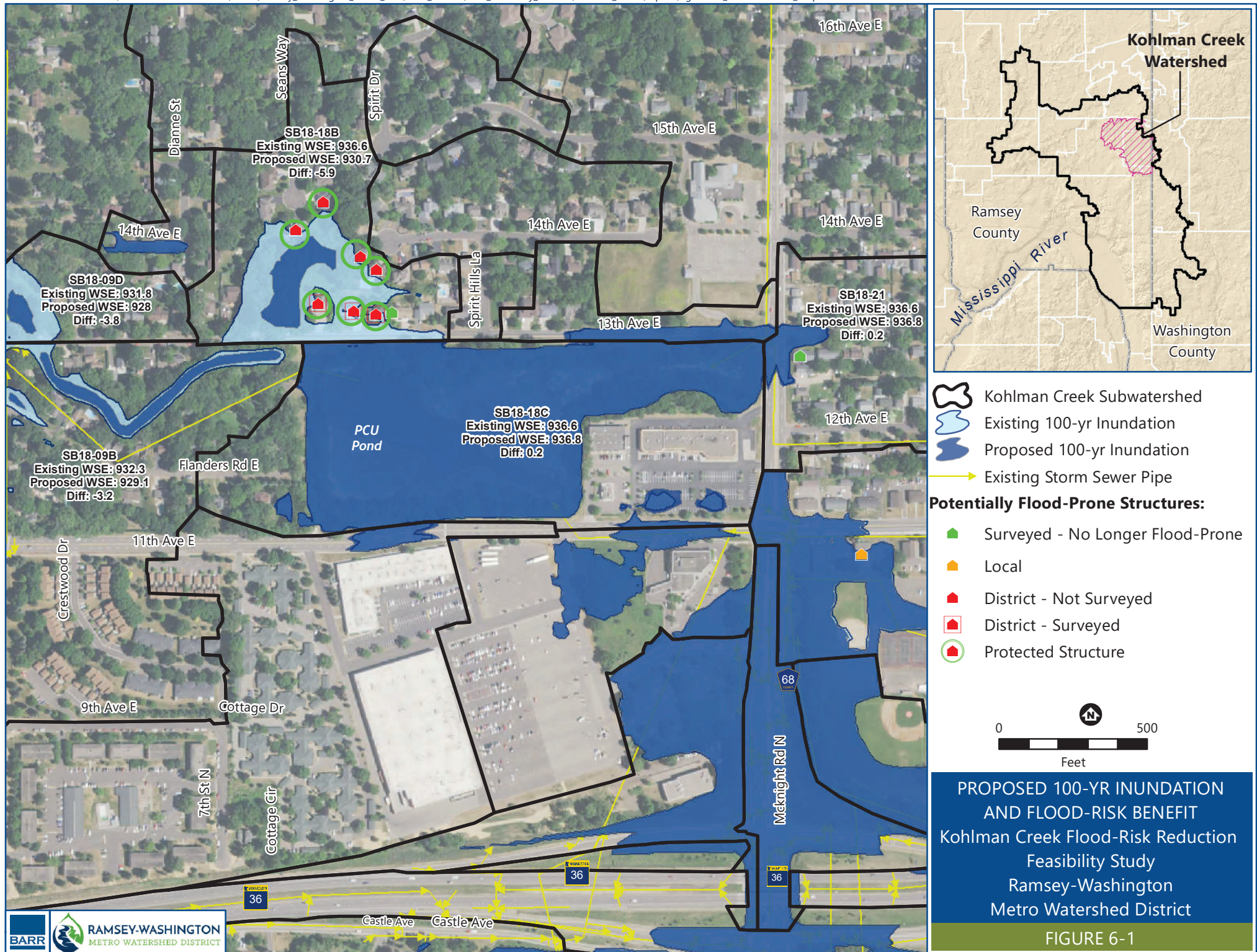
Subwatershed	Description of Location	Existing Conditions 100-year MWSE (ft, MSL)	Proposed Conditions 100-year MWSE (ft, MSL)	Difference in 100-year MWSE (ft)	Reduction in At-Risk Structures
SB18-18B¹	North of PCU Pond	936.6	932.2	-4.4	7
SB18-10¹	South of County Road C	913.6	911.0	-2.6	3
SB18-10B¹	Backyard Low Spot	913.6	911.6	-2.0	2
SB18-10C¹	South of Gervais Ave	913.6	911.0	-2.6	1
SB18-13B	Wetland Downstream of County Road C	892.8	892.2	-0.6	0

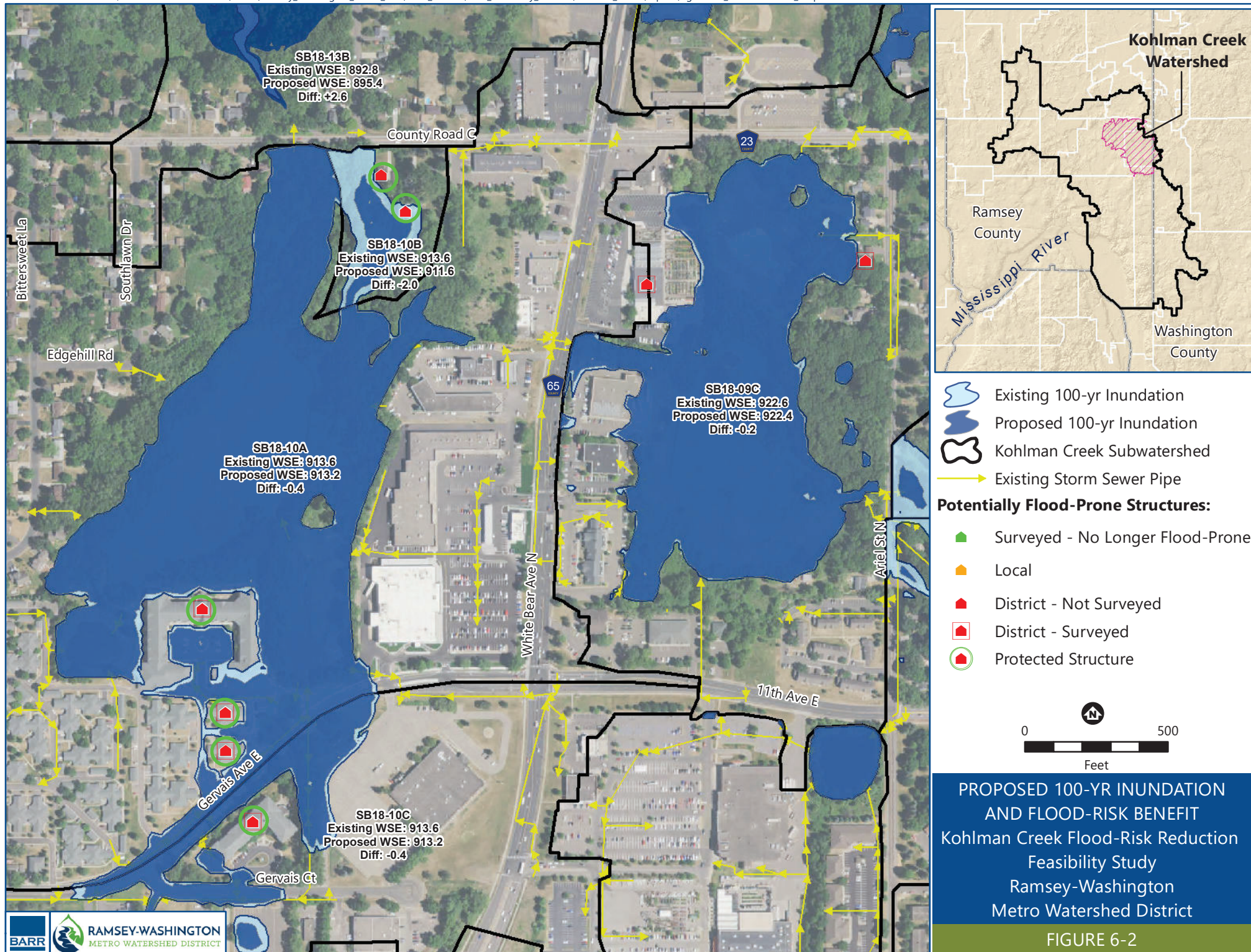
[1] Bolded subwatersheds were targeted in this study for flood-risk-reduction efforts.

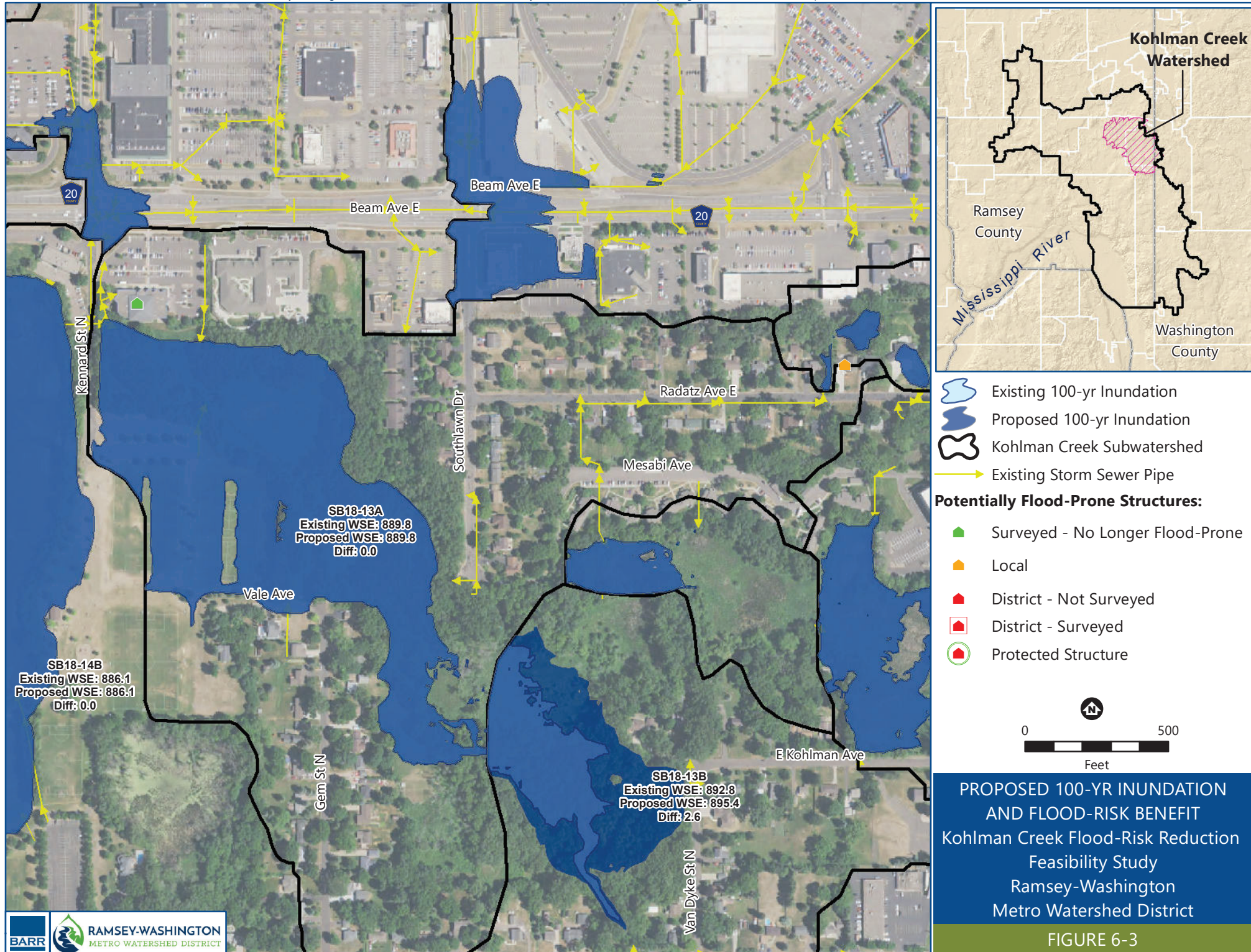
Additionally, a comparison of discharge rates from the most downstream point of all projects is included in Table 6-2 showing that the proposed discharge rates are below or close to the existing discharge rates for the project.

Table 6-2 Summary of Existing and Proposed Peak Discharges Downstream of County Road C for Select Return Intervals

Event	Existing Conditions Peak Discharge (cfs)	Proposed Conditions Peak Discharge (cfs)	Difference in Peak Discharge (cfs) [% increase or decrease]
100-Year	1,014	666	-348 [-34%]







7 Planning-Level Opinions of Probable Cost of Projects

Following further definition of the scope of the flood-reduction modifications and completion of detailed design, the final cost may be lower or higher than the planning-level opinions of cost included in Table 7-1. These costs are intended to provide a planning-level estimate for the potential system modifications described in previous sections. Detailed opinions of probable cost are included in Appendix C for each subproject.

Table 7-1 Summary of Planning-Level Opinions of Probable Costs for Recommended Flood-Reduction Subprojects

Subproject	Cost Range (-20% to +50%) ^{1,2,3,4,5,6,7}	
PCU Pond Storm Sewer Improvements and 13 th Avenue Berm (<i>recommended</i>)	\$926,000	\$1,736,000
Backyard Berm + Outlet (<i>recommended</i>)	\$69,000	\$129,000
County Road C Culvert (<i>recommended</i>)	\$295,000	\$554,000
Total	\$1,290,000	\$2,419,000

¹Quantities based on design work completed (10%).

²Unit prices based on information available at this time.

³This design level (Class 4, 1–15% design completion per ASTM E 2516-11) cost estimate is based on 15% designs, alignments, quantities, and unit prices. Costs will change with further design. Time value-of-money escalation costs are not included. A construction schedule is not available at this time. Contingency is an allowance for the net sum of costs that will be in the final total project cost at the time of the completion of design but are not included at this level of project definition. The estimated accuracy range for the total project cost as the project is defined is -20% to +50%. The accuracy range is based on professional judgment considering the level of design completed, the complexity of the project, and the uncertainties in the project as scoped. The contingency and the accuracy range are not intended to include costs for future scope changes that are not part of the project as currently scoped or costs for risk contingency. Operation and maintenance costs are not included.

⁴Estimate assumes that projects will not be located on contaminated soil.

⁵The estimated costs do not include maintenance, monitoring, or additional tasks following construction.

⁶Estimate costs are reported to the nearest thousand dollars.

⁷This contingency includes the current uncertainty in bid prices, which have recently been elevated due to supply-chain issues.

⁸It is important to note that in a 1994 project plans (Barr, 1994), Barr identified waste debris accumulated on the north side of PCU Pond that was placed there at an unknown time. Due to the presence of this potentially hazardous material, Barr included additional costs for the proper disposal of excavated material from PCU pond.

These opinions of cost, project reserves, contingency, documentation, and discussion are intended to provide background information for planning-level options assessment, analysis purposes, and budget planning. The cost of time escalation is not included in the opinions of probable cost. All costs are presented in 2023 US dollars.

Contingency used in these opinions of probable cost is intended to help identify an estimated construction cost amount for items included in the current project scope that have not yet been accurately quantified at the current level of design. Stated another way, contingency is the resultant of the pluses and minuses that cannot be estimated at the level of project definition that exists. The contingency also includes the cost of ancillary items not currently itemized in the quantity summaries but commonly

identified in more detailed design and required for completeness of the work. A 30% contingency is applied to the estimated construction cost to account for the costs of these items.

Industry resources for cost estimating (*AACE International Recommended Practice No. 18R-97*, and *ASTM E2516-11 Standard Classification for Cost Estimate Classification System*) provide guidance on cost uncertainty, depending on the level of project design developed. The opinion of probable cost for the options evaluated generally corresponds to a Class 4 estimate characterized by the completion of limited engineering. As the level of design detail increases, the level of uncertainty is reduced. Figure 7-1 provides a graphic representation of how uncertainty (or accuracy) of cost estimates can be expected to improve as more detailed design is developed.

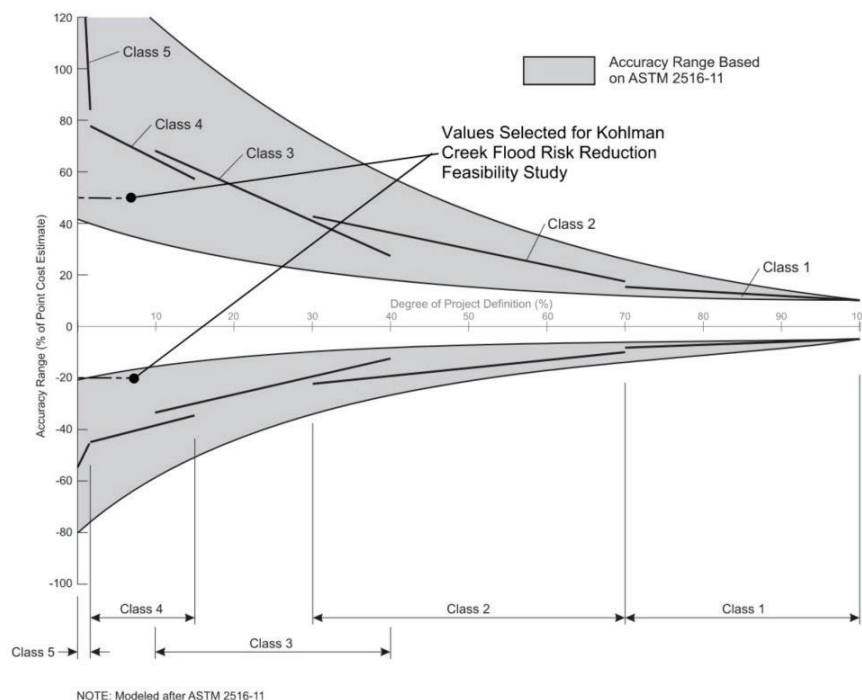


Figure 7-1 Relationship between Cost Accuracy and Degree of Project Definition

At this early stage of planning, the range of uncertainty of total project cost is high. Due to the early stage of the project, it is standard practice to place a broad accuracy range around the point cost estimate.

The accuracy range is based on professional judgment considering the level of design completed, the complexity of the project, and the uncertainties in the project scope; the accuracy range does not include costs for future scope changes that are not part of the project as currently defined or risk contingency. The estimated accuracy range for this point estimate is -20% to +50%.

The opinion of probable construction cost is made based on Barr's experience and qualifications and represents our best judgment as experienced and qualified professionals familiar with the project. It is

acknowledged that additional investigations and additional site-specific information that becomes available in the next stage of design may result in changes to the proposed configuration, cost, and functioning of project features. This opinion is based on project-related information available to Barr at this time and includes a planning-level feasibility design of the project. In addition, because we have no control over the eventual cost of labor, materials, equipment, or services furnished by others, over the contractor's methods of determining prices, or over competitive bidding or market conditions, Barr cannot and does not guarantee that proposals, bids, or actual costs will not vary from the opinion of probable cost presented.

8 Regulatory Approval

The following permits may be required for one or more of the proposed flood-reduction projects:

- **Excavating and grading permit (City of Maplewood):** An excavating and grading permit application and an erosion control plan must be submitted with the final grading plans to the City of Maplewood any time a significant amount of soil is displaced, or a drainage pattern is altered.
- **Right-of-way permit (City of Maplewood):** Any work in the public right-of-way requires a city right-of-way permit.
- **Trenching Permit (City of North Saint Paul):** A trenching permit application to the City of North Saint Paul any time a significant amount of soil is displaced in the right-of-way.
- **Right-of-way permit (City of North Saint Paul):** Any work in the public right-of-way requires a city right-of-way permit.
- **Stormwater Pollution Prevention Plan Permit (City of North Saint Paul):** Any work resulting in land disturbance activities between 10,000 square feet and 1 acre requires a stormwater pollution prevention plan permit to be submitted to the City of North Saint Paul.
- **RWMWD permit:** A permit is required if any RWMWD rules are triggered. Rule C Stormwater Management is triggered if the proposed land disturbance exceeds 1 acre. Rule D Flood Control is triggered for any land-disturbing activity greater than 1 acre that increases impervious area or any land-disturbing activity of any size that involves alteration or fill of land below the 100-year flood elevation of a water body. Rule E Wetland Management applies for land disturbance that exceeds 1 acre and is located adjacent to a wetland. Finally, Rule F (Erosion and Sediment Control) applies for proposed land disturbance that exceeds 1 acre or is greater than 1,000 square feet and within the 100-year floodplain or adjacent to a public water or wetland.
- **National Pollutant Discharge Elimination System (NPDES) permit (Minnesota Pollution Control Agency [MPCA]):** An NPDES permit is required if the disturbed area is greater than 1 acre or if the MPCA determines that the area poses a risk to water resources.
- **Public water work permit (Minnesota Department of Natural Resources [MnDNR]):** A public water work permit may be required if proposed drainage modifications include work in or adjacent to an MnDNR public water.
- **Clean Water Act permit (US Army Corp of Engineers [USACE]):** A Clean Water Act permit may be required if proposed drainage modifications include work in or adjacent to an MnDNR public water or within the jurisdiction of the USACE.

9 Recommendations

Based on the evaluation of the results, affected property owners, regulatory requirements, and probable cost, PCU Pond storm sewer improvements and berm, backyard berm and outlet modifications, and County Road C are recommended as the most feasible approach to flood-risk mitigation along Kohlman Creek. The evaluation was based on information collected while reviewing available data and modeling the proposed combination of projects in the District's XPSWMM model. The other projects evaluated are excluded from this recommendation because they do not provide significant additional benefit (i.e., no additional structures removed from the floodplain) for the large capital cost it would take to construct them. Additionally, these projects would result in the largest construction disturbance compared to other subprojects.

The total engineer's opinion of probable cost for the proposed combination of subprojects has an estimated accuracy range of \$1,290,000 to \$2,419,000 based on the current level of design. The individual costs for the recommended subprojects are included in Table 9-1. These subprojects remove a total property value of \$3,593,500 residential structures from the 100-year floodplain. Additionally, these projects reduce flood risk for multi-residential structures totalling approximately \$35 million in property value. Barr estimated these values from Ramsey County property records.

RWMWD and Barr will work with the Cities of Maplewood and North Saint Paul to review these proposed projects and determine whether the cities are interested in proceeding with them in accordance with the proposed project sequencing.

Table 9-1 Summary of Planning-Level Opinions of Probable Costs for Recommended Flood-Reduction Subprojects

Subproject	Cost Range (-20% to +50%)	
PCU Pond Storm Sewer Improvements and Berm <i>(recommended)</i>	\$926,000	\$1,736,000
Backyard Berm + Outlet <i>(recommended)</i>	\$69,000	\$129,000
County Road C Culvert <i>(recommended)</i>	\$295,000	\$554,000
Total	\$1,290,000	\$2,419,000

10 References

Association for the Advancement of Cost Estimating. Rev. 2016. AACE International Recommended Practice NO. 18R-97, March 1, 2016. (AACE, 2016)

ASTM E2516-11, Standard Classification for Cost Estimate Classification System, ASTM International, West Conshohocken, PA, 2011, www.astm.org, (ASTM, 2011)

Barr Engineering Co., 1994. *Target Pond and White Bear Avenue Control*. Project Design Plans. Project Number 23-62/263. (Barr, 1994).

Barr Engineering Co., 2018. *Identification and Prioritization of Potentially Flood-Prone Structures*. Report. (Barr, 2018)

Barr Engineering Co., 2020. *System-Wide Evaluation of Flood-Risk Mitigation Options. Beltline Resiliency Study*. Report. (Barr, 2020)

NOAA. (2013). Atlas 14: Rainfall Frequency Atlas of the United States (Volume 8, Version 2). National Oceanic and Atmospheric Administration.

WSB, 2023. *Climate Resiliency and Vulnerable Population Projection in Flood Prevention and Mitigation Strategies*. Report. (WSB, 2023)

Appendix A – Individual Improvement Results

Table A-1 100-Year model results with only PCU Pond berm and storm sewer modifications

Subwatershed	Description of Location	Existing Conditions MWSE (ft, MSL)	Proposed Conditions MWSE (ft, MSL)	Difference in MWSE (ft)	Reduction in At-Risk Structures
SB18-21 ¹	East of PCU Pond	936.9	937.6	0.7	0
SB18-19 ¹		936.6	937.6	0.9	0
SB18-18A ¹		937.0	937.6	0.6	0
SB18-18B²	North of PCU Pond	936.6	932.5	-4.1	7
SB18-18C ¹	PCU Pond	936.6	937.6	0.9	0
SB18-18E ¹		936.7	937.6	0.9	0
SB18-18H		939.6	939.6	0.0	0
SB18-18I		939.4	939.4	0.0	0
SB18-18J ¹		936.6	937.6	0.9	0
SB18-18L		959.5	959.5	0.0	0
SB18-18M		941.7	941.7	0.0	0
SB18-09B		932.3	932.1	-0.1	0
SB18-09C		922.6	922.6	0.0	0
SB18-09D		931.8	931.7	-0.1	0
SB18-09F		941.0	941.0	0.0	0
SB18-10²	South of County Road C	913.6	913.5	0.0	0
SB18-10B²	Backyard Low Spot	913.6	913.5	0.0	0
SB18-10C²	South of Gervais Ave	913.6	913.5	0.0	0
SB18-13A		889.8	889.8	0.0	0
SB18-13B ¹	Wetland Downstream of County Road C	892.8	892.7	0.0	0
SB18-13C		906.3	906.3	0.0	0
SB18-11A		922.9	922.9	0.0	0
SB18-11B		916.0	916.0	0.0	0
SB18-14B		886.1	886.1	0.0	0
SB18-17A		879.6	879.5	0.0	0
SB18-17B		881.5	881.5	0.0	0

¹Rise in MWSE does not negatively impact any habitable structures.

²Bolded subwatersheds were targeted in this study for flood-risk-reduction efforts.

Table A-2 100-Year model results with only PCU Pond improvements and no diversion

Subwatershed	Description of Location	Existing Conditions MWSE (ft, MSL)	Proposed Conditions MWSE (ft, MSL)	Difference in MWSE (ft)	Reduction in At-Risk Structures
SB18-21 ¹	East of PCU Pond	936.9	937.6	0.7	0
SB18-19 ¹		936.6	937.6	0.9	0
SB18-18A		937.0	937.6	0.6	0
SB18-18B²	North of PCU Pond	936.6	932.5	-4.1	7
SB18-18C ¹	PCU Pond	936.6	937.6	0.9	0
SB18-18E ¹		936.7	937.6	0.9	0
SB18-18H		939.6	939.6	0.0	0
SB18-18I		939.4	939.4	0.0	0
SB18-18J ¹		936.6	937.6	0.9	0
SB18-18L		959.5	959.5	0.0	0
SB18-18M		941.7	941.7	0.0	0
SB18-09B		932.3	932.1	-0.1	0
SB18-09C		922.6	922.6	0.0	0
SB18-09D		931.8	931.7	-0.1	0
SB18-09F		941.0	941.0	0.0	0
SB18-10²	South of County Road C	913.6	913.5	0.0	0
SB18-10B²	Backyard Low Spot	913.6	913.5	0.0	0
SB18-10C²	South of Gervais Ave	913.6	913.5	0.0	0
SB18-13A		889.8	889.8	0.0	0
SB18-13B ¹	Wetland Downstream of County Road C	892.8	892.7	0.0	0
SB18-13C		906.3	906.3	0.0	0
SB18-11A		922.9	922.9	0.0	0
SB18-11B		916.0	916.0	0.0	0
SB18-14B		886.1	886.1	0.0	0
SB18-17A		879.6	879.5	0.0	0
SB18-17B		881.5	881.5	0.0	0

¹Rise in MWSE does not negatively impact any habitable structures.

²Bolded subwatersheds were targeted in this study for flood-risk-reduction efforts.

Table A-3 100-Year model results with only PCU Pond improvements and diversion

Subwatershed	Description of Location	Existing Conditions MWSE (ft, MSL)	Proposed Conditions MWSE (ft, MSL)	Difference in MWSE (ft)	Reduction in At-Risk Structures
SB18-21	East of PCU Pond	936.9	936.9	0.0	0
SB18-19 ¹		936.6	936.9	0.3	0
SB18-18A		937.0	937.0	0.0	0
SB18-18B²	North of PCU Pond	936.6	932.5	-4.1	7
SB18-18C ¹	PCU Pond	936.6	936.9	0.3	0
SB18-18E ¹		936.7	936.9	0.3	0
SB18-18H		939.6	939.6	0.0	0
SB18-18I		939.4	939.3	0.0	0
SB18-18J ¹		936.6	936.9	0.3	0
SB18-18L		959.5	959.5	0.0	0
SB18-18M		941.7	941.7	0.0	0
SB18-09B		932.3	929.2	-3.1	0
SB18-09C		922.6	922.4	-0.2	0
SB18-09D		931.8	927.9	-3.9	0
SB18-09F		941.0	941.0	0.0	0
SB18-10²	South of County Road C	913.6	913.6	0.0	0
SB18-10B²	Backyard Low Spot	913.6	913.6	0.0	0
SB18-10C²	South of Gervais Ave	913.6	913.6	0.0	0
SB18-13A		889.8	889.8	0.0	0
SB18-13B ¹	Wetland Downstream of County Road C	892.8	892.7	0.0	0
SB18-13C		906.3	906.3	0.0	0
SB18-11A		922.9	922.9	0.0	0
SB18-11B		916.0	916.0	0.0	0
SB18-14B		886.1	886.1	0.0	0
SB18-17A		879.6	879.6	0.0	0
SB18-17B		881.5	881.5	0.0	0

¹Rise in MWSE does not negatively impact any habitable structures.

²Bolded subwatersheds were targeted in this study for flood-risk-reduction efforts.

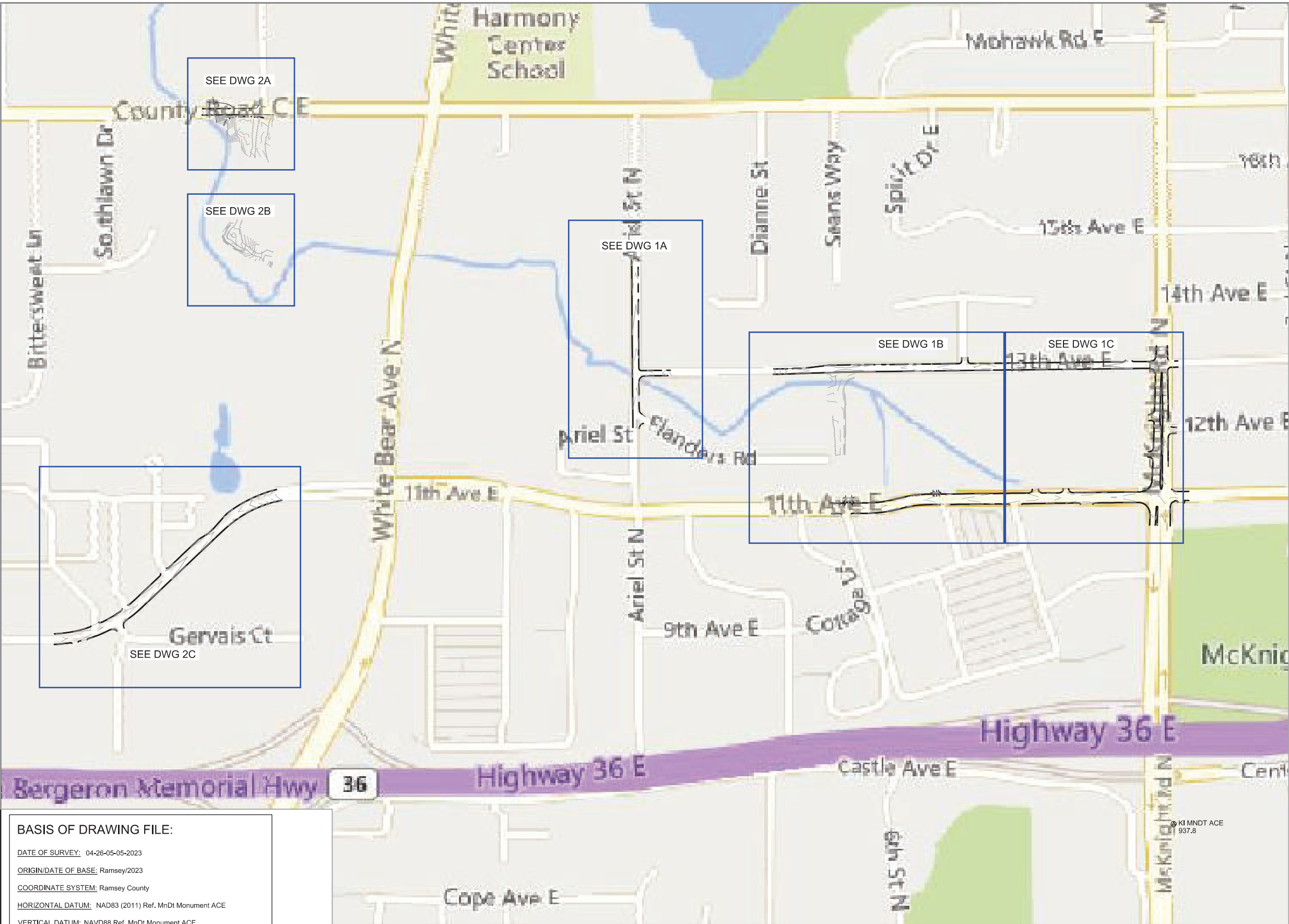
Table A-4 100-Year model results with only County Road C culvert and backyard berm

Subwatershed	Description of Location	Existing Conditions MWSE (ft, MSL)	Proposed Conditions MWSE (ft, MSL)	Difference in MWSE (ft)	Reduction in At-Risk Structures
SB18-21	East of PCU Pond	936.9	936.9	0.0	0
SB18-19		936.6	936.6	0.0	0
SB18-18A		937.0	937.0	0.0	0
SB18-18B¹	North of PCU Pond	936.6	936.6	0.0	0
SB18-18C	PCU Pond	936.6	936.6	0.0	0
SB18-18E		936.7	936.7	0.0	0
SB18-18H		939.6	939.6	0.0	0
SB18-18I		939.4	939.4	0.0	0
SB18-18J		936.6	936.6	0.0	0
SB18-18L		959.5	959.5	0.0	0
SB18-18M		941.7	941.7	0.0	0
SB18-09B		932.3	932.3	0.0	0
SB18-09C		922.6	922.6	0.0	0
SB18-09D		931.8	931.8	0.0	0
SB18-09F		941.0	941.0	0.0	0
SB18-10¹	South of County Road C	913.6	911.4	-2.2	3
SB18-10B¹	Backyard Low Spot	913.6	911.6	-2.0	2
SB18-10C¹	South of Gervais Ave	913.6	911.4	-2.2	1
SB18-13A		889.8	889.6	-0.2	0
SB18-13B	Wetland Downstream of County Road C	892.8	892.3	-0.5	0
SB18-13C		906.3	906.3	0.0	0
SB18-11A		922.9	922.9	0.0	0
SB18-11B		916.0	916.0	0.0	0
SB18-14B		886.1	886.0	-0.1	0
SB18-17A		879.6	879.5	-0.1	0
SB18-17B		881.5	881.5	0.0	0

¹Bolded subwatersheds were targeted in this study for flood-risk-reduction efforts.

Appendix B – Detailed Survey Information

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LEGEND - - SURVEY	
	CONTROL POINT
	FOUND IRON PIPE
	VERTICAL BENCHMARK
	CONTROL HUB/LATH
	DOWNSPOUT
	POWER POLE
	LIGHT POLE
	GUY WIRE
	HYDRANT
	VALVE
	SIGN
	BOLLARD
	ELECTRICAL BOX
	UTILITY BOX
	GAS METER
	ELECTRICAL METER
	MANHOLE
	SANITARY MANHOLE
	STORM MANHOLE
	CATCH BASIN
	STORM DRAIN
	CLEAN OUT
	CULVERT
	DECIDUOUS TREE
	CONIFEROUS TREE
	MONITORING WELL
	WELL
	RELIEF WELL
	BORING
	PIEZOMETER
	INCLINOMETER
	TEST PIT
	STAFF GAGE
	ANTENNA
	SPRINKLER HEAD
	IRRIGATION VALVE BOX
	BATHYMETRIC ELEVATION
	SECTION LINE
	PROPERTY LINE
	RIGHT-OF-WAY
	EASEMENT
	MAJOR CONTOUR
	MINOR CONTOUR
	CENTERLINE
	FENCE
	FLOW LINE
	RAILROAD TRACKS
	EDGE OF VEGETATION
	SHORELINE
	EDGE OF ROAD
	CURB AND GUTTER
	GAS LINE
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	UNDERGROUND FIBER OPTIC
	SANITARY SEWER
	STORM SEWER
	WATER LINE
	BATHYMETRIC POINTS
	GRID LINES (25')

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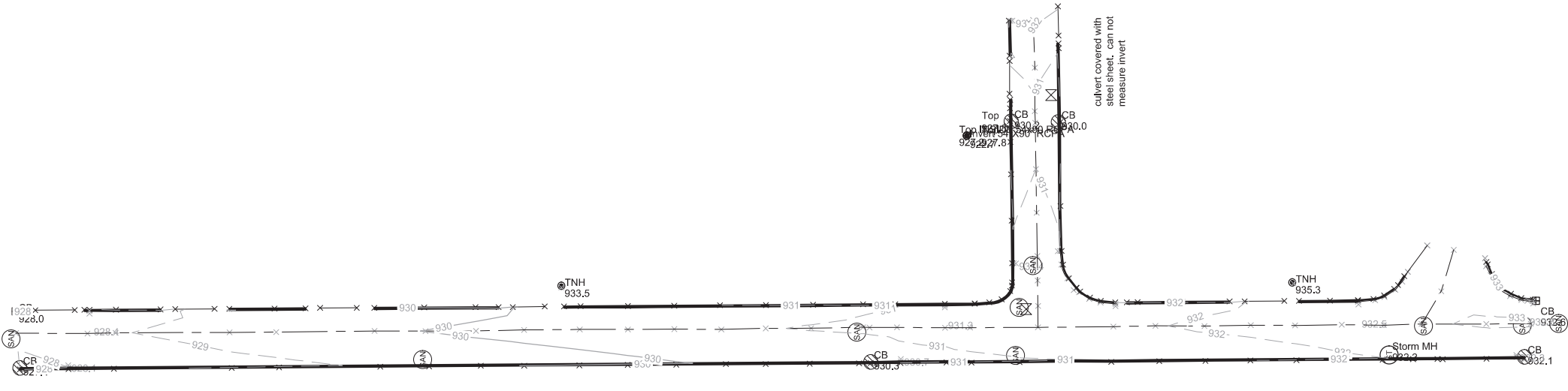
DATE OF SURVEY: 04-26-05-05-2023
ORIGIN/DATE OF BASE: Ramsey/2023
COORDINATE SYSTEM: Ramsey County
HORIZONTAL DATUM: NAD83 (2011) Ref. MnDt Monument ACE
VERTICAL DATUM: NAVD88 Ref. MnDt Monument ACE
ADDITIONAL FILE INFORMATION:



PRELIMINARY DRAFT
NOT FOR CONSTRUCTION

					I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.					CLIENT BID											 Project Office: BARR ENGINEERING CO. 3033 ORCHARD VISTA DR SE SUITE 200 GRAND RAPIDS, MI 49546 Ph: 1-616-512-7000 Fax: (951) 832-2601 www.barr.com	Scale AS SHOWN	R.W.M.W.D. LITTLE CANADA, MINNESOTA		Kohlman CK Flood Damage Study North St. Paul, Minnesota 11th, 13th, Ariel, McKnight, Gervais, County Rd C Base Map survey		BARR PROJECT No. 23/62-1200.22 CLIENT PROJECT No. DWG. No. 1ABC & 2ABC REV. No. -	
					CONSTRUCTION RECORD																							
					RELEASED TO/FOR																							
					DATE RELEASED																							
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION					PRINTED NAME	SIGNATURE					LICENSE #												

CADD USER: GREG NELSON FILE: M:\DESIGN\2562\200 2562 KOHLMAN CK FLOOD RISK REDUCTION\2562\2002 BASE_C3D_SURVEY_RWMWD_NORTH_ST_PAUL_2023 - COPY.DWG PLOT SCALE: 1/2 PLOT DATE: 5/15/2023 3:47 PM



- LEGEND - - SURVEY**
- CONTROL POINT
 - ⊕ FOUND IRON PIPE
 - ⊕ VERTICAL BENCHMARK
 - CONTROL HUB/LATH
 - DOWNSPOUT
 - ⊗ POWER POLE
 - ☀ LIGHT POLE
 - GUY WIRE
 - HYDRANT
 - ⊗ VALVE
 - SIGN
 - BOLLARD
 - ⊞ ELECTRICAL BOX
 - ⊞ UTILITY BOX
 - ⊞ GAS METER
 - ⊞ ELECTRICAL METER
 - ⊞ MANHOLE
 - ⊞ SANITARY MANHOLE
 - ⊞ STORM MANHOLE
 - ⊞ CATCH BASIN
 - ▨ STORM DRAIN
 - ⊞ CLEAN OUT
 - CULVERT
 - DECIDUOUS TREE
 - ☀ CONIFEROUS TREE
 - ⊕ MONITORING WELL
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 - ⊞ BORING
 - ⊞ PIEZOMETER
 - ⊞ INCLINOMETER
 - ⊞ TEST PIT
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 - × BATHYMETRIC ELEVATION
 - SECTION LINE
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 - EBM --- EBM --- EBM --- EASEMENT
 - 1380 --- MAJOR CONTOUR
 - 1379 --- MINOR CONTOUR
 - CENTERLINE
 - FENCE
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 - ||||| RAILROAD TRACKS
 - ~~~~~ EDGE OF VEGETATION
 - SHORELINE
 - EDGE OF ROAD
 - CURB AND GUTTER
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 - OE --- OE --- OE --- OVERHEAD ELECTRIC
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 - ST --- ST --- ST --- STORM SEWER
 - W --- W --- W --- WATER LINE
 - BATHYMETRIC POINTS
 - GRID LINES (25')

BASIS OF DRAWING FILE:

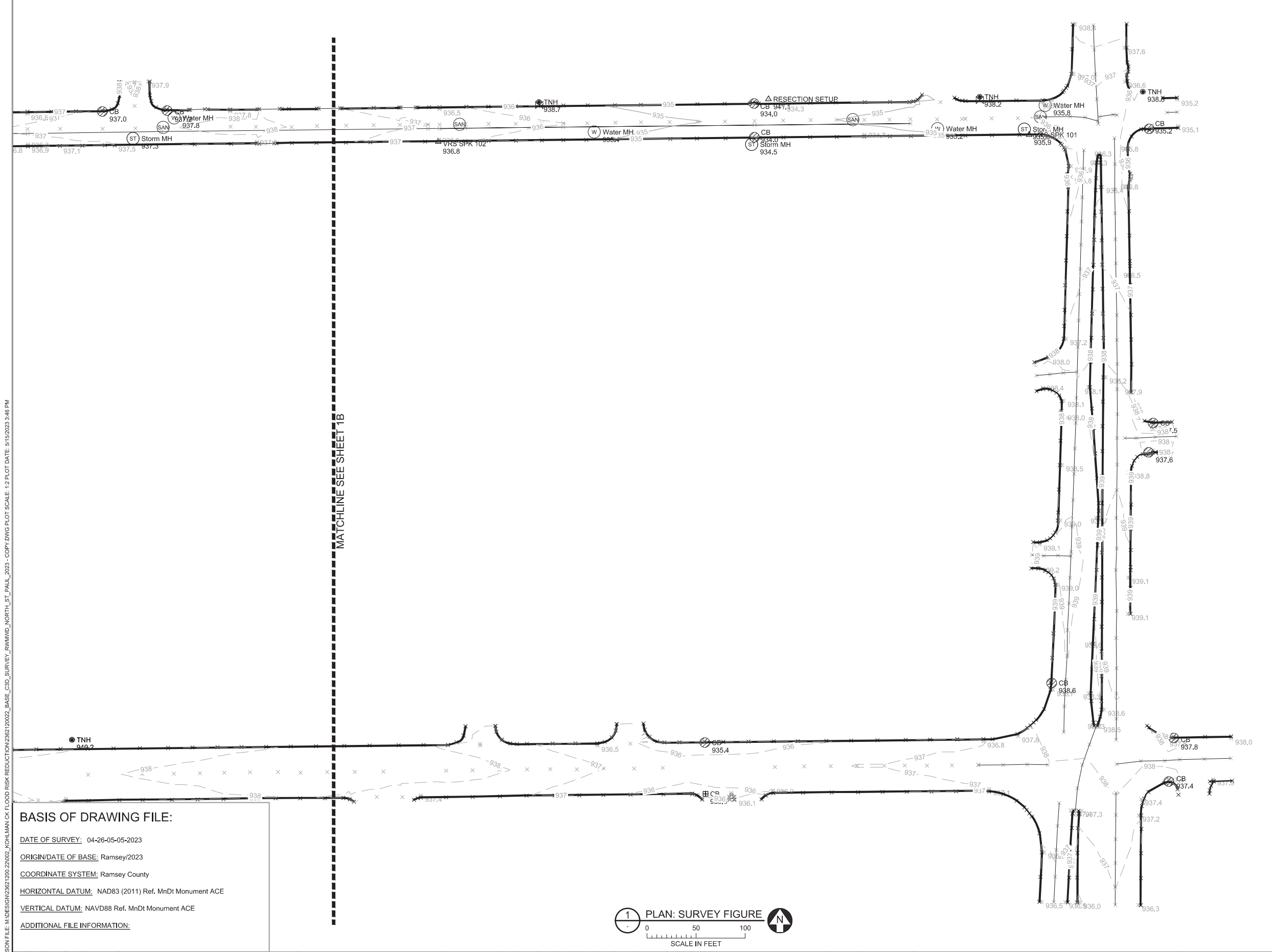
DATE OF SURVEY: 04-26-05-05-2023
ORIGIN/DATE OF BASE: Ramsey/2023
COORDINATE SYSTEM: Ramsey County
HORIZONTAL DATUM: NAD83 (2011) Ref. MnDt Monument ACE
VERTICAL DATUM: NAVD88 Ref. MnDt Monument ACE
ADDITIONAL FILE INFORMATION:



PRELIMINARY DRAFT
NOT FOR CONSTRUCTION

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CADD USER: GREG NELSON FILE: I:\DESIGN\2562\200 220022_KOHLMAN CK FLOOD RISK REDUCTION\2362120022_BASE_C3D_SURVEY_RWMWD_NORTH_ST_PAUL_2023_COPY.DWG PLOT SCALE: 1/2 PLOT DATE: 5/15/2023 3:46 PM



BASIS OF DRAWING FILE:

DATE OF SURVEY: 04-26-05-05-2023
ORIGIN/DATE OF BASE: Ramsey/2023
COORDINATE SYSTEM: Ramsey County
HORIZONTAL DATUM: NAD83 (2011) Ref. MnDt Monument ACE
VERTICAL DATUM: NAVD88 Ref. MnDt Monument ACE
ADDITIONAL FILE INFORMATION:

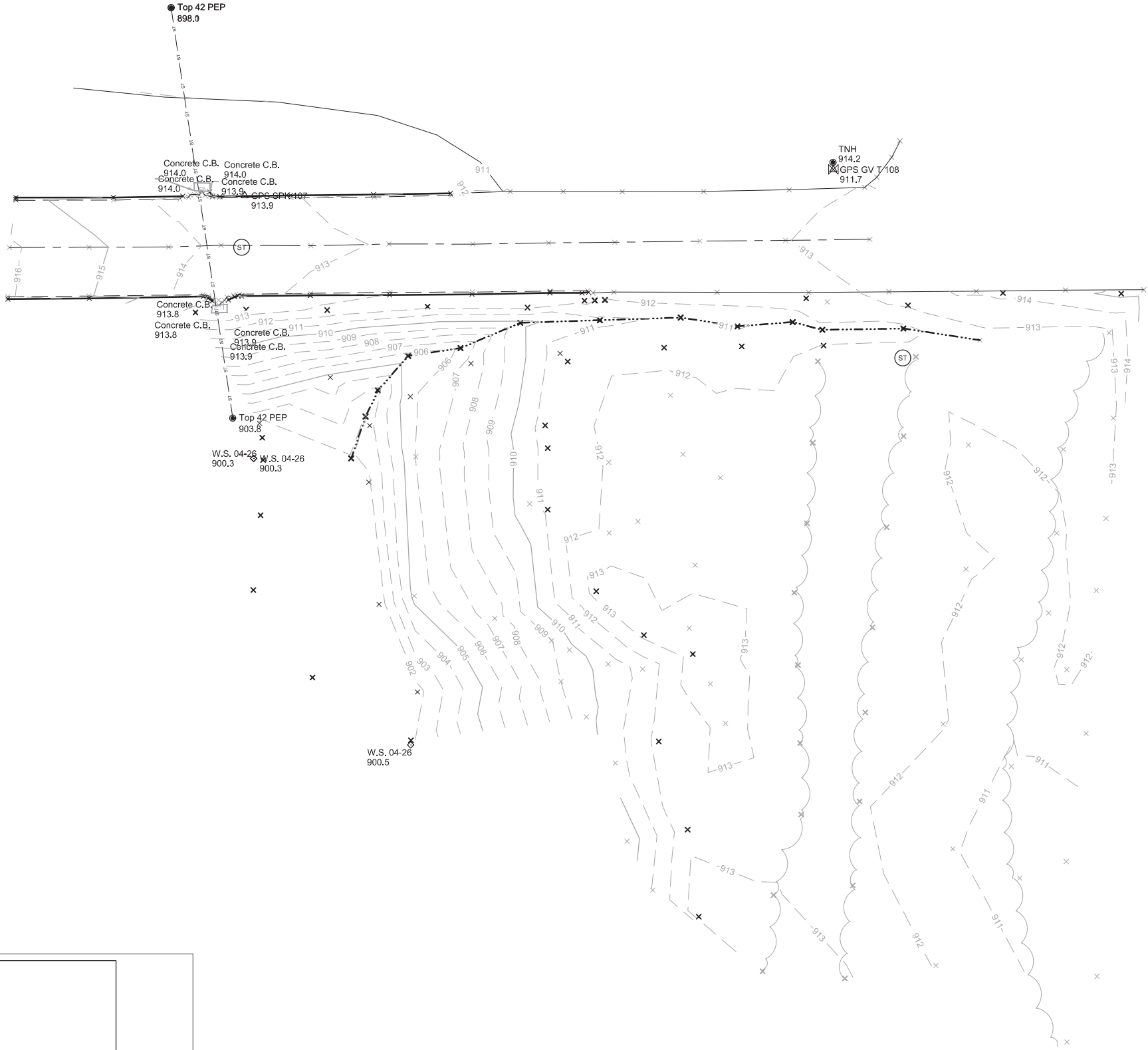


LEGEND - - SURVEY	
	CONTROL POINT
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	CONTROL HUB/LATH
	DOWNSPOUT
	POWER POLE
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	ELECTRICAL BOX
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	MANHOLE
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	TEST PIT
	STAFF GAGE
	ANTENNA
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	IRRIGATION VALVE BOX
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	RAILROAD TRACKS
	EDGE OF VEGETATION
	SHORELINE
	EDGE OF ROAD
	CURB AND GUTTER
	GAS LINE
	OVERHEAD ELECTRIC
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	UNDERGROUND FIBER OPTIC
	SANITARY SEWER
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	WATER LINE
	BATHYMETRIC POINTS
	GRID LINES (25')

PRELIMINARY DRAFT
NOT FOR CONSTRUCTION

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CADD USER: GREG NELSON FILE: M:\DESIGN\2562\200 2\20023_KOHLMAN CK FLOOD RISK REDUCTION\2362\20023_COPY DWG PLOT SCALE: 1/2 PLOT DATE: 5/15/2023 3:45 PM



- LEGEND - - SURVEY**
- CONTROL POINT
 - ⊕ FOUND IRON PIPE
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 - CONTROL HUB/LATH
 - DOWNSPOUT
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 - ⊞ ELECTRICAL BOX
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 - DECIDUOUS TREE
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 - 1380 — MAJOR CONTOUR
 - 1379 — MINOR CONTOUR
 - CENTERLINE
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 - SAN — SAN — SAN — SANITARY SEWER
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 - W — W — W — WATER LINE
 - BATHYMETRIC POINTS
 - GRID LINES (25')

BASIS OF DRAWING FILE:

DATE OF SURVEY: 04-26-05-05-2023
ORIGIN/DATE OF BASE: Ramsey/2023
COORDINATE SYSTEM: Ramsey County
HORIZONTAL DATUM: NAD83 (2011) Ref. Mndt Monument ACE
VERTICAL DATUM: NAVD88 Ref. Mndt Monument ACE
ADDITIONAL FILE INFORMATION:



PRELIMINARY DRAFT
NOT FOR CONSTRUCTION

					I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.					CLIENT BID CONSTRUCTION RECORD					Project Office: BARR ENGINEERING CO. 3033 ORCHARD VISTA DR SE SUITE 200 GRAND RAPIDS, MI 49546 Corporate Headquarters: Minneapolis, Minnesota Ph: 1-616-512-7000 Fax: (951) 832-2601 www.barr.com					Scale AS SHOWN Date --/-- Drawn --- Checked --- Designed --- Approved ---					R.W.M.W.D. LITTLE CANADA, MINNESOTA					KOHLMAN CK FLOOD DAMAGE STUDY NORTH ST. PAUL, MINNESOTA					BARR PROJECT No. 23/62-1200.22 CLIENT PROJECT No.					DWG. No. 2A					REV. No. -																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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BASIS OF DRAWING FILE:

DATE OF SURVEY: 04-26-05-05-2023

ORIGIN/DATE OF BASE: Ramsey/2023

COORDINATE SYSTEM: Ramsey County

HORIZONTAL DATUM: NAD83 (2011) Ref. MnDt Monument ACE

VERTICAL DATUM: NAVD88 Ref. Mndt Monument ACE

ADDITIONAL FILE INFORMATION:

◆ W.S. 04-27 CREEK
902.0



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					BID					CONSTRUCTION					RECORD										Date		--/--																															
					PRINTED NAME					RELEASED TO/OF					DATE RELEASED										Checked		---																															
NO. BY CHK. APP. DATE					REVISION DESCRIPTION					SIGNATURE					DATE										LICENSE #																																	
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PRELIMINARY DRAFT
NOT FOR CONSTRUCTION

KOHLMAN CK FLOOD DAMAGE STUDY

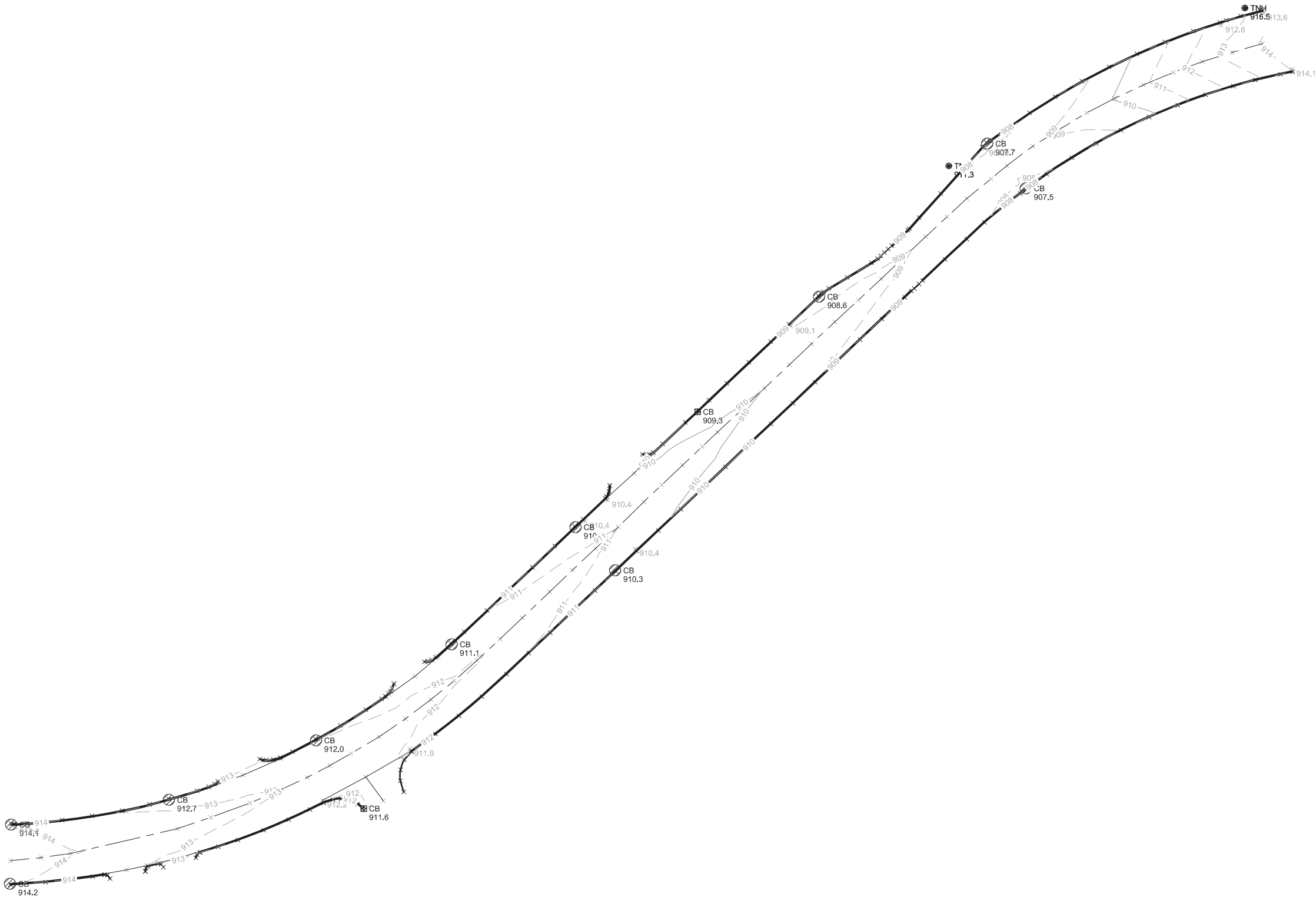
NORTH ST. PAUL, MINNESOTA

TOPO FOR BERM AND CULVERT
BASE MAP SURVEY

BARR PROJECT No.
23/62-1200.22
CLIENT PROJECT No.

OWG. No.	REV. No.
2B	-

CADD USER: GREG NELSON FILE: M:\DESIGN\2562\200 220052_KOHLMAN CK FLOOD RISK REDUCTION\2302120022_BASE_C3D_SURVEY_RWMWD_NORTH_ST_PAUL_2023_COPY.DWG PLOT SCALE: 1/2 PLOT DATE: 5/15/2023 3:46 PM



- LEGEND - - SURVEY
- CONTROL POINT
 - ⊕ FOUND IRON PIPE
 - ⊕ VERTICAL BENCHMARK
 - CONTROL HUB/LATH
 - DOWNSPOUT
 - ⊗ POWER POLE
 - ☀ LIGHT POLE
 - GUY WIRE
 - HYDRANT
 - ⊗ VALVE
 - SIGN
 - BOLLARD
 - ⊞ ELECTRICAL BOX
 - ⊞ UTILITY BOX
 - ⊞ GAS METER
 - ⊞ ELECTRICAL METER
 - ⊞ MANHOLE
 - ⊞ SANITARY MANHOLE
 - ⊞ STORM MANHOLE
 - ⊞ CATCH BASIN
 - ▨ STORM DRAIN
 - ⊞ CLEAN OUT
 - CULVERT
 - DECIDUOUS TREE
 - ☀ CONIFEROUS TREE
 - ⊕ MONITORING WELL
 - ⊕ WELL
 - ⊞ RELIEF WELL
 - ⊞ BORING
 - ⊞ PIEZOMETER
 - ⊞ INCLINOMETER
 - ⊞ TEST PIT
 - ⊞ STAFF GAGE
 - ⊞ ANTENNA
 - ⊞ SPRINKLER HEAD
 - ⊞ IRRIGATION VALVE BOX
 - × BATHYMETRIC ELEVATION
 - SECTION LINE
 - P/L — P/L — P/L — PROPERTY LINE
 - R/W — R/W — R/W — RIGHT-OF-WAY
 - ESMT — ESMT — ESMT — EASEMENT
 - 1380 — MAJOR CONTOUR
 - - - - 1379 - - - MINOR CONTOUR
 - CENTERLINE
 - FENCE
 - FLOW LINE
 - ||||| RAILROAD TRACKS
 - ~~~~~ EDGE OF VEGETATION
 - SHORELINE
 - EDGE OF ROAD
 - ===== CURB AND GUTTER
 - GAS — GAS — GAS — GAS LINE
 - OE — OE — OE — OVERHEAD ELECTRIC
 - UE — UE — UE — UNDERGROUND ELECTRIC
 - FO — FO — FO — UNDERGROUND FIBER OPTIC
 - SAN — SAN — SAN — SANITARY SEWER
 - ST — ST — ST — STORM SEWER
 - W — W — W — WATER LINE
 - BATHYMETRIC POINTS
 - GRID LINES (25')

BASIS OF DRAWING FILE:

DATE OF SURVEY: 04-26-05-05-2023
ORIGIN/DATE OF BASE: Ramsey/2023
COORDINATE SYSTEM: Ramsey County
HORIZONTAL DATUM: NAD83 (2011) Ref. MnDt Monument ACE
VERTICAL DATUM: NAVD88 Ref. MnDt Monument ACE
ADDITIONAL FILE INFORMATION:



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Appendix C – Engineer's Opinion of Probable Cost

PREPARED BY: BARR ENGINEERING COMPANY BARR ENGINEER'S OPINION OF PROBABLE PROJECT COST PROJ# Kohlman Creek Flood Reduction LOCA# Ramsey-Washington Metro WD PROJ# 23/62-1200.22		SHEET:	1	OF	1
		CREATED BY:	GGN	DATE:	12/8/2023
		CHECKED BY:	TAO2	DATE:	12/20/2023
				DATE:	
				DATE:	
ESTIMATED					
ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	ITEM COST	NOTES
CONSTRUCT BERM ON SOUTH SIDE OF 13TH STREET AND STORM SEWER IMPROVEMENTS					
1 Mobilization/Demobilization	L.S.	1	\$6,000.00	\$6,000.00	1,2,3,4,5
2 Clearing and Grubbing	Acre	0.3	\$20,000.00	\$6,000.00	1,2,3,4,5
3 Traffic and Pedestrian Safety Control Measures	L.S.	1	\$2,500.00	\$2,500.00	1,2,3,4,5
4 Erosion and Sediment Control	L.S.	1	\$5,000.00	\$5,000.00	1,2,3,4,5
5 Control of Water	L.S.	1	\$20,000.00	\$20,000.00	1,2,3,4,5
5 Common Embankment (CV)	C.Y.	600	\$25.00	\$15,000.00	1,2,3,4,5
6 Topsoil Borrow	C.Y.	230	\$40.00	\$9,200.00	1,2,3,4,5
7 Seeding and Erosion Control Blanket	S.Y.	1,500	\$6.00	\$9,000.00	1,2,3,4,5
8 24" Dia. RCP	L.F.	310	\$100.00	\$31,000.00	1,2,3,4,5
9 30" Dia. RCP	L.F.	100	\$150.00	\$15,000.00	1,2,3,4,5
10 60" Dia. RCP	L.F.	2,500	\$300.00	\$750,000.00	1,2,3,4,5
11 48" Dia. RC Structure	Each	2	\$3,000.00	\$6,000.00	1,2,3,4,5
12 60" Dia. RC Structure	Each	3	\$5,000.00	\$15,000.00	1,2,3,4,5
CONSTRUCTION SUBTOTAL				\$890,000.00	1,2,3,4,5,6
CONTINGENCY (30%)				\$267,000.00	7
CONSTRUCTION TOTAL				\$1,157,000.00	1,2,3,4,5,6
ACCURACY RANGE 20 % BELOW				\$926,000.00	1,2,3,4,5,6
ACCURACY RANGE 50 % ABOVE				\$1,736,000.00	1,2,3,4,5,6
PCU POND EXCAVATION					
1 Mobilization/Demobilization	L.S.	1	\$210,000.00	\$210,000.00	1,2,3,4,5
2 Clearing and Grubbing	Acre	2.6	\$20,000.00	\$52,000.00	1,2,3,4,5
3 Traffic and Pedestrian Safety Control Measures	L.S.	1	\$10,000.00	\$10,000.00	1,2,3,4,5
4 Erosion and Sediment Control	L.S.	1	\$20,000.00	\$20,000.00	1,2,3,4,5
5 Control of Water	L.S.	1	\$20,000.00	\$20,000.00	1,2,3,4,5
6 Regulated Sediment/Muck Cleanout Excavation	C.Y.	40,000	\$50.00	\$2,000,000.00	1,2,3,4,5
CONSTRUCTION SUBTOTAL				\$2,312,000.00	1,2,3,4,5,6
CONTINGENCY (30%)				\$694,000.00	7
CONSTRUCTION TOTAL				\$3,006,000.00	1,2,3,4,5,6
ACCURACY RANGE 20 % BELOW				\$2,405,000.00	1,2,3,4,5,6
ACCURACY RANGE 50 % ABOVE				\$4,509,000.00	1,2,3,4,5,6
PCU POND DIVERSION					
1 Mobilization/Demobilization	L.S.	1	\$81,000.00	\$81,000.00	1,2,3,4,5
2 Clearing and Grubbing	Acre	2.6	\$20,000.00	\$52,000.00	1,2,3,4,5
3 Traffic and Pedestrian Safety Control Measures	L.S.	1	\$10,000.00	\$10,000.00	1,2,3,4,5
4 Erosion and Sediment Control	L.S.	1	\$20,000.00	\$20,000.00	1,2,3,4,5
5 Control of Water	L.S.	1	\$20,000.00	\$20,000.00	1,2,3,4,5
7 CLSM Fill Storm Sewer (Abandonment)	C.Y.	18	\$350.00	\$6,300.00	1,2,3,4,5
13 96" Dia. RC Structure	Each	10	\$7,000.00	\$70,000.00	1,2,3,4,5
14 96" Dia. RC Structure Side Mount Grate	Each	2	\$8,000.00	\$16,000.00	1,2,3,4,5
15 60" Dia. End Section	Each	2	\$3,000.00	\$6,000.00	1,2,3,4,5
16 Random Riprap Class IV (24" Depth)	Ton	70	\$100.00	\$7,000.00	1,2,3,4,5
17 Road Replacement	S.Y.	2,700	\$100.00	\$270,000.00	1,2,3,4,5
18 Public Road Utility Replacement/Relocation	L.F.	1,000	\$300.00	\$300,000.00	1,2,3,4,5
19 Topsoil Borrow	C.Y.	400	\$40.00	\$16,000.00	1,2,3,4,5
20 Seeding and Erosion Control Blanket	S.Y.	2,500	\$6.00	\$15,000.00	1,2,3,4,5
21 40-ft Drainage Easement	Acre	0.1	\$25,000.00	\$2,500.00	1,2,3,4,5
CONSTRUCTION SUBTOTAL				\$892,000.00	1,2,3,4,5,6
CONTINGENCY (30%)				\$268,000.00	7
CONSTRUCTION TOTAL				\$1,160,000.00	1,2,3,4,5,6
ACCURACY RANGE 20 % BELOW				\$928,000.00	1,2,3,4,5,6
ACCURACY RANGE 50 % ABOVE				\$1,740,000.00	1,2,3,4,5,6

COUNTY ROAD C CULVERT						
1	Mobilization/Demobilization	L.S.	1	\$26,000.00	\$26,000.00	1,2,3,4,5
2	Clearing and Grubbing	Acre	0.2	\$20,000.00	\$4,000.00	1,2,3,4,5
3	Traffic and Pedestrian Safety Control Measures	L.S.	1	\$5,000.00	\$5,000.00	1,2,3,4,5
4	Erosion and Sediment Control	L.S.	1	\$8,000.00	\$8,000.00	1,2,3,4,5
5	Control of Water	L.S.	1	\$10,000.00	\$10,000.00	1,2,3,4,5
6	Remove and Dispose Existing Culvert	L.F.	130	\$100.00	\$13,000.00	1,2,3,4,5
7	10' Span x 4' RC Precast Box	L.F.	130	\$700.00	\$91,000.00	1,2,3,4,5
8	Construct Temporary Flow Restriction (US Culvert End)	S.F.	32	\$150.00	\$4,800.00	
9	48" Dia. RC Drainage Structure	Each	2	\$3,000.00	\$6,000.00	1,2,3,4,5
10	Road Replacement	S.Y.	300	\$100.00	\$30,000.00	1,2,3,4,5
11	Private Driveway Pavement	S.Y.	100	\$25.00	\$2,500.00	1,2,3,4,5
12	Common Embankment (CV)	C.Y.	60	\$25.00	\$1,500.00	1,2,3,4,5
13	Public Road Utility Replacement/Relocation	L.F.	200	\$300.00	\$60,000.00	1,2,3,4,5
14	Random Riprap Class IV (24" Depth)	Ton	100	\$100.00	\$10,000.00	1,2,3,4,5
16	Topsoil Borrow	C.Y.	150	\$40.00	\$6,000.00	1,2,3,4,5
17	Seeding and Erosion Control Blanket	S.Y.	1,000	\$6.00	\$6,000.00	1,2,3,4,5
CONSTRUCTION SUBTOTAL					\$284,000.00	1,2,3,4,5,6
CONTINGENCY (30%)					\$85,000.00	7
CONSTRUCTION TOTAL					\$369,000.00	1,2,3,4,5,6
ACCURACY RANGE 20 % BELOW					\$295,000.00	1,2,3,4,5,6
ACCURACY RANGE 50 % ABOVE					\$554,000.00	1,2,3,4,5,6
BACKYARD CULVERT AND BERM						
1	Mobilization/Demobilization	L.S.	1	\$6,000.00	\$6,000.00	1,2,3,4,5
2	Clearing and Grubbing	Acre	0.3	\$20,000.00	\$6,000.00	1,2,3,4,5
3	Traffic and Pedestrian Safety Control Measures	L.S.	1	\$5,000.00	\$5,000.00	1,2,3,4,5
4	Erosion and Sediment Control	L.S.	1	\$5,000.00	\$5,000.00	1,2,3,4,5
5	12" Dia. RCP	L.F.	120	\$60.00	\$7,200.00	1,2,3,4,5
6	12" Dia. RC End Section	Each	2	\$600.00	\$1,200.00	1,2,3,4,5
7	Ditch Excavation and Grading	C.Y.	201	\$25.00	\$5,025.00	1,2,3,4,5
8	Random Riprap Class II (12" Depth)	Ton	34	\$100.00	\$3,422.22	1,2,3,4,5
9	Granular Filter Material (6" Depth)	Ton	17	\$60.00	\$1,026.67	1,2,3,4,5
10	Common Embankment (CV)	C.Y.	240	\$25.00	\$6,000.00	1,2,3,4,5
11	Topsoil Borrow	C.Y.	270	\$40.00	\$10,800.00	1,2,3,4,5
12	Seeding and Erosion Control Blanket	S.Y.	1,600	\$6.00	\$9,600.00	1,2,3,4,5
CONSTRUCTION SUBTOTAL					\$66,000.00	1,2,3,4,5,6
CONTINGENCY (30%)					\$20,000.00	7
CONSTRUCTION TOTAL					\$86,000.00	1,2,3,4,5,6
ACCURACY RANGE 20 % BELOW					\$69,000.00	1,2,3,4,5,6
ACCURACY RANGE 50 % ABOVE					\$129,000.00	1,2,3,4,5,6
KOHLMAN CREEK RATE CONTROL BERM						
1	Mobilization/Demobilization	L.S.	1	\$15,000.00	\$15,000.00	1,2,3,4,5
2	Clearing and Grubbing	Acre	0.4	\$20,000.00	\$8,000.00	1,2,3,4,5
3	Traffic and Pedestrian Safety Control Measures	L.S.	1	\$5,000.00	\$5,000.00	1,2,3,4,5
4	Erosion and Sediment Control	L.S.	1	\$5,000.00	\$5,000.00	1,2,3,4,5
5	24" Dia. RCP	L.F.	70	\$100.00	\$7,000.00	1,2,3,4,5
6	24" Dia. RC End Section	Each	2	\$1,200.00	\$2,400.00	1,2,3,4,5
7	Random Riprap Class III (18" Depth)	Ton	25	\$100.00	\$2,500.00	1,2,3,4,5
8	Granular Filter Material (9" Depth)	Ton	13	\$60.00	\$750.00	1,2,3,4,5
9	Common Embankment (CV)	C.Y.	1,050	\$25.00	\$26,250.00	1,2,3,4,5
15	Construct RC Weir In Kohlman Creek	S.F.	700	\$100.00	\$70,000.00	1,2,3,4,5
10	Topsoil Borrow	C.Y.	250	\$40.00	\$10,000.00	1,2,3,4,5
11	Seeding and Erosion Control Blanket	S.Y.	2,000	\$6.00	\$12,000.00	1,2,3,4,5
CONSTRUCTION SUBTOTAL					\$164,000.00	1,2,3,4,5,6
CONTINGENCY (30%)					\$49,000.00	7
CONSTRUCTION TOTAL					\$213,000.00	1,2,3,4,5,6
ACCURACY RANGE 20 % BELOW					\$170,000.00	1,2,3,4,5,6
ACCURACY RANGE 50 % ABOVE					\$320,000.00	1,2,3,4,5,6

Notes

¹ Quantities based on Design Work Completed (15%).

² Unit Prices Based on Information Available at This Time.

³ This design level (Class 4, 1-15% design completion per ASTM E 2516-11) cost estimate is based on 15% designs, alignments, quantities and unit prices. Costs will change with further design. Time value-of-money escalation costs are not included. A construction schedule is not available at this time. Contingency is an allowance for the net sum of costs that will be in the Final Total Project Cost at the time of the completion of design, but are not included at this level of project definition. The estimated accuracy range for the Total Project Cost as the project is defined is -20% to +50%. The accuracy range is based on professional judgement considering the level of design completed, the complexity of the project and the uncertainties in the project as scoped. The contingency and the accuracy range are not intended to include costs for future scope changes that are not part of the project as currently scoped or costs for risk contingency. Operation and Maintenance costs are not included.

⁴ Estimate assumes that projects will not be located on contaminated soil.

⁵ The estimated costs do not include maintenance, monitoring or additional tasks following construction.

⁶ Estimate costs are reported to nearest thousand dollars.

⁷ This contingency includes the current uncertainty in bid prices, which have recently been elevated due to supply chain issues.



To	Date
Honorable Mayor Monge and City Council	June 4, 2024
Agenda Placement # IV.B	
Topic(s)	
Subject	
Community Center Next Steps	
Background/Facts	
Recommended Action	
Attachments	

1. Community Center - Next Steps 6.4.24

Respectfully submitted,
Daniel Winek, Finance Director



COMMUNITY CENTER NEXT STEPS

June 6, 2024

City of North St. Paul



Community Center – Next Steps

Reminder - Each workshop will follow this format:

- Staff presentation.
- City Council questions and answers.
- Public comments.
- Next agenda.
- City Council wrap up.



Community Center – Next Steps

We will gather, present and discuss:

- ✓ Clarification and/or modification to Grant Terms.
- ✓ Services and Importance of a Library in North St. Paul.
- ✓ Interest in Partnerships at the Community Center. (RFI REVIEW)
 - Review RFI Information Received.
 - Based of the RFI Information, What are our Next Steps.
- Examine current and future lease options for Library.
- Community Engagement (Develop RFP)
- ~~• Interest in selling the Community Center.~~
- ~~• Costs to vacate the Community Center.~~
- Services to be provided at the Community Center.
- Costs to operate the Community Center, now and in the future.
- Financial scenarios and potential impacts.



Community Center – Next Steps

At this meeting:

- Review RFI Information Received
- What are our Next Steps
 - Can the City financially afford reopening the Community Center?
 - Do we continue with the process?
 - Do we hire a consultant for Community Engagement?



Community Center – Next Steps

At the next meeting staff will:

- To be determined.



Community Center – Next Steps

- City Council questions and comments.
- Public comments.