

WEST 7TH STREET

Project Feasibility Report

City Project Number 11078

December 3, 2024



Project Feasibility Report

West 7TH Street

City Project Number 11078

City of Mankato

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II. CERTIFICATION PAGE

CERTIFICATION

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly registered professional engineer under the laws of the state of Minnesota.



Alec W. Pietz, P.E.
Reg. No. 59617

12-03-2024
Date

III. PROJECT CONTACTS

TITLE	NAME	PHONE	EMAIL
Mayor	Najwa Massad	507.387.9693	nmassad@mankatomn.gov
Councilor at Large	Mike Laven	507.720.8674	mlaven@mankatomn.gov
Councilor Ward 1	Michael McLaughlin	507.720.1093	mmclaughlin@mankatomn.gov
Councilor Ward 2	Dennis Dieken	507.720.1817	ddieken@mankatomn.gov
Councilor Ward 3	Kevin Mettler	507.995.0070	kmettler@mankatomn.gov
Councilor Ward 4	Jenn Melby-Kelley	507.720.2502	jmelby-kelley@mankatomn.gov
Councilor Ward 5	Jessica Hatanpa	507.613.8067	jhatanpa@mankatomn.gov
City Manager	Susan Arntz	507.387.8695	sarntz@mankatomn.gov
Public Works Director	Karl Keel	507.387.8640	kkeel@mankatomn.gov
Project Engineer	Alec Pietz	507.387.8643	apietz@mankatomn.gov
Project Operations	Kari Lozinski	507.387.8634	klozinski@mankatomn.gov
Project Designer	Brandon Geldner	507.387.8541	bgeldner@mankatomn.gov
Project Representative	Brandon Geldner	507.387.8541	bgeldner@mankatomn.gov

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IV. EXECUTIVE SUMMARY

The West 7th Street Capital Improvement Project proposes improvements to the following streets:

- West 7th Street from Sibley Street to Owatonna Street

The existing street, water main, and sanitary sewer systems were installed in a range of years with sanitary sewer dating back as far as the 1920's. The existing roads range between 35- to 40-feet with curb and gutter. Some additional parking is provided adjacent to Church of St. Joseph the Worker. Sidewalks exist continuously on the south side of the street and in broken segments of the north side. Surface features are in generally fair/poor conditions. Improvements to the roadway and utilities are necessary in this area to avoid complete failure of infrastructure.

Suggested improvements include complete reconstruction with replacement of all pavements, sanitary sewer, water main, storm drains where needed, branch services to each lot, and concrete curb & gutter and driveways as applicable. These improvements were determined through a review and evaluation of city infrastructure and an extensive public engagement process. This was done to provide context sensitive improvements for reliability of service for the neighborhood.

The estimated cost of these necessary improvements is approximately \$1,295,985.

From an engineering standpoint, the proposed improvements are necessary, cost effective, and feasible. This can best be accomplished by letting competitive bids for the work. It is recommended that the council accept this project feasibility report and schedule a preliminary assessment hearing for the proposed improvements.

V. PROJECT INTRODUCTION

The recommended pavement and utility improvements on 7th Street between Sibley Street and Owatonna Street are being proposed for the summer of 2025. In accordance with Minnesota Statutes, Chapter 429, the City Council has authorized the preparation of a project feasibility report to define the scope and determine the reasonableness of the project. The specific objectives of this preliminary engineering report are to:

- Evaluate the need for this project.
- Determine the necessary improvements.
- Provide information on the estimated costs for the proposed project.
- Determine the project schedule.
- Determine the feasibility of the proposed project.

This project, as proposed, is approximately 900-feet in length and consists of two city blocks. Specific items that will be included in the construction are as follows:

- Sanitary sewer
- Storm sewer
- Watermain
- Bituminous pavement and aggregate base
- Sidewalks
- Curb and gutter

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VI. EXISTING CONDITIONS

A. STREET

The pavement of the project streets is in generally poor condition by visual observation. Records of original pavement construction were not found, and a pavement condition inventory was not completed recently. Road width is currently between 35- and 40-feet, and some parking areas exist adjacent to the Church of St. Joseph the Worker. The existing streets for West 7th Street are illustrated in red on Figure 1 of the Appendix.

It is anticipated that bedrock is located within the project location based on records from previous projects in the area. Soil borings will be collected and properly documented and considered with the design.

B. STORM SEWER

No storm sewer exists in the project location except at the match point of 7th and Owatonna and collects stormwater from routed from the west. The existing storm water drainage system for the surrounding area is in Figure 2 in the Appendix with the storm system shown in green.

C. SANITARY SEWER

Vitrified clay pipe sanitary sewer dating back to the 1920's exists within the project area. Three sanitary manholes exist within the project area. The existing sanitary sewer system is illustrated in Figure 3 in the Appendix with the sanitary system shown in brown.

D. WATERMAIN

Primarily 6-inch cast iron watermain pipe exists within the project limits and is likely 60+ years old. The existing domestic water distribution system for 7th Street is shown in Figure 3 in the Appendix with the domestic water distribution system shown in blue.

E. OTHER UTILITIES

Other non-municipal-owned utilities may be present in the right-of-way. These include natural gas, electric, and telecommunications. The condition of these utilities is unknown, and their replacement is beyond the scope of this report.

VII. PROPOSED IMPROVEMENTS

A. STREET

7th Street is proposed to be reconstructed to a similar existing width and to improve the Church parking area fronting the street. Sidewalks will be constructed on both sides of the street, consistent with 7th Street west of the project location. The proposed street cross section and pavement section are in Figure 4 in the Appendix.

Any temporary damage that occurs to the boulevard during construction will be repaired after the project by reestablishing turf in the disturbed areas. Trees, bushes, and other vegetation located in the construction zone will be protected where possible; however, some trees and bushes may need to be removed as part of construction due to direct conflict with the proposed utilities or due to unavoidable root damage.

B. STORM SEWER

The existing drainage patterns lend itself to minimal storm sewer required for proper street drainage. Final design will determine the extent of storm sewer installation.

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C. SANITARY SEWER

New PVC sanitary sewer is proposed on 7th Street throughout the project limits. 10-inch and 12-inch diameter pipe exists in this location. However, 8-inch diameter pipe may be installed due to the small amount of sanitary flow contributing to this area. Manholes will be installed as necessary and service lines will be installed to each lot.

D. WATERMAIN

Like sanitary sewer, new PVC watermain is proposed on 7th Street throughout the project limits. 8-inch diameter pipe is recommended with valves and hydrants as needed with service lines installed to each lot.

E. OTHER UTILITIES

The design of the proposed improvements will be coordinated with the owners of private utilities such as natural gas, electric, telephone, and cable television. A design coordination meeting will be held with all private utility companies to identify those utilities that 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.

VIII. RIGHT-OF-WAY AND EASEMENT

No acquisition of right-of-way or easements are required for this project.

IX. APPROVALS/PERMITS

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

- City of Mankato Land Disturbance
- Minnesota Pollution Control Agency Construction Stormwater
- Minnesota Department of Health Watermain Permit

X. PROJECT COST ESTIMATE AND FINANCING

Estimated projections for the cost of this project are summarized below.

ITEM	COST
Street and Landscaping	\$571,587.38
Stormwater Pollution Prevention	\$19,825.00
Storm Drainage Construction	\$54,800.00
Sanitary Sewer Construction	\$178,350.00
Watermain Construction	\$191,100.00
TOTAL CONSTRUCTION	\$1,015,662.38
Construction Contingency	\$101,566.24
Administration	\$67,033.72
Engineering	\$111,722.86
TOTAL PROJECT COST	\$1,295,985.19

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Funding for the proposed improvements is shown in the table below.

FUNDING SOURCE	AMOUNT	PERCENT
Special Assessments	\$401,313.65	30.97%
Water Revenue	\$224,766.60	17.34%
Sewer Revenue	\$209,739.60	16.18%
Stormwater Revenue	\$64,444.80	4.97%
General Obligation Bonds	\$395,753.54	30.54%
TOTAL FUNDS	\$1,295,985.19	100%

XI. POSSIBLE SCHEDULE

The following is a possible schedule for the proposed improvements to 7TH Street:

12/09/2024	Set Date of Hearing
12/18/2024	Project Informational Meeting
01/13/2025	Project Improvement Hearing
02/13/2025	Advertise for Bids
03/06/2025	Open Bids
03/24/2025	Award Bid
04/25/2025	Begin Construction
09/19/2025	Substantial Completion
06/19/2026	Final Lift of Pavement (Final Completion)
11/09/2026	Adopt Final Assessments
01/01/2027	Assessment Repayment Begins

XII. CONCLUSION AND RECOMMENDATIONS

The existing conditions of 7th Street are unfavorable with only further deteriorations to come. If these road and utility improvements are not made, maintenance costs will continue to be an issue and failure of the road and system will occur. From an engineering standpoint, this project is cost effective, necessary, and feasible. The best way to accomplish this project is by letting competitive bids for the work. Feasibility is contingent upon City Council findings with respect to project financing.

We recommend the Council accept this project feasibility report, order the City Engineer to prepare final plans and specifications, and instruct the City Manager to advertise for bids in accordance with the requirement of law.

Project Feasibility Report

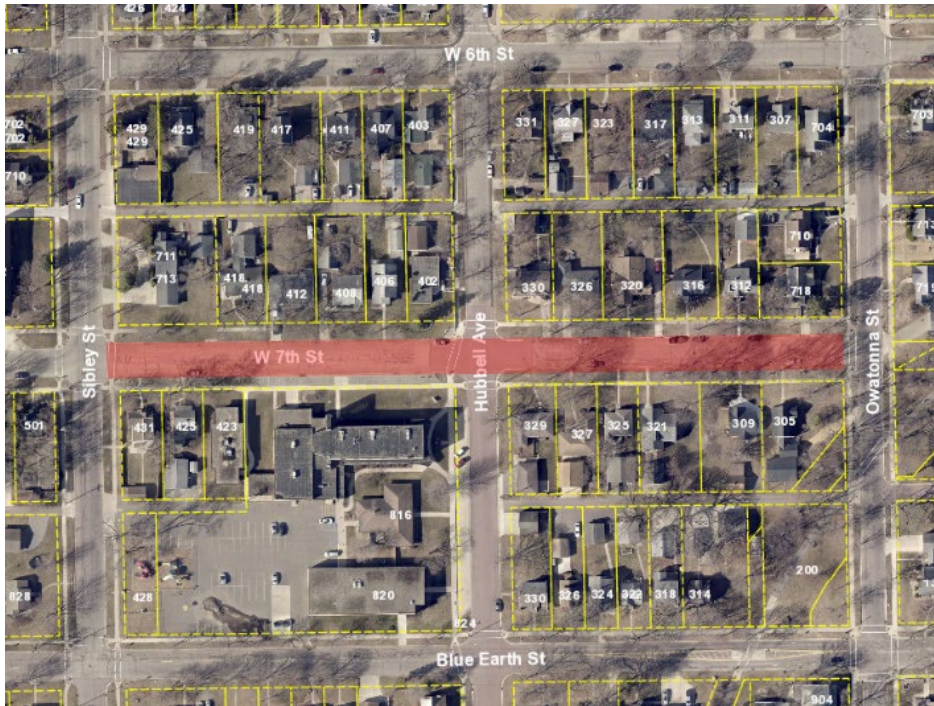
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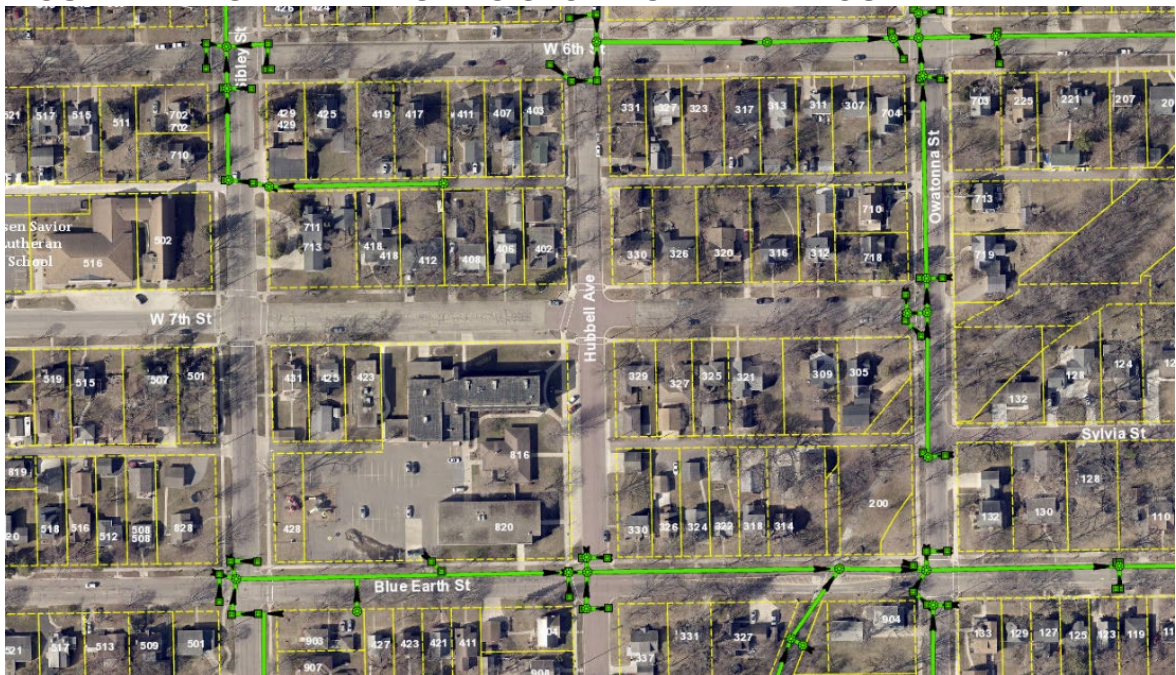
City of Mankato

XIII. APPENDIX

A. FIGURE 1: EXISTING LAYOUT OF 7TH STREET



B. FIGURE 2: 7TH STREET EXISTING STORM SEWER LAYOUT



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C. FIGURE 3: 7TH STREET EXISTING SANITARY SEWER AND WATERMAIN LAYOUT



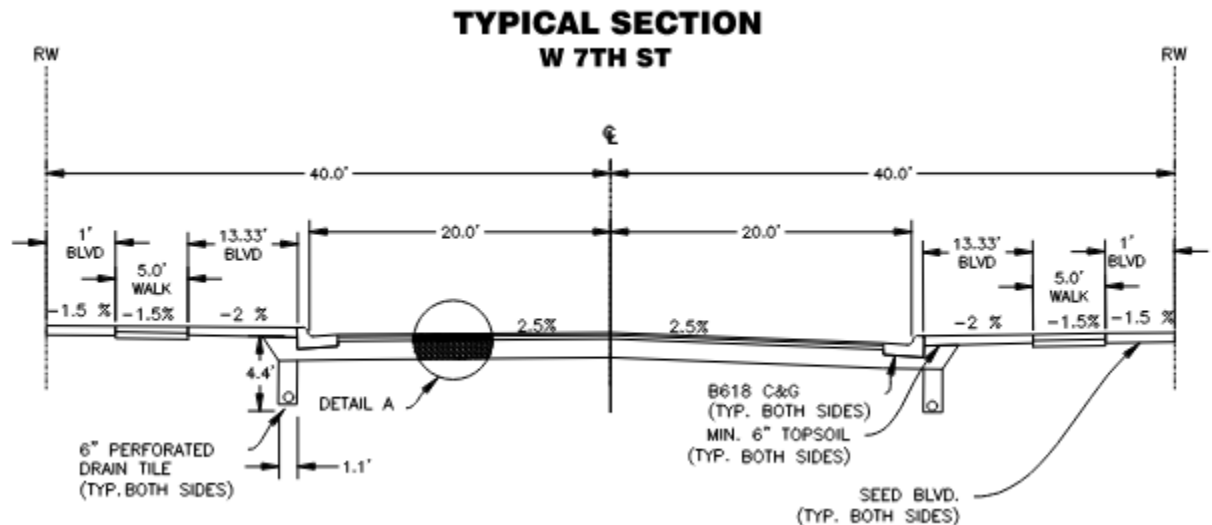
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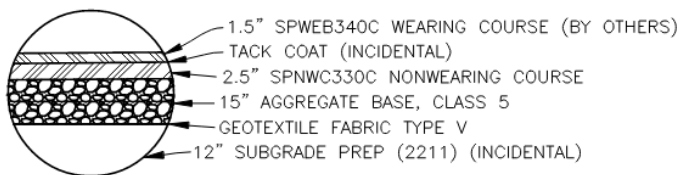
City of Mankato

D. FIGURE 4: 7TH STREET PROPOSED STREET CROSS SECTION AND PAVEMENT SECTION



Note: The eastern block of 7TH Street is proposed as a 34-ft roadway instead of 40-ft as shown above.

DETAIL A



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E. PRELIMINARY ASSESSMENT ROLL

1. Special Assessments

The estimate assessment for each property consists of three items. The street assessment, the sewer and water end service cost, and the driveway cost. Additional items can be added to the assessment as a part of the project. This project's street assessments are proposed to at the 2025 rate of \$133.25 per foot for homestead properties and non-homestead properties are assessed at a rate of \$194.50 per foot that are abutting the project. Three methods are used to determine the residents' proposed street assessment: straight frontage, corner credit, and the offset measurement. The lengths of the frontage used to calculate assessments are provided by the Blue Earth County Property Information System.

a. Street Assessment

The simplest assessment method used for an interior lot not on a corner is multiplying front footage by the assessment rate. If a lot is 100 feet wide, it would result in a street assessment of 100 feet x \$133.25 = \$13,325.

Lots that are on a corner of two streets are given a corner credit. This is done to normalize the frontage length of the long side of the lot. The corner credit is equal to one-third of the first 120 feet, plus any length in excess of 120 feet. If a lot was 40 feet wide on the side street and 140 feet wide along the project frontage, the corner credit would be calculated for the long side of the property. The assessable frontage would be determined by one-third of 120 feet ($120/3=40$) plus the length in excess of 120 feet ($140-120=20$). The result of the assessable frontage would be $40+20 = 60$ feet. The assessment for this property is 60 feet x \$133.25 = \$7,995. If the project abuts the short side of the lot the assessment would be calculated using the previous method for straight frontage.

Lots that are on a curve, cul-de-sac or otherwise irregular shaped have the assessment calculated using the offset measurement. In this type of measurement, the lot line is offset 40 feet parallel to the front line, making the dimension larger. Residents with offset measurements should contract engineering personnel to go over assessments individually.

b. Sewer and water end services

The cost of the sewer and water services are assessed to the property owner that receives benefit from the services. The cost of the assessment is estimated to be \$5,200 for both sanitary and water. This amount will be adjusted to the actual contract cost once the construction contract is awarded. This adjustment will be made on the final assessment roll.

c. Driveway Approaches

Driveway approaches are assessed at the full contract cost. The size of the driveway for the preliminary assessment roll was measured using aerial photography or a project survey. The cost shown on the assessments are estimated at \$93.65 per square yard for homestead properties and will be adjusted to actual contract cost once a construction contract is awarded along with the actual constructed amount for each parcel. For example, a 16-foot wide by 15-foot depth driveway approach will cost $26.66 \text{ SY} \times \$93.65 = \$2,496.70$. This adjustment will be made on the final assessment roll.

d. Additional assessment items

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Other items that may be added to the assessment include complete driveway replacement, outwalk replacement and sewer and water services from the right-of-way into the home.

The process to add one or all these items to an assessment for a property is as follows:

- 1) Obtain a petition form from the engineering department.
- 2) Have the work completed by the contractor of the property owners choosing.
- 3) Submit the contractor bill and signed assessment form to the engineering department once the property owner is satisfied with the work.
- 4) The city will pay the bill and add the cost to the final assessment.
- 5) Property owners (not the contractor) need to complete and submit the petition forms.
- 6) Petition for extra work need to be submitted prior to adoption of the final assessment by the City Council.

e. Levies and hardship deferrals

Project assessments are scheduled to be levied in the fall of 2026 over a 10-year period beginning with the first half of 2027 property taxes. If a total assessment is more than \$5,000, residents may have it levied over a 15-year period. To do so, write a letter indicating the desire to do this and send it to the engineering department. Staff will note this on the final assessment.

Property owners may apply for a hardship deferral if they are: The property owner of homesteaded property and will be over 65-years-old prior to adoption of the final assessments for whom it would be a hardship to make the payments; the property owner of homesteaded property who is retired by virtue of a permanent and total disability for whom it would be a hardship to make the payments; a member of the National Guard or military reserves ordered to active duty, for whom it would be a hardship to make the payments. A member of the National Guard or military reserves ordered to active duty, for whom it would be a hardship to make the payments.

Deferral requests or changing to a 15-year assessment period need to be applied for on or before the preliminary assessment hearing.

W 7th Street Reconstruction

Preliminary Assessment Roll
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CC= Denotes Corner Credit Applied; SB= Denotes Setback; REAR=Denotes Rearage							
Parcel Number / Owner / Address	Property Description	Property Class	Frontage Charge		Driveway Approach Area (SY) Cost/SY	Sewer & Water Services @ \$5,200.00	Total Preliminary Assessment
			Front Feet				
			cost/ft				
01.08.13.334.005 Church of St Joseph the Worker 816 Hubbell Ave Mankato, MN 56001	West Mankato Lots 2 to 15 Block 163 Church/School/Rectory	NH	257.00	\$49,986.50	\$36,591.04	\$5,200.00	\$91,777.54 10 years
					315.44		
			\$194.50		\$116.00		
01.08.13.335.001 Trevor John Bruggeman 329 W 7th St Mankato, MN 56001	West Mankato East 7 Feet of Vacated Hubbell Avenue Adjacent and Lot 18 Block 164	H	57.00	\$7,595.25	\$0.00	\$5,200.00	\$12,795.25 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.335.002 Jason & Ronette J Hornick 327 W Seventh St Mankato, MN 56001	West Mankato Lot 17 Block 164 0.00	H	50.00	\$6,662.50	\$0.00	\$5,200.00	\$11,862.50 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.335.003 Matthew R Zimmerman 325 W 7th St Mankato, MN 56001	West Mankato Lot 16 Block 164 0.00	H	50.00	\$6,662.50	\$0.00	\$5,200.00	\$11,862.50 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.335.004 Charles K & Kathleen Piehl 321 W 7th St Mankato, MN 56001	West Mankato West Half of Lot 15 and all of Lot 15 Block 164	H	75.00	\$9,993.75	\$0.00	\$5,200.00	\$15,193.75 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.335.005 Samantha Amberg 309 W 7th St Mankato, MN 56001	West Mankato Lot 13 and East Half of Lot 14 Block 164	H	75.00	\$9,993.75	\$0.00	\$5,200.00	\$15,193.75 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.335.006 Donna M Johnson 305 W 7th St Mankato, MN 56001	West Mankato Excluding RR Lots 11 & 12 Block 164 0.00	H	33.33 CC= 100.00	\$13,325.00	\$0.00	\$5,200.00	\$18,525.00 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.332.015 Rebecca A Brudwick 718 Owatonna St Mankato, MN 56001	West Mankato Excluding North 66 Feet of Lots 7 and 8 Block 167	H	33.33 CC= 100.00	\$13,325.00	\$2,669.03	\$5,200.00	\$21,194.03 10 years
					28.50		
			\$133.25		\$93.65		

W 7th Street Reconstruction

Preliminary Assessment Roll
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CC= Denotes Corner Credit Applied; SB= Denotes Setback; REAR=Denotes Rearage							
Parcel Number / Owner / Address	Property Description	Property Class	Frontage Charge		Driveway Approach	Sewer & Water Services @ \$5,200.00	Total Preliminary Assessment
			Front Feet		Area (SY)		
			cost/ft		Cost/SY		
01.08.13.334.001 Michael R Howard 431 W 7th St Mankato, MN 56001	West Mankato Lot 18 Block 163 0.00	H	50.00	\$6,662.50	\$0.00	\$5,200.00	\$11,862.50 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.334.002 Barbara E Sweiger 425 W Seventh St Mankato, MN 56001	West Mankato Lot 17 Block 163 0.00	H	50.00	\$6,662.50	\$0.00	\$5,200.00	\$11,862.50 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.334.003 Church of St Joseph the Worker 816 Hubbell Ave Mankato, MN 56001	West Mankato Lot 16 Block 163 Convent	NH	50.00	\$9,725.00	\$0.00	\$5,200.00	\$14,925.00 10 years
					0.00		
			\$194.50		\$116.00		
01.08.13.331.009 Mark C Henrich 713 Sibley St Mankato, MN 56001-2159	West Mankato Lots 1 and 2 and West 20 Feet of Lot 3 Block 168 (711 Sibley St)	H	120.00	\$15,990.00	\$0.00	\$5,200.00	\$21,190.00 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.331.010 Warren & Theresa Michels 418 W 7th St Mankato, MN 56001	West Mankato East 30 Feet of Lot 3 and West 3/5 of Lot 4 Block 168	H	60.00	\$7,995.00	\$0.00	\$5,200.00	\$13,195.00 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.331.011 Matthew & Sarah Payne 412 W 7th St Mankato, MN 56001-2130	West Mankato East 2/5 of Lot 4 and West 4/5 of Lot 5 Block 168	H	60.00	\$7,995.00	\$2,513.57	\$5,200.00	\$15,708.57 10 years
					26.84		
			\$133.25		\$93.65		
01.08.13.331.012 Debra Terry & Madalyn Otto 408 7th St W Mankato, MN 56001	West Mankato East 1/5 of Lot 5 and all of Lot 6 Block 168	H	60.00	\$7,995.00	\$2,148.33	\$5,200.00	\$15,343.33 10 years
					22.94		
			\$133.25		\$93.65		
01.08.13.331.013 Julie M Cline 406 W 7th St Mankato, MN 56001	West Mankato Lot 7 Block 168 0.00	H	50.00	\$6,662.50	\$0.00	\$5,200.00	\$11,862.50 10 years
					0.00		
			\$133.25		\$93.65		

W 7th Street Reconstruction

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CC= Denotes Corner Credit Applied; SB= Denotes Setback; REAR=Denotes Rearage							
Parcel Number / Owner / Address	Property Description	Property Class	Frontage Charge		Driveway Approach Area (SY) Cost/SY	Sewer & Water Services @ \$5,200.00	Total Preliminary Assessment
			Front Feet				
			cost/ft				
01.08.13.332.009 John C Reed Jr & Amy N Vokal 330 W 7th St Mankato, MN 56001	West Mankato East 7 Feet of Vacated Hubbell Avenue Adjacent Lot 1 Block 167	H	57.00	\$7,595.25	\$2,530.42	\$5,200.00	\$15,325.67 10 years
					27.02		
			\$133.25		\$93.65		
01.08.13.331.014 Benjamin M Kiecker 402 W 7th St Mankato, MN 56001	West Mankato West 7 Feet of Vacated Hubbell Avenue Adjacent Lot 8 Block 168	H	57.00	\$7,595.25	\$0.00	\$5,200.00	\$12,795.25 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.332.010 Jason E Freeberg 326 W 7th St Mankato, MN 56001	West Mankato Lot 2 and West 10 Feet of Lot 3 Block 167	H	60.00	\$7,995.00	\$2,574.44	\$5,200.00	\$15,769.44 10 years
					27.49		
			\$133.25		\$93.65		
01.08.13.332.011 Penelope L Herickhoff 320 W 7th St Mankato, MN 56001	West Mankato Excluding West 10 Feet of Lot 3 & Excluding East 16 Feet of Lot 4 Block 167	H	74.00	\$9,860.50	\$2,152.08	\$5,200.00	\$17,212.58 10 years
					22.98		
			\$133.25		\$93.65		
01.08.13.332.012 Carrie E Maakestad 316 W 7th St Mankato, MN 56001	West Mankato East 16 Feet of Lot 4 and all of Lot 5 Block 167	H	66.00	\$8,794.50	\$0.00	\$5,200.00	\$13,994.50 10 years
					0.00		
			\$133.25		\$93.65		
01.08.13.332.013 Stephen J & Margo W Druschel 312 W 7th St Mankato, MN 56001	West Mankato Lot 6 Block 167 0.00	H	50.00	\$6,662.50	\$0.00	\$5,200.00	\$11,862.50 10 years
					0.00		
			\$133.25		\$93.65		