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Preliminary Engineering Report

2023 Street & Utility Improvements City of Plainview, Minnesota

September 2022

Submitted by:

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Certification

Preliminary Engineering Report

for


2023 Street & Utility Improvements

City of Plainview, Minnesota

OH1.127562

September 2022

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: 

Brian P. Malm, P.E.
License No. 40457

Date: 9/7/22

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I. EXECUTIVE SUMMARY

This report is for a proposed street and utility reconstruction project along 2nd Avenue NW between 10th Street NW (CSAH 8) and North Wabasha Street (TH 42) in Plainview, Minnesota.

The corridor pavement surfaces and utilities in the project area are deteriorating and in need of repair. If the infrastructure is not replaced, maintenance costs will continue to rise as deterioration continues until the infrastructure items ultimately fail.

The project area lies within city right-of-way and surfaces are maintained by the City of Plainview. Utilities are also maintained by the City of Plainview.

The project scope currently includes the reconstruction of street pavement, curb and gutter, sidewalks and private driveways (as needed). Some new sidewalk extensions on the west end of the project will also be included. The project will also include replacement of storm sewer, sanitary sewer, watermain, and the associated service lines within the project area.

Project costs will be paid for by the City of Plainview. The estimated total project cost is approximately \$4.8 Million.

From an engineering standpoint, the proposed improvements are feasible, cost effective, and necessary. We recommend that the Council accept this Preliminary Engineering Report and authorize the preparation of bidding documents. If approved, the design process would extend through winter of 2022/2023 and construction would begin in the spring of 2023.

II. PROJECT INTRODUCTION

This Preliminary Engineering Report considers street and utility reconstruction on 2nd Avenue NW between 10th Street NW (CSAH 8) and North Wabasha Street (TH 42) in Plainview, Minnesota. A project location map is illustrated in **Figure 1** of **Appendix A**.

The City Council has authorized the preparation of a Preliminary Engineering Report to define the scope and determine the feasibility of the proposed project. The specific objectives of this Preliminary Engineering Report are to:

1. Evaluate the need for the project.
2. Determine the necessary improvements.
3. Provide information on the estimated costs for the proposed project.
4. Determine the project schedule.
5. Determine the feasibility of the proposed project.

The project would consist of surface and underground utility improvements. Additional details are provided in the following sections.

III. EXISTING CONDITIONS

A. Street and Surface

The existing streets in the project area are bituminous. From 10th Street NW to a point 350-feet east on the north side and a point 750-feet east on the south side, there is currently no curb and gutter. The remainder of the project area has B618 curb and gutter on both sides of the

street. The existing street surfaces are deteriorated with block cracking, heavy weathering and alligator cracking at joints. The table below provides a summary of existing street widths.

Table 1 – Existing Street Widths		
From	To	Existing Street Width (ft)
CSAH 8	8 th St NW	30'-34'
8 th St NW	6 th St NW	36'
6 th St NW	5 th St NW	38'
5 th St NW	1 st St NW	36'
1 st St NW	TH 42	34-35'

The platted right-of-way is 60-feet in width. In general, the south side of 2nd Avenue NW has steeper boulevard slopes while the north side has relatively flat terrain. Several photos of the existing street surfaces are provided below.



6th Street NW intersection looking east



4th Street NW intersection looking east



Mid-block between 3rd Street NW and 4th Street NW looking west

B. Sidewalk

The existing concrete sidewalk within the project corridor was found to be mostly out of compliance with the current American Disabilities Act (ADA) requirements. Compliance issues included excessive cross slopes, trip hazards, and several missing or non-compliant pedestrian ramps at intersections.

Currently, there is no sidewalk between 10th Street NW and a point 75-feet east of 8th Street NW on the north side and a point 250-feet east of 8th Street NW on the south side, the south side of the street between 6th Street SW and 4th Street SW, a 140-ft section west of 3rd Street SW, and on the south side between 1st Street NW and TH 42.

In summary, the condition of the existing sidewalks within the project corridor can be characterized as poor and in need of replacement.

C. Storm Sewer

Storm Sewer is present between 10th Street NW and 8th Street NW, at the intersection of 6th Street NW, from 4th Street NW to 2nd Street NW and for 135-feet west of TH 42 up to TH 42. The existing storm sewer contains several structures with varying degrees of structural integrity. Pipe sizes range in size between 12" and 24" in diameter.

In general, the network of existing storm sewer appears to be undersized, which results in drainage conditions which do not meet current MnDOT or City design standards.

D. Sanitary Sewer

The existing sanitary sewer consists of 8-inch and 10-inch vitrified clay pipe (VCP) mains between 8th Street NW and TH 42 and 8-inch polyvinyl chloride (PVC) mains between 10th Street NW and 8th Street NW. There is also a segment of 6-inch forcemain between 10th Street NW and 6th Street NW. In most cases, service lines connected to mains are of similar construction to the main.

Complete as-built records for sanitary sewer within the project area were not available, with the exception of the 2006 Street and Utility Improvement Project which includes the sanitary sewer from 10th Street NW to 8th Street NW and forcemain from 10th Street NW to 6th Street NW.

Except for the sanitary main between 10th Street NW and 8th Street NW, the sanitary sewer within the project area can be characterized as poor and in need of replacement. Aside from the structural integrity of this pipe, sanitary sewer of this condition is often susceptible to groundwater infiltration, which leads to excessive flows at the Wastewater Treatment Facility. Prior to moving forward with design, sanitary sewer within the project limits will be verified to better understand the locations and conditions of services lines.

E. Watermain

The existing water distribution system within the project area consists of a combination of 4-inch, 6-inch, 8-inch and 12-inch diameter ductile-iron and cast-iron pipe. Based on limited record information, the watermain between 6th Street and TH 42 appears to have been constructed prior to 1964.

Cast iron watermain is commonly susceptible to excessive corrosion, which can result in more frequent watermain breaks, pinhole leaks, and limited hydraulic conductivity (which limits flow available for fire protection).

In 2006, a new 12-inch diameter ductile iron watermain was installed between 10th Street NW and 6th Street NW. The water services were connected to the new main but the curb stops and service lines were not replaced.

F. Other Utilities

Other non-municipal owned utilities are present in the right-of-way. These include natural gas, telecommunications and electric. The locations of these utilities have been collected during the initial project survey, using the gopher one call system.

IV. PROPOSED IMPROVEMENTS

A. Street and Surface

The street surface from 10th Street NW to 8th Street NW is proposed for partial reconstruction including replacement of the existing bituminous pavement and adding B618 concrete curb and gutter where there currently is none.

The street surface from 8th Street NW to TH 42 is proposed for complete reconstruction, including the excavation of the existing section and replacement with new aggregate base, bituminous pavement and concrete curb and gutter.

The following table summarizes the proposed street widths and curb types within the project area.

Table 2 – Proposed Street Widths				
From	To	Existing Street Width ¹ (ft)	Proposed Street Width ¹ (ft)	Parking
CSAH 8	TH 42	30-38'	36'	Both Sides

Notes: ¹Curb Face to Curb Face

The Street width of 36 feet will allow for two 10-foot travel lanes and two 8-foot parking lanes. Minor revisions to the overall street width may be made during the final design process.

The typical bituminous pavement structure will consist of 4-inch thick bituminous pavement over 8 inches of aggregate base and 12 inches of select granular borrow (sand) over a geotextile fabric.

Concrete driveway aprons along the entire project will be reconstructed from the back of the new curb to the back of the proposed sidewalk or property line, and any additional length necessary to adequately match into the existing driveway.

All disturbed turf will be restored with topsoil borrow, and sod upon completion of grading. Trees or bushes located within the street right-of-way may need to be removed in order to facilitate underground utility reconstruction. Attempts will be made to reduce impacts to existing trees; however, some tree removals should be expected.

The proposed typical roadway section is provided in **Figure 2 of Appendix A**. A plan view of the proposed surface improvements is illustrated in **Figures 3 & 4 of Appendix A**.

B. Sidewalk

All the existing public sidewalk within the project area will be replaced with new concrete walk. Full replacement of the sidewalk will be required to bring the public walk into compliance with current ADA requirements. Sidewalk will be extended on both sides of the street to the intersection with 10th Street NW (CSAH 8) to provide safer pedestrian access to the ballpark on the south side of the road and to the Green Prairie Rehabilitation Center on the north side of the road.

Steep grades in areas of the project may require the construction of new retaining walls on the south side of 2nd Avenue NW. Front yards may be cut or filled to the grade needed to accommodate the new walk and other improvements. Any existing approach sidewalks from the street to the house will be reconstructed in a similar fashion as the driveways. Due to steep grades, the construction of new concrete steps may be necessary.

The proposed improvements will include replacement and regrading of all intersection curb ramps to bring them into ADA compliance. Sidewalk improvements are illustrated in **Figures 3 & 4 of Appendix A.**

C. Storm Sewer

As discussed previously, storm sewer exists throughout the project area. The proposed project will include replacement of the existing storm sewer system east of 6th Street NW. The proposed design will include upsizing and possible relocation of storm sewer mains and additional storm sewer inlets throughout the project. The new storm sewer will be constructed of gasketed joint reinforced concrete pipe and precast structures.

The new storm sewer collection system will discharge to the existing outlet points as depicted in the attached figures. The collection system will be designed to meet 10-year design storm standards.

Perforated subsurface drain piping is proposed along the back of the curb lines on each street. These drains are proposed to be 6-inch diameter perforated PVC. The new subsurface drains will be connected to downstream catch basins. The purpose of these drains is to remove subsurface water from the pavement section and underlying soils. This will help keep the underlying soils stable and help to preserve the life of the street. Additionally, sump pump services will be provided to each lot. Buried sump service connections provide homeowners with an additional option for sump pumps which may reduce the number of illegal sanitary connections and is generally more favorable than discharging water to yards or the street.

The proposed storm sewer construction is shown on **Figures 5 & 6 of Appendix A.**

D. Sanitary Sewer

The existing sanitary sewer collection east of 8th Street will be replaced with new, 8 to 10-inch diameter PVC mains and reinforced concrete manhole structures. Private service lines adjacent to this area will also be replaced with new 6-inch diameter PVC service pipe between the main and a point near the right-of-way line. Manholes will be spaced at a maximum of 400-foot intervals to facilitate maintenance and cleaning. A portion of the existing sanitary force-main between 6th Street and 8th Street may be impacted by the new sanitary sewer construction. If impacted, this section will be replaced with new, 6-inch diameter PVC force-main.

The proposed sanitary sewer construction is illustrated on **Figures 5 & 6 of Appendix A.**

E. Watermain

The proposed project includes the replacement of all watermain east of 6th Street with new PVC watermain. In order to provide adequate fire protection, the current standard for minimum watermain size is 8-inch diameter pipe.

Hydrants with dedicated valves will be installed at appropriate intervals and main line valves will be installed to properly isolate the system for flushing, repair, and maintenance.

New, 1-inch copper water service pipe will be constructed between the main and property line for each home, and new curb stops will be installed. This includes services connected to the new 12-inch diameter main installed with the 2006 project. Any known combined water services will be separated to have individual shut offs as a part of this project.

The proposed watermain construction is illustrated on **Figures 5 & 6 of Appendix A.**

F. Other Utilities

The design of the proposed improvements will be coordinated with the owners of other utilities such as natural gas, electric, and communications. A design coordination meeting will be held with all private utility companies to identify those utilities that are in conflict with the proposed improvements. Private utility companies will be requested to submit proposed designs and construction schedules for any relocation. The construction schedule for the proposed improvements will be coordinated with the utility relocation schedule to avoid unnecessary delays.

G. Right-of-Way and Easements

Although the project will be designed to limit construction of the proposed improvements to within the existing right-of-way, it is possible that minor disturbances on private property will occur during construction of sidewalks, driveways, and sewer and water services. Therefore, temporary construction easements may be necessary along the project frontage to accommodate these minor disturbances.

V. APPROVALS AND PERMITS

Approvals and Permits are required from various agencies for the construction of the project. They include the following:

- Minnesota Pollution Control Agency (MPCA) General Construction Storm Water Permit
- Minnesota Dept. of Health (MDH) Plan Review for watermain construction
- Minnesota Department of Transportation (MnDOT) Work in the Right-of-Way Permit
- Wabasha County Drainage Permit

VI. PROJECT COST ESTIMATE AND FINANCING

The estimated project costs for the base project area are summarized in the following table.

Table 3 – Preliminary Cost Estimate			
Item	Estimated Construction Cost	Estimated Engineering, Administration, and Financing Cost	Total Estimated Project Cost
Surface Improvements	\$2,318,300	\$579,600	\$2,897,900
Sanitary Sewer Improvements	\$575,700	\$144,000	\$719,700
Water System Improvements	\$445,200	\$111,300	\$556,500
Storm Sewer Improvements	\$505,100	\$126,300	\$631,400
Total Estimated Project Costs	\$3,844,300	\$961,200	\$4,805,500

Detailed cost estimates are included in Appendix B. These cost estimates are based on public construction cost information from other recent projects which are similar in scope. Since the cost estimates are dependent on the cost of labor, materials, competitive bidding process, weather conditions, and other factors, all cost estimates are opinions for general information and no warranty or guarantee as to the accuracy of construction cost is made. Therefore, financing for this project should be based upon actual competitive bid prices with reasonable contingencies.

Funding for the proposed improvements is proposed to come from the sale of bonds, to be repaid through utility funds, and cash from the street reconstruction fund.

VII. TENTATIVE PROJECT SCHEDULE

The following table provides a tentative project schedule. All dates are subject to change.

Table 10 – Tentative Project Schedule	
Council Authorize Preliminary Engineering Report	5/10/2022
Prepare Feasibility Report	Summer 2022
Neighborhood Information Meeting #1	7/27/2022
Resolution Receiving Report	9/13/2022
Resolution Ordering Improvement and Preparation of Plans and Specifications	9/13/2022
Prepare Plans and Specifications	Oct 2022 – Feb 2023
Neighborhood Information Meeting #2	Fall/Winter 2022/2023
Resolution Approving Plans and Specifications and Ordering Advertisement for Bids	2/14/2023
Advertise for Bids	2/16/2023
Open Bids	3/8/2023
Resolution Awarding Contract	3/14/2023
Neighborhood Informational Meeting #3	April 2023
Begin Construction	May 2023
Substantial Completion of Construction	October 2023
Final Completion of Construction	June 2024

VIII. CONCLUSION AND RECOMMENDATIONS

The existing streets and utilities within the project area are deteriorated and in need of repair. Without replacements maintenance costs will continue to rise and the infrastructure will ultimately fail. From an engineering standpoint, this project is feasible, cost effective, necessary and can be best accomplished by letting competitive bids for the work.

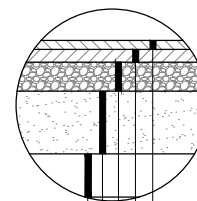
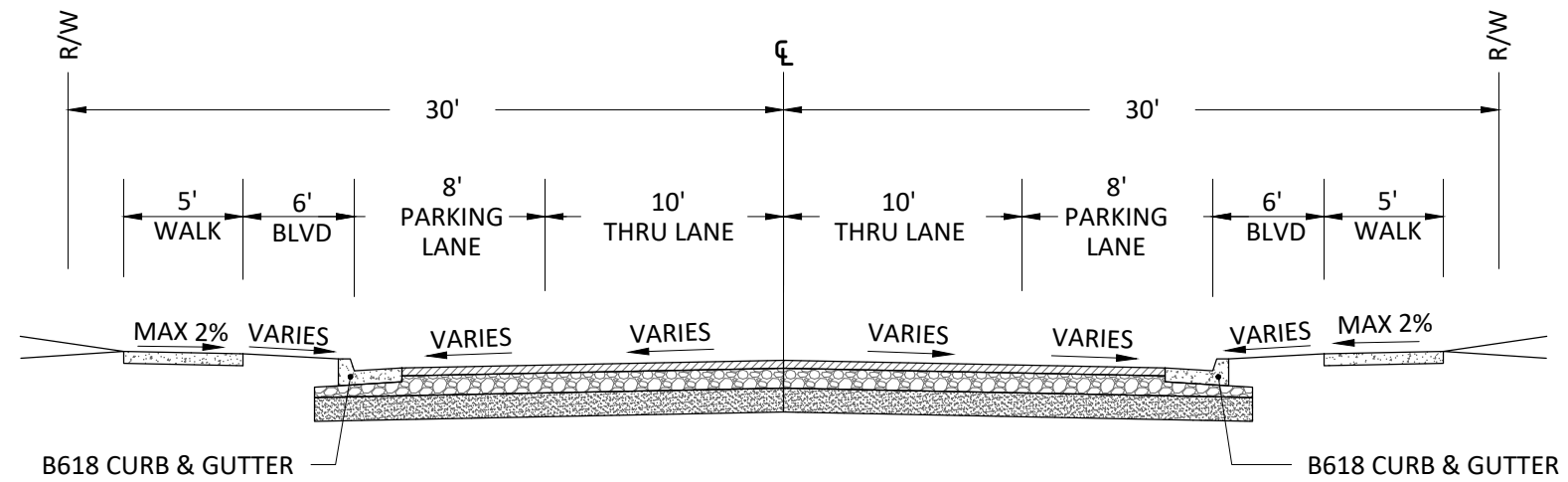
We recommend that the Council accept this Preliminary Engineering Report and authorize the preparation of bidding documents. If approved, the design process would extend through winter of 2022/2023 and construction would begin in the spring of 2023.

Appendix A: Figures



PROPOSED TYPICAL SECTION - 2ND AVENUE NW

NOT TO SCALE



- 1.5" BITUMINOUS PAVEMENT (2531)
- 2.5" BITUMINOUS PAVEMENT (2531)
- 8" AGGREGATE BASE, CL 5 (2211)
- 12" SELECT GRANULAR BORROW (2105)
- SUBGRADE PREPARATION (2112) (INCIDENTAL)




BITUMINOUS PAVEMENT SECTION

NOT TO SCALE



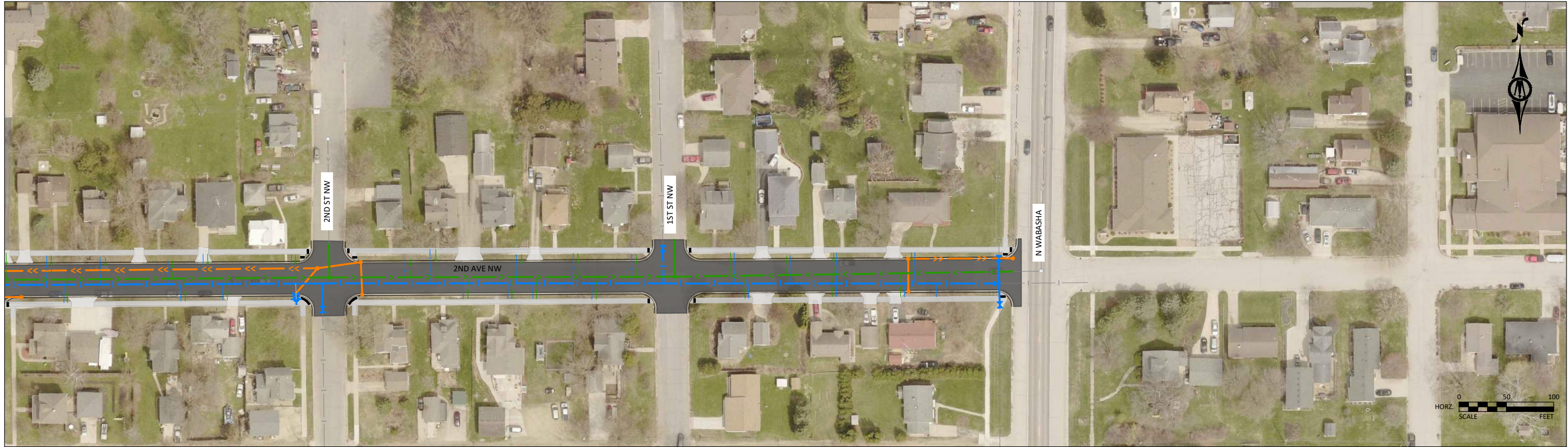
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LEGEND	
	BITUMINOUS PAVEMENT
	CONCRETE SIDEWALK/CONCRETE DRIVEWAY
	TRUNCATED DOMES



H:\PLAINVIEW\MN\OH1127562\CAD\C3D\FIG-PROPOSED UTILITIES.dwg 9/2/2022 10:11:58 AM



LEGEND			
	EXISTING SANITARY SEWER		PROPOSED SANITARY SEWER
	EXISTING WATERMAIN		PROPOSED WATERMAIN
	EXISTING STORM SEWER		PROPOSED STORM SEWER

Appendix B: Preliminary Cost Estimate

PRELIMINARY ENGINEER'S ESTIMATE

2023 STREET & UTILITY IMPROVEMENTS

CITY OF PLAINVIEW, MN

BMI PROJECT NO.: 0H1.127562



Updated: August 2022

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL
SECTION A - SURFACE IMPROVEMENTS					
1	MOBILIZATION	1	L S	\$ 250,000.00	\$ 250,000.00
2	CLEARING	39	TREE	\$ 750.00	\$ 29,250.00
3	GRUBBING	39	TREE	\$ 450.00	\$ 17,550.00
4	SALVAGE SIGN	31	E A	\$ 70.00	\$ 2,170.00
5	SALVAGE MAIL BOX SUPPORT	60	E A	\$ 125.00	\$ 7,500.00
6	SAWING CONCRETE PAVEMENT (FULL DEPTH)	720	L F	\$ 5.25	\$ 3,780.00
7	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	675	L F	\$ 3.25	\$ 2,193.75
8	REMOVE CURB AND GUTTER	5,960	L F	\$ 5.00	\$ 29,800.00
9	REMOVE CONCRETE DRIVEWAY PAVEMENT	760	S Y	\$ 10.00	\$ 7,600.00
10	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	200	S Y	\$ 10.00	\$ 2,000.00
11	REMOVE BITUMINOUS PAVEMENT	14,242	S Y	\$ 5.00	\$ 71,210.00
12	REMOVE CONCRETE WALK	17,990	S F	\$ 2.00	\$ 35,980.00
13	GEOTEXTILE FABRIC TYPE 5	17,550	S Y	\$ 3.00	\$ 52,650.00
14	COMMON EXCAVATION (P)	12,862	C Y	\$ 15.00	\$ 192,930.00
15	SUBGRADE EXCAVATION	1,169	C Y	\$ 16.00	\$ 18,704.00
16	SELECT GRANULAR BORROW (CV) (12") (P)	5,846	C Y	\$ 28.00	\$ 163,688.00
17	STABILIZING AGGREGATE (CV)	1,169	C Y	\$ 31.00	\$ 36,239.00
18	AGGREGATE SURFACING CLASS 2	20	TON	\$ 25.00	\$ 500.00
19	STREET SWEEPER (WITH PICKUP BROOM)	30	H R	\$ 200.00	\$ 6,000.00
20	EXPLORATORY EXCAVATION	20	H R	\$ 300.00	\$ 6,000.00
21	AGGREGATE BASE (CV) CLASS 5 (8") (P)	3,898	C Y	\$ 34.00	\$ 132,532.00
22	BITUMINOUS PATCH SPECIAL	110	S Y	\$ 50.00	\$ 5,500.00
23	BITUMINOUS MATERIAL FOR TACK COAT	1,424	GAL	\$ 3.25	\$ 4,628.00
24	TYPE SP 9.5 WEARING COURSE MIXTURE (3;C) 1.5" THICK (P)	14,242	S Y	\$ 10.00	\$ 142,420.00
25	TYPE SP 12.5 WEARING COURSE MIXTURE (3;C) 2.5" THICK (P)	14,242	S Y	\$ 15.00	\$ 213,630.00
26	4" CONCRETE WALK	29,000	S F	\$ 7.50	\$ 217,500.00
27	6" CONCRETE WALK	2,020	S F	\$ 11.00	\$ 22,220.00
28	CONCRETE CURB AND GUTTER DESIGN B618	7,140	L F	\$ 22.00	\$ 157,080.00
29	6" CONCRETE DRIVEWAY PAVEMENT	840	S Y	\$ 75.00	\$ 63,000.00
30	7" CONCRETE DRIVEWAY PAVEMENT	75	S Y	\$ 80.00	\$ 6,000.00
31	TRUNCATED DOMES	470	S F	\$ 55.00	\$ 25,850.00
32	INSTALL MAIL BOX SUPPORT	60	E A	\$ 250.00	\$ 15,000.00
33	TRAFFIC CONTROL	1	L S	\$ 40,000.00	\$ 40,000.00
34	INSTALL SIGN	31	E A	\$ 250.00	\$ 7,750.00
35	STABILIZED CONSTRUCTION EXIT	1	L S	\$ 1,500.00	\$ 1,500.00
36	EROSION CONTROL SUPERVISOR	1	L S	\$ 2,500.00	\$ 2,500.00
37	AMENDED TOPSOIL BORROW (LV)	1,200	C Y	\$ 35.00	\$ 42,000.00
38	SODDING, TYPE LAWN	7,920	SY	\$ 9.00	\$ 71,280.00
39	CROSSWALK PAINT	1,400	S F	\$ 1.00	\$ 1,400.00
SUBTOTAL:					\$ 2,107,534.75

PRELIMINARY ENGINEER'S ESTIMATE

2023 STREET & UTILITY IMPROVEMENTS

CITY OF PLAINVIEW, MN

BMI PROJECT NO.: 0H1.127562



Updated: August 2022

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL
SECTION B - SANITARY SEWER IMPROVEMENTS					
40	REMOVE MANHOLE (SANITARY)	6	E A	\$ 600.00	\$ 3,600.00
41	REMOVE SEWER PIPE (SANITARY)	2,960	L F	\$ 6.00	\$ 17,760.00
42	DEWATERING	1	L S	\$ 30,000.00	\$ 30,000.00
43	CONNECT TO EXISTING SANITARY SEWER	7	E A	\$ 1,000.00	\$ 7,000.00
44	8"X6" PVC WYE	49	E A	\$ 400.00	\$ 19,600.00
45	10"X6" PVC WYE	16	E A	\$ 450.00	\$ 7,200.00
46	8" PVC PIPE SEWER	2,210	L F	\$ 70.00	\$ 154,700.00
47	10" PVC PIPE SEWER	750	L F	\$ 75.00	\$ 56,250.00
48	6" FORCEMAIN	500	LF	\$ 90.00	\$ 45,000.00
49	6" PVC SANITARY SERVICE PIPE	1,855	L F	\$ 55.00	\$ 102,025.00
50	CASTING ASSEMBLY (SANITARY)	10	E A	\$ 1,000.00	\$ 10,000.00
51	ADJUST FRAME AND RING CASTING (SANITARY)	10	E A	\$ 550.00	\$ 5,500.00
52	CONSTRUCT MANHOLE DESIGN 4007	88	L F	\$ 650.00	\$ 57,200.00
53	SANITARY SEWER TRACER WIRE	1	L S	\$ 7,500.00	\$ 7,500.00
				SUBTOTAL:	\$ 523,335.00
SECTION C - WATER SYSTEM IMPROVEMENTS					
54	REMOVE GATE VALVE AND BOX	14	E A	\$ 300.00	\$ 4,200.00
55	REMOVE HYDRANT	4	E A	\$ 500.00	\$ 2,000.00
56	REMOVE WATER MAIN	2,490	L F	\$ 6.00	\$ 14,940.00
57	TEMPORARY WATER SERVICE	1	L S	\$ 10,000.00	\$ 10,000.00
58	CONNECT TO EXISTING WATER MAIN	9	E A	\$ 1,500.00	\$ 13,500.00
59	HYDRANT	4	E A	\$ 5,800.00	\$ 23,200.00
60	VALVE BOX TOP SECTION & CAP	4	E A	\$ 300.00	\$ 1,200.00
61	ADJUST VALVE BOX	22	E A	\$ 300.00	\$ 6,600.00
62	1" CORPORATION STOP	51	E A	\$ 400.00	\$ 20,400.00
63	6" GATE VALVE AND BOX	5	E A	\$ 2,500.00	\$ 12,500.00
64	8" GATE VALVE AND BOX	10	E A	\$ 2,900.00	\$ 29,000.00
65	12" GATE VALVE AND BOX	1	E A	\$ 4,500.00	\$ 4,500.00
66	1" CURB STOP AND BOX	51	E A	\$ 430.00	\$ 21,930.00
67	1" TYPE K COPPER PIPE	1,331	L F	\$ 40.00	\$ 53,240.00
68	6" PVC WATERMAIN	80	L F	\$ 55.00	\$ 4,400.00
69	8" PVC WATERMAIN	2,450	L F	\$ 60.00	\$ 147,000.00
70	12" PVC WATERMAIN	20	L F	\$ 75.00	\$ 1,500.00
71	4" INSULATION	100	S Y	\$ 50.00	\$ 5,000.00
72	WATERMAIN FITTINGS	1,700	L B	\$ 13.00	\$ 22,100.00
73	WATERMAIN TRACER WIRE	1	L S	\$ 7,500.00	\$ 7,500.00
				SUBTOTAL:	\$ 404,710.00

PRELIMINARY ENGINEER'S ESTIMATE

2023 STREET & UTILITY IMPROVEMENTS

CITY OF PLAINVIEW, MN

BMI PROJECT NO.: 0H1.127562



Updated: August 2022

ITEM NO.	ITEM	QTY	UNIT	UNIT PRICE	TOTAL
SECTION D - STORM SEWER IMPROVEMENTS					
74	REMOVE MANHOLE (STORM)	5	E A	\$ 600.00	\$ 3,000.00
75	REMOVE CATCH BASIN	16	E A	\$ 450.00	\$ 7,200.00
76	REMOVE SEWER PIPE (STORM)	1,420	L F	\$ 12.00	\$ 17,040.00
77	6" PERF PVC PIPE DRAIN	7,140	L F	\$ 18.00	\$ 128,520.00
78	6" PVC PIPE DRAIN CLEANOUT	71	E A	\$ 450.00	\$ 31,950.00
79	SUMP PUMP SERVICE	60	E A	\$ 750.00	\$ 45,000.00
80	12" RC PIPE SEWER DESIGN 3006 CLASS V	500	L F	\$ 50.00	\$ 25,000.00
81	15" RC PIPE SEWER DESIGN 3006 CLASS V	270	L F	\$ 58.00	\$ 15,660.00
82	18" RC PIPE SEWER DESIGN 3006 CLASS III	380	L F	\$ 63.00	\$ 23,940.00
83	21" RC PIPE SEWER DESIGN 3006 CLASS III	125	L F	\$ 80.00	\$ 10,000.00
84	24" RC PIPE SEWER DESIGN 3006 CLASS III	50	L F	\$ 92.00	\$ 4,600.00
85	30" RC PIPE SEWER DESIGN 3006 CLASS III	30	L F	\$ 120.00	\$ 3,600.00
85	CASTING ASSEMBLY (STORM)	30	E A	\$ 850.00	\$ 25,500.00
86	ADJUST FRAME AND RING CASTING (STORM)	10	E A	\$ 550.00	\$ 5,500.00
87	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	36	L F	\$ 585.00	\$ 21,060.00
88	CONSTRUCT DRAINAGE STRUCTURE DESIGN 54-4020	12	L F	\$ 800.00	\$ 9,600.00
89	CONSTRUCT DRAINAGE STRUCTURE DESIGN 60-4020	12	L F	\$ 1,000.00	\$ 12,000.00
90	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL (R-1)	100	L F	\$ 550.00	\$ 55,000.00
91	CONNECT INTO EXISTING STORM SEWER	4	E A	\$ 850.00	\$ 3,400.00
92	STORM DRAIN INLET PROTECTION	32	E A	\$ 225.00	\$ 7,200.00
93	SEDIMENT CONTROL LOG TYPE WOOD FIBER	200	L F	\$ 6.00	\$ 1,200.00
94	ROCK DITCH CHECK	16	E A	\$ 200.00	\$ 3,200.00
				SUBTOTAL:	\$ 459,170.00

TOTAL PROJECT COST SUMMARY

CONSTRUCTION SUBTOTAL:	\$3,494,749.75
CONSTRUCTION CONTINGENCIES (10%):	\$349,500.00
CONSTRUCTION COST:	\$3,844,249.75
ESTIMATED ENGINEERING, ADMIN & LEGAL (25%):	\$961,200.00
ESTIMATED PROJECT TOTAL:	\$4,805,449.75