

Preliminary Engineer's Report

County Ditch No. 103 Improvement High Island Creek Watershed District Renville County, Minnesota

26X.142636.000

August 2026



Real People. Real Solutions.

Submitted by:

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Certification

Preliminary Engineer's Report

For

County Ditch No. 103 Improvement

In

High Island Creek Watershed District
Renville County, Minnesota

26X.142636.000

August 2026

PROFESSIONAL ENGINEER

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.

Signature: Bill L. Helget

Typed or Printed Name: Bill L. Helget

Date: 8/14/2026 License Number: 42046

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STATE OF MINNESOTA

RENVILLE COUNTY

IN THE MATTER OF THE PETITION FOR IMPROVEMENT OF COUNTY DITCH NO. 103 WITHIN THE HIGH ISLAND CREEK WATERSHED DISTRICT:

In June 2026, High Island Creek Watershed District (HICWD), acting as the Drainage Authority for County Ditch No 103 (CD 103) in Renville County, in accordance with Minnesota Statute 103E.215, accepted a petition for the Improvement of portions of CD 103. Subsequent to that authorization, field surveys were performed to obtain elevations and establish an alignment for the proposed drain tile improvements, as well as to evaluate the outlet for the system.

This Preliminary Engineer's Report summarizes the findings of the research, surveys, and analysis for the Improvement and is submitted for consideration by the Drainage Authority.

I. LOCATION AND SCOPE OF THE IMPROVEMENT

County Ditch No 103 (CD 103) lies within and provides drainage to a watershed in the south-east portion of Renville County. The proposed project location lies within and provides drainage to Section 28, 29, and 32 of Martinsburg Township. The system consists of 5,081' of drainage tile. The outlet for CD 103 is CD 103 Main Open Ditch in section 28 of Martinsburg Township in Renville County. The project is located about 6.4 miles south of Hector, Minnesota. The total estimated watershed for the system based on Lidar contour data, is 293 acres. Exhibit 1 shows the general location of CD 103 and the proposed project.

Field survey information was collected by Bolton & Menk, Inc. in April of 2026. The survey included GPS locations and elevations for the outlet of the tile and for private and public intakes on the system. The tile system design utilizes Lidar data, provided by the Minnesota Department of Natural Resources. This data, obtained from an aerial flight, results in contours of equal elevation at 2' vertical intervals.

II. EXISTING DITCH SYSTEM

Public records regarding County Ditch No 103 were reviewed from Renville County. CD 103 was petitioned for establishment on March 18, 1948. Original benefits for the system were \$27,700.

High Island Creek Watershed District was established in 1957. CD 103 was then included in High Island Creek Watershed District's drainage authority. Current benefits for the CD 103 system (not the overall High Island Creek Watershed) are \$1,728,209.49 and were established in August 2025.

III. CONDITION OF THE EXISTING DRAINAGE SYSTEM

The petitioners have requested ditch system improvements because the existing tile infrastructure is in poor condition, exhibits inadequate hydraulic capacity, and is undersized relative to current drainage demands. The portion of the CD 103 system proposed to be improved consists of underground tiles. This Improvement will replace an existing tile system that currently has broken tile, quarter cracks, longitudinal cracks, offset joints, and sags. These broken tiles, cracks, and offset joints have allowed for roots and broken tile pieces to obstruct flow within the system. Image examples of these issues can be found in Exhibit 7.

Table 1 below shows the existing capacity for the CD 103 Tiles proposed to be improved. As a way of evaluating the capacity of the existing tile system, an analysis has been performed of the existing system using standard engineering methods. The capacity of the existing tile has been estimated using the Manning's equation, assuming the original hydraulic efficiency of the system as constructed and subsequently improved. Estimated tile sizes and grades are based on the original design plans supplemented with limited field data collected through tile intakes and general surface grades. The amount of drainage which is needed for modern crop production has been compared to the 3/8-inch runoff per day standard allowed by High Island Creek Watershed District. The watershed areas have been estimated using DNR Lidar maps.

Table 1: Existing System Capacity						
CD 103 Branch	Location	Total Drainage Area (Acres)	Existing Tile Size (Inches)	Existing Grade (%)	Calculated Capacity (CFS) n=0.013	Calculated Coefficient (In. Per Day)
Main	End of pipe to 115-ft West of TH 4	101	8	0.10	0.38	0.09
	115-ft West to 770-ft East of TH 4	139	10	0.10	0.69	0.12
	770-ft to 1430-ft East of TH 4	175	12	0.10	1.13	0.15
	1430-ft to 2060-ft East of TH 4	277	14	0.10	1.70	0.15
	2060-ft East of TH 4 to Open Ditch	293	16	0.10	2.43	0.20

As can be seen from Table 1 above, the system is unable to drain the watershed even if it was in good repair. When compared to the allowed High Island Creek Watershed District standard of 3/8 inch per day, the tile main outlet delivers only about 53% of the allowed flow, based on the estimated tile size and grade. The average efficiency of the Main tile is 38%. Therefore, there is inadequate capacity in the existing drainage system to provide for the efficient production of row crops. The result of this insufficient capacity is extended ponding in the low areas of the watershed and inadequate drainage of the tile lines which drain into the ditch system, thus resulting in crop stress and crop loss. Since there is evidence that the pipe system is in poor repair, allowing sediment to enter joints and partially plug the tile, the system is likely delivering even less flow than has been calculated.

IV. DISCUSSION OF THE IMPROVEMENT

As discussed earlier, the petitioners for the improvement of CD 103 have requested consideration for the construction of an improved tile system to increase the capacity to provide an adequate outlet. The proposed construction would consist of a drain tile reconstruction and improvement. A preliminary survey and the hydrologic and hydraulic analysis of such a drainage system was performed to establish preliminary grades and depths for the tile system. They were also used to determine quantities for construction of such a system, to determine the size of proposed tile lines, and analyze the outlet. General observations and results of the analysis are summarized as follows:

A. DESCRIPTION

As shown in Exhibit 1, the proposed Improvement consists of 10-inch to 24-inch diameter tile to replace the function of the existing CD 103 main tile from the outlet to the upper end. The township road crossings will be constructed by open trench methods, and the road surface restored with class 5 gravel. The trunk highway crossing will be completed by trenchless methods. The new tile will be constructed at a lower elevation than the existing

tile in order to allow all existing tiles to be connected to the new tile, to accommodate adequate drainage, to accommodate current farming practices and to provide more ground cover over the new tile to reduce the probability of crushing.

B. DESIGN DATA – TILE IMPROVEMENT

The proposed drain tile Improvement is shown in Exhibit 1. The type of pipe to be used for construction will be bid with a contractor option as follows:

1. Dual Wall or Triple Wall Polypropylene Drain Tile meeting the requirements of the American Society for Testing Materials F2376. Pipe will be bedded in granular foundation rock.
2. Dual Wall Polyethylene Drain Tile meeting the requirements of the American Society for Testing Materials F 2648. Pipe will be bedded in granular foundation rock as shown on Exhibit 1. Non-perforated pipe will be used in most areas (see Exhibit 1). The perforated pipe will include micro perforations/slots to avoid granular infiltration into the pipe. An option would be provided for the contractor to shape the bottom of the trench to conform to the pipe and reduce some of the granular bedding if the pipe manufacturer would warrant the material installation.
3. Reinforced concrete pipe meeting the requirements of MnDOT Specification 2501, with the joints being covered with geotextile fabric or gasketed.

As can be seen in Table 2, the tile capacity for the Improvement System reflects a drainage coefficient of 3/8-inches/day. This capacity is based on the High Island Creek Watershed District 3/8-inches/day allowed drainage coefficient.

Table 2: Proposed System Capacity						
CD 103 Branch	Location	Total Drainage Area (Acres)	Proposed Tile Size (Inches)	Proposed Grade (%)	Calculated Capacity (CFS) n=0.012	Calculated Coefficient (In. Per Day)
Main	End of pipe to 115-ft West of TH 4	101	12	0.17	1.60	0.38
	115-ft West of TH 4 to Cross Connect	161	15	0.14	2.63	0.39
	Cross Connect to 2060-ft East of TH 4	277	24	0.07	6.50	0.56
	2060-ft East of TH 4 to Open Ditch	293	24	0.04	4.91	0.40

Note that the 10-inch run as shown in the attached plans (Exhibit 1) is set at the proposed slope to allow for the pipe to be laid shallower. Additionally, the run from the cross-connect to 2060-ft East of Trunk Highway (TH) 4 has a greater slope than recommended to allow for a 2 feet/second velocity within the pipe. The outlet pipe is set at a flatter slope and may have issues with material build up within the pipe, but it is set at that slope to restrict the open channel flow within the system to the specified standard.

Also included, as part of the project, there will be provisions to strip and replace the topsoil on the trench area, to provide rip rap as erosion protection at the outlet, and to construct several intakes on the system. It is proposed to use short intake covers for the larger intakes, use wyes at the tile connections, and the outlet pipe is proposed to be angled downstream.

C. ABANDONING THE EXISTING TILE

The existing tile that is proposed to be improved will be abandoned and decommissioned at

intervals of 200 feet along the tile alignment. Specifically, plugs will be installed where the proposed alignment will make a cross-connect to the existing tile. Note that the outlet to the open ditch will be removed as well. Additionally, the existing crossing of Trunk Highway 4 will be sand filled and plugged. However, a section of tile is to remain in place, and will become a private tile line. This section is in between Trunk Highway 4 and the cross-connection. This section is to stay in place to allow for the tile reroute that is accommodating additional depth within the system.

D. TILE SYSTEM DEPTH

Exhibit 1 shows profile views for the proposed tile system. The minimum and maximum depths of cut to the flow line of the pipes are shown on Table 3.

Table 3: Tile System Depth		
Tile Branch	Minimum Depth	Maximum Depth
Main	5.0'	15.6'

V. ALTERNATE SOLUTIONS

A. "DO NOTHING ALTERNATIVE"

The "Do Nothing" Alternative has been discussed. However, the petitioners have experienced poor drainage throughout the drainage system for many years with the excess surface water damaging crops and resulting in frequent crop stress or crop loss. This loss of production equates to an economic loss for Renville County and the State of Minnesota. The loss results in a reduced property value for the wet acres, thus affecting the taxing capacity of the County and State. In addition, the ability of the landowners to receive a reasonable return on their investment is diminished because of this inadequate drainage.

As stated previously, the existing pipe is in poor repair. It is our recommendation, from the observations of the landowners and Renville County staff, that the system is in need of replacement due to the condition of the tile. Mainly that the joints are offset causing additional debris buildup and thereby plugging the tile.

For these reasons, the "Do Nothing" alternative has been dismissed. The economic question of the cost of the Improvement versus the benefits derived still needs to be evaluated. However, the "Do Nothing" alternative is not viewed as solving the drainage problem in the watershed.

B. REPAIR

Separable Maintenance for this project is estimated at \$418,846. A repair would only work as well as was discussed in Section III of this report. Repairing the system to its as constructed system, would not account for changing rainfall patterns or for additional waters being discharged into the system. Current design standards for rural drainage and as allowed by the High Island Creek Watershed District are for a drainage coefficient of 3/8 inch/day. From Section III the current tile outlet is approximately 53% efficient for a 3/8 inch/day coefficient. With some sections of the main tile only having 24% efficiency for the 3/8 inch/day coefficient. Therefore, we do not recommend going with a repair option, since the repaired system would not meet the High Island Creek Watershed District allowed drainage coefficient of a 3/8 inch/day.

C. WETLAND RESTORATION

Another alternative would be to restore the typically flooded areas of the watershed to

wetland use. This alternative would provide storage in the watershed depressional areas for the water that is currently accumulating in these areas and drowning out agricultural crops. The proposal would also have added benefits for wildlife and possibly water quality.

Currently wetland locations have not been identified due to the lack of interest within the watershed. For wetlands to be a viable option, finding willing landowners is the most important step in the design process. Without willing landowners, general locations within the watershed can be discussed, but design work and modeling will not be pursued.

To be effective, this alternative would need to restore sufficient acres to wetland use so that the existing ditch system could convey the excess runoff. Utilizing NRCS data, about 27 acre feet of water cannot be discharged from the CD 103 watershed through the existing drainage systems in a 48-hour period for a 5-year rain event. If sufficient wetland acres were available to store this runoff at a maximum depth of 1.5 feet, approximately 18 acres of wetland restoration would be needed to provide sufficient storage capacity for the excess runoff.

To convert the 18 acres to wetlands, at least twice this many acres would need to be acquired. This is due to multiple factors including irregular wetland shapes, marginal damp soils, and squaring off land for modern farming practices. Thus, about 36 acres of land would be needed. This acquisition would likely involve several properties, whose owners would voluntarily need to agree to the reversion. The estimated cost of acquisition plus reconstructing tile lines for wetland conversion would likely be about \$18,000 per acre, resulting in a total cost of about \$648,000, note that this cost only accounts for land acquisition, minor grading work, and seeding. Additional costs would be required for additional depth, repairing the existing tile, and to provide an outlet. Wetland restoration with a Repair to the system is about 2.2 times the estimated cost of the Improvement.

The system does not currently contain locations where water naturally pools to a depth greater than a foot and half. Therefore, if a depth of 4.5 feet were pursued it would cost approximately \$33,000 per acre-foot of construction and acquisition costs. So, if a wetland at a depth of 4.5 feet would be created, 12 acres of property would need to be acquired, and an additional 3 feet of excavation would need to take place over the area. The total cost of this wetland creation route would be \$396,000. The cost of a deeper wetland creation and the cost to Repair the tile system is roughly 1.7 times the estimated cost of the Improvement.

Wetland restoration by itself is not a viable option for providing an improvement to the system. Due to the existing tile being in poor repair the cost to repair should be included when discussing this option in terms of cost.

To be a benefit to the system it is important that the wetlands being created are in the upper part of the watershed and outside of the existing groundwater table. Finding willing landowners to participate in a restoration project and locating sufficient funding would be critical to make this option viable. Copies of this Report will be provided to the SWCD and NRCS so that early coordination can occur for potential funding and technical assistance toward this option.

VI. OTHER CONSIDERATIONS

A. PERMIT REQUIREMENTS

A permit from the Minnesota Pollution Control Agency for stormwater and erosion control for the project would be necessary. This permit requirement, which applies to any

construction which disturbs more than one acre of land, requires that the contractor and owner secure a permit for the work. The permit process will also require erosion control measures to be taken during construction. Typical erosion control measures include placing of riprap and grass stabilization of the ditch bank and inlet protection around installed inlet areas. The fee for this permit is currently \$400.00. This permit will be applied for shortly before construction is scheduled so the contractor can sign the permit application.

A permit from MnDOT will also be necessary for the crossings of Trunk Highway 4 (TH 4) This permit will be applied for after the Final Hearing.

B. WETLANDS

National Wetland Inventory (NWI) Maps have been reviewed to locate potential wetlands subject to regulations. One wetland was shown on the NWI maps near the Improvement alignment. However, this wetland is at the outlet and will not be impacted by the improved drainage. If wetlands are identified all piping running directly through must be non-perforated. Along with this, all intakes that are within the wetland can be reinstalled at the same nominal size.

Impacts of the potential drainage system on individual land parcels will be evaluated by the Natural Resources Conservation Service upon filing of a Form AD 1026 by landowners. This NRCS process will identify any wetlands and measures which need to be taken in order for the drainage project to avoid impact to these wetlands. Because of federal data privacy requirements, it is not possible for non-landowners to obtain this information. Thus, the obligation for filling out these forms and doing this investigation will rest with individual landowners.

Drainage of wetlands not directly impacted by the project will be controlled by supplemental drainage systems installed by private owners. Owners are advised that such supplemental drainage may not be permitted under State Wetland Conservation Act, US Army Corps of Engineers and NRCS rules and may affect US Department of Agriculture program eligibility.

C. PUBLIC AND PRIVATE BENEFITS AND COSTS

The estimated cost of the proposed Improvement to CD 103 is shown in Exhibit 3 of this report. Benefits for the Improvement, both public and private, will be established by the viewers and a report will be available at the final hearing.

Landowners certainly have other costs associated with construction and maintenance of their individual drainage systems. The proposed Improvement would only serve as an outlet or collector of runoff and drainage flow from the lands within the watershed. Each landowner is responsible to construct and maintain their own drainage system in order to adequately drain their farmlands. Individual benefits for an adequate drainage system are in increased crop production from farmlands.

The estimated cost of the proposed Improvement is included in this report. The public and private benefits and damages will be available at the final hearing.

D. AGRICULTURAL EFFECTS

Once installed, the lands within the improved watershed will be largely dependent on this drainage system for both surface and subsurface drainage flows. Thus, it is imperative that the proposed system have adequate capacity in order to allow for modern farming operations.

It should be noted that many of the established ditch systems in Minnesota are now 70 to

100 years old. These systems are approaching the need for complete repair or replacement if the farmland is to remain productive. When feasible, it is economically imperative that these drainage systems be improved to become compatible with present day farming techniques and they be continually maintained. If properly maintained during normal growing seasons, portions of the agricultural lands in the watershed are some of the most productive in the State of Minnesota.

E. ALTERNATIVE MEASURES

Alternative measures, including those identified in the Comprehensive Watershed Management Plan for the Lower Minnesota River West Partnership, have been considered in conjunction with this project. Specific proposals as part of the project to incorporate these measures include:

1. Measures to conserve, allocate and use drainage waters include the use of non-perforated tiles for the deeper installations so that groundwater is preserved for crop use and the continued infiltration which will occur in depressional areas of the watershed.
2. Measures to reduce downstream peak flows and flooding include the use of hickenbottom risers on intakes which limit the flow capacity of tile intakes, limiting the capacity of the proposed tiles to the minimum allowed standard of the High Island Creek Watershed District.
3. Measures to provide adequate drainage system capacity are being accomplished by designing the size of the tile system to meet the allowed standards of the High Island Creek Watershed District.
4. Measures to reduce erosion and sedimentation include the use of hickenbottom risers on the tile intakes which result in reduced discharge of suspended solids, the restoration of the tile trench as soon as possible so that surface erosion of the disturbed soil is reduced, the use of inlet protection during the construction so that the discharge of suspended solids is reduced and the use of a rock filter at the outlet during construction so that suspended solids are captured. Straw mulch will also be utilized to temporarily stabilize the disturbed areas until they can be turned back over to agricultural production.

F. FISH AND WILDLIFE

The threatened or endangered species having the potential to be in Renville County at the time of this report are the northern long-eared bat, and the prairie bush clover. According to the Minnesota DNR, there are no known northern long-eared bat roost trees or hibernacula in Renville County. Additionally, there are no trees to be removed as a part of the improvement, so there is no anticipated impact on the northern long-eared bat. The prairie bush clover is found within native prairies on well drained soils. The project will take place within agricultural fields, so no impact on the prairie bush clover is anticipated. Bald eagles are present in Renville County and are protected under the Bald and Golden Eagle Protection Act. Again, there are no trees to be removed as a part of the improvement, so there is no impact to the bald eagle.

Field investigation has revealed that the only permanent wildlife habitat in the area of the Improvement is along the road ditches and building sites. These areas will not be impacted by the improvement.

Current wet areas within the project watershed do provide for transitory stop over locations for migratory waterfowl. However, these areas currently dry up following wet periods and

are then under cultivation and production. It is anticipated that some of these temporary ponding areas will still exist after the construction of the Improvement although ponding times will likely be reduced. Therefore, the provisions for adequate drainage of these lands will not be of a detrimental nature to local wildlife resources.

G. GROUNDWATER

The purpose of an agricultural drainage system is to maintain the elevation of the shallow groundwater table sufficiently below the surface to provide for efficient production of crops. The level at which the groundwater will be maintained has been and will be determined by the depth of the tile system and private tiles in the area. Although the proposed Improvement is somewhat deeper than the existing tiles in the areas, the depth increase is not significant or unusual for drainage systems. Additionally, tiles that have a depth of 6 feet or greater to the invert of the pipe will be non-perforated. Therefore, no change in the availability, distribution or use of the shallow groundwater beyond that necessary for the sufficient production of crops within the watershed is anticipated by this construction.

H. ENVIRONMENTAL IMPACT

The adverse effects of the proposed Improvement are of a temporary nature and are listed as follows:

1. Disturbing the ground surface during construction could result in the loss of one crop within the construction limits.
2. The restored trench area will be less productive for the first few years following construction and will require more fertilizer to be as productive as the undisturbed adjoining farmland. The topsoil in this area will be removed and replaced in an effort to maintain the soil productivity.
3. Temporary noise and dust generation can be expected from the construction operations. These impacts are not viewed as significant since there are few residences near the proposed construction route.
4. Temporary erosion of soil may occur in the construction area until permanent ground cover and ground stabilization occurs. Although these effects need to be considered, they are probably not significantly different than the current topsoil loss that occurs annually from erosion of topsoil due to overland flow in the watershed. This construction erosion will be minimized using inlet protection, riprap and rapid establishment of permanent grass cover.

Numerous beneficial effects are anticipated from the proposed Improvement. Most of these benefits are directly attributable to increased crop production from lands presently damaged through periodic flooding and ponding. Among the most obvious benefits are:

1. Increased personal farm income.
2. Increased value of benefited farmland.
3. Contribution to the local economy through additional purchases, farm modernization and expansion.

I. LAND USE

The present use of the land in the CD 103 watershed is largely agricultural. It is expected that the land will continue to be used for agricultural purposes in the future.

J. GUIDANCE TO VIEWERS REGARDING IMPROVEMENT BENEFITS

Discussions with the landowners in the CD 103 system and county staff have provided evidence of the condition of the existing tile system. Previous repairs on the tile have shown that the existing tile is out of repair. In addition, years of use and settlement of sections of the tile have reduced the hydraulic capacity of the tile. Even if CD 103 had not been petitioned for improvement, a repair is warranted.

Another way to describe this is related to the benefit of avoiding inevitable repair/reconstruction costs on the ditch. Since repair of the system, as required by Minnesota Statute 103E.705, would otherwise be paid for by the entire drainage system in order to restore the system to its as constructed, and subsequently improved, hydraulic efficiency, the cost of repair may be used to offset a portion of the improvement cost. Thus, the cost of the new tiles may be added as benefit since it avoids costs otherwise required to repair the system. With this information, it is the intent of the Improvement to replace the existing tile. Thus, a portion of the cost of the new CD 103 tiles should be allocated as a Repair cost. The application of this principle is known as Separable Benefits under the ditch statutes.

The amount of the Improvement which can be allocated to Separable Benefits is shown in Exhibit 4 as \$418,846. It is recommended that the Board apply these Separable Benefits to the Improvement in the further ditch proceedings.

VII. ADEQUACY OF THE OUTLET

A. GENERAL INFORMATION

As mentioned earlier, the outlet for CD 103 tile is into the open ditch of CD 103 in Section 28 of Martinsburg Township. The Main open ditch of CD 103 then becomes Judicial Ditch 11 Lateral A in Section 21 of Martinsburg Township.

B. ADEQUACY OF THE OUTLET

The adequacy of County Ditch 103 to accept the additional flow resulting from the Improvement has been evaluated as required by the ditch statutes. This evaluation has been performed in the following manner:

1. The watershed contributing was delineated using the US Geological Survey "StreamStats" program and 3-meter Lidar information retrieved from the DNR. StreamStats was used only for guidance and to determine the watershed contributing to CD 103 open ditch outside of the project watershed.
2. The proposed and existing conditions were modeled in HydroCAD. It is worth noting that HydroCAD often overestimates the discharge rates compared to other models and calculation methods.
3. Rainfall data was retrieved from NOAA Atlas 14 by using Hector, Minnesota as the data center point.

The change in outlet discharge can be seen in the table below. The modeled outlet for the system is the CD 103 Open Ditch crossing of 740th Avenue. The reason that the crossing was chosen was due to a more accurate representation of the change in flows within the open ditch. Taking the first crossing downstream also limits the impact of additional waters being added to the ditch.

Table 4: Change in Outlet Capacity			
Storm Event	Existing Discharge Rate (cfs)	Proposed Discharge Rate (cfs)	Change in Discharge Rate (cfs)
5-year	164	166	+ 2
10-year	179	182	+ 3
25-year	206	208	+ 2
50-year	221	222	+ 1
100-year	231	232	+ 1

As can be seen from Table 4, the construction of the new tile will increase the flows in CD 103 for all storm events. Table 5 shown below shows the change in headwater elevation for the crossing of 740th Avenue.

Table 5: Change in Headwater Elevation			
Storm Event	Existing Headwater Elevation (ft)	Proposed Headwater Elevation (ft)	Change in Headwater Elevation (ft)
5-year	1079.9	1080.0	+ 0.1
10-year	1080.6	1080.6	0.0
25-year	1081.3	1081.3	0.0
50-year	1081.8	1081.8	0.0
100-year	1082.3	1082.3	0.0

There is no recorded average daily traffic (ADT) for 740th Avenue at this location. However, even the 100-year event does not overtop 740th Avenue. Therefore, the crossing is adequate to receive the additional flow shown in Table 6. Note that the only increase in Headwater at the 740th Avenue crossing was for the 5-year event, all other events remained the same headwater elevation.

Table 6: Change in Flow Volume			
Storm Event	Existing Flow Volume (ac-ft)	Proposed Flow Volume (ac-ft)	Change in Flow Volume (ac-ft)
5-year	119	111	- 8
10-year	151	142	- 9
25-year	202	193	- 9
50-year	247	237	- 10
100-year	298	288	- 10

The MnDNR has frequently requested flow data during the hearing process. As shown in the table above, the proposed improvement reduces the modeled total runoff volume reaching the ditch. This is only possible due to current conditions of the site not being adequately drained as previously stated in this report. In a well-drained condition, the site goes from predominately D soils to C soils. This represents a change of 4 to the curve number, reducing the peak discharge of our initial runoff calculations and increasing the time of concentration.

A lower curve number reflects improved watershed conditions. Areas that previously experienced prolonged ponding because of poor drainage are expected to have shorter ponding durations, allowing crops to remain healthy. Healthy agricultural crops generate less runoff than bare fields, standing water, or stressed crops because they increase evapotranspiration.

Although the larger tile outlet slightly increases peak discharge rates for all modeled events, the overall flow volume is reduced because of improved soil conditions and

evapotranspiration. The only modeled increase in downstream stage occurs during the 5-year event, the smallest event required for evaluation. Therefore, in our opinion, the outlet is adequate.

VIII. ESTIMATE OF COST

The Improvement cost estimate to construct the proposed Improvement, as described in this report, is shown in Exhibit 3. The total estimated cost for the Improvement is \$501,956. That price includes the cost of administration and engineering fees.

Included in the estimate are the approximate 12.01 acres of agricultural land which will be temporarily taken out of production by construction. The individual landowners will be compensated for this loss through the damage process of further ditch proceedings.

IX. RECOMMENDATIONS

The proposed Improvement of CD 103 in Renville County, as described in this report, is feasible, practical and necessary to provide drainage for the cultivation of crops within the watershed area. The existing tile system is in need of an Improvement to provide proper drainage for current agricultural practices.

It is the recommendation of your engineer that the Preliminary Engineer's Report be approved and the Board order the preparation of the Final Engineer's Report and appoint Viewers to determine the benefits and damages.

Exhibit 1: Preliminary Plans and Profiles

HIGH ISLAND CREEK WATERSHED DISTRICT

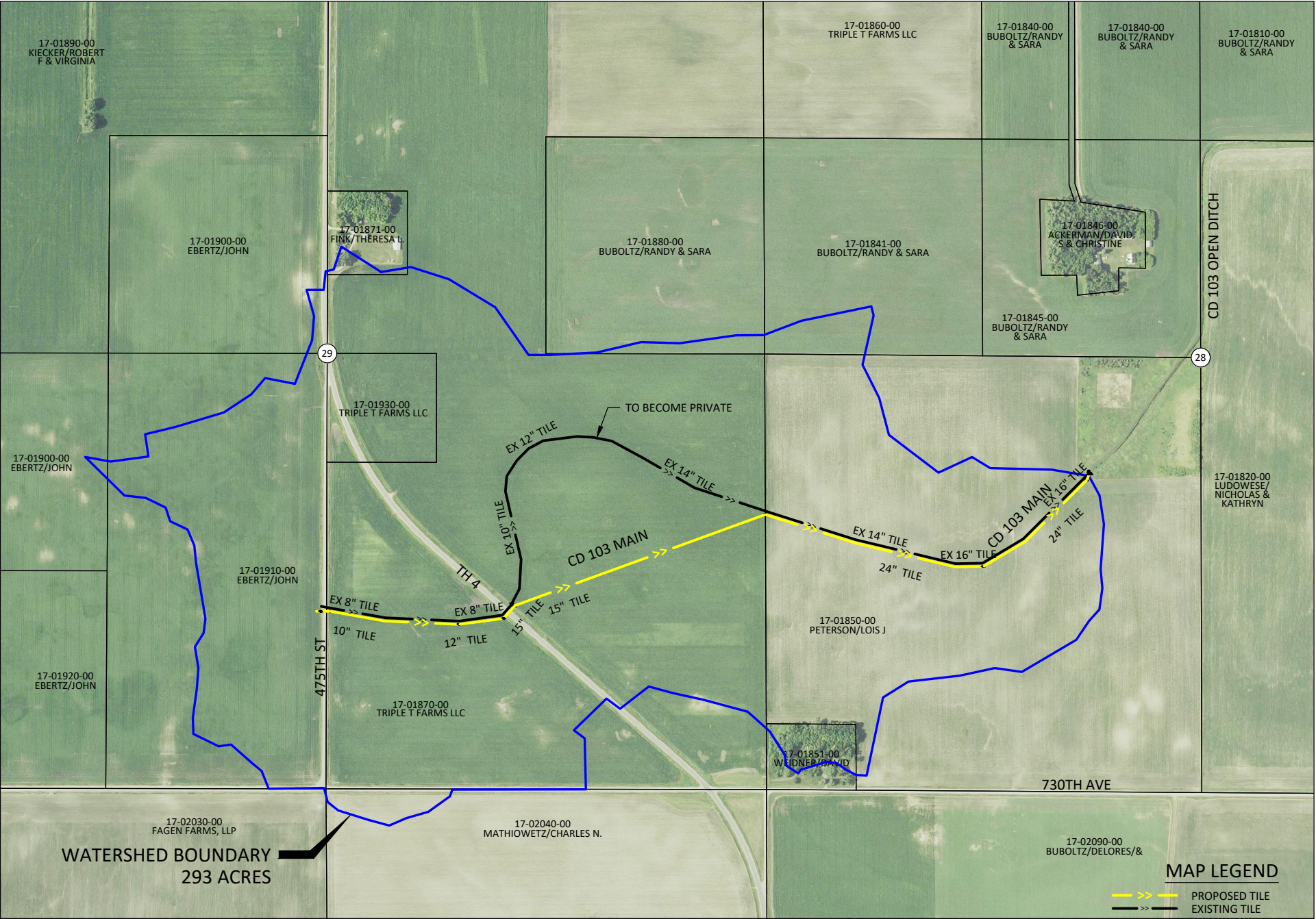
PRELIMINARY PLANS FOR

COUNTY DITCH 103 IMPROVEMENT

DRAIN TILE, SURFACE INTAKES, AND EROSION CONTROL

MARTINSBURG TOWNSHIP (T114N, R32W)

AUGUST, 2026



SHEET NUMBER **SHEET TITLE**

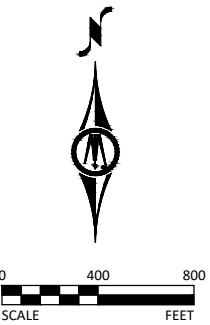
- GENERAL**
- G0.01 - G0.02 TITLE SHEET, LEGEND
- G1.01 SPECIAL PROVISION
- CIVIL**
- C1.01 - C1.02 DRAIN TILE DETAILS
- C2.04 EROSION CONTROL PLAN

DRAIN TILE PLAN & PROFILE

C5.01 - C5.02 CD 103 MAIN

THIS PLAN SET CONTAINS 8 SHEETS.

PARTIAL MAP OF
RENNVILLE COUNTY, MN



NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL, 1-800-252-1166 OR 651-454-0002.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL "D". THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES."

MAP LEGEND

- >>— PROPOSED TILE
- >>— EXISTING TILE

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BILL L. HELGET

LIC. NO. 42046 DATE 07/02/2026



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SLEEPY EYE, MN 56085
Phone: (507) 810-4184
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
JGB			
DRAWN			
JGB			
CHECKED			
BLH			
CLIENT PROJ. NO.			
26X.142636.000			

PROJECT DATUM: RENVILLE CO COORDINATES HORIZONTAL: NAD83 (2011) VERTICAL: NAVD88	RECORD DRAWING INFORMATION		
	OBSERVER:		
	CONTRACTOR:		
	DATE:		
HIGH ISLAND CREEK WATERSHED DISTRICT			SHEET G0.01
COUNTY DITCH 103 IMPROVEMENT			
TITLE SHEET			

EXISTING TOPOGRAPHIC SYMBOLS

	ACCESS GRATE		REGULATION STATION GAS
	AIR CONDITION UNIT		SATELLITE DISH
	ANTENNA		SIGN TRAFFIC
	AUTO SPRINKLER CONNECTION		SIGNAL CONTROL CABINET
	BARRICADE PERMANENT		SOIL BORING
	BASKETBALL POST		SIREN
	BENCH		TELEPHONE BOOTH
	BIRD FEEDER		TILE INLET
	BOLLARD		TILE OUTLET
	BUSH		TILE RISER
	CATCH BASIN RECTANGULAR CASTING		TRANSFORMER-ELECTRIC
	CATCH BASIN CIRCULAR CASTING		TREE-CONIFEROUS
	CURB STOP		TREE-DEAD
	CLEAN OUT		TREE-DECIDUOUS
	CULVERT END		TREE STUMP
	DRINKING FOUNTAIN		TRAFFIC ARM BARRIER
	DOWN SPOUT		TRAFFIC SIGNAL
	ELECTRIC CAR CHARGE STATION		TRASH CAN
	FILL PIPE		UTILITY MARKER
	FIRE HYDRANT		VALVE
	FLAG POLE		VALVE POST INDICATOR
	FLARED END / APRON		VALVE VAULT
	FUEL PUMP		VAULT
	GRILL		VENT PIPE
	GUY WIRE ANCHOR		WATER SPIGOT
	HANDHOLE		WELL
	HANDICAP SPACE		WETLAND DELINEATED MARKER
	IRRIGATION SPRINKLER HEAD		WETLAND
	IRRIGATION VALVE BOX		WET WELL
	LIFT STATION CONTROL PANEL		YARD HYDRANT
	LIFT STATION		
	LIGHT POLE		
	MAILBOX		
	MANHOLE-COMMUNICATION		
	MANHOLE-ELECTRIC		
	MANHOLE-GAS		
	MANHOLE-HEAT		
	MANHOLE-RECLAIMED WATER		
	MANHOLE-SANITARY SEWER		
	MANHOLE-STORM SEWER		
	MANHOLE-UTILITY		
	MANHOLE-WATER		
	METER		
	DRIVE-THRU MICROPHONE		
	PARKING METER		
	PAVEMENT MARKING		
	PEDESTAL-COMMUNICATION		
	PEDESTAL-ELECTRIC		
	PEDESTRIAN PUSH BUTTON		
	PICNIC TABLE		
	POLE-UTILITY		
	POST		
	RAILROAD SIGNAL POLE		

PROPOSED TOPOGRAPHIC SYMBOLS

	CLEANOUT
	MANHOLE
	LIFT STATION
	STORM SEWER CIRCULAR CASTING
	STORM SEWER RECTANGULAR CASTING
	STORM SEWER FLARED END / APRON
	STORM SEWER OUTLET STRUCTURE
	STORM SEWER OVERFLOW STRUCTURE
	CURB BOX
	FIRE HYDRANT
	WATER VALVE
	WATER REDUCER
	WATER BEND
	WATER TEE
	WATER CROSS
	WATER SLEEVE
	WATER CAP / PLUG
	RIP RAP
	DRAINAGE FLOW
	TRAFFIC SIGNS

SURVEY SYMBOLS

	BENCHMARK LOCATION		CAST IRON MONUMENT
	CONTROL POINT		STONE MONUMENT
	MONUMENT FOUND		

EXISTING TOPOGRAPHIC LINES

	RETAINING WALL
	FENCE
	FENCE-DECORATIVE
	GUARD RAIL
	TREE LINE
	BUSH LINE

SURVEY LINES

	CONTROLLED ACCESS BOUNDARY
	CENTERLINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	SETBACK LINE
	SECTION LINE
	QUARTER LINE
	SIXTEENTH LINE
	TEMPORARY EASEMENT

EXISTING UTILITY LINES

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE
	RECLAIMED WATER

PROPOSED UTILITY LINES

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE
	PIPE CASING
	TRENCHLESS PIPE (PLAN VIEW)
	TRENCHLESS PIPE (PROFILE VIEW)

GRADING INFORMATION

	EXISTING CONTOUR MINOR
	EXISTING CONTOUR MAJOR
	PROPOSED CONTOUR MINOR
	PROPOSED CONTOUR MAJOR
	PROPOSED GRADING LIMITS / SLOPE LIMITS
	PROJECT LIMITS
	PROPOSED SPOT ELEVATION
	RISE:RUN (SLOPE)

HATCH PATTERNS

	BITUMINOUS		GRAVEL
	CONCRETE		

EXISTING PRIVATE UTILITY LINES

NOTE:
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	UNDERGROUND FIBER OPTIC
	UNDERGROUND ELECTRIC
	UNDERGROUND GAS
	UNDERGROUND COMMUNICATION
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATION
	OVERHEAD UTILITY

UTILITIES IDENTIFIED WITH A QUALITY LEVEL :

LINE TYPES FOLLOW THE FORMAT: UTILITY TYPE - QUALITY LEVEL
EXAMPLE: G-A UNDERGROUND GAS, QUALITY LEVEL A
UTILITY QUALITY LEVEL (A,B,C,D) DEFINITIONS CAN BE FOUND IN CI/ASCE 38-22.

UTILITY QUALITY LEVELS:

QUALITY LEVEL D: PROVIDES THE MOST BASIC LEVEL OF INFORMATION. IT INVOLVES COLLECTING DATA FROM EXISTING UTILITY RECORDS. RECORDS MAY INCLUDE AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICES MAPS, EXISTING GEOGRAPHIC INFORMATION SYSTEM DATABASES, CONSTRUCTION PLANS, ETC.

QUALITY LEVEL C: INVOLVES SURVEYING VISIBLE SUBSURFACE UTILITY STRUCTURES SUCH AS MANHOLES, HAND-HOLES, UTILITY VALVES AND METERS, FIRE HYDRANTS, PEDESTALS AND UTILITY MARKERS, AND THEN CORRELATING THE INFORMATION WITH EXISTING UTILITY RECORDS TO CREATE COMPOSITE DRAWINGS. INCLUDES QUALITY LEVEL D ACTIVITIES.

QUALITY LEVEL B: INVOLVES DESIGNATING THE HORIZONTAL POSITION OF SUBSURFACE UTILITIES THROUGH SURFACE DETECTION METHODS AND COLLECTING THE INFORMATION THROUGH A SURVEY METHOD. INCLUDES QUALITY LEVEL C AND D TASKS.

QUALITY LEVEL A: PROVIDES THE HIGHEST LEVEL OF ACCURACY. IT INVOLVES LOCATING OR POTHOLING UTILITIES AS WELL AS ACTIVITIES IN QUALITY LEVELS B, C, AND D. THE LOCATED FACILITY INFORMATION IS SURVEYED AND MAPPED AND THE DATA PROVIDES PRECISE PLAN AND PROFILE INFORMATION.

ABBREVIATIONS

A	ALGEBRAIC DIFFERENCE	GRAV	GRAVEL	RSC	RIGID STEEL CONDUIT
ADJ	ADJUST	GU	GUTTER	RT	RIGHT
ALT	ALTERNATE	GV	GATE VALVE	SAN	SANITARY SEWER
B-B	BACK TO BACK	HDPE	HIGH DENSITY POLYETHYLENE	SCH	SCHEDULE
BIT	BITUMINOUS	HH	HANDHOLE	SERV	SERVICE
BLDG	BUILDING	HP	HIGH POINT	SHLD	SHOULDER
BMP	BEST MANAGEMENT PRACTICE	HWL	HIGH WATER LEVEL	STA	STATION
BR	BEGIN RADIUS	HYD	HYDRANT	STD	STANDARD
BV	BUTTERFLY VALVE	I	INVERT	STM	STORM SEWER
CB	CATCH BASIN	K	CURVE COEFFICIENT	TC	TOP OF CURB
C&G	CURB AND GUTTER	L	LENGTH	TE	TEMPORARY EASEMENT
CIP	CAST IRON PIPE	LO	LOWEST OPENING	TEMP	TEMPORARY
CIPP	CURED-IN-PLACE PIPE	LP	LOW POINT	TNH	TOP NUT HYDRANT
CL	CENTER LINE	LT	LEFT	TP	TOP OF PIPE
CL.	CLASS	MAX	MAXIMUM	TYP	TYPICAL
CLVT	CULVERT	MH	MANHOLE	VCP	VITRIFIED CLAY PIPE
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	VERT	VERTICAL
C.O.	CHANGE ORDER	MR	MID RADIUS	VPC	VERTICAL POINT OF CURVE
COMM	COMMUNICATION	NIC	NOT IN CONTRACT	VPI	VERTICAL POINT OF INTERSECTION
CON	CONCRETE	NMC	NON-METALLIC CONDUIT	VPT	VERTICAL POINT OF TANGENT
CSP	CORRUGATED STEEL PIPE	NTS	NOT TO SCALE	WM	WATERMAIN
DIA	DIAMETER	NWL	NORMAL WATER LEVEL		
DIP	DUCTILE IRON PIPE	OHW	ORDINARY HIGH WATER LEVEL		
DWY	DRIVEWAY	PC	POINT OF CURVE	AC	ACRES
E	EXTERNAL CURVE DISTANCE	PCC	POINT OF COMPOUND CURVE	CF	CUBIC FEET
ELEC	ELECTRIC	PE	PERMANENT EASEMENT	CV	COMPACTED VOLUME
ELEV	ELEVATION	PED	PEDESTRIAN, PEDESTAL	CY	CUBIC YARD
EOF	EMERGENCY OVERFLOW	PERF	PERFORATED PIPE	EA	EACH
ER	END RADIUS	PERM	PERMANENT	EV	EXCAVATED VOLUME
ESMT	EASEMENT	PI	POINT OF INTERSECTION	LB	POUND
EX	EXISTING	PL	PROPERTY LINE	LF	LINEAR FEET
FES	FLARED END SECTION	PRC	POINT OF REVERSE CURVE	LS	LUMP SUM
F-F	FACE TO FACE	PT	POINT OF TANGENT	LV	LOOSE VOLUME
FF	FINISHED FLOOR	PVC	POLYVINYL CHLORIDE PIPE	SF	SQUARE FEET
F&I	FURNISH AND INSTALL	PVMT	PAVEMENT	SV	STOCKPILE VOLUME
FM	FORCEMAIN	R	RADIUS	SY	SQUARE YARD
FO	FIBER OPTIC	R/W	RIGHT-OF-WAY		
F.O.	FIELD ORDER	RCP	REINFORCED CONCRETE PIPE		
GRAN	GRANULAR	RET	RETAINING		

Note: Special Provision here within shall be added to Technical Specifications Section 33 41 16.11 – Agricultural Drain Tile.

SPECIAL PROVISION

PLUG FILL AND ABANDON PIPE CULVERT

PART 1 - GENERAL

1.1 SUMMARY

- A. This section covers the plugging, filling and abandoning in place pipe culverts in accordance with MnDOT 2501 and MnDOT 3107.

1.2 MEASUREMENT AND PAYMENT

- A. Plug Fill and Abandon Pipe Culvert
 - 1. Measurement and payment for Plug Fill and Abandon Pipe Culvert shall be based up the actual number of pipes plugged, filled and abandoned. Payment for Plug Fill and Abandon Pipe Culvert shall include all materials, equipment and labor required to complete the work.

1.3 TECHNICAL SPECIFICATION

- A. MnDOT 2461
- B. MnDOT 2501
- C. MnDOT 3107
- D. MnDOT 3248

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Plug Fill and Abandon Pipe Culvert
 - 1. Concrete
 - (a) No changes to the referenced specification.
 - 2. 4” PVC Standpipe
 - (a) No changes to the referenced specification.
 - 3. Sand Fill Material
 - (a) Sand Fill Material shall meet the requirements listed in the table below:

Sand Fill Material	
Sieve Size	Percent Passing
3/8-inch	100
# 4	95 - 100
# 8	80 – 100
# 16	50 - 85
# 30	25 – 60
# 50	5 – 30
# 100	0 – 10
# 200	0.0 – 3.0

PART 3 - EXECUTION

3.1 CONTRACTOR REQUIREMENTS

- A. Construct a 2 foot minimum thick bulkhead on each end of the abandoned drain tile using 3A Grout concrete material. Place a 4 inch PVC standpipe vertically at each bulkhead location to allow for Sand Fill Material to be blown in from one end while the other 4 inch PVC standpipe allows for air to escape the voided area within the pipe. Once sand begins to blow out of the exhaust riser the pipe will be deemed full, after which the standpipes will be removed. Cut off fill and exhaust riser below grade. Plug with Masonry Mortar mix per MnDOT 3107.

****END OF SECTION****

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BILL L. HELGET
LIC. NO. 42046 DATE 07/02/2026



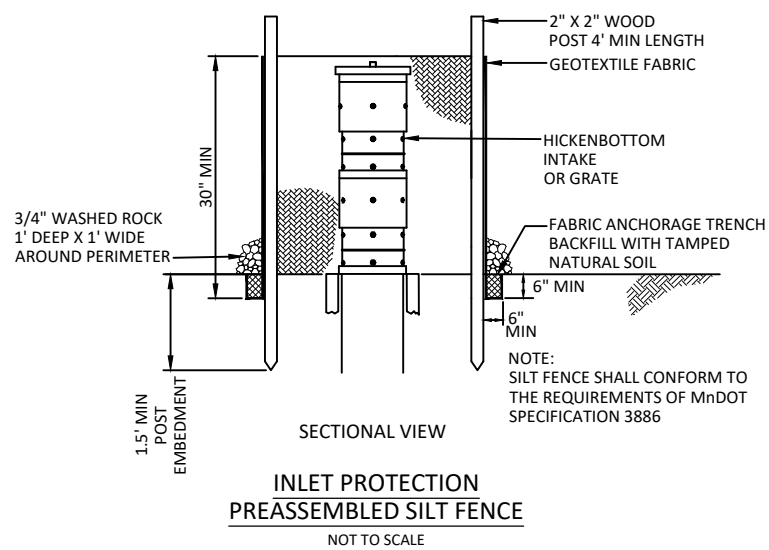
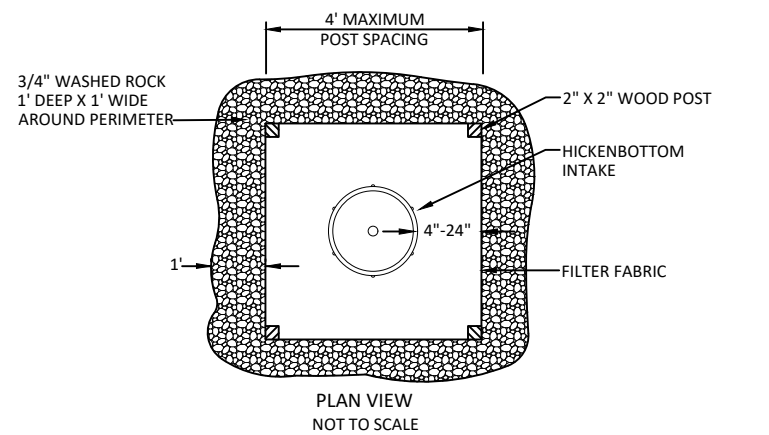
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HIGH ISLAND CREEK WATERSHED DISTRICT
COUNTY DITCH 103 IMPROVEMENT
SPECIAL PROVISIONS
PLUG FILL AND ABANDON PIPE CULVERT

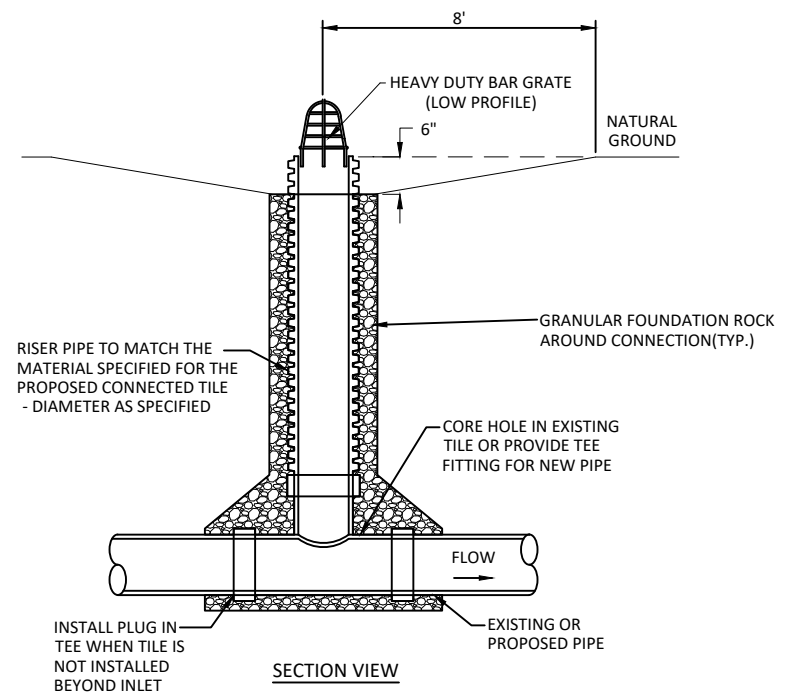
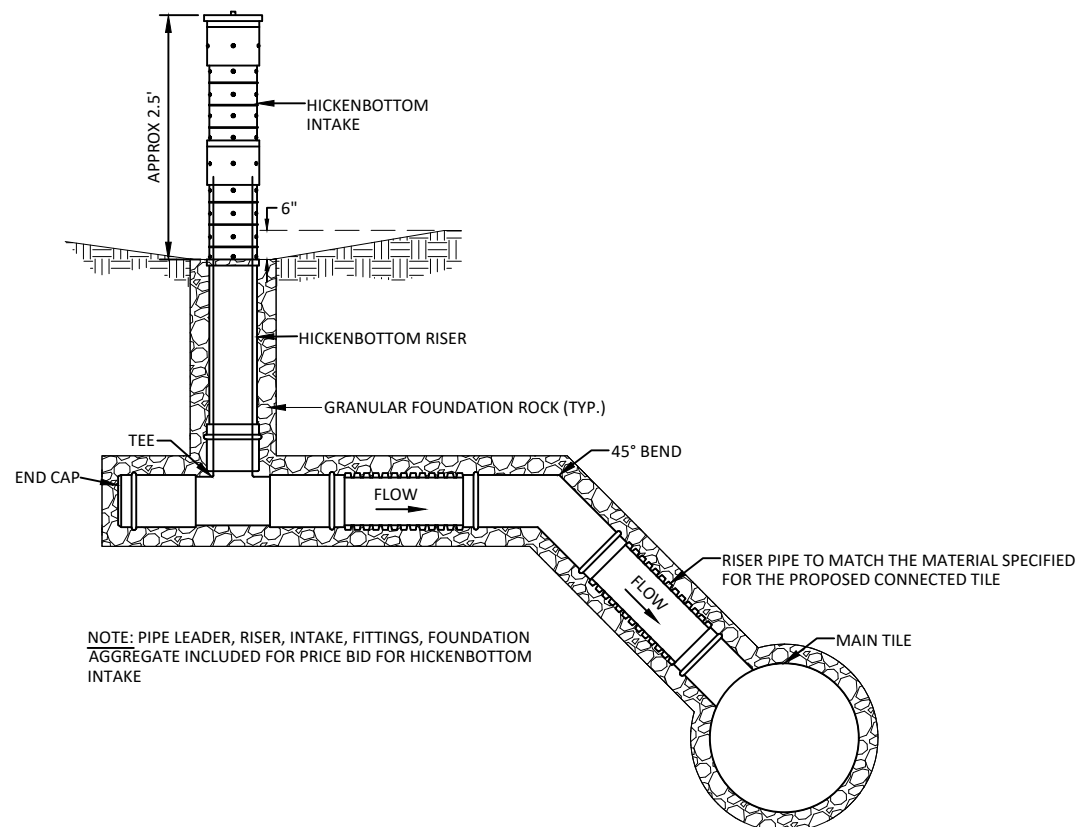
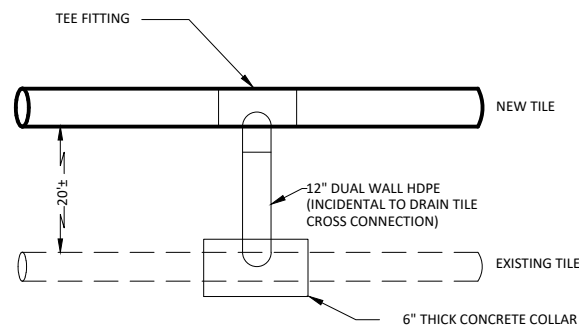
SHEET

G1.01



NOTE:
IF DRAIN TILE CROSS CONNECTION IS INSTALLED AT A LOCATION
WHERE THE NEW TILE IS LESS THAN 12" IN DIAMETER. THE CROSS
CONNECTION WILL BE INSTALLED AT THE SAME SIZE AS THE NEW
TILE. THIS WILL BE PAID AT THE UNIT PRICE BID.

DRAIN TILE CROSS CONNECTION SHALL BE PLACED AT PROPERTY
LINES AND THE UPSTREAM ENDS OF ROAD CROSSINGS.





EROSION CONTROL LEGEND

- INLET PROTECTION
- EXISTING/PROPOSED DRAINAGE FLOW
- STABILIZED CONSTRUCTION EXIT (TO BE MARKED ON PLANS BY CONTRACTOR)
- RAPID STABILIZATION, METHOD 4
- MULCH TYPE 1



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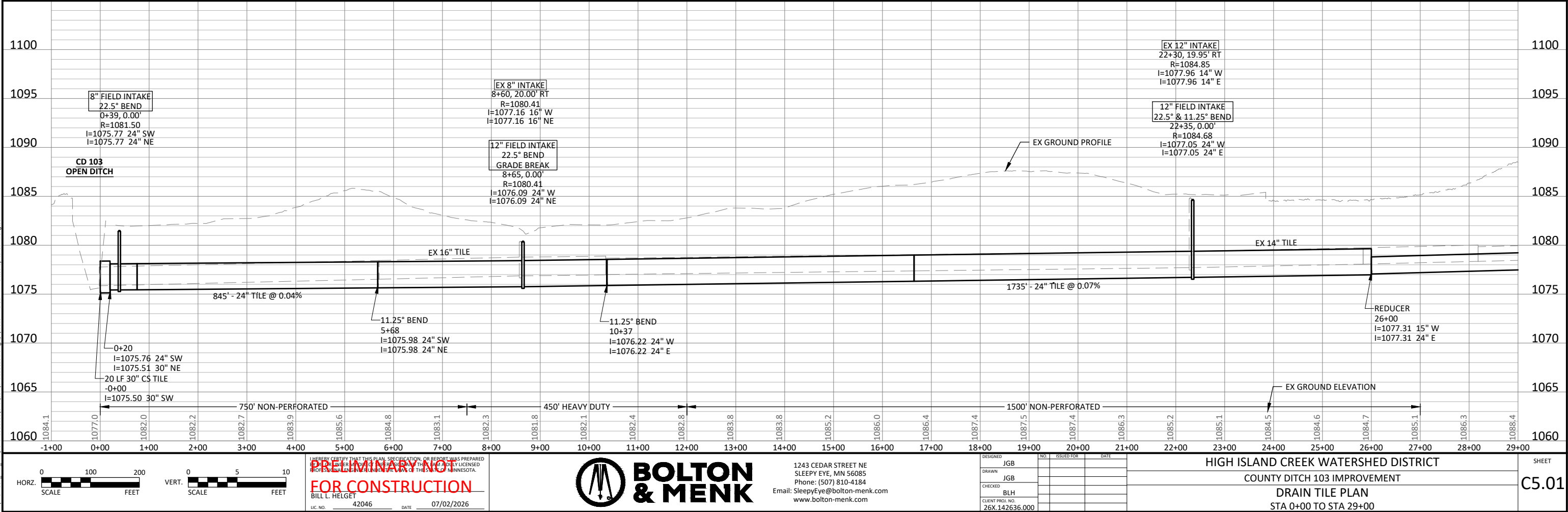
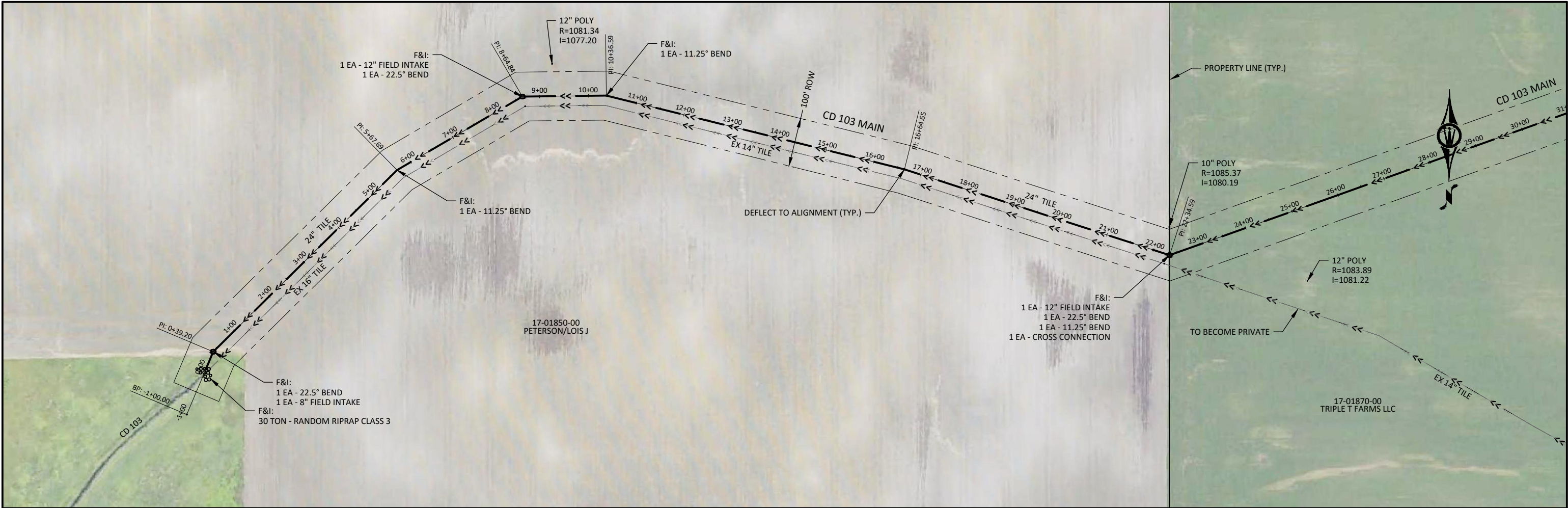


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SEEDING QUANTITY TABLE						
	SEED		FERTILIZER		EROSION CONTROL	
(SQ YD)	MIX	QTY (LBS)	TYPE	QTY (LBS)	TYPE	QTY (TONS)
040	MI	21	10-10-10	75	CATEGORY 10, EROSION CONTROL BLANKET	N/A
289	NONE		NONE		MULCH TYPE 1	24

HIGH ISLAND CREEK WATERSHED DISTRICT						SHEET C2.04
COUNTY DITCH 103 IMPROVEMENT						
STORMWATER POLLUTION PREVENTION PLAN						
EROSION CONTROL PLAN						



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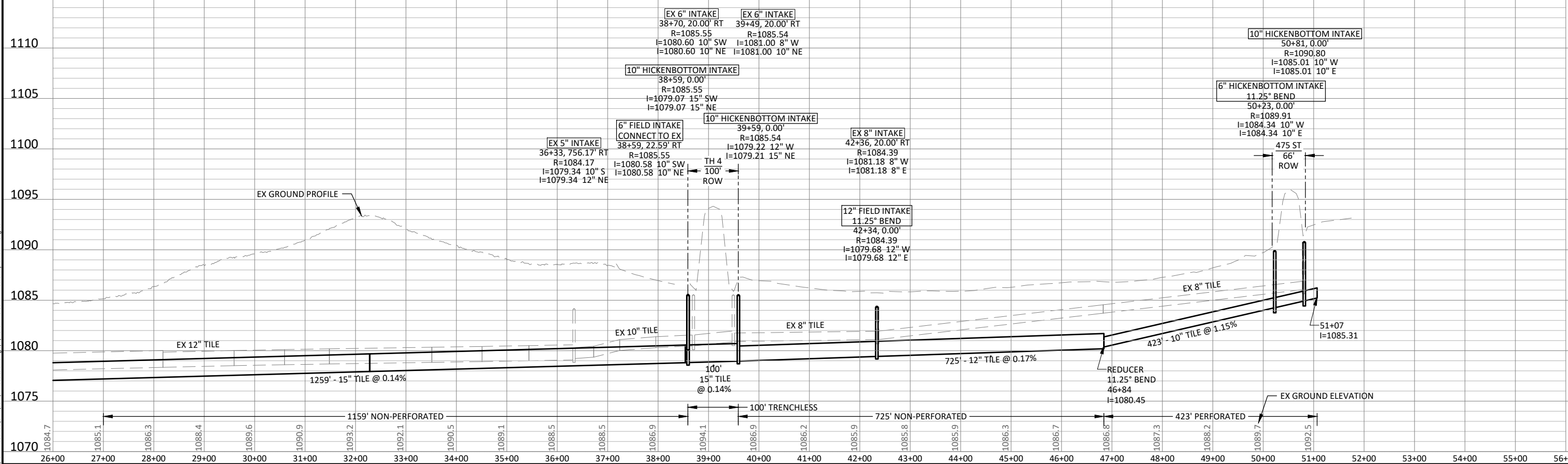
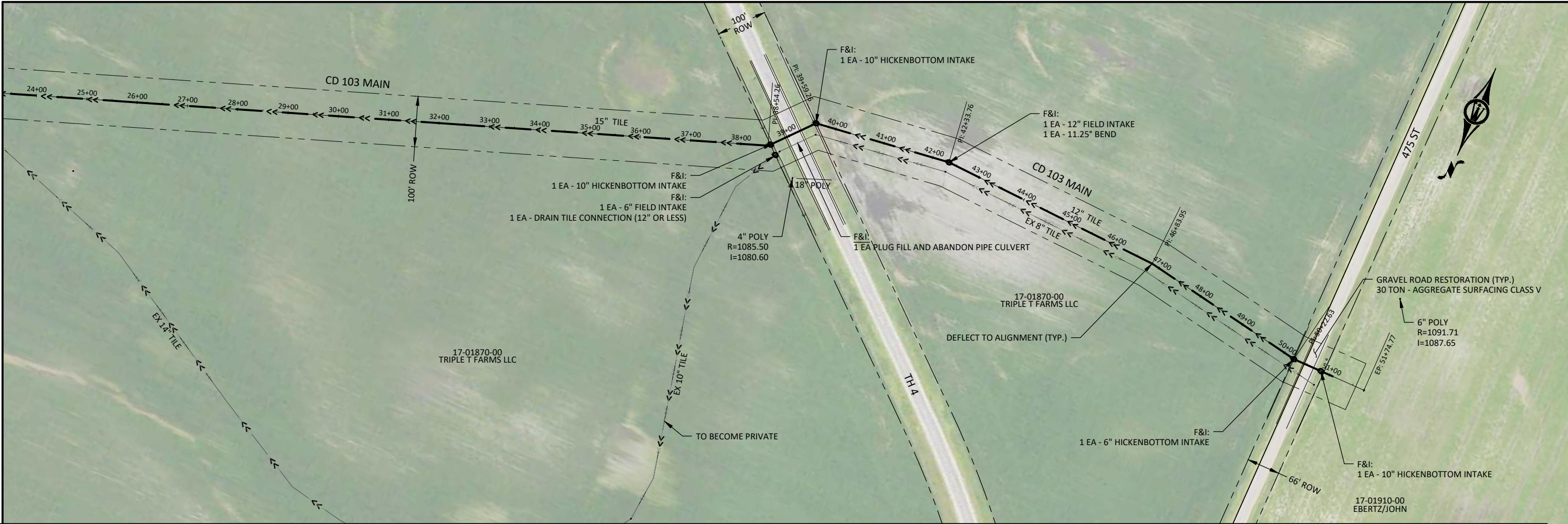


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HIGH ISLAND CREEK WATERSHED DISTRICT
COUNTY DITCH 103 IMPROVEMENT
DRAIN TILE PLAN
STA 0+00 TO STA 29+00

SHEET
C5.01



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HIGH ISLAND CREEK WATERSHED DISTRICT
COUNTY DITCH 103 IMPROVEMENT
DRAIN TILE PLAN
STA 26+00 TO STA 56+00

SHEET
C5.02

Exhibit 2: Petition for Improvement



March 12, 2026

Direct Dial: 320-656-3522
Kvanbruggen@RinkeNoonan.com

High Island Creek Watershed District
Board of Managers
c/o Verne Schlueter, Secretary
2700 S Broadway
New Ulm, MN 56073

SENT VIA CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Re: Petition for Improvement to Renville County Ditch 103
Our File No. 33530-0001

Dear Mr. Schlueter:

Rinke Noonan Law Firm represents Triple T Farms, LLC; E & K Farms, Inc.; Jill Bruns and Steve Bruns; and Lois J. Peterson and Keith Peterson, as Petitioners for the proposed Improvement to Renville County Ditch 103. Enclosed, please find the following:

1. Petition for Improvement to Renville County Ditch 103;
2. A map attached to the Petition as “Exhibit A” depicting the starting point, general course, and terminus of the proposed improvement;
3. Signature Page of Triple T Farms, LLC;
4. Signature Page of E & K Farms, Inc.;
5. Signature Page of Lois J. Peterson c/o Keith Peterson;
6. Signature Page of Jill Bruns and Steve Bruns; and
7. Cash Bond by Triple T Farms, LLC, to the High Island Creek Watershed District for \$10,000.

Technical information to support the petition was provided by Professional Engineer Bill Helget of Bolton & Menk, Inc. For the sake of convenience and expense, the Petitioners request that Mr. Helget and Bolton & Menk, Inc. be appointed as engineers for the proposed improvement project.

Suite 300 US Bank Plaza
1015 W. St. Germain St.
P.O. Box 1497
St. Cloud, MN 56302
320.251.6700

www.rinkenoonan.com

The Petition for Improvement is being filed with the High Island Creek Watershed District Board of Managers pursuant to Minn. Stat. § 103D.625, subd. 4, which requires the proceedings for the construction or improvement of drainage systems in the watershed district to conform to Minn. Stat. ch. 103E. Pursuant to Minn. Stat. § 103E.202, subd. 5, a cash bond payable to the High Island Creek Watershed District from Petitioner Triple T Farms LLC in the amount of \$10,000 is also enclosed. If the cost of the improvement proceeding will exceed \$10,000, please contact me with the estimated expenses to complete the proceeding and I will notify the petitioners that an additional cash bond is required.

A copy of this letter and the Petition is being sent to your counsel, Mr. Dean Zimmerli. Pursuant to Minn. Stat. § 103E.238, please refer the Petition and bond to your counsel for a determination of whether the Petition and bond meet the requirements for improvement of a drainage system.

A copy of this letter and the Petition is also being sent to Renville County Auditor/Treasurer Heather Weis and Renville County Drainage Systems Manager Seth Sparks.

Please provide me with notice of all meetings and hearings at which the High Island Creek Watershed District will discuss or act on decisions related to the proposed improvement to Renville County Ditch 103.

If you need any additional information from me or the Petitioners, do not hesitate to contact me.

Sincerely,

/s/ *Kale R. Van Bruggen*

Kale R. Van Bruggen
KRV/ksb

Enclosures

cc: Triple T Farms, LLC (w/encls.)
E & K Farms, Inc. (w/encls.)
Lois J. Peterson c/o Keith Peterson (w/encls.)
Jill and Steve Bruns (w/encls.)
Dean Zimmerli, Esq. (via email, w/encls.)
Ms. Heather Weis (via email, w/encls.)
Mr. Seth Sparks (via email, w/encls.)

STATE OF MINNESOTA
HIGH ISLAND CREEK WATERSHED DISTRICT
ACTING AS THE DRAINAGE AUTHORITY FOR THE PROPOSED IMPROVEMENT TO
RENVILLE COUNTY DITCH 103

In the Matter of the Petition for
Improvement to Renville County Ditch 103
(Triple T Farms, LLC, et al.)

**PETITION FOR IMPROVEMENT TO
RENVILLE COUNTY DITCH 103**

TO: THE HIGH ISLAND CREEK WATERSHED DISTRICT BOARD OF MANAGERS, ACTING AS THE
DRAINAGE AUTHORITY FOR THE PROPOSED IMPROVEMENT TO RENVILLE COUNTY DITCH
103

Pursuant to Minnesota Statutes, section 103E.215, the undersigned Petitioners seek an improvement to a separable portion of the Renville County Ditch 103 drainage system. For their Petition, the undersigned Petitioners state and allege, and respectfully request, the following:

1. **Designation of Drainage System.** Petitioners seek improvements to an established and constructed drainage system designated as Renville County Ditch 103 ("CD 103") in Renville County, Minnesota.
2. **Necessity for Drainage Project.** The existing drainage system has insufficient capacity or needs enlarging or extending to furnish sufficient capacity or a better outlet.

The proposed improvements are necessary to prevent flooding, erosion, and adverse effects on agricultural land. Even in a repaired state, CD 103 is inadequate to support beneficial drainage for current farming and drainage practices.

Further, the drainage system needs repair and has remained in service since its original construction. The improvement project petitioned for herein is for a separable portion of the drainage system. Therefore, a portion of the cost may be assessed as a repair. See Minn. Stat. § 103E.215, subd. 6. Because CD 103 needs repair, Petitioners request, to the fullest extent practicable, that the Drainage Authority consider, under Minnesota Statutes, section 103E.215, subdivision 6, the separable maintenance portion of the work when assessing costs of the improvement.

3. **Description of Proposed Improvement.** The proposed drainage project consists of improving and enlarging a portion of the CD 103 subsurface drainage tile main branch starting just west of 475th Street in the Southeast Quarter of the Southwest Quarter (SE¼SW¼) of Section 29, Township 114 North, Range 32 West, Renville County, Minnesota, then continuing generally easterly across the Southwest Quarter of the Southeast Quarter (SW¼SE¼) of said Section 29, where it crosses State Highway 4, then

continuing generally northeasterly across the North Half of the Southeast Quarter (N½SE¼) of said Section 29 and the North Half of the Southwest Quarter (N½SW¼) of Section 28, Township 114 North, Range 32 West, where the proposed improvement project terminates at that point where the subsurface drainage tile outlets into the open ditch portion of the County Ditch 103 drainage system located in the Northeast Quarter of the Southwest Quarter (NE¼SW¼) of said Section 28. The location of the proposed improvements, subject to any alterations deemed prudent or necessary by the appointed project engineers, are depicted on the maps attached hereto as **EXHIBIT A** and are in Martinsburg Township of Renville County, Minnesota. The proposed improvement portion of County Ditch 103 consists of buried tile and is proposed to be enlarged and its capacity increased to meet the High Island Creek Watershed District standard of 3/8" per day drainage coefficient.

4. **State Highway No. 4 Crossing.** Petitioners note that the Minnesota Department of Transportation ("MnDOT") has scheduled reconstruction of State Highway No. 4 at the location of the proposed County Ditch 103 crossing during the 2026 construction season. Because constructing the improved tile crossing concurrently with the MnDOT's highway work would avoid the substantially more expensive jack-and-bore method otherwise required and would produce significant cost savings, Petitioners have notified and coordinated with the Renville County Drainage Systems Manager and MnDOT, and it is believed MnDOT has agreed that the improved crossing may be constructed and then capped as part of the 2026 highway reconstruction. Because the Department's work is expected to be completed before the Drainage Authority acts to establish the proposed improvement, Petitioners propose to advance and pay any preliminary costs necessary to construct the improved crossing during the 2026 highway project. Petitioners further propose that, if the improvement is thereafter ordered and established, and a contract awarded for its construction, that Petitioners shall be entitled to receive a damages payment or reimbursement equal to the reasonable value of those documented expenses in exchange for transferring and assigning to the drainage system any rights, title, and interest in the crossing and related appurtenances required by the Drainage Authority.

5. **Jurisdiction.** The undersigned Petitioners constitute at least 26% of the owners of property that the proposed improvement passes over and the owners of at least 26% of the property area that the proposed improvement passes over. Minn. Stat. § 103E.215, subd. 4(a).

Pursuant to Minnesota Statutes, section 103E.215, subd. 4(c)(4) (2025), set forth below is a list of the 40-acre tracts or government lots that the proposed improvements would pass over, together with the names and addresses of the owners of those tracts, all of which are in Renville County, Minnesota:

	Owner	Address	PID	Descr.	Sec.	Twsp.	Rge.
1	E&K FARMS, INC.	3552 107 AVE NE SPICER MN 56288	17-01852-00	NESW	28	114N	32W

2	PETERSON/LOIS J C/O KEITH PETERSON ¹	74450 ST HWY 4 HECTOR MN 55342	17-01850-00	NWSW	28	114N	32W
3	TRIPLE T FARMS LLC	110 PARKVIEW LANE HECTOR MN 55342	17-01870-00	NESE	29	114N	32W
4	TRIPLE T FARMS LLC	110 PARKVIEW LANE HECTOR MN 55342	17-01870-00	NWSE	29	114N	32W
5	TRIPLE T FARMS LLC	110 PARKVIEW LANE HECTOR MN 55342	17-01870-00	SWSE	29	114N	32W
6	EBERTZ/JOHN	2820 JORDAN DR WOODBURY MN 55125	17-01910-00	SESW	29	114N	32W

6. **Public Utility and Health.** The proposed improvement will be of public utility because it will protect property and roads from overflow and flooding and render property suitable for cultivation. Further, the proposed improvements will promote the public health because they will improve the general sanitary condition of property by drainage and prevent overflow that produces or tends to produce unhealthy conditions on agricultural land.

7. **Agreement by Petitioners.** The undersigned Petitioners have been informed and understand that they may not withdraw as petitioner at any time after this Petition is accepted by the Drainage Authority, except with the written consent of all other Petitioners on the filed Petition.

Also, the undersigned Petitioners acknowledge and agree that they will pay all costs and expenses that may be incurred if the proceedings for this improvement are dismissed or the contract for construction of the proposed improvement is not awarded. See Minn. Stat. § 103E.215, subd. 4(c)(6).

8. **Bond.** One or more Petitioners shall cause a bond to be filed or a check to be delivered in the amount of at least \$10,000 payable to the Drainage Authority to pay the costs incurred if these proceedings are dismissed or a contract is not awarded to construct the improvement proposed in the Petition. See Minn. Stat. § 103E.202, subd. 5. Petitioners acknowledge and agree that additional bonds may be required as additional costs are incurred in the proceedings.

¹ According to the Renville County GIS records, the Taxpayer Owner for this property is PETERSON/LOIS J C/O KEITH PETERSON. However, this last deed of record for this property shows there is a Distribution Agreement dated October 1, 2025, in place authorizing the conveyance of this property from the Estate of Lois J. Peterson to Jill Bruns (married to Steve Bruns) and Keith Peterson (married to Sandy Peterson), as tenants in common. At the time this Petition was prepared for filing, the conveyance deed had not yet been recorded.

9. **Request.** The Petitioners respectfully request the following of the Drainage Authority:

- a. That the Drainage Authority accept the filing of this Petition and the bond and refer the Petition and bond to its legal counsel to determine if the Petition and bond meet the requirements of Minnesota Statutes, chapter 103E for an improvement proceeding;
- b. That the Drainage Authority appoint an engineer for purposes of evaluating the proposed improvement project and direct the engineer to prepare an engineer's preliminary report for the proposed improvement project, including allowing the engineer to analyze other potential routes for the proposed improvements;
- c. That the Drainage Authority authorize the proposed arrangement for the State Highway No. 4 improvement crossing, direct the appointed engineer to coordinate final design, cost estimates, and necessary agreements with MnDOT and Renville County, and provide that the engineer's preliminary report address the proposed advanced construction, the anticipated cost savings, and the method by which Petitioners will be reimbursed or credited if the improvement is established;
- d. That the Drainage Authority direct the appointed engineer to investigate and report on the need for repair of the separable portion of the drainage system petitioned for improvement and include in the detailed survey report a statement showing the proportionate estimated cost of the proposed improvement required to repair the separable part of the existing system and the estimated proportionate cost of the added work required for the improvement;
- e. That the notice of hearing on the detailed survey report be given by publication and mailing to all persons owning property affected by the existing County Ditch 103 drainage system and that a hearing on Petitioners' request for the application of separable maintenance be held at the same time and location as the establishment hearing on the proposed improvement (see Minn. Stat. 103E.215, subd. 6(a));
- f. That at the establishment hearing, the Drainage Authority determine that only a separable portion of the existing drainage system will be improved and that the portion needs repair, and determine and assess, by order, the proportionate cost of the improvement that would be required to repair the separable portion of the drainage system to be improved be allocated as repairs and assessed against all property benefited by the entire County Ditch 103 drainage system, as provided by Minnesota Statutes, section 103E.731, and the balance of the cost of the improvement assessed in addition to the repair assessment against the property benefited by the improvement;

- g. That Professional Engineer Bill Helget and Bolton & Menk, Inc. be appointed as the project engineers; and
- h. That the proposed improvements be established and constructed as part of the Renville County Ditch 103 drainage system.

[Petitioner Signature Pages to Follow]

This Petition was drafted by:

Dated: 3/12/2026



Kale R. Van Bruggen (#0393460)
kvanbruggen@rinkenoonan.com
RINKE NOONAN, LTD.
Attorneys for Petitioners
Suite 300, US Bank Plaza
1015 W. St. Germain St.
P.O. Box 1497
St. Cloud, MN 56302
Our File No. 33530-0001

SIGNATURE PAGE FOR
PETITION FOR PROPOSED IMPROVEMENT
TO RENVILLE COUNTY DITCH 103

PETITIONER:

TRIPLE T FARMS, LLC



Thomas Franzeen, President & CEO

Date: 20 Feb 2026

Triple T Farms, LLC owns the following tracts, which the proposed improvement will pass over:
the NE $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 29, Township 114 North, Range 32 West, Renville County,
Minnesota (Parcel ID 17-01870-00).

SIGNATURE PAGE FOR
PETITION FOR PROPOSED IMPROVEMENT
TO RENVILLE COUNTY DITCH 103

PETITIONER:

E&K FARMS, INC.

A handwritten signature in black ink, appearing to read 'Keith Peterson', written over a horizontal line.

Keith Peterson, President & CEO

Date: 2/27/2026

E&K FARMS, INC. owns the following tracts, which the proposed improvement will pass over: the NE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 28, Township 114 North, Range 32 West, Renville County, Minnesota (Parcel ID 17-01852-00).

SIGNATURE PAGE FOR
PETITION FOR PROPOSED IMPROVEMENT
TO RENVILLE COUNTY DITCH 103

PETITIONER:

Jill L. Bruns
Jill Bruns

Date: 2/23/26

Steve A. Bruns
Steve Bruns

Date: 2/23/26

Jill Bruns, married to Steve Bruns, has an interest in the following tracts, which the proposed improvement will pass over: NW¼SW¼ Sec. 28, Township 114 North, Range 32 West, Renville County, Minnesota (Parcel ID 17-01850-00). Jill Brun's interest is documented in that Distribution Agreement dated October 1, 2025, recorded at the Office of County Recorder for Renville County, Minnesota and identified as Document #: A412548 certified, filed and or recorded on December 3, 2025 at 3:10 p.m.

SIGNATURE PAGE FOR
PETITION FOR PROPOSED IMPROVEMENT
TO RENVILLE COUNTY DITCH 103

PETITIONER:


Keith Peterson, Personal Representative
Of the Estate of Lois J. Peterson

Date: 2/27/2026

Keith Peterson is the Personal Representative for the Estate of Lois J. Peterson, owner of the following tracts, which the proposed improvement will pass over: NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 28, Township 114 North, Range 32 West, Renville County, Minnesota (Parcel ID 17-01850-00).


Keith Peterson

Date: 2/27/2026


Sandy Peterson

Date: 2/27/26

Keith Peterson, married to Sandy Peterson, has an interest in the following tracts, which the proposed improvement will pass over: NW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 28, Township 114 North, Range 32 West, Renville County, Minnesota (Parcel ID 17-01850-00). Keith Peterson's interest is documented in that Distribution Agreement dated October 1, 2025, recorded at the Office of County Recorder for Renville County, Minnesota and identified as Document #: A412548 certified, filed and or recorded on December 3, 2025 at 3:10 p.m.

SIGNATURE PAGE FOR
PETITION FOR PROPOSED IMPROVEMENT
TO RENVILLE COUNTY DITCH 103

PETITIONER:

John Ebertz

Date: _____

John Ebertz owns the following tracts, which the proposed improvement will pass over: SE¼SW¼ Sec. 29, Township 114 North, Range 32 West, Renville County, Minnesota (Parcel ID 17-01910-00).

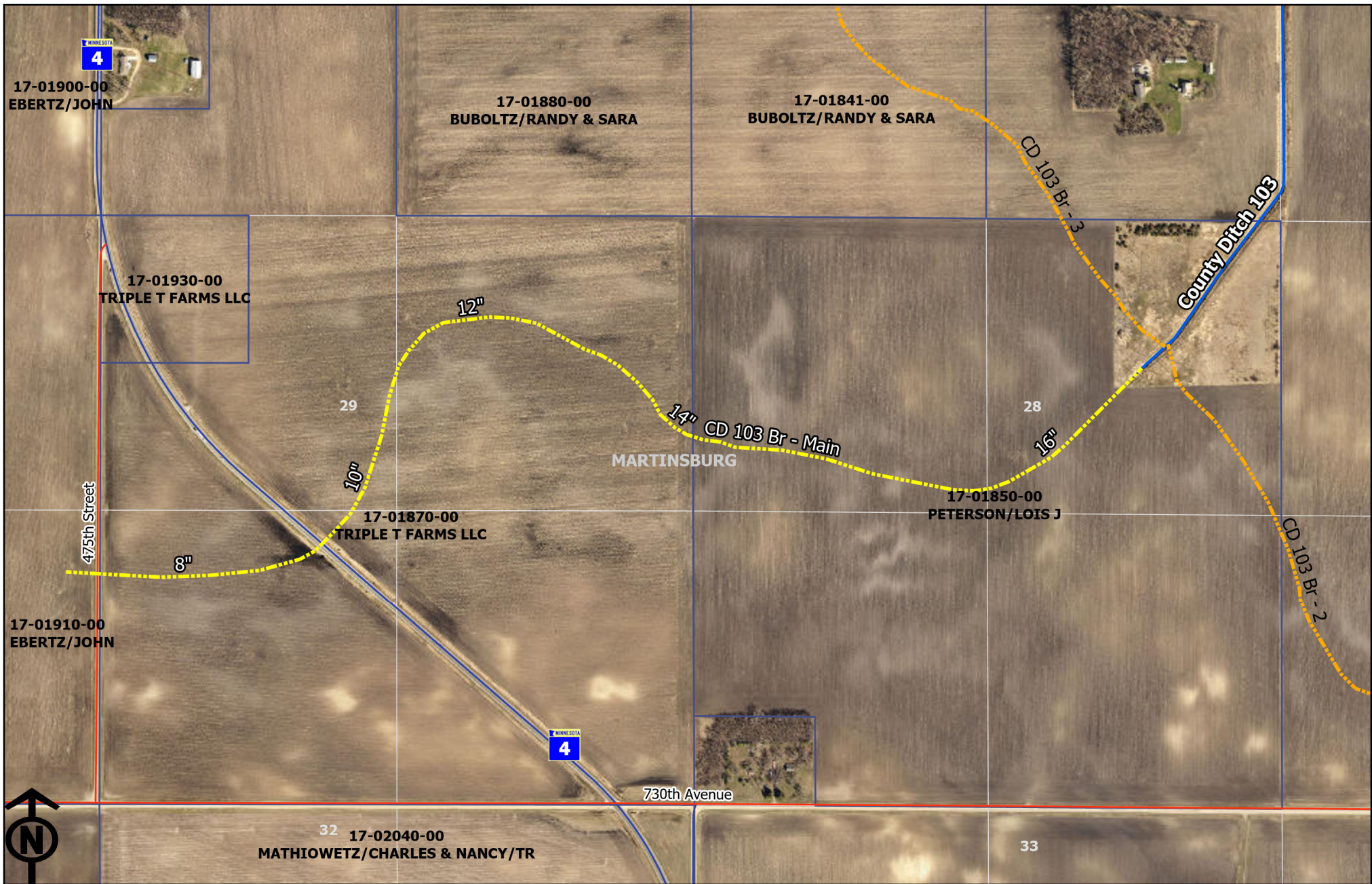


Exhibit 3: Preliminary Cost Estimate

ENGINEER'S ESTIMATE

COUNTY DITCH 103 IMPROVEMENTS

RENNVILLE COUNTY

BMI PROJECT NO: 26X.142636.000

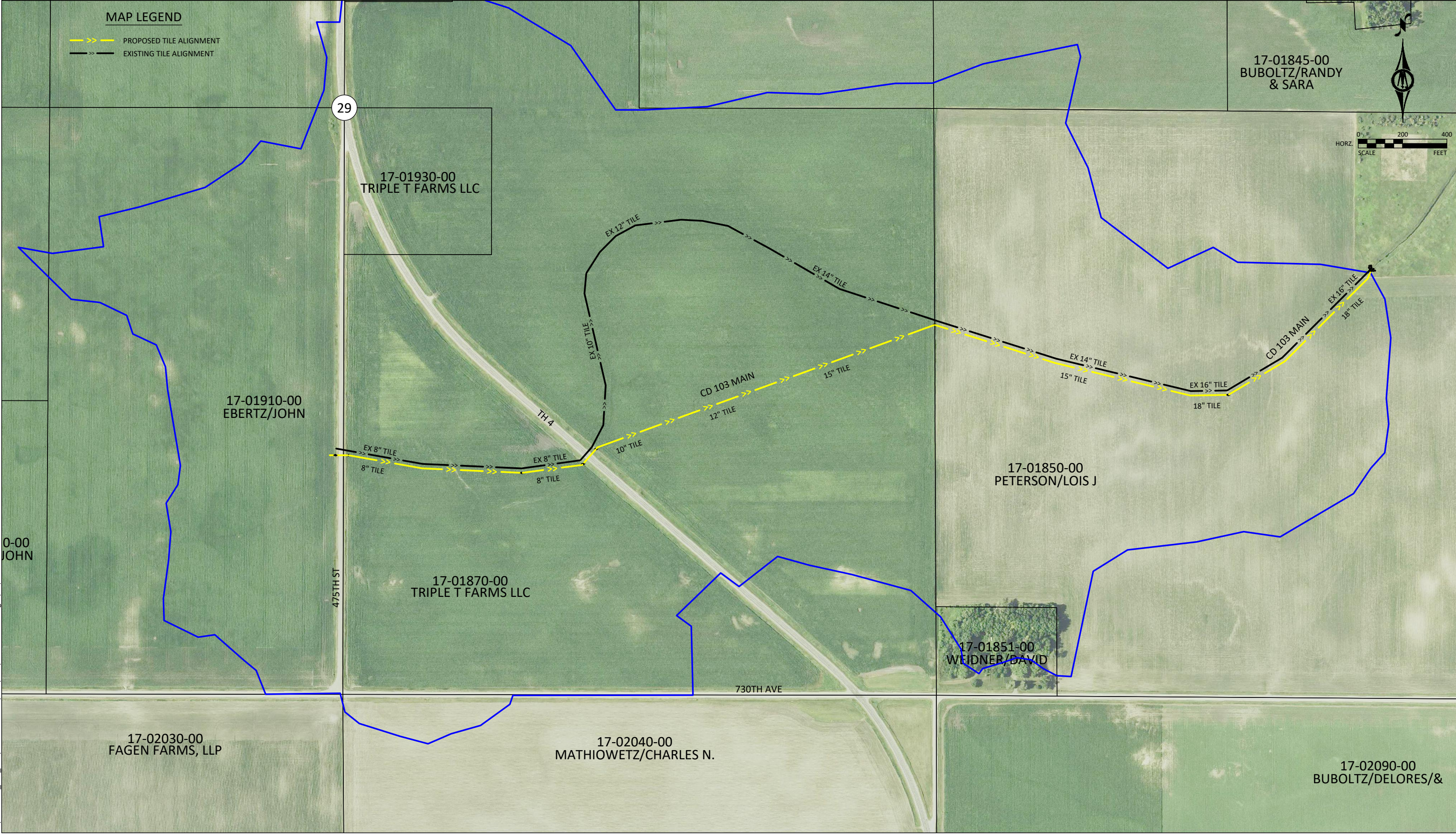


Real People. Real Solutions.

Date: 8/14/2026

Item No.	Item	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID					
1	Mobilization	1	Lump Sum	\$18,000.00	\$18,000.00
2	Aggregate Surfacing, Class 5	30	Ton	\$40.00	\$1,200.00
3	Exploratory Excavation	32	Hour	\$300.00	\$9,600.00
4	Drain Tile Connection (12" or Less)	26	Each	\$600.00	\$15,600.00
5	Drain Tile Cross Connection	1	Each	\$1,500.00	\$1,500.00
6	Plug Fill and Abandon Pipe Culvert	1	Each	\$3,500.00	\$3,500.00
7	6" Field Intake	1	Each	\$850.00	\$850.00
8	6" Hickenbottom Intake	1	Each	\$1,000.00	\$1,000.00
9	8" Field Intake	1	Each	\$1,050.00	\$1,050.00
10	10" Hickenbottom Intake	3	Each	\$1,150.00	\$3,450.00
11	12" Field Intake	3	Each	\$1,200.00	\$3,600.00
12	Granular Foundation Rock	5100	Linear Foot	\$5.00	\$25,500.00
13	Granular Foundation Rock, Add'L	90	Ton	\$35.00	\$3,150.00
14	10" Drain Tile, Perforated	440	Linear Foot	\$23.00	\$10,120.00
15	12" Drain Tile, Non-Perforated	740	Linear Foot	\$26.00	\$19,240.00
16	15" Drain Tile, Non-Perforated	1260	Linear Foot	\$28.00	\$35,280.00
17	15" Drain Tile, Trenchless	100	Linear Foot	\$500.00	\$50,000.00
18	24" Drain Tile, Non-Perforated	2120	Linear Foot	\$44.00	\$93,280.00
19	24" Drain Tile, Heavy Duty	460	Linear Foot	\$88.00	\$40,480.00
20	30" CS Tile	20	Linear Foot	\$150.00	\$3,000.00
21	Random Riprap, Class III	30	Ton	\$105.00	\$3,150.00
22	Inlet Protection	8	Each	\$150.00	\$1,200.00
23	Mulch Material, Type 1	24	Ton	\$250.00	\$6,000.00
24	Rapid Stabilization Method 4	1040	Square Yard	\$3.50	\$3,640.00
25	Stabilized Construction Exit	1	Lump Sum	\$2,500.00	\$2,500.00
SUBTOTAL:					\$342,550.00
20% CONTINGENCY:					\$68,540.00
TEMPORARY CROP DAMAGES:		12.01	Acres	\$600.00	\$7,206.00
TOTAL ESTIMATED CONSTRUCTION COST:					\$418,296.00
DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:					\$83,660.00
TOTAL ESTIMATED PROJECT COST:					\$501,956.00

Exhibit 4: Separable Maintenance



SEPARABLE MAINTENANCE
COUNTY DITCH 103 IMPROVEMENTS
RENNVILLE COUNTY
BMI PROJECT NO: 26X.142636.000

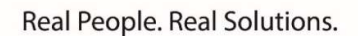


Date: 8/14/2026

Item No.	Item	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID					
1	Mobilization	1	Lump Sum	\$18,000.00	\$18,000.00
2	Aggregate Surfacing, Class 5	30	Ton	\$40.00	\$1,200.00
3	Exploratory Excavation	32	Hour	\$300.00	\$9,600.00
4	Drain Tile Connection (12" or Less)	26	Each	\$600.00	\$15,600.00
5	Drain Tile Cross Connection	1	Each	\$1,500.00	\$1,500.00
6	Plug Fill and Abandon Pipe Culvert	1	Each	\$3,500.00	\$3,500.00
7	6" Field Intake	1	Each	\$850.00	\$850.00
8	6" Hickenbottom Intake	4	Each	\$1,000.00	\$4,000.00
9	8" Field Intake	2	Each	\$1,050.00	\$2,100.00
10	12" Field Intake	1	Each	\$1,200.00	\$1,200.00
11	Granular Foundation Rock	5040	Linear Foot	\$5.00	\$25,200.00
12	Granular Foundation Rock, Add'L	90	Ton	\$35.00	\$3,150.00
13	8" Drain Tile	1140	Linear Foot	\$21.00	\$23,940.00
14	10" Drain Tile	220	Linear Foot	\$23.00	\$5,060.00
15	10" Drain Tile, Trenchless	100	Linear Foot	\$400.00	\$40,000.00
16	12" Drain Tile	820	Linear Foot	\$26.00	\$21,320.00
17	15" Drain Tile	1660	Linear Foot	\$28.00	\$46,480.00
18	15" Drain Tile, Heavy Duty	160	Linear Foot	\$56.00	\$8,960.00
19	18" Drain Tile	720	Linear Foot	\$36.00	\$25,920.00
20	18" Drain Tile, Heavy Duty	300	Linear Foot	\$72.00	\$21,600.00
21	24" CS Tile	20	Linear Foot	\$125.00	\$2,500.00
22	Random Riprap, Class III	30	Ton	\$105.00	\$3,150.00
23	Inlet Protection	7	Each	\$150.00	\$1,050.00
24	Mulch Material, Type 1	24	Ton	\$250.00	\$6,000.00
25	Rapid Stabilization Method 4	1040	Square Yard	\$3.50	\$3,640.00
26	Stabilized Construction Exit	1	Lump Sum	\$2,500.00	\$2,500.00
SUBTOTAL:					\$284,830.00
20% CONTINGENCY:					\$57,000.00
TEMPORARY CROP DAMAGES:		12.01	Acres	\$600.00	\$7,206.00
TOTAL ESTIMATED CONSTRUCTION COST:					\$349,036.00
DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:					\$69,810.00
TOTAL ESTIMATED PROJECT COST:					\$418,846.00

Exhibit 5: Right-of-Way Table

High Island Creek Watershed District Right-of-way Table



Date: 7/14/2026

Parcel No.	Property Owner	Legal Description	Improvement Right-of-Way					Temporary
			Station to Station	Length	Width	Area (Acres)	\$600	
CD 103 - MAIN								
17-01850-00	PETERSON/LOIS J	SW 1/4,NE 1/4	-0+50	8+64	914	100	2.10	\$1,260.00
17-01850-00	PETERSON/LOIS J	SW 1/4,NW 1/4	8+64	22+34	1370	100	3.15	\$1,890.00
17-01870-00	TRIPLE T FAMES LLC	SE 1/4, NW 1/4	22+34	32+50	1016	100	2.33	\$1,398.00
17-01870-01	TRIPLE T FAMES LLC	SE 1/4, SW 1/4	32+50	36+53	403	100	0.93	\$558.00
17-01870-02	TRIPLE T FAMES LLC	SE 1/4, SE 1/4	36+53	50+45	1392	100	3.20	\$1,920.00
17-01910-00	EBERTZ/JOHN	SW 1/4, SE 1/4	50+45	51+74	129	100	0.30	\$180.00
CD 103 TOTAL			Total Branch B Improvement Right-of-Way Damages =					\$7,206.00
H:\HIGHISCR_WD_MN\26X142636000\2_Preliminary\A_Calculations\[142636_ROW.xlsx]Sheet1								

Exhibit 6: Tile Type Map

Exhibit 7: Televising Images

LONGITUDINAL CRACKS



PARTIALLY COLLAPSED PIPE



PARTIALLY COLLAPED



PARTIALLY COLLAPED



PARTIALLY FILLED PIPE



OFFSET PIPING

