

## Board of Commissioners and Drainage Authority Agenda

**July 26, 2022**

Commissioners: Marie Dranttel- Board Chair; Jack Kolars- Vice Chair; John Luepke; Terry Morrow; Dave Haack

**9:00 a.m. Call Board of Commissioners Meeting to Order: Chair Dranttel**

1. Pledge of Allegiance
2. Silence Your Cell Phones
3. Approval of Agenda
4. Approval of Consent Agenda:
  - a. [July 12, 2022 Board Minutes](#)
  - b. Approval of Bills
5. Public Appearances

**9:05 a.m. 6. Administration**

- a. [Capital Highway Investment Plan \(CHIP\) Outreach Presentation – MnDOT](#)

**9:30 a.m. 7. Finance**

- a. [2022 Quarter Two Donations](#)

**9:35 a.m. 8. Public Works**

- a. [Consider Award of Contract for SAP 052-623-027](#)
- b. [Consider Financial Participation in TH 22 Corridor Study](#)
- c. [Consider Cooperative Construction Agreement for CSAH 5/Sunrise Dr./Broadway Ave. Roundabout Project](#)

**Recess Board of Commissioners Meeting**

**10:05 a.m. Call Drainage Authority Meeting to Order: Chair Dranttel**

1. Approval of Agenda
2. Approval of Consent Agenda:
  - a. [July 12, 2022 Drainage Authority Minutes](#)
3. Public Appearances

**10:10 a.m. 4. Public Services**

- a. [Continued CD79 Public Hearing on the Final Acceptance of the Improvement Project](#)

5. Adjourn Drainage Authority Meeting

### Mission Statement

Providing efficient services with innovation and accountability.

### Vision Statement

Setting the standard for providing superior and efficient county government services through leadership, accountability and innovation to a growing and diverse society.

### Core Values

Leadership. Integrity. Accountability. Efficiency. Innovation.

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### **Continue Board of Commissioners Meeting**

- 10:30 a.m.**
9. County Attorney Update
  10. Chair's Report
  11. Commissioner Committee Reports
  12. Commissioner Meetings & Conferences
  13. Approve Per Diems and Expenses
  14. Adjourn Board of Commissioners Meeting

### **Notice of Scheduled Meetings**

The following is a notice of scheduled meetings. Pursuant to Minnesota Statute 13D.04, this notice of meetings also serves as notice of regular and special meetings of the Nicollet County Board of Commissioners. Meetings with a quorum of Nicollet County Board of Commissioners expected to attend is noted with an asterisk (\*).

**Questions or comments regarding any Nicollet County meeting and requests to participate in any meeting can be directed to Mandy Landkamer, Nicollet County Administrator, at 507-934-7074 or [mandy.landkamer@co.nicollet.mn.us](mailto:mandy.landkamer@co.nicollet.mn.us).**

#### July 2022:

July 26 - Board of Commissioners Meeting, 9 a.m.; Nicollet County Board Room, St. Peter \*

July 26 - Drainage Authority Meeting, 9 a.m.; Nicollet County Board Room, St. Peter \*

July 26 - Tour of the North Mankato Health and Human Services Building Construction, 2:30 p.m., North Mankato\*

#### August 2022:

August 3 - SWCD Board Meeting, 8:30 a.m., Nicollet, MN

August 9 - Board of Commissioners Meeting, 9 a.m.; Nicollet County Board Room, St. Peter\*

August 9 - Drainage Authority Meeting, 9 a.m.; Nicollet County Board Room, St. Peter\*

August 15 - Board of Adjustment and Appeals/Planning & Zoning Advisory Commission Meeting, 7 p.m.; Nicollet County Board Room, St. Peter \*

August 16 - Individual Department Head Meeting – County Attorney, 8:15 a.m.; Nicollet County Board Room, St. Peter\*

August 16 - County Board Workshop, 9:30 a.m.; Nicollet County Board Room, St. Peter\*

August 23 - Board of Commissioners Meeting, 9 a.m.; Nicollet County Board Room, St. Peter\*

August 23 - Drainage Authority Meeting, 9 a.m.; Nicollet County Board Room, St. Peter\*

August 25 - Budget Workshop #1, 8:30 a.m. – Noon; Nicollet County Board Room, St. Peter\*

August 31 - Budget Workshop #2, 8:30 a.m. – Noon; Nicollet County Board Room, St. Peter\*

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**July 26, 2022**

Commissioners: Marie Dranttel- Board Chair; Jack Kolars- Vice Chair; John Luepke; Terry Morrow; Dave Haack

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### **NOTICE REGARDING NICOLLET COUNTY BOARD OF COMMISSIONERS MEETING AND DRAINAGE AUTHORITY MEETING**

**JULY 26, 2022**

**9:00 A.M.**

**NICOLLET COUNTY GOVERNMENT CENTER BOARD ROOM  
501 SOUTH MINNESOTA AVENUE  
ST. PETER, MN**

The Nicollet County Board and Drainage Authority meetings will be conducted under Minnesota Statute 13D.02 – Meetings by Interactive Technology. County Board and Drainage Authority members will participate by means of Interactive Technology. Commissioner David Haack will be participating virtually at 626 Grant Ave., North Mankato, MN, 56003.

#### **How members of the public can participate in the meeting:**

##### ***Join Zoom Meeting At:***

<https://us02web.zoom.us/j/81385563311>

Meeting ID: 813 8556 3311

One tap mobile

+13126266799,,81385563311# US (Chicago)

+16465588656,,81385563311# US (New York)

The meeting can be viewed live at:

[www.co.nicollet.mn.us/642/County-Board-Meeting-Videos](http://www.co.nicollet.mn.us/642/County-Board-Meeting-Videos).

A copy of the meeting agenda and packet is available at:

<https://www.co.nicollet.mn.us/AgendaCenter/Board-of-Commissioners-3>

Questions or comments regarding agenda items and viewing or listening to the meeting can be directed to Mandy Landkamer, County Administrator, at 507-934-7074 or by email at [mandy.landkamer@co.nicollet.mn.us](mailto:mandy.landkamer@co.nicollet.mn.us)

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**JULY 12, 2022**  
**OFFICIAL PROCEEDINGS OF THE**  
**BOARD OF COUNTY COMMISSIONERS**

The Nicollet County Board of Commissioners met in regular session on Tuesday, July 12, 2022, at 9:00 a.m. Commissioners Marie Dranttel, Jack Kolars, John Luepke, David Haack and Terry Morrow were present. Also present were County Administrator Mandy Landkamer, County Attorney Michelle Zehnder Fischer, and Recording Secretary Crystal Madden.

**Approval of Agenda**

Motion by Commissioner Luepke and seconded by Commissioner Morrow to approve the agenda. Motion carried with all voting in favor.

**Consent Agenda**

Motion by Commissioner Kolars and seconded by Commissioner Luepke to approve the consent agenda items as follows:

1. June 28, 2022 Board Meeting Minutes;
2. Acknowledgement of the Auditor's Warrants, and approval of the Commissioner Warrants as presented for the following amounts:
  - a. General Revenue Fund - \$374,100.89
  - b. Road & Bridge Fund - \$42,374.23;
  - c. Human Services Fund \$162,581.88;
3. End of Probations for Christine Miller, Correctional Officer, effective June 16, 2022.

Motion carried with all voting in favor.

**Public Appearances:**

There were no public appearances.

**Administration**

***Southern MN Initiative Foundation Presentation – Tim Penny***

SMIF President Tim Penny shared presentation materials regarding regional initiatives.

**Property Services**

***AgBMP Low Interest Loan Project – Septic Lien***

Motion by Commissioner Luepke and seconded by Commissioner Kolars to approve the resolution that authorizes the placement of a lien onto the property identified below for a total amount of \$7,190.00. Motion carried with all voting in favor on a roll call vote.

<b>PARCEL #</b>	<b><u>AgBMP LIEN ATTACHMENT #9</u></b>	<b>LIEN DATE</b>
13.036.1300	<b>ACTUAL COST</b> \$7,190.00	May 16, 2022

**County Attorney Update:**

County Attorney Zehnder Fischer reported their office has more in-person court hearings for both civil and criminal issues as dictated by the Supreme Court. The Friends of Learning Backpack & School Supply Drive has begun, as well as planning for fall community events

focusing on youth mental health and substance abuse. In particular, the September 14<sup>th</sup>, 2022 evening event addressing youth mental health, which is sponsored by Adolescent Chemical Wellness Advocates (ACWA).

### **Commissioner Committee Reports**

The Commissioners reported on various meetings and activities, including:

#### **Commissioner Terry Morrow**

- Ditch discussion
- Highway 22 regional meeting concerning the possible installation of a bike lane
- St. Peter Produce Distribution event

#### **Commissioner John Luepke**

- Soil & Water regional meeting in Mankato
- 4H Educator interviews
- Tree Care Clinic with the U of M Extension
- Small City Commission: Lafayette City Council meeting

#### **Commissioner Meetings & Conferences**

- Tuesday, July 19<sup>th</sup>, 2022: County Board Workshop
- Tuesday, July 26<sup>th</sup>, 2022: Board of Commissioners Meeting and the North Mankato HHS Tour at 2:30 pm
- September: AMC Fall Policy Conference

### **Approve Per Diems and Expenses**

Motion by Commissioner Luepke and seconded by Commissioner Morrow to approve the expenses and per diems for the meetings noted above during the Commissioner Reports and/or as submitted on approved expense reports, and authorize payment of those expenses and per diems by the Finance Office. Motion carried with all voting in favor.

### **Adjourn**

Motion by Commissioner Luepke and seconded by Commissioner Haack to adjourn the meeting. Motion carried with all voting in favor. The meeting adjourned at 9:31 a.m.

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MARIE DRANTTEL, CHAIR  
BOARD OF COMMISSIONERS

ATTEST:

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MANDY LANDKAMER, CLERK TO THE BOARD

Nicollet County Board of Commissioners  
Board Meeting Agenda Item



<b>Agenda Item:</b>		
MnDOT Presentation: Capital Highway Investment Plan (CHIP) Outreach		
Primary Originating Division/Dept.: Administration	Meeting Date: 07/26/2022	
Contact: Mandy Landkamer      Title: County Administrator	Item Type: Regular Agenda (Select One)	
Amount of Time Requested 25      minutes		
Presenter:      Title:	Attachments: <input checked="" type="radio"/> Yes <input type="radio"/> No	
County Strategy: Programs and Services - deliver value-added quality services (Select One)		
<b>BACKGROUND/JUSTIFICATION:</b> MnDOT staff will present the District 7 Capital Highway Plan (CHIP). This presentation will provide an overview of the 10-year plan, the process, and next steps as well as a legislative update. Following the presentation, there will be an opportunity for discussion.		
Supporting Documents: <input checked="" type="radio"/> Attached <input type="radio"/> In Signature Folder <input type="radio"/> None		
Prior Board Action Taken on this Agenda Item: <input type="radio"/> Yes <input checked="" type="radio"/> No		
If "yes", when? (provide year; mm/dd/yy if known)		
Approved by County Attorney's Office: <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A		
<b>ACTION REQUESTED:</b>		
Informational		
<b>FISCAL IMPACT:</b> Other (Select One) If "Other", specify	<b>FUNDING</b> County Dollars = Other (Select One)	
<b>FTE IMPACT:</b> No FTE change (Select One) If "Increase or "Decrease" specify: Related Financial/FTE Comments:	<b>Total</b>	





# Capital Highway Investment Plan Presentation

Sam Parker | Principal Planner

# Capital Highway Investment Plan (CHIP)

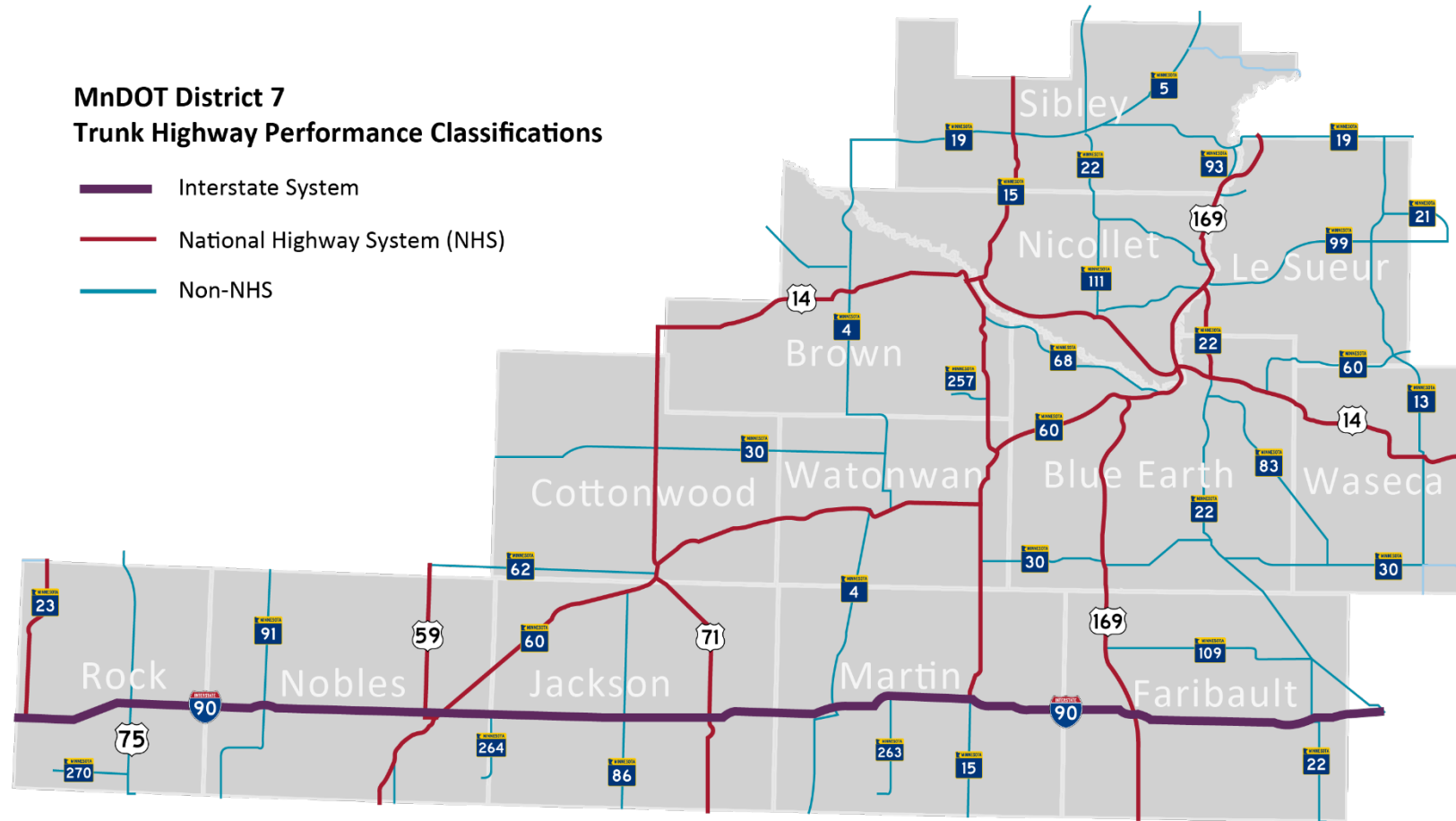
- Details MnDOT's state highway priorities for 10 years
- Updated annually with new funding targets
  - Remove projects that move into construction
  - Adjust timing of existing planned projects
  - Add new projects
- Ensure MnDOT is meeting funding targets and [Minnesota State Highway Investment Plan](#) goals

# 2017 Minnesota State Highway Investment Plan





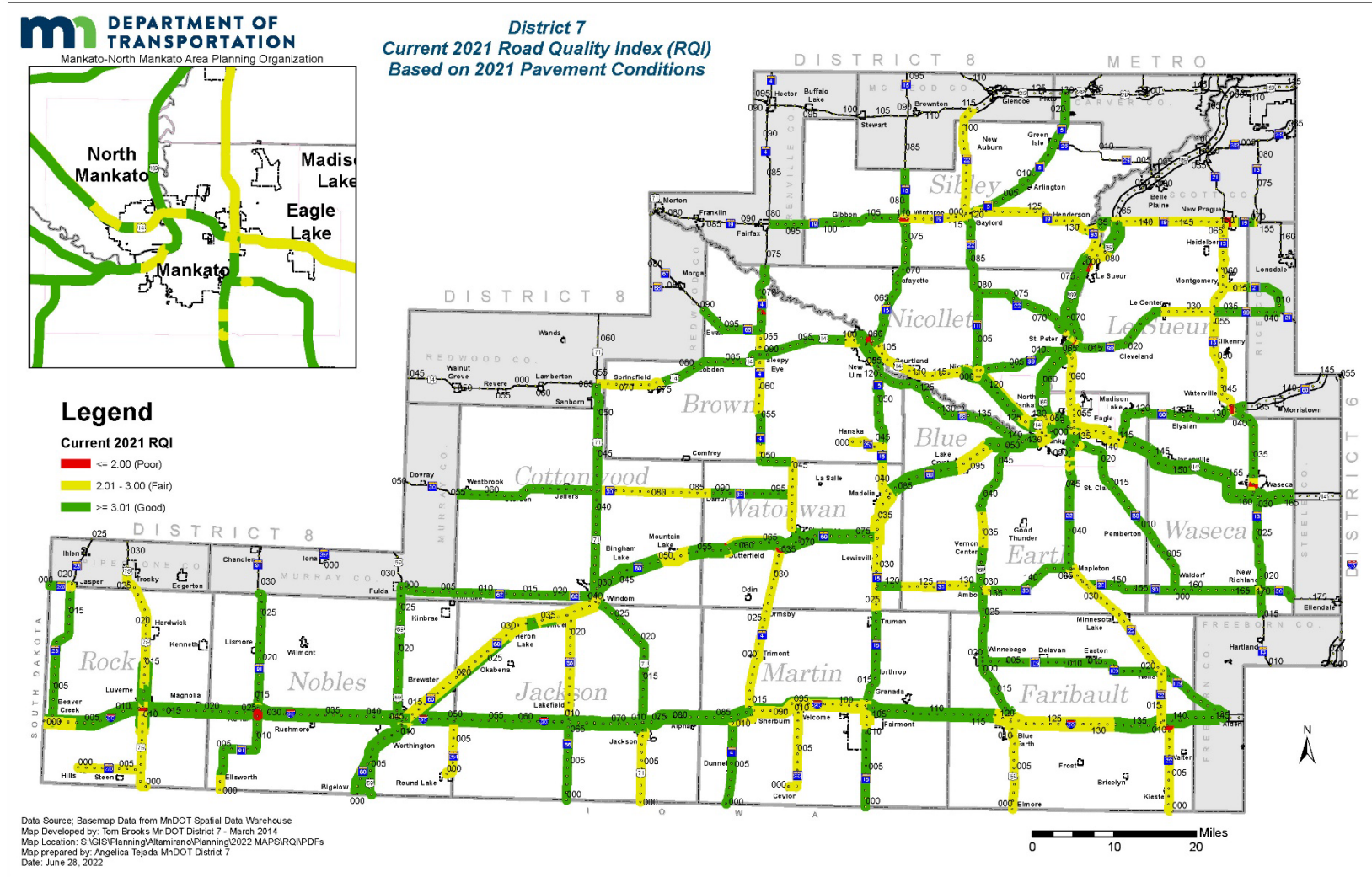
# State Highway Performance Classifications



System	"Good" RQI Target	"Poor" RQI Target
Interstate	70% or above	Less than 2%
Other NHS	65% or above	Less than 4%
Non-NHS	60% or above	Less than 10%

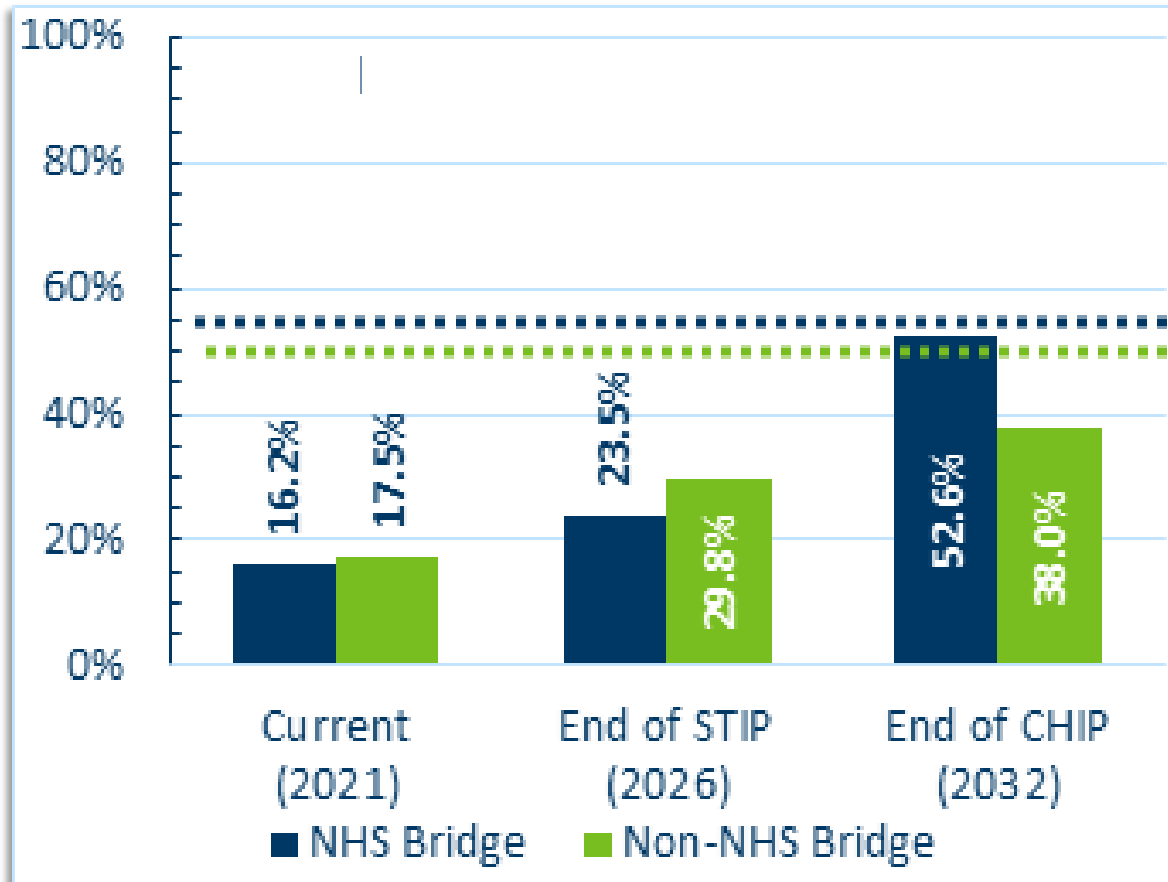
# 2021 Ride Quality Index (RQI)

## RQI collection van

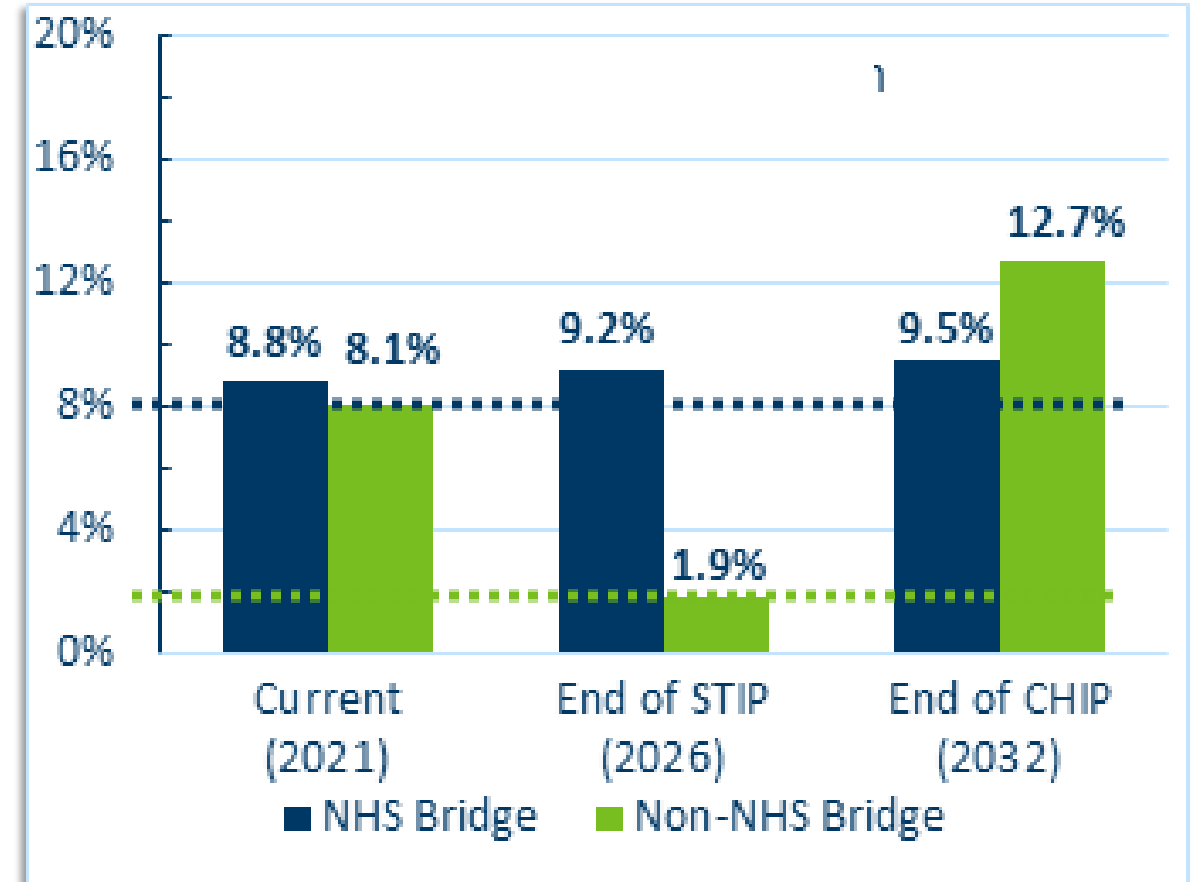


# Bridge performance

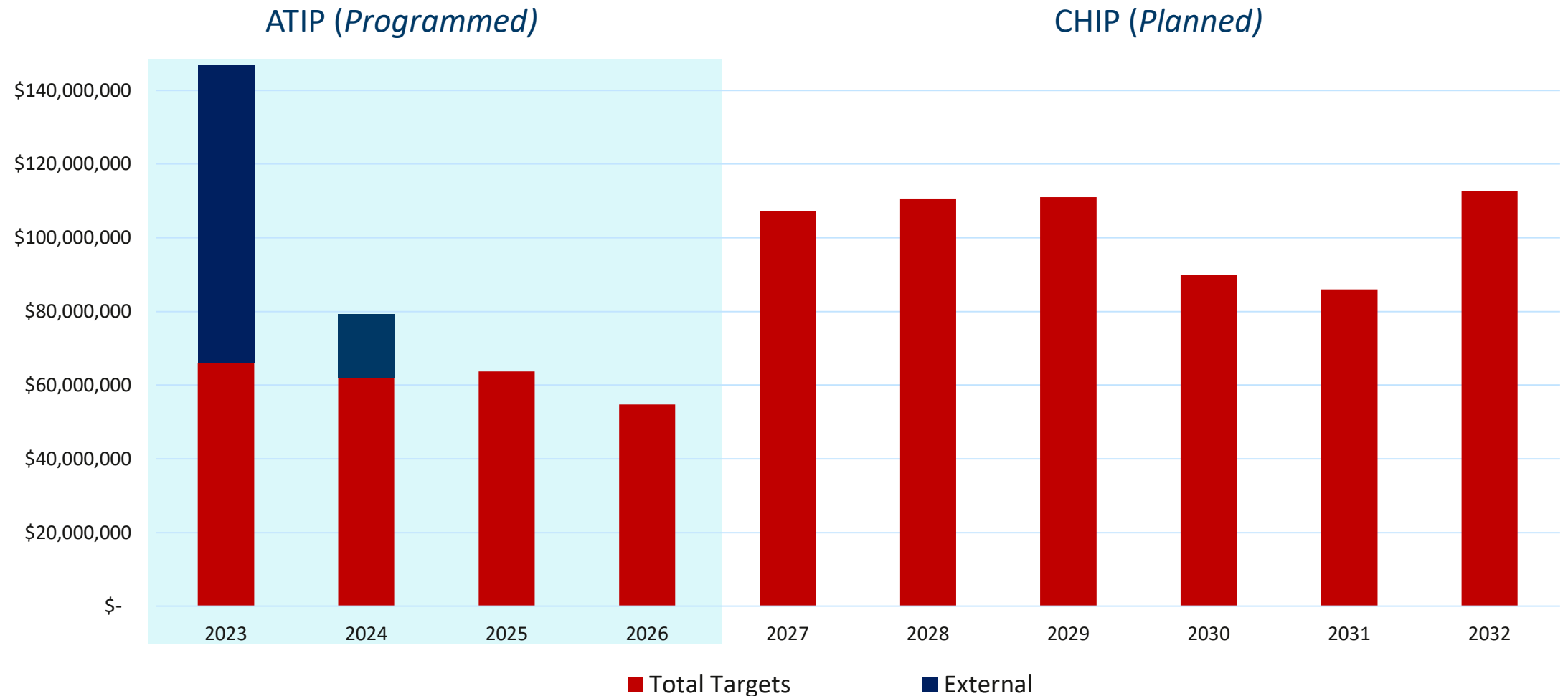
## Good Condition



## Poor Condition

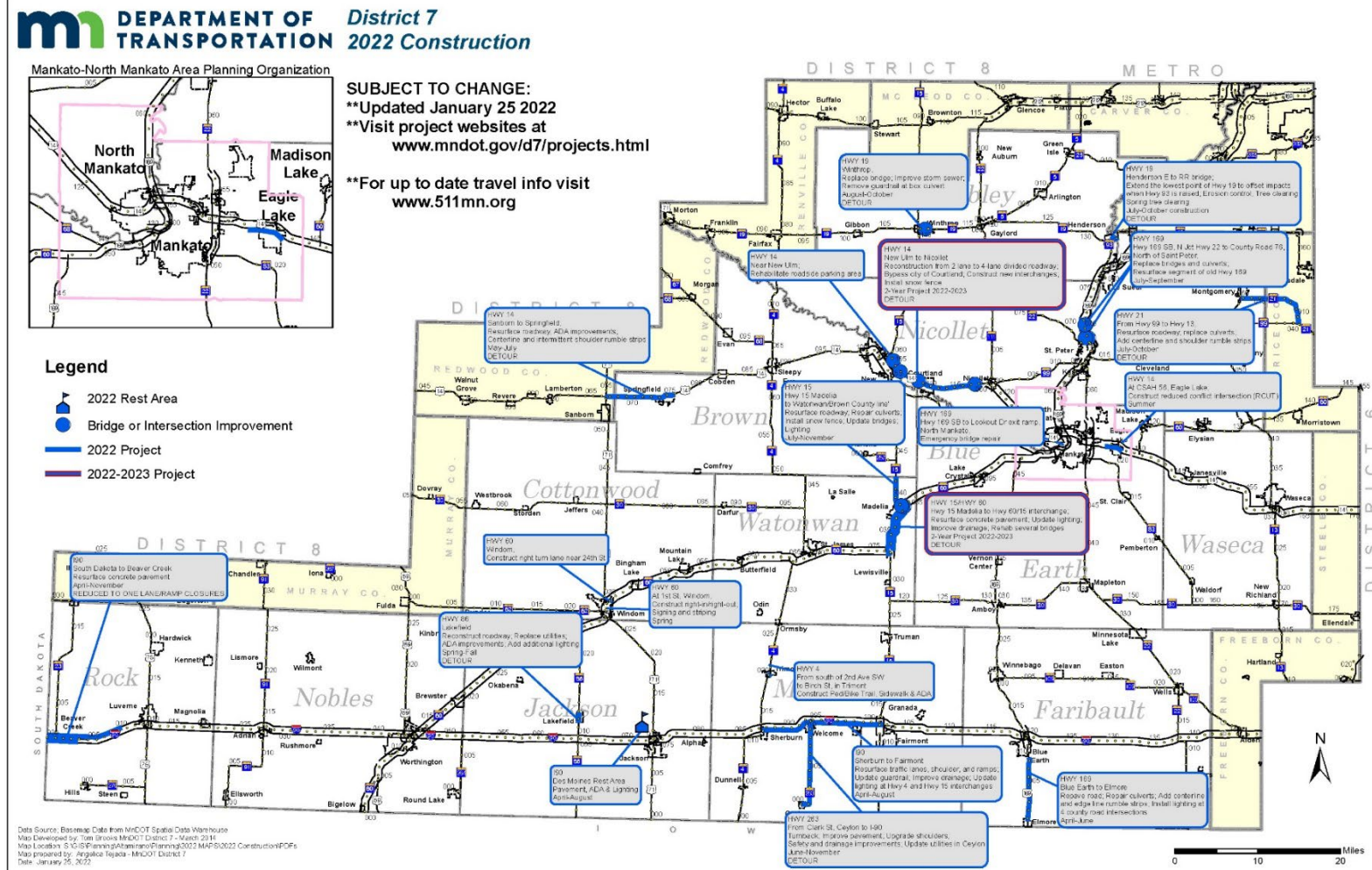


# District 7 Funding Targets





# 2022 Construction



# SP 5202-58 (TH 14): New Ulm to Nicollet

Four-lane expansion, new interchanges at New Ulm (Co Rd 37) and Courtland (on the bypass with an extension of Co Rd 24 and a realignment of Co Rd 12), replace bridges, lighting, ITS, ADA

- Contract cost: \$83,539,141.56
- Construction start date: April 10, 2022
- Contract completion date: Fall 2023
- Contractor: Hoffmann Construction



# SP 5209-80 (TH 169): N of St Peter

Fix: Replace 2 bridges and 1 culvert on southbound lanes of Hwy 169 between Hwy 22 and Co Rd 76 north of St Peter

- Contract cost: \$4,086,283.52
- Construction start date: July 5, 2022
- Contract completion date: September 30, 2022
- Contractor: S. M. Hentges & Sons Inc.





# SP 5202-60 (TH 14): Roadside Parking Rehabilitation

Rehabilitate New Ulm Spring roadside parking area

- Construction start date: May 23, 2022
- Contract completion date: September 30, 2022
- Contractor: Environmental Associates Inc.

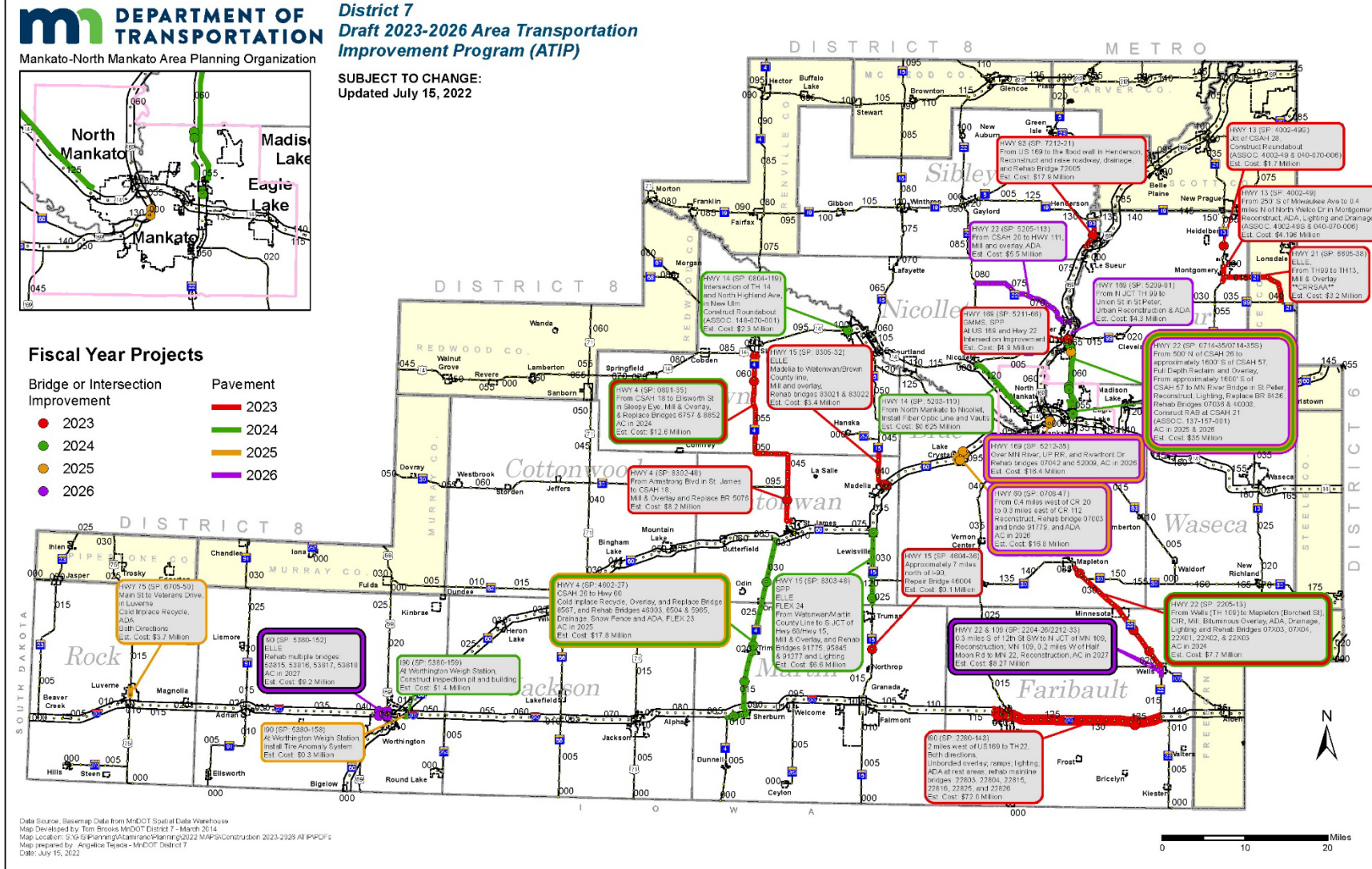
# SP 5212-38 (TH 169): Emergency Bridge Repair

Emergency bridge repair on Hwy 169 at the Lookout Drive/Center Street exit, North Mankato

- Contract cost: \$381,156.35
- Construction start date: May 2, 2022
- Contract completion date: June 17, 2022
- Contractor: S. M. Hentges & Sons Inc.



# 2023-2026 STIP Projects





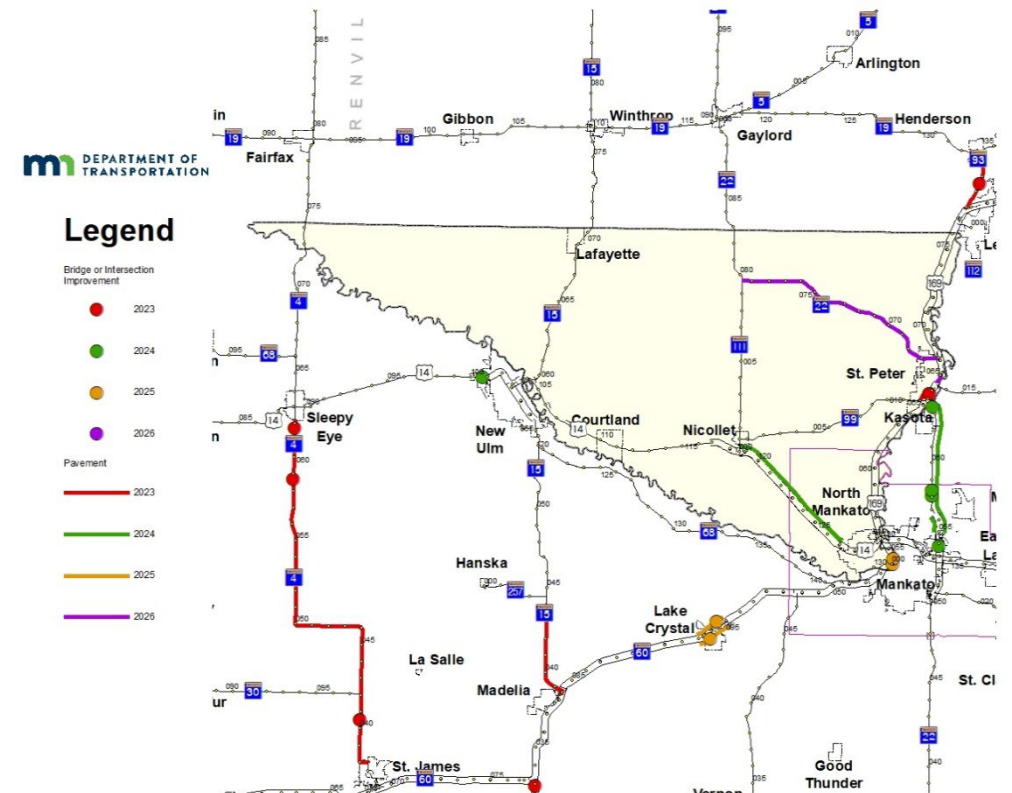
# 2023 - 2026 Area Transportation Improvement Program

## Changes from 2022 - 2025 ATIP

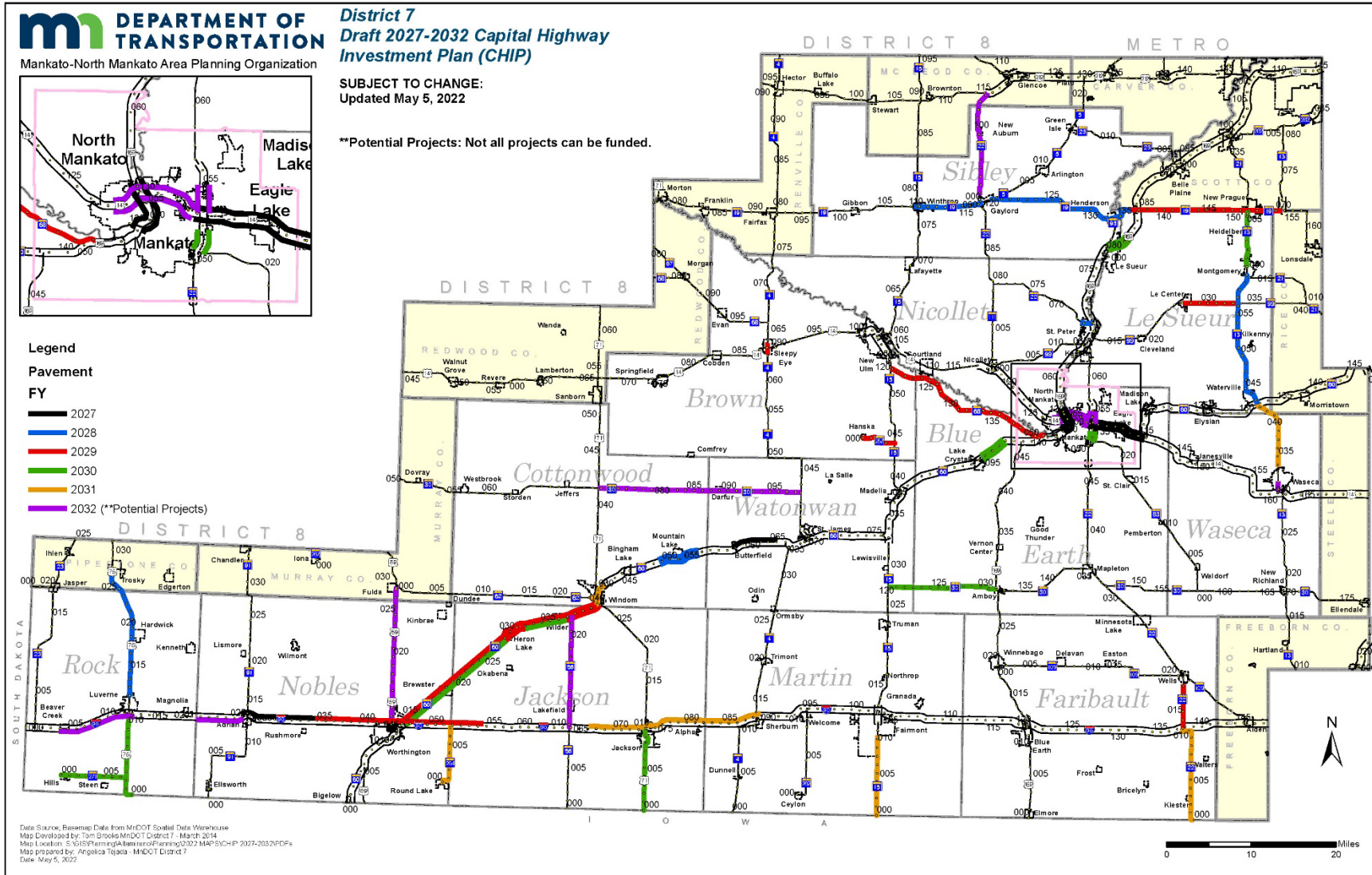
### Nicollet County 2022 – 2025 ATIP Projects



### Nicollet County 2023 – 2026 ATIP Projects



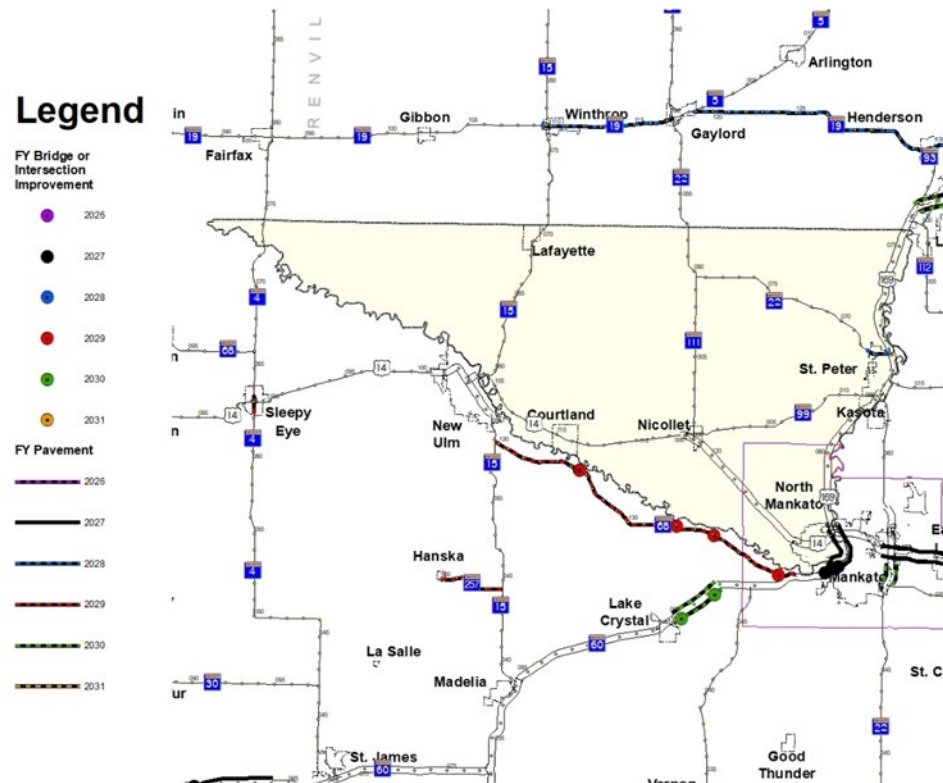
# 2027-2032 CHIP Projects



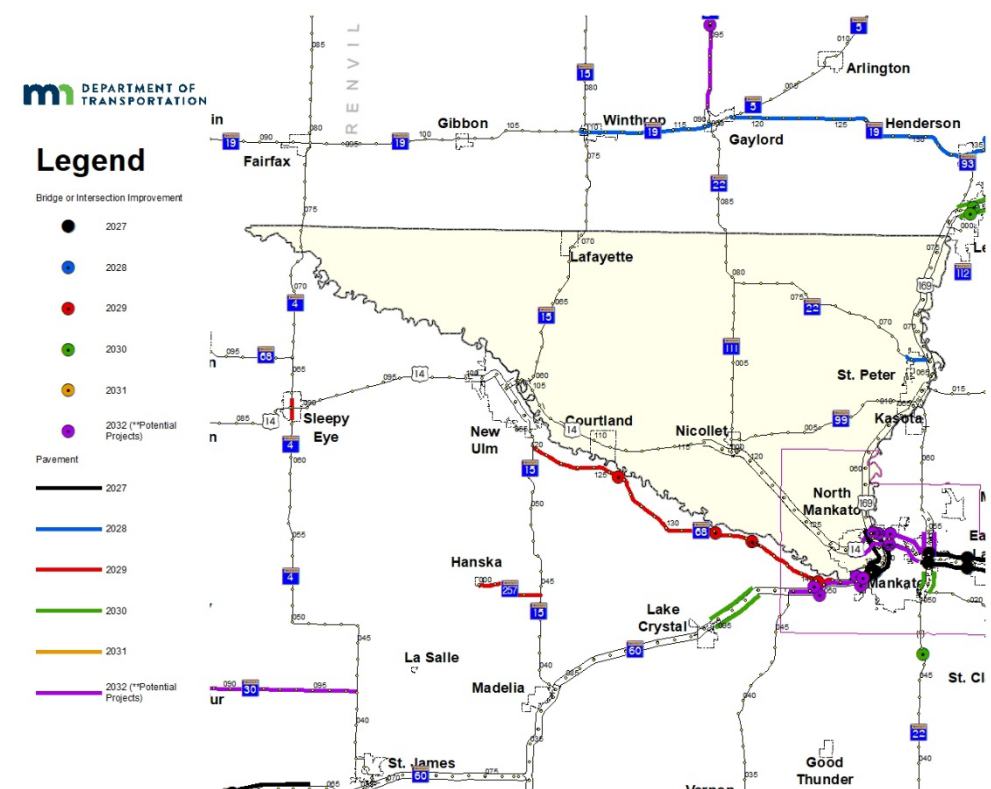
# 2027-2032 Capital Highway Investment Plan

## Changes from 2026-2031 CHIP

### Nicollet County 2026 – 2031 CHIP Projects



### Nicollet County 2027 – 2032 CHIP Projects





# RQI after CHIP projects

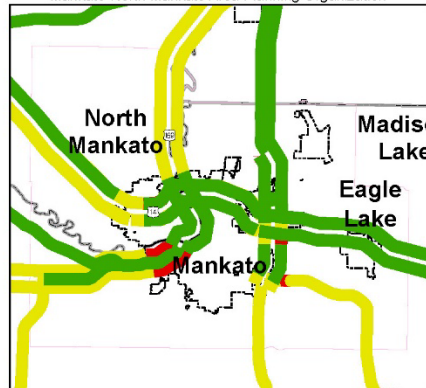


## Legend

Predicted 2032 RQI

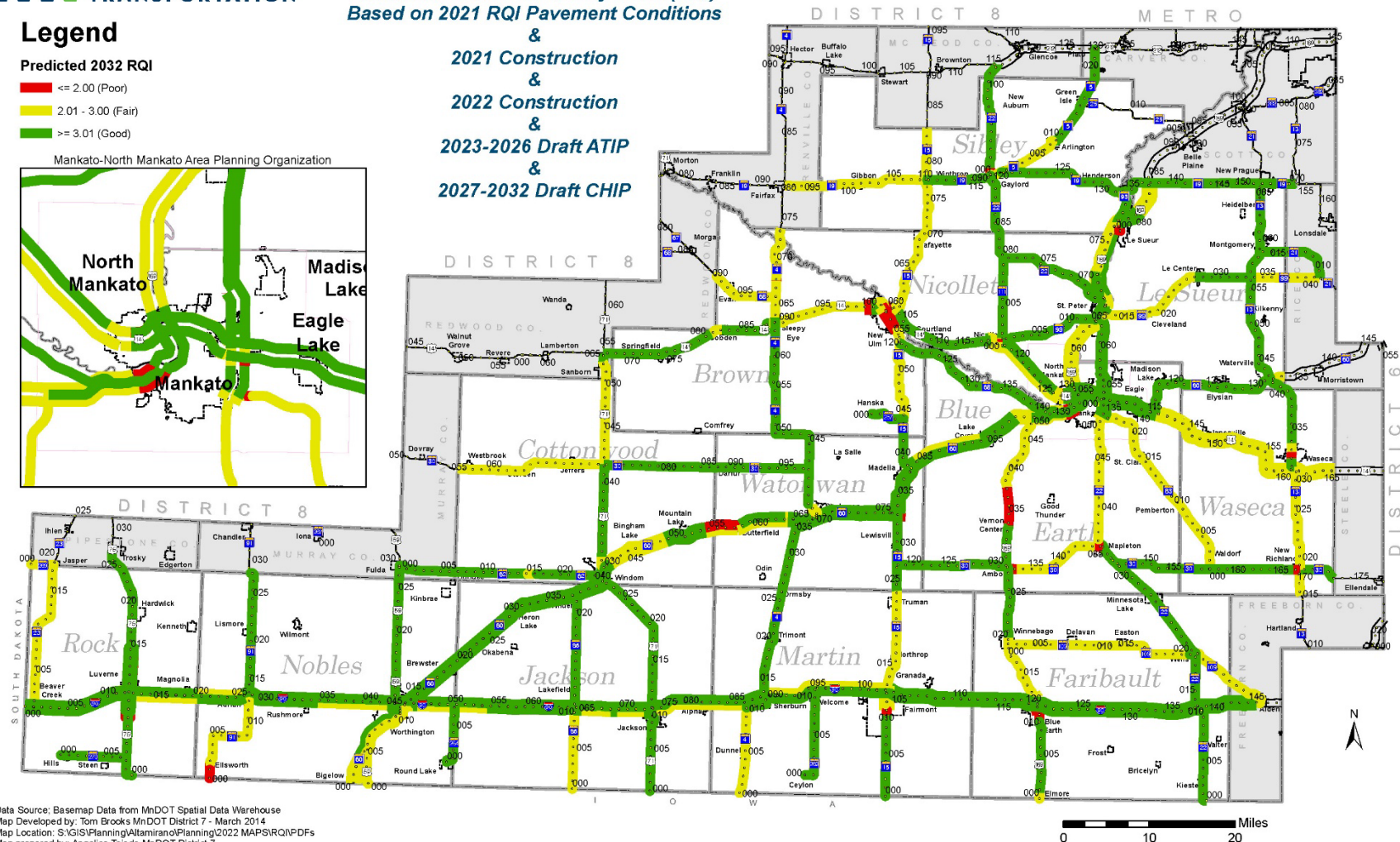
- ≤ 2.00 (Poor)
- 2.01 - 3.00 (Fair)
- ≥ 3.01 (Good)

Mankato-North Mankato Area Planning Organization



**District 7**  
**Predicted 2032 Road Quality Index (RQI)**  
**Based on 2021 RQI Pavement Conditions**

**2021 Construction**  
**&**  
**2022 Construction**  
**&**  
**2023-2026 Draft ATIP**  
**&**  
**2027-2032 Draft CHIP**



Data Source: Basemap Data from MnDOT Spatial Data Warehouse  
Map Developed by: Tom Brooks MnDOT District 7 - March 2014  
Map Location: S:\GIS\Planning\Altamirano\Planning\2022 MAPS\RQI\PDFs  
Map prepared by: Angelica Tejada MnDOT District 7  
Date: June 29, 2022




# Next Steps

- Restart the CHIP process in August
- Receive newest funding targets in late fall
- New MnSHIP guidance next year

dot.state.mn.us/d7/projects.html

Employee Status an... Roadway Project M... ArcGIS Online Cont... Consolidated Ped I... Environmental Land... Roadway Project M... Bridge Info Interacti... Structure Informati... TFA Traffic Mapping... FRA

**m** DEPARTMENT OF TRANSPORTATION 

Search MnDOT A to Z General Contacts

## South Central Minnesota Regional Information

MnDOT District 7

District 7 Home Projects News Planning & Involvement District 7 ATP Doing Business About District 7 Contacts

### Construction projects, plans, and studies

#### Browse by stage

- ☒ Studies
- ☒ Future construction
- ☒ Current construction
- ☒ Recently completed projects (in 2022)

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**[Hwy 4 — St. James to Sleepy Eye](#)**  
Resurface 25 miles between St. James and Sleepy Eye; replace bridges; repair culverts

- Scheduled for construction in 2023

**[Hwy 4 — Sherburn to St. James](#)**  
Resurface approximately 25 miles of Hwy 4 between Sherburn and St. James; replace and repair bridges;

#### More project information

- [Statewide construction projects, plans, and studies](#)

#### County and city road information

- [Counties](#)
- [Cities](#)

# Thank you!

**Sam Parker**

*[samuel.parker@state.mn.us](mailto:samuel.parker@state.mn.us)*

**Angie Piltaver**

*[angela.piltaver@state.mn.us](mailto:angela.piltaver@state.mn.us)*

# Nicollet County Board of Commissioners

## Board Meeting Agenda Item



<b>Agenda Item:</b> Qtr 2 2022 Donations	
Primary Originating Division/Dept.: Finance	Meeting Date: 07/26/2022
Contact: Heather McCormick      Title: Finance Director	Item Type: Regular Agenda (Select One)
Amount of Time Requested: 5    minutes	
Presenter: Heather McCormick      Title: Finance Director	Attachments: <input checked="" type="radio"/> Yes <input type="radio"/> No
County Strategy: (Select One)    Programs and Services - deliver value-added quality services	
<b>BACKGROUND/JUSTIFICATION:</b> This is to present the Quarter 2 2022 Donations received for approval by resolution.	
Supporting Documents: <input checked="" type="radio"/> Attached <input type="radio"/> In Signature Folder <input type="radio"/> None	
Prior Board Action Taken on this Agenda Item: <input type="radio"/> Yes <input checked="" type="radio"/> No	
If "yes", when? (provide year; mm/dd/yy if known)	
Approved by County Attorney's Office: <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A	
<b>ACTION REQUESTED:</b> Approval of Donations	
<b>FISCAL IMPACT:</b> Other (Select One) If "Other", specify: Donations	<b>FUNDING</b> County Dollars = (935.00) Other (Select One)
<b>FTE IMPACT:</b> No FTE change (Select One)	<b>Total:</b> (935.00)
If "Increase or "Decrease," specify: Related Financial/FTE Comments:	



## RESOLUTION APPROVING THE ACCEPTANCE OF DONATIONS



WHEREAS, MN Statute 465.03 states any city, county, school district or town may accept a grant or devise of real or personal property and maintain such property for the benefit of its citizens in accordance with the terms prescribed by the donor. Nothing herein shall authorize such acceptance or use for religious or sectarian purposes. Every such acceptance shall be by resolution of the governing body adopted by a two-thirds majority of its members, expressing such terms in full.

WHEREAS, the Nicollet County Finance Office has compiled a list of donations made to the County from April 1 through June 30, 2022.

THEREFORE, BE IT RESOLVED that the Nicollet County Board of Commissioners approve the following donations made to the County from April 1 through June 30, 2022:

### **Donations received by Nicollet County April 1 through June 30, 2022**

<b><u>FROM WHOM</u></b>	<b><u>AMOUNT</u></b>	<b><u>PURPOSE</u></b>
Various Donations	\$ 300.00	Van Services
Various Donations	\$ <u>635.00</u>	Loan Closet
Total	\$ 935.00	

Dated this 26th day of July, 2022.

\_\_\_\_\_  
Marie Dranttel, Chair  
Nicollet County Board of Commissioners

ATTEST:

\_\_\_\_\_  
Mandy Landkamer  
Clerk to the Board

# Nicollet County Board of Commissioners Board Meeting Agenda Item



## Agenda Item:

Consider Award of Contract for SAP 052-623-027

Primary Originating Division/Dept.: Public Works/Highway

Meeting Date: 07/26/2022

Contact: Seth Greenwood, P.E. Title: PWD/County Engineer

Item Type: Regular Agenda  
(Select One)

Amount of Time Requested: 10 minutes

Presenter: Seth Greenwood, P.E. Title: PWD/County Engineer

Attachments: ☐ Yes ☒ No

County Strategy:  
(Select One)

Facilities and Space - preserve, maintain and build our assets

## BACKGROUND/JUSTIFICATION:

On July 18, 2022 at 11AM, 3 bids were received and opened for project SAP 052-623-027. 1 bid out of the 3 did not contain all the required submittals to be considered a valid bid and its bid total was not read.

Results of the bid opening are as follows:

Holtmeier Construction, Inc. \$1,731,897.96  
Mathiowetz Construction Co. \$2,175,627.35

Engineer's Estimate \$1,399,751.00

Project SAP 052-623-027 involves ravine and slope stabilization of severely eroded slopes on the inlet and outlet end of a major centerline culvert crossing CSAH 23.

Supporting Documents: ☒ Attached ☐ In Signature Folder ☐ None

Prior Board Action Taken on this Agenda Item: ☐ Yes ☒ No

If "yes", when? (provide year; mm/dd/yy if known)

Approved by County Attorney's Office: ☐ Yes ☐ No ☒ N/A

## ACTION REQUESTED:

Award the contract for SAP 052-623-027 to Holtmeier Construction, Inc. for the low bid amount of \$1,731,897.96

**FISCAL IMPACT:** Included in current budget  
(Select One)

If "Other", specify:

## FUNDING

County Dollars =

State \$1,731,897.96  
(Select One)

**FTE IMPACT:** No FTE change  
(Select One)

**Total:** \$1,731,897.96

If "Increase or "Decrease," specify:

Related Financial/FTE Comments: Will be using State Aid Regular Construction funds.

# Nicollet County Board of Commissioners

## Board Meeting Agenda Item



<b>Agenda Item:</b> Consider Financial Participation in TH 22 Corridor Study	
Primary Originating Division/Dept.: Public Works/Highway	Meeting Date: 07/26/2022
Contact: Seth Greenwood, P.E. Title: PWD/County Engineer	Item Type: Regular Agenda (Select One)
Amount of Time Requested: 10 minutes	
Presenter: Seth Greenwood, P.E. Title: PWD/County Engineer	Attachments: <input checked="" type="radio"/> Yes <input type="radio"/> No
County Strategy: (Select One) Facilities and Space - preserve, maintain and build our assets	
<b>BACKGROUND/JUSTIFICATION:</b> <p>MnDOT is beginning to plan for a future construction project on TH 22 from TH 169 to CSAH 20. To help better define what improvements should be incorporated into this project, the City of Saint Peter has taken the lead on initiating a TH 22 Corridor Study. This study will identify issues and potential solutions/improvements for this corridor that potentially could be implemented in MnDOT's future construction project. The City has already sent out RFP's for the corridor study and has selected Bolton &amp; Menk as the consultant that will perform the corridor study (3 proposals were received). Bolton and Menk's cost to perform the study is \$88,800. MnDOT and the City of Saint Peter will be contributing funding towards the study. They City of St. Peter has requested that the County also contribute funding for the study. Nicollet County has a vested interest in the corridor and the potential improvements that will be made. Nicollet County has 2 CSAH routes that intersect TH 22 (CSAH 15 &amp; 20) which represent 3 legs in those intersections. I would propose that the County's financial contribution to this study be \$5,000.</p> <p>I have included in the packet the scope of work that was sent out in the RFP. The Corridor Study is set to kick off in August 2022 with the first Project Management Team (PMT) meeting occurring on August 8th. The PMT will be comprised of representatives from MnDOT, City of Saint Peter, and Nicollet County. The TH 22 Corridor Study is anticipated to be completed with the Final Report and Study Conclusion in early 2023.</p>	
Supporting Documents: <input checked="" type="radio"/> Attached <input type="radio"/> In Signature Folder <input type="radio"/> None	
Prior Board Action Taken on this Agenda Item: <input type="radio"/> Yes <input checked="" type="radio"/> No	
If "yes", when? (provide year; mm/dd/yy if known)	
Approved by County Attorney's Office: <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A	
<b>ACTION REQUESTED:</b> Approve contributing up to \$5,000 from Road and Bridge reserves towards TH 22 Corridor Study.	
<b>FISCAL IMPACT:</b> NOT in current budget (Select One) If "Other", specify:	<b>FUNDING</b> County Dollars = \$5,000 State (Select One) <b>Total:</b> \$5,000
<b>FTE IMPACT:</b> No FTE change (Select One) If "Increase or "Decrease," specify:	
Related Financial/FTE Comments: Funds proposed to come from Road and Bridge reserves	



## **Project Overview**

The City of Saint Peter (City), Nicollet County (County), and the State are partnering to develop a plan for the Trunk Highway 22 corridor from Trunk Highway (TH) 169 to Nicollet County State Aid Highway (CSAH) 20. TH 22, which is a minor arterial and major collector in this corridor, is currently in State's 10-year Capital Highway Investment Plan for a pavement project and given newer adjacent land development and the corresponding multimodal needs of the corridor, it will be beneficial to complete further evaluation of potential corridor improvements to inform the planned project.

This work is proposed to be led by the Local/Government Agency (City). State and Local funds (City and County) will be used.

With concurrence of the State's District 7, The City will contract with a professional/technical consultant to perform the study. "Contractor", as referred to in this scope of work will refer to the City and its professional/technical consultant. The City will be responsible for all oversight and direction of the consultant.

## **Project Goal**

The TH 22 Saint Peter corridor study will allow the City of Saint Peter and the State to plan and prioritize improvements that improve transportation safety and mobility, multimodal options, and the City's current and future development needs.

There are many different facets of the studied corridors that this study will consider (including, but not limited to):

1. Motorized Vehicle Movements (Passenger Vehicles and Heavy Commercial (Freight))
2. Bicycle and Pedestrian Movements and Accommodations
3. Parking
4. User Origins/Destinations
5. Access management
6. Intersection Traffic Control
7. Lane Configuration(s), including turn lanes

## **Project Objectives**

1. Identify opportunities to improve the safety and operation of TH 22 and intersecting roads through Saint Peter
2. Determine present and future bicycle, pedestrian, and transit needs
3. Determine aesthetic opportunities along the corridor
4. Study and recommend access management guidelines and best practices to the corridor to promote safety while accommodating accessibility needs of local businesses and owners

## **Project Scope**

### **Task 1.0: Project Management (Source Type 1010)**

The Contractor will perform all work necessary to effectively coordinate the corridor study, maintain the project schedule, and keep the project within budget. The Contractor will monitor study progress and documentation, budget and schedule management, quality control, and adherence with state and federal laws, rules, and regulations. Contractor's Project Manager (PM) will implement the following active management measures:

The Contractor will perform all work necessary to effectively coordinate the corridor study, maintain the project schedule, and keep the project within budget. The Contractor will monitor

study progress and documentation, budget and schedule management, quality control, and adherence with state and federal laws, rules, and regulations. The project will be led by a project management team (PMT) consisting of key State, City, and County staff. Contractor's PM will implement the following active management measures:

- 1.1 Maintain regular contact with the PMT to provide updates, coordinate activities, and schedule project meetings.
- 1.2 Attend the Project Kickoff Meeting and take meeting minutes.
- 1.3 Hold bi-weekly conference calls with the PMT and other City and State personnel as needed to continue making progress on the project.
- 1.4 Maintain a running action item log from a template provided by the State.
- 1.5 Maintain a stakeholder register provided by the State. Stakeholder register includes a contact list, contact record, and conflict tracker. Coordinate and update stakeholder register with the State's District 7 Public Engagement Coordinator (PEC) and PM.
- 1.6 Develop an Engagement & Communications plan to reach key stakeholders within the community; align plan with input from the City and State to determine level of engagement versus informing among tiers of stakeholders.
- 1.7 Conduct up to three in-person meetings with project stakeholders to identify problems/issues and opportunities within the project limit area.
- 1.8 Attend up to six in-person meetings in Mankato or Saint Peter with City and State staff and other project stakeholders. Meetings will include, but are not limited to, discussing corridor analysis, purpose & need, concept design development/issue resolution, business and/or resident outreach, or over-the-shoulder review.
- 1.9 Prepare exhibits for and participate in up to two public meetings/events.
- 1.10 Provide exhibits in a digital format for a State-hosted project web site. All documents must meet the ADA requirements and State's brand guidelines.
- 1.11 Prepare handouts for public outreach
- 1.12 Provide all meeting agendas at least 24 hours prior to meetings and all meeting minutes within two days after all meetings.
- 1.13 Submit invoices. Contractor will submit invoices to the City. City will submit its invoices to the State.
- 1.14 Prepare and maintain a Critical Path Method (CPM) schedule. This schedule will be approved by the PMT. Contractor will manage the schedule, as needed to keep the study moving forward.

## **Task 2.0: Existing Conditions (Source Type 1808)**

A critical element in developing the overall corridor study will be to define the existing transportation issues/needs of the area. The Existing Conditions report will provide the background information necessary to proceed in identifying issues, constraints, and opportunities. This task will involve assembling a wide range of data sets.

### **2.1 Data Collection**

Contractor will collect available data from the State and study partners. The data will be used to develop a base map depicting all existing conditions and will be used to conduct the study analysis and concept alternative development / refinements. At a minimum, the following will be collected from readily available sources (State, City, Local Businesses, etc.):

- a. Development Plans
- b. Digital base maps and parcel data
- c. Zoning, land use, comprehensive and growth plans
- d. Drainage conditions
- e. Local transportation plans
- f. Local access management plans/studies

- g. Crash data for the most recent ten-year period for which data is available
- h. Bicycle and Pedestrian master plans
- i. Transit route data
- j. Roadway construction history
- k. Floodplain elevations and contour maps
- l. Right of way
- m. Typical section data

## **2.2 Turning movement data**

Contractor will also be responsible for collecting turning movement counts (TMCs) at the following intersections:

- a. TH 22 and CSAH 20 – 24-hour TMCs
- b. TH 22 and CSAH 15/Klein St – 48-hour TMCs
- c. TH 22 and Sunrise Dr – 48-hour TMCs
- d. TH 22 and Washington Ave – 48-hour TMCs
- e. TH 22 and Gault St– 24-hour TMCs
- f. TH 22 and 3rd St– 24-hour TMCs
- g. TH 22 and Old Minnesota Ave– 24-hour TMCs
- h. TH 22 and TH 169– 24-hour TMCs

If the counts are completed when temporary traffic control (TTC) devices are deployed for road improvement projects, the counts must be repeated after the project(s) are completed and TTC devices are removed. Any counts to be repeated due to TTC devices will be at an additional expense to the State, assuming the Contractor coordinated the dates with the State prior to collecting the counts. Other readily available traffic volume data will be evaluated to determine whether adjustments should be considered before completing analyses. This evaluation will determine whether data collected with is significantly different than otherwise typical conditions. If differences exist, adjustments or possible re-collection efforts will be made to reflect typical traffic conditions. If repeated counts result in significantly different data than the first session of counts (+/-5%) then any models utilizing the earlier counts, and any conclusions based on the earlier counts, are to be updated based on the new count data. Any updated modeling and conclusions completed as a result of these unforeseen traffic count differences will be at additional expense to the State, assuming the State provided authorization to proceed with count data which then needed to be updated.

The State will also provide any previously collected turning movement count data for all intersections along TH 22 within the study limits. The Contractor is to review both the Contractor collected turning movement count data as well as State furnished turning movement count data to ensure that consistent data was collected for each of the two 24-hour periods comprising the 48-hour count. If significant inconsistencies are discovered, the Contractor is to recount each location where inconsistencies were realized – regardless of who originally collected the counts. Recounting any locations will be an additional expense to the State, to be negotiated when the quantity of additional data collection is determined, but will be done such to avoid negative impact to the project schedule.

## **2.2 Existing Conditions Analysis**

Contractor shall develop an existing conditions operations analysis to summarize the above findings.

### **2.3 Supporting background data**

Contractor will collect, assemble, and organize other background information necessary to identify community, transportation, social, economic, and environmental issues, and constraints within the study area. This information will include previously conducted studies in the area, other local and regional plans, and programmed project information. Contractor will present information to study stakeholders, which will guide the development of the purpose and need statement (for this Corridor Study as well as future environmental documentation), concepts, and facilitate the public engagement process.

**Deliverables:** Existing Conditions report with maps and graphic tables displaying general transportation information, including turning movement count data summaries as well as full turning movement count data as appendices.

### **Task 3.0: Corridor Issues Identification (Source Type 1808)**

Using the results from the Existing Conditions and No-Build analyses, Contractor will identify key multi-modal transportation issues, needs, and potential improvements.

#### **3.1 Demographics**

Contractor will coordinate with the State and study partners to summarize past and predicted development trends to inform future conditions.

#### **3.2 Land Use**

Contractor will identify current and future land uses in the area using local plans and aerial photographs, as provided by the responsible government agency. Geographic Information Systems (GIS) plat maps and property information will be gathered where necessary to identify parcel ownership. Contractor will prepare a map summarizing existing and future land uses.

#### **3.3 Multimodal Trails, Pathways, and Crossings**

Contractor will review mapping and other pertinent information of existing and planned State, County, and City trails within and adjacent to the corridor study area. Contractor will identify potential connections to the TH 22 corridor from existing trails and to existing park facilities. Issues that will be considered when identifying gaps will include pedestrian and bicycle destinations.

In conjunction with previously completed studies and feedback from residents and stakeholder staff, contractor will study the existing and proposed pedestrian crossing locations and include safety and necessary ADA upgrades as part of the overall recommendations.

Contractor will evaluate the existing facilities to determine if any improvements are justified to improve non-motorized operations and safety. Contractor will develop a map that depicts existing and planned trails, along with proposed new trail connections, potential crossing locations, as well as identified gaps and suggested improvements to existing facilities.

#### **3.4 Transit**

Contractor will review existing and future transit needs in the study area for consideration as part of the concept alternative development process. This will include outreach with operating transit entities and County and City staff to understand future plans.

#### **3.5 Public and Stakeholder Engagement**



Contractor will summarize engagement efforts and input that has been received through the efforts.

### **3.6 Safety**

Contractor will evaluate the safety of the study corridor by reviewing the frequency and severity of crashes that have occurred in the last ten years at all corridor intersections and along all corridor segments. Data will be provided by the State's District 7 Traffic Office. Crash data is to be reviewed to identify trends (e.g.: time of day, month, lighting, surface condition, and crash diagram type). Crash diagrams will be developed and the average crash rate, critical crash rate, and critical crash rate index will be calculated for all intersections and segments, with comparisons to statewide crash averages for similar intersections and corridors being made. Locations with higher than expected crash rates will be reviewed to determine if there are any site conditions or design issues that may be leading to the higher rates. Potential context sensitive solutions will be developed and prioritized for these locations taking into consideration recommendations from previous planning efforts (where appropriate). Any solutions that could be immediately deployed (e.g.: added markings or signing) are to be brought to the attention of the PMT by the Contractor, as soon as is reasonable, for consideration by the PMT.

For locations that include a pedestrian or bicycle crash, a detailed review of the incident will be conducted to determine if there are design improvements that should be considered immediately.

Contractor will complete a safety summary describing the overall safety conditions along the corridors. A high-level outline of the safety summary is to be incorporated into the Existing Conditions technical memorandum. The complete safety summary will include a more in-depth review of the corridor and intersections and will use mapping and crash diagrams to help convey the frequency, type, and severity of crashes occurring at intersections and along the study corridors.

### **3.7 Access**

Contractor will develop a comprehensive access inventory as part of the evaluation and summarized in tabular and graphical form. This includes identifying access location, access configuration (e.g.: full, tee, right-in/right-out), type of access (public or private), access control measures (if any), type of usage (truck or auto), cross-street function, and presence of turn lanes.

Contractor will define the desirable access spacing based upon the State's access management guidelines, safety implications, and past access decisions including current access agreements that may be in place. Contractor will identify this as the preferred "access template" or access goal. The preferred access template will then be overlaid onto the current accesses (i.e., base conditions) to identify inconsistencies with the access spacing objectives. Each inconsistency will be enumerated by type (i.e., public, private commercial, private residential, or private agricultural) and classified by replacement difficulty levels.

The access analysis process will also look closely at traffic and safety issues associated with each access point and explore the feasibility of closures, cooperative access sharing, right-in/right-out, or three-quarter movements (where appropriate), internal circulation to eliminate access, changes to land use, and relocating access to an alternate location (e.g.: side streets) while balancing the later defined purpose and need.

### **3.8 Corridor Function and Connecting Roadways**

Contractor will develop network options and an assessment of a multi-directional network of collector and local roads to serve and integrate with the TH22 corridor and the larger planning area. The options will be based on travelshed, future traffic generation, roadway connectivity, improvements to TH22, business input, traffic volumes, principal/minor arterial spacing, access spacing, travel speeds, and adjacent land uses.

### **3.9 Environmental and Cultural Constraints**

While an in-depth evaluation of social, economic, and environmental (SEE) resources is not part of this environmental screening, enough inventory and assessment work will be completed to determine which impacts may be potentially significant in examining alternative concepts to carry forward. Contractor will assemble all relevant SEE information and display this data on the study's GIS base map. The Planning and Environmental Linkages (PEL) process will be used to develop the project in such a way to streamline any future environmental documentation effort that may be required. The base map will graphically depict the potential environmental issues and constraints as well as other critical factors that need to be considered in identifying concept alternatives. Additional information generated by agency and public input will also be added to the base map during the study process.

### **3.10 Corridor Issues Technical Memorandum**

To ensure future corridor improvements are eligible for potential state and federal funding, all environmental screening will be conducted by the Contractor so as to conform to state and federal rules and guidelines. The Contractor will incorporate the findings from this analysis into an overall Existing Conditions technical memorandum documenting all the Existing Conditions data collected and analyzed.

**Deliverables:** The Contractor will develop a technical memorandum summarizing the key corridor issues and opportunities. This will include necessary appendices.

## **Task 4.0: Corridor Vision, Goals, and Purpose and Need (Source Type 1808)**

### **4.1 Develop Preliminary Corridor Vision and Goals**

Developing the vision and goals will be a collaborative, iterative process informed by seeking input from study stakeholders on the following framing questions:

- a. What is the function of TH 22 in the overall transportation network?
- b. What are the economic, land use, and mobility needs for the corridor?
- c. What are the local business needs for the corridor?
- d. What are the expectations and needs of the corridor users, including non-motorized users?
- e. How does TH 22 fit into the area's cultural/environmental context?
- f. What safety and operations needs exist that are necessary to address for current and anticipated future conditions?

### **4.2 Prepare Purpose and Need Statement**

In line with the vision developed as part of Task 4.1, Contractor will prepare a Purpose and Need Statement (PNS)

([http://dotapp7.dot.state.mn.us/eDIGS\\_guest/DMResultSet/download?docId=2214550](http://dotapp7.dot.state.mn.us/eDIGS_guest/DMResultSet/download?docId=2214550))

The PNS will take into consideration the information gathered by the Traffic Operations recent crash history processes and build on federal purpose and need guidelines, including:

- a. Project history/status
- b. System linkage
- c. System deficiencies

- d. Capacity needs
- e. Transportation, social, and economic demands
- f. Modal interrelationships
- g. Safety
- h. Infrastructure Conditions (e.g., pavement, structures, retaining walls, etc.)

The draft PNS will be reviewed by the PMT and revised based on feedback. Contractor will present the revised draft PNS to the PMT for approval.

**Deliverables:** Contractor will prepare a technical memorandum that documents the Vision and Goals as well as the developed Purpose and Need Statement by referencing all key needs and data sets.

#### **Task 5.0: Intersection Control Evaluations (ICE) Reports (Source Type 1808)**

- 5.1** Contractor will prepare full Intersection Control Evaluations (ICE) Reports for the following four intersections:
- a. TH 22 and Old Minnesota Avenue
  - b. TH 22 and Washington Ave
  - c. TH 22 and Sunrise Dr
  - d. TH 22 and Klein St OR TH 22 and CR 20, per the direction of the PMT. The future of a CR 15 connection at Klein Street will be reviewed by project partners with the possibility of closing the CR 15 leg and instead concentrating traffic at the TH 22 and CR 20 intersection.

ICE reports will evaluate existing operations, as well as incorporate the future intersection operations and safety analyses done as part of Task 4 to determine the most appropriate long-term intersection control type for each intersection. Potential intersection control options include a No-Build alternative, signalization, roundabout control, or alternative designs (e.g.: addition of turn lane(s), conversion to RCUT,  $\frac{3}{4}$  Right-In/Right-Out, or closure). The ICE reports will consider a minimum of two alternatives and will also provide full benefit-cost analysis for all considered alternatives. Enough alternatives must be considered to address any future deficiencies identified in Task 6.

Additionally, ICE reports should offer short-, mid-, and long-term recommendations for improvements to address identified deficiencies, as well as to improve intersection safety and operations, while aligning with the study vision and goals, defined in Task 4. All recommended improvements, as well as the associated time horizons and costs, are to be summarized in an ICE Improvements Summary technical memorandum.

**Deliverables:** ICE reports for all four above intersections on TH 22 and an ICE Improvements Summary technical memorandum.

#### **Task 6.0: Traffic Simulation (Source Type 1808)**

##### **6.1 No Build Analysis**

The contractor will project traffic volumes under 2028 and 2048 traffic conditions to understand future issues that could develop under changing travel characteristics in the study area and will assume no improvements to the corridors beyond those already programmed in the current STIP, or those budgeted for by the local partners. Traffic projections will be based on:

Historical growth in AADT, County factors, and expected development/growth in the area, using input from local City and State staff as a basis for growth estimates. In this process we will forecast the location and extent of future residential, commercial, and industrial development in the area. The Contractor will then use data from the Institute of Transportation Engineers to estimate changes in daily and peak hour traffic volumes on study area roadways.

Historic traffic patterns as a reasonableness check to traffic projections. If our traffic projections greatly vary from historic patterns, we will work with stakeholders to finalize traffic projections that will be used for future conditions analysis.

Using *Highway Capacity Manual* (HCM) methodology, and the traffic projection methodology detailed below, the Contractor is to establish future peak hour (AM and PM) traffic demands (volumes, corresponding Level of Service (LOS), and queuing) at all Highway 22 intersections. Additionally, the Contractor is to determine future demand and LOS along all study corridors.

Analysis should include traffic signal warrant as well as intersection and corridor capacity analyses to help identify potential needs to be addressed by the study, as well as future highway improvement projects. For evaluation purposes, LOS D or worse should be considered deficient.

Results from the above analyses for the two future periods are to be incorporated by the Contractor into the ICE reports generated in Task 7.

#### **6.2 Vissim Model Development and Calibration**

Contractor will develop Vissim traffic simulation models for the entire project area. This analysis will include roundabout calibration to the *Highway Capacity Manual* (HCM) 6<sup>th</sup> Edition, and will utilize optimized traffic signal timing for the modeled traffic volumes.

#### **6.3 Traffic Operations Analysis**

Contractor will evaluate traffic operations for all intersections in the project study area, based on Vissim simulation results. Traffic operations results will be presented in terms of delay per vehicle, queuing, travel times and associated level of service, based on delay thresholds prescribed in the *HCM*.

**Deliverables:** Future Conditions (No-Build) report with maps and graphic tables displaying future demand information, as well as future needs (e.g.: capacity deficiencies, satisfied signal warrants, etc.) are to be provided by the Contractor.

Traffic operations evaluation and safety analysis results for Vissim modeled intersections are to be included in the corresponding ICE Reports as well as summarized in map and report format for inclusion in the final study report. Contractor will develop 3D visualizations using Vissim microsimulation software to use during engagement efforts.

### **Task 7.0: Corridor Alternatives Development, Analysis and Screening/Evaluation (Source Type 1808)**

Using a compilation of findings from the corridor vision, goal statements, existing and future conditions analyses, and issues identification process, a range of multi-modal improvements should be developed. Projects should be defined sufficiently for the public and agencies to understand the general scale and scope and to assess planning-level impacts and costs.

#### **7.1 Corridor Alternatives Development**



Contractor will work with the PMT to establish evaluation criteria that incorporate the corridor vision, established goals, purpose and need statement, and earlier public input on issues and needs. It is anticipated that environmental, social, and transportation performance factors, such as wetland impacts, level-of-service, multimodal connectivity, access management, transit opportunities, enhanced pedestrian crossings, safety, cost, etc., will be used to evaluate the concept alternatives.

Contractor will fully develop up to three (3) corridor improvement concepts on TH 22. Concepts will be based upon the corridor vision and identified issues with the potential for small-scale intersection or spot sub-options. In the early stages of concept development numerous alternatives will be reviewed.

The following project elements will be taken into consideration:

- a. Design Speed
- b. Lane Width
- c. Intersections
- d. Shoulder Width
- e. Lane configuration

Contractor will take all project elements into account when setting roadway alignments. Alignments will be set along TH22 to fit the existing corridor and meet the agreed upon design speed.

While most of TH22 will likely remain at its current profile, it may need to be changed depending on local topography to improve mainline traffic operations and other safety issues such as stopping distance as well as future State maintenance activities.

Intersection operations will be evaluated for each alternative to ensure their conceptual designs accommodate future traffic conditions. The alternatives will be analyzed against the evaluation criteria to determine how they rank relative to each (i.e., access management, safety, pedestrian accommodations, etc.).

## **7.2 Corridor Alternatives Analysis**

Early alternative concept development will be performed with Bentley Concept Station (BCS) for cost efficiency and later refined using traditional State's concept development techniques.

## **7.3 Corridor Alternatives Screening/Evaluation**

Contractor will compile impact assessment results. The results of the evaluation process will be presented in a matrix, organized so stakeholders can discern the relationship between study goals and the measurable criteria used to evaluate concepts.

State's Quality of Life Market Research study identifies mobility, accessibility, and safety, as primary factors impacting Minnesotans' quality of life. The contractor will use the following quality of life metrics to assess each transportation alternative:

- a. Safety
- b. Frustration
- c. Health and Equity
- d. Financial
- e. Impacts

After review by the PMT, data will be generalized into a "good, fair, or poor" format or a similar scale for public review. Contractor will prepare a critical characteristics chart

summarizing the most important alternative ratings by transportation, social, environmental, and cost categories. Similarly, for public review, Contractor will further summarize findings with an advantage/disadvantage chart.

The evaluation process, the evaluation matrices, and the draft ranking of concepts will be presented to the PMT for comment and refinement before presenting to resource agencies and the public for comments.

Contractor will work with the PMT to determine and document the “locally” preferred corridor concept. Contractor will develop up to two preferred concept designs. Upon the PMT’s selection of the locally preferred corridor concept, Contractor will develop one final preferred concept design.

Contractor will review preliminary planning-level construction and right-of-way cost estimates and refine them for the locally preferred corridor plan. Construction cost estimates will be based on planning-level, cost-per-mile values that are typical for similar roadways in the study area. Right-of-way estimates will be based on per parcel or acreage values or another methodology that is mutually agreed upon.

**Deliverables:** Up to three fully developed corridor alternative exhibits consisting of 2-D horizontal linework; tracking of multiple iterations to refine; and ultimately one final preferred concept exhibit. The results of the Alternatives Analysis will be summarized in a report.

#### **Task 8.0: Implementation Plan (Source Type 1808)**

- 8.1 Based on the selected preferred corridor alternative, as well as recommended improvements contained within the ICE reports, Contractor will recommend specific strategies to the PMT to implement the proposed improvements on the study corridors.

Contractor will work with the PMT to identify issues that require immediate attention and items that should be built with a planned project.

**Deliverables:** Contractor will provide recommendations for identified improvements in a formal Implementation Plan report.

#### **Task 9.0: Corridor Study Report (Source Type 1808)**

- 9.1 The draft and final reports will document the study process, assumptions and methodology, analysis, findings, recommendations, and public involvement efforts. The technical memorandums produced throughout the corridor study process will be synthesized into one seamless final study report. Specific elements that will be incorporated into the draft and final reports including but not limited to:
  - a. An executive summary (to be used as a stand-alone document)
  - b. Existing and Future Issues identification
  - c. Corridor vision, goals, and purpose and need statement
  - d. Alternative roadway, trail, and landscape concept development, analysis, and evaluation (including planning-level cost estimates)
  - e. Corridor Issues Identification Technical Memorandum
  - f. Alternative Development and Assessment Technical Memorandum
  - g. ICE Improvement Summary Report
  - h. Locally preferred corridor concept
  - i. Implementation plan
  - j. Public and agency involvement activities and documentation

- k. All other supporting data as appendices (e.g.: ICE Reports, Turning Movement Counts, etc.)

The Contractor will distribute electronic copies of the draft report and seek PMT comments after the Contractor has thoroughly reviewed the draft report. Typographical errors should be at a minimum. Contractor will revise the draft, as needed, based on feedback and provide one hardbound copy and one electronic copy to the state, city, and county. The Contractor is also responsible for posting the electronic version of the full, final, report as well as the executive summary to the project website. All documents will be provided to the PMT for further distribution.

**Deliverables:** One electronic copy (PDF) of the full final plan and one hardbound copy to the city, county, and state.

#### **Communication**

All communication will be in writing and agreed upon by the State's District 7 PM and the Contractor PM. If direction is provided via a telephone call, the Contractor PM will document the discussion and send to the State's District 7 PM for concurrence.

#### **Tentative Project Schedule**

The State is targeting a completion date of **January 31, 2023** for all deliverables as described in this Scope of Work.

#### **State-Provided Information**

The State will provide the following information and data as requested by the contractor:

1. Existing Right-of-Way (RW) limits in digital format
2. Survey alignment of TH 22
3. Existing Survey Information (flight topography and mobile LIDAR)
4. State's electronic project directory standards and file naming standards
5. District 7 Design Guidelines
6. District 7 Traffic Guidelines
7. District 7 Hydraulic Guidelines
8. District 7 Survey Guidelines
9. District 7 Pavement Striping Guidance
10. Purpose & Need Statement Guidance per State's HPDP website.
11. Stakeholder Register
12. Crash data within project limits
13. 48-hour traffic video files
14. Material Recommendations
15. Action Item Log template
16. Scoping Report template

# Nicollet County Board of Commissioners Board Meeting Agenda Item



<b>Agenda Item:</b> Consider Cooperative Construction Agreement for CSAH 5/Sunrise Dr/Broadway Ave. Roundabout Project	
Primary Originating Division/Dept.: Public Works/Highway	Meeting Date: 07/26/2022
Contact: Seth Greenwood, P.E. Title: PWD/County Engineer	Item Type: Regular Agenda (Select One)
Amount of Time Requested: 10 minutes	
Presenter: Seth Greenwood, P.E. Title: PWD/County Engineer	Attachments: <input checked="" type="radio"/> Yes <input type="radio"/> No
County Strategy: (Select One) Facilities and Space - preserve, maintain and build our assets	
<b>BACKGROUND/JUSTIFICATION:</b> <p>The City of Saint Peter and Nicollet County are cooperatively working on developing and constructing a roundabout at the intersection of CSAH 5, Sunrise Drive, and Broadway Avenue. Included in the packet is a copy of the cooperative construction agreement that identifies the roles and responsibilities (including financial and maintenance responsibilities) for the respective agencies in regards to this project.</p> <p>The County's cost responsibility identified in the agreement is based upon the low bid received by the City from Dirt Merchant, estimated engineering costs for the development and construction oversight for the project, and a prorated amount of LRIP funds. This amount is \$266,120.59. Actual County costs will ultimately be based upon final construction and engineering costs when project is complete and accepted.</p> <p>Project construction is anticipated to start August 2022 and be completed this fall.</p>	
Supporting Documents: <input checked="" type="radio"/> Attached <input type="radio"/> In Signature Folder <input type="radio"/> None	
Prior Board Action Taken on this Agenda Item: <input type="radio"/> Yes <input checked="" type="radio"/> No	
If "yes", when? (provide year; mm/dd/yy if known)	
Approved by County Attorney's Office: <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A	
<b>ACTION REQUESTED:</b> Approve Cooperative Construction Agreement for CSAH 5/Sunrise Dr/Broadway Ave Roundabout Project	
<b>FISCAL IMPACT:</b> Included in current budget (Select One) If "Other", specify:	<b>FUNDING</b> County Dollars = State \$266,120.59 (Select One) <b>Total:</b> \$266,120.59
<b>FTE IMPACT:</b> No FTE change (Select One) If "Increase or "Decrease," specify:	
Related Financial/FTE Comments: Will use State Aid Regular Construction funds. Actual value will be determined based upon final costs when project is complete.	

**COOPERATIVE CONSTRUCTION AGREEMENT  
BETWEEN  
NICOLLET COUNTY AND THE CITY OF SAINT PETER  
FOR  
DESIGN, CONSTRUCTION, AND MAINTENANCE  
OF  
CSAH 5/SUNRISE DRIVE/BROADWAY AVENUE ROUNDABOUT**

THIS AGREEMENT, made and entered into by and between the City of Saint Peter, a municipal corporation, organized under the laws of the State of Minnesota, party of the first part, hereinafter referred to as "City", and the County of Nicollet, Minnesota, a municipal corporation organized under the laws of the State of Minnesota, party of the second part, hereinafter referred to as "County";

WITNESSETH:

WHEREAS, The County and the City have been involved in discussions, studies, and preliminary engineering for the design, reconstruction, and improvement of the intersection of CSAH 5, Sunrise Drive, and Broadway Avenue, and

WHEREAS, Portions of the reconstruction and improvements to said intersection is necessitated due to the planned construction of the new Saint Peter Fire Hall, future traffic volume increases from City growth, and intersection safety issues identified in the Intersection Control Evaluation Study dated 03-23-2022, and

WHEREAS, The County and City desire to construct a roundabout at the intersection of CSAH 5, Sunrise Drive, and Broadway Avenue, and

WHEREAS, CSAH 5 is under the jurisdiction of the County for purposes of maintenance and improvements, and

WHEREAS, It is the desire of both parties to enter into a written document regarding the improvement and maintenance of said intersection of CSAH 5, Sunrise Drive/Broadway Avenue, and

NOW, THEREFORE, Pursuant to Minnesota Statutes 471.59 and in consideration of the mutual covenants and promises hereinafter contained, it is agreed by and between the City of Saint Peter and Nicollet County as follows:

- A. That this agreement shall apply only to the improvements and maintenance of CSAH 5 at the intersection of CSAH 5/Broadway Avenue/Sunrise Drive.



B. Prosecution of work will be performed on the following basis.

City of Saint Peter will:

- 1) Prepare construction plans and specifications with an estimate of cost for the construction project.
- 2) Act as the contracting agency for the construction project in accordance with the competitive bidding requirements of Minnesota Statutes 471.345 and 375.21.
- 3) Provide the necessary surveying and construction inspection engineering services for the project.
- 4) Provide a registered professional engineer to prepare the construction plans and specifications and to supervise the construction of the project. Said supervision shall include keeping adequate records to document the quality of construction and the substantiation of pay quantities.
- 5) Maintain the project open to inspection by the County or their duly authorized representatives.
- 6) Obtain the written approval of the County for any change in work orders or supplemental agreements to the contractor involving work in which the County is cost participating, prior to the performance of such work when feasible.

C. The City agrees to do all things necessary for the construction of said project except as set forth in this agreement. Said project on CSAH 5 is to be constructed, consistent with current City, County, and State Aid standards.

D. It is agreed by and between the parties hereto that the City shall diligently pursue any necessary permanent road right-of-way and permanent/temporary easements for the construction of said project and is responsible for all costs associated with acquiring the permanent road right-of-way and permanent/temporary easements.

E. The County has adopted a Policy for the division of costs for improvements to County Highways within a municipality, said Policy being adopted by the Nicollet County Board of Commissioners on September 22, 2009, a copy of which is attached hereto, and made a part hereof for reference, shall apply to the improvements on the hereinbefore described CSAH 5 with the following modifications or additions:

1. The construction cost of a roundabout is split by approach leg and shall include all components associated with that leg of approach, including the center raised median, curb, truck apron, and roadway markings. See Exhibit A.
2. See Exhibit B for maintenance responsibilities at roundabouts. All maintenance for the raised center circle shall be performed by the City.

- F. The method of financing the portion of the improvement project within the City of Saint Peter shall be the prerogative of Nicollet County and the City of Saint Peter. Funding of the project is subject to the following provisions:

1) CONSTRUCTION COSTS:

Nicollet County and the City of Saint Peter will share in the final construction costs for roadway improvements as defined in said County Cost Participation Policy and this agreement for the division of project costs. See Exhibit C (Estimate Based on Low Bid).

2) ENGINEERING COSTS:

Nicollet County will reimburse the City of Saint Peter a prorated amount of the final total costs incurred pursuant to Section B of this agreement. The prorated amount will be determined by Nicollet County's percentage share of the project's final construction costs. See Exhibit D (Based on Low Bid).

3) LOCAL ROAD IMPROVEMENT (LRIP) FUNDS:

The City of Saint Peter will apply a proportional amount of LRIP funds to Nicollet County's share of the project's final LRIP eligible construction costs. See Exhibit D (Based on Low Bid).

4) REIMBURSEMENTS:

- a. During each month of the term of the construction project, the City of Saint Peter will bill Nicollet County for its share of the construction and engineering costs. Nicollet County will reimburse the City of Saint Peter within forty-five (45) days for any balance due.
- b. Upon completion and final acceptance of the project, and receipt of a detailed listing of the project's final construction costs, engineering cost splits, and LRIP fund splits (Updated Exhibit C and D for Actual Costs and LRIP Splits), Nicollet County will reimburse the City of Saint Peter within forty-five (45) days for any balance due.

- G. The City of Saint Peter agrees to save, hold harmless and indemnify Nicollet County and the County's officers, agents, employees, and volunteer workers against any and all claims, losses, damages, or law suits for damages arising from, allegedly arising from, or related to the provisions of services hereunder, and further the City agrees to defend at its own sole cost and expense any action for proceeding commenced for the purpose of asserting any claim of whatsoever character arising as a result of the provision of services hereunder.

The County agrees to save, hold harmless and indemnify the City of Saint Peter and the City's officers, agents, employees, and volunteer workers against any and all claims, losses, or lawsuits for damages arising from, allegedly arising from, or related to the County's provision of services hereunder, and further the County agrees to defend at its own sole cost and expense any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising as a result of the County's provision of services hereunder.

It is hereby understood and agreed that any and all employees of the County and all other persons employed by the County in the performance of the provisions of services hereunder shall not be considered employees of the City and that any and all claims that may or might arise under the Worker's Compensation Act of the State of Minnesota on behalf of said employees while so engaged and any and all claims made by third parties as a consequence of any act or omission on the part of said County employees while so engaged in the performance of any of the provisions of services hereunder shall in no way be the obligation or responsibility of the City.

It is hereby understood and agreed that any and all employees of the City and all other persons employed by the City in the performance of the provisions of services hereunder shall not be considered employees of the County and that any and all claims that may or might arise under the Worker's Compensation Act of the State of Minnesota on behalf of said employees while so engaged and any and all claims made by third parties as a consequence of any act or omission on the part of said City employees while so engaged in the performance of any of the provisions of services hereunder shall in no way be the obligation or responsibility of the County.

- H. Pursuant to Minnesota Statute 16C.05, Subd. 5, the City agrees that the County, the State Auditor, or any of their duly authorized representatives at any time during normal business hours and as often as they may reasonably deem necessary, shall have access to and the right to examine, audit, excerpt, and transcribe any books, documents, papers, records, etc., which are pertinent to the accounting practices and procedures of the County and involve transactions relating to this Agreement.

The City agrees to maintain these records for a period of six years upon the completion and final acceptance of the project.

- I. Pursuant to Minnesota Statute 16C.05, Subd. 5, the County agrees that the City, the State Auditor, or any of their duly authorized representatives at any time during normal business hours and as often as they may reasonably deem necessary, shall have access to and the right to examine, audit, excerpt, and transcribe any books, documents, papers, records, etc., which are pertinent to the accounting practices and procedures of the County and involve transactions relating to this Agreement.

County agrees to maintain these records for a period of six years upon the completion and final acceptance of the project.

- J. During the performance of this Agreement, the City and the County agree to the following:

No person shall, on the grounds of race, color, religion, age, sex, disability, marital status, public assistance status, criminal record, creed or national origin be excluded from full employment right in, participation in, be denied the benefits of or be otherwise subjected to discrimination under any and all applicable Federal and State laws against discrimination.

- K. Each party agrees that any modification of this agreement will be in writing and will be signed by the parties hereto.

IN TESTIMONY WHEREOF, The parties hereto have caused these presents to be executed.

City of Saint Peter, Minnesota

Nicollet County, Minnesota

\_\_\_\_\_  
Mayor, City of Saint Peter

\_\_\_\_\_  
Nicollet County Board Chair

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attest:

Attest:

\_\_\_\_\_  
City Administrator/Clerk

\_\_\_\_\_  
County Administrator

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Approved As To Form:

Approved As To Form:

\_\_\_\_\_  
City Attorney

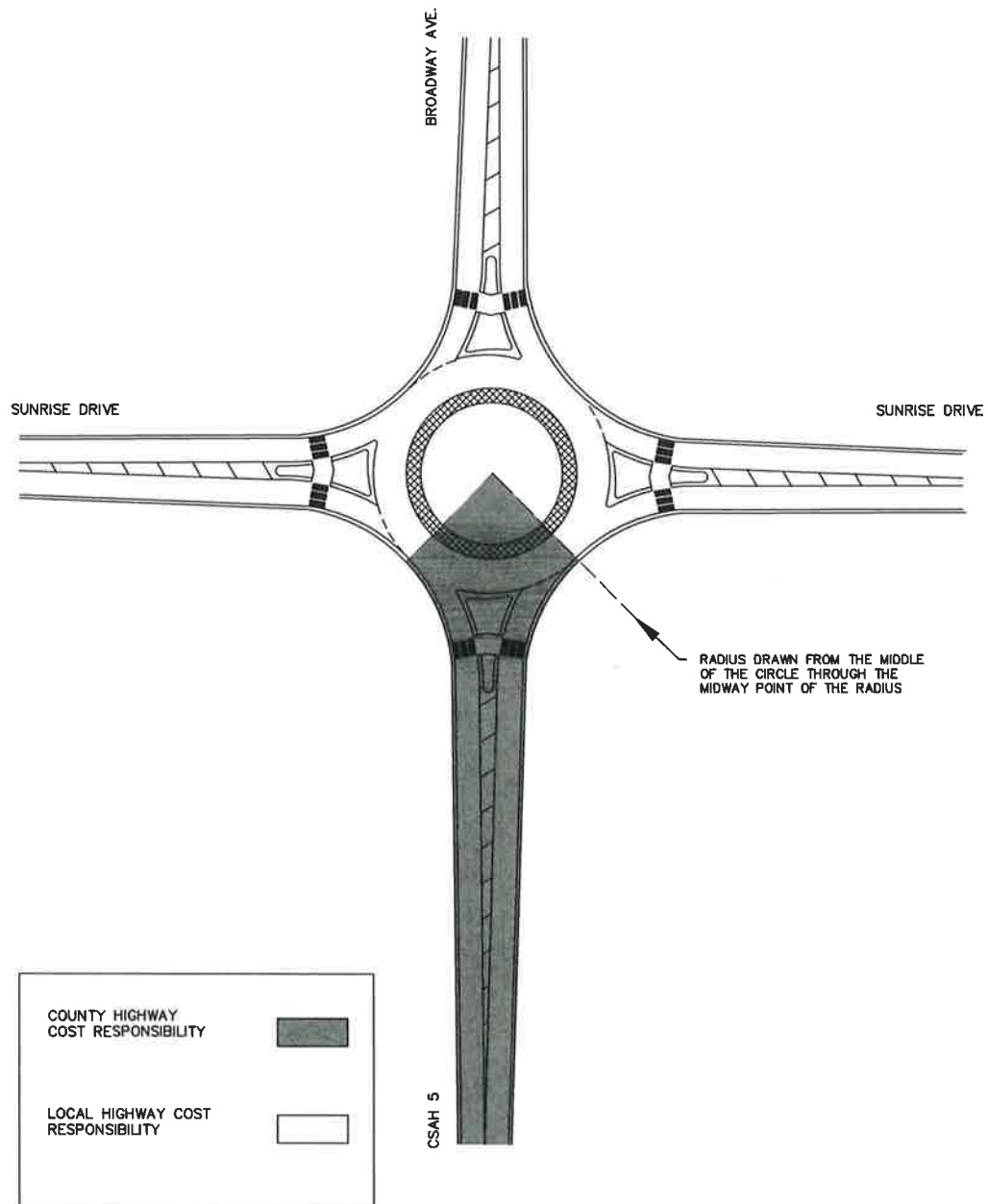
\_\_\_\_\_  
County Attorney

Date: \_\_\_\_\_

Date: \_\_\_\_\_

# Exhibit A: Diagram of Cost Responsibilities at Roundabouts CSAH 5 / Broadway Ave / Sunrise Drive

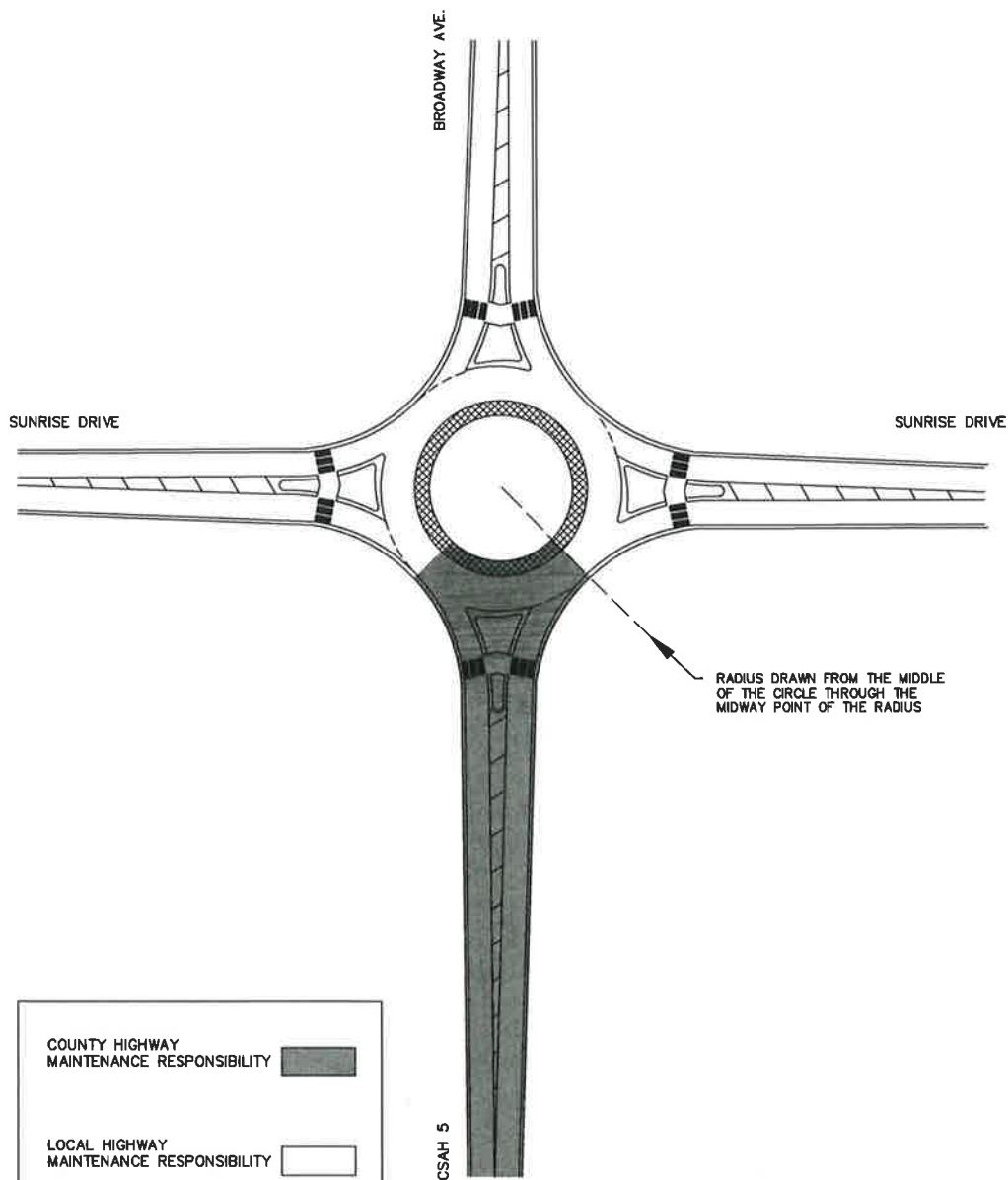
EXHIBIT A





## Exhibit B: Diagram of Maintenance Responsibilities at Roundabouts CSAH 5 / Broadway Ave / Sunrise Drive

EXHIBIT B



## Exhibit C Page 1 of 2

## ESTIMATE BASED ON LOW BID

2022 BROADWAY AVENUE AND SUNRISE DRIVE INTERSECTION IMPROVEMENTS

SAP 165-106-006 AND SAP 052-605-063

CITY OF SAINT PETER, MN

BMT PROJECT NO. DM1.125237

H:\STP\DM1\125237\3\_Design\A\_Calculations\125237 Quant\Estimate Based on Low Bid



Date: 7/1/2022

LINE NO.	TAB	ITEM NO.	EXT. NO.	ITEM	NOTES	UNIT	LOW BID UNIT PRICE	TOTALS		PARTICIPATING 165-106-006 (A) (LIP ELIGIBLE)				PARTICIPATING SAP 052-605-063 (B) (LIP ELIGIBLE)				NON PARTICIPATING	
								ESTIMATED QUANTITY	CONSTRUCTION COST	ROADWAY		STORM SEWER		ROADWAY		STORM SEWER		ESTIMATED QUANTITY	CONSTRUCTION COST
										ESTIMATED QUANTITY	CONSTRUCTION COST	ESTIMATED QUANTITY	CONSTRUCTION COST	ESTIMATED QUANTITY	CONSTRUCTION COST	ESTIMATED QUANTITY	CONSTRUCTION COST		
1		2021.501	00010	MOBILIZATION		LUMP SUM	\$205,300.43	1	\$205,300.43	0.57	\$117,031.25	0.16	\$32,448.07	0.7	\$41,080.09	0.03	\$6,159.01	0.04	\$4,712.02
2	A	2101.502	00020	CLEARING		EACH	\$600.00	8	\$4,800.00	1	\$600.00			7	\$4,200.00				
3	A	2101.502	00030	GRUBBING		EACH	\$4,900.00	8	\$4,900.00	1	\$600.00			7	\$4,200.00				
4	E	2102.503	00010	PAVEMENT MARKING REMOVAL		LN FT	\$1.00	1035	\$1,035.00	130	\$130.00			905	\$905.00				
5	E	2102.518	00010	PAVEMENT MARKING REMOVAL		SQ FT	\$3.00	168	\$504.00	168	\$504.00								
6	F	2104.503	00050	REMOVE GATE VALVE & BOX		EACH	\$300.00	2	\$600.00									2	\$600.00
7	F	2104.503	00080	REMOVE HYDRANT		EACH	\$400.00	1	\$400.00									1	\$400.00
8	A	2104.502	00910	REMOVE DRAINAGE STRUCTURE		EACH	\$300.00	18	\$5,400.00	16	\$4,800.00			2	\$600.00				
9	Z	2104.503	01270	REMOVE SIGN		EACH	\$30.00	14	\$420.00	9	\$270.00			5	\$150.00				
10	Z	2104.502	01300	SALVAGE SIGN		EACH	\$400.00	8	\$3,200.00	5	\$2,000.00			3	\$1,200.00				
11	A	2104.503	00015	REMOVE PIPE CULVERTS	(4)	LN FT	\$10.00	52	\$520.00	52	\$520.00								
12	A	2104.503	00315	REMOVE CURB AND GUTTER		LN FT	\$3.00	2102	\$6,306.00	1378	\$4,134.00			724	\$2,172.00				
13	A	2104.504	00080	REMOVE CONCRETE DRIVEWAY PAVEMENT		SQ YD	\$6.00	85	\$510.00	85	\$510.00								
14	A	2104.504	00090	REMOVE CONCRETE PAVEMENT		SQ YD	\$4.70	1580	\$7,426.00					1580	\$7,426.00				
15	A	2104.504	00170	REMOVE BITUMINOUS PAVEMENT		SQ YD	\$5.40	1070	\$5,778.00	2056	\$11,114.40			15	\$81.00				
16	A	2104.518	00100	REMOVE BITUMINOUS WALK		SQ FT	\$2.45	5515	\$13,511.25	4856	\$23,827.20			1460	\$6,576.00				
17	A	2104.518	00140	REMOVE CONCRETE WALK		SQ FT	\$5.55	7030	\$38,916.50	4600	\$25,300.00			2430	\$13,360.50				
18		2104.602	00400	SALVAGE SIGN SPECIAL	(5)	EACH	\$2,000.00	1	\$2,000.00	1	\$2,000.00								
19	B	2106.507	00010	EXCAVATION - COMMON	(P)	CU YD	\$12.70	6894	\$87,553.80	1357	\$168,933.90			1337	\$169,519.00				
20	B	2106.507	00130	COMMON EMBANKMENT (CV)	(P)	CU YD	\$8.00	1365	\$10,920.00	1098	\$8,784.00			768	\$6,144.00				
21	B	2108.604	00030	SOIL STABILIZATION GEOTEXT	(E)	SQ YD	\$4.30	2331	\$10,023.30	1788	\$7,692.70			542	\$2,330.60				
22	B	2118.509	00030	AGGREGATE SURFACING CLASS 2	(E)	TON	\$76.55	21	\$1,607.55	21	\$1,607.55								
23		2123.510	00010	COMMON LABORERS	(1)(2)	HOUR	\$95.00	40	\$3,800.00	25	\$2,375.00			10	\$950.00			5	\$475.00
24		2123.510	00080	3.0 CU YD SHOVEL	(1)(2)	HOUR	\$265.00	20	\$5,300.00	10	\$2,650.00			5	\$1,325.00			5	\$1,325.00
25		2123.510	00130	DOZER	(1)(2)	HOUR	\$245.00	20	\$4,900.00	10	\$2,450.00			5	\$1,225.00			5	\$1,225.00
26		2123.510	00150	10 CU YD TRUCK	(1)(2)	HOUR	\$220.00	20	\$4,400.00	10	\$2,200.00			5	\$1,100.00			5	\$1,100.00
27		2123.510	00250	4.0 CU YD FRONT END LOADER	(1)(2)	HOUR	\$165.00	20	\$3,300.00	10	\$1,650.00			5	\$825.00			5	\$825.00
28		2123.510	00290	TAMPING ROLLER	(1)(2)	HOUR	\$120.00	20	\$2,400.00	10	\$1,200.00			5	\$600.00			5	\$600.00
29		2123.610	00370	SKID LOADER	(1)(2)	HOUR	\$135.00	40	\$5,400.00	25	\$3,375.00			10	\$1,350.00			5	\$675.00
30	B	2211.507	00170	AGGREGATE BASE (CV) CLASS 3	(P)	CU YD	\$40.15	2958	\$118,763.70	2235	\$89,735.25			723	\$29,028.45				
31	C	2301.504	00070	CONCRETE PAVEMENT 7.0"		SQ YD	\$90.16	4100	\$369,656.00	2660	\$239,825.60			1440	\$129,840.00				
32	C	2301.508	00010	SUPPLEMENTAL PAVEMENT REINFORCEMENT		POLYD	\$3.08	11240	\$34,619.20	8570	\$26,395.60			2670	\$8,271.60				
33	C	2301.601	00070	1.0" DOWEL BAR		EACH	\$14.00	3070	\$42,980.00	2030	\$28,420.00			1040	\$14,560.00				
34	C	2301.603	00050	DRILL AND GROUT DOWEL BAR (POXY COATED)		EACH	\$16.40	27	\$442.80					27	\$442.80				
35	C	2301.607	00070	DRILL AND GROUT REIN BAR (POXY COATED)		EACH	\$8.19	750	\$6,142.50	108	\$884.52			142	\$1,162.98				
36	C	2301.604	02040	CONCRETE PAVEMENT (SPECIAL)	(6)	SQ YD	\$157.51	136	\$21,441.36	253	\$39,850.03			83	\$13,077.33				
37	C	2360.509	13300	TYPE SP 9.5 WEARING COURSE MIXTURE (1.0)	(3)	TON	\$101.00	288	\$29,088.00	288	\$29,088.00								
38	C	2360.509	23300	TYPE SP 12.5 WEARING COURSE MIXTURE (1.0)	(3)	TON	\$101.00	326	\$32,916.00	326	\$32,916.00								
39	D	2501.502	44015	15" RC SAFETY APRON	(7)	EACH	\$1,615.00	1	\$1,615.00			1	\$1,615.00						
40	D	2502.503	01060	6" TP PIPE DRAIN		LN FT	\$37.25	87	\$3,240.75			87	\$3,240.75						
41	D	2503.503	19125	12" RC PIPE SEWER DESIGN 3006 CLASS V		LN FT	\$64.05	518	\$33,177.90			431	\$27,605.55			87	\$5,572.35		
42	D	2503.503	19155	15" RC PIPE SEWER DESIGN 3006 CLASS V		LN FT	\$75.95	45	\$3,417.75			45	\$3,417.75						
43	D	2503.503	19185	18" RC PIPE SEWER DESIGN 3006 CLASS III		LN FT	\$81.10	47	\$3,811.70			47	\$3,811.70						
44	D	2503.503	19243	24" RC PIPE SEWER DESIGN 3006 CLASS III		LN FT	\$123.25	225	\$27,731.25			225	\$27,731.25						
45	D	2503.503	19303	30" RC PIPE SEWER DESIGN 3006 CLASS III		LN FT	\$141.75	532	\$75,475.00			289	\$41,543.75			243	\$34,931.25		
46	D	2503.503	19353	15" RC PIPE SEWER DESIGN 3006 SPECIAL	(8)	LN FT	\$106.95	16	\$1,711.20									16	\$1,711.20
47	D	2503.503	19381	18" RC PIPE SEWER DESIGN 3006 SPECIAL	(8)	LN FT	\$109.10	160	\$17,456.00									160	\$17,456.00
48	D	2503.503	19421	24" RC PIPE SEWER DESIGN 3006 SPECIAL	(8)	LN FT	\$132.55	59	\$7,820.45									59	\$7,820.45
49	D	2503.602	00320	CONNECT TO EXISTING STORM SEWER		EACH	\$500.00	6	\$3,000.00			5	\$2,500.00			1	\$500.00		
50	D	2503.602	00360	CONNECT INTO EXISTING DRAINAGE STRUCTURE		EACH	\$500.00	1	\$500.00			1	\$500.00						
51	A	2503.603	20270	PLUG FILL AND ABANDON PIPE SEWER		LN FT	\$12.95	1340	\$17,353.00	1272	\$16,521.60			68	\$882.00				
52	F	2504.601	00010	CONNECT TO EXISTING WATER MAIN		EACH	\$2,500.00	2	\$5,000.00									2	\$5,000.00
53	F	2504.601	00020	HYDRANT		EACH	\$5,395.00	1	\$5,395.00									1	\$5,395.00
54	F	2504.602	00034	ADJUST VALVE BOX	(9)	EACH	\$300.00	1	\$300.00									1	\$300.00
55	F	2504.602	00036	6" GATE VALVE & BOX		EACH	\$2,460.00	1	\$2,460.00									1	\$2,460.00
56	F	2504.602	00012	12" GATE VALVE & BOX		EACH	\$6,110.00	1	\$6,110.00									1	\$6,110.00
57	F	2504.603	01062	6" WATERMAIN DUCTILE IRON CL 52		LN FT	\$202.50	6	\$1,215.00									6	\$1,215.00
58	F	2504.603	01122	12" WATERMAIN DUCTILE IRON CL 52		LN FT	\$172.60	60	\$10,356.00									60	\$10,356.00
59	F	2504.604	01100	4" POLYETHYLENE INSULATION		SQ YD	\$35.50	30	\$1,065.00									30	\$1,065.00
60	F	2504.608	00015	WATERMAIN FITTINGS		POUND	\$17.00	240	\$4,080.00									240	\$4,080.00
61	D,E	2506.502	06000	CASTING ASSEMBLY		EACH	\$995.00	40	\$39,800.00			35	\$34,825.00			5	\$4,975.00		
62		2506.502	06020	ADJUST FRAME AND RING CASTING		EACH	\$500.00	1	\$500.00									1	\$500.00
63	D	2506.502	00301	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 1	(10)	EACH	\$12,545.00	1	\$12,545.00			1	\$12,545.00						
64	D	2506.503	00070	CONSTRUCT DRAINAGE STRUCTURE DESIGN B		LN FT	\$660.00	9	\$5,940.00			9	\$5,940.00						
65	D	2506.503	00302	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 2	(11)	LN FT	\$630.00	63	\$39,780.00			56	\$33,480.00			6	\$3,780.00		
66	D	2506.503	00420	CONSTRUCT DRAINAGE STRUCTURE DESIGN 4B-4020		LN FT	\$710.50	149	\$106,424.50			135	\$95,917.50			14	\$10,347.00		

## Exhibit C Page 2 of 2

## ESTIMATE BASED ON LOW BID

2022 BROADWAY AVENUE AND SUNRISE DRIVE INTERSECTION IMPROVEMENTS

SAP 165-106-006 AND SAP 052-605-063

CITY OF SAINT PETER, MN

BNI PROJECT NO. 0M1.125237

H:\STP6\QM\125237\3\_Design\A\_Calculations\125237 Quant.doc Estimate Based on Low Bid



Date: 7/5/2022																			
LINE NO.	TAB	ITEM NO.	EXT. NO.	ITEM	NOTES	UNIT	PRICE	TOTALS		PARTICIPATING 165-106-006 (A) (LUMP ELIGIBLE)				PARTICIPATING SAP 052-605-063 (B) (LUMP ELIGIBLE)				NON PARTICIPATING	
								ESTIMATED QUANTITY	ESTIMATED CONSTRUCTION COST	ROADWAY		STORM SEWER		ROADWAY		STORM SEWER		ESTIMATED QUANTITY	ESTIMATED CONSTRUCTION COST
										ESTIMATED QUANTITY	ESTIMATED CONSTRUCTION COST	ESTIMATED QUANTITY	ESTIMATED CONSTRUCTION COST	ESTIMATED QUANTITY	ESTIMATED CONSTRUCTION COST	ESTIMATED QUANTITY	ESTIMATED CONSTRUCTION COST		
67	D	2506.503	03030	CONSTRUCT DRAINAGE STRUCTURE DESIGN 60-4020		LIN FT	\$912.25	58.3	\$54,096.43										
68	D	2506.503	03620	CONSTRUCT DRAINAGE STRUCTURE DESIGN 72-4020		LIN FT	\$1,348.30	10.6	\$14,291.98										
69		2506.602	06190	MODIFY DRAINAGE STRUCTURE	(12)	EACH	\$1,150.00	1	\$1,150.00								1	\$1,150.00	
70	G	2521.518	00040	4" CONCRETE WALK		SQ FT	\$5.41	14610	\$79,040.10	10850	\$58,698.50			3750	\$20,341.50				
71	G	2521.518	00060	6" CONCRETE WALK		SQ FT	\$7.77	8380	\$65,112.60	5900	\$45,843.00			2480	\$19,269.60				
72	G	2521.518	00130	3" BITUMINOUS WALK		SQ FT	\$3.40	360	\$1,224.00										
73	C	2531.503	03310	CONCRETE CURB AND GUTTER DESIGN 8612		LIN FT	\$34.13	208	\$7,096.96	157	\$5,356.84			51	\$1,740.12				
74	C	2531.503	03320	CONCRETE CURB AND GUTTER DESIGN 8624		LIN FT	\$28.80	2890	\$77,432.00	2205	\$59,094.00			685	\$18,358.00				
75	C	2531.503	18120	CONCRETE CURB AND GUTTER DESIGN 8624		LIN FT	\$35.60	296	\$10,537.60	223	\$7,838.80			78	\$2,598.80				
76	C	2531.503	19210	CONCRETE CURB AND GUTTER DESIGN 8312		LIN FT	\$25.26	1320	\$33,343.20	830	\$20,965.80			490	\$12,377.40				
77	G	2531.504	00050	5.5" CONCRETE DRIVEWAY PAVEMENT		SQ YD	\$76.46	180	\$13,762.80	180	\$13,762.80								
78	G	2531.504	00070	7" CONCRETE DRIVEWAY PAVEMENT		SQ YD	\$84.77	330	\$27,974.10	330	\$27,974.10								
79	H	2531.618	00010	TRUNCATED DOWNS		SQ FT	\$39.15	240	\$9,396.00	180	\$7,047.00			60	\$2,349.00				
80	I	2545.502	00101	LIGHTING UNIT TYPE SPECIAL	(13)	EACH	\$3,980.00	11	\$43,780.00	11	\$43,780.00								
81	I	2545.502	13002	LIGHT FOUNDATION DESIGN SPECIAL	(13)	EACH	\$1,200.00	11	\$13,200.00	11	\$13,200.00								
82	I	2545.503	01038	1.25" NON METALLIC CONDUIT	(13)	LIN FT	\$6.50	1750	\$11,375.00	1750	\$11,375.00								
83	I	2545.503		UNDERGROUND WIRE 1 COND NO 6	(13)	LIN FT	\$1.85	2500	\$14,625.00	2500	\$14,625.00								
84		2563.601	00010	TRAFFIC CONTROL		LUMP SUM	\$17,000.00	1	\$17,000.00	0.57	\$9,690.00	0.16	\$2,720.00	0.2	\$3,400.00	0.03	\$510.00	0.04	\$680.00
85	I	2564.507	01607	OBJECT MARKER		EACH	\$100.00	6	\$600.00	3	\$300.00			1	\$100.00				
86	I	2564.518	00130	SIGN PANELS TYPE C		SQ FT	\$110.00	799.75	\$87,972.50	715.17	\$78,668.70			73.58	\$8,093.80				
87	I	2564.518	00140	SIGN PANELS TYPE D		SQ FT	\$190.00	42	\$7,980.00	30.75	\$5,842.50			11.25	\$2,137.50				
88	I	2564.602	01151	INSTALL SIGN		EACH	\$500.00	8	\$4,000.00	5	\$2,500.00			3	\$1,500.00				
89		2564.602	01820	INSTALL SIGN TYPE SPECIAL	(5)	EACH	\$3,000.00	1	\$3,000.00	1	\$3,000.00								
90	K	2571.507	77600	PERENNIAL 6" CONT	(14)	EACH	\$150.00	18	\$1,950.00	10	\$1,500.00			3	\$450.00				
91		2573.501	00025	STABILIZED CONSTRUCTION EMB		LUMP SUM	\$2,500.00	1	\$2,500.00	0.75	\$1,875.00			0.25	\$625.00				
92	K	2573.502	00110	STORM DRAIN INLET PROTECTION		EACH	\$300.00	30	\$10,000.00	43	\$4,600.00			7	\$1,400.00				
93	K	2573.503	00061	SEDIMENT CONTROL LOG TYPE WOOD FIBER		LIN FT	\$2.25	400	\$900.00	400	\$900.00								
94	K	2574.507	00104	BOULEVARD TOPSOIL BORROW	(CV)	CU YD	\$25.20	210	\$5,292.00	90	\$2,286.00			120	\$3,024.00				
95	K	2574.508	00013	FERTILIZER TYPE 3	(8)	POUND	\$0.90	391	\$351.90	387	\$348.30			9	\$8.10				
96	K	2574.505	00014	FERTILIZER TYPE 4	(8)	POUND	\$1.00	12	\$12.00	9	\$9.00			3	\$3.00				
97	K	2575.504	00315	ROLLED EROSION PREVENTION CATEGORY 15		SQ YD	\$2.30	503	\$1,156.90	410	\$943.00			90	\$207.00				
98	K	2575.505	00021	SEEDING	(15)	ACRE	\$350.00	2.8	\$980.00	2.18	\$769.00			0.62	\$217.00				
99	K	2575.508	22111	SEED MIXTURE 22-111	(11)(3)	POUND	\$1.00	140	\$140.00	109	\$109.00			31	\$31.00				
100	K	2575.508	25131	SEED MIXTURE 25-131	(8)	POUND	\$4.10	464	\$1,922.40	351	\$1,480.10			103	\$427.30				
101	K	2575.508	35241	SEED MIXTURE 35-241	(8)	POUND	\$27.50	6	\$165.00	4.5	\$123.75			1.5	\$41.25				
102	K	2575.508	40001	HYDRAULIC MULCH MATRIX	(11)(15)	POUND	\$1.05	2000	\$2,100.00	1450	\$1,522.50			1550	\$1,627.50				
103	L	2582.503	40104	4" SOLID LINE MULTI-COMPONENT GROUND IN (WIR)		LIN FT	\$1.55	1585	\$2,451.75	1015	\$1,573.25			550	\$852.50				
104	L	2582.503	40106	6" SOLID LINE MULTI-COMPONENT GROUND IN (WIR)		LIN FT	\$1.90	2340	\$4,446.00	2490	\$4,731.00			850	\$1,615.00				
105	L	2582.503	40124	24" SOLID LINE MULTI-COMPONENT GROUND IN (WIR)		LIN FT	\$18.80	245	\$4,594.00	210	\$3,948.00			35	\$658.00				
106	L	2582.503	40204	4" BROKEN LINE MULTI-COMPONENT GROUND IN (WIR)		LIN FT	\$1.55	20	\$31.00	20	\$31.00								
107	L	2582.503	40404	4" DOUBLE SOLID LINE MULTI-COMPONENT GROUND IN (WIR)		LIN FT	\$3.10	2540	\$7,874.00	2040	\$6,324.00			500	\$1,550.00				
108	L	2582.503	76312	12" DOTTED LINE PREFORM THERMO GROUND IN		LIN FT	\$21.00	78	\$1,638.00	57	\$1,197.00			21	\$441.00				
109	L	2582.518	04020	PAVEMENT MESSAGE PREFORM THERMOPLASTIC GROUND IN		SQ FT	\$30.00	52.04	\$1,561.20	52.04	\$1,561.20								
110	L	2582.518	08020	CROSSWALK PREFORM THERMOPLASTIC GROUND IN		SQ FT	\$20.85	376	\$7,809.60	432	\$9,007.20			144	\$3,007.20				
111	L	2582.618	09002	PAVEMENT MARKING SPECIAL	(16)	SQ FT	\$14.70	140	\$2,058.00	105	\$1,543.50			35	\$514.50				
TOTAL ESTIMATED CONSTRUCTION COST									\$2,163,433.76	\$1,194,245.44	\$385,074.93	\$400,443.92	\$83,773.81	\$99,895.67					

## NOTES:

(A) 100% STATE (MSAS)

(B) 100% STATE (CSAH)

(P) DENOTES PLANNED QUANTITY

(CV) DENOTES COMPACTED VOLUME QUANTITY

- (1) QUANTITY IS STRICTLY AN ESTIMATE AND MAY BE INCREASED OR DECREASED BY ANY AMOUNT WITHOUT A CHANGE IN THE UNIT PRICE BID.
- (2) ITEM TO BE USED FOR EXPLORATORY EXCAVATION AND OTHER MISCELLANEOUS WORK AS DIRECTED BY THE ENGINEER.
- (3) SEE INDIVIDUAL TABS FOR BASIS OF QUANTITIES.
- (4) ITEM INCLUDES REMOVAL OF APRONS IF PRESENT.
- (5) ITEMS TO BE USED FOR SALVAGING AND INSTALLING EXISTING MASONRY CHURCH SIGN AS SHOWN IN THE PLANS.
- (6) ITEM TO BE USED FOR INTEGRALLY COLORED CONCRETE PAVEMENT IN THE LOCATIONS SHOWN IN THE PLANS.
- (7) SAFETY GRATE IS NOT REQUIRED. THE JOINTS ADJACENT TO APRON.
- (8) ITEM TO BE USED FOR PERFORATED RCP PIPE SEWER. SEE DETAIL ON SHEET C1.06.
- (9) ITEM INCLUDES REALIGNMENT OF ENTIRE VALVE BOX SO THE TOP SECTION IS OUTSIDE OF PROPOSED CURB.
- (10) ITEM TO BE USED FOR DRAINAGE STRUCTURE WITH PRECAST BAFFLE WALL. SEE DETAIL ON SHEET C1.06.
- (11) ITEM TO BE USED FOR 3x2' CATCH BASIN PER SAINT PETER STANDARD DETAIL PLATE NO 4029.
- (12) ITEM TO BE USED FOR NOTATING THE CORNER SECTION OF THE EXISTING SANITARY MANHOLE AS SHOWN IN THE PLANS.
- (13) THE OWNER SHALL RESERVE THE RIGHT TO ELIMINATE THIS WORK FROM THE CONTRACT.
- (14) QUANTITY INCLUDES 6 EA BIG SKY CONEFLOWER AND 7 EA KARL FOERSTER GRASS PLANTINGS.
- (15) SEEDING & MULCH QUANTITIES INCLUDE TEMPORARY SEEDING.
- (16) ITEM TO BE USED FOR MARKING MEDIAN NOSES AS SHOWN IN THE PLANS.

Mobilization/Traffic Control	0.570	0.160	0.200	0.030	0.040	1.000
Share of Construction Cost Based on Low Bid	0.552	0.178	0.185	0.039	0.046	1.000

# Exhibit D

## 2022 BROADWAY/SUNRISE LOW BID PROJECT COST BREAKDOWN - 7/12/2022

Construction Soft Costs	Prorated City/County	100% City
LRIP Funding Application & Cost Estimate Preparation	\$5,000.00	
ICE Study	\$27,399.00	
Topo, Design, Specifications, Bidding	\$131,810.00	
ROW/Easement Descriptions & Title Reports		\$7,690.00
ROW Costs / Legal Docs for Temp Easement and Title Transfer		\$2,546.00
Construction Staking, Admin	\$115,000.00	
Construction Testing	\$30,000.00	
Full Time Construction Observation (By City)	\$28,800.00	
Total	\$338,009.00	\$10,236.00
% of Const Cost	15.6%	0.5%

SUMMARY OF COST SPLIT		CONSTRUCTION COST	LRIP Funding App, ICE, Topo, Design, Const Staking, Admin, Testing, Inspect	ROW COST	TOTAL (CONST+ENG+ ROW)	% LRIP (BASED ON ELIGIBLE CONST COST)	SHARE OF \$1,250,000 LRIP FUNDING	REMAINING BALANCE PAID BY MSA/CSAH/LOCAL
CITY	165-016-006 ROADWAY	\$1,194,245.44	\$186,585.65	\$7,740.23	\$1,388,571.32			
	165-016-006 STORM	\$385,074.93	\$60,163.06	\$2,495.77	\$447,733.76			
	SUBTOTAL	\$1,579,320.37	\$246,748.71	\$10,236.00	\$1,836,305.08	76.5%	\$956,250	\$880,055.08
COUNTY	052-605-063 ROADWAY	\$400,443.92	\$62,564.27		\$463,008.19			
	052-605-063 STORM	\$83,773.81	\$13,088.59		\$96,862.40			
	SUBTOTAL	\$484,217.73	\$75,652.86		\$559,870.59	23.5%	\$293,750	\$266,120.59
CITY	LOCAL STORM & WATERMAIN	\$99,895.67	\$15,607.43		\$115,503.10			\$115,503.10
	TOTALS	\$2,163,433.77	\$338,009.00	\$10,236.00	\$2,511,678.77	100%	\$1,250,000	\$1,261,678.77
		OK	OK	OK	OK	OK	OK	OK



**NICOLLET COUNTY  
DEPARTMENT OF PUBLIC WORKS**

**COST PARTICIPATION POLICIES  
APPLICABLE  
TO  
COOPERATIVE HIGHWAY PROJECTS  
BETWEEN  
NICOLLET COUNTY AND OTHER AGENCIES**

**Adopted by the Nicollet County Board of Commissioners on September 22, 2009**



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# **NICOLLET COUNTY**

## **DEPARTMENT OF PUBLIC WORKS**

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### **COST PARTICIPATION POLICIES APPLICABLE TO COOPERATIVE HIGHWAY PROJECTS BETWEEN NICOLLET COUNTY AND OTHER AGENCIES**

#### **I. PURPOSE**

To establish policies for determining appropriate division of cost participation to be used by Nicollet County in funding cooperative roadway, traffic signal and bridge construction projects with the Minnesota Department of Transportation, municipalities, townships, and other agencies.

#### **II. SCOPE**

The establishment of cost policy is consistent with Minnesota Statutes, Sections 162.17, 373.01, 471.59 and Amendments.

#### **III. GENERAL POLICIES**

- A. The basic premise is that the County pays for costs peculiar to County needs and municipalities pay for costs peculiar to municipal or local needs.
- B. The County may limit its participation to items eligible for reimbursement with County State Aid Highway (CSAH) funds, notwithstanding the specific policies contained in this document. However, the County will not request CSAH funds for project costs assigned to the municipality as a result of the approved cooperative construction agreement, in order not to preclude the municipality from using its Municipal State Aid funds for those project costs.
- C. A greater degree of County participation is afforded municipalities having a population of less than 5,000 because of the function of the County roadways in these areas. It is generally true that these roadways are of greater benefit to County-wide users and of less benefit to local users than is the case for roadways in more urbanized areas. In addition, this would be a form of compensation for the absence of direct State Aid allocations to these municipalities.
- D. It is recognized that there may be occasional differences between these policies and written participation policies of the Minnesota Department of Transportation. In those cases, participation will be negotiated by the County Engineer.

#### IV. DEFINITIONS

Bikeway: A bicycle route, bicycle path, or bicycle lane.

1. Bicycle Route: A roadway or shoulder signed to encourage bicycle use.
2. Bicycle Path: A bicycle facility designed for exclusive or preferential use by persons using bicycles and constructed or developed separately from the roadway or shoulder.
3. Bicycle Lane: A portion of a roadway or shoulder designed for exclusive or preferential use by persons using bicycles. Bicycle lanes are to be distinguished from the portion of the roadway or shoulder used for motor vehicle traffic by physical barrier, striping, marking, or other similar device.

Contributing Flow: A storm sewer procedure that considers that each agency participates in proportion to its share of the design discharge for each section of sewer between inflow points. This method is used by the Minnesota Office of State Aid on all projects except where federal participation is anticipated.

County: Nicollet County.

County Engineer: The County Engineer of Nicollet County or a designated representative.

Municipality: Any municipality or township within Nicollet County.

Over 5,000: A municipality of 5,000 population or more.

Peak Discharge: A storm sewer method that considers that each agency's share is the ratio of its peak discharge through each section of sewer between inflow points to the summation of peak discharge for all agencies participating in the section of sewer between inflow points.

Permanent Traffic Signal: A traffic control signal system normally consisting of metal signal poles with mast arms and underground electrical systems with conduit, cable and handhole installations.

Storm Sewer: A drainage system usually consisting of one or more pipes connecting two or more drop inlets. The purpose is to convey surface runoff water from the inlets to an acceptable outlet.

Street Lighting: All components normally installed by a municipality for the purpose of street illumination.

Standard Specifications: Minnesota Department of Transportation Standard Specification for Construction, latest edition and/or supplement thereto.

State Aid Manual: Manual published by the Minnesota Department of Transportation outlining State Aid policies and procedures.

State Highway: A highway under jurisdiction of the State of Minnesota.

Temporary Traffic Signal: A traffic control signal system normally consisting of wood poles with signal indications suspended on span wires and overhead electrical systems.

Trunk Line: Main conveyor of storm sewer system.

Under 5,000: A municipality under 5,000 population.

Utilities: Water, heating, electric, storm sewer, gas, sanitary, telephone, cable TV, telegraph, street lighting, fiber optics, etc.

## V. ROADWAYS

The County's participation in roadway projects will be as follows:

### A. RIGHT-OF-WAY -

1. Right-of-way, permanent roadway easement, slope easement, drainage easement and temporary construction easement for existing County highway.  

Under 5,000	Negotiation by County Engineer
Over 5,000	Negotiation by County Engineer
2. Right-of-way, permanent roadway easement, slope easement, drainage easement and temporary construction easement for any newly established or dedicated County highway.  

Under 5,000	Negotiation by County Engineer
Over 5,000	Negotiation by County Engineer
3. The County's percentage of participation in retaining walls constructed in lieu of right-of-way will be the same as for right-of-way.
4. Right-of-way required for wetland mitigation and for surface water retention basins will be at the same participation ratio as the remainder of the project even if the locations of these facilities are not contiguous to the project.

### B. CLEARING AND GRUBBING -

Under/Over 5,000	100%
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### C. GRADING -

Under/Over 5,000	100%
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### D. BASE AND SURFACING -

1. County participation for a 2-lane street.  

Under/Over 5,000	100%
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2. Parking lanes  

Under/Over 5,000	0%
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### E. TURN LANES

1. County Participation for Turn lane Construction  

New -	Under/Over 5,000	0%
Replacement -	Under/Over 5,000	100%

F. STORM SEWER -

The County's participation is based on the State Aid formula as defined in State Aid Manual No. 5-892.600-605 which uses the ratio of contributing flows except on federally funded projects where the peak discharge formula is used to arrive at the percentage of allowable state Aid funds. The construction of retention basins for surface water and storm sewer runoff will be considered part of the trunk storm sewer system and will be at the same participation ratio as the trunk storm sewer lines. Participation on County Roads will be determined by using the State Aid formula using the ratio of contributing flows.

1. Trunk lines.

Under 5,000	100% of County's Contributing Flow
Over 5,000	100% of County's Contributing Flow

2. Catch basins and leads within the County highways and at the curb returns of side roadway entrances that drain onto the County highways.

Under 5,000	100% of County's Contributing Flow
Over 5,000	100% of County's Contributing Flow

No credit is allowed to a municipality for an inplace storm sewer system.

G. CONCRETE SIDEWALK CONCURRENT WITH COUNTY CONSTRUCTION PROJECT

New -	Under/Over 5,000	0%
Replacement -	Under/Over 5,000	* 100%

\* Except when County Engineer determines existing to be worn out. Worn out sidewalk to be treated as new sidewalk.

H. CONCRETE CURB AND GUTTER (NEW OR RECONSTRUCTED) AND CONCRETE PEDESTRIAN RAMPS (NEW OR RECONSTRUCTED) CONCURRENT WITH COUNTY CONSTRUCTION PROJECT -

New -	Under 5,000	100%
New -	Over 5,000	0%
Replacement -	Under/Over 5,000	* 100%

\* Except when County Engineer determines existing to be worn out. Worn out concrete curb and gutter to be treated as new concrete curb and gutter.

I. CONCRETE CURB AND GUTTER AND SIDEWALK FOR MEDIANS (NEW OR RECONSTRUCTED) CONCURRENT WITH COUNTY CONSTRUCTION PROJECT -

Under 5,000	100%
Over 5,000	100%

J. PAVED DRIVEWAY ENTRANCES (NEW OR RECONSTRUCTED) CONCURRENT WITH COUNTY CONSTRUCTION PROJECT -

Under 5,000	100%
Over 5,000	100%



K. MUNICIPAL UTILITY RELOCATION OR RECONSTRUCTION -

1. Initial installation performed without a permit or not in compliance with a County permit.  
Under/Over 5,000 0%
2. Relocation, reconstruction, improvement, or replacement of unserviceable existing facilities (County Engineer shall determine if existing facility is serviceable or unserviceable).  
Under/Over 5,000 0%
3. Relocation necessitated because of addition of parking lane requested by the municipality.  
Under/Over 5,000 0%
4. In-kind relocation required solely because of County construction procedures.  
Under/Over 5,000 100%
5. Adjustment of existing utility structures to accommodate elevation changes at the street surface. This includes items such as adjusting manhole castings and valve boxes. Lateral extension of utility appurtenances such as hydrants, water service valves, etc. required by the road construction are not included in this category unless they are required solely due to the addition of a parking lane requested by a municipality.  
Under/Over 5,000 0%

L. PRIVATE UTILITY RELOCATION OR RECONSTRUCTION -

1. Initial installation was within County right-of-way.  
Under/Over 5,000 0%

VI. TRAFFIC SIGNAL SYSTEM

The County's participation in traffic signal system projects will be as follows:

A. PERMANENT TRAFFIC SIGNAL SYSTEM INSTALLATIONS -

Intersection of County Highway with City Street and/or Township Road (City or Township Location).

1. County cost participation in the installation of a traffic signal to be proportional to the number of legs that are County highways (i.e. 2 of 4 entering legs are County highways, participation equals 50%).
2. County cost participation in the furnishing of electrical power to a traffic signal to be 0%. Electrical power to be furnished by the City or Township.
3. County cost participation in the maintenance of a traffic signal to be 100%, unless otherwise stipulated by special agreement with the Minnesota Department of Transportation or other agency.
4. County cost participation in any subsequent revisions, modifications, or updatings of a traffic signal originally installed in accordance with the provisions of this cost participation policy, even to the extent of complete reconstruction, to be borne in the same manner as the initial installation.

Intersection of County Highway with State Highway (City or Township Location)

1. County cost participation in the installation of a traffic signal to be proportional to the number of legs that are County highways and in accordance with Minnesota Department of Transportation policies.
2. County cost participation in the furnishing of electrical power to a traffic signal to be 0%. Electrical power to be furnished by the Minnesota Department of Transportation, the City and/or the Township.
3. County cost participation in the maintenance of a traffic signal to be 0%. Maintenance to be furnished by the Minnesota Department of Transportation.
4. County cost participation in any subsequent revisions, modifications, or updatings of a traffic signal originally installed in accordance with the provisions of this cost participation policy, even to the extent of complete reconstruction, to be borne in the same manner as the initial installation.

B. TEMPORARY TRAFFIC SIGNAL INSTALLATION -

Intersection of County Highway with City Street and/or Township Road (City or Township Location)

1. County cost participation in the installation of a temporary traffic signal to be proportional to the number of legs that are County highways (i.e. 2 or 4 entering legs are County highways, participation equals 50%) if, by cooperative agreement, it is the plan of the County, the City and/or the Township to install a permanent traffic signal at the same location in the future. Full credit for the City's and/or Township's investment in the installation of a temporary traffic signal will be applied toward the City's and/or Township's participation in a permanent traffic signal at the same location if it is installed within the time limits set forth in the cooperative agreement. This credit may be extended should circumstances beyond the control of the City and/or Township delay the installation of the permanent signal beyond the time limits set forth in the cooperative agreement.
2. County cost participation in the furnishing of electrical power to a temporary traffic signal to be 0%. Electrical power to be furnished by the City or Township.
3. County cost participation in the maintenance of a temporary traffic signal to be 100%, unless otherwise stipulated by special agreement with the Minnesota Department of Transportation or other agency.

Intersection of County Highway with State Highway (City or Township Location)

1. County cost participation in the installation of a temporary traffic signal to be proportional to the number of legs that are County highways if, by cooperative agreement, it is the plan of the Minnesota Department of Transportation to install a permanent traffic signal at the same location in the future. Said cooperative agreement is to include a provision whereby full credit for the County's investment in the installation of a temporary traffic signal will be applied toward the County's participation in a permanent traffic signal at the same location.
2. County cost participation in the furnishing of electrical power to a temporary traffic signal to be 0%. Electrical power to be furnished by the Minnesota Department of Transportation, the City and/or the Township.
3. County cost participation in the maintenance of a traffic signal to be 0%. Maintenance to be furnished by the Minnesota Department of Transportation.

## VII. BRIDGES

The County's participation in bridge projects will be as follows:

Under/Over 5,000	Negotiation by County Engineer
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## VIII. STREET LIGHTING

The County will not participate in the installation of new street lighting with the exception of those street lights attached to traffic signals on County highways. Those lights will be financed on the same basis as the installation of traffic signals. Participation in the relocation or reconstruction of existing street lighting will be on the same basis as for municipal utility relocation or reconstruction (see Paragraph K of Section No. V).

## IX. BIKEWAYS

Nicollet County recognizes the increasing use of bicycles as a means of transportation. Nicollet County will consider incorporating bicycle lanes or routes within the roadway design concurrent with roadway construction when the route is part of an overall community bicycle system plan, when economically feasible to construct, and when judged to be in the best interest of the public. Bicycle paths separate from the roadway itself will normally not be constructed unless it is part of an overall community plan for a bicycle trail system. The County's participation in bicycle routes, paths, and lanes will be as follows:

New -	Under 5,000	100%
New -	Over 5,000	0%
Replacement -	Under/Over 5,000	* 100%

\* Except when County Engineer determines existing to be worn out. Worn out bikeways are to be treated as new bikeways.

## X. LANDSCAPING

The County will participate in State Aid eligible landscaping items with total participation not to exceed 25% of the maximum permitted by State Aid rules.

## XI. ENGINEERING

The County's participation in engineering includes design costs which are cost incurred prior to the award of the contract and contract administration costs which are costs incurred subsequent to the award of contract.

A. The municipality will reimburse the County an agreed (negotiated) percentage of the municipality's share of the contract construction cost for the Design and/or Contract Administration performed by the County.

Under/Over 5,000	Negotiation by County Engineer
------------------	--------------------------------

## XII. LUMP SUM, PRO-RATA ITEMS

Proposal forms carry lump sum bidding requirements for the items of Mobilization (2021), Maintenance and Restoration of Haul Roads (2051) and Traffic Control (0563). Field Office and Field Laboratory (2031) are not, strictly speaking, lump sum pay items. However, their general characteristics are such as to require that they

be handled the same as Mobilization. A municipality shall be charged a pro-rata share of the above items. Proration shall be based on a percentage factor applied to the cost amounts chargeable to the County and the municipality for other construction items. Mobilization, Maintenance and Restoration of Haul Roads, Field Office and Field Laboratory, and Traffic Control are construction items and shall be subject to the negotiated percentage charge for engineering.

### XIII. INVOICE AMOUNT COMPUTATION

After bids have been received and a contract awarded, and also upon completion of construction, the unit prices shall be substituted for the estimated unit prices/quantities and the percentage ratio established originally shall be recomputed.

### XIV. MAINTENANCE

The County is responsible for maintaining the County highway between curbs or between outside edge of shoulders. It may enter into agreement with the municipality to perform this work on a reimbursable basis.

The County is responsible for maintenance of bridges and culverts on the County route.

The municipality is responsible for maintenance of its utilities including any storm sewer within the County highway right-of-way.

The municipality is responsible for maintaining bicycle paths and walking trails within the County highway right-of-way.

The municipality is responsible for maintaining boulevard or ditch areas, landscaped median areas, irrigation systems, sidewalk, retaining walls, steps and other related items within the right-of-way on an urban design section.



**JULY 12, 2022**  
**OFFICIAL PROCEEDINGS OF THE**  
**NICOLLET COUNTY DRAINAGE AUTHORITY**

The Nicollet County Drainage Authority met in regular session on Tuesday, July 12, 2022, at 10:00 a.m. with Chair Dranttel presiding and Commissioners Terry Morrow, David Haack, John Luepke and Jack Kolars present. Also present were County Administrator Mandy Landkamer, County Attorney Michelle Zehnder Fischer, and Recording Secretary Crystal Madden.

**Approval of Agenda**

Motion by Commissioner Morrow and seconded by Commissioner Luepke to approve the agenda. Motion carried with all voting in favor.

**Consent Agenda**

Motion by Commissioner Morrow and seconded by Commissioner Luepke to approve the consent agenda items as follows:

1. June 28, 2022 Board Meeting Minutes

Motion carried with all voting in favor.

**Public Appearances**

There were no public appearances.

**Continued CD79 Public Hearing on the Final Acceptance of the Improvement Project**

Director Kopet appeared before the Board to discuss the continuation of the CD79 Improvement Project from the June 22<sup>nd</sup>, 2022 Public Hearing. The Drainage Authority had asked ISG to create a proposal for the leveling of the berm on the Cordes property before moving to close out the project.

Mr. Adams from ISG appeared in front of the Board to explain ISG's proposal to eliminate the berm on the Cordes property. After he spoke, there was a five-minute recess taken at 10:22 am. When the meeting was called to order at 10:28 am, Mr. Adams was provided a copy of the June 30<sup>th</sup>, 2022 minutes from the pre-construction meeting.

A five-minute recess was once again taken at 10:39 am to determine Mr. Brandel's availability for the next regularly scheduled Board meeting on July 26<sup>th</sup>, and the meeting was brought back to order at 10:44 am.

The Board requests clarity from ISG concerning the July 12<sup>th</sup>, 2022 proposal letter, specifically for a definition of "unbilled time" and what is being "written-off." The Board also requests an explanation of the changes during the project, such as the cost savings for leaving materials verses moving materials. Finally, the Board would like to ensure that Mr. Cordes has the opportunity to participate in the next meeting.

Motion by Commissioner Morrow and seconded by Commissioner Luepke to approve recessing the Final Acceptance Report of the CD79 Improvement Project until the next regular Board meeting on Tuesday, July 26<sup>th</sup>, 2022 at 10 am. Motion carried with all voting in favor.



**Public Comments:**

There were no public comments.

**Adjourn**

Motion by Commissioner Luepke and seconded by Commissioner Morrow to adjourn the Drainage Authority Meeting. Motion carried with all voting in favor.

Chair Dranttel adjourned the meeting at 10:46 a.m.

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MARIE DRANTTEL, CHAIR  
BOARD OF COMMISSIONERS

ATTEST:

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MANDY LANDKAMER,  
CLERK TO THE BOARD

DRAFT

Nicollet County Drainage  
Authority Meeting  
Agenda Item



<b>Agenda Item:</b>			
Primary Originating Division/Dept.:  Contact: _____ Title: _____  Amount of Time Requested _____ minutes		Meeting Date:  Item Type: (Select One)	
Presenter: _____ Title: _____		Attachments:      Yes      No	
County Strategy: (Select One)			
<b>BACKGROUND/JUSTIFICATION:</b>			
Supporting Documents:      Attached      In Signature Folder      None			
Prior Drainage Authority Action Taken on this Item:      Yes      No  If yes, when? (provide year; mm/dd/yy if known)			
Approved by County Attorney's Office:      Yes      No      N/A			
<b>ACTION REQUESTED:</b>			
<b>FISCAL IMPACT:</b> (Select One)  If "Other", specify		<b>FUNDING</b> Drainage Authority Dollars =  (Select One)	
<b>FTE IMPACT:</b> (Select One) If "Increase or "Decrease" specify:  Related Financial/FTE Comments:		<b>Total</b>	

# FINAL ACCEPTANCE REPORT

## Nicollet County Ditch No. 79

18670  
December 2021

REPORT FOR:

Jaci Kopet  
Drainage Authority  
Nicollet County  
501 S Minnesota Avenue  
St. Peter, MN, 56082  
507.934.7806  
[jaci.kopet@co.nicollet.mn.us](mailto:jaci.kopet@co.nicollet.mn.us)

FROM:

Chuck Brandel, PE  
Senior Civil Engineer  
ISG  
115 E Hickory Street, Suite 300  
Mankato, MN 56001  
507.387.6651  
[chuck.brandel@isginc.com](mailto:chuck.brandel@isginc.com)

ISG

December 7, 2021

Jaci Kopet  
Nicollet County Drainage Authority  
501 S Minnesota Ave  
St. Peter, MN 56082

Re: CD 79

Mrs. Kopet,

The repairs to Nicollet County Ditch 79 have been fully completed. The contractor Molnau Trucking LLC from Norwood, MN has completed 100% of the project including establishment of vegetation in disturbed areas.

The cost estimate for construction, including contingency, from the Final Engineering Report was \$73,000.77. The original contract price based on engineer's estimated quantities was \$77,885.81 however there were some cost savings during construction including the narrowing of the private driveway crossing. The total cost of completed work is \$73,974.65.

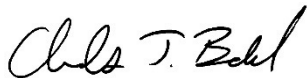
The work was not complete by the November 13, 2021 Substantial Completion deadline as required in the Agreement Form, Section 00 5200 of the contract. Per Article 4.03 of the Agreement Form - Liquidated Damages of the contract, the contractor shall pay owner \$400 for each day that expires after the substantial completion deadline. Final grading and seeding was completed on December 18, 2020 which was 35 days after the substantial completion date. Molnau Trucking has signed and agreed to Change Order 1 which deducts \$14,000 in liquidated damages from final payment.

To date, the contractor has been paid \$53,797.35, with the \$14,000.00 in liquidated damages there is an unpaid balance of \$6,177.30 left to pay on retainage and releasing temporary deductions for vegetation establishment. The As-built Drawings, total completed quantities, and final Pay Request No. 2 are enclosed.

We recommend payment and final acceptance of this project at this time.

Please feel free to contact us with any questions.

Sincerely,



Chuck Brandel, P.E.

Enclosure  
Attachment

Cc: - Ryan Molnau Trucking LLC

# APPENDIX A: As-Built Plans



# NICOLLET COUNTY COUNTY DITCH No. 79 CONSTRUCTION PLANS

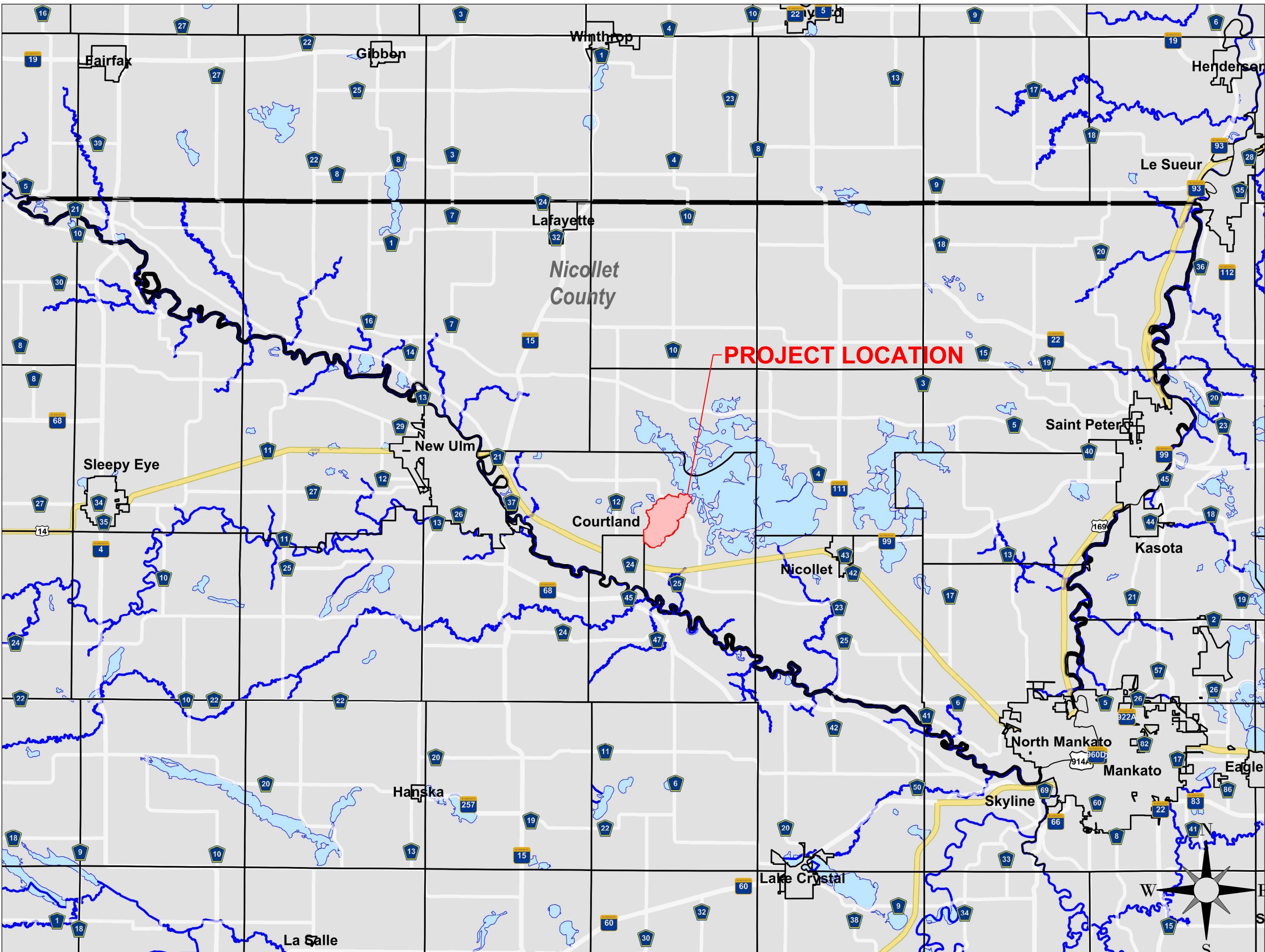
COURTLAND TWP, MN

ISG PROJECT # 15-18670



## LEGEND

EXISTING	
	WATERSHED BOUNDARY
	CITY LIMITS
	SECTION LINE
	QUARTER SECTION LINE
	RIGHT OF WAY LINE
	PROPERTY / LOTLINE
	EASEMENT LINE
	ACCESS CONTROL
	WATER EDGE
	WETLAND BOUNDARY
	FENCE LINE
	EXISTING OPEN DITCH
	CULVERT
	DITCH TILE
	PRIVATE TILE
	WATER
	GAS
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	UNDERGROUND TELEPHONE
	UNDERGROUND TV
	OVERHEAD UTILITY
	UNDERGROUND UTILITY
	UNDERGROUND FIBER OPTIC
	CONTOUR (MAJOR)
	CONTOUR (MINOR)
	DECIDUOUS TREE
	CONIFEROUS TREE
	TREE LINE
	DROP INTAKE
	HYDRANT
	POWER POLE
PROPOSED	
	EASEMENT
	PROPOSED OPEN DITCH
	OPEN DITCH REPAIR
	CULVERT (RCP)
	CULVERT (CMP)
	TILE
	TILE (PIPE WIDTH)
	WATER
	GAS
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	UNDERGROUND TV
	CONTOUR (MAJOR)
	CONTOUR (MINOR)
	DROP INTAKE
	SLOUGH REPAIR
	SPOIL PLACEMENT
	TREE CLEARING
	REMOVE TREE
	BUFFER



LOCATION MAP

## SHEET INDEX

1	TITLE
2	NOTES & QUANTITIES
3	DETAILS
4	DETAILS
5	CULVERT CROSSING DETAILS
6	OVERALL WATERSHED
7	OPEN DITCH PLAN & PROFILE

**AS-BUILT**  
**1/15/21**

NOTE:  
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CHARLES J. BRANDEL

DATE 01/15/2021 LIC. NO. 43359

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PROJECT

**NICOLLET COUNTY**

**COUNTY DITCH  
No. 79**

COURTLAND TWP MN

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
07/31/2020	PLAN UPDATE #1	SMW

PROJECT NO.	15-18670
CAD FILE NAME	18670 TITLE AB
DRAWN BY	SMW
DESIGNED BY	JRR
REVIEWED BY	CJB
ORIGINAL ISSUE DATE	03/18/2020
CLIENT PROJECT NO.	-

## PROJECT INDEX:

OWNER:

**NICOLLET COUNTY  
DRAINAGE AUTHORITY  
501 S. MINNESOTA AVE  
ST. PETER, MN 56082  
PH: 507-934-7800**

PROJECT  
ADDRESS / LOCATION:

**SECTIONS 4, 27, 28, 33, 34  
COURTLAND EAST TWP  
NICOLLET COUNTY, MINNESOTA**

MANAGING OFFICE:

**MANKATO OFFICE  
115 E HICKORY STREET  
SUITE 300  
MANKATO, MN 56001  
PHONE: 507.387.6651  
FAX: 507.387.3583**

PROJECT MANAGER: CHUCK BRANDEL  
EMAIL: CHUCK.BRANDEL@ISGNC.COM

### SPECIFICATIONS REFERENCE

ALL CONSTRUCTION SHALL COMPLY WITH NICOLLET COUNTY  
REQUIREMENTS AND MnDOT STANDARD SPECIFICATIONS FOR  
CONSTRUCTION, 2016 EDITION, AND THE STANDARD  
SPECIFICATIONS FOR SANITARY SEWER, STORM DRAIN AND  
WATERMAIN AS PROPOSED BY THE CITY ENGINEERS  
ASSOCIATION OF MINNESOTA 2013, UNLESS DIRECTED  
OTHERWISE.

### PROJECT DATUM

HORIZONTAL COORDINATES HAVE BEEN REFERENCED TO THE  
NORTH AMERICAN DATUM OF 1983 (NAD83), 2011 ADJUSTMENT  
(NAD83(2011)) ON THE NICOLLET COUNTY COORDINATE SYSTEM,  
IN U.S. SURVEY FEET.  
ELEVATIONS HAVE BEEN REFERENCED TO THE NORTH  
AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).  
RTK GPS METHODS WERE USED TO ESTABLISH HORIZONTAL  
AND VERTICAL COORDINATES FOR THIS PROJECT.

**B.M. ELEVATION=1005.53**  
3.5 MILES NORTHWEST OF COURTLAND  
83 FEET NORTHEAST OF COUNTY ROAD 21  
3.0 FEET NORTHEAST OF WITNESS POST

### TOPOGRAPHIC SURVEY

THIS PROJECT'S TOPOGRAPHIC SURVEY CONSISTS  
OF DATA COLLECTED ON JANUARY 2015 &  
FEBRUARY / APRIL 2017 BY ISG.

TITLE

**TITLE**

SHEET

**1** OF 7



GENERAL OPEN DITCH NOTES:

1. DURING CONSTRUCTION, CONTRACTOR SHALL MAINTAIN A DRAINAGE OUTLET FOR THE ENTIRE NICOLLET COUNTY DITCH No. 79 PROJECT AREA.
2. ALL PIPE DIMENSIONS REFERENCED IN THE PLANS REFER TO THE INSIDE DIAMETER.
3. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITY TO WITHIN A 33-FOOT WIDE AREA ALONG TOP OF DITCH ALIGNMENTS. DISTURBANCE THROUGH ROAD CROSSINGS, ROAD DITCHES, AND GRASS BUFFERS SHALL BE LIMITED TO THE TRENCH WIDTH NECESSARY FOR SAFE CONSTRUCTION PRACTICES.
4. A 16.5-FOOT GRASS STRIP SHALL BE ESTABLISHED IN AREAS THAT DO NOT HAVE AN EXISTING 16.5-FOOT GRASS STRIP. SEEDING SHALL OCCUR AFTER ALL WORK HAS BEEN COMPLETED IN THE AREA AND SHALL COMPLY WITH THE CONTRACT DOCUMENTS. THESE AREAS WILL BE DETERMINED BY THE ENGINEER.
5. DITCH CLEANING SHALL BE PERFORMED ON THE SIDE OF THE DITCH THAT IS THE LOWEST FOR THE GREATEST DISTANCE ALONG THE OPEN DITCH SEGMENT. DITCH CLEANING SPOILS SHALL BE PLACED WITHIN 16.5-FOOT WIDE GRASS STRIP FROM THE TOP OF DITCH SLOPE UNLESS OTHERWISE DETERMINED BY THE ENGINEER.
6. TOPSOIL IN SPOIL AREAS AS SPECIFIED ON PLANS SHALL BE STRIPPED PRIOR TO SPOIL PLACEMENT.
7. SHAPING AROUND SIDE INLETS, WASCOBs, AND CULVERT INLETS SHALL BE INCIDENTAL TO THEIR RESPECTIVE PAY ITEMS.
8. ALL SPOIL LEVELING, GRADING, AND RESTORATION OF DISTURBED AREAS SHALL BE IN ACCORDANCE TO THE CONTRACT DOCUMENTS AND SHALL BE INCIDENTAL TO THE WORK PERFORMED.
9. ALL EXISTING TILE OUTLETS INTO THE OPEN DITCH, INCLUDING ANY NOT SHOWN ON THE PLANS, SHALL BE REPAIRED. UNLESS SPECIFICALLY NOTED, HDPE OR PVC SHALL BE ACCEPTABLE MATERIAL FOR ALL TILE REPAIRS (SEE DETAILS).
10. EXISTING TILE OUTLETS MAY BE SALVAGED, REUSED, AND PROTECTED WITH RIPRAP IF THE OUTLET IS DETERMINED TO BE IN GOOD CONDITION BY THE ENGINEER. TILE REPAIR AT THESE LOCATIONS SHALL BE PAID FOR AS PAY ITEM "ARMOR TILE OUTLET" (SEE DETAILS).
9. ALL ROAD CROSSING REPAIRS SHALL BE CONSTRUCTED WITH CLASS III RCP ONLY, UNLESS OTHERWISE SPECIFIED ON PLANS OR APPROVED BY THE ENGINEER. TIE ALL PIPE SECTIONS UNDER ROAD CROSSINGS (INCIDENTAL).
10. CONTRACTOR MUST NOTIFY ENGINEER OF ANY CULVERT SECTIONS DEEMED NOT SALVAGEABLE PRIOR TO REMOVAL AND SHALL BE ADDRESSED BEFORE CULVERT WORK IS DONE.
11. MISCELLANEOUS TREE CLEARING SHALL BE INCIDENTAL TO DITCH CLEANING PAY ITEM(S).
12. TREE CLEARING AND HEAVY VEGETATION REMOVAL IS REQUIRED ON DITCH SIDE SLOPES AND WITHIN THE 1-ROD BUFFER AND WILL BE PAID FOR AS PER LINEAR FOOT. APPROXIMATE LOCATIONS ARE INCLUDED ON THE MAP FOR REFERENCE. TREES SHALL BE CLEARED AND GRUBBED AND SPRAY THE AREA AROUND TREE AFTER COMPLETE.
13. CONTRACTOR SHALL NOT PLACE AND/ OR EXCAVATE ANY MATERIAL FROM THE WETLAND AREA. ALL CONSTRUCTION ACTIVITY MUST STAY OUTSIDE OF THE WETLAND BOUNDARY FOR THE CONSTRUCTION OF THE NEW DITCH ALIGNMENT.
14. ACCESS FOR THE PROJECT IS ONLY AUTHORIZED ALONG THE OPEN DITCH ALIGNMENT. ACCESS FROM PRIVATE ROADS ONLY WITH LANDOWNER CONSENT.
15. CONTRACTOR SHALL FOLLOW THE REQUIREMENTS OF THE MNDNR PERMIT AS PROVIDED IN TEH SPECIFICATIONS

FINAL PROJECT QUANTITIES			
Item Code	Item	Unit	Estimated Quantity
2021.501	MOBILIZATION	LS	1
2104.501	REMOVE CMP CULVERT	EA	3
2105.602	AGGREGATE BASE (CV) (P), CLASS V	CY	30
2105.602	OPEN CUT & RESTORE GRAVEL ROAD OR DRIVEWAY	EA	1
2105.602	OPEN CUT & RESTORE FIELD CROSSING	EA	1
2105.603	DITCH CLEANING (12' WIDE DITCH BOTTOM)	LF	755
2106.501	CONSTRUCT DITCH (P) (EV)	CY	655
2106.501	TOP SOIL STRIP & PLACE SPOILS	AC	0.5
2501.511	60-INCH CLASS III RCP PIPE	LF	20
2501.511	54-INCH CLASS III RCP PIPE	LF	48
2501.515	60-INCH RCP APRON	EA	2
2501.515	54-INCH RCP APRON	EA	2
2511.501	CLASS III RIPRAP WITH GEOTEXTILE FABRIC	CY	100
2573.502	INSTALL FLOATING SILT CURTAIN	LF	40
2575.523	MnDOT CATEGORY 3 EROSION CONTROL BLANKET	SY	257.86
2575.501	16.5' BUFFER STRIP SEEDING (SEED MIX: BUFFER BLEND WITH TYPE 3 MULCH)	AC	1.99
2575.501	STANDARD SIDESLOPE SEEDING (SEED MIX: BUFFER BLEND WITH TYPE 8 MULCH)	AC	0.32
2575.541	BUFFER STRIP MOWING	AC	0
2575.545	WEED SPRAYING	AC	0



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CHARLES J. BRANDEL

*Charles J. Brandel*

DATE 01/15/2021 LIC. NO. 43359

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PROJECT

NICOLLET COUNTY

COUNTY DITCH  
No. 79

COURTLAND TWP MN

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
07/31/2020	PLAN UPDATE #1	SMW

PROJECT NO.	15-18670
CAD FILE NAME	18670 DETAILS AB
DRAWN BY	SMW
DESIGNED BY	JRR
REVIEWED BY	CJB
ORIGINAL ISSUE DATE	03/18/2020
CLIENT PROJECT NO.	-

TITLE

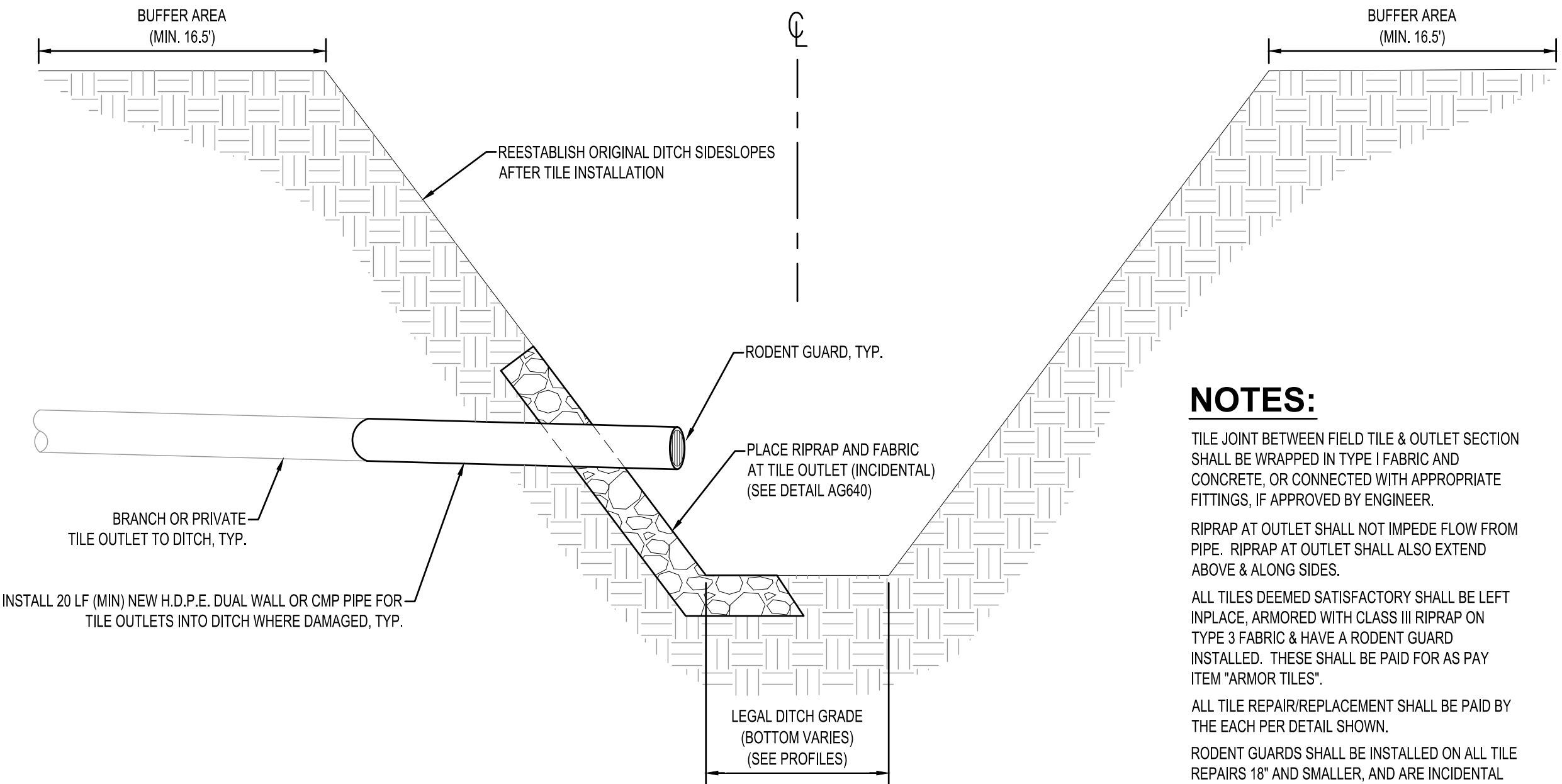
NOTES &  
QUANTITIES

SHEET

2

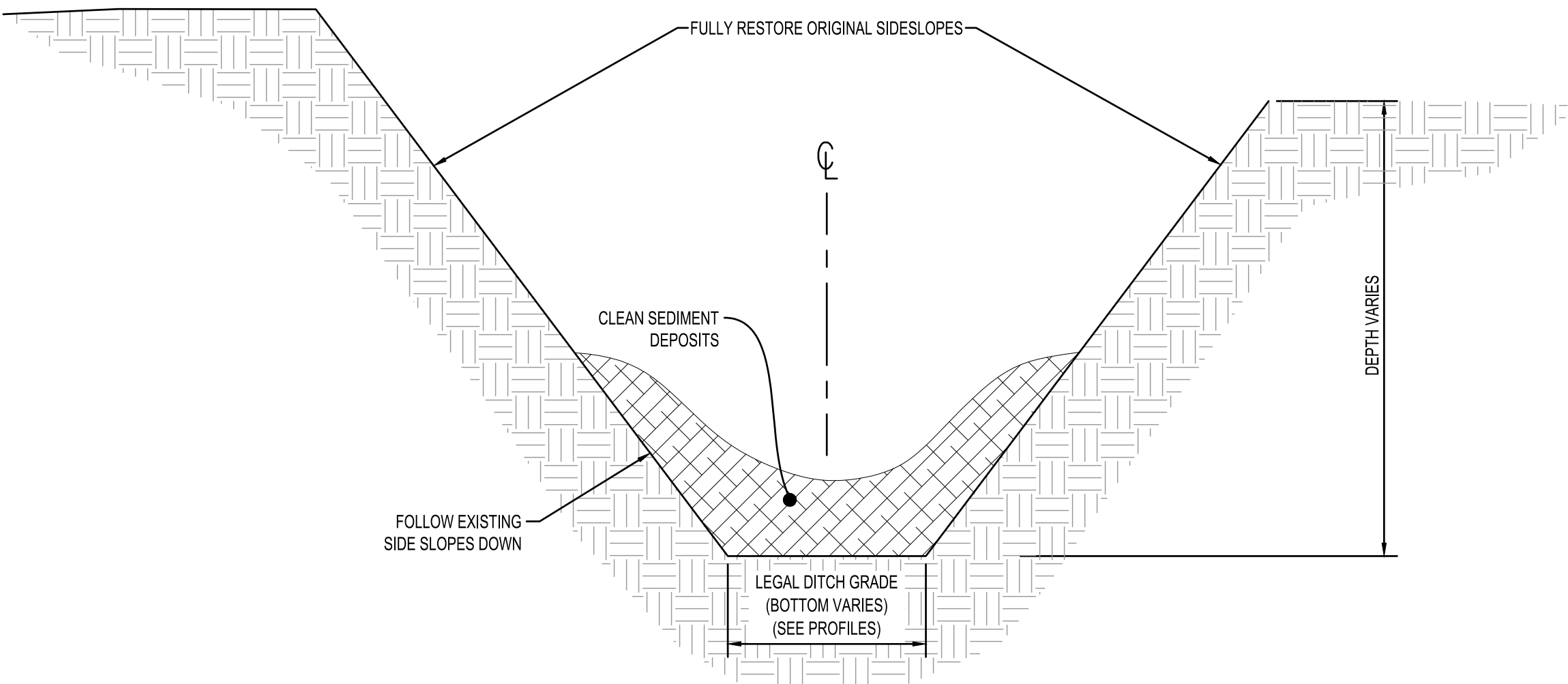
OF 7

NOTE: ALL TILE OUTLETS AND FIELD INTAKES SHALL BE REPAIRED OR PROTECTED



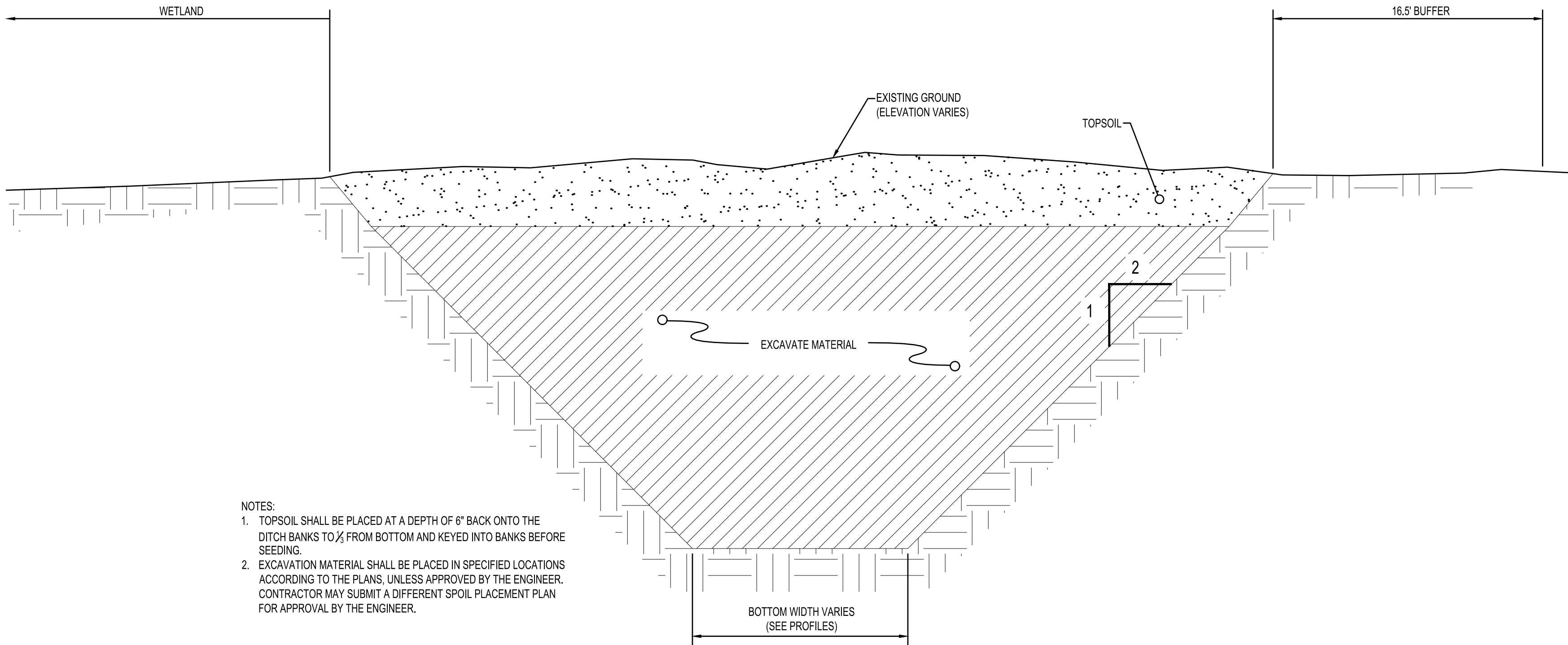
**NOTES:**  
TILE JOINT BETWEEN FIELD TILE & OUTLET SECTION SHALL BE WRAPPED IN TYPE I FABRIC AND CONCRETE, OR CONNECTED WITH APPROPRIATE FITTINGS, IF APPROVED BY ENGINEER.  
RIPRAP AT OUTLET SHALL NOT IMPEDE FLOW FROM PIPE. RIPRAP AT OUTLET SHALL ALSO EXTEND ABOVE & ALONG SIDES.  
ALL TILES DEEMED SATISFACTORY SHALL BE LEFT IN PLACE. ARMORED WITH CLASS III RIPRAP ON TYPE 3 FABRIC & HAVE A RODENT GUARD INSTALLED. THESE SHALL BE PAID FOR AS PAY ITEM "ARMOR TILES".  
ALL TILE REPAIR/REPLACEMENT SHALL BE PAID BY THE EACH PER DETAIL SHOWN.  
RODENT GUARDS SHALL BE INSTALLED ON ALL TILE REPAIRS 18" AND SMALLER, AND ARE INCIDENTAL TO THE PAY ITEM.  
ALL FITTINGS TO CONNECT EXISTING TILE SHALL BE INCIDENTAL TO TILE OUTLET REPAIR.

TYPICAL TILE OUTLET REPAIR  
NTS AG450



**NOTES:**  
BOTTOM 1/2 NEED NOT BE RESEDED.  
ONLY CLEAN TO LEGAL DITCH BOTTOM. ENTIRE DITCH BOTTOM NEED NOT BE CLEANED UNLESS SPECIFIED.

TYPICAL DITCH CLEANING  
NTS AG420



**NOTES:**  
1. TOPSOIL SHALL BE PLACED AT A DEPTH OF 6" BACK ONTO THE DITCH BANKS TO 1/2 FROM BOTTOM AND KEVED INTO BANKS BEFORE SEEDING.  
2. EXCAVATION MATERIAL SHALL BE PLACED IN SPECIFIED LOCATIONS ACCORDING TO THE PLANS, UNLESS APPROVED BY THE ENGINEER. CONTRACTOR MAY SUBMIT A DIFFERENT SPOIL PLACEMENT PLAN FOR APPROVAL BY THE ENGINEER.

TYPICAL OPEN DITCH CONSTRUCTION  
NTS AG450



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PROJECT

NICOLLET COUNTY

COUNTY DITCH  
No. 79

COURTLAND TWP MN

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	15-18670
CAD FILE NAME	18670 DETAILS AB
DRAWN BY	SMW
DESIGNED BY	JRR
REVIEWED BY	CJB
ORIGINAL ISSUE DATE	03/18/2020
CLIENT PROJECT NO.	-

TITLE

DETAILS

SHEET

3

OF 7





AS-BUILT 01/15/21

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PROJECT

NICOLLET COUNTY

COUNTY DITCH  
No. 79

COURTLAND TWP MN

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	15-18670
CAD FILE NAME	18670 DETAILS AB
DRAWN BY	SMW
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CLIENT PROJECT NO. -

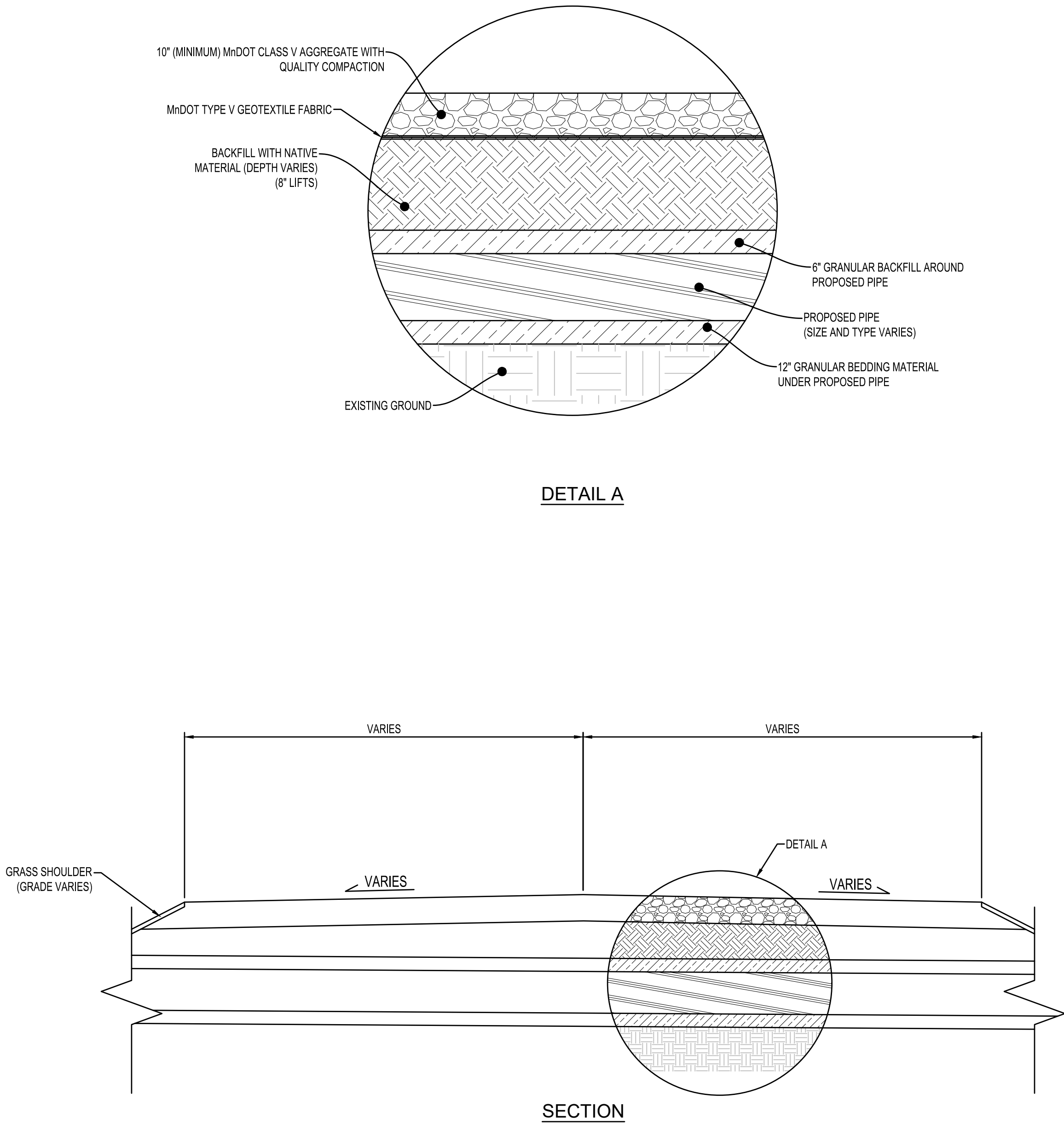
TITLE

DETAILS

SHEET

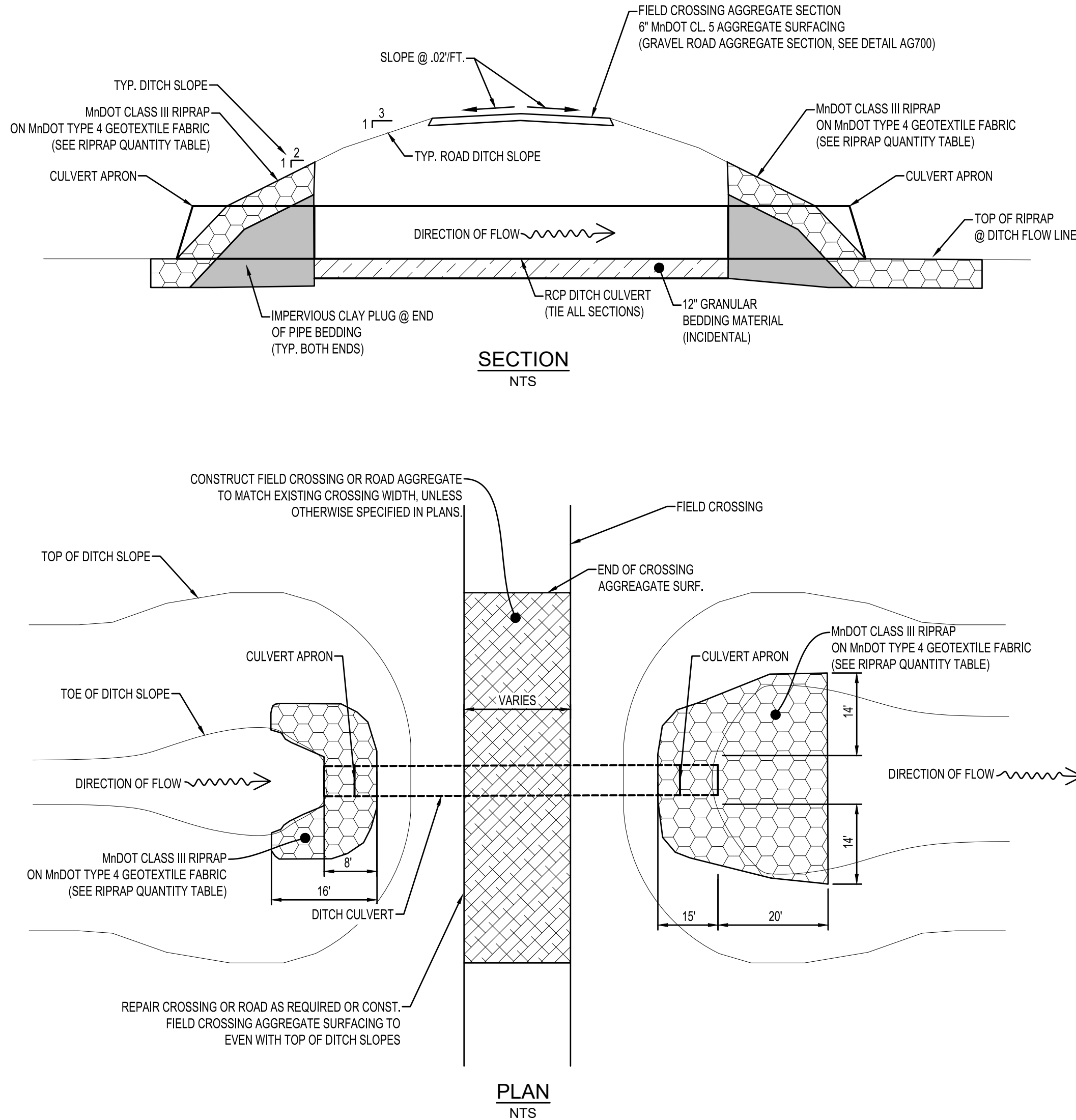
4

OF 7



**NOTES:**  
SALVAGE & REPLACE EXISTING CROSSING SURFACE MATERIAL. ADDITIONAL CLASS V  
AGGREGATE MAY BE NEEDED TO MEET MINIMUM 10" DEPTH.  
SEED DISTURBED GRASS SHOULDER WITH MnDOT 25-142 WITH MnDOT CATEGORY 3  
EROSION CONTROL BLANKET.  
CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE DISTURBED ROADS UNTIL THE  
PROJECT IS COMPLETED OR ROAD AUTHORITY HAS RESUMED CONTROL, WHICHEVER  
IS SOONER.

TYPICAL ROADWAY SECTION  
NTS AG700

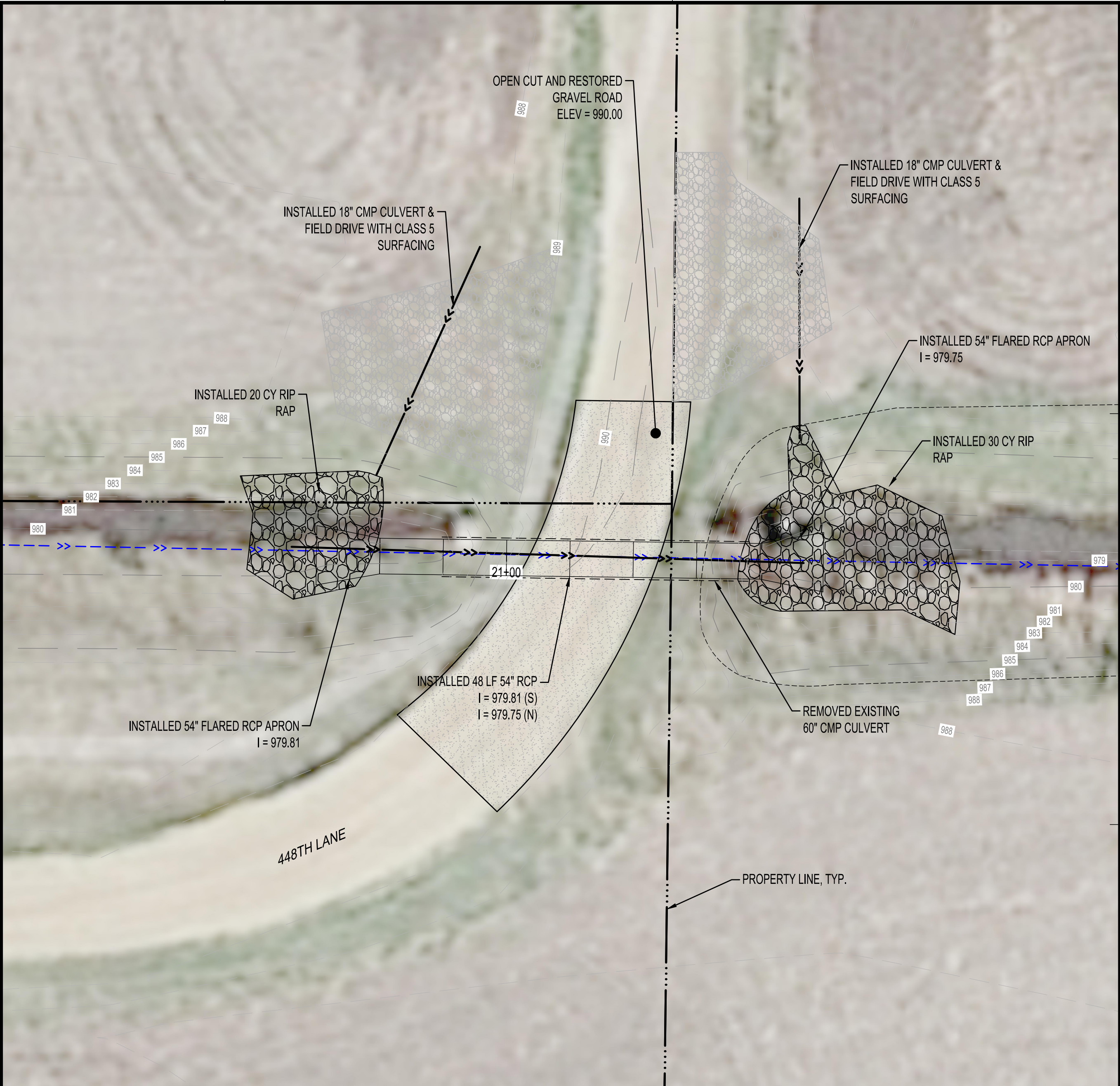


RIPRAP QUANTITY	
EQUIVALENT SIZE	UPSTREAM - DOWNSTREAM
<48"	10 CY - 20 CY

**NOTES:**  
OPEN DITCH CULVERTS MUST BE WATERTIGHT, GASKETED, AND TONGUE AND  
GROOVE DESIGN CONFORMING TO MnDOT 3006F.  
SEE TYPICAL ROAD SECTION DETAIL AG700.  
TIE ALL RCP PIPE SECTIONS (INCIDENTAL TO CROSSING).  
RIPRAP QUANTITIES ESTIMATED (AS SHOWN IN TABLE). ADDITIONAL QUANTITY MAY BE  
REQUIRED BY ENGINEER AND/OR SHOWN ON PLANS. ALL RIPRAP QUANTITIES SHALL  
BE PAID BY CY INSTALLED.  
ADDITIONAL RIPRAP NEEDED FOR CULVERTS LARGER THAN 48". REFER TO SCHEDULE  
FOR DIMENSIONS.  
12" GRANULAR BEDDING IS INCIDENTAL TO ALL CULVERT INSTALLATIONS  
CLAY PLUG SHALL BE AS THICK AS THE CULVERT APRON IS LONG.  
TOPSOIL SHALL BE PLACED ON THE DITCH SLOPES TO ENSURE PROPER VEGETATION  
ESTABLISHMENT

TYPICAL FIELD OR ROAD CROSSING  
NTS AG710





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PROJECT

**NICOLLET COUNTY**

**COUNTY DITCH**

**No. 79**

COURTLAND TWP MN

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
07/31/2020	PLAN UPDATE #1	SMW

PROJECT NO.	15-18670
CAD FILE NAME	18670 CULVERT DETAILS AB
DRAWN BY	SMW
DESIGNED BY	JRR
REVIEWED BY	CJB
ORIGINAL ISSUE DATE	03/18/2020
CLIENT PROJECT NO.	-

TITLE

**CULVERT CROSSING DETAILS**

SHEET

**5** OF 7

Cross-section view of a culvert crossing. The drawing shows a 60" RCP culvert installed at station 0+00. Key features include: installed 60" RCP culvert @ 0.46%, installed 12" thick granular foundation (incidental to culvert installation), installed 30 CY rip rap (see detail AG710), 2" impervious clay plug, TYP., installed 60" RCP flared apron, placed topsoil, and existing ditch centerline, TYP. The 36' out-to-out width is shown. Stationing ranges from 0+70 to 0+65.


Cross-section view of a culvert crossing. The drawing shows a 54" RCP culvert installed at station 21+00. Key features include: constructed 27" outlet crossing elev=990.00, placed topsoil, 54" RCP flared apron, existing ditch centerline, TYP., installed 54" RCP culvert @ 0.09%, installed 30 CY rip rap (see detail AG710), installed 12" thick granular foundation (incidental to culvert installation), 2" impervious clay plug, TYP., and proposed legal ditch grade, TYP. The 64' out-to-out width is shown. Stationing ranges from 21+50 to 20+50.





Culvert Replacement										
Branch	Station	Size and Material	Length (LF)	Slope (%)	Invert (Upstream)	Invert (Downstream)	Crossing Type	Seed Area (SY)	Rip Rap (CY)	Aprons
Main	0+20	60" RCP	20	0.45	978.02	977.84	Field	500	50	2 - 60" Flared RCP
Main	21+00	54" RCP	48	0.10	979.81	979.75	448th Ln.	300	50	2 - 54" Flared RCP

Nicollet County Ditch No. 79  
Wwatershed Boundary  
Total Area = 1,160 Acres

Legend


 Replace Culvert


 Remove Culvert


 Existing Ditch

 Ditch Cleaning

 Proposed Ditch

 Watershed

 Allowed Access Point

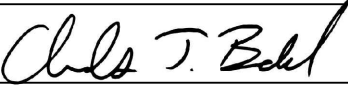
 Parcels



AS-BUILT 01/15/21

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PROJECT

NICOLLET COUNTY  
  
COUNTY DITCH  
No. 79

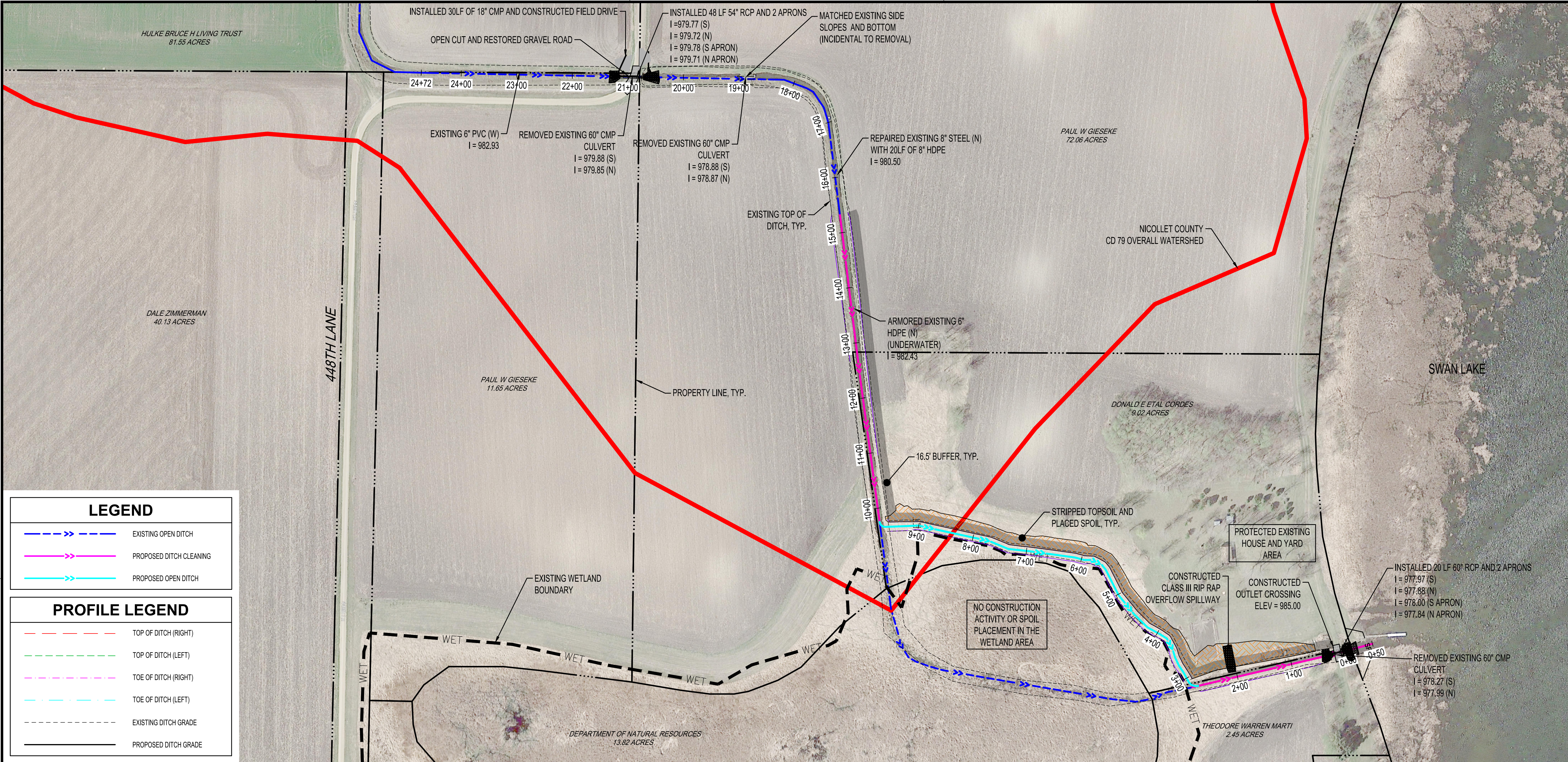
COURTLAND TWP MN

REVISION SCHEDULE		
DATE	DESCRIPTION	BY
07/31/2020	PLAN UPDATE #1	SMW

PROJECT NO.	15-18670
CAD FILE NAME	18670 TITLE AB
DRAWN BY	SMW
DESIGNED BY	JRR
REVIEWED BY	CJB
ORIGINAL ISSUE DATE	03/18/2020
CLIENT PROJECT NO.	-

TITLE  
  
OVERALL  
WATERSHED





**LEGEND**

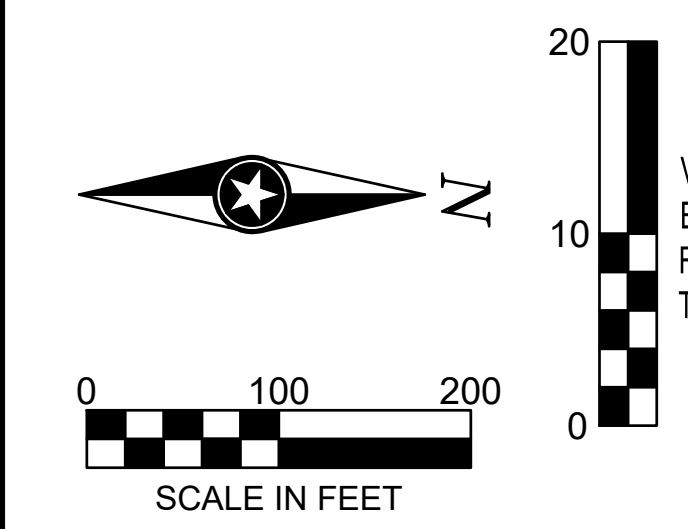
- EXISTING OPEN DITCH
- PROPOSED DITCH CLEANING
- PROPOSED OPEN DITCH

**PROFILE LEGEND**

- TOP OF DITCH (RIGHT)
- TOP OF DITCH (LEFT)
- TOE OF DITCH (RIGHT)
- TOE OF DITCH (LEFT)
- EXISTING DITCH GRADE
- PROPOSED DITCH GRADE



AS-BUILT 01/15/21



NOTE:  
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UPON COLOR COPIES. IF THIS TEXT DOES  
NOT APPEAR IN COLOR, THIS IS NOT AN  
ORIGINAL PLAN SET AND MAY RESULT IN  
MISINTERPRETATION.

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.

CHARLES J. BRANDEL  
*Charles J. Brandel*  
DATE 01/15/2021 LIC. NO. 43359

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PROJECT

NICOLLET COUNTY  
COUNTY DITCH  
No. 79

COURTLAND TWP MN

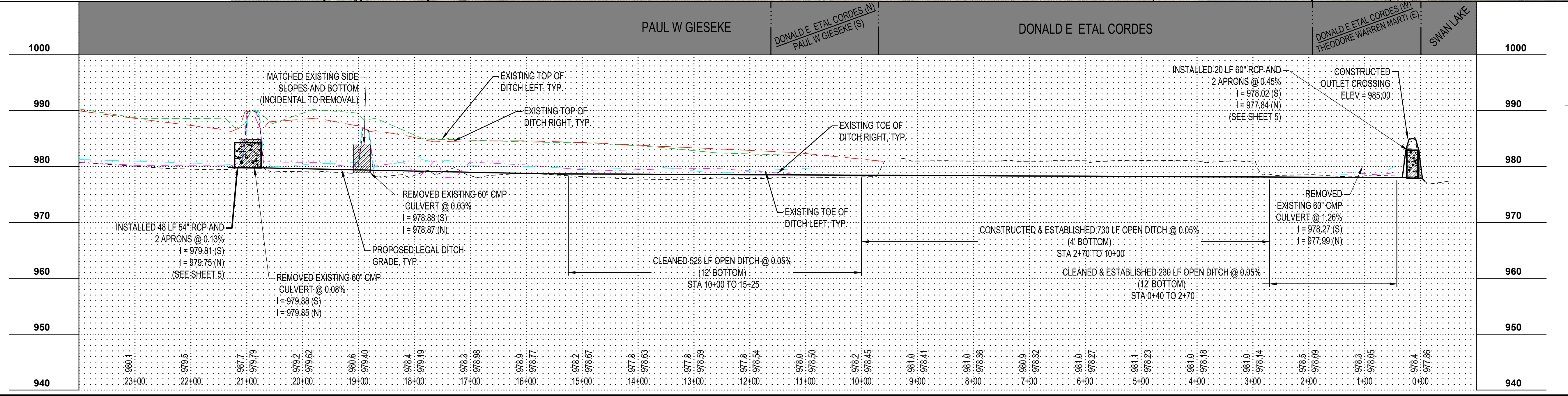
REVISION SCHEDULE		
DATE	DESCRIPTION	BY
07/31/2020	PLAN UPDATE #1	SMW
10/02/2020	PLAN UPDATE #2	SMW

PROJECT NO.	15-18670
CAD FILE NAME	18670 PROFILES AB
DRAWN BY	SMW
DESIGNED BY	JRR
REVIEWED BY	CJB
ORIGINAL ISSUE DATE	03/18/2020
CLIENT PROJECT NO.	-

TITLE

OPEN DITCH PLAN &  
PROFILE

SHEET





## APPENDIX B: Damages

# Nicollet County Ditch No. 79

## Approximate Easement Summary

December 2020

	40 Description	40 Owner	Approximate Station Range	Improvement Description	Permanent Damages (Acres)	Temporary Easement (Acres)	Crop	PIN
Mainline Open Ditch	PT OF GL 4 TOTAL ACRES 2.18	Marti Theodore Revocable Trust	0+11 - 2+88	60" Culvert Replacement & Open Ditch Cleaning	0.01	0.02	N/A	1127400009
	BEG 500' E & 1710' N OF S 1/4 COR; NE ALONG DITCH C.L. 430'; NE 570'; NW ALONG DITCH C.L. 300'+; W ALONG SLY WATER EDGE 530'+; S 840' TO BEG (SUBJECT TO LAKE) = 8.00 ACRES	Cordes, Randy D.	0+11 - 12+83	60" Culvert Replacment, Open Ditch Establishment & Cleaning	0.34	1.50	N/A	1127400010
	GL 3 ACRES 53.10; GL 4 "EX 80' X 150'" & "EX 2.18 AC" & "EX 8.00 AC" = 15.05 ACRES	Gieseke, Paul W & Sandra J Gieseke	9+67 - 20+79	Open Ditch Establishment & Cleaning, Culvert Replacement	0.01	0.87	N/A	1127300004
	448th Lane Crossing							
	PT OF GL 5 & 6 PARCEL B ACRES 11.08	Gieseke, Paul W & Sandra J Gieseke	20+79 - 21+35	54" Culvert Replacement	0.00	0.03	N/A	1127400004
	S 1/2 OF SW 1/4 ACRES 80.00	Hulke Bruce H Living Trust	20+92 - 21+61	54" Culvert Replacement	0.00	0.07	N/A	1127300002
Total					0.36	2.49		

## APPENDIX C: Final Pay Request

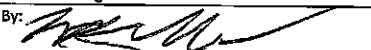
ISG	Contractor's Application for Payment No. <b>2</b>	
	Application Period: 1/8/2021 - 9/16/2021	Application Date: 9/16/2021
To: Nicollet County Drainage Authority (Owner): 501 S. Minnesota Avenue St. Peter, MN 56082	From: Molnau Trucking LLC (Contractor): 13050 Stewart Ave Norwood, MN 55368	Via: ISG (Engineer): Chuck Brandel 115 E Hickory St. Suite 300 Mankato, MN 56001
Project: Nicollet County Ditch No. 79	Contract:	
Owner's Contract No.	Contractor's Project No.	Engineer's Project No. 18670

### Application For Payment Change Order Summary

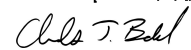
Approved Change Orders		
Number	Additions	Deductions
1		-\$14,000.00
TOTALS		-\$14,000.00
NET CHANGE BY CHANGE ORDERS		-\$14,000.00

1. ORIGINAL CONTRACT PRICE.....	\$ 77,958.50
2. Net change by Change Orders.....	\$ (14,000.00)
3. Current Contract Price (Line 1 ± 2).....	\$ 63,858.50
4. Completed Bid Items (Column J total on Completed Items)	\$ 73,974.65
5. Completed Change Order Items (Column K total on Change Order Items)	\$ (14,000.00)
6. Temporary Withholdings (Column L on Temporary Withholdings)	\$ -
7. Stored Materials (Column L total on Stored Materials)	\$ -
8. TOTAL COMPLETED AND STORED TO DATE LESS TEMPORARY WITHHOLDINGS	\$ 59,974.65
9. RETAINAGE:	
a. X \$ 59,974.65 Work Completed (Line 4+5+6).....	\$ -
b. X \$ - Stored Material (Line 7).....	\$ -
c. Total Retainage (Line 5.a + Line 5.b).....	\$ -
10. AMOUNT ELIGIBLE TO DATE (Line 8 - Line 9.c).....	\$ 59,974.65
11. LESS PREVIOUS PAYMENTS (Line 10 from prior Application).....	\$ 53,797.35
12. AMOUNT DUE THIS APPLICATION.....	\$ 6,177.30
13. BALANCE TO FINISH, PLUS RETAINAGE (Column L total on Completed Items + Column M Total Change Order Items + Column L on Temporary Withholdings + Line 9.c above).....	\$ -

**Contractor's Certification**  
The undersigned Contractor certifies, to the best of its knowledge, the following:  
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;  
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and  
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature  
By:  Date: 9/16/21

Payment of: **\$6,177.30**  
(Line 8 or other - attach explanation of the other amount)

is recommended by:  11/30/2021  
(Engineer) (Date)

Payment of: \_\_\_\_\_  
(Line 8 or other - attach explanation of the other amount)

is approved by: \_\_\_\_\_  
(Owner) (Date)

Approved by: \_\_\_\_\_  
Funding or Financing Entity (if applicable) (Date)

**Completed Bid Items**



Nicollet County  
Ditch No. 79

Nicollet County Drainage Authority

Pay Request      2  
1/8/2021      To      9/16/2021

A	B	C	D	E	F	G	H	I	J	K	L
Bid Item Number	Bid Item	Unit	Quantity	Unit Price	Total Amount	Quantity This Pay Request	Amount This Pay Request	Quantity To Date	Amount To Date	Quantity Remaining	Amount Remaining
2021.501	MOBILIZATION	LS	1.00	\$ 5,000.00	\$ 5,000.00	0.00	\$ -	1.00	\$ 5,000.00	0.00	\$ -
2104.501	REMOVE CMP CULVERT	EA	3.00	\$ 750.00	\$ 2,250.00	0.00	\$ -	3.00	\$ 2,250.00	0.00	\$ -
2105.602	AGGREGATE BASE (CV) (P), CLASS V	CY	35.50	\$ 37.00	\$ 1,313.50	0.00	\$ -	30.00	\$ 1,110.00	5.50	\$ -
2105.602	OPEN CUT & RESTORE GRAVEL ROAD OR DRIVEWAY	EA	1.00	\$ 4,500.00	\$ 4,500.00	0.00	\$ -	1.00	\$ 4,500.00	0.00	\$ -
2105.602	OPEN CUT & RESTORE FIELD CROSSING	EA	1.00	\$ 2,500.00	\$ 2,500.00	0.00	\$ -	1.00	\$ 2,500.00	0.00	\$ -
2105.603	DITCH CLEANING (12' WIDE DITCH BOTTOM)	LF	755.00	\$ 2.50	\$ 1,887.50	0.00	\$ -	755.00	\$ 1,887.50	0.00	\$ -
2106.501	CONSTRUCT DITCH (P) (EV)	CY	655.00	\$ 12.50	\$ 8,187.50	0.00	\$ -	655.00	\$ 8,187.50	0.00	\$ -
2106.501	TOP SOIL STRIP & PLACE SPOILS	AC	1.10	\$ 2,500.00	\$ 2,750.00	0.00	\$ -	0.50	\$ 1,250.00	0.60	\$ -
2501.511	60-INCH CLASS III RCP PIPE	LF	28.00	\$ 300.00	\$ 8,400.00	0.00	\$ -	20.00	\$ 6,000.00	8.00	\$ -
2501.511	54-INCH CLASS III RCP PIPE	LF	48.00	\$ 250.00	\$ 12,000.00	0.00	\$ -	48.00	\$ 12,000.00	0.00	\$ -
2501.515	60-INCH RCP APRON	EA	2.00	\$ 2,500.00	\$ 5,000.00	0.00	\$ -	2.00	\$ 5,000.00	0.00	\$ -
2501.515	54-INCH RCP APRON	EA	2.00	\$ 2,500.00	\$ 5,000.00	0.00	\$ -	2.00	\$ 5,000.00	0.00	\$ -
2511.501	CLASS III RIPRAP WITH GEOTEXTILE FABRIC	CY	100.00	\$ 105.00	\$ 10,500.00	0.00	\$ -	100.00	\$ 10,500.00	0.00	\$ -
2573.502	INSTALL FLOATING SILT CURTAIN	LF	40.00	\$ 35.00	\$ 1,400.00	0.00	\$ -	40.00	\$ 1,400.00	0.00	\$ -
2573.502	INSTALL SILT FENCE	LF	500.00	\$ 2.50	\$ 1,250.00	0.00	\$ -	0.00	\$ -	500.00	\$ -
2575.523	MnDOT CATEGORY 3 EROSION CONTROL BLANKET	SY	1,178.00	\$ 2.50	\$ 2,945.00	0.00	\$ -	257.86	\$ 644.65	920.14	\$ -
2575.501	16.5' BUFFER STRIP SEEDING (SEED MIX: BUFFER BLEND WITH TYPE 3 MULCH)	AC	0.65	\$ 2,500.00	\$ 1,625.00	0.00	\$ -	1.99	\$ 4,975.00	0.00	\$ -
2575.501	STANDARD SIDESLOPE SEEDING (SEED MIX: BUFFER BLEND WITH TYPE 8 MULCH)	AC	0.10	\$ 3,500.00	\$ 350.00	0.00	\$ -	0.32	\$ 1,120.00	0.00	\$ -
2575.541	BUFFER STRIP MOWING	AC	1.30	\$ 500.00	\$ 650.00	1.30	\$ 650.00	1.30	\$ 650.00	0.00	\$ -
2575.545	WEED SPRAYING	AC	1.40	\$ 250.00	\$ 350.00	0.00	\$ -	0.00	\$ -	1.40	\$ -
					\$ 77,858.50		\$ 650.00		\$ 73,974.65		\$ -



## Completed Change Order Items



Nicollet County  
Ditch No. 79

Nicollet County Drainage Authority

Pay Request      2  
1/8/2021      To      9/16/2021

A	B	C	D	E	F	G	H	I	J	K	L	M
Change Order	Bid Item Number	Bid Item	Unit	Quantity	Unit Price	Total Amount	Quantity This Pay Request	Amount This Pay Request	Quantity To Date	Amount To Date	Quantity Remaining	Amount Remaining
1	1.01	Liquidated Damages	EA	35.00	\$ (400.00)	\$ (14,000.00)	35.00	\$ (14,000.00)	35.00	\$ (14,000.00)	0.00	\$ -
						\$ (14,000.00)		\$ (14,000.00)		\$ (14,000.00)		\$ -

# Temporary Withholdings



Nicollet County  
Ditch No. 79

Nicollet County Drainage Authority

Pay Request 2  
1/8/2021 To 9/16/2021

A	B	C	D	E	F	G	H	I	J	K	L
Bid Item Number	Bid Item	Unit	Quantity	Unit Price	Total Amount	Quantity Installed To Date	Amount Installed To Date	Temp Withholding %	Temp Withholding Amount	Amount Released	Amount Remaining
2575.523	MnDOT CATEGORY 3 EROSION CONTROL BLANKET	SY	1178.00	\$ 2.50	\$ 2,945.00	257.86	\$ 644.65	40%	\$ 257.86	\$ 257.86	\$ -
2575.501	16.5' BUFFER STRIP SEEDING (SEED MIX: BUFFER BLEND WITH TYPE 3 MULCH)	AC	0.65	\$ 2,500.00	\$ 1,625.00	1.99	\$ 4,975.00	40%	\$ 1,990.00	\$ 1,990.00	\$ -
2575.501	STANDARD SIDESLOPE SEEDING (SEED MIX: BUFFER BLEND WITH TYPE 8 MULCH)	AC	0.10	\$ 3,500.00	\$ 350.00	0.32	\$ 1,120.00	40%	\$ 448.00	\$ 448.00	\$ -
									\$ 2,695.86		\$ -



### Contractor Affidavit Submitted

Thank you, your Contractor Affidavit has been approved.

#### Confirmation Summary

Confirmation Number:	0-449-630-880
Submitted Date and Time:	6-Dec-2021 3:38:49 PM
Legal Name:	MOLNAU TRUCKING LLC
Federal Employer ID:	20-8516801
User Who Submitted:	amolnau
Type of Request Submitted:	Contractor Affidavit

#### Affidavit Summary

Affidavit Number:	966201344
Minnesota ID:	8825873
Project Owner:	NICOLLET COUNTY DRAINAGE AUTHORITY
Project Number:	15-18670
Project Begin Date:	26-Oct-2020
Project End Date:	18-Dec-2020
Project Location:	NICOLLET COUTNY
Project Amount:	\$59,974.65
Subcontractors:	No Subcontractors

#### Important Messages

A copy of this page must be provided to the contractor or government agency that hired you.

#### Contact Us

If you need further assistance, contact our Withholding Tax Division at 651-282-9999, (toll-free) 800-657-3594, or (email) [withholding.tax@state.mn.us](mailto:withholding.tax@state.mn.us). Business hours are 8:00 a.m. - 4:30 p.m. Monday - Friday.

Please [print this page](#) for your records using the print or save functionality built into your browser.

## APPENDIX D: Construction Pictures





Floatation silt fence installation.



Typical ditch cleaning.



Road crossing at station 0+00.



Finished road crossing at 0+00 with rip rap North side.





Finished road crossing at station 0+00  
South.



Typical open ditch cleaning.



Typical seeding and blanketing procedure.



Typical spillway overflow rip rap area.





DJI\_0963  
12/23/2020



6/18/2021



9/18/2021





12/23/2020



6/18/2021



9/18/2021





12/23/2020



DJI\_0326

6/18/2021



9/18/2021





DJI\_0963

12/23/2020



DJI\_0326

6/18/2021



9/18/2021





12/23/2020



6/18/2021



9/18/2021





12/23/2020



6/18/2021



9/18/2021





12/23/2020



6/18/2021



9/18/2021

## PROPOSED LEVY ORDER

Below is a summary of the proposed CD79 drainage system assessment, installment schedule, interest rate, and maintenance.

<b><u>County Ditch No. 79</u></b>	<b><u>Amount to Levy</u></b>
Final Improvement Cost	\$200,784.27
Maintenance Costs since Last Levy	\$21,159.27
Future Repaid Fund	\$10,000.00
<b>Total Levy</b>	<b>\$231,943.54</b>

All assessments not paid by October 31, 2022 will be charged a 4% annual interest rate begin in November 1, 2022. Unpaid assessments will be assessed to the property tax roles beginning in tax year 2023 with the following terms based on the amount of assessment::

- Up to \$7,500                      5 years
- Over \$7,500                      10 years



JULY 20, 2022

Jaci Kopet  
Property & Public Services Director  
Nicollet County Government Center  
501 South Minnesota Avenue  
St. Peter, MN 56082



---

RE: NICOLLET COUNTY DITCH NO. 79 -CORDES BERM

Dear Ms. Kopet,

ISG has reviewed the information discussed at the June 28, 2022, hearing and again at the July 12, 2022, closeout hearing in relation to Nicollet County Ditch No. 79 and the Cordes property berm. Mr. Ronald Cordes has stated that he did not want a berm on his property and that he would like the berm material spread out further into his property. It was brought to our attention at that meeting that Mr. Cordes asked for the berm material to be spread out at the preconstruction meeting. ISG staff, including Chuck Brandel, Chris Adams and Darin Howell, and Nicollet County Staff including Nathan Henry were on site on December 10, 2020, and approved the berm construction as originally planned including the location of the riprap overflow. There was another site meeting on December 22, 2020, with Chris Adams and Justin Rodgers from ISG, Nate Henry and Commissioner Luepke from Nicollet County, Ronald Cordes, and representatives from Molnau Trucking in attendance. During this meeting, the berm and gravel on the private road were discussed. The outcome of the meeting was that Molnau agreed to place gravel on the private drive and all parties agreed to leave the berm as constructed. At the February 8, 2022, Final Acceptance Hearing, Mr. Cordes opined that his yard was not draining properly and asked that the berm be removed.

At the June 28, 2022, hearing, the Board of Commissioners directed ISG to prepare a response as to how this should be addressed. At the July 12, 2022, meeting the board requested another proposal to discuss how to pay for the work. ISG has prepared an estimate of the work that Mr. Cordes wants completed on his property. This includes leveling the berm and reseeding the areas along the north/south stretch of open ditch from approximately Station 0+50 to Station 2+50. Based on ISG's cost estimate, the amount of work to be completed is \$4,980, with \$2,760 of that being grading and \$2,220 being seeding, with mobilization included with both. The grading plan and cost estimate are attached. ISG is working with contractors to get a bid for this work.

Typical drainage design for land adjacent to open drainage ditches is to have a berm and direct flow to a designated area along the top of the ditch to reduce erosion and limit areas where flow can go over the top of an open ditch and erode sideslopes. It is also standard practice to designate spoil areas and have a crown or berm on top of these spoil areas. This helps to reduce overland flow over the top of the ditch and provides areas for spoils to be put when ditches are cleaned. This information is outlined in the Minnesota Drainage Manual which was compiled by the Minnesota Board of Water Resources and can be found at the following link and attachment. <https://drainage.pca.state.mn.us/index.php/B. Engineering Requirements>

ISG's position is that we communicated the proper design to the landowner and Drainage Authority on multiple occasions. It is also ISG's position that if the material is spread out, as demanded by Nicollet County and Mr. Cordes, it will not meet the applicable provisions of the 2017 Minnesota Drainage Manual for ditch design per the attached information. If required to proceed in this manner by removing the berm, ISG and Engineer Brandel expressly disclaim any responsibility for such work, any additional work, and any erosion caused by having overland flow occur over this entire section of open ditch, or Mr. Cordes' property and beyond. That being said ISG will cover the costs to proceed to remove the berm and have this area seeded. It is ISG's opinion that seeding costs should be a ditch system cost, since the material if moved in this manner requested would have disturbed more area; however, ISG will cover these costs strictly as an accommodation to complete this project. ISG will not cover costs for any landowner damages.

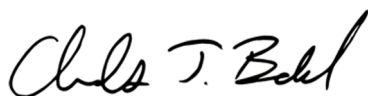
ISG has reached out to Mr. Cordes, and we discussed the grading plan. I had previously reviewed the grading plan with Mr. Cordes after the June 28, 2022, hearing and we did incorporate his comments into the revised plan that is attached. In correspondence on July 20, 2022, I confirmed with him that we have the area covered that he is requesting to be graded. I did



ask Mr. Cordes if he will be at the July 26 hearing, and he stated that he will be there. I also asked that after the work is completed if his family would do maintenance on the seeding by mowing and spraying that it would help to establish. Mr. Cordes said they would do that as they are already maintaining that area. ISG will have Mr. Cordes on site to review the grading before it is completed.

ISG hopes that this letter provides the board with a response to the concerns and comments that were made at the July 12, 2002, hearing. ISG will be available to answer any further questions at the July 26, 2022, hearing.

Sincerely,



Chuck Brandel, PE  
Vice President  
[Chuck.brandel@ISGInc.com](mailto:Chuck.brandel@ISGInc.com)

**SECTION 00 4100.01**  
**ESTIMATED QUANTITIES**

TOTAL ENGINEEREING ESTIMATED QUANTITIES					
Item Code	Item	Unit	Estimated Quantity	Bid Price	Bid Amount
31.2316.1000.07	COMMON EXCAVATION - DITCH (P) (EV)	CY	230	\$ 12.00	\$ 2,760.00
32.9219.1000.10	SEED MIX 25-142 WITH TYPE 3 MULCH	AC	0.6	\$ 3,700.00	\$ 2,220.00
Total Base Bid				\$	4,980.00

GENERAL PROJECT NOTES:

1. DURING CONSTRUCTION, CONTRACTOR SHALL MAINTAIN A DRAINAGE OUTLET FOR THE ENTIRE CD 79 PROJECT AREA.
2. ALL ROAD SIGNAGE, COORDINATION, AND TRAFFIC CONTROL SIGNAGE SHALL BE INCIDENTAL TO ROAD RESTORATIONS AND SHALL CONFORM TO LOCAL ROAD AUTHORITY PERMITS AND REGULATIONS.
3. THE CONTRACTOR SHALL SUBMIT A WINTER CONSTRUCTION PLAN FOR SITE STABILIZATION, EROSION PREVENTION, AND SEDIMENT CONTROL IF THE PROJECT IS NOT COMPLETED BY OCTOBER 15 OF THE GIVEN CONSTRUCTION SEASON, UNLESS APPROVED BY THE ENGINEER. THE PLAN SHALL BE DEVELOPED TO SPECIFICALLY ADDRESS SHUTDOWN PROCEDURES OR ACTIVE CONSTRUCTION PLANS.
4. ALL DEWATERING FOR THE PROJECT IS INCIDENTAL.
5. PRODUCT MATERIAL SHALL BE AS SPECIFIED IN THE PLANS. IF NO SPECIFIC MATERIAL IS CALLED OUT, MATERIAL SHALL CONFORM TO THE APPROVED PRODUCT LIST IN THE APPROPRIATE SPECIFICATION.
6. ALL EFFORTS SHALL BE MADE DURING CONSTRUCTION TO SEPARATE SOIL TYPES. BACKFILL SHALL BE COMPACTED PRIOR TO PLACEMENT OF TOPSOIL, EXCEPT THE TOP TWO (2) FEET, FOR WHICH COMPACTION SHALL BE MINIMIZED TO THE EXTENT POSSIBLE. TOPSOIL SHALL BE PLACED TO A MINIMUM DEPTH OF 18", OR UNIFORM TO THE TOPSOIL DEPTH OF THE SURROUNDING AREA UNLESS SPECIFIED ELSEWHERE IN THE PLANS. EXCAVATED SPOILS SHALL BE SPREAD EVENLY IN CONSTRUCTION AREA AS TO NOT IMPEDE DRAINAGE. ALL EFFORTS SHALL BE MADE TO KEEP TOPSOIL ON TOP AND SEPARATED. NO TOPSOIL SHALL BE PLACED IN THE TRENCH BELOW 2' FROM EXISTING GROUND UNLESS APPROVED BY THE ENGINEER.
7. ALL SPOIL LEVELING, GRADING, AND RESTORATION OF DISTURBED AREAS SHALL BE IN ACCORDANCE TO THE CONTRACT DOCUMENTS AND SHALL BE INCIDENTAL TO THE WORK UNLESS OTHERWISE SPECIFIED.
8. ALL SIGNS AND MARKERS SHALL BE PROTECTED OR REMOVED AND REINSTALLED AT NO ADDITIONAL COST TO THE PROJECT, UNLESS OTHERWISE SPECIFIED. THE ENGINEER SHALL BE NOTIFIED OF ANY SIGNS OR MARKERS IN POOR CONDITION PRIOR TO REMOVAL.
9. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITY TO WITHIN CONSTRUCTION EASEMENT AS NOTED IN PLANS UNLESS APPROVED BY ENGINEER.
10. A 16.5-FOOT GRASS STRIP SHALL BE ESTABLISHED IN AREAS THAT DO NOT HAVE AN EXISTING 16.5-FOOT GRASS STRIP. FINAL SEEDING SHALL OCCUR AFTER ALL WORK HAS BEEN COMPLETED IN THE AREA AND SHALL COMPLY WITH THE CONTRACT DOCUMENTS. TEMPORARY SEEDING MAY BE REQUIRED AND SHALL BE INCIDENTAL.
11. TOPSOIL IN TOPSOIL STRIP AREAS DESIGNATED ON THE PLANS SHALL BE STRIPPED PRIOR TO THE PLACEMENT OF FILL MATERIAL FROM DITCH EXCAVATION. TOPSOIL STRIP AREAS MAY ADJUST BASED ON ACTUAL TOPSOIL THICKNESS. RECLAIMING AND LEVELING OF THE TOPSOIL ON TOP OF THE SPOILS SHALL BE INCIDENTAL TO TOPSOIL STRIPPING.

TOTAL ESTIMATED QUANTITIES			
Item Code	Item	Unit	Estimated Quantity
31.2316.1000.07	COMMON EXCAVATION - DITCH (P) (EV)	CY	230
32.9219.1000.10	SEED MIX 25-142 WITH TYPE 3 MULCH	AC	0.6



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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR  
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STATE OF MINNESOTA.  
CHARLES J. BRANDEL

DATE: \_\_\_\_\_ LIC. NO. 43359

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PROJECT

NICOLLET COUNTY  
COUNTY DITCH  
No. 79

COURTLAND TWP MN

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	18670
FILE NAME	18670 BERM REMOVAL MAP QUANT
DRAWN BY	JJM
DESIGNED BY	CJB
REVIEWED BY	CJB
ORIGINAL ISSUE DATE	11-1-11
CLIENT PROJECT NO.	-

TITLE

NOTES AND  
QUANTITIES

SHEET

1

OF 4

ABBREVIATIONS

AC	ACRE	GA	GAUGE	PP	POLYPROPYLENE
ADD	ADDENDUM	GAL	GALLON	PSI	POUNDS PER SQUARE INCH
AGG	AGGREGATE	GPM	GALLONS PER MINUTE	PVC	POLYVINYL CHLORIDE
APPROX	APPROXIMATE	HDPE	HIGH DENSITY POLYETHYLENE	PVMT	PAVEMENT
BIT	BITUMINOUS	HORIZ	HORIZONTAL	QTY	QUANTITY
CAD	COMPUTER-AIDED DESIGN	HR	HOUR	RCP	REINFORCED CONCRETE PIPE
CFS	CUBIC FEET PER SECOND	HWL	HIGH WATER LEVEL	REBAR	REINFORCING BAR
CF	CUBIC FOOT	HWY	HIGHWAY	REM	REMOVE
CL	CENTERLINE	HYD	HYDRANT	ROW	RIGHT OF WAY
CMP	CORRUGATED METAL PIPE	I	INVERT	R/W	RIGHT OF WAY
CONC	CONCRETE	ID	INSIDE DIAMETER	SCH	SCHEDULE
CONST	CONSTRUCTION	IN	INCH	SF	SQUARE FOOT
CONT	CONTINUOUS	INV	INVERT	SPEC	SPECIFICATION
CR	COUNTY ROAD	LF	LINEAR FEET	SQ	SQUARE
CSAH	COUNTY STATE AID	LIN	LINEAR	STA	STATION
	HIGHWAY	LS	LUMP SUM	SY	SQUARE YARD
CY	CUBIC YARD	MAX	MAXIMUM	TEMP	TEMPORARY
DI	DROP INTAKE	MH	MANHOLE	THRU	THROUGH
DIA	DIAMETER	MIN	MINIMUM	TRANS	TRANSFORMER
DIM	DIMENSION	MISC	MISCELLANEOUS	TV	TELEVISION
EA	EACH	NO	NUMBER	TYP	TYPICAL
ELEC	ELECTRICAL	NTS	NOT TO SCALE	UT	UTILITY, UNDERGROUND
ELEV	ELEVATION	NWL	NORMAL WATER LEVEL	VCP	TELEPHONE
EOF	EMERGENCY OVERFLOW	OC	ON CENTER	W/O	VITRIFIED CLAY PIPE
EQ	EQUAL	OCEW	ON CENTER EACH WAY		WITHOUT
EX	EXISTING	OH	OVERHEAD	W/	WITH
FDN	FOUNDATION	OHWL	ORDINARY HIGH WATER	YD	YARD
FPM	FEET PER MINUTE	OZ	OUNCE	YR	YEAR
FPS	FEET PER SECOND	PERF	PERFORATED		
FT	FOOT, FEET	PL	PROPERTY LINE		





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**CHARLES J. BRANDEL**

DATE: \_\_\_\_\_ LIC. NO. **43359**

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PROJECT

**NICOLLET COUNTY**  
**COUNTY DITCH**  
**No. 79**

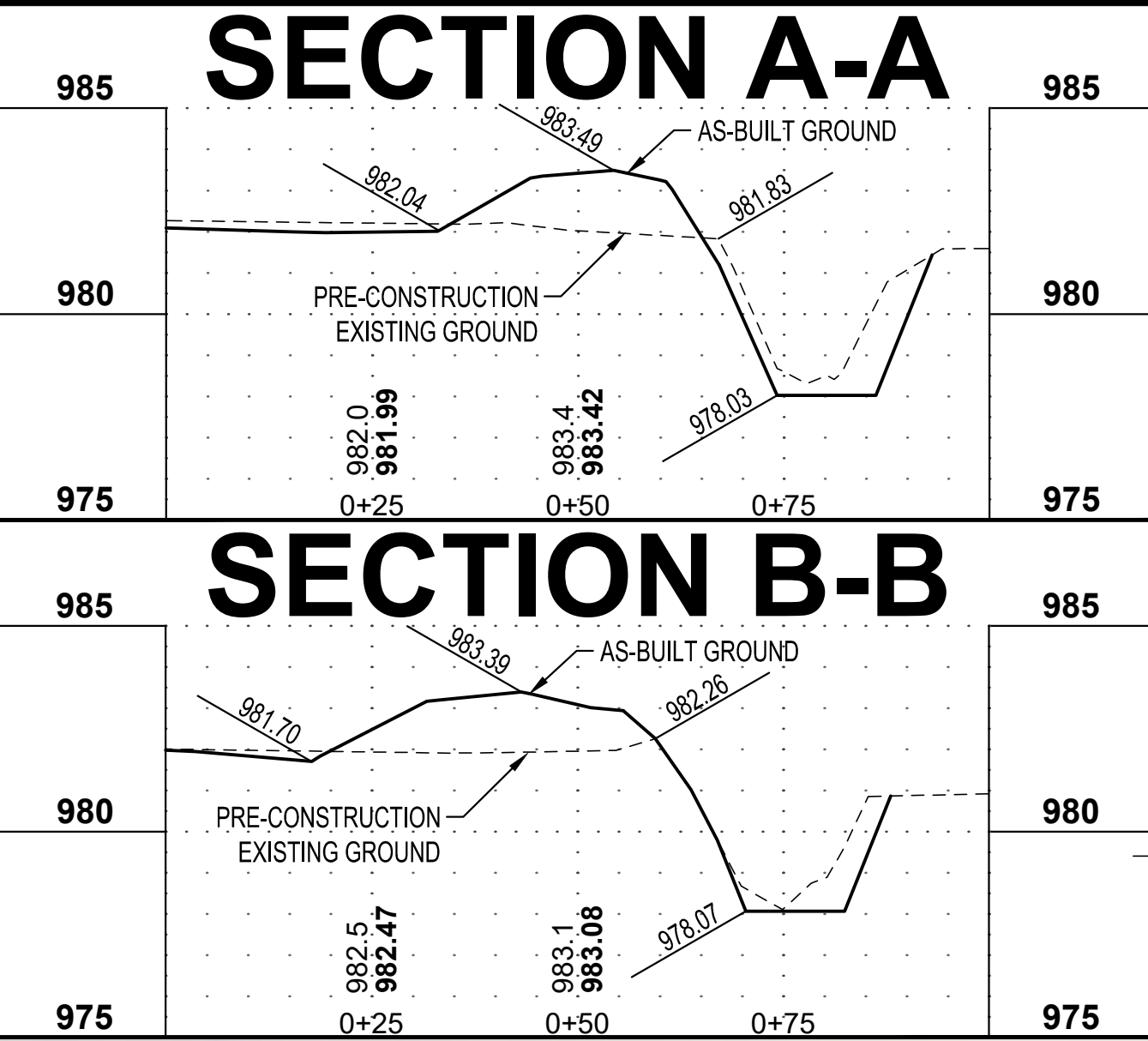
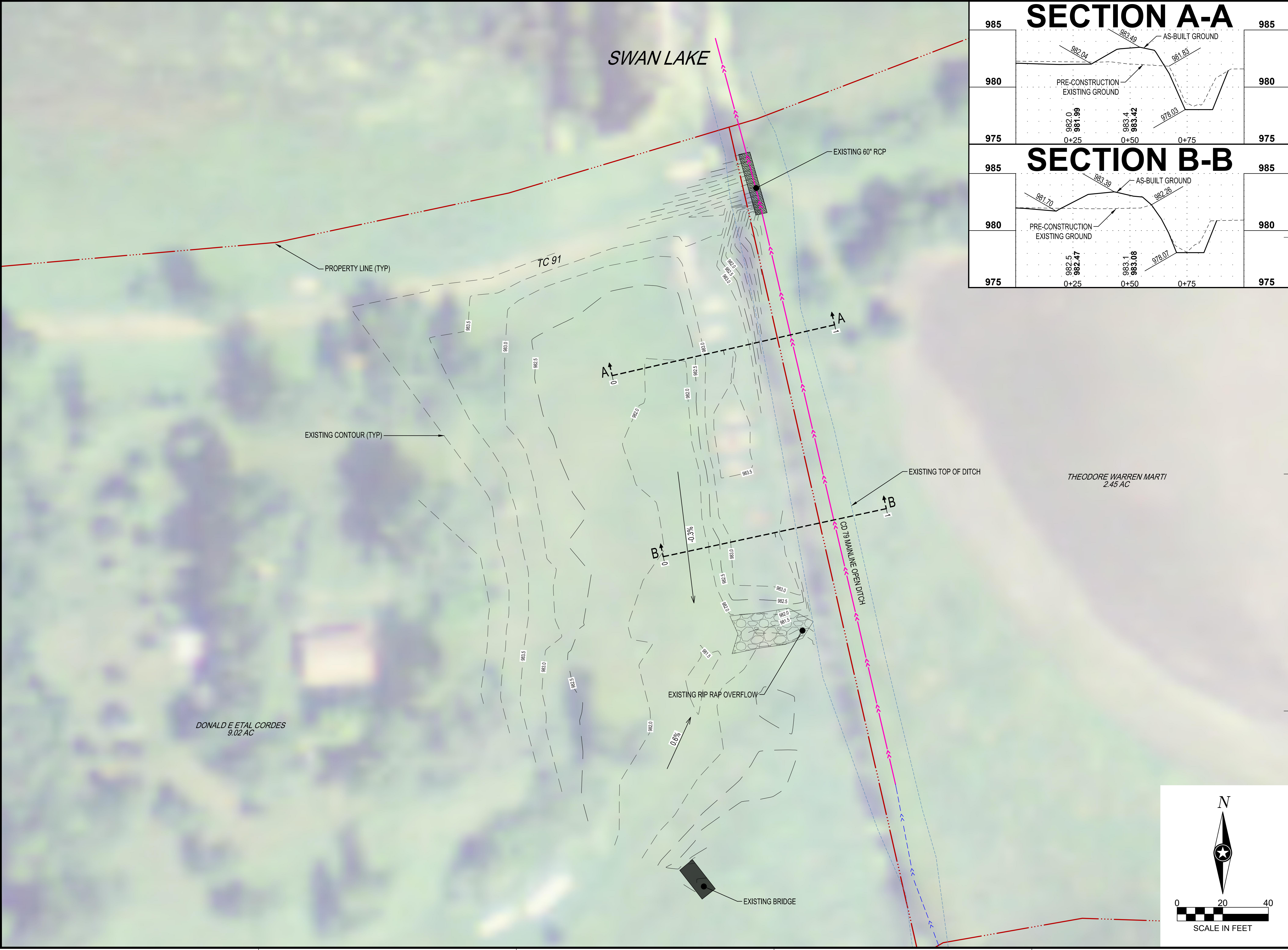
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TITLE  
**PROJECT AREA**  
**MAP**





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PROJECT

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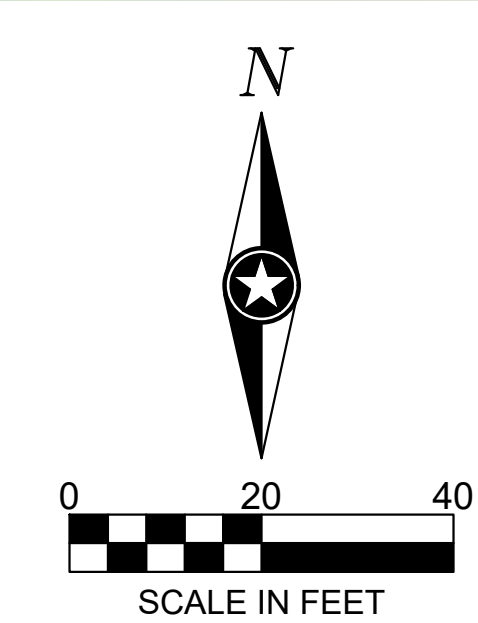
COURTLAND TWP MN

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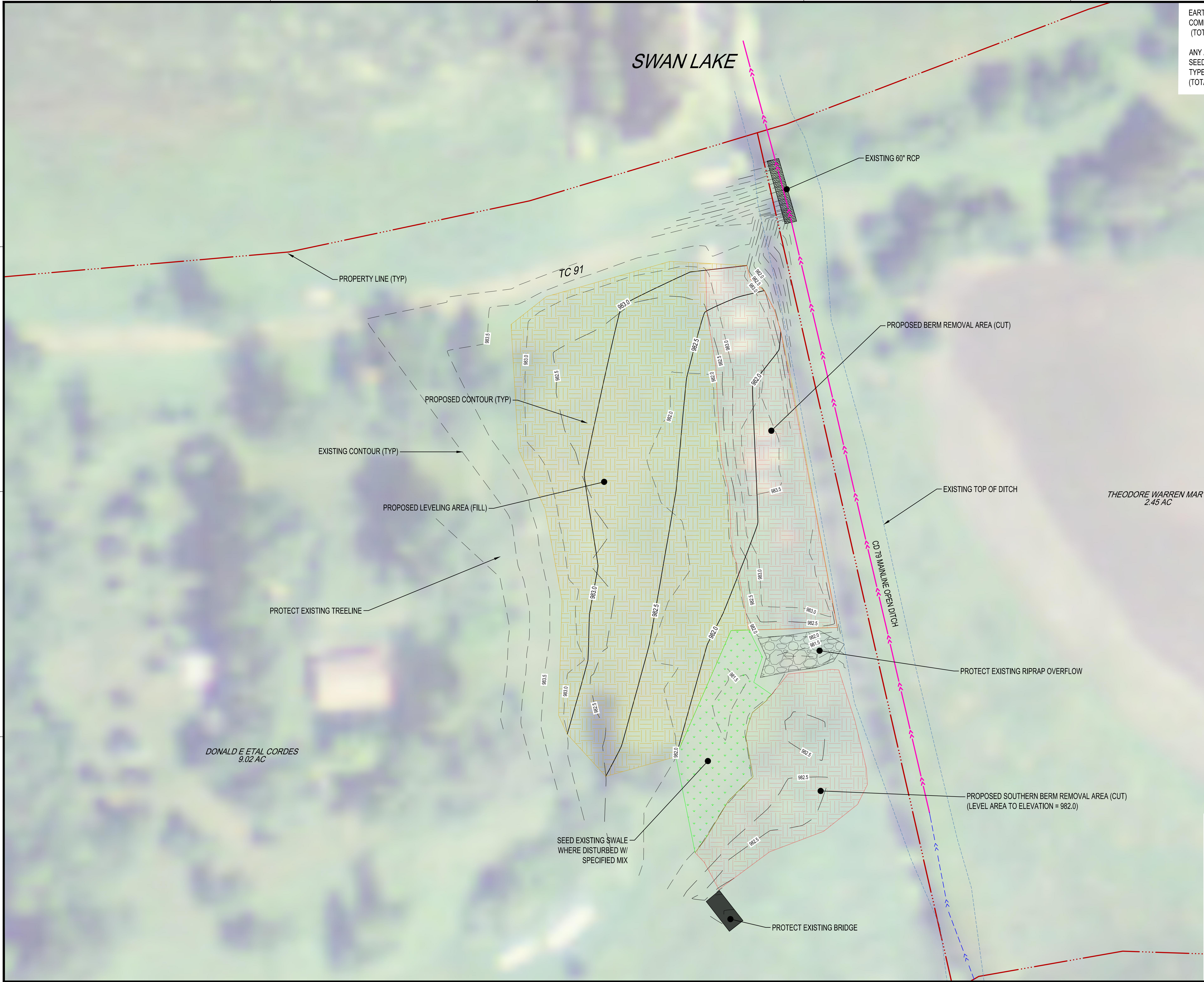
PROJECT NO.	PROJ. NO
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DRAWN BY	JJM
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REVIEWED BY	CJB
ORIGINAL ISSUE DATE	11-1-11
CLIENT PROJECT NO.	-

TITLE  
**EXISTING CORDES**  
**SITE**

SHEET  
**3** OF 4







EARTHWORK SHALL BE PAID FOR AS  
COMMON EXCAVATION BY CUBIC YARDS  
(TOTAL = 230 CY)

ANY AND ALL DISTURBED AREAS SHALL BE  
SEEDED WITH MnDOT 25-142 SEED MIX WITH  
TYPE 3 MULCH  
(TOTAL = 0.60 AC)



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PROJECT

**NICOLLET COUNTY**

**COUNTY DITCH**  
**No. 79**

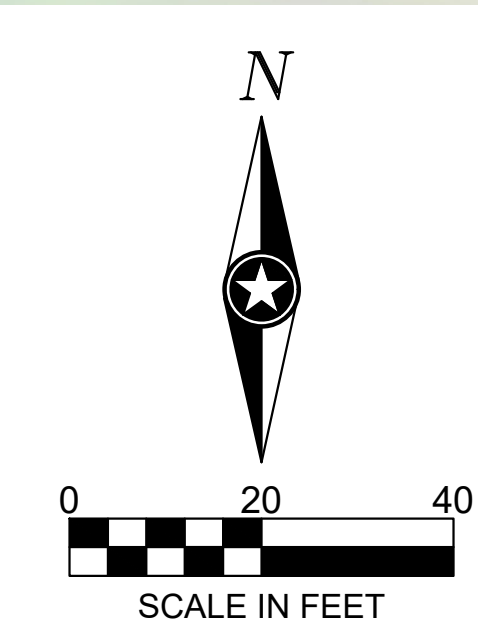
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TITLE

**PROPOSED CORDES**  
**GRADING PLAN**







## B. Engineering Requirements

### Contents

- 1 B. Engineering Requirements
  - 1.1 1. Hydrologic and Hydraulic Analysis
  - 1.2 2. Ditch/Channel Hydraulic Design
  - 1.3 3. Bridge/Culvert Hydraulic Analysis and Design
  - 1.4 4. Erosion Control for Drainage Water Entry to a Public Ditch
  - 1.5 5. Miscellaneous Structures
  - 1.6 6. Channel Geometry
  - 1.7 7. Vegetated Ditch Buffer Strips
    - 1.7.1 FOOTNOTES

## B. Engineering Requirements

The engineer in response to a drainage project petition is responsible for recommending a practical drainage project (as defined in **Minn. Stat. § 103E.005** (<https://www.revisor.mn.gov/statutes/?id=103E.005>) and listed in items 1–4 in **A. General** ([http://drainage.pca.state.mn.us/index.php/A.\\_General\\_\(Section\\_3VI\)\)](http://drainage.pca.state.mn.us/index.php/A._General_(Section_3VI)))) design, to inform the drainage authority in the preliminary report on issues related to feasibility and present a fully defined constructible drainage project in the detailed survey report ordered by the drainage authority. **Section III** ([http://drainage.pca.state.mn.us/index.php/III.\\_Preliminary\\_Survey\\_and\\_Engineer%27s\\_Preliminary\\_Report](http://drainage.pca.state.mn.us/index.php/III._Preliminary_Survey_and_Engineer%27s_Preliminary_Report)) and **Section IV** ([http://drainage.pca.state.mn.us/index.php/IV.\\_Detailed\\_Survey\\_and\\_Engineer%27s\\_Final\\_Report](http://drainage.pca.state.mn.us/index.php/IV._Detailed_Survey_and_Engineer%27s_Final_Report)) in this chapter provide guidance to the engineer for conducting the required surveys and preparing the necessary reports. The following section identifies additional detailed recommendations related to engineering tasks for specific project types. It is recommended that the described engineering efforts be documented in both the engineer's preliminary survey report and the engineer's detailed survey report in accordance with present engineering practice.

### 1. Hydrologic and Hydraulic Analysis

According to **Minn. Stat. § 103E.015, Subd. 1 (4)** (<https://www.revisor.mn.gov/statutes/?id=103E.015>), the engineer is required to consider the flooding potential on and downstream of the drainage system as related to a proposed drainage project (i.e., for the 5-, 10-, 25-, and 50-year flood events). Standard engineering practice in Minnesota has generally favored a 2-year to 10-year return period for drainage ditch design.

*Note: While it is not required by Chapter 103E, it is also important to understand the effects of a catastrophic flood event (e.g. the 100-year flood), particularly when a local government's floodplain ordinance comes into play. Therefore, it is recommended that the engineer's preliminary report contain an evaluation of the effects of the project for multiple flood events including those required for design, as outlined in **Minn. Stat. § 103E.015** (<https://www.revisor.mn.gov/statutes/?id=103E.015>), and for catastrophic events.*

### 2. Ditch/Channel Hydraulic Design

Once the engineer selects the design discharge, the channel dimensions, slope, and hydraulic properties are calculated by an appropriate method. For medium to large size projects, a design water surface profile should be developed from the project outlet to the upper end of the system. Commonly accepted hydraulic models for calculating water surface profiles include the U.S. Army Corps of Engineers' HEC-RAS model, the Environmental Protection Agency's SWMM model and a variety of proprietary models based on the historic Soil Conservation Service's <sup>2</sup> TR-20 Model.

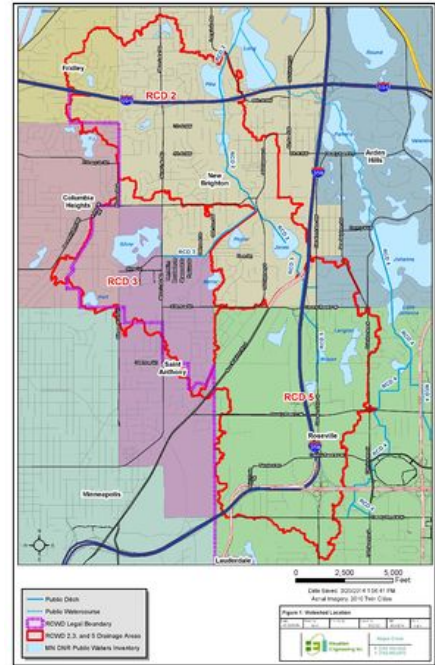
Normal depth calculation results, for various flood events, and for all design reaches within the system, can be recorded in tabular form in the engineer's report(s). Velocities, flow depths, and soil types should be checked at all critical points in and along the course of the system to insure that erosion potential is within acceptable ranges, and that the maximum water surface profile does not adversely hamper the project's drainage function. Recommended design velocities may be found in Part 650 of the **NRCS National Engineering Field Handbook: Chapter 14 – Water Management (Drainage)** (<http://directive.s.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17551.wba>).

3. Bridge/Culvert Hydraulic Analysis and Design

Centerline structures (bridges and culverts) are required at many points along a drainage system. The proper design discharge for these structures is a function of the type of crossing (county road, township road, private crossing, etc.), and the upstream or downstream damage potential (buildings, grain storage, etc.).

The engineer must select a design discharge which is most appropriate for the condition of a specific centerline structure's location. This generally involves a risk assessment of damage potential, balanced against structure costs. Commonly used design discharges are as follows:

Type of Road	Design Discharge
Field Crossing	2-year to 5-year
Private driveway or road	5- to 10-year
Local or minor collector roads (e.g. city & township roads)	10- to 25-year
Major collector or minor	25- to 50-year



The engineer is required to consider the flooding potential on the downstream of the drainage system as related to a proposed drainage project.

arterial roads (e.g. County roads)	
Major arterial roads (e.g. State or U.S. highways)	50- to 100-year

Note that 100-year or greater protection may be required when a road or highway is the primary/only access into a developed area and inundation would prevent safe access to properties. The **MnDOT Drainage Manual** (<http://www.dot.state.mn.us/bridge/hydraulics/drainagemanual.html>) provides additional guidance for appropriate design frequencies.<sup>3</sup>

The engineer must also check to see that the proposed structure will adequately pass the proposed drainage system's design flow without adversely affecting the drainage system's performance. Other hydraulic design items of concern are maximum culvert velocity (erosion and scour potential) and headwater - tailwater conditions (stage increase).

There are many methods and publications available for the hydraulic analysis of bridges and culverts. The *MnDOT Drainage Manual* is the foremost publication in the State of Minnesota for the hydraulic design of bridges and culverts. The Federal Highway Administration also has two publications which may be consulted for bridge and culvert analysis: "**Hydraulic Design Series No. 7**" (Ref. 11) ([http://www.fhwa.dot.gov/engineering/hydraulics/library\\_listing.cfm](http://www.fhwa.dot.gov/engineering/hydraulics/library_listing.cfm)), for bridges, and "**Hydraulic Design Series No. 5**," ([http://www.fhwa.dot.gov/engineering/hydraulics/library\\_listing.cfm](http://www.fhwa.dot.gov/engineering/hydraulics/library_listing.cfm)) for culverts. Many hydraulic design programs are capable of completing acceptable bridge and culvert hydraulic design calculations. It is critical for the design engineer to understand the limitations of each model prior to beginning the design. At a minimum, the modeling or evaluation methods should consider the effects of the downstream water surface (i.e. tailwater), the inlet capacity, and hydraulic losses through the structure. Bridge and culvert hydraulic design results should be documented in tabular form in the engineer's report(s). Click **here** ([http://drainage.pca.state.mn.us/index.php/Appendix\\_10:\\_Table\\_of\\_Structures\\_Hydraulic\\_Results](http://drainage.pca.state.mn.us/index.php/Appendix_10:_Table_of_Structures_Hydraulic_Results)) for a suggested format for such a table.

#### 4. Erosion Control for Drainage Water Entry to a Public Ditch

There are multiple ways that drainage water enters into a public drainage ditch: tile outlets, ditch outlets, drainageway outlets, side inlets, and sheet flow. The engineer will need to consider erosion and sedimentation control measures for each type of entry (see **Chapter 5** ([http://drainage.pca.state.mn.us/index.php/Chapter\\_5](http://drainage.pca.state.mn.us/index.php/Chapter_5))).

Each entry location will have unique characteristics such as conveyance type, size of tributary watershed, elevation of contact with the ditch, potential for erosion of or by the drainage water conveyance, and the velocity of the flow.

Side inlets are any concentrated drainage water entry from the field to the public ditch. When the side inlet is a drainageway formed by nature or by the landowner in existing soil, it can be a significant source of sediment. The sediment can come from the field via overland flow, from headcutting of the drainage way, and from erosion of the drainageway. Side inlet controls are used when there is an excessive drop in elevation from the field or natural ground level to the ditch bottom. Drainage Law allows for incremental implementation of side inlet controls (**Minn. Stat. § 103E.021, Subd 6.** (<https://www.revisor.mn.gov/statutes/?id=103E.021>)), "to control erosion and sedimentation, improve water quality, or maintain the efficiency of the drainage system". They are most often owned and maintained by the system. The NRCS provides a design standard for side inlet controls in their *Field Office Technical Guide* (**Grade Stabilization Structure, Code 410** (<https://efotg.sc.egov.usda.gov/references/public/KS/410sd.pdf>)).

*Note: It is recommended, but not required that the engineer when possible use an alternative side inlet control design that provides water detention for trapping sediment and incremental reduction of ditch flood peaks and is constructed on the edge of the field.*



An example of a new culvert placed in the field.



Side inlet controls are also used in conjunction with flap gates (flood gates) to prevent backflow from the ditch system onto adjacent property when water level stages in the ditch are higher than the adjacent natural topography. The decision to use flap gates is based on a water surface profile and backflow history. Ditch inlets are sometimes shown on the preliminary plan and profile drawings even though side inlet control locations are usually field sited during construction.

*Note: It is recommended but not required that a tabulation of side inlet control pipe quantities should be included in the engineer's report(s) as part of the itemized cost estimate.*

When surface water from larger watersheds are tributary to a ditch, it may be necessary to use a rock weir and/or a rock chute design. A rock chute design spreadsheet can be found in **Appendix 11** ([http://drainage.pca.state.mn.us/index.php/Appendix\\_11:\\_Rock\\_Chutes\\_Design\\_Guidelines\\_and\\_Design\\_Spreadsheet](http://drainage.pca.state.mn.us/index.php/Appendix_11:_Rock_Chutes_Design_Guidelines_and_Design_Spreadsheet)).

## 5. Miscellaneous Structures

Specific project requirements may dictate the use of special purpose structures for erosion control (e.g. drop structures and riprap), sediment control (e.g. sediment basins and BMPs) and flood control (e.g. water level control structures and detention basins). Hydraulic design of these structures is of a specialized nature, and their design and/or requirement is not specifically addressed within **Minn. Stat. § 103E** (<https://www.revisor.mn.gov/statutes/?id=103E>). Therefore, the design of these structures is not discussed in detail within this manual.

## 6. Channel Geometry

Channel dimensions are generally a function of hydraulic design requirements. However, side slopes for the trapezoidal shaped ditch can be dictated by other factors. Soil slope stability considerations may dictate flatter side slopes to prevent sloughing. An acceptable design side slope, which is consistent with soil stability, can be determined by a geotechnical analysis of soil boring samples taken along the ditch alignment.

However, the engineer can base the design of the side slope on past experience in the area with acceptable risk. This is a commonly accepted practice in Minnesota. Slope stability can also be enhanced by spreading the ditch excavation spoil in a thin layer along the ditch bank or by leaving a berm.

Other factors affecting the design ditch side slope include:

- The amount of right-of-way necessary (economic);
- Ease of maintenance for tractors and mowers;
- Minimization of snow blockage (early spring opening);
- Vehicle recovery zone safety; and
- Regional practices

## 7. Vegetated Ditch Buffer Strips

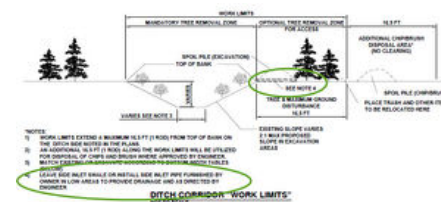
The drainage code requires in **Minn. Stat. § 103E.021, Subd. 1** (<https://www.revisor.mn.gov/statutes/?id=103E.021>), that, in any proceeding to establish, construct, improve, or do any work affecting a public drainage system under any law that appoints viewers to assess benefits and damages, the authority having jurisdiction over the proceeding shall order spoil banks to be spread consistent with the plan and function of the drainage system. The permanent strips of perennial vegetation must be a minimum of one rod (16.5 feet) in width measured from the top edge of the constructed channel, or to the crown of the leveled spoil bank (whichever is greater).

The above requirement applies whenever viewers are appointed for new ditch construction or modifications to existing drainage systems. Since some Repair proceedings require viewers to assess benefits and damages, repairs completed under those circumstances must provide for the grass buffer strip.

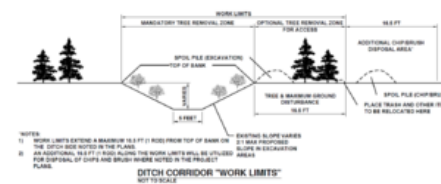
*Note: Minn. Stat. § 103F.48 Subd. 3* (<https://www.revisor.mn.gov/statutes/?id=103F.48>) requires the establishment of a 16.5-foot-wide buffer along any Chapter 103E ditch prior to November 1, 2018. Therefore, it is recommended that buffers be established in conjunction with any public drainage system project per the compliance required under this statute. More information regarding the applicability of this statute in relation to **Minn. Stat. § 103F.48** (<https://www.revisor.mn.gov/statutes/?id=103F.48>) is found in **Appendix 12** ([http://drainage.pca.state.mn.us/index.php/Appendix\\_12:\\_Drainage\\_Law\\_Buffer\\_Law\\_and\\_Public\\_Drainage\\_Ditch\\_Buffer\\_Strips\\_\(BWSR\\_Drainage\\_Work\\_Group\)](http://drainage.pca.state.mn.us/index.php/Appendix_12:_Drainage_Law_Buffer_Law_and_Public_Drainage_Ditch_Buffer_Strips_(BWSR_Drainage_Work_Group)))).

The figure below illustrates the grass buffer strip requirement described in Drainage Law. The top and middle portions of this figure represent a typical open field public ditch commonly found along property lines or some other location. The top portion of Figure 3-3 illustrates that more than 16 1/2 feet of grassed strip is mandated because the grass buffer strip must go to 16 1/2 feet from the top of the ditch bank, or to the crown of spoil bank, whichever is the greater of the two. In the middle example, the top of bank to crown of spoil is less than the minimum of 16 1/2 feet; the grass buffer strip must therefore extend beyond the crown of spoil to get the required 16 1/2 foot width.

When a road is located adjacent to an open ditch, the situation becomes less clear, as shown in the bottom illustration of the figure. The buffer for the field side of the ditch follows as stated above. However, on the roadway side it may be infeasible to establish a full buffer (or any buffer at all) at the top of the ditch bank due to the proximity of the roadway. In such situations, we must consider the intent of the grassed buffer strip provision, which is to minimize wind-blown topsoil from entering the ditch, prevent agricultural encroachment, and to minimize washing soil into the ditch. Because the roadway by its very nature serves these purposes, and since it would be infeasible to establish the buffer under these circumstances, no grassed strip



This figure shows a side inlet in detail.



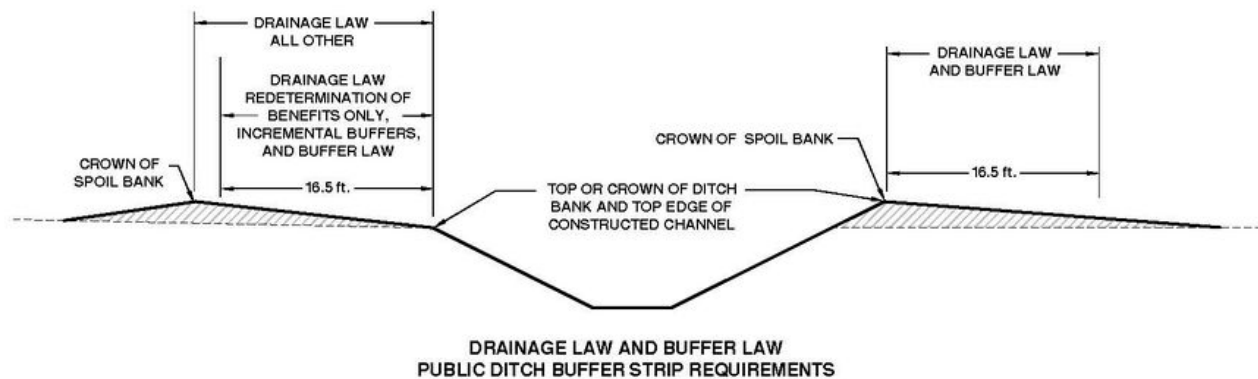
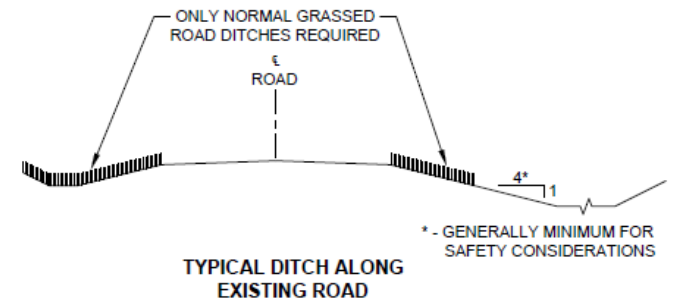
This figure shows a typical cross section in detail.

need be required along the roadway side of the open ditch.

**Chapter 5** ([http://drainage.pca.state.mn.us/index.php/Chapter\\_5](http://drainage.pca.state.mn.us/index.php/Chapter_5)) provides additional information on the design of the buffer strip, including type of vegetation and prevention of erosion prior to establishment.



Since some Repair proceedings require viewers to assess benefits and damages, repairs completed under those circumstances must provide for the grass buffer strip per Minn. Stat. 103E. *Photo courtesy of BWSR.*



## FOOTNOTES



<sup>2</sup>. Subsequent to the development of the TR-20 model, the Soil Conservation Service was reestablished as the “Natural Resource Conservation Service” (NRCS). The historic TR-20 is no longer supported by the NRCS. However, the SCS method of unit hydrograph generation and the TR-20 routing methodology are still utilized by many proprietary hydrology and hydraulics models.

<sup>3</sup>. The *Mn/DOT Drainage Manual* specifies design criteria which are required for state-aid funded projects and roadways. These design criteria are not required for most public drainage system construction but serve as a good starting point for establishing design criteria on a drainage project.

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