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Preliminary Engineer's Report for

Improvement of County Ditch 59 Branch B, 203 & 194

Renville County Ditch

0S1.130654.000

December 2025

Submitted by:
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Certification

Preliminary Engineer's Report

For

Improvement

Of

County Ditch No. 59 Branch B, 203 & 194

Of

Renville County

December 2025

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.

By: Shaun P. Luker

Shaun P. Luker, P.E.
License No. 48756

Date: 12-5-25

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Exhibits

STATE OF MINNESOTA

RENVILLE COUNTY, MINNESOTA

IN THE MATTER OF THE PETITION FOR AN IMPROVEMENT OF RENVILLE COUNTY DITCH NO 59 BRANCH B IN RENVILLE COUNTY, MINNESOTA:

In January 2024, the Renville County Board, acting as the Ditch Authority for County Ditch No. 59 Branch B (BR B), Branch 203 (BR 203) and Branch 194 (BR 194) in Renville County, in accordance with Minnesota Statute 103E.215, accepted a petition for the improvement of portions of BR B, BR 203, and BR 194. Subsequent to that authorization, preliminary field surveys were performed to obtain elevations and establish an alignment for the proposed open ditch and culvert crossing 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 Ditch Authority.

I. LOCATION AND SCOPE OF IMPROVEMENT

County Ditch No. 59 Branch B, Branch 203 and Branch 194 lies within and provides drainage to a large watershed in the north-central portion of Renville County. The scope of the improvement includes 3.9 miles of tile from 6-inch to 24-inch diameter pipe. The system provides drainage to:

- portions of Sections 1 and 2 in Troy Township.
- portions of Sections 24, 25, 26, 27, 34, 35 and 36 in Winfield Township.

County Ditch No. 59 serves as an outlet for BR B, BR 203 and BR 194. County Ditch No. 59 has had several Water Quality and Storage Impoundments within the system both upstream and downstream of the proposed improvement. Therefore, this improvement will be looked as a part of the whole system management that Renville County has completed. The proposed improvement represents approximately 2.9 square miles out of the 15.9 square miles total managed through previous impoundments.

The outlet for CD 59 is into County Ditch 37 about two miles west of Danube, just north of the Twin Cities & Western (TC&W) Railroad. The total estimated watershed for CD 59 from USGS Streamstats data is 58.5 square miles. However, the majority of this watershed is from CD 17A. Upstream of County Road 59, the CD 59 watershed is approximately 15.9 square miles.

The petition presented to the Board requests consideration for the improvement of portions of Branch B and its laterals, Branch 203 and its laterals, and Branch 194 and its laterals as depicted in Exhibit 2. Alternative ponding locations shown in Exhibit 2 are to be considered by the board as described within this report. The purpose of this improvement is to achieve a ½" drainage coefficient within a majority of the properties located within the watershed.

Bolton & Menk, Inc. collected field survey information in March of 2024. Renville County collected field survey information in September of 2024 and May of 2025. This field survey information included the elevation of the tile outlets and the inverts of the intakes within the system. Additional field survey information will be required at any storage areas proposed for final construction.

The design of the improvements also utilizes LIDAR data provided by the Minnesota Department

of Natural Resources. This data, obtained from an aerial flight, provides additional elevation data at a confidence level equal to two-foot vertical contours.

Other information used for this report are the plans for CD 59 Branch 309 & Branch C Improvement and CD 59 Water Quality and Storage Impoundment.

II. EXISTING DITCH SYSTEM

Public information regarding the County Ditch No. 59 system was received from Renville County. This information provides a limited history of the CD 59 system. CD 59 was petitioned for establishment on June 26, 1916. Construction was completed on August 1, 1921. The original benefits for the ditch system were $161,735.

An extensive repair of the existing system, known as Repair F occurred in 1967. An improvement to the open ditch is occurring in 2025 and an impoundment to CD 59 main tile is also occurring in 2025.

III. CAPACITY OF THE EXISTING DRAINAGE SYSTEM

The portion of the proposed system improvements consists of underground tiles. From petitioner reports, the system is not able to drain the watershed adequately, resulting in extended ponding in portions of the watershed. This ponding results in crop stress and crop loss. Because of the limitations of the drainage system, the petitioners requested an improvement of the drainage system.

The capacity of the existing tile has been estimated using the Manning equation, assuming the original hydraulic efficiency of the system as constructed. Estimated tile sizes and grades are based on limited field data collected through tile intakes and general land grades. The amount of drainage that is needed for modern crop production has been compared to standards recommended by the Natural Resource Conservation Services (NRCS). These standards recommend that for drainage of row crops in mineral soils, where surface water intakes are provided, that a modern drainage system should be able to convey 1/2 inch of runoff per day. Watershed areas have been estimated using LIDAR data. The capacity of the existing tiles in Branch B is shown in Table 1, the capacity of the existing tiles in Branch 203 is shown in Table 2 and the capacity of existing tiles in Branch 194 is shown in Table 3.

Table 1 – Branch B Existing Tile Capacity Computations

Branch Label	Location	Cumulative Drainage Area (Acres)	NRCS Tile Flow (cfs) (1/2" Per Day)	Tile Size (in.)	Tile Grade (%)	Tile Capacity (cfs) (n = 0.013)	Tile Efficiency Ratio	Tile Coefficient (in./Day)
Branch B11	End of pipe to 1800-ft North of 850th Ave	24	0.50	7	0.50	0.60	1.19	0.60
	1800-ft North of 850th Ave to 1600-ft North of 850th Ave	43	0.90	8	0.10	0.38	0.42	0.21
	1600-ft North of 850th Ave to 1500-ft North of 850th Ave	54	1.13	9	0.10	0.52	0.46	0.23
	1500-ft North of 850th Ave to 990-ft North of 850th Ave	76	1.60	10	0.20	0.98	0.62	0.31
	990-ft North of 850th Ave to	94	1.97	12	0.30	1.96	0.99	0.50

Table 1 – Branch B Existing Tile Capacity Computations								
Branch Label	Location	Cumulative Drainage Area (Acres)	NRCS Tile Flow (cfs) (1/2" Per Day)	Tile Size (in.)	Tile Grade (%)	Tile Capacity (cfs) (n = 0.013)	Tile Efficiency Ratio	Tile Coefficient (in./Day)
	370-ft North of 850th Ave							
	370-ft North of 850th Ave to Branch B Main	140	2.94	10	0.50	1.55	0.53	0.26
Branch B10	End of pipe to Branch B Main	32	0.67	5	0.50	0.24	0.36	0.18
Branch B9	End of pipe to 280-ft East of 340th St	12	0.25	6	0.50	0.40	1.58	0.79
	280-ft East of 340th St to 190-ft West of 340th St	60	1.26	7	0.50	0.60	0.48	0.24
	190-ft West of 340th St to Branch B Main	65	1.37	8	0.50	0.86	0.63	0.31
Branch B8	End of pipe to 250-ft North of 840th Ave	56	1.18	6	0.10	0.18	0.15	0.08
	250-ft North of 840th Ave to Branch B7	62	1.30	7	0.20	0.38	0.29	0.15
Branch B7	End of pipe to 570-ft West of 340th St	66	1.39	12	0.15	1.38	1.00	0.50
	570-ft West of 340th St to 920-ft West of 340th St	73	1.53	12	0.10	1.13	0.74	0.37
	920-ft West of 340th St to 1200-ft West of 340th St	80	1.68	12	0.10	1.13	0.67	0.34
	1200-ft West of 340th St to Branch B8	87	1.83	12	0.10	1.13	0.62	0.31
	Branch B8 to Branch B Main	154	3.24	12	0.10	1.13	0.35	0.17
Branch B6	End of pipe to 370-ft West of 340th St	48	1.01	6	0.10	0.18	0.18	0.09
	370-ft West of 340th St to 760-ft West of 340th St	56	1.18	7	0.20	0.38	0.32	0.16
	760-ft West of 340th St to 1600-ft West of 340th St	64	1.34	8	0.20	0.54	0.40	0.20
	1600-ft West of 340th St to Branch B Main	76	1.60	10	0.20	0.98	0.62	0.31
Branch B5	End of pipe to 2580-ft East of 330th St	65	1.37	15	0.15	2.51	1.84	0.92
	2580-ft East of 330th St to Branch B7	88	1.85	15	0.10	2.05	1.11	0.55
	Branch B7 to Branch B6	252	5.29	15	0.25	3.24	0.61	0.31
	Branch B6 to Branch B Main	332	6.97	15	0.05	1.45	0.21	0.10

Table 1 – Branch B Existing Tile Capacity Computations								
Branch Label	Location	Cumulative Drainage Area (Acres)	NRCS Tile Flow (cfs) (1/2" Per Day)	Tile Size (in.)	Tile Grade (%)	Tile Capacity (cfs) (n = 0.013)	Tile Efficiency Ratio	Tile Coefficient (in./Day)
Branch B4	End of pipe to Branch B3	3	0.06	5	0.25	0.17	2.75	1.37
Branch B3	End of pipe to Branch B4	2	0.04	5	0.25	0.17	4.12	2.06
	Branch B4 to Branch B Main	15	0.32	6	0.25	0.28	0.89	0.45
Branch B2	End of pipe to 2000-ft East of 330th St	5	0.11	5	1.40	0.41	3.90	1.95
	2000-ft East of 330th St to Branch B Main	15	0.32	7	1.40	1.00	3.19	1.59
Branch B1	End of Pipe to 970-ft East of 330th St	18	0.38	5	0.60	0.27	0.71	0.35
	970-ft East of 330th St to Branch B Main	21	0.44	7	0.60	0.66	1.49	0.75
Branch B Main	End of Pipe to 900-ft West of 340th St	33	0.69	6	0.33	0.32	0.47	0.23
	900-ft West of 340th St to 1800-ft West of 340th St	83	1.74	8	0.30	0.66	0.38	0.19
	1800-ft West of 340th St to 2300-ft West of 340th St	99	2.08	10	0.35	1.30	0.62	0.31
	2300-ft West of 340th St to 3500-ft West of 340th St	150	3.15	12	0.25	1.79	0.57	0.28
	Branch B11 to 3500-ft West of 340th St	309	6.49	15	0.20	2.90	0.45	0.22
	3500-ft West of 340th St to Branch B10	323	6.79	16	0.20	3.44	0.51	0.25
	Branch B10 to Branch B9	417	8.76	18	0.20	4.71	0.54	0.27
	Branch B9 to Branch B5	528	11.09	16	0.25	3.85	0.35	0.17
	Branch B5 to Branch B3	866	18.19	18	0.04	2.11	0.12	0.06
	Branch B3 to Branch B2	913	19.18	22	0.04	3.60	0.19	0.09
	Branch B2 to Branch B1	946	19.87	22	0.04	3.60	0.18	0.09
	Branch B1 to Outlet	1035	21.74	24	0.05	5.07	0.23	0.12

As shown in Table 1, the majority of Branch B is capable of draining the watershed. However, Branch B main is at or under ¼" per day. Thus, there is inadequate capacity in the existing drainage system to provide for the efficient production of row crops.

Table 2 – Branch 203 Existing Tile Capacity Computations								
Branch Label	Location	Cumulative Drainage Area (Acres)	NRCS Tile Flow (cfs) (1/2" Per Day)	Tile Size (in.)	Tile Grade (%)	Tile Capacity (cfs) (n = 0.013)	Tile Efficiency Ratio	Tile Coefficient (in./Day)
Branch 203-4	End of Pipe to Branch 203	32	0.67	6	0.40	0.36	0.53	0.26
Branch 203	End of Pipe to Branch 203-4	7	0.15	6	0.60	0.44	2.96	1.48
	Branch 203-4 to 3200-ft East of TH 71	47	0.99	7	0.50	0.60	0.61	0.30
	3200-ft East of TH 71 to 2050 East of TH 71	93	1.95	8	0.35	0.72	0.37	0.18
	2050 East of TH 71 to 1250-ft East of TH 71	110	2.31	10	0.40	1.39	0.60	0.30
	1250-ft East of TH 71 to Outlet	116	2.44	9	0.40	1.05	0.43	0.22

As shown in Table 2, the majority of Branch 203 is Capable of draining the watershed at a rate of about 3/16" to 1/4" per day. When compared to the NRCS recommended standard of ½" per day, the tile system is delivering about 36% to 61% of the recommended flow. Thus, there is inadequate capacity in the existing drainage system to provide for the efficient production of row crops.

Table 3 – Branch 194 Existing Tile Capacity Computations								
Branch Label	Location	Cumulative Drainage Area (Acres)	NRCS Tile Flow (cfs) (1/2" Per Day)	Tile Size (in.)	Tile Grade (%)	Tile Capacity (cfs) (n = 0.013)	Tile Efficiency Ratio	Tile Coefficient (in./Day)
Branch 194-69-3-3	End of Pipe to 1250-ft East of 330th Street	20	0.42	5	0.20	0.15	0.37	0.18
	1250-ft East of 330th Street to Branch 194-69-3	23	0.49	6	0.20	0.25	0.51	0.26
Branch 194-69-3	End of Pipe to Branch 194-69-3-3	13	0.27	6	0.20	0.25	0.92	0.46
	Branch 194-69-3-3 to Branch 194-69	41	0.87	7	0.20	0.38	0.44	0.22
Branch 194-69	End of Pipe to Branch 194-69-3	3	0.06	6	0.20	0.25	3.99	2.00
	Branch 194-69-3 to Branch 194	57	1.21	8	0.20	0.54	0.45	0.22
Branch 194-71	End of Pipe to 250-ft West of 330th Street	18	0.38	6	0.20	0.25	0.67	0.33
	250-ft West of 330th Street to Branch 194	23	0.48	5	0.20	0.15	0.32	0.16

Table 3 – Branch 194 Existing Tile Capacity Computations								
Branch Label	Location	Cumulative Drainage Area (Acres)	NRCS Tile Flow (cfs) (1/2" Per Day)	Tile Size (in.)	Tile Grade (%)	Tile Capacity (cfs) (n = 0.013)	Tile Efficiency Ratio	Tile Coefficient (in./Day)
Branch 194-84-4N	End of Pipe to Branch 194-84	27	0.57	7	0.20	0.38	0.67	0.33
Branch 194-84-4W	End of Pipe to Branch 194-84	17	0.36	5	0.20	0.15	0.43	0.22
Branch 194-84	End of Pipe to Branch 194-84-4W	14	0.29	6	0.20	0.25	0.86	0.43
	Branch 194-84-4W to Branch 194	180	3.78	8	0.20	0.54	0.14	0.07
Branch 194-2	End of Pipe to Branch 194	29	0.61	6	0.20	0.25	0.41	0.21
Branch 194-1	End of Pipe to Branch 194	40	0.84	6	0.20	0.25	0.30	0.15
Branch 194	End of Pipe to 400-ft South of CR 11	23	0.48	6	0.20	0.25	0.52	0.26
	400-ft South of CR 11 to 1800-ft South of CR 11	62	1.30	8	0.20	0.54	0.42	0.21
	1800-ft South of CR 11 to 2700-ft East of 330th Street	111	2.33	10	0.06	0.54	0.23	0.12
	2700-ft East of 330th Street to 2250-ft East of 330th Street	119	2.50	12	0.06	0.88	0.35	0.18
	2250-ft East of 330th Street to Branch 194-69	195	4.10	14	0.05	1.20	0.29	0.15
	Branch 194-69 to Branch 194-71	264	5.55	15	0.20	2.90	0.52	0.26
	Branch 194-71 to 1330-ft West of 330th Street	344	7.23	15	0.35	3.83	0.53	0.26
	1330-ft West of 330th Street to Branch 194-84	349	7.34	16	0.35	4.55	0.62	0.31
	Branch 194-84 to Branch 194-2	609	12.80	18	0.35	6.23	0.49	0.24
	Branch 194-2 to Branch 194-1	662	13.92	18	0.15	4.08	0.29	0.15
	Branch 194-1 to Outlet	716	15.05	20	0.15	5.40	0.36	0.18

As shown in Table 3, the majority of Branch 194 is Capable of draining the watershed at a rate of about 3/16" to 1/3" per day. When compared to the NRCS recommended standard of ½" per day, the tile system is delivering about 36% to 61% of the recommended flow. Thus, there is inadequate capacity in the existing drainage system to provide for the efficient production of row crops.

IV. DISCUSSION OF IMPROVEMENT

The petitioners for the Improvement of Branch B, Branch 203, and Branch 194 of CD 59 have requested the consideration of the construction of improvements in order to increase the drainage capacity of the system. A preliminary survey and the hydrologic and hydraulic analysis of potential improvements to the drainage system has been performed in order to establish preliminary grades and sizes. General observations and results of the analysis are as follows:

A. DESCRIPTION

As shown in Exhibit 1, the proposed Improvement consists of the following:

1. **Branch B** – The improvement will consist of new tile to replace Branch B Main up to Branch B5 as shown in Exhibit 1. Along with a portion of Branch B5 and all of Branch B6. A portion of Branch B will be rerouted into Branch 203 in the Northeast Quarter of Section 35 in Winfield Township.

2. **Branch 203 –** The improvement will consist of new tiles to replace a portion of the existing system. Along with portions of Branch B and Branch 194 being rerouted into 203 as shown in Exhibit 1.

3. **Branch 194 –** The improvement will consist of new tiles to replace portions of the existing system. This includes the outlet of Branch 194 and Branch 194-84. As stated previously a portion of Branch 194 will be rerouted into Branch 203 in the Northeast Quarter of Section 35 in Winfield Township.

4. **Storage Ponds –** Storage ponds will be included within the drainage area to store and slow down waters within the system.

B. DESIGN DATA – DRAIN TILE

As shown on Exhibit 1, the proposed improvements to CD 59 consists of improving the open ditch and replacing or reinstalling the culvert crossings. The type of pipe that should be used for the improvement is 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. The perforated pipe will include a drain tile sock or 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 eliminate 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 joints.

The criterion for the design of the tile system size is based on Natural Resource Conservation Services (NRCS) methodology. The minimum design coefficient recommended by the NRCS for drainage systems where row crops are raised on mineral soils, and open intakes are placed on the tile, is 1/2" per day. In other words, the system should be able to drain the amount of water produced by 1/2" of runoff over the entire watershed in one day. Since the Improvement will serve several areas which are depressional in nature, this design criteria has been selected.

The capacity of the proposed tiles for Branch B, Branch 203 and Branch 194 are shown in Table 4, Table 5 and Table 6. The tables also show the resulting runoff coefficient provided for the watershed served.

Table 4 – Branch B Proposed Tile Capacity Computations

Branch Label	Location	Cumulative Drainage Area (Acres)	NRCS Tile Flow (cfs) (1/2" Per Day)	Tile Size (in.)	Tile Grade (%)	Tile Capacity (cfs) (n = 0.012)	Tile Efficiency Ratio	Tile Coefficient (in./Day)
Branch B6	End of pipe to 370-ft West of 340th St	48	1.01	12	0.10	1.22	1.21	0.61
	370-ft West of 340th St to 760-ft West of 340th St	56	1.18	15	0.12	2.43	2.07	1.03
	760-ft West of 340th St to 1600-ft West of 340th St	64	1.34	15	0.15	2.72	2.02	1.01
	1600-ft West of 340th St to Branch B Main	76	1.60	15	0.25	3.51	2.20	1.10
Branch B5	Branch B6 to Branch B Main	332	6.97	30	0.05	9.96	1.43	0.71
Branch B Main	Branch B5 to Branch B3	384	8.07	30	0.04	8.91	1.10	0.55
	Branch B3 to Branch B2	431	9.05	30	0.05	9.96	1.10	0.55
	Branch B2 to Branch B1	464	9.75	30	0.05	9.96	1.02	0.51
	Branch B1 to Outlet	553	11.62	30	0.07	11.79	1.01	0.51

Table 5 – Branch 203 Proposed Tile Capacity Computations

Branch Label	Location	Cumulative Drainage Area (Acres)	NRCS Tile Flow (cfs) (1/2" Per Day)	Tile Size (in.)	Tile Grade (%)	Tile Capacity (cfs) (n = 0.012)	Tile Efficiency Ratio	Tile Coefficient (in./Day)
Branch B11	End of pipe to 1800-ft North of 850th Ave	24	0.50	8	0.50	0.93	1.84	0.92
	1800-ft North of 850th Ave to 1600-ft North of 850th Ave	43	0.90	12	0.10	1.22	1.35	0.68
	1600-ft North of 850th Ave to 1500-ft North of 850th Ave	54	1.13	12	0.10	1.22	1.08	0.54
	1500-ft North of 850th Ave to 990-ft North of 850th Ave	76	1.60	12	0.20	1.73	1.08	0.54
	990-ft North of 850th Ave to 370-ft North of 850th Ave	94	1.97	12	0.30	2.12	1.07	0.54
	370-ft North of 850th Ave to	140	2.94	15	0.50	4.96	1.69	0.84

Table 5 – Branch 203 Proposed Tile Capacity Computations								
Branch Label	Location	Cumulative Drainage Area (Acres)	NRCS Tile Flow (cfs) (1/2" Per Day)	Tile Size (in.)	Tile Grade (%)	Tile Capacity (cfs) (n = 0.012)	Tile Efficiency Ratio	Tile Coefficient (in./Day)
	Branch B Main							
Branch B9	450-ft West of 340th St to Branch B	65	1.37	10	0.35	1.41	1.03	0.52
Branch B Main	End of Pipe to 900-ft West of 340th St	33	0.69	8	0.33	0.75	1.09	0.54
	900-ft West of 340th St to 1800-ft West of 340th St	83	1.74	12	0.30	2.12	1.22	0.61
	1800-ft West of 340th St to 2300-ft West of 340th St	99	2.08	12	0.35	2.29	1.10	0.55
	2300-ft West of 340th St to 3500-ft West of 340th St	150	3.15	15	0.25	3.51	1.11	0.56
	Branch B11 to 3500-ft West of 340th St	309	6.49	24	0.20	10.99	1.69	0.85
	3500-ft West of 340th St to Branch B10	323	6.79	24	0.20	10.99	1.62	0.81
	Branch B10 to Branch B9	417	8.76	24	0.20	10.99	1.25	0.63
	Branch B9 to Branch 203	481	10.10	24	0.25	12.29	1.22	0.61
Branch 194-69	330th Street to Branch 194	57	1.21	12	0.10	1.22	1.01	0.51
Branch 194	330th Street to Branch 194-69	195	4.10	18	0.15	4.42	1.08	0.54
	Branch 194-69 to Branch 194-71	262	5.51	18	0.25	5.71	1.04	0.52
	Branch 194-71 to County Road 65	322	6.77	24	0.10	7.77	1.15	0.57
	County Road 65 to Branch 203-4	338	7.11	24	0.10	7.77	1.09	0.55
Branch 203-4	Branch 194 to Branch 203	370	7.78	24	0.10	7.77	1.00	0.50
Branch 203	Branch 203-4 to 3200-ft East of TH 71	866	18.20	30	0.30	24.40	1.34	0.67
	3200-ft East of TH 71 to 2050 East of TH 71	912	19.17	30	0.30	24.40	1.27	0.64
	2050 East of TH 71 to 1250-ft East of TH 71	929	19.52	30	0.30	24.40	1.25	0.62
	1250-ft East of TH 71 to Outlet	935	19.65	30	0.30	24.40	1.24	0.62

Table 6 – Branch 194 Proposed Tile Capacity Computations								
Branch Label	Location	Cumulative Drainage Area (Acres)	NRCS Tile Flow (cfs) (1/2" Per Day)	Tile Size (in.)	Tile Grade (%)	Tile Capacity (cfs) (n = 0.012)	Tile Efficiency Ratio	Tile Coefficient (in./Day)
Branch 194-84-4W	End of Pipe to Branch 194-84	27	0.57	8	0.20	0.59	1.03	0.52
Branch 194	Branch 194-84-4W to Branch 194	180	3.78	18	0.12	3.95	1.05	0.52
Branch 194	Branch 194-2 to Branch 194-1	338	7.10	24	0.10	7.77	1.09	0.55
	Branch 194-1 to Outlet	392	8.23	24	0.12	8.51	1.03	0.52

C. DESIGN DATA - PERMANENT STORAGE

Permanent Storage was included in the petition for this CD 59 improvement. The permanent storage can be seen in Exhibit 1. The intended purpose of the storage is to temporarily store water within the system to reduce peak flows and reduce downstream erosion. The information for the proposed storage can be seen in the Table below.

Table 7 – Proposed Storage Information						
Pond	Parcel	Landowner	Design Event	Storage Time (hrs)	Permanent Easement (acres)	Storage Created (acre-feet)
Pond 1	27-01820-00	Karen Steffel	1-year	46	7	16
Pond 2	27-01791-00	David & Elizabeth Kadlec	5-year	74	3	8.6
Pond 3	27-01860-00	Roger Kingstrom	1-year	43	3	7.3

V. ALTERNATIVE 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.

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. 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.

In order 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 1535 acres of water cannot be discharged from the CD 59 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 one and a half foot depth, approximately 140 acres of wetland restoration would be needed to provide sufficient storage capacity for the excess runoff.

In order to convert the 140 acres to wetlands, at least twice this many acres would need to be acquired for irregular wetland shapes and marginal damp soils. Thus, about 280 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 restoration would likely be about $18,000 per acre, resulting in a total cost of about $5.04 million. Wetland restoration is about 2.0 times the estimated cost for the Improvement of the Main Ditch without additional storage, or about 1.6 times the estimated cost for the Improvement with the additional storage.

Wetland restoration remains a viable option for providing some improvement in the functioning of the drainage system. If sufficient acres of wetlands could be restored, particularly in the upper part of the watershed, it could reduce the need for as large of an outlet as is proposed. Finding willing landowners to participate in a restoration project and locating sufficient funding would be critical in order 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.

C. WASCOB CONSTRUCTION

An alternative use of the excavated material from the ponds would be to construct WASCOBs. A series of these WASCOBs have been proposed around Pond 1 (Exhibit 1) to assist in additional storage and treatment of overland waters.

WASCOBs in the application proposed would have minimal costs associated with them depending on their location relative to the excavation sites. Therefore we would recommend their continued consideration in conjunction with the associated ponds.

D. REPAIR

An alternative solution would be to repair the existing system instead of doing an improvement. A repair would only be as effective as stated in Section III of this report. It would also not solve any localized flooding within the system.

A repair would cost approximately $2,595,711 or 80% of the total project cost. Therefore, due to the poor efficiency of the tile and the overall cost in comparison to an improvement we do not recommend this alternative.

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 project that disturbs more than one acre of land, requires that the contractor and owner secure a permit for the project. The permit process will also require erosion control measures to be taken during the construction. Typical erosion control measures include place of riprap and grass stabilization on 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 that the contractor can also sign the permit application.

A permit will also be necessary for any work within the TH 71 right of way from MnDOT. This permit will be applied for following the Preliminary Hearing.

B. WETLANDS

National Wetland Inventory Maps have been reviewed to locate potential wetlands subject to regulations. These maps do not show any wetlands within the project watershed, as shown on Sheet 1.01 in Exhibit 1. However, wetlands on farm ground often do not show up on the national inventory maps. 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 that 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 non-directly impacted wetland will be controlled by supplemental drainage systems installed by private owners. Owners are advised that under US Army Corps of Engineers and NRCS rules, such supplemental drainage may not be permitted, 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 59 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 drain their farmlands adequately. 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. AGRICULTRUAL EFFECTS

Once the improvements are constructed, 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, the agricultural lands in the watershed are some of the most productive in the State of Minnesota.

E. WATER QUALITY

Little change in measureable water quality is anticipated because of this Improvement. However, there are components of the Improvement that will mitigate erosion and help improve water quality on a micro watershed scale. At the culvert outlets, riprap will be constructed to further reduce the energy at the outlets, and lessen the erosive force. The largest source of suspended solids in tile system drainage is from water discharging into open intakes. Although open intakes will still be used on the system, ponding occurs around these intakes for any significant storm events. Thus, solids have time to settle rather than being discharged. The use of Hickenbottom risers on these intakes has been shown to result in a significant reduction in suspended solids discharge and thus their use will help with water quality. Additionally the storge areas will allow for water to filter through grass swales prior to entering downstream drain tile.

As a requirement of the MPCA Erosion Control Permit, the establishment of an erosion control plan is anticipated. Incorporation of such devices as inlet protection, riprap at the outlet and permanent grasses as soon as possible following the construction are anticipated. All of these measures will help to reduce erosion and maintain water quality during the construction of the project.

The Renville County SWCD and NRCS Offices will be contacted regarding conservation measures. The SWCD encourages landowners to sign up for the Conservation Reserve Program (CRP). This is a volunteer program, so landowners are encouraged to call the local agencies to discuss additional conservation measures.

F. FISH AND WILDLIFE

The only threatened or endangered species to have the potential to be in Renville County at the time of this report is the northern long-eared bat. According to the Minnesota DNR, there are no known 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 impact to the northern long-eared bat. 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.

The open ditch and existing grass buffers are potential wildlife habitat. These areas will be temporarily impacted during the construction of the improvement, but will be restored or improved following the construction. The improvements made to the culvert crossings will reduce the water velocities through the culverts, which will allow for easier passage of fish.

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. The proposed Improvement will not significantly lower the bottom of the ditch or the tile system. Additionally, soils within the watershed are typically C or D soils, with low infiltration rates. Therefore, no change in the availability, distribution, or use of the 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 of the ground surface during construction could result in the loss of one crop within the construction limits.

2. Temporary noise and dust generation can be expected from the construction operations. These impacts are not viewed as significant since there are no residences near the proposed construction route.

3. 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 not significantly different from 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 period flooding and ponding. Among the most obvious benefits are the following:

1. The re-establishment of the grass buffer along the open ditch, decreasing the outlet velocity at the culvert crossings, and the use of Hickenbottom intakes will improve water quality on a micro watershed scale.

2. Increased personal farm income

3. Increased value of benefited farm land

4. Contribution to the local economy through additional purchases, farm modernization, and expansion.

I. LAND USE

The present use of the land in the Improvement watershed is largely agricultural. This use is expected to continue into the future.

VII. ADEQUACY OF THE OUTLET

A. GENERAL INFORMATION

As mentioned earlier, CD 59 has had several projects within the watershed. The open ditch flows generally east to west to an eventual outlet into County Ditch 37 about two miles west of Danube, just north of the Twin Cities & Western (TC&W) Railroad. This location at the TC&W Railroad will be the designed outlet location for this project due to the water quality and storage features located upstream of the crossing.

B. ADEQUACY OF THE OUTLET

A HydroCAD model of the watershed was developed to estimate the change in the peak flow rates at County Road 59. This location was chosen due to the existing improvements and impoundments within the CD 59 system that have created additional storage up to County Road 59. HydroCAD is a computer model that computes the runoff storm hydrograph using methodology developed by the Natural Resources Conservation Service. The peak flows computed in HydroCAD are typically higher than those from other models.

Shown below in Table 8 is four conditions for change in peak flow rate.

1. Historic – prior to 2024 and 2025 Improvement and Repair work within the immediate CD 59 watershed.

2. Existing – current conditions of the watershed including all Improvement and Repair work of the system.

3. Proposed w/o storage – tile improvements without any additional storage within the system.

4. Proposed w/ storage – tile improvements with the additional three storage ponds shown in Exhibit 1.

Table 8 – Change in Peak Flow Rate

Flow Event	Historic Peak Flow (cfs)	Existing Peak Flow (cfs)	Change in Peak Flow (Ex.-Hi.) (cfs)	Proposed Peak w/o Storage Flow (cfs)	Change in Peak Flow (w/o-Hi.) (cfs)	Proposed Peak w/ Storage Flow (cfs)	Change in Peak Flow (Pro.-Hi.) (cfs)
2-Year	418	408	-10	413	-5	410	-8
5-Year	456	444	-12	445	-11	444	-12
10-Year	474	465	-9	466	-8	465	-9
25-Year	499	489	-10	490	-9	489	-10
50-Year	516	504	-12	505	-11	504	-12
100-Year	575	521	-54	522	-53	521	-54

As shown in Table 8 the highest peak flow rates for the system were prior to any improvement or impoundment (Historic). Whereas the Existing conditions (post improvement and impoundment) has the lowest overall peak flows.

The change in peak flow for the proposed condition with storage has the same flow rate at the County Road 59 crossing as the existing conditions except for the 2-year event that slightly increases.

The change in peak flow for the proposed condition without storage increases from the existing condition by one cubic foot per second for all events except for the two year where it increases by five cubic feet per second.

With minor increases across the board for peak flow rates at the outlet of the system it is our opinion that the outlet is adequate with or without storage.

VIII. ESTIMATE OF COST

The preliminary cost estimate to construct the proposed Improvements, as described in this report is shown in Exhibit 3. The total estimated project cost with storage is approximately $3,140,779. Included in the project cost estimate are the acreages of land to be permanently taken out of production for: storage (9.1 acres). The cost estimate also includes compensation for agricultural land that will be temporarily taken out of production by the construction for temporary right-of-way (62.1 acres).

The total cost of storage for the project equates to $780,144. The tile that would be eliminated from the project equates to $55,123. So the total additional cost of 31.9 acre-feet of storage within the system is $725,021 or $22,728 per acre-foot of storage.

IX. RECOMMENDATIONS

The proposed Improvements to the CD 59 in Renville County as described in this report is feasible and practical and is necessary in order to provide drainage for the cultivation of crops in this watershed area. The existing drainage in the area is inadequate to provide proper drainage for current agricultural practices. The outlet is adequate in order to convey the discharge with or without the online storage. We recommend that the county continue to work with the SWCD to look for grants to help offset the cost of storage within the system.

It is the recommendation of your engineer that the Preliminary Engineer's Report be approved, the Board approves storage to be included in the scope of the improvement, that the Board appoint Viewers, and order the preparation of the Final Engineer's Report for the Improvement.

EXHIBIT 1: PRELIMINARY PLANS AND PROFILES

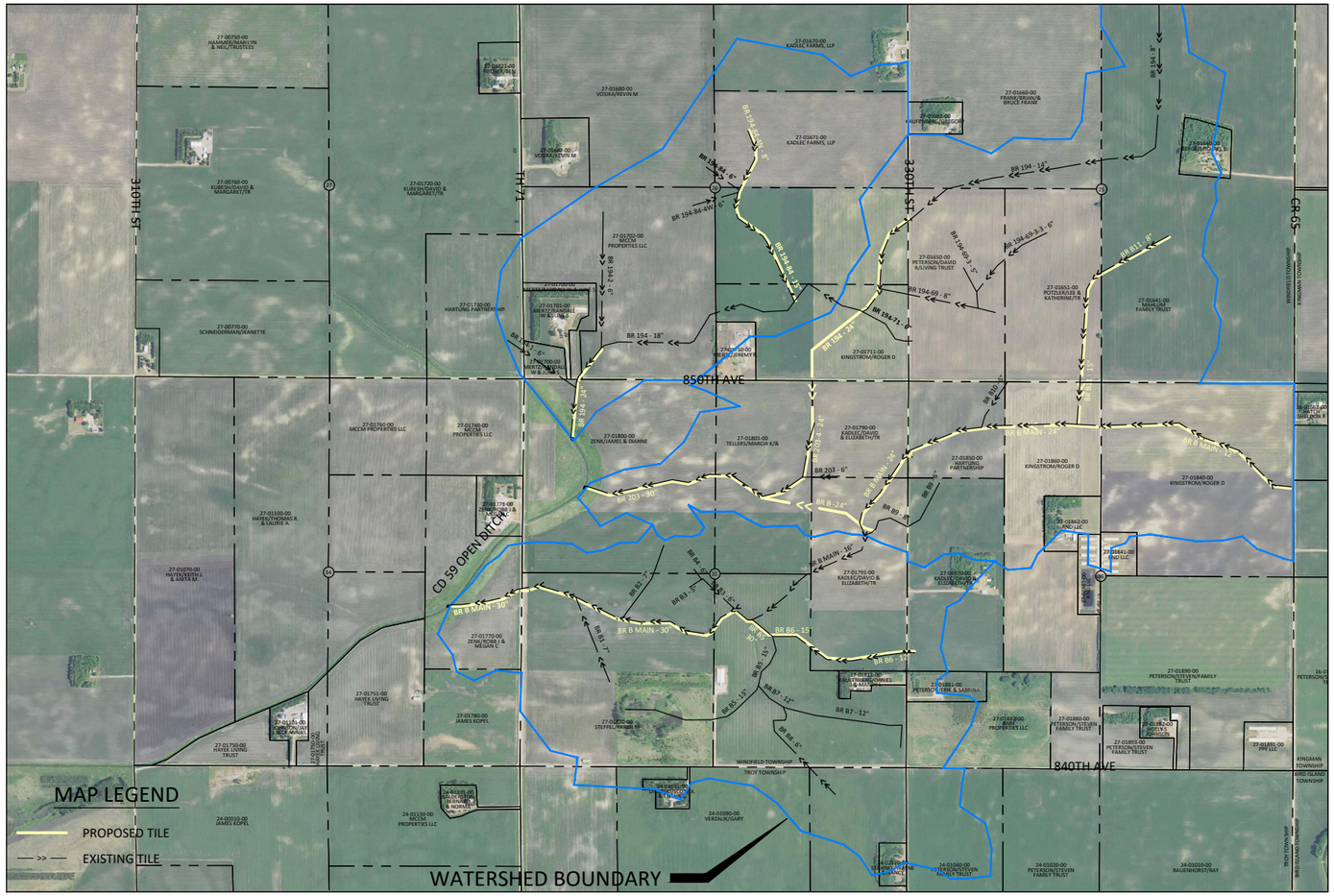
RENVILLE COUNTY

PRELIMINARY PLANS FOR

CD 59 BRANCH B IMPROVEMENT

GRADING, TILE AND INTAKE IMPROVEMENTS

JULY, 2025



PARTIAL MAP OF
RENVILLE
COUNTY, MN

0 1000 2000
SCALE FEET

SHEET NUMBER	SHEET TITLE
GENERAL	
G0.01 - G0.02	TITLE SHEET, LEGEND
CIVIL	
C1.01 - C1.XX	TABLES, DETAILS, TYPICAL SECTIONS, PHASING PLAN
C2.01 - C2.XX	EROSION CONTROL PLAN, SWPPP
C3.01 - C3.03	GRADING PLAN
C5.01 - C5.03	CD 59 - BRANCH B PLAN & PROFILE
C5.04 - C5.11	CD 59 - BRANCH 203 PLAN & PROFILE
C5.12 - C5.13	CD 59 - BRANCH 194 PLAN & PROFILE
THIS PLAN SET CONTAINS 20 SHEETS.	

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 UNLESS OTHERWISE NOTED. THIS UTILITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

⌖ BM=1079.90
REFERENCE MARK DISC
NE QUAD COUNTY RD 1
& 840TH AVENUE

PROJECT DATUM: RENVILLE CO COORDINATED
HORIZONTAL: RENVILLE CO - NAD83 (2007ADJ)
VERTICAL: NAVD 88

RECORD DRAWING INFORMATION
OBSERVER:
CONTRACTOR:
DATE:

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.

PRELIMINARY NOT FOR CONSTRUCTION

SPENCER LUKE
LIC. NO. 48756 DATE MM/DD/YYYY

BOLTON & MENK
1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
TITLE SHEET

SHEET G0.01

H:\RNC\0S\1130654\CAD\C3D\1306546D01.dwg 10/27/2025 1:55:57 PM

EXISTING TOPOGRAPHIC SYMBOLS

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

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
- CONTROL POINT
- MONUMENT FOUND
- CAST IRON MONUMENT
- STONE MONUMENT

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

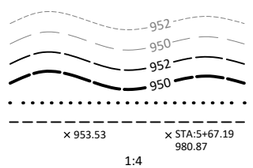
EXISTING UTILITY LINES

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

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:
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.

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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 G-A UNDERGROUND GAS, QUALITY LEVEL A
UTILITY QUALITY LEVEL (A,B,C,D) DEFINITIONS CAN BE FOUND IN CI/ASCE 38-02.

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		

PRELIMINARY NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SHAUNA L. LUKE
LIC. NO. 48756 DATE MM/DD/YYYY

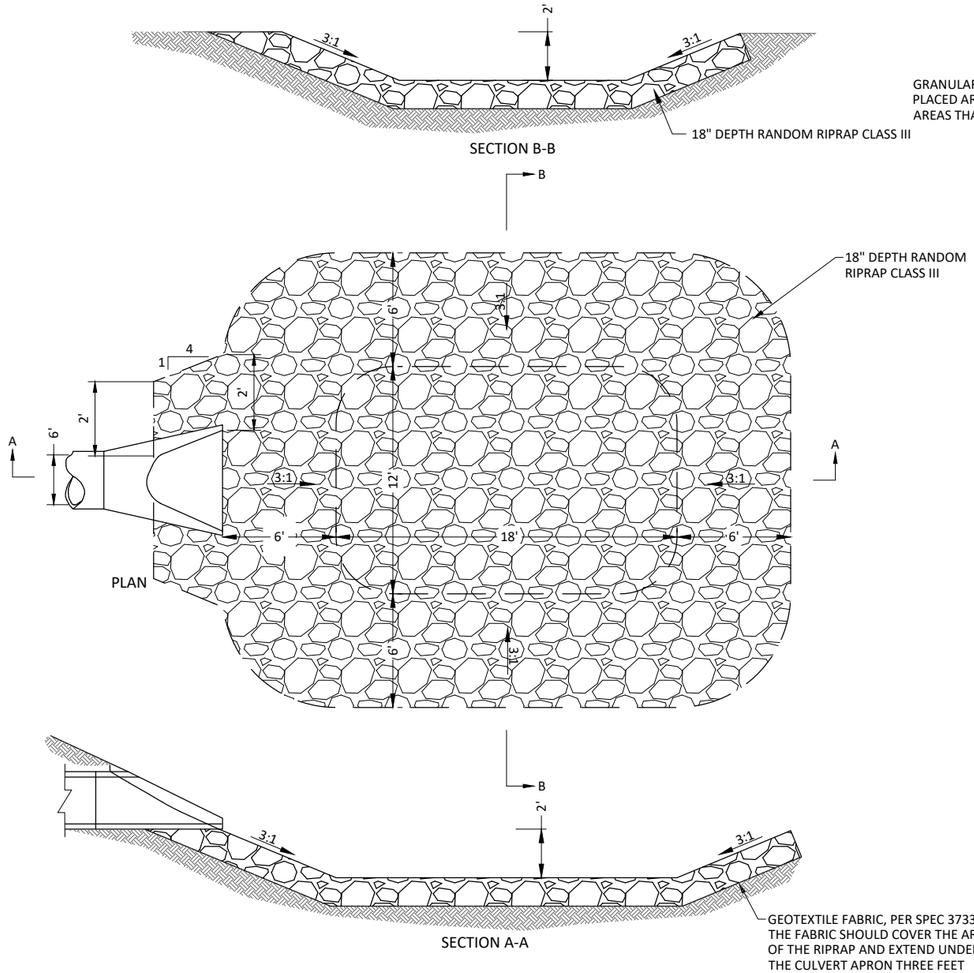
BOLTON & MENK
1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

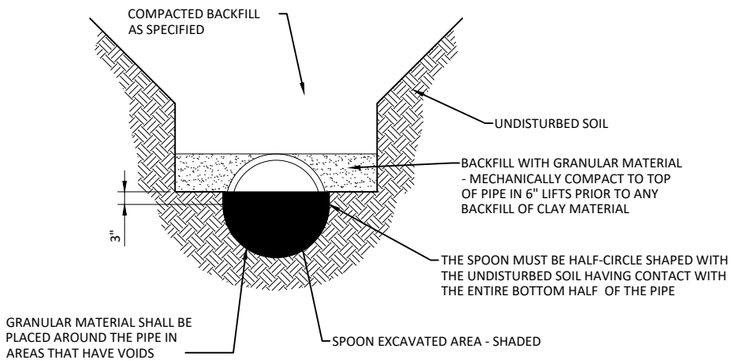
RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
LEGEND

SHEET G0.02



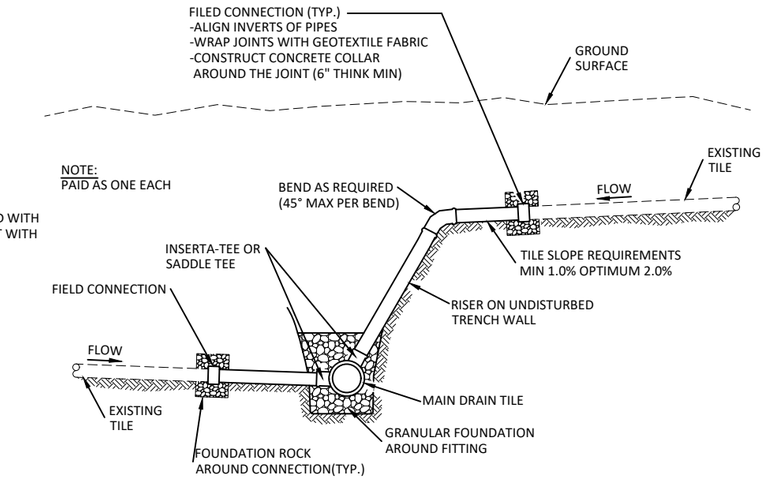
RIPRAP AT DRAIN OUTLET

NOT TO SCALE



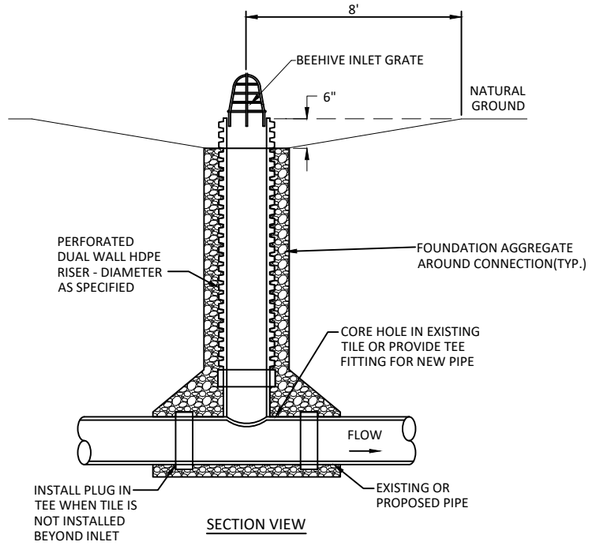
HDPE "SPOON" TRENCH BEDDING DETAIL

NOT TO SCALE



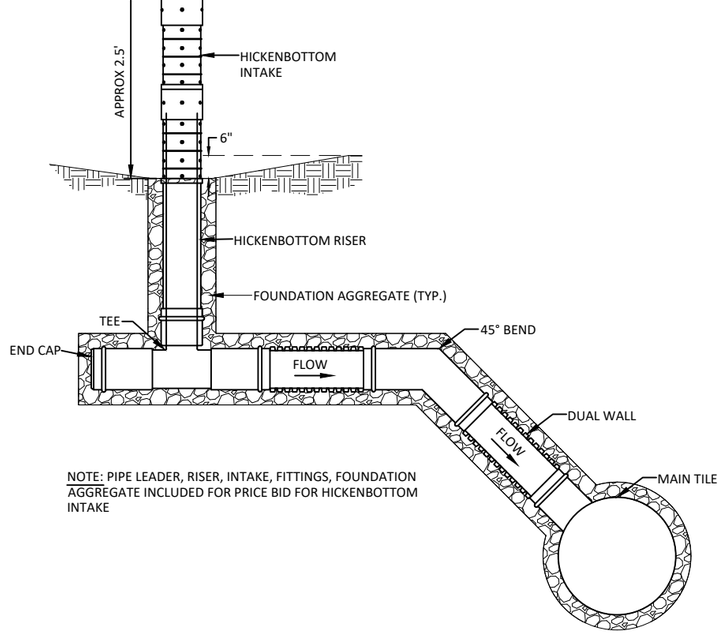
DRAIN TILE CONNECTION

NOT TO SCALE



FIELD INTAKE - IN FIELDS

NOT TO SCALE



HICKENBOTTOM INTAKE - IN ROADSIDE DITCHES

NOT TO SCALE

PRELIMINARY NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: TUKER
LIC. NO. 48756 DATE MM/DD/YYYY

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SLEEPY EYE, MN 56085
Phone: (507) 794-5541
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www.bolton-menk.com

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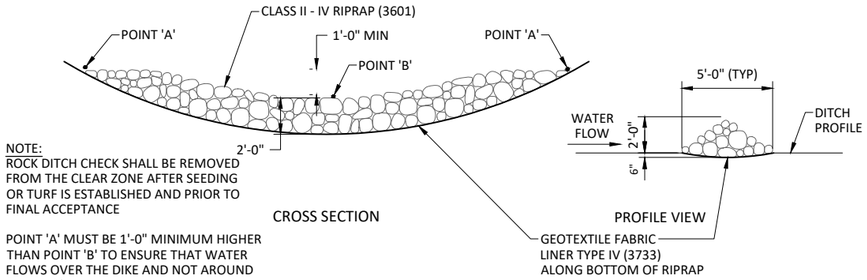
DRAWN			
JGB			
CHECKED			
SPL			
CLIENT PROJ. NO.			
051.130654			

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
DRAIN DETAILS

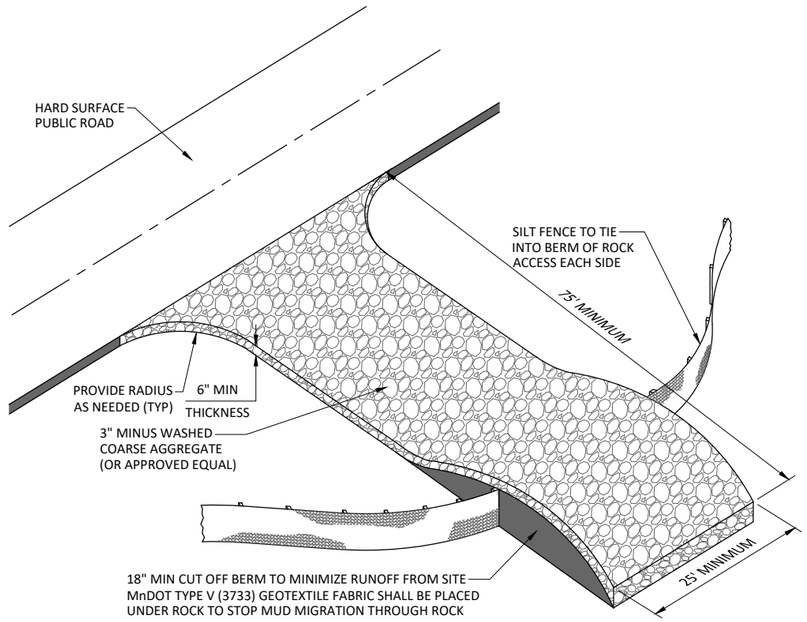
SHEET C1.01



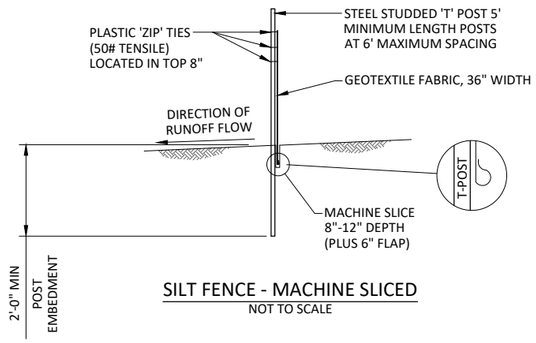
NOTE:
ROCK DITCH CHECK SHALL BE REMOVED FROM THE CLEAR ZONE AFTER SEEDING OR TURF IS ESTABLISHED AND PRIOR TO FINAL ACCEPTANCE

POINT 'A' MUST BE 1'-0" MINIMUM HIGHER THAN POINT 'B' TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

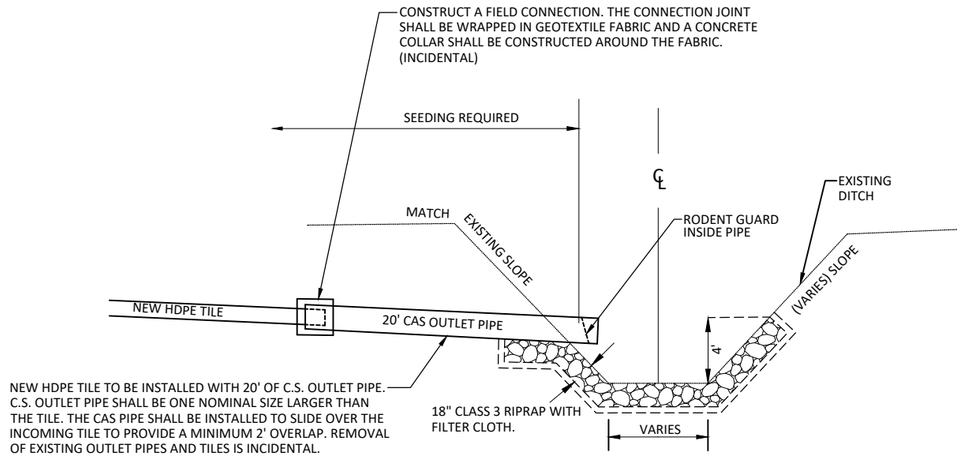
DITCH CHECK - RIPRAP
NOT TO SCALE



ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE

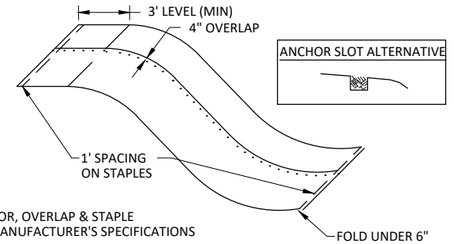


SILT FENCE - MACHINE SLICED
NOT TO SCALE



NEW HDPE TILE TO BE INSTALLED WITH 20' OF C.S. OUTLET PIPE. C.S. OUTLET PIPE SHALL BE ONE NOMINAL SIZE LARGER THAN THE TILE. THE CAS PIPE SHALL BE INSTALLED TO SLIDE OVER THE INCOMING TILE TO PROVIDE A MINIMUM 2' OVERLAP. REMOVAL OF EXISTING OUTLET PIPES AND TILES IS INCIDENTAL.

TYPICAL SECTION AT OPEN DITCH FOR HDPE TILE
NOT TO SCALE



NOTE:
ANCHOR, OVERLAP & STAPLE PER MANUFACTURER'S SPECIFICATIONS

BOLTON & MENK

EROSION CONTROL BLANKET INSTALLATION
NOT TO SCALE

LAST REVISION: 04-2021

PLATE NO. 3-200

HORZ. 0 25 50 SCALE FEET

VERT. 0 5 10 SCALE FEET

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PRELIMINARY NOT FOR CONSTRUCTION

PRINTED NAME: JUSTIN BLUEK
LIC. NO. 48756 DATE MM/DD/YYYY

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CLIENT PROJ. NO.	051.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
STORM WATER POLLUTION PREVENTION PLAN
EROSION CONTROL DETAILS

SHEET C2.03

WATER QUALITY & STORAGE:
LIVE STORAGE - 16 ACRE-FEET
PERMANENT EASEMENT - 7 ACRES
NORMAL HIGH WATER LEVEL = 1068
POND BOTTOM = 1065

NOTE:
ADDITIONAL EXCAVATED MATERIAL TO BE PLACED OVER CD 59 BRANCH B MAIN

27-01771-00
KENK/ROBB J
& MEGAN C

27-01770-00
KENK/ROBB J
& MEGAN C

27-01800-00
ZENK/JAMES
& DIANNE

27-01801-00
TELLERS/
MARCIA K/&

T.H. 71

35

POTENTIAL WASOB

TWO STAGE POND OUTLET
(SEE DETAIL)

OUTLET TILE TO POND (TYP.)

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EX BR B3 - 6"

EX BR B3 - 5"

EX BR B3 - 6"

EX BR B2 - 7"

BR B MAIN - 30"

EX BR B1 - 7"

80' ROW

POTENTIAL WASOB

POTENTIAL WASOB

27-01820-00
STEFFEL/KAREN M

27-0180-00
ERICKSON/PAUL

HORZ. SCALE 0 100 200 FEET

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SHAUNA R. LUKES
LIC. NO. 48756 DATE MM/DD/YYYY

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DESIGNED	NO.	ISSUED FOR	DATE
JGB			
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CHECKED			
SPL			
CLIENT PROJ. NO.			
051.130654			

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
GRADING PLAN
POND 1

SHEET C3.01A

WATER QUALITY & STORAGE:
LIVE STORAGE - 16 ACRE-FEET
PERMANENT EASEMENT - 7 ACRES
NORMAL HIGH WATER LEVEL = 1068
POND BOTTOM = 1065

NOTE:
ADDITIONAL EXCAVATED MATERIAL TO BE PLACED OVER CD 59 BRANCH B MAIN

27-01771-00
KENK/ROBB J
& MEGAN C

27-01770-00
KENK/ROBB J
& MEGAN C

27-01800-00
ZENK/JAMES
& DIANNE

27-01801-00
TELLERS/
MARCIA K/&

T.H. 71

35

EX BR B4 - 6"

EX BR B3 - 5"

EX BR B3 - 6"

ALTERNATE TILE ROUTE

TWO STAGE POND OUTLET
(SEE DETAIL)

1069

BR B MAIN - 30"

EX BR B2 - 7"

1065

EX BR B1 - 7"

1066

1065

PROPOSED FILL AREA OVER TILE

OUTLET TILE TO POND (TYP.)

27-0180-00
ERICKSON/PAUL

27-01820-00
STEFFEL/KAREN M

0 100 200
HORZ. SCALE FEET

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PRELIMINARY NOT FOR CONSTRUCTION

SHAUN P. LUKE
LIC. NO. 48756 DATE MM/DD/YYYY

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DRAWN	JGB
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CLIENT PROJ. NO.	051.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
GRADING PLAN
POND 1 - ALTERNATE LOCATION

SHEET
C3.01B

WATER QUALITY & STORAGE:
LIVE STORAGE - 8.6 ACRE-FEET
PERMANENT EASEMENT - 3 ACRES
NORMAL HIGH WATER LEVEL = 1073
POND BOTTOM = 1068

27-01791-00
KADLEC/DAVID &
ELIZABETH/TR

TWO STAGE POND OUTLET
(SEE DETAIL)

OUTLET TILE TO POND (TYP.)

1069

1068

1073

1069

1075

330TH ST

27-01870-00
KADLEC/DAVID & ELIZABETH/TR

27-01810-00
ERICKSON/PAUL

27-01811-00
KAUFENBERG/DANIEL
J & MANDY L

27-01810-00
ERICKSON/PAUL

27-01881-00
PETERSON/ERIK & SABRINA

0 50 100
HORZ. SCALE FEET

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NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
GRADING PLAN
POND 2

SHEET
C3.02

WATER QUALITY & STORAGE:
LIVE STORAGE - 7.3 ACRE-FEET
PERMANENT EASEMENT - 3 ACRES
NORMAL HIGH WATER LEVEL = 1086
POND BOTTOM = 1082

27-01650-00
PETERSON/DAVID
R/LIVING TRUST

27-01651-00
POTZLER/LEE &
KATHERINE/TR

27-01641-00
MAHLUM FAMILY
TRUST

850TH AVE

OUTLET TILE TO POND (TYP.

1082

1085

27-01840-00
KINGSTROM/ROGER
D

PRIVATE DRIVE

TWO STAGE POND OUTLET
(SEE DETAIL)

1082

1086

27-01850-00
HARTUNG
PARTNERSHIP

27-01860-00
KINGSTROM/ROGER D

27-01870-00
KADLEC/DAVID & ELIZABETH/TR

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HORZ. 0 100 200
SCALE FEET

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PRELIMINARY NOT FOR CONSTRUCTION

SHAUNA LUKES
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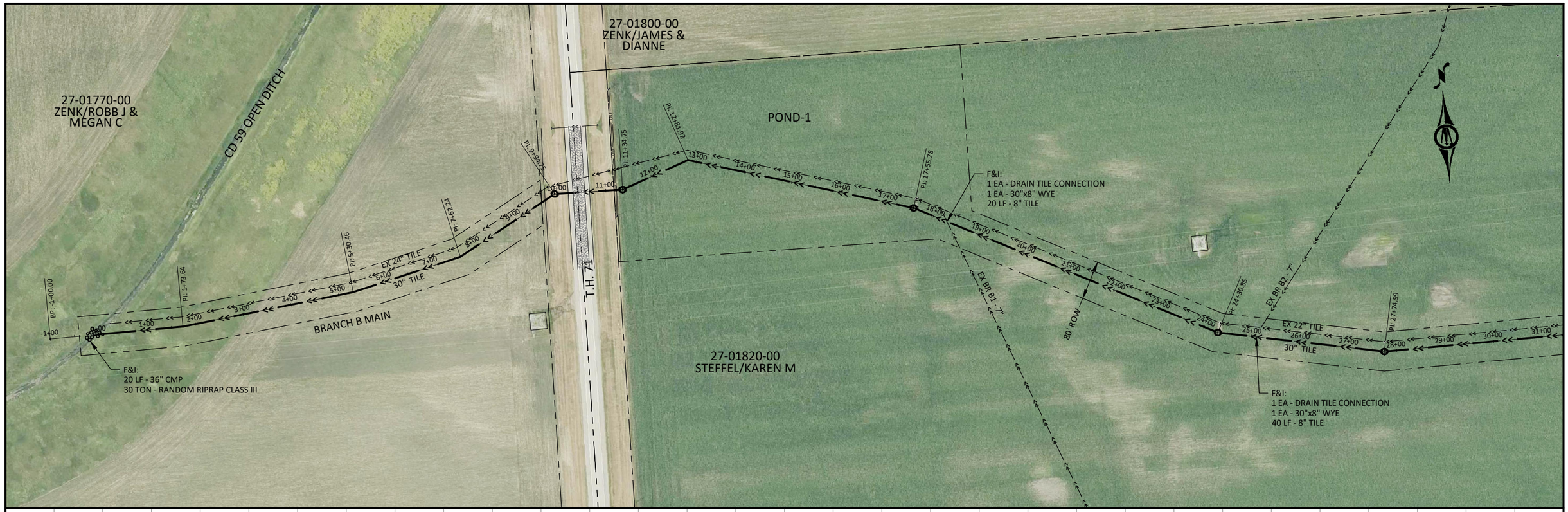
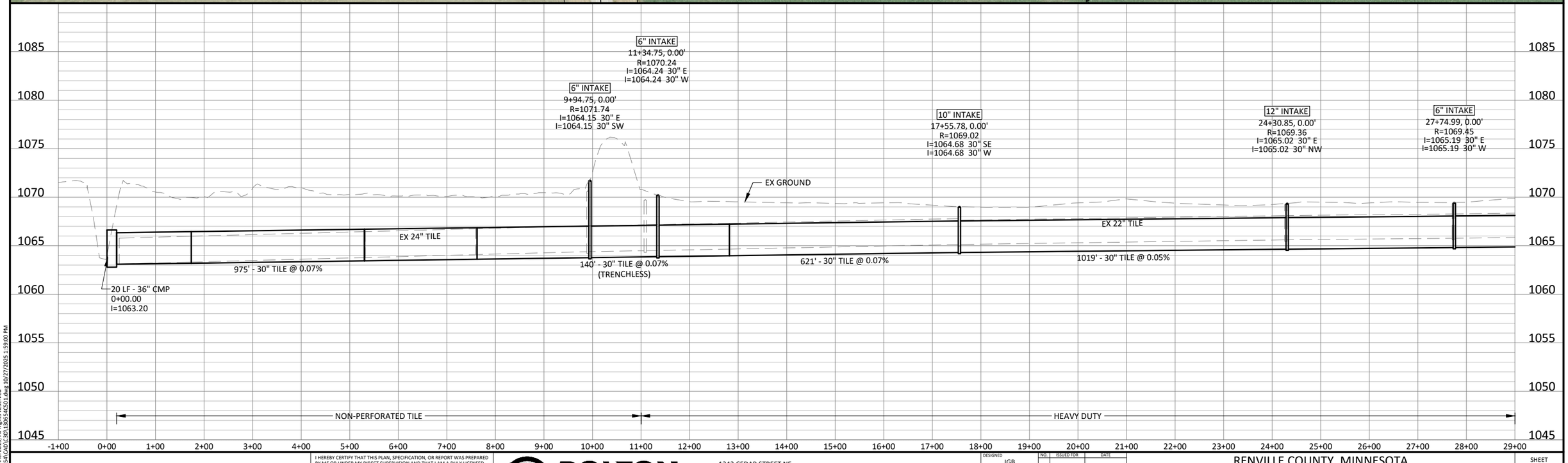
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
JGB			
DRAWN			
JGB			
CHECKED			
SPL			
CLIENT PROJ. NO.			
051.130654			

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
GRADING PLAN
POND 3

SHEET
C3.03





HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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.

PRELIMINARY NOT FOR CONSTRUCTION

SIGNATURE
LIC. NO. 48756 DATE MM/DD/YYYY

BOLTON & MENK

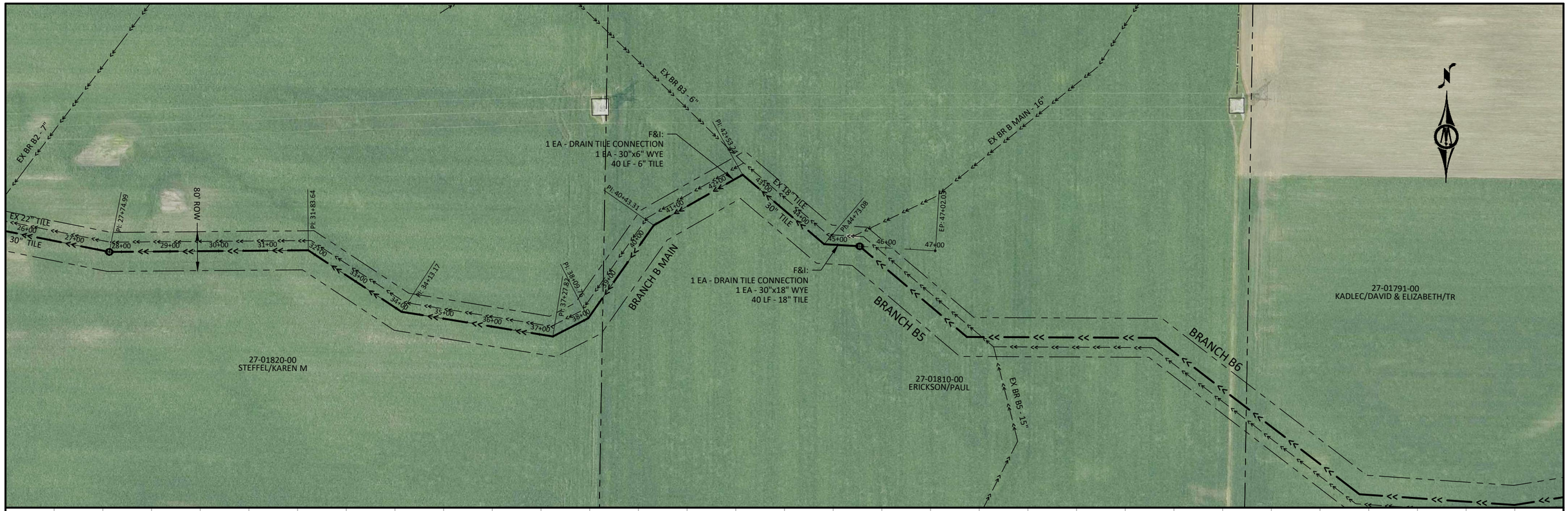
1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

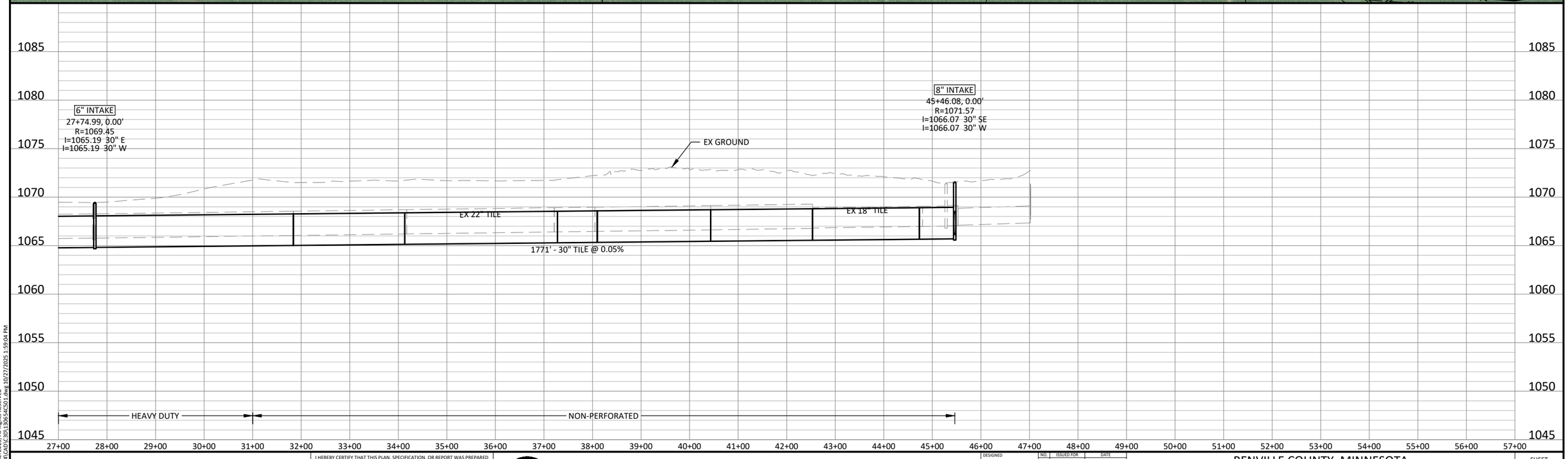
DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 - BRANCH B
STA 0+00 TO 29+00

SHEET C5.01





HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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PRELIMINARY NOT FOR CONSTRUCTION

SIGNATURE _____ DATE MM/DD/YYYY

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BOLTON & MENK

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SLEEPY EYE, MN 56085
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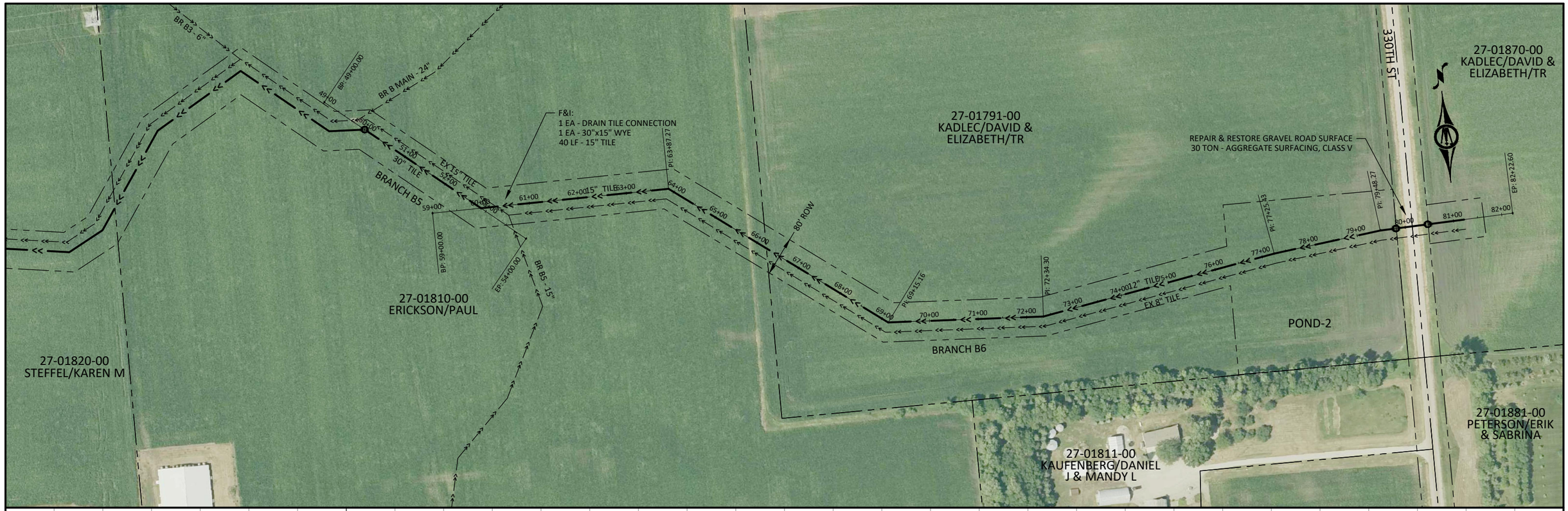
www.bolton-menk.com

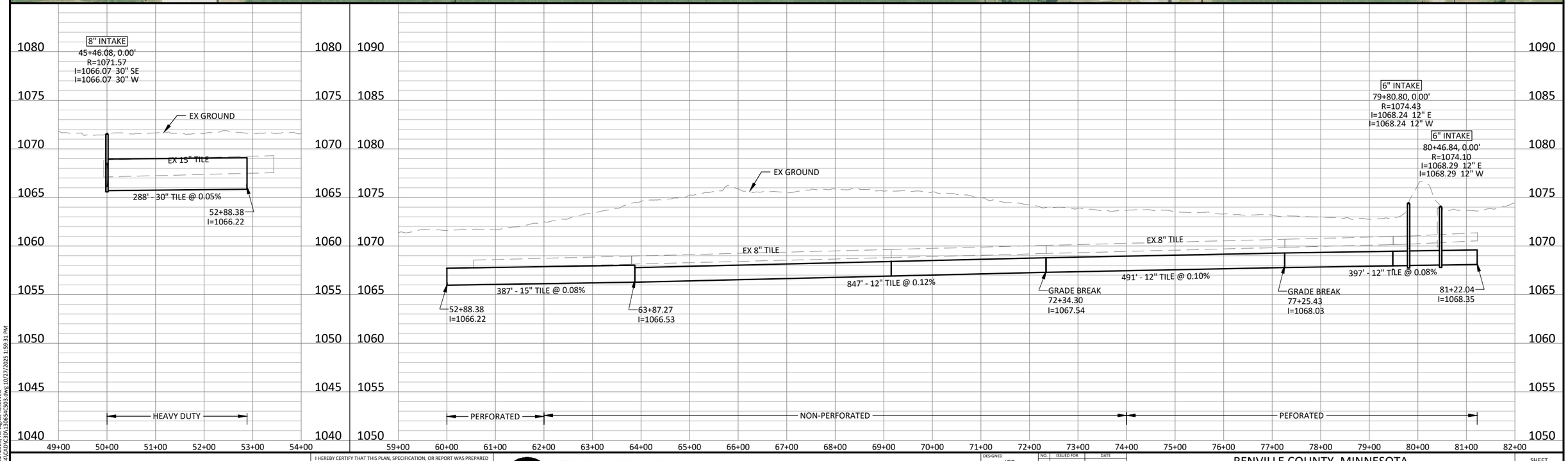
DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 - BRANCH B
STA 27+00 TO 45+44

SHEET C5.02





HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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.

PRELIMINARY NOT FOR CONSTRUCTION

PRINTED NAME: JOSHUA G. BOLTON
LIC. NO. 48756 DATE MM/DD/YYYY

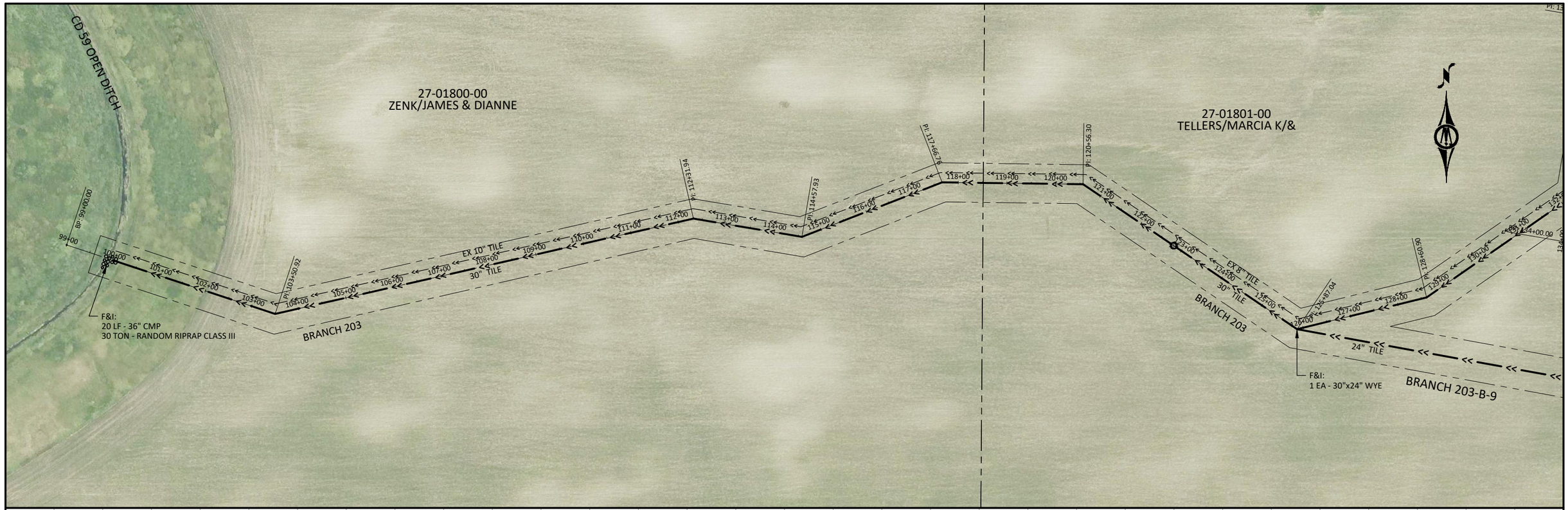
BOLTON & MENK
1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

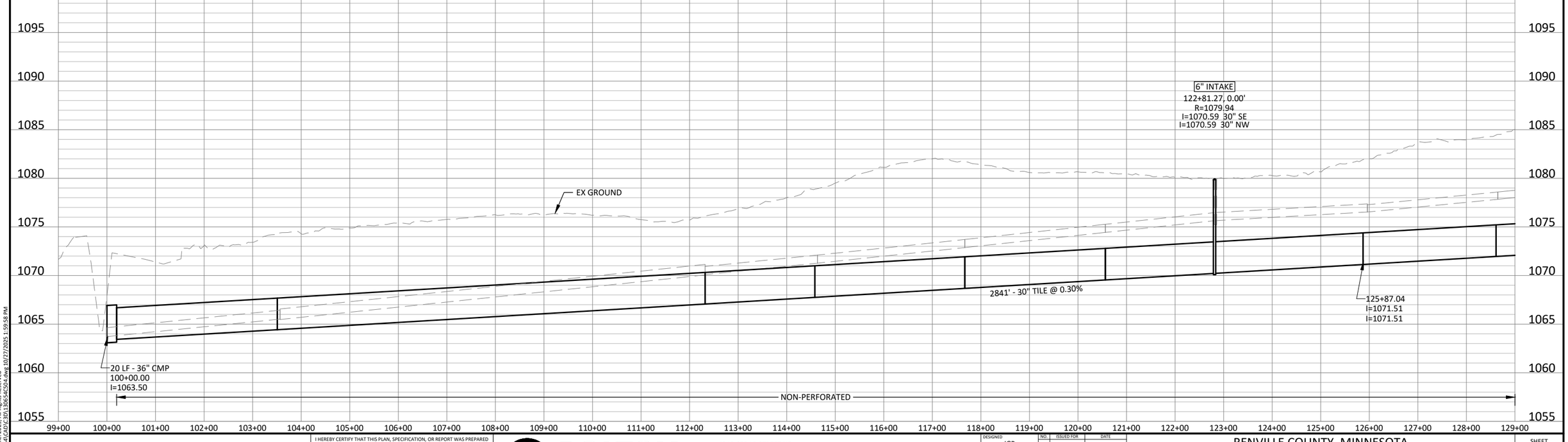
DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 - BRANCH B5 & B6
STA 49+00 TO 82+00

SHEET C5.03





HORZ. 0 100 200 SCALE FEET

VERT. 0 5 10 SCALE FEET

PRELIMINARY NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED [illegible] UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHANIE LUKES
LIC. NO. 48756 DATE MM/DD/YYYY

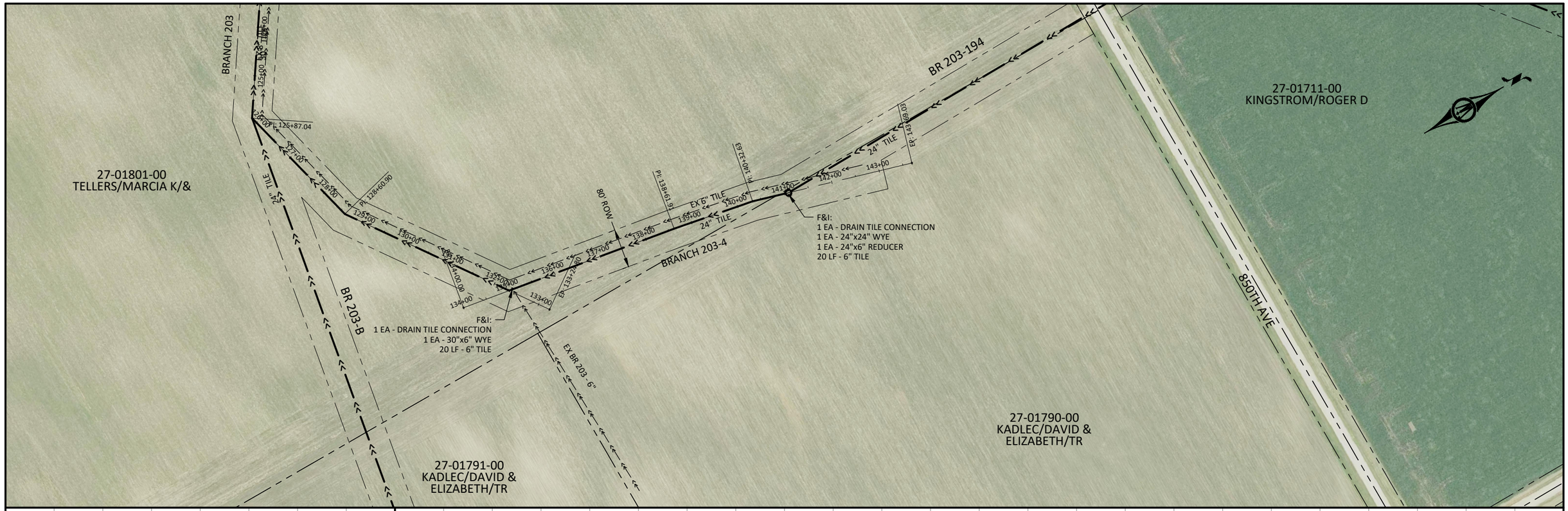
BOLTON & MENK
1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

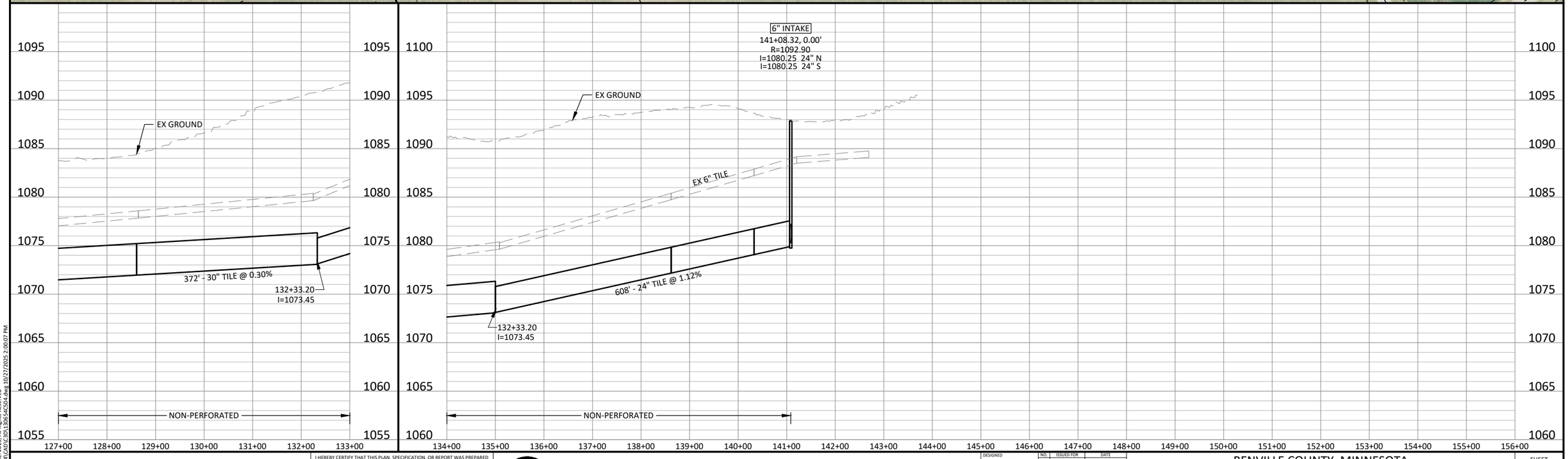
DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	051.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 - BRANCH 203
STA 99+00 TO 129+00

SHEET C5.04





HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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.

PRELIMINARY NOT FOR CONSTRUCTION

SIGNATURE _____ DATE MM/DD/YYYY

LIC. NO. 48756

BOLTON & MENK
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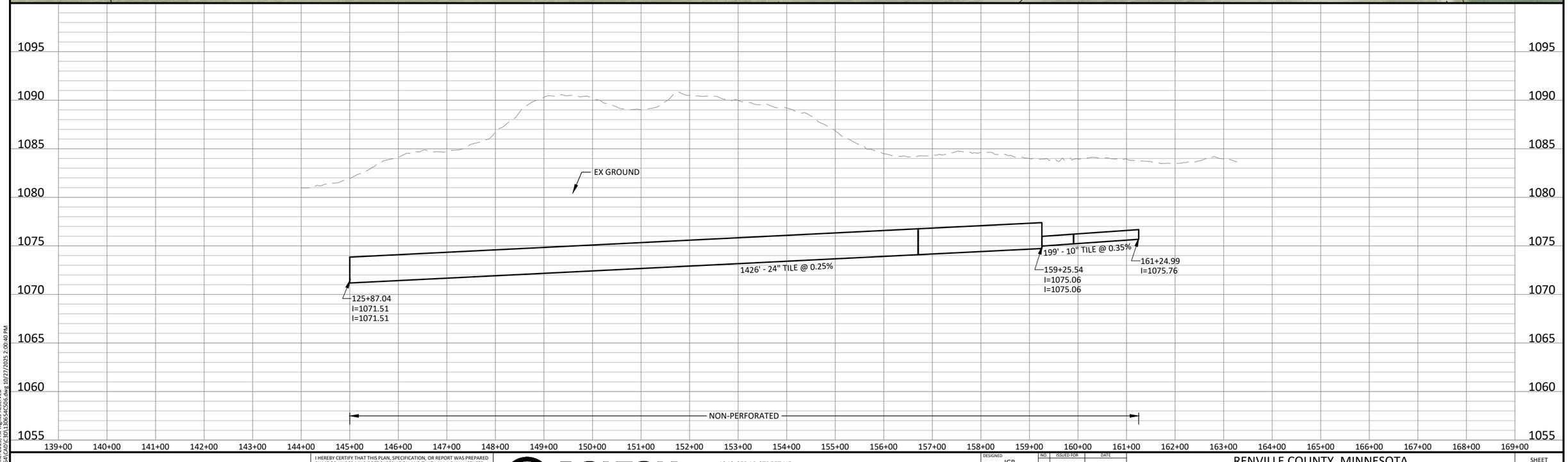
SLEEPY EYE, MN 56085
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 - BRANCH 203
STA 127+00 TO 142+00

SHEET C5.05



HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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PRELIMINARY NOT FOR CONSTRUCTION

SIGNATURE
LIC. NO. 48756
DATE MM/DD/YYYY

BOLTON & MENK

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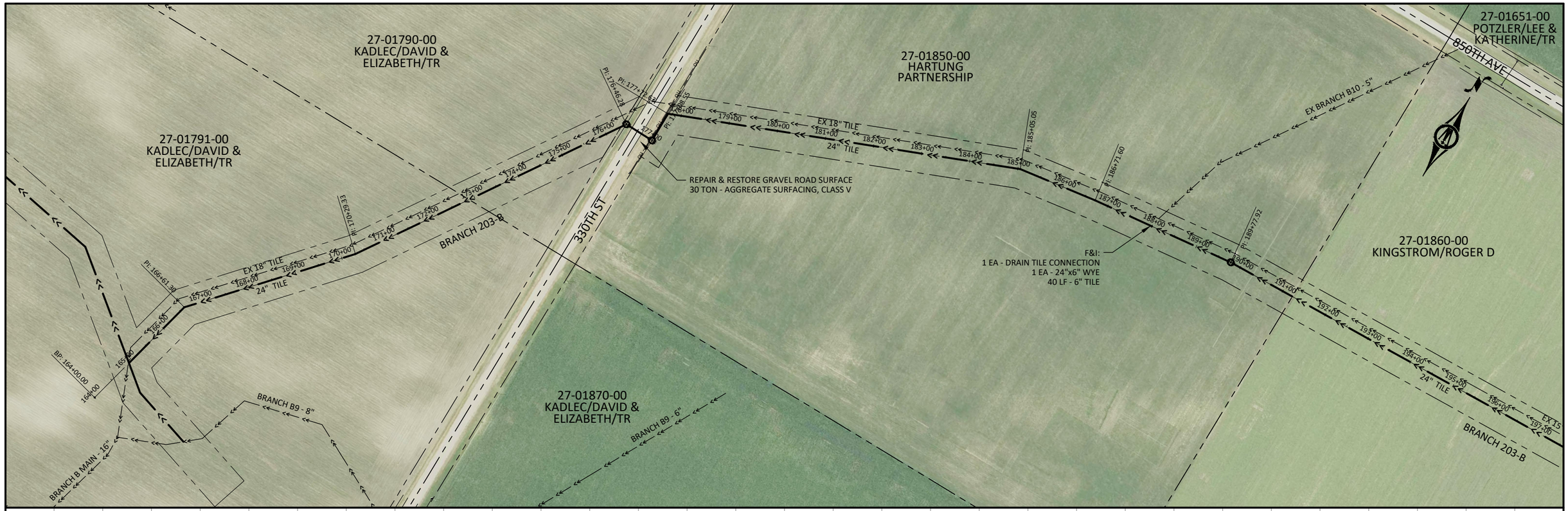
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 BRANCH 203-B9
STA 145+00 TO 162+00

SHEET C5.06



HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

PRELIMINARY NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINTED NAME: STEPHANIE LUKES
LIC. NO. 48756 DATE MM/DD/YYYY

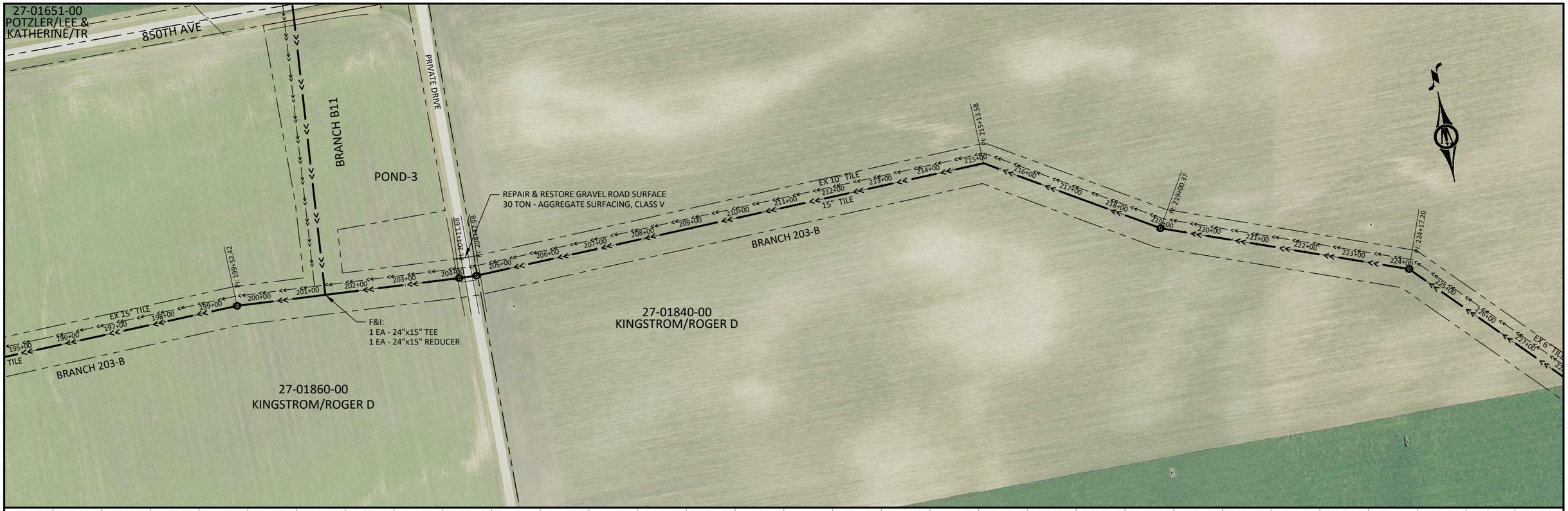
BOLTON & MENK
1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 BRANCH 203-B
STA 164+00 TO 194+00

SHEET C5.07



HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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: JUSTIN G. BOLTON
LIC. NO. 48756 DATE MM/DD/YYYY

PRELIMINARY NOT FOR CONSTRUCTION

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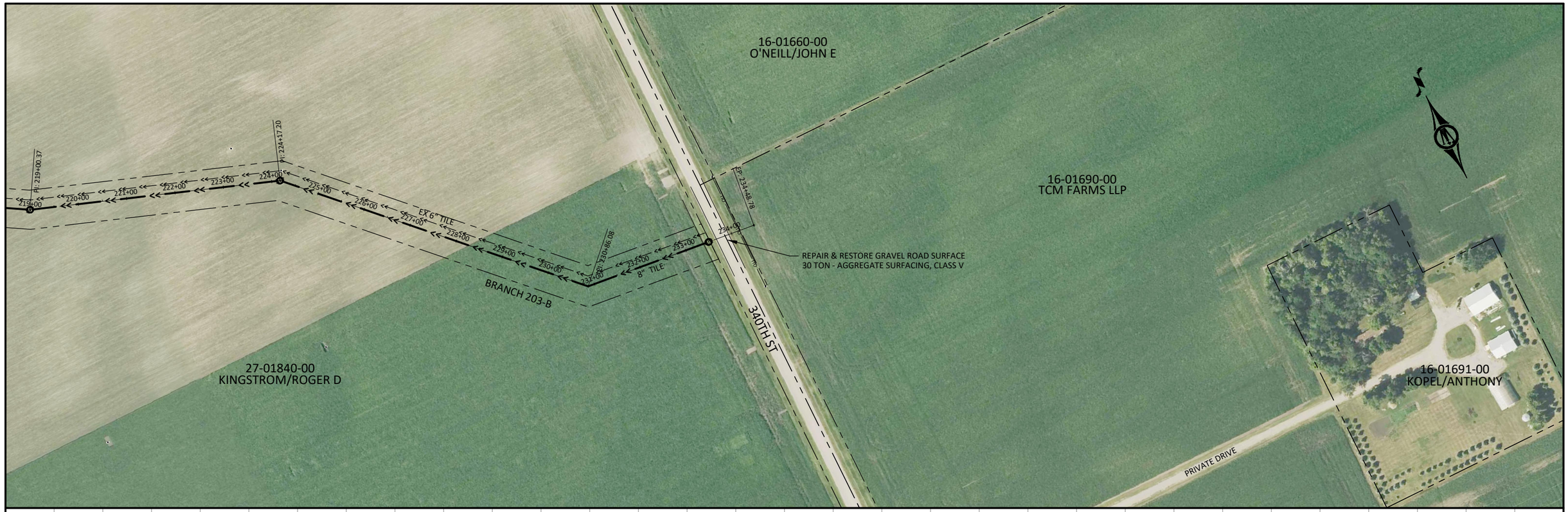
1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	051.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 BRANCH 203-B
STA 192+00 TO 222+00

SHEET C5.08



HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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PRELIMINARY NOT FOR CONSTRUCTION

SIGNATURE
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BOLTON & MENK

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SLEEPY EYE, MN 56085
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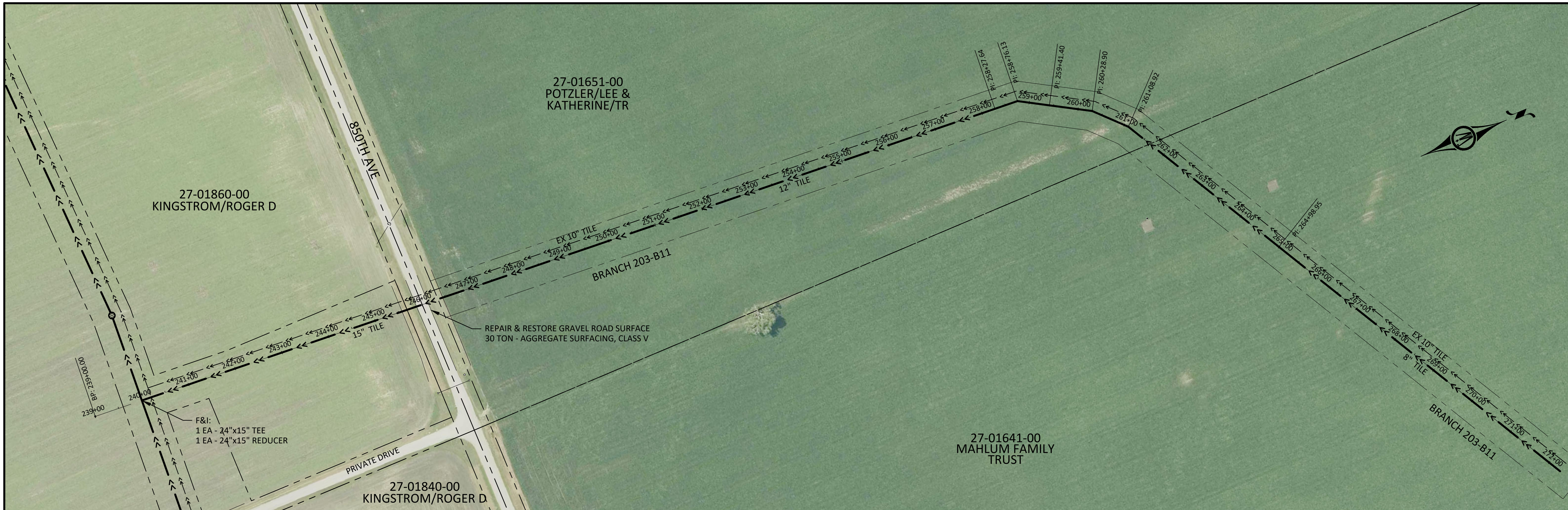
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

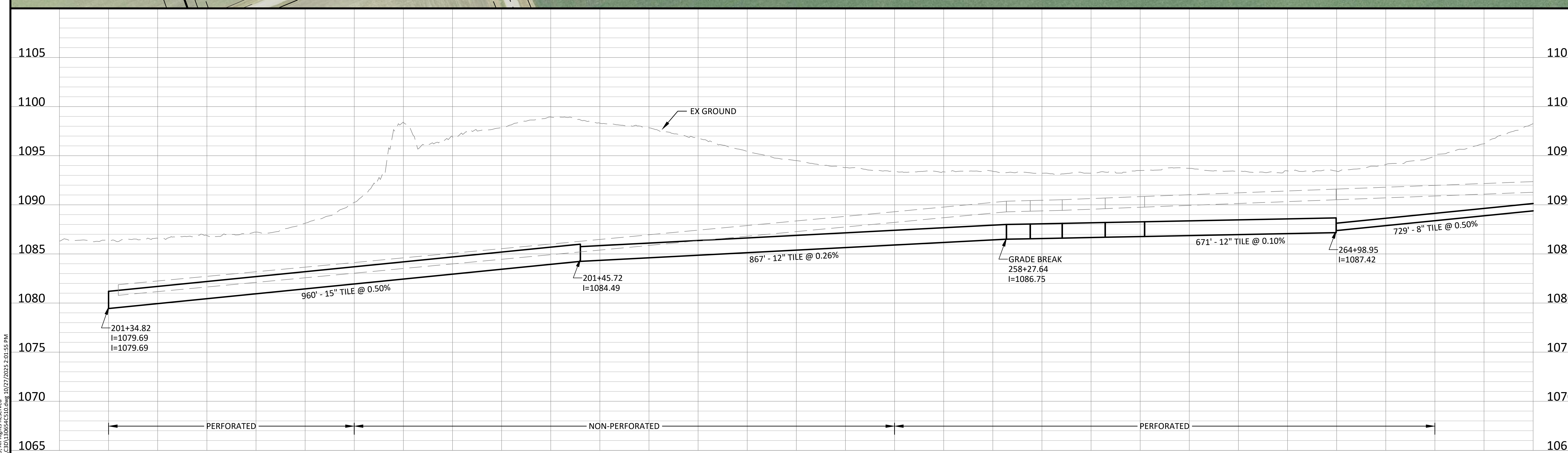
DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 BRANCH 203-B
STA 220+00 TO 250+00

SHEET C5.09





HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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PRELIMINARY NOT FOR CONSTRUCTION

SHAUN P. LUKER

LIC. NO. 48756 DATE MM/DD/YYYY

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1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

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DRAWN	JGB
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CLIENT PROJ. NO.	0S1.130654

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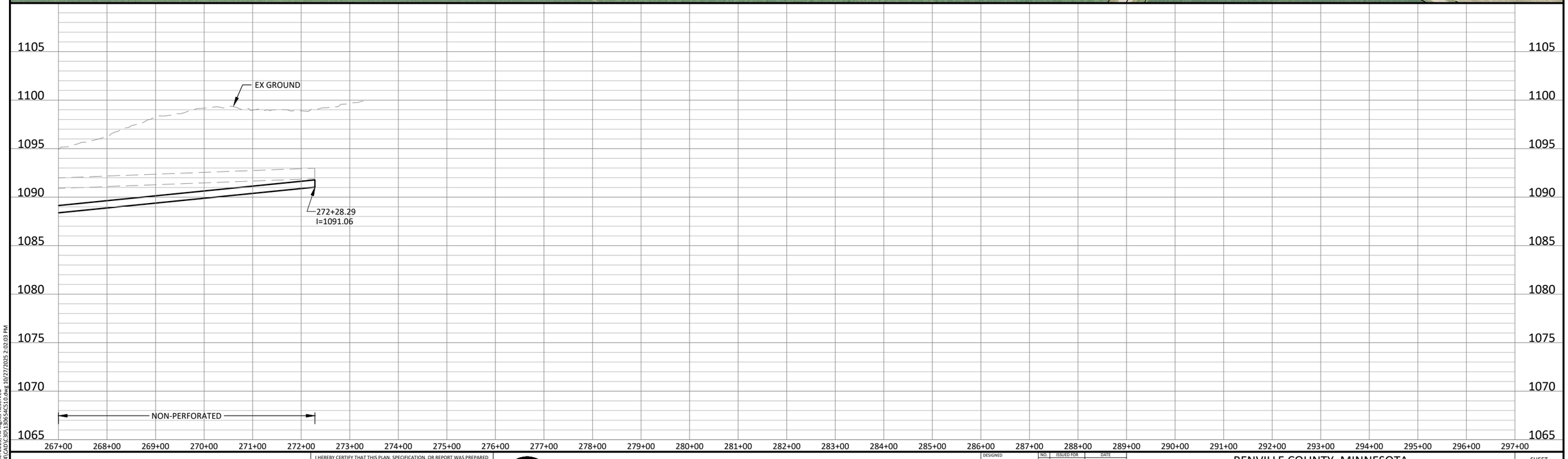
RENVILLE COUNTY, MINNESOTA

CD 59 BRANCH B - IMPROVEMENT

CD 59 BRANCH 203-B11

STA 239+00 TO 269+00

SHEET C5.10



HORZ. SCALE 0 25 50 FEET

VERT. SCALE 0 5 10 FEET

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www.bolton-menk.com

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DRAWN	JGB
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CLIENT PROJ. NO.	0S1.130654

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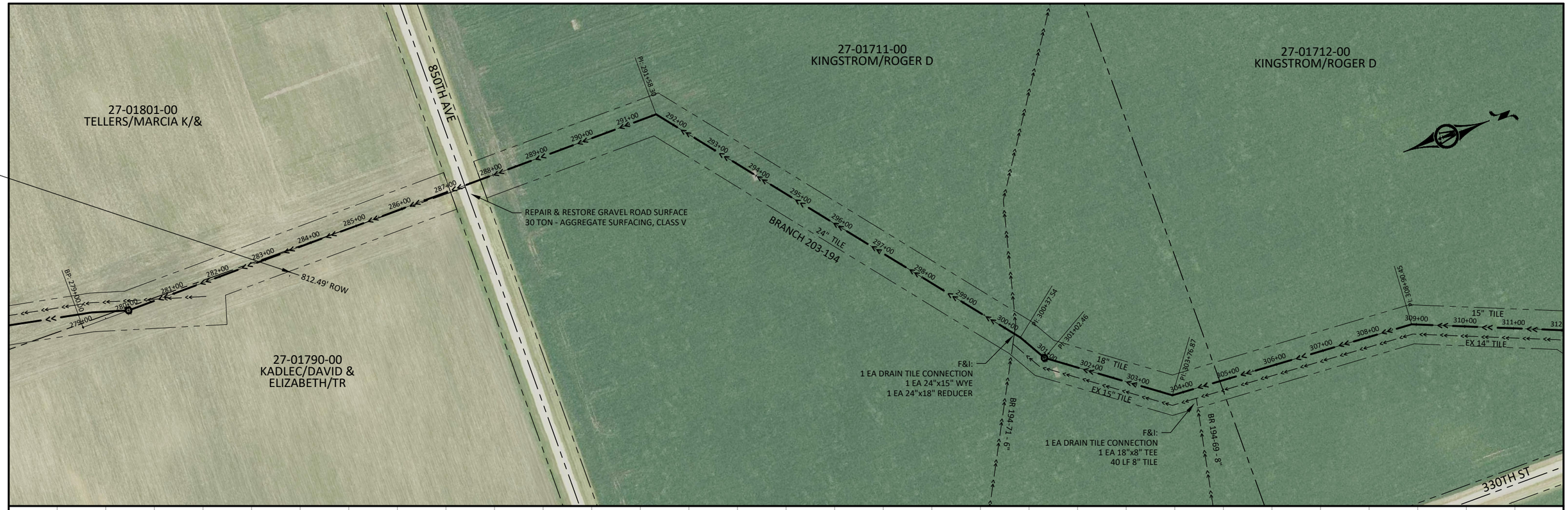
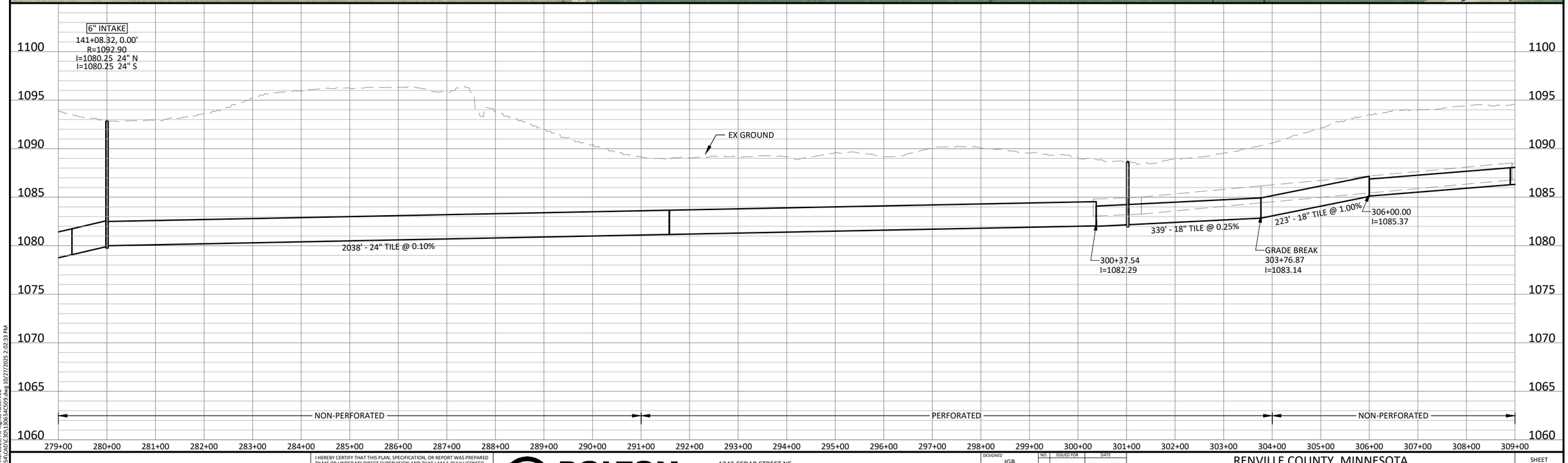
RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 BRANCH 203-B11
STA 267+00 TO 297+00

SHEET C5.11





HORZ. SCALE 0 100 200 FEET
VERT. SCALE 0 5 10 FEET

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PRELIMINARY NOT FOR CONSTRUCTION

SHAUNA L. LUKES
LIC. NO. 48756 DATE MM/DD/YYYY

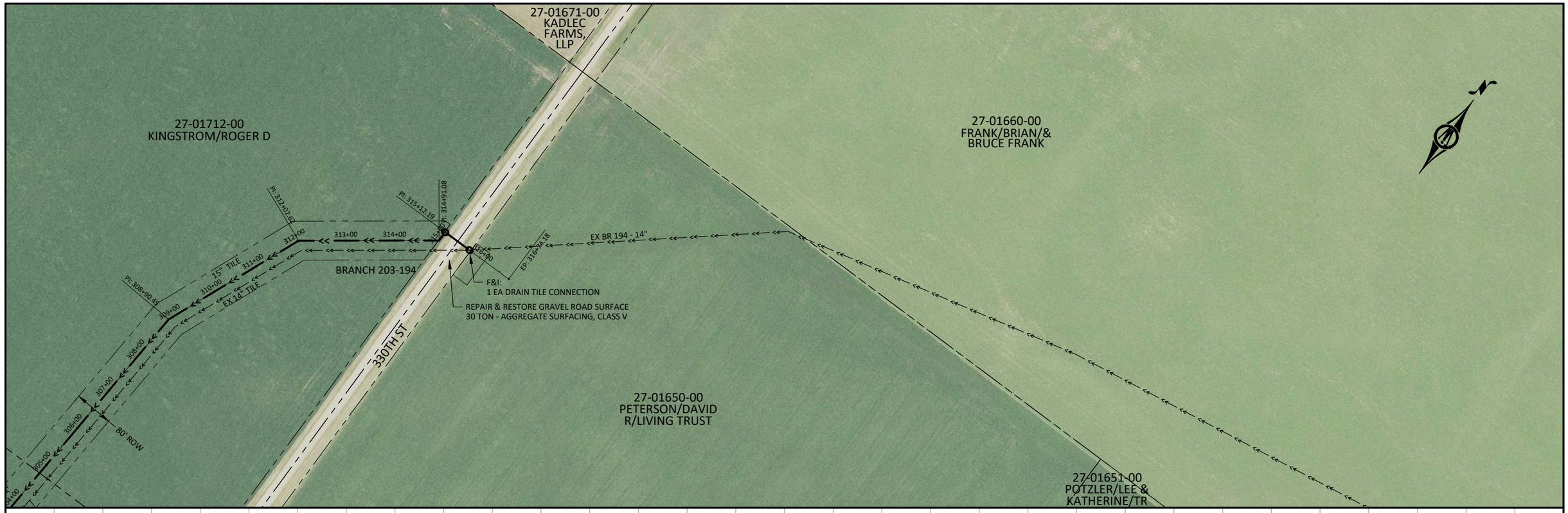
BOLTON & MENK
1243 CEDAR STREET NE
SLEEPY EYE, MN 56085
Phone: (507) 794-5541
Email: SleepyEye@bolton-menk.com
www.bolton-menk.com

DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 BRANCH 203-194
STA 279+00 TO 309+00

SHEET C5.12



HORZ. SCALE 0 25 50 FEET

VERT. SCALE 0 5 10 FEET

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PRELIMINARY NOT FOR CONSTRUCTION

SHAUNA LUKE
LIC. NO. 48756 DATE MM/DD/YYYY

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SLEEPY EYE, MN 56085
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www.bolton-menk.com

DESIGNED	JGB
DRAWN	JGB
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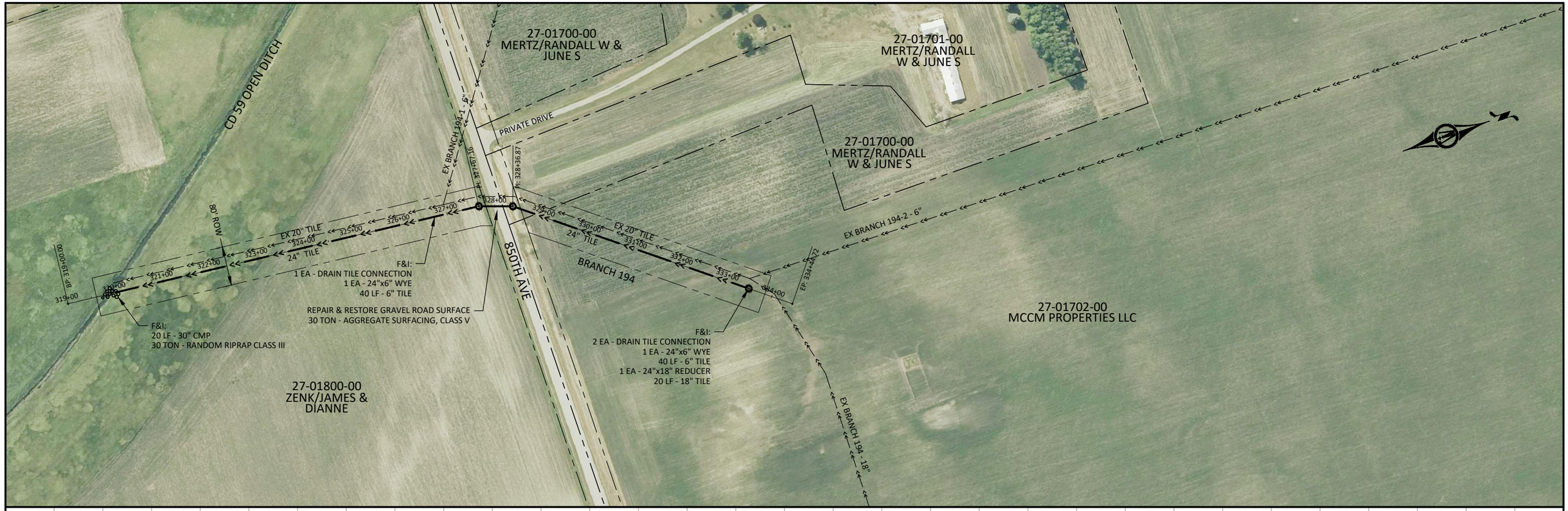
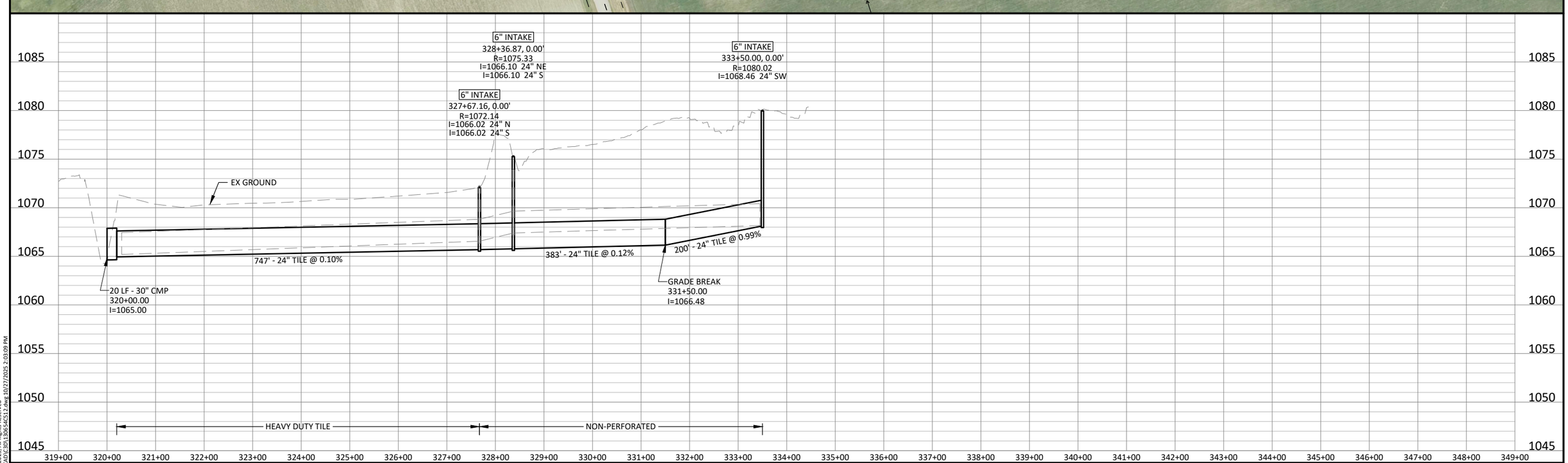
NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 BRANCH 203-194
STA 307+00 TO 337+00

SHEET C5.13





HORZ. SCALE 0 100 200 FEET

VERT. SCALE 0 5 10 FEET

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PRELIMINARY NOT FOR CONSTRUCTION

SIGNATURE
LIC. NO. 48756 DATE MM/DD/YYYY

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SLEEPY EYE, MN 56085
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www.bolton-menk.com

DESIGNED	JGB
DRAWN	JGB
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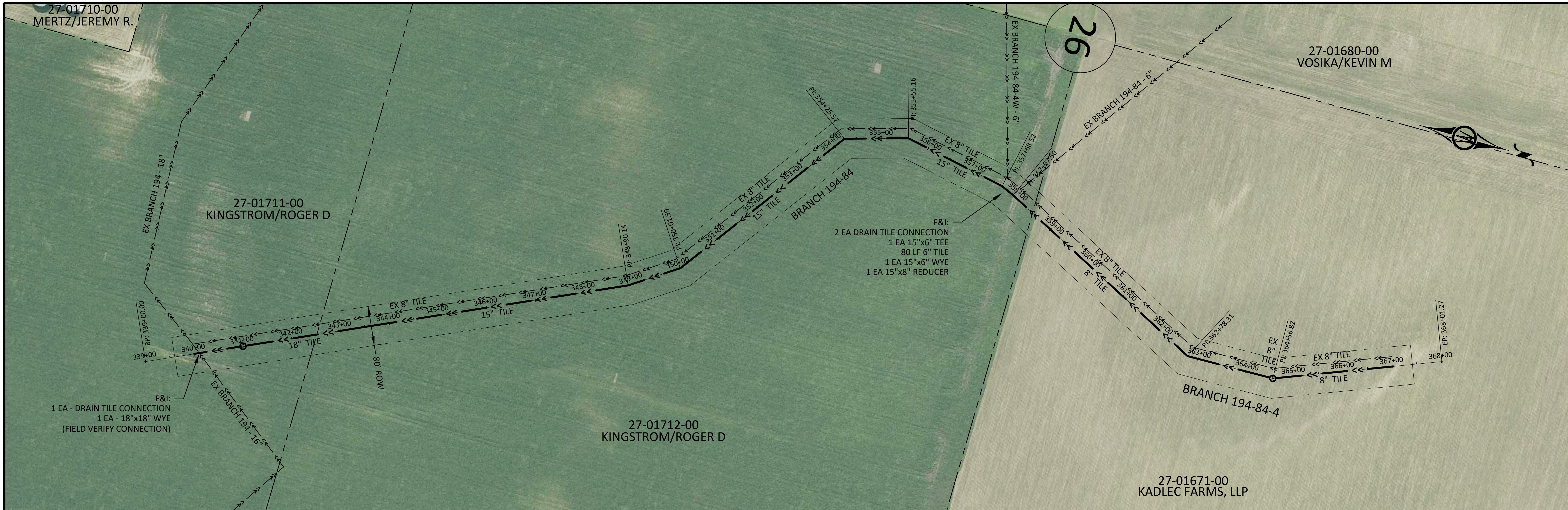
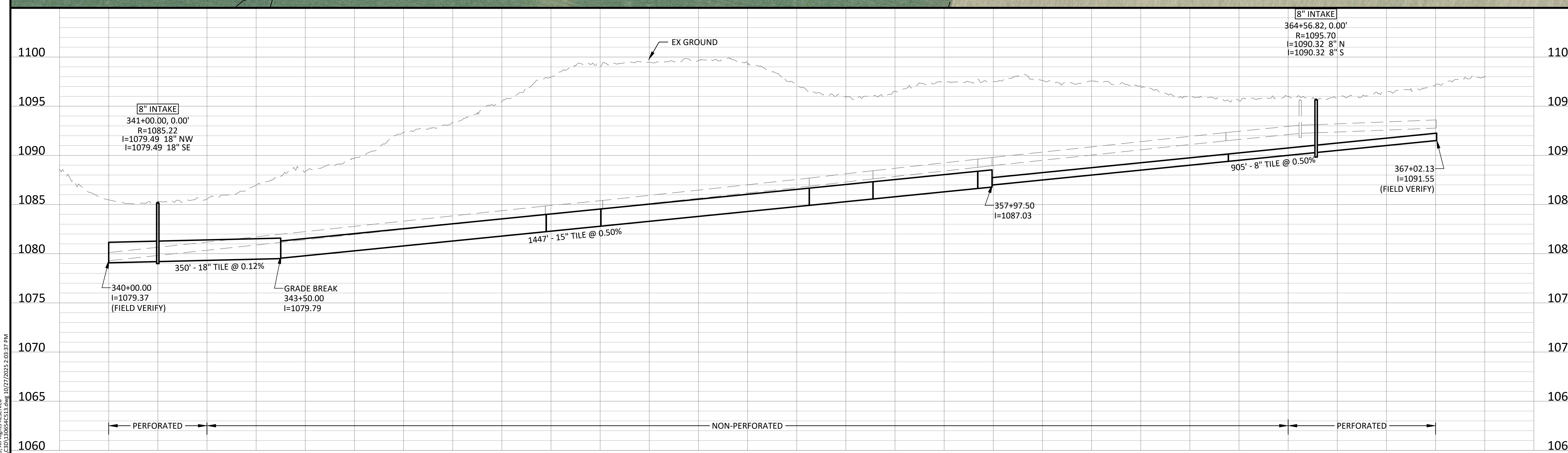
CLIENT PROJ. NO.	051.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 - BRANCH 194
STA 319+00 TO 349+00

SHEET C5.14





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SHAUN P. LUKER
LIC. NO. 48756 DATE MM/DD/YYYY

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www.bolton-menk.com

DESIGNED	JGB
DRAWN	JGB
CHECKED	SPL
CLIENT PROJ. NO.	0S1.130654

NO.	ISSUED FOR	DATE

RENVILLE COUNTY, MINNESOTA
CD 59 BRANCH B - IMPROVEMENT
CD 59 - BRANCH 194-84
STA 339+00 TO 369+00

SHEET C5.15

EXHIBIT 2: PETITION FOR CD 59 IMPROVEMENT

GISLASON & HUNTER LLP

ATTORNEYS AT LAW

April 9, 2025

Dean M. Zimmerli
507-354-3111
dzimmerli@gislason.com

VIA E-MAIL AND US MAIL
Lisa.Meints@renvillecountymn.gov

Ms. Lisa Meints
Renville County Auditor
500 E Depue Ave
Olivia, MN 56277

Re: Renville County Ditch 59 Branch B Improvement
Our File No. 35240-1

Dear Ms. Meints:

In consultation with Bolton & Menk, the project engineer appointed for the CD 59 Branch B improvement petition, the petitioners desire to amend their petition to accomplish a more cost-effective and efficient project. Accordingly, enclosed herein please find an Amended Petition for Improvement of Renville County Ditch 59, which the petitioners desire to supersede the petition they previously filed. The amended petition is signed by a majority of the petitioners who subscribed to the original petition, who also represent more than 26% of the land passed over by the proposed amended project.

I would ask that the drainage authority's attorney review the petition to determine it is sufficient and present the petition to the drainage authority for consideration at the soonest available opportunity.

Best regards,

Dean M. Zimmerli

DMZ:JH
cc: Kale Van Bruggen (via e-mail)
Seth Sparks (via e-mail)
Dave Kadlec (via e-mail)
Roger Kingstrom (via e-mail)

4926-5614-4948

AMENDED PETITION FOR IMPROVEMENT OF DRAINAGE SYSTEM RENVILLE COUNTY DITCH NO. 59

TO: THE RENVILLE COUNTY BOARD OF COMMISSIONERS, ACTING AS THE DRAINAGE AUTHORITY FOR RENVILLE COUNTY DITCH NO. 59

Petitioners respectfully represent, state and request the following:

1. Designation of Drainage System.

This Petition requests the completion of a drainage project consisting of improvements to the drainage system designated as County Ditch No. 59 ("CD 59") located in Renville County, Minnesota. This Petition amends that Petition for Improvement of County Ditch 59 Branch B filed with the Renville County Auditor on or about January 15, 2024.

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. Minn. Stat. § 103E.215, Subd. 4(c)(2). The proposed improvements are necessary to prevent flooding, erosion, and adverse effects on agricultural land.

The drainage system is out of repair and the drainage 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. Minn. Stat. § 103E.215, Subd. 6.

3. Description of Proposed Improvement.

The proposed drainage project would consist of improving CD 59 Branch B along its entire length, together with lateral branches thereof; CD 59 Branch 203 along its entire length, together with lateral branch thereof; CD 59 Branch from its outlet to a point immediately east of 330th Street, together with lateral branches thereof. This proposed project would involve enlarging some tile lines and rerouting other lines to create a more efficient and effective drainage system, as well as installing storage ponds to provide for additional capacity and water quality benefits.

The location of the proposed improvements, subject to any alterations deemed prudent or necessary by the project engineer, are depicted on the map attached hereto as **Exhibit A** and are located in Troy and Winfield Townships in Renville County. Portions of the drainage system proposed to be improved are highlighted in White on Exhibit A, and proposed pond sizes and locations are depicted on Exhibit A.

The Branch B Tile Line, Branch 203 Tile Line, and Branch 194 Tile Line all consist of buried tile. The Branch B Tile Line, Branch 203 Tile Line, and Branch 194 Tile Line would all be enlarged and their capacity increased to meet the NRCS recommended standard ½ inch per day drainage coefficient. The improvement to the Branch B Tile Line, Branch 203 Tile Line, and

Branch 194 Tile Line would be improved along where necessary to meet a ½ inch per day drainage coefficient.

If deemed prudent and practical by the Engineer, additional or different water storage ponds or other features may be included in the project design to improve water quality, reduce erosion, or increase capacity.

4. Jurisdiction.

The undersigned Petitioners constitute: (1) at least 26% of the owners of the property affected by the proposed improvements; (2) at least 26% of the owners of property that the proposed improvements pass over; (3) the owners of at least 26% of the property area affected by the proposed improvements; or (4) the owners of at least 26% of the property area that the proposed improvements pass over. Minn. Stat. § 103E.215, Subd. 4(a).

Pursuant to Minn. Stat. § 103E.215, Subd. 4(c)(4), 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; to-wit:

	Owner	Address	PID	Description	Sec	Twp	Rge	County
1	Lee & Katherine Potzler Trust	2017 Northshore Dr. Bellingham, WA 98226	27-01651-00	NE ¼ SW ¼	25	116N	35W	Renville
2	Lee & Katherine Potzler Trust	2017 Northshore Dr. Bellingham, WA 98226	27-01651-00	SE ¼ SW ¼	25	116N	35W	Renville
3	Mahlum Family Trust	805 Main St. S. Chatfield, MN 55923	27-01640-00	NW ¼ SE ¼	25	116N	35W	Renville
4	David & Elizabeth Kadlec Trust	88111 330th Street Olivia, MN 56277	27-01790-00	NE ¼ NE ¼	35	116N	35W	Renville
5	David & Elizabeth Kadlec Trust	88111 330th Street Olivia, MN 56277	27-01791-00	SE ¼ NE ¼	35	116N	35W	Renville
6	David & Elizabeth Kadlec Trust	88111 330th Street Olivia, MN 56277	27-01791-00	NE ¼ SE ¼	35	116N	35W	Renville
7	David & Elizabeth Kadlec Trust	88111 330th Street Olivia, MN 56277	27-01870-00	NW ¼ SW ¼	36	116N	35W	Renville
8	Hartung Partnership	c/o Don Hartung 14941 State Hwy 4 Cosmos, MN 56228	27-01850-00	NW ¼ NW ¼	36	116 N	35W	Renville
9	Roger Kingstrom	33493 850th Ave Olivia, MN 56277	27-01860-00	NE ¼ NW ¼	36	116N	35W	Renville
10	Roger Kingstrom	33493 850th Ave Olivia, MN 56277	27-01840-00	NW ¼ NE ¼	36	116N	35W	Renville

	Owner	Address	PID	Description	Sec	Twp	Rge	County
11	Roger Kingstrom	33493 850th Ave Olivia, MN 56277	27-01840-00	NE ¼ NE ¼	36	116 N	35W	Renville
12	Roger Kingstrom	33493 850th Ave Olivia, MN 56277	27-18040-00	SE ¼ NE ¼	36	116N	35W	Renville
13	Roger Kingstrom	33493 850th Ave Olivia, MN 56277	27-01711-00	SW ¼ SE ¼	26	116N	35W	Renville
14	Roger Kingstrom	33493 850th Ave Olivia, MN 56277	27-01711-00	SE ¼ SE ¼	26	116N	35W	Renville
15	Roger Kingstrom	33493 850th Ave Olivia, MN 56277	27-01712-00	NW ¼ SE ¼	26	116N	35W	Renville
16	Roger Kingstrom	33493 850th Ave Olivia, MN 56277	27-01712-00	NE ¼ SE ¼	26	116N	35W	Renville
17	James & Dianne Zenk	501 10th St N Olivia, MN 56277	27-01800-00	SE ¼ NW ¼	35	116 N	35W	Renville
18	James & Dianne Zenk	501 10th Street North Olivia, MN 56277	27-01800-00	NW ¼ NW ¼	35	116N	35W	Renville
19	James & Dianne Zenk	501 10th Street North Olivia, MN 56277	27-01800-00	SW ¼ NW ¼	35	116N	35W	Renville
20	Kenneth Tellers Family Trust	504 Adams Circle Cologne, MN 55322	27-01801-00	SW ¼ NE ¼	35	116N	35W	Renville
21	Kenneth Tellers Family Trust	504 Adams Circle Cologne, MN 55322	27-01801-00	NW ¼ NE ¼	35	116N	35W	Renville
22	Robb & Megan Zenk	84691 US Hwy 71 Danube, MN 56230	27-01770-00	NE ¼ SE ¼	34	116N	35W	Renville
23	Karen Steffel	34636 880th Ave Olivia, MN 56277	27-01820-00	NW ¼ SW ¼	35	116N	35W	Renville
24	Karen Steffel	34636 880th Ave Olivia, MN 56277	27-01820-00	NE ¼ SW ¼	35	116N	35W	Renville
25	Paul Erickson	82698 330th Street Olivia, MN 56277	27-01810-00	NW ¼ SE ¼	35	116N	35W	Renville
26	Randall & June Mertz	32118 850th Ave Olivia, MN 56277	27-01700-00	SW ¼ SW ¼	26	116N	35W	Renville
27	MCCM Properties LLC	44291 Kandi-Renville Line SE Hector, MN 55342	27-01702-00	SW ¼ SW ¼	26	116N	35W	Renville
28	MCCM Properties LLC	44291 Kandi-Renville Line SE Hector, MN 55342	27-01702-00	SE ¼ SW ¼	26	116N	35W	Renville
29	Kadlec Farms, LLP	88111 330th Street Olivia, MN 56277	27-01671-00	SW ¼ NE ¼	26	116N	35W	Renville

	Owner	Address	PID	Description	Sec	Twp	Rge	County
30	Jamie L. Kubesh Living Trust	35104 County Rd. 11 Olivia, MN 56277	27-01650-00	NW ¼ SW ¼	25	116N	35W	Renville

5. Public Utility and Health.

The proposed improvements will be of public benefit and utility because they will (1) protect property and roads from overflow and flooding and (2) render property suitable for cultivation. Minn. Stat. § 103E.215, Subd. 4(c)(5); Minn. Stat. § 103E.005, Subd. 27. Further, the proposed improvements will promote the public health because they will (1) improve the general sanitary condition of property by drainage and (2) prevent overflow that produces or tends to produce unhealthful conditions on agricultural land. Minn. Stat. § 103E.215, Subd. 4(c)(5); Minn. Stat. § 103E.005, Subd. 25.

6. Agreement by Petitioners.

The undersigned Petitioners have been informed and understand that they may not withdraw as a 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 drainage project are dismissed. Minn. Stat. § 103E.215, Subd. 4(c)(6).

7. Cost Bond.

One or more petitioners shall cause a bond to be filed or a check to be delivered in the amount of at least $10,000.00 payable to the drainage authority. Minn. Stat. § 103E.202, Subd. 5. The bond or payment will be conditioned to pay the costs incurred if the proceedings are dismissed or if a contract is not awarded to construct the proposed improvements described in the petition. *Id.*

WHEREFORE, the Petitioners respectfully request the following:

a. That the drainage authority accepts this Petition, review it and determine that it is legally adequate;

b. That the drainage authority directs the engineer previously appointed for the prior Petition for Improvement of County Ditch 59 Branch B amended hereinto evaluate the proposed drainage project and direct the engineer to update and prepare an engineer's preliminary report for the proposed drainage project as amended, including allowing the engineer to analyze other potential routes for the proposed improvements and whether separable maintenance may be employed. Petitioners request Shaun Luker and Bolton & Menk be appointed as project engineer; and

c. That the proposed improvements be established and constructed as part of the CD 59 drainage system.

Dated: April 9th, 2025

Dean M. Zimmerli #0396791
dzimmerli@gislason.com
GISLASON & HUNTER LLP
Attorneys for Petitioners
2700 South Broadway
P. O. Box 458
New Ulm, MN 56073-0458
Phone: 507-354-3111

[Signature pages to follow]

SIGNATURE PAGES FOR
AMENDED PETITION FOR NEW DRAINAGE PROJECT:
IMPROVEMENT OF DRAINAGE SYSTEM
RENVILLE COUNTY DITCH NO. 59

Name of Petitioner(s) (please print or type):
Roger D. Kingstrom

Ownership (check one):

- X Individual
- ____ Co-Owners (# of co-owners: ____)
- ____ Partner (name of partnership: ____)
- ____ Corporation or limited liability company (name of corporation or LLC: ____)
- ____ Trust (complete name of trust: ____)
- ____ Other (explanation: ____)

Statement of Authority:

The undersigned states and represents that if he or she is executing in a representative capacity, he or she has the authority to execute on behalf of the respective partnership, corporation, limited liability company, trust or other such entity.

The above-named Petitioner(s) owns the following tract(s) which the proposed improvement will pass over or which is affected by the proposed improvement.

Tract Description	Section	Township	Range	County
SW¼ SE¼	26	116N	35W	Renville
SE¼ SE¼	26	116N	35W	Renville
NW¼ SE¼	26	116N	35W	Renville
NE¼ SE¼	26	116N	35W	Renville

Dated: 4-7-25

Roger D Kingstrom
(signature)

Dated: ____

____
(signature)

Dated: ____

____
(signature)

SIGNATURE PAGES FOR
AMENDED PETITION FOR NEW DRAINAGE PROJECT:
IMPROVEMENT OF DRAINAGE SYSTEM
RENVILLE COUNTY DITCH NO. 59

Name of Petitioner(s) (please print or type):

Roger D. Kingstrom

Ownership (check one):

X Individual
____ Co-Owners (# of co-owners: _____)
____ Partner (name of partnership: _____)
____ Corporation or limited liability company (name of corporation or LLC: _____)
____ Trust (complete name of trust: _____)
____ Other (explanation: _____)

Statement of Authority:

The undersigned states and represents that if he or she is executing in a representative capacity, he or she has the authority to execute on behalf of the respective partnership, corporation, limited liability company, trust or other such entity.

The above-named Petitioner(s) owns the following tract(s) which the proposed improvement will pass over or which is affected by the proposed improvement.

Tract Description	Section	Township	Range	County
NE¼ NW¼	36	116N	35W	Renville
NW¼ NE¼	36	116N	35W	Renville
NE¼ NE¼	36	116N	35W	Renville
SE¼ NE¼	36	116N	35W	Renville

Dated: 4-7-25

Roger D. Kingstrom
(signature)

Dated: _____

_____
(signature)

Dated: _____

_____
(signature)

SIGNATURE PAGES FOR
AMENDED PETITION FOR NEW DRAINAGE PROJECT:
IMPROVEMENT OF DRAINAGE SYSTEM
RENVILLE COUNTY DITCH NO. 59

Name of Petitioner(s) (please print or type):

David J Kadlec
Elizabeth M Kadlec

Ownership (check one):

____ Individual
____ Co-Owners (# of co-owners: ____)
_X_ Partner (name of partnership: Kadlec Farms LLP)
____ Corporation or limited liability company (name of corporation or LLC: ____)
_X_ Trust (complete name of trust: David + Elizabeth Kadlec Revocable Trust)
____ Other (explanation: ____)

Statement of Authority:

The undersigned states and represents that if he or she is executing in a representative capacity, he or she has the authority to execute on behalf of the respective partnership, corporation, limited liability company, trust or other such entity.

The above-named Petitioner(s) owns the following tract(s) which the proposed improvement will pass over or which is affected by the proposed improvement.

Tract Description	Section	Township	Range	County
NE¼ NE¼	35	Winfield	35W	Renville
SE¼ NE¼	35	"	35W	"
NE¼ SE¼	35	"	35W	"
NW¼ SW¼	36	"	35W	"
SW¼ NE¼	26	"	35W	"

Dated: 4-5-2025

David J Kadlec
(signature)

Dated: 4-5-2025

Elizabeth M Kadlec
(signature)

Dated: _____

_____
(signature)

EXHIBIT A, Page 1 of 1

EXHIBIT 3: PRELIMINARY COST ESTIMATE

ENGINEER'S ESTIMATE

COUNTY DITCH #59 BRANCH B IMPROVEMENTS
RENVILLE COUNTY
BMI PROJECT NO: 0S1.130654

BOLTON & MENK
Real People. Real Solutions.

Date: 10/27/2025

Item No.	Item	Estimated Quantity	Unit	Unit Price	Total Amount
BASE BID					
1	Mobilization	1	Lump Sum	$45,000.00	$45,000.00
2	Aggregate Surfacing, Class 5	210	Ton	$30.00	$6,300.00
3	Exploratory Excavation	200	Hour	$225.00	$45,000.00
4	Common Excavation, P (CV)	23400	Cubic Yard	$16.00	$374,400.00
5	30" Alumanized CM Pipe Culvert	20	Linear Foot	$150.00	$3,000.00
6	36" Alumanized CM Pipe Culvert	40	Linear Foot	$180.00	$7,200.00
7	6" Intake	20	Each	$1,000.00	$20,000.00
8	8" Intake	5	Each	$1,250.00	$6,250.00
9	10" Intake	1	Each	$1,500.00	$1,500.00
10	12" Intake	3	Each	$1,750.00	$5,250.00
11	6" Drain Tile	300	Linear Foot	$20.00	$6,000.00
12	8" Drain Tile, Non-Perforated	2500	Linear Foot	$24.00	$60,000.00
13	8" Drain Tile, Perforated	200	Linear Foot	$24.00	$4,800.00
14	10" Drain Tile, Non-Perforated	200	Linear Foot	$26.00	$5,200.00
15	12" Drain Tile, Non-Perforated	1540	Linear Foot	$28.00	$43,120.00
16	12" Drain Tile, Perforated	1660	Linear Foot	$28.00	$46,480.00
17	15" Drain Tile, Non-Perforated	5080	Linear Foot	$32.00	$162,560.00
18	15" Drain Tile, Perforated	700	Linear Foot	$32.00	$22,400.00
19	18" Drain Tile, Non-Perforated	440	Linear Foot	$38.00	$16,720.00
20	18" Drain Tile, Perforated	560	Linear Foot	$38.00	$21,280.00
21	24" Drain Tile, Non-Perforated	7380	Linear Foot	$44.00	$324,720.00
22	24" Drain Tile, Perforated	940	Linear Foot	$45.00	$42,300.00
23	24" Drain Tile, Heavy Duty	760	Linear Foot	$90.00	$68,400.00
24	30" Drain Tile, Non-Perforated	5620	Linear Foot	$58.00	$325,960.00
25	30" Drain Tile, Heavy Duty	2300	Linear Foot	$120.00	$276,000.00
26	30" Trenchless Drain Tile	140	Linear Foot	$500.00	$70,000.00
27	Drain Tile Connection	185	Each	$1,000.00	$185,000.00
28	Random Riprap, Class III	60	Ton	$115.00	$6,900.00
29	Inlet Protection	26	Each	$150.00	$3,900.00
30	Mulch Material, Type 1	124	Ton	$275.00	$34,100.00
31	Rapid Stabilization Method 4	2750	Square Yard	$3.50	$9,625.00
32	Seeding	13	Acre	$3,500.00	$45,500.00
33	Stabilized Construction Exit	1	Lump Sum	$2,500.00	$2,500.00
	SUBTOTAL:				$2,297,365.00
	30% CONTINGENCY:				$459,500.00
	TEMPORARY CROP DAMAGES:	62.14	Acres	$600.00	$37,284.00
	PERMANENT EASEMENT	9.14	Acres	$16,000.00	$146,240.00
	TOTAL ESTIMATED CONSTRUCTION COST:				**$2,940,389.00**
	DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:				$588,000.00
	TOTAL ESTIMATED PROJECT COST:				**$3,528,389.00**

ENGINEER'S ESTIMATE

COUNTY DITCH #59 BRANCH B IMPROVEMENTS
RENVILLE COUNTY
BMI PROJECT NO: 0S1.130654

BOLTON & MENK
Real People. Real Solutions.

Date: 10/27/2025

Item No.	Item	Estimated Quantity	Unit	Unit Price	Total Amount	BRANCH B MAIN		BRANCH B5		BRANCH B6		BRANCH 203		BRANCH 203-4		BRANCH B (203)		BRANCH B9 (203)		BRANCH B11 (203)	
						Qty.	Price	Qty.	Price	Qty.	Price	Qty.	Price	Qty.	Price	Qty.	Price	Qty.	Price	Qty.	Price
BASE BID																					
1	Mobilization	1	Lump Sum	$45,000.00	$45,000.00	0.23	$10,350.00	0.01	$450.00	0.06	$2,700.00	0.15	$6,750.00	0.02	$900.00	0.19	$8,550.00	0.05	$2,250.00	0.08	$3,600.00
2	Aggregate Surfacing, Class 5	210	Ton	$30.00	$6,300.00	0	$0.00	0	$0.00	30	$900.00	0	$0.00	0	$0.00	60	$1,800.00	0	$0.00	30	$900.00
3	Exploratory Excavation	200	Hour	$225.00	$45,000.00	30	$6,750.00	5	$1,125.00	20	$4,500.00	20	$4,500.00	5	$1,125.00	40	$9,000.00	10	$2,250.00	20	$4,500.00
4	Common Excavation, P (CV)	$23,400	Cubic Yard	$16.00	$374,400.00	16,300	$260,800.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	7,100	$113,600.00
5	30" Alumanized CM Pipe Culvert	20	Linear Foot	$150.00	$3,000.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
6	36" Alumanized CM Pipe Culvert	40	Linear Foot	$180.00	$7,200.00	20	$3,600.00	0	$0.00	0	$0.00	20	$3,600.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
7	6" Intake	20	Each	$1,000.00	$20,000.00	3	$3,000.00	0	$0.00	2	$2,000.00	2	$2,000.00	1	$1,000.00	6	$6,000.00	0	$0.00	2	$2,000.00
8	8" Intake	5	Each	$1,250.00	$6,250.00	1	$1,250.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	2	$2,500.00	0	$0.00	0	$0.00
9	10" Intake	1	Each	$1,500.00	$1,500.00	1	$1,500.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
10	12" Intake	3	Each	$1,750.00	$5,250.00	1	$1,750.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	1	$1,750.00	0	$0.00	0	$0.00
11	6" Drain Tile	300	Linear Foot	$20.00	$6,000.00	40	$800.00	0	$0.00	20	$400.00	0	$0.00	40	$800.00	40	$800.00	0	$0.00	0	$0.00
12	8" Drain Tile, Non-Perforated	2500	Linear Foot	$24.00	$60,000.00	60	$1,440.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	940	$22,560.00	0	$0.00	540	$12,960.00
13	8" Drain Tile, Perforated	200	Linear Foot	$24.00	$4,800.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	200	$4,800.00
14	10" Drain Tile, Non-Perforated	200	Linear Foot	$26.00	$5,200.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	200	$5,200.00	0	$0.00
15	12" Drain Tile, Non-Perforated	1540	Linear Foot	$28.00	$43,120.00	0	$0.00	0	$0.00	900	$25,200.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	640	$17,920.00
16	12" Drain Tile, Perforated	1660	Linear Foot	$28.00	$46,480.00	0	$0.00	0	$0.00	760	$21,280.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	900	$25,200.00
17	15" Drain Tile, Non-Perforated	5080	Linear Foot	$32.00	$162,560.00	0	$0.00	40	$1,280.00	200	$6,400.00	0	$0.00	0	$0.00	2280	$72,960.00	0	$0.00	120	$3,840.00
18	15" Drain Tile, Perforated	700	Linear Foot	$32.00	$22,400.00	0	$0.00	0	$0.00	200	$6,400.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	500	$16,000.00
19	18" Drain Tile, Non-Perforated	440	Linear Foot	$38.00	$16,720.00	40	$1,520.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
20	18" Drain Tile, Perforated	560	Linear Foot	$38.00	$21,280.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
21	24" Drain Tile, Non-Perforated	7380	Linear Foot	$44.00	$324,720.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	620	$27,280.00	3640	$160,160.00	1440	$63,360.00	0	$0.00
22	24" Drain Tile, Perforated	940	Linear Foot	$45.00	$42,300.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
23	24" Drain Tile, Heavy Duty	760	Linear Foot	$90.00	$68,400.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
24	30" Drain Tile, Non-Perforated	5620	Linear Foot	$58.00	$325,960.00	2400	$139,200.00	0	$0.00	0	$0.00	3220	$186,760.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
25	30" Drain Tile, Heavy Duty	2300	Linear Foot	$120.00	$276,000.00	2000	$240,000.00	300	$36,000.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
26	30" Trenchless Drain Tile	140	Linear Foot	$500.00	$70,000.00	140	$70,000.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
27	Drain Tile Connection	185	Each	$1,000.00	$185,000.00	30	$30,000.00	0	$0.00	20	$20,000.00	20	$20,000.00	10	$10,000.00	40	$40,000.00	10	$10,000.00	20	$20,000.00
28	Random Riprap, Class III	60	Ton	$115.00	$6,900.00	30	$3,450.00	0	$0.00	0	$0.00	30	$3,450.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
29	Inlet Protection	26	Each	$150.00	$3,900.00	6	$900.00	0	$0.00	2	$300.00	2	$300.00	1	$150.00	9	$1,350.00	0	$0.00	2	$300.00
30	Mulch Material, Type 1	124	Ton	$275.00	$34,100.00	20	$5,500.00	1	$275.00	13	$3,575.00	12	$3,300.00	3	$825.00	25	$6,875.00	6	$1,650.00	16	$4,400.00
31	Rapid Stabilization Method 4	2750	Square Yard	$3.50	$9,625.00	500	$1,750.00	0	$0.00	250	$875.00	500	$1,750.00	0	$0.00	500	$1,750.00	0	$0.00	250	$875.00
32	Seeding	13	Acre	$3,500.00	$45,500.00	7	$24,500.00	0	$0.00	3	$10,500.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	3	$10,500.00
33	Stabilized Construction Exit	1	Lump Sum	$2,500.00	$2,500.00	0.23	$575.00	0.01	$25.00	0.06	$150.00	0.15	$375.00	0.02	$50.00	0.19	$475.00	0.05	$125.00	0.08	$200.00
	ESTIMATED CONSTRUCTION SUBTOTAL:				**$2,297,365.00**		**$808,635.00**		**$39,155.00**		**$105,180.00**		**$232,785.00**		**$42,130.00**		**$336,530.00**		**$84,835.00**		**$241,595.00**
	20% CONTINGENCY:				$459,520.00		$161,730.00		$7,840.00		$21,040.00		$46,560.00		$8,430.00		$67,310.00		$16,970.00		$48,320.00
	TEMPORARY CROP DAMAGES:	62.14	Acres	$600.00	$37,284.00	10.02	$6,012.00	0.53	$318.00	6.65	$3,990.00	6.01	$3,606.00	1.48	$888.00	12.35	$7,410.00	3.25	$1,950.00	8.02	$4,812.00
	PERMANENT EASEMENT:	9.14	Acres	$16,000.00	$146,240.00	6.11	$97,760.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	0.00	$0.00	3.03	$48,480.00
	TOTAL ESTIMATED CONSTRUCTION COST:				**$2,940,409.00**		**$1,074,137.00**		**$47,313.00**		**$130,210.00**		**$282,951.00**		**$51,448.00**		**$411,250.00**		**$103,755.00**		**$343,207.00**
	DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:				$588,020.00		$214,800.00		$9,440.00		$26,020.00		$56,600.00		$10,290.00		$82,250.00		$20,750.00		$68,640.00
	TOTAL ESTIMATED PROJECT COST:				**$3,528,429.00**		**$1,288,937.00**		**$56,753.00**		**$156,230.00**		**$339,551.00**		**$61,738.00**		**$493,500.00**		**$124,505.00**		**$411,847.00**

ENGINEER'S ESTIMATE

COUNTY DITCH #59 BRANCH B IMPROVEMENTS
RENVILLE COUNTY
BMI PROJECT NO: 0S1.130654

BOLTON & MENK
Real People. Real Solutions.

Date: 10/27/2025

Item No.	Item	Estimated Quantity	Unit	Unit Price	BRANCH 194 (203)		BRANCH 194		BRANCH 194-84	
					Qty.	Price	Qty.	Price	Qty.	Price
BASE BID										
1	Mobilization	1	Lump Sum	$45,000.00	0.1	$4,500.00	0.05	$2,250.00	0.06	$2,700.00
2	Aggregate Surfacing, Class 5	210	Ton	$30.00	60	$1,800.00	30	$900.00	0	$0.00
3	Exploratory Excavation	200	Hour	$225.00	20	$4,500.00	10	$2,250.00	20	$4,500.00
4	Common Excavation, P (CV)	$23,400	Cubic Yard	$16.00	0	$0.00	0	$0.00	0	$0.00
5	30" Alumanized CM Pipe Culvert	20	Linear Foot	$150.00	0	$0.00	20	$3,000.00	0	$0.00
6	36" Alumanized CM Pipe Culvert	40	Linear Foot	$180.00	0	$0.00	0	$0.00	0	$0.00
7	6" Intake	20	Each	$1,000.00	2	$2,000.00	2	$2,000.00	0	$0.00
8	8" Intake	5	Each	$1,250.00	0	$0.00	0	$0.00	2	$2,500.00
9	10" Intake	1	Each	$1,500.00	0	$0.00	0	$0.00	0	$0.00
10	12" Intake	3	Each	$1,750.00	0	$0.00	0	$0.00	1	$1,750.00
11	6" Drain Tile	300	Linear Foot	$20.00	0	$0.00	80	$1,600.00	80	$1,600.00
12	8" Drain Tile, Non-Perforated	2500	Linear Foot	$24.00	40	$960.00	0	$0.00	920	$22,080.00
13	8" Drain Tile, Perforated	200	Linear Foot	$24.00	0	$0.00	0	$0.00	0	$0.00
14	10" Drain Tile, Non-Perforated	200	Linear Foot	$26.00	0	$0.00	0	$0.00	0	$0.00
15	12" Drain Tile, Non-Perforated	1540	Linear Foot	$28.00	0	$0.00	0	$0.00	0	$0.00
16	12" Drain Tile, Perforated	1660	Linear Foot	$28.00	0	$0.00	0	$0.00	0	$0.00
17	15" Drain Tile, Non-Perforated	5080	Linear Foot	$32.00	980	$31,360.00	0	$0.00	1460	$46,720.00
18	15" Drain Tile, Perforated	700	Linear Foot	$32.00	0	$0.00	0	$0.00	0	$0.00
19	18" Drain Tile, Non-Perforated	440	Linear Foot	$38.00	220	$8,360.00	20	$760.00	160	$6,080.00
20	18" Drain Tile, Perforated	560	Linear Foot	$38.00	360	$13,680.00	0	$0.00	200	$7,600.00
21	24" Drain Tile, Non-Perforated	7380	Linear Foot	$44.00	1100	$48,400.00	580	$25,520.00	0	$0.00
22	24" Drain Tile, Perforated	940	Linear Foot	$45.00	940	$42,300.00	0	$0.00	0	$0.00
23	24" Drain Tile, Heavy Duty	760	Linear Foot	$90.00	0	$0.00	760	$68,400.00	0	$0.00
24	30" Drain Tile, Non-Perforated	5620	Linear Foot	$58.00	0	$0.00	0	$0.00	0	$0.00
25	30" Drain Tile, Heavy Duty	2300	Linear Foot	$120.00	0	$0.00	0	$0.00	0	$0.00
26	30" Trenchless Drain Tile	140	Linear Foot	$500.00	0	$0.00	0	$0.00	0	$0.00
27	Drain Tile Connection	185	Each	$1,000.00	15	$15,000.00	5	$5,000.00	15	$15,000.00
28	Random Riprap, Class III	60	Ton	$115.00	0	$0.00	0	$0.00	0	$0.00
29	Inlet Protection	26	Each	$150.00	2	$300.00	2	$300.00	0	$0.00
30	Mulch Material, Type 1	124	Ton	$275.00	13	$3,575.00	5	$1,375.00	10	$2,750.00
31	Rapid Stabilization Method 4	2750	Square Yard	$3.50	500	$1,750.00	250	$875.00	0	$0.00
32	Seeding	13	Acre	$3,500.00	0	$0.00	0	$0.00	0	$0.00
33	Stabilized Construction Exit	1	Lump Sum	$2,500.00	0.1	$250.00	0.05	$125.00	0.06	$150.00
	ESTIMATED CONSTRUCTION SUBTOTAL:					**$178,735.00**		**$114,355.00**		**$113,430.00**
	20% CONTINGENCY:					$35,750.00		$22,880.00		$22,690.00
	TEMPORARY CROP DAMAGES:	62.14	Acres	$600.00	6.25	$3,750.00	2.49	$1,494.00	5.09	$3,054.00
	PERMANENT EASEMENT:	9.14	Acres	$16,000.00	0.00	$0.00	0.00	$0.00	0.00	$0.00
	TOTAL ESTIMATED CONSTRUCTION COST:					**$218,235.00**		**$138,729.00**		**$139,174.00**
	DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:					$43,650.00		$27,750.00		$27,830.00
	TOTAL ESTIMATED PROJECT COST:					**$261,885.00**		**$166,479.00**		**$167,004.00**

EXHIBIT 4: SEPERABLE MAINTENANCE

SEPERABLE MAINTENANCE

COUNTY DITCH #59 BRANCH B IMPROVEMENTS
RENVILLE COUNTY
BMI PROJECT NO: 0S1.130654

BOLTON & MENK
Real People. Real Solutions.

Date: 7/17/2025

Item No.	Item	Estimated Quantity	Unit	Unit Price	Total Amount	BRANCH B MAIN		BRANCH B5		BRANCH B6		BRANCH 203		BRANCH 203-4		BRANCH B (203)		BRANCH B11 (203)		BRANCH 194 (203)	
						Qty.	Price	Qty.	Price	Qty.	Price	Qty.	Price	Qty.	Price	Qty.	Price	Qty.	Price	Qty.	Price
BASE BID																					
1	Mobilization	1	Lump Sum	$45,000.00	$45,000.00	0.25	$11,250.00	0.01	$450.00	0.06	$2,700.00	0.09	$4,050.00	0.03	$1,350.00	0.23	$10,350.00	0.1	$4,500.00	0.1	$0.03
2	Aggregate Surfacing, Class 5	210	Ton	$1,000.00	$210,000.00	0	$0.00	0	$0.00	30	$30,000.00	0	$0.00	0	$0.00	60	$60,000.00	30	$30,000.00	30	$0.00
3	Exploratory Excavation	195	Hour	$1,250.00	$243,750.00	30	$37,500.00	5	$6,250.00	20	$25,000.00	20	$25,000.00	10	$12,500.00	40	$50,000.00	20	$25,000.00	20	$600.00
4	12" Alumanized CM Pipe Culvert	40	Linear Foot	$120.00	$4,800.00	0	$0.00	0	$0.00	0	$0.00	20	$2,400.00	20	$2,400.00	0	$0.00	0	$0.00	0	$0.00
5	30" Alumanized CM Pipe Culvert	20	Linear Foot	$150.00	$3,000.00	20	$3,000.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
6	6" Intake	22	Each	$1,000.00	$22,000.00	3	$3,000.00	0	$0.00	2	$2,000.00	2	$2,000.00	1	$1,000.00	6	$6,000.00	2	$2,000.00	2	$2,000.00
7	8" Intake	3	Each	$1,250.00	$3,750.00	1	$1,250.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	2	$2,500.00	0	$0.00	0	$0.00
8	10" Intake	1	Each	$1,500.00	$1,500.00	1	$1,500.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
9	12" Intake	2	Each	$1,750.00	$3,500.00	1	$1,750.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	1	$1,750.00	0	$0.00	0	$0.00
10	6" Drain Tile	2400	Linear Foot	$20.00	$48,000.00	40	$800.00	0	$0.00	420	$8,400.00	0	$0.00	760	$15,200.00	1100	$22,000.00	0	$0.00	0	$0.00
11	8" Drain Tile	8050	Linear Foot	$24.00	$193,200.00	60	$1,440.00	0	$0.00	1360	$32,640.00	1980	$47,520.00	0	$0.00	700	$16,800.00	1170	$28,080.00	0	$0.00
12	10" Drain Tile	2360	Linear Foot	$26.00	$61,360.00	0	$0.00	0	$0.00	0	$0.00	1220	$31,720.00	0	$0.00	620	$16,120.00	520	$13,520.00	0	$0.00
13	12" Drain Tile	2240	Linear Foot	$28.00	$62,720.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	560	$15,680.00	1680	$47,040.00	0	$0.00
14	15" Drain Tile	2600	Linear Foot	$32.00	$83,200.00	0	$0.00	400	$12,800.00	0	$0.00	0	$0.00	0	$0.00	680	$21,760.00	0	$0.00	1520	$0.00
15	18" Drain Tile	3680	Linear Foot	$38.00	$139,840.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	3020	$114,760.00	0	$0.00	0	$0.00
16	24" Drain Tile	5100	Linear Foot	$44.00	$224,400.00	4400	$193,600.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
17	24" Trenchless Drain Tile	140	Linear Foot	$400.00	$56,000.00	140	$56,000.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
18	Drain Tile Connection	180	Each	$1,000.00	$180,000.00	30	$30,000.00	0	$0.00	20	$20,000.00	20	$20,000.00	10	$10,000.00	40	$40,000.00	10	$10,000.00	20	$600.00
19	Random Riprap, Class III	60	Ton	$115.00	$6,900.00	30	$3,450.00	0	$0.00	0	$0.00	30	$3,450.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
20	Inlet Protection	28	Each	$150.00	$4,200.00	6	$900.00	0	$0.00	2	$300.00	2	$300.00	1	$150.00	9	$1,350.00	2	$300.00	2	$12.00
21	Mulch Material, Type 1	110	Ton	$275.00	$30,250.00	20	$5,500.00	1	$275.00	13	$3,575.00	12	$3,300.00	3	$825.00	25	$6,875.00	16	$4,400.00	3	$60.00
22	Rapid Stabilization Method 4	2750	Square Yard	$3.50	$9,625.00	500	$1,750.00	0	$0.00	250	$875.00	500	$1,750.00	0	$0.00	500	$1,750.00	250	$875.00	250	$125,000.00
23	Stabilized Construction Exit	1	Lump Sum	$2,500.00	$2,500.00	0.25	$625.00	0.01	$25.00	0.06	$150.00	0.09	$225.00	0.03	$75.00	0.23	$575.00	0.1	$250.00	0.1	$0.03
	ESTIMATED CONSTRUCTION SUBTOTAL:				**$1,639,495.00**		**$353,315.00**		**$19,800.00**		**$125,640.00**		**$141,715.00**		**$43,500.00**		**$388,270.00**		**$165,965.00**		**$128,272.05**
	30% CONTINGENCY:				$490,620.00		$106,000.00		$5,940.00		$37,690.00		$42,520.00		$13,050.00		$116,480.00		$49,790.00		$38,480.00
	TEMPORARY CROP DAMAGES:	56.11	Acres	$600.00	$33,666.00	10.02	$6,012.00	0.53	$318.00	6.65	$3,990.00	6.01	$3,606.00	1.48	$888.00	13.00	$7,800.00	8.02	$4,812.00	1.40	$840.00
	TOTAL ESTIMATED CONSTRUCTION COST:				**$2,163,781.00**		**$465,327.00**		**$26,058.00**		**$167,320.00**		**$187,841.00**		**$57,438.00**		**$512,550.00**		**$220,567.00**		**$167,592.05**
	DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:				$431,930.00		$93,070.00		$5,210.00		$33,460.00		$37,570.00		$11,490.00		$102,510.00		$44,110.00		$33,520.00
	TOTAL ESTIMATED PROJECT COST:				**$2,595,711.00**		**$558,397.00**		**$31,268.00**		**$200,780.00**		**$225,411.00**		**$68,928.00**		**$615,060.00**		**$264,677.00**		**$201,112.05**

SEPERABLE MAINTENANCE

COUNTY DITCH #59 BRANCH B IMPROVEMENTS
RENVILLE COUNTY
BMI PROJECT NO: 0S1.130654

Date: 7/17/2025

Item No.	Item	Estimated Quantity	Unit	Unit Price	BRANCH 194 Qty.	BRANCH 194 Price	BRANCH 194-84 Qty.	BRANCH 194-84 Price
BASE BID								
1	Mobilization	1	Lump Sum	$45,000.00	0.06	$2,700.00	0.07	$3,150.00
2	Aggregate Surfacing, Class 5	210	Ton	$1,000.00	30	$30,000.00	30	$30,000.00
3	Exploratory Excavation	195	Hour	$1,250.00	10	$12,500.00	20	$25,000.00
4	12" Alumanized CM Pipe Culvert	40	Linear Foot	$120.00	0	$0.00	0	$0.00
5	30" Alumanized CM Pipe Culvert	20	Linear Foot	$150.00	0	$0.00	0	$0.00
6	6" Intake	22	Each	$1,000.00	2	$2,000.00	2	$2,000.00
7	8" Intake	3	Each	$1,250.00	0	$0.00	0	$0.00
8	10" Intake	1	Each	$1,500.00	0	$0.00	0	$0.00
9	12" Intake	2	Each	$1,750.00	0	$0.00	0	$0.00
10	6" Drain Tile	2400	Linear Foot	$20.00	0	$0.00	80	$1,600.00
11	8" Drain Tile	8050	Linear Foot	$24.00	80	$1,920.00	2700	$64,800.00
12	10" Drain Tile	2360	Linear Foot	$26.00	0	$0.00	0	$0.00
13	12" Drain Tile	2240	Linear Foot	$28.00	0	$0.00	0	$0.00
14	15" Drain Tile	2600	Linear Foot	$32.00	0	$0.00	0	$0.00
15	18" Drain Tile	3680	Linear Foot	$38.00	660	$25,080.00	0	$0.00
16	24" Drain Tile	5100	Linear Foot	$44.00	700	$30,800.00	0	$0.00
17	24" Trenchless Drain Tile	140	Linear Foot	$400.00	0	$0.00	0	$0.00
18	Drain Tile Connection	180	Each	$1,000.00	10	$10,000.00	20	$20,000.00
19	Random Riprap, Class III	60	Ton	$115.00	0	$0.00	0	$0.00
20	Inlet Protection	28	Each	$150.00	2	$300.00	2	$300.00
21	Mulch Material, Type 1	110	Ton	$275.00	5	$1,375.00	12	$3,300.00
22	Rapid Stabilization Method 4	2750	Square Yard	$3.50	250	$875.00	250	$875.00
23	Stabilized Construction Exit	1	Lump Sum	$2,500.00	0.06	$150.00	0.07	$175.00
	ESTIMATED CONSTRUCTION SUBTOTAL:					**$117,700.00**		**$151,200.00**
	30% CONTINGENCY:					$35,310.00		$45,360.00
	TEMPORARY CROP DAMAGES:	56.11	Acres	$600.00	3.00	$1,800.00	6.00	$3,600.00
	TOTAL ESTIMATED CONSTRUCTION COST:					**$154,810.00**		**$200,160.00**
	DESIGN, ADMINISTRATION AND CONSTRUCTION ENGINEERING:					$30,960.00		$40,030.00
	TOTAL ESTIMATED PROJECT COST:					**$185,770.00**		**$240,190.00**

EXHIBIT 5: RIGHT OF WAY TABLE

County Ditch 59 Water Quality and Storage Repair

Renville County, MN
Right-of-way Table

BOLTON & MENK
Real People. Real Solutions.

Date: 7/17/2025

Parcel No.	Property Owner	Legal Description	Repair Right-of-Way					Temporary	Permanent
			Station to Station		Length	Width	Area (Acres)	$600	$16,000
Branch B Main - Tile									
27-01770-00	ZENK/ROBB J & MEGAN C	NE 1/4, SE 1/4	-0+40	9+62	1002	80	1.84	$1,104.00	
27-01820-00	STEFFEL/KAREN M	NW 1/4, SW 1/4	18+87	24+68	581	80	1.07	$642.00	
		POND-1	11+17	18+87	770	N/A	3.30		$52,800.00
		NE 1/4, SW 1/4	24+68	38+63	1395	80	2.56	$1,536.00	
27-01810-00	ERICKSON/PAUL	NW 1/4, SE 1/4	38+63	45+46	683	80	1.25	$750.00	
Branch B5 - Tile									
27-01810-00	ERICKSON/PAUL	NW 1/4, SE 1/4	50+00	52+89	289	80	0.53	$318.00	
Branch B6 - Tile									
27-01810-00	ERICKSON/PAUL	NW 1/4, SE 1/4	60+00	66+23	623	80	1.14	$684.00	
27-01791-00	KADLEC/DAVID & ELIZABETH/TR	NW 1/4, SE 1/4	66+23	79+81	1358	80	2.49	$1,494.00	
		POND-2	76+29	79+81	352	N/A	2.81		$44,960.00
27-01870-00	KADLEC/DAVID & ELIZABETH/TR	SW 1/4, SE 1/4	80+47	81+62	115	80	0.21	$126.00	
Branch B TOTAL			**Total Branch B Improvement Right-of-Way Damages =**					**$6,654.00**	**$97,760.00**
Branch 203 - Tile									
27-01800-00	ZENK/JAME & DIANNE	SW 1/4, NE 1/4	99+60	104+73	513	80	0.94	$564.00	
		SE 1/4, NE 1/4	104+73	118+51	1378	80	2.53	$1,518.00	
27-01801-00	TELLERS/MARCIA K/&	SW 1/4, NE 1/4	118+51	132+33	1382	80	2.54	$1,524.00	
Branch 203-4 - Tile									
27-01801-00	TELLERS/MARCIA K/&	NW 1/4, NE 1/4	135+00	140+85	585	80	1.07	$642.00	
27-01790-00	KADLEC/DAVID & ELIZABETH/TR	NW 1/4, NE 1/4	140+85	143+09	224	80	0.41	$246.00	
Branch B9 (203) - Tile									
27-01801-00	TELLERS/MARCIA K/&	SW 1/4, NE 1/4	145+00	151+86	686	80	1.26	$756.00	
27-01791-00	KADLEC/DAVID & ELIZABETH/TR	SE 1/4, NE 1/4	151+86	162+68	1082	80	1.99	$1,194.00	
Branch B (203) - Tile									
27-01791-00	KADLEC/DAVID & ELIZABETH/TR	SE 1/4, NE 1/4	165+00	172+87	787	80	1.45	$870.00	
27-01790-00	KADLEC/DAVID & ELIZABETH/TR	SE 1/4, NE 1/4	172+87	176+34	347	80	0.64	$384.00	
27-01850-00	HARTUNG PARTNERSHIP	NW 1/4, NW 1/4	177+05	191+22	1417	80	2.60	$1,560.00	
27-01860-00	KINGSTROM/ROGER D	NE 1/4, NW 1/4	191+22	204+07	1285	80	2.36	$1,416.00	
27-01840-00	KINGSTROM/ROGER D	NW 1/4, NE 1/4	204+56	218+54	1398	80	2.57	$1,542.00	
		NE 1/4, NE 1/4	218+54	233+39	1485	80	2.73	$1,638.00	
Branch B11 (203) - Tile									
27-01860-00	KINGSTROM/ROGER D	NE 1/4, NW 1/4	240+40	241+27	87	80	0.16	$96.00	
		POND-3	241+27	245+57	430	N/A	3.03		$48,480.00
27-01651-00	POTZLER/LEE & KATHERINE/TR	SE 1/4, SW 1/4	246+44	258+95	1251	80	2.30	$1,380.00	
		NE 1/4, SW 1/4	258+95	261+65	270	80	0.50	$300.00	
27-01641-00	MAHLUM FAMILY TRUST	NW 1/4, SE 1/4	261+65	272+68	1103	80	2.03	$1,218.00	
Branch 194 (203) - Tile									
27-01801-00	TELLERS/MARCIA K/&	NW 1/4, NE 1/4	280+50	287+06	656	40	0.60	$360.00	
27-01790-00	KADLEC/DAVID & ELIZABETH/TR	NE 1/4, NE 1/4	280+50	287+06	656	40	0.60	$360.00	
27-01711-00	KINGSTROM/ROGER D	SE 1/4, SE 1/4	287+72	304+78	1706	80	3.13	$1,878.00	
27-01712-00	KINGSTROM/ROGER D	NE 1/4, SE 1/4	304+78	314+90	1012	80	1.86	$1,116.00	

County Ditch 59 Water Quality and Storage Repair

Renville County, MN
Right-of-way Table

Date: 7/17/2025

Parcel No.	Property Owner	Legal Description	Repair Right-of-Way					Temporary	Permanent
			Station to Station		Length	Width	Area (Acres)	$600	$16,000
27-01650-00	PETERSON/DAVID R/LIVING TRUST	NW 1/4, SW 1/4	315+77	316+12	35	80	0.06	$36.00	
Branch 203 TOTAL			**Total Branch B Improvement Right-of-Way Damages =**					**$20,598.00**	**$48,480.00**
Branch 194 - Tile									
27-01800-00	ZENK/JAMES & DIANNE	NW 1/4, NW 1/4	319+60	327+81	821	80	1.51	$906.00	
27-01700-00	MERTZ/RANDALL W & JUNE S	SW 1/4, SW 1/4	328+54	328+86	32	80	0.06	$36.00	
27-01702-00	MCCM PROPERTIES LLC	SW 1/4, SW 1/4	328+86	333+85	499	80	0.92	$552.00	
Branch 194-84-4N									
27-01711-00	KINGSTROM/ROGER D	SW 1/4, SE 1/4	339+60	342+51	291	80	0.53	$318.00	
27-01712-00	KINGSTROM/ROGER D	NW 1/4, SE 1/4	342+51	358+00	1549	80	2.84	$1,704.00	
Branch 194-84-4N									
27-01712-00	KINGSTROM/ROGER D	NW 1/4, SE 1/4	358+00	358+51	51	80	0.09	$54.00	
27-01671-00	KADLEC FARMS, LLP	SW 1/4, NE 1/4	358+51	367+41	890	80	1.63	$978.00	
Branch 194 TOTAL			**Total Branch B Improvement Right-of-Way Damages =**					**$4,548.00**	

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EXHIBIT 6: TILE TYPE MAP

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