



**JACOBSON-WESTERGARD
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"Bettering Iowa since 1970"

April 20, 2026

RE: Amendment No. 5 to the Engineer's Report
Joint Drainage District No. 61 Branch 399 West Drainage Improvements
Dickinson County, Iowa
JWA PROJECT NO: E24106

Dear Board Members and Landowners:

At the April 7, 2026 public hearing for Joint Drainage District No. 61 Branch 399 West drainage improvements it was decided to continue the hearing to April 21, 2026. This was in order to allow time for us to develop a cost estimate for a proposed alternative alignment of the previously proposed Option 5 improvements. The alignment was to be moved north, away from 230th Street, to cross the natural gas pipeline at the same location, and within the easement of, the existing JDD61 Branch 399W tile, which was installed over 100 years ago. The goal of relocating the proposed open ditch would be to avoid being required to sign a crossing agreement to cross the pipeline, and in doing so avoid incurring liability to the drainage district for the pipeline.

A. Option 6 – Relocated Open Ditch Improvements

See the enclosed map showing the revised alignment proposal. Generally, the first approximately 900 feet of the proposed open ditch would be moved approximately 100 feet north of the Option 5 proposal, then angle south and west to the NE corner of the intersection of 230th Street and 310th Avenue. From there, the ditch would continue westward along the same alignment as Option 5, which is on the north side of 230th Street.

We estimate a total project cost of approximately **\$576,000** for this improvement option, or an average of \$408/acre. See enclosed cost estimate. This is an increase of \$56,000 as compared to the estimate of \$520,000 for Option #5 presented in Amendment #3 to the engineer's report. Much of the additional cost is due to additional right-of-way acquisition costs due to moving the ditch north. See the enclosed pre-class dollars maps for parcel specific estimates (for informational purposes only).

B. Legal Considerations

As previously stated, the goal of relocating the proposed open ditch would be to avoid incurring liability to the drainage district for the natural gas pipeline crossing by signing a crossing agreement accepting liability. The open ditch would be constructed in the existing 100+ year old easement of the drainage district. At the location where the natural gas pipeline crosses the Branch 399W tile, the proposal would be to install a new 72" diameter corrugated metal pipe (CMP) underneath the natural gas pipeline.

Iowa Code 468.27(2) states that following the establishment of the drainage district, there is a permanent easement for a tile line, *“including right of ingress and egress across adjoining land, and the right of access for maintenance, repair, improvement, and inspection”*. (emphasis added)

As the drainage district holds a permanent easement for the existing tile system, including the right of access for improvements, and the easement was in place several decades prior to the installation of the natural gas pipeline, based on the opinion of the drainage district legal counsel Bob Goodwin the drainage district has the right to construct a 72” diameter CMP underneath the natural gas pipeline as an improvement without the need to sign a crossing agreement with the natural gas pipeline company. Although no agreement is needed, we certainly intend to continue to cooperate with the gas pipeline company to ensure their installation/crossing requirements are met.

Additionally, it should be emphasized that although we believe the drainage district is not obligated to sign a crossing agreement accepting liability, there is still not 100% protection from a possible liability claim/lawsuit against the drainage district in the future. However, in the event this occurs the drainage district’s position would be stronger having not signed a crossing agreement accepting liability. The question then becomes, is the additional approximately \$56,000 to move the proposed open ditch north (Option #6) worth it?

C. Discussion/Recommendations

Because the natural gas pipeline crosses the path of drainage district facilities (existing or improved), there will always be potential the drainage district could be sued if something happens to the natural gas pipeline that the gas company believes is the fault of the drainage district. The likelihood of this happening is very small, but it is still possible.

In evaluating improvement options, limiting (not eliminating) liability exposure is important, but also comes at a cost. Moving the proposed open ditch north (Option #6) in order to cross the pipeline (with a corrugated metal pipe) within the drainage district’s existing easement limits liability exposure by avoiding signing an agreement accepting liability, but at an estimated **additional project cost of \$56,000**. The resulting total project cost estimate would then be **\$576,000**, or an average of \$409 per acre. For comparison, we re-evaluated the cost of an all-tile equivalent improvement (same extent as the proposed open ditch, that would cross the natural gas pipeline at the same location as the existing Branch 399W tile) and the estimated project cost of the tile project is still over \$275,000 higher than Option #6. So regardless, if an improvement is pursued an open ditch still appears to be the most cost-effective approach.

We continue to believe it is in the best interest of the drainage district to move forward with an improvement; however it is difficult to evaluate whether an additional approximately \$56,000 is worth not having to sign a crossing agreement with the natural gas pipeline company. This should be discussed at the public hearing. We recommend that either Option #5 or Option #6 (presented in this report) be approved. If the project is approved, we will then proceed with open ditch right-of-way (ROW) acquisition, finalize plans and specifications and proceed towards bid letting.

Sincerely,

JACOBSON-WESTERGARD & ASSOCIATES INC.

A handwritten signature in blue ink that reads "Collin Klingbeil". The signature is written in a cursive, flowing style.

Collin J. Klingbeil, P.E.

Encl: Option #6 Improvements Map
 Option #6 Pre-class Dollars Maps
 Option #6 Estimate of Probable Cost

Joint Drainage District No. 61 Branch 399 West Proposed Improvements Option 6: Open Ditch Moved North

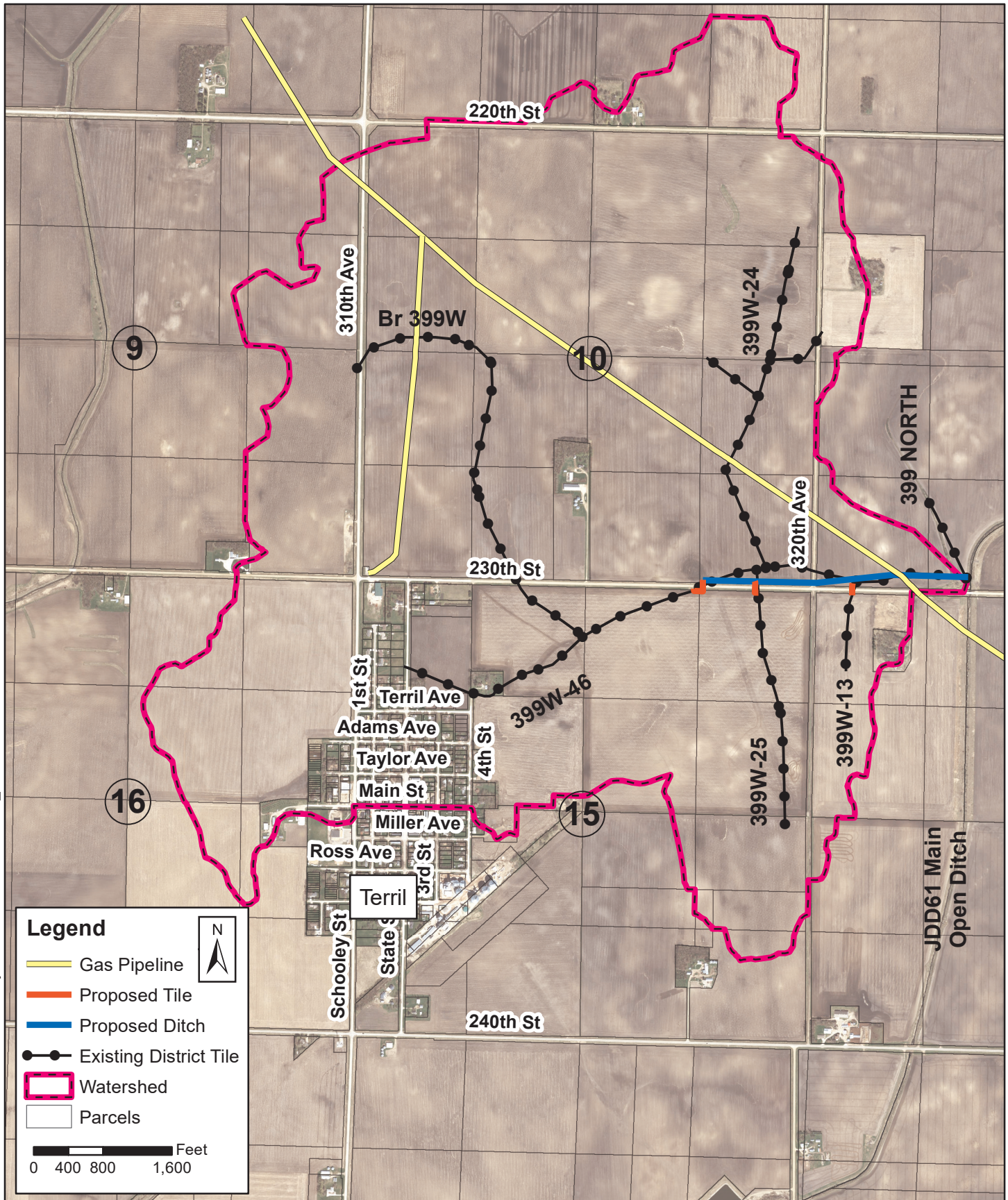
Lloyd Township, Dickinson County, Iowa



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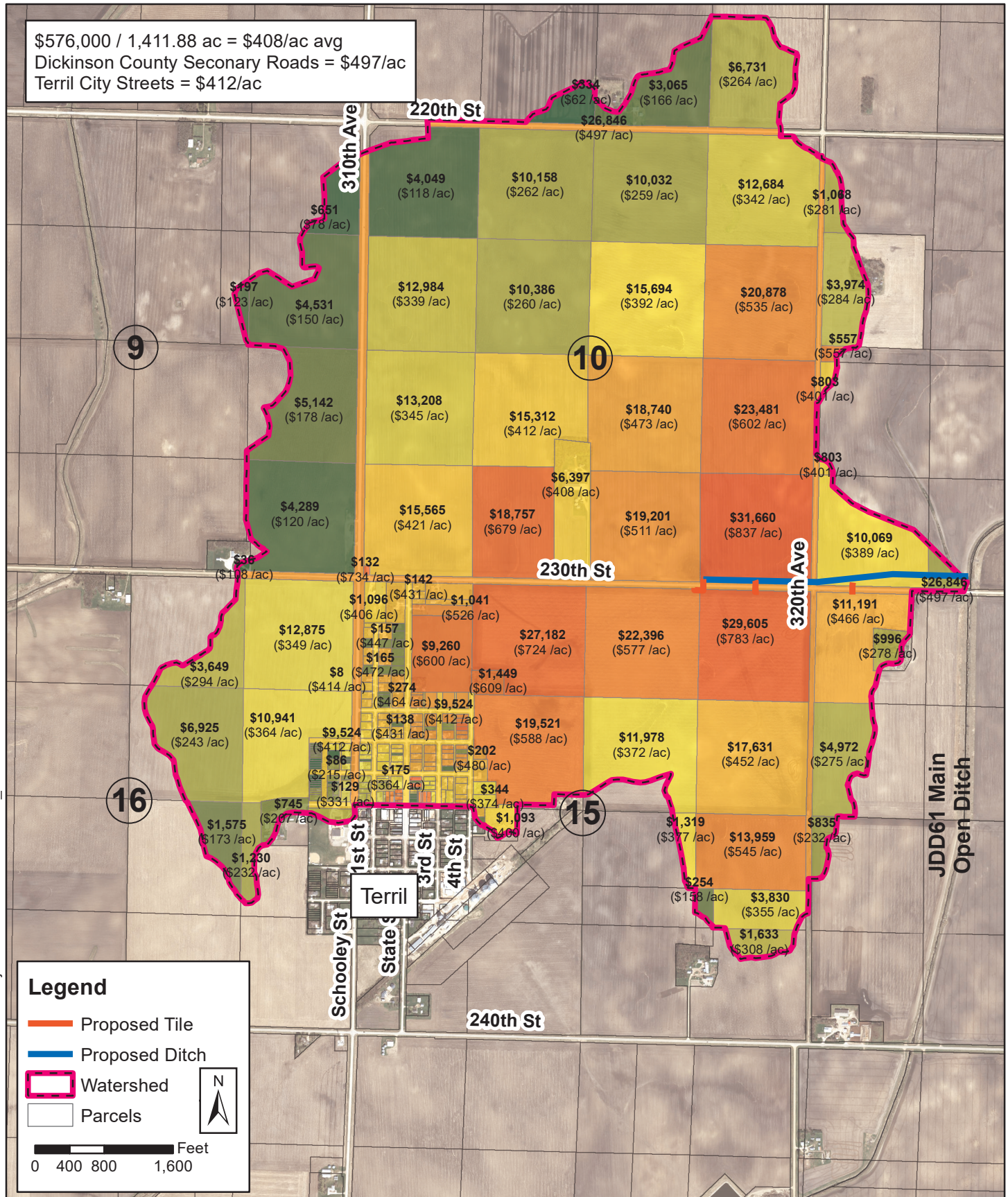
Consulting Engineers & Land Surveyors

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Lloyd Township, Dickinson County, Iowa



Joint Drainage District No. 61 Branch 399W

Option 6: Open Ditch Moved North

Dollars Map Based on \$576,000 Estimate

Lloyd Township, Dickinson County, Iowa

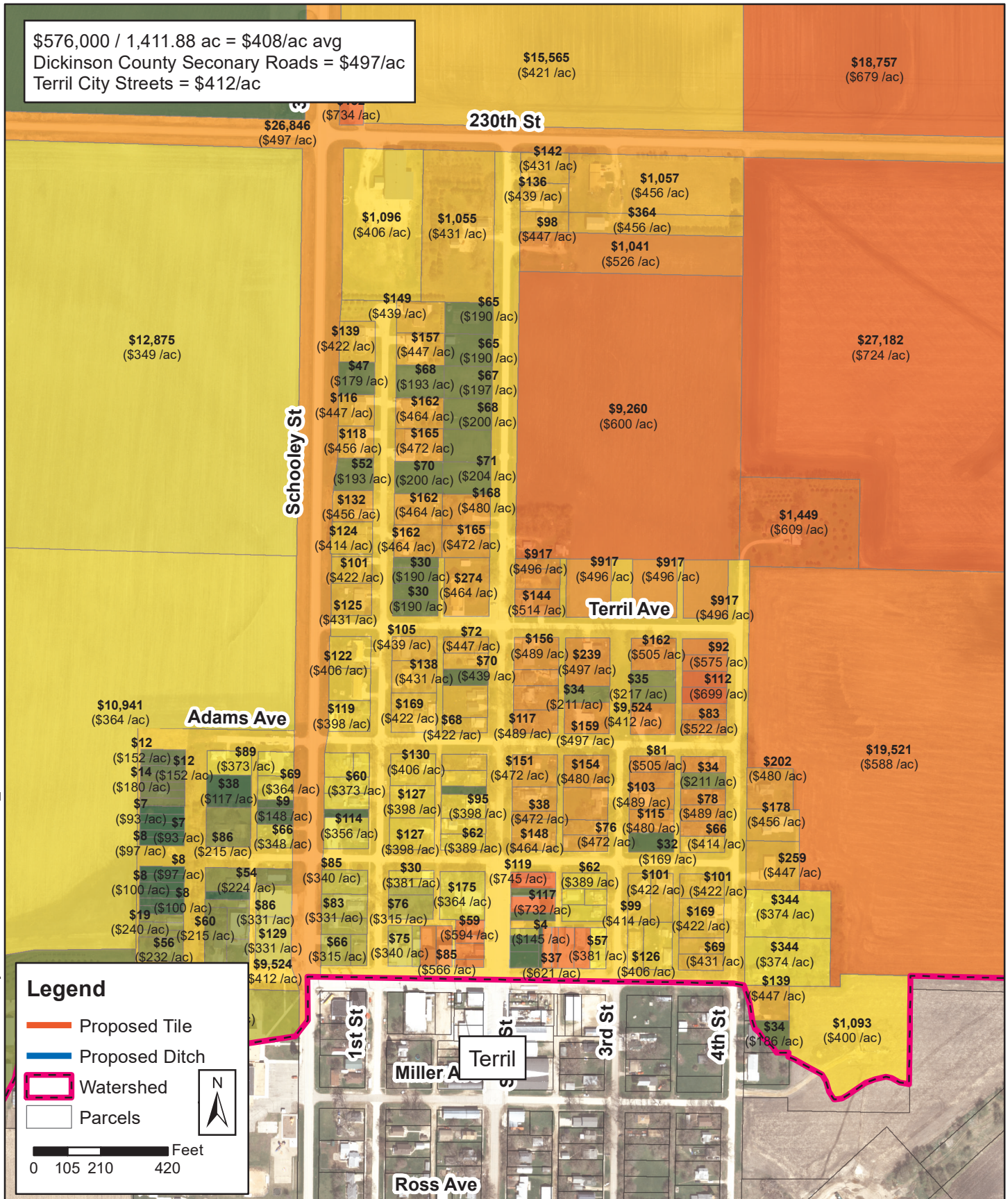


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\$576,000 / 1,411.88 ac = \$408/ac avg
Dickinson County Secondary Roads = \$497/ac
Terril City Streets = \$412/ac



ENGINEER'S ESTIMATE OF PROBABLE COST
J.D.D 61 BRANCH 399 WEST IMPROVEMENTS
DICKINSON COUNTY, IOWA
OPTION 6 IMPROVEMENTS - 4/21/2026



SECTION 1: CONSTRUCTION ASSESSABLE TO PRIVATE LANDS

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
Branch 399 West Open Ditch					
1	OPEN DITCH EXCAVATION	25,501	CY	\$2.50	\$63,752.50
2	TOPSOIL STRIPPING AND RE-SPREAD	5,424	CY	\$4.50	\$24,408.00
3	SPOIL LEVELING, TWO-SIDED	16	STA	\$300.00	\$4,800.00
4	SPOIL LEVELING, ONE-SIDED	13	STA	\$300.00	\$3,900.00
5	SEEDING & FERTILIZING, TWO-SIDED	29	STA	\$250.00	\$7,250.00
6	12" DIA. CMP TILE EXTENSION, 14 GAGE, ANNULAR CORRUGATIONS, RIVETED, GALVANIZED	140	LF	\$50.00	\$7,000.00
7	30" DIA. CMP TILE EXTENSION, 14 GAGE, ANNULAR CORRUGATIONS, RIVETED, GALVANIZED	40	LF	\$100.00	\$4,000.00
8	15" DIA. CMP SURFACE DRAIN, 14 GAGE, ANNULAR CORRUGATIONS, RIVETED, GALVANIZED	120	LF	\$60.00	\$7,200.00
9	24" DIA. CMP SURFACE DRAIN, 14 GAGE, ANNULAR CORRUGATIONS, RIVETED, GALVANIZED	40	LF	\$80.00	\$3,200.00
10	FIELD ACCESS LANES	3	EA	\$1,500.00	\$4,500.00
11	REMOVE & DISPOSE BURIED ROCK PILE (EST 20 CY)	1	LS	\$3,000.00	\$3,000.00
12	GRANULAR SURFACING FOR ACCESS LANES	50	TN	\$40.00	\$2,000.00
13	RIPRAP, IDOT CLASS E	50	TN	\$60.00	\$3,000.00
14	REMOVE & DISPOSE OF HEADWALL	1	LS	\$3,000.00	\$3,000.00
15	REMOVE & RE-LAY, 48" DIA. DUAL-WALL HDPE CULVERT	60	LF	\$35.00	\$2,100.00
16	84" DIA. CMP, 14 GAGE, 3"x1" ANNULAR CORRUGATIONS, RIVETED, ALUMINIZED	80	LF	\$260.00	\$20,800.00
17	72" DIA. CMP, 14 GAGE, 3"x1" ANNULAR CORRUGATIONS, RIVETED, ALUMINIZED	200	LF	\$230.00	\$46,000.00
18	IDOT CLASS I BEDDING STONE FOR PIPELINE	40	TN	\$40.00	\$1,600.00
19	NATURAL SAND (IDOT GRADATION 36) FOR PIPELINE	0	TN	\$40.00	\$0.00
Open Ditch Subtotal					\$211,510.50
Branch 399 West Tile					
20	42" DIA. RCP APRON W/ANIMAL GUARD & DISSIPATORS	1	EA	\$4,000.00	\$4,000.00
21	42" DIA. RCP, 2000D	40	LF	\$120.00	\$4,800.00
22	24" DIA. RCP, 2000D	148	LF	\$60.00	\$8,880.00
23	RCP TEE, 24" ON 42" DIA., FABRICATION ONLY	1	EA	\$1,900.00	\$1,900.00
24	RCP TEE, 24" ON 24" DIA., FABRICATION ONLY	1	EA	\$1,200.00	\$1,200.00
25	RCP TEE, 18" ON 24" DIA., FABRICATION ONLY	1	EA	\$1,200.00	\$1,200.00
26	42" DIA. RCP END CAP	1	EA	\$400.00	\$400.00
27	18" DIA. RCP END CAP	1	EA	\$175.00	\$175.00
28	CRUSH IN PLACE TILE, 18" DIA.	100	LF	\$7.00	\$700.00
Branch 399 West Subtotal					\$23,255.00
Branch 399 West-13 Tile					
29	15" DIA. CMP W/ANIMAL GUARD	20	LF	\$58.00	\$1,160.00
30	12" DIA. RCP, 2000D	72	LF	\$42.00	\$3,024.00
31	CRUSH IN PLACE TILE, 8" DIA.	110	LF	\$5.00	\$550.00
Branch 399 West-13 Subtotal					\$4,734.00

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
Branch 399 West-25 Tile					
32	24" DIA. CMP W/ANIMAL GUARD	20	LF	\$72.00	\$1,440.00
33	18" DIA. RCP, 2000D	6	LF	\$50.00	\$300.00
34	CRUSH IN PLACE TILE, 12" DIA.	10	LF	\$5.00	\$50.00
Branch 399 West-25 Subtotal					\$1,790.00
Miscellaneous Items					
35	TILE CONNECTIONS, LESS THAN 8" DIA.	2	EA	\$350.00	\$700.00
36	TILE CONNECTIONS, 8" DIA. AND LARGER	3	EA	\$500.00	\$1,500.00
37	EXPLORATORY EXCAVATION	10	HR	\$200.00	\$2,000.00
38	TRENCH STABILIZATION AND BEDDING STONE	100	TN	\$40.00	\$4,000.00
39	MOBILIZATION	1	LS	\$12,000.00	\$12,000.00

ESTIMATED SECTION 1 COST: \$261,000.00

SECTION 2: CONSTRUCTION ASSESSABLE TO COUNTY SECONDARY ROADS

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
40	42" DIA. RCP, 2000D	80	LF	\$132.00	\$10,560.00
41	18" DIA. RCP, 2000D	80	LF	\$50.00	\$4,000.00
42	12" DIA. RCP, 3000D	84	LF	\$45.00	\$3,780.00
43	18" DIA. RCP END CAP	1	EA	\$175.00	\$175.00
44	8'x10' RCB, PRECAST (320TH AVE)	48	LF	\$1,600.00	\$76,800.00
45	8'x10' RCB STRAIGHT END SECTION WITH CURTAIN WALL, PRECAST	2	EA	\$32,000.00	\$64,000.00
46	INTAKE, SW-512 (IDOT), CASE 1, 30" DIA.	1	EA	\$6,000.00	\$6,000.00
47	INTAKE CASTING, SW-604 (IDOT), TYPE 5 CASTING	1	EA	\$600.00	\$600.00
48	SALVAGE AND RE-LAY CMP, 24" DIA.	138	LF	\$30.00	\$4,140.00
49	24" DIA. CMP, 14 GAGE, 2 2/3" X 1/2" ANNULAR CORRUGATIONS, RIVETED	180	LF	\$60.00	\$10,800.00
50	CONNECTION OF 24" CMP TO RCB WINGWALL	1	EA	\$1,000.00	\$1,000.00
51	320TH AVE REGRADE	156	LF	\$15.00	\$2,340.00
52	TRENCH STABILIZATION AND BEDDING STONE	80	TN	\$40.00	\$3,200.00
53	NATURAL SAND (IDOT GRADATION 36)	100	TN	\$40.00	\$4,000.00
54	RIPRAP, IDOT CLASS E	40	TN	\$60.00	\$2,400.00
55	CRUSH IN PLACE TILE, 18" DIA. OR LESS	339	LF	\$5.00	\$1,695.00
56	SILT FENCE, INSTALLATION AND REMOVAL	60	LF	\$5.00	\$300.00
57	SEEDING & FERTILIZING ROAD DITCHES	1	LS	\$3,000.00	\$3,000.00
58	TRAFFIC CONTROL	1	LS	\$5,000.00	\$5,000.00
59	MOBILIZATION	1	LS	\$10,000.00	\$10,000.00

ESTIMATED SECTION 2 COST: \$214,000.00

ESTIMATED SUBTOTAL CONSTRUCTION COST	\$475,000.00
CONSTRUCTION CONTINGENCIES	\$31,000.00
ESTIMATED TOTAL CONSTRUCTION COST	\$506,000.00
ESTIMATED TOTAL ASSESSABLE CONSTRUCTION COST	\$281,000.00

NON-CONSTRUCTION COSTS

ENGINEERING - (REPORT, HEARINGS, PLANS & SPECS, BID LETTING, CONSTRUCTION, COMPLETION)	\$120,000.00
LEGAL, PUBLICATIONS, MAILINGS, ETC.	\$4,000.00
OPEN DITCH RIGHT-OF-WAY ACQUISITION	\$120,000.00
RE-CLASSIFICATION	\$10,000.00
TEMPORARY EASEMENT (8 Acres @ \$1,000/Acre)	\$8,000.00
OTHER DAMAGES	\$3,000.00
INTEREST	\$30,000.00

ESTIMATED TOTAL DISTRICT COST	<u>\$576,000.00</u>
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ADDITIONAL COST FROM \$520,000 OPTION #5 ESTIMATE	<u>\$56,000.00</u>
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AVERAGE COST PER ACRE (BASED ON 1,407 ACRES):	\$409
AVERAGE COST PER ACRE PER YEAR AT 6% INTEREST FOR 10 YEARS:	\$56
AVERAGE COST PER ACRE PER YEAR AT 6% INTEREST FOR 20 YEARS:	\$35.66