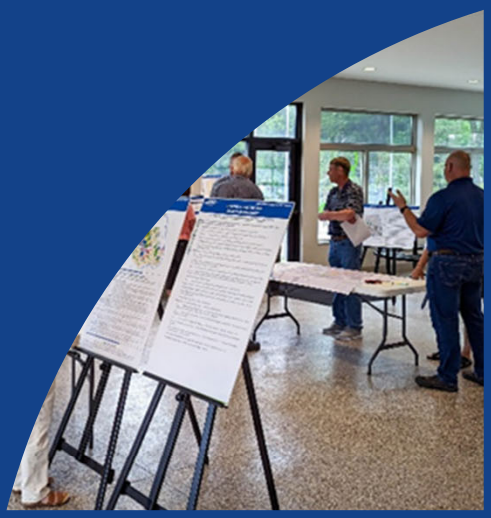
NORTH MANKATO
MINNESOTA

CITY OF NORTH MANKATO

2023 COMPREHENSIVE PLAN

September 2023







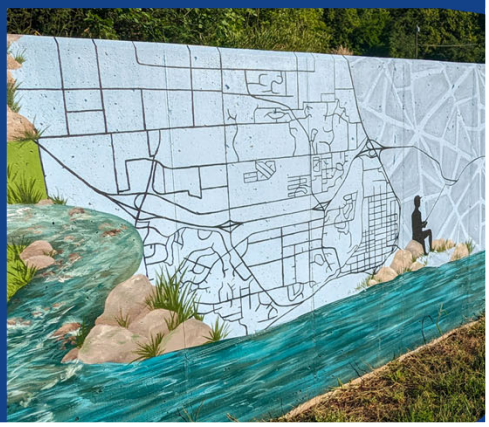


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City of North Mankato

2023 Comprehensive Plan

Acknowledgements

We would like to thank everyone who participated in the visioning and creation of this Comprehensive Plan. Your comments, insights, and local knowledge of the community were invaluable assets throughout the planning process. Not included in this list, but nonetheless critical to the success of this planning effort, were many others who provided background information, attended meetings, or contributed by other means.

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Chapter 1: Introduction

PURPOSE OF THE PLAN

The purpose of the Comprehensive Plan is to serve as a vision and roadmap for where the community is headed. The ideas and goals expressed in this plan are intended to be a reflection of the community's values and the desire for what North Mankato is to become. Each chapter of the Comprehensive Plan provides the "big picture" of several important topics that are intertwined and have an impact on quality of life in North Mankato. It is the intention that this plan will be used on a day-to-day basis by city staff, the City Council, and other commissions and stakeholders to help inform important policy decisions, such as decisions involving infrastructure and development, the acquisition and sale of public land, capital improvements, zoning and regulatory changes, and communicating a consistent vision. It is anticipated that residents may use the plan to determine property use, understand decisions made by the City, and make improvements to property in a manner consistent with the plan. Developers may use the plan as a way to make decisions based on the goals and identified improvements.

The plan is intended to cover approximately a 20-year time period and may be amended and updated from time to time as conditions change.

PLANNING PROCESS

The 2023 Comprehensive Plan Update began in 2021, using the inaugural 2015 Comprehensive Plan as a starting point. Staff updated chapters of the 2015 Plan with the latest data and new information referenced from the many plans guiding community development. Many of the major plans, studies, and efforts referenced during the development of this plan are listed to the right.

Valuable input was also gathered from those in the community through virtual and in-person open houses, a booth at the community Farmer's Market, and focused outreach to specific stakeholders within the City. Input was also gleaned from other planning efforts running simultaneously with this update process including the Lookout Drive Corridor Study and the Lookout Drive Area Plan.

Major Plans, Studies, and Efforts Guiding the Development of this Plan:

- North Mankato Comprehensive Plan (2015)
- Parks Plan (2015)
- Belgrade Avenue Master Plan (2017)
- Commerce Drive Area Development Plan (2019)
- North Mankato ADA Transition Plan (2019)
- Nicollet County Comprehensive Plan (2020)
- Mankato/North Mankato (MAPO) 2045 Long Range Transportation Plan (2020)
- Northwest Growth Area Plan (2020)
- Webster Avenue Area Plan (2021)
- North Mankato Housing Study (2021)
- Highway 169 Corridor Study (2022)
- Future Transportation Preparedness Study (2022)
- Highway 14 Pedestrian Bridge Feasibility Study (2022)
- Lookout Drive Area Plan (2023)
- Brewing New Ideas for North Mankato (2023)
- Greater Mankato 2040: Transforming Tomorrow Together

As each chapter of the plan was developed, drafts were individually presented and commented on at Planning Commission meetings. The plan was reviewed by both the Planning Commission and City Council at their respective regular meetings in mid-2023. The Plan was adopted by the City Council on September 5, 2023.



Figure 1-1. In-person public open house held in late May 2023.

ORGANIZATION OF THE PLAN

The Comprehensive Plan provides a "big picture" look at several important areas that have an impact on quality of life for North Mankato. The Comprehensive Plan covers the following chapters:

Chapter 1: Introduction – This chapter provides an overview of what the Comprehensive Plan is and its purpose. It discusses the process for developing the plan and how it is organized.

Chapter 2: Vision – This chapter outlines the vision for the community that is intended to be expressed through all other chapters.

Chapter 3: Land Use – This chapter establishes existing and future land use for all property in the City. It also identifies future growth areas.

Chapter 4: Housing – This chapter provides an overview of existing housing conditions and a plan for maintaining and developing quality future housing stock.

Chapter 5: Economic Development – This chapter provides an analysis of the existing economic climate and opportunities for economic growth and redevelopment areas.

Chapter 6: Transportation – This chapter analyzes the existing transportation system and future improvements, mostly as it relates to auto-oriented transportation. Non-motorized transportation is discussed further in Chapter 8: Parks, Trails, and Recreation.

Chapter 7: Utilities – This chapter examines the existing system and future improvements to public utilities as it relates to the water, wastewater, and stormwater systems.

Chapter 8: Parks, Trails, and Recreation – This chapter examines the existing park and trail system, as well as recreational opportunities and establishes planning criteria, guidelines and standards for future development of these amenities.

Chapter 9: Business District Redevelopment – This chapter examines opportunities to reimagine the impact business districts throughout North Mankato can have and discusses redevelopment of underutilized parcels, an improved pedestrian realm, parking availability, and a healthy business mix.

Chapter 10: Community Design – This chapter addresses how people perceive and interact with the built environment. Community design addresses topics such as scale, architecture, and development patterns.

Chapter 2: Vision

IMPORTANCE OF A VISION

The Comprehensive Plan is a tool used to guide the future growth and development of the City of North Mankato. Without a plan, communities may get trapped in a "small window view" or "project window" and forget that individual decisions affect the future of the community. In daily administration of the City, it can become easy to focus on individual projects and not the entire picture of a community's future. Successful communities recognize each development or redevelopment decision contributes to advancing their vision. The keystone to this Comprehensive Plan is a Vision Statement which offers a broad and enduring view of what North Mankato seeks to become.

Vision gives the community a stated goal of what their future will be and is paramount in managing the growth and development within the community. Vision is a framework to be used by policy makers, appointees, and staff members to make decisions on the future growth and development of the community. Finally, vision protects and ensures decisions are not made in an isolated manner that detracts or endangers the community's ability to achieve its plans for the future.

OVERARCHING VISION STATEMENT

North Mankato's vision builds off the strengths of the community, public input, and the City's Strategic Plan process. The overarching vision statement captures the "big-picture" aspirations of the City. Specific visions for each of the elements of the Comprehensive Plan are provided in each of the other chapters of this Plan, along with specific goals and objectives on how to attain those visions.

All chapters and aspects of this Comprehensive Plan work to achieve the Vision and the vision themes for North Mankato.

A VISION FOR NORTH MANKATO

North Mankato is a superior place to play, work, live, and thrive.

CORE VALUES

- **C:** Care for the Community
- **O:** Outstanding Service
- **R:** Respect for Resources
- **E:** Equality

Chapter 3: Land Use & Growth Management



INTRODUCTION

The Land Use & Growth Management Chapter is a roadmap that helps guide City officials and staff on how to make policy decisions related to land use and future growth. These policies may influence the type, location and density of future development within the community. This chapter is intended to result in orderly and efficient development that utilizes land efficiently and makes the most of the community's resources. It offers guidance on key initiatives for the community which is consistent with the City's vision and goals. The City has used its various planning efforts that guide land use to inform this chapter, ensuring it accommodates growth and applies the desired qualities of the community.

Another important aspect of this chapter is that it serves as the foundation for reviewing the City's Zoning Ordinances, Zoning Map, Subdivision Regulations and other implementation tools. Implementation of the Land Use Plan produces several important implications:

- **Uses**. Every parcel is placed into a specific land use category. Each category includes a description of the type of land use or uses intended for that category. This description should match with the types and forms of development currently found in North Mankato and desired for the future.
- **Relationships**. Much like a jigsaw puzzle, the true picture comes from how each piece fits together into a whole. The Land Use Plan guides how elements of the built and natural environment come together in North Mankato. These relationships will determine how North Mankato will look, function and feel.
- **Actions**. The Land Use Plan sets the framework for public actions and investments. Utilities, streets, parks, and facilities are all influenced by the form and pace of development.

PREVIOUS AND ONGOING LAND USE RELATED PLANS AND EFFORTS

Several past and ongoing efforts focused on land use in North Mankato have been reviewed as part of developing this chapter. Those efforts are listed below.

North Mankato Comprehensive Plan (2015)

The precursor to the 2023 North Mankato Comprehensive Plan Update, this plan provides the initial comprehensive land use analysis and inventory for the City of North Mankato.

Belgrade Avenue Master Plan (2017)

Belgrade Avenue serves as a gateway to North Mankato and is a critical part of the community. The Belgrade Avenue Master Plan identifies redevelopment, streetscaping, and placemaking opportunities throughout the CBD.

Commerce Drive Area Development Plan (2019)

The 2019 Commerce Drive Area Development Plan process identified a vision for the corridor that includes fostering a greater diversity of businesses, fostering business relationships, emphasizing the importance of the corridor for the City, increasing walkability through streetscaping and land use density, and providing redevelopment scenarios for future consideration. All of these aspirations would combine to strengthen Commerce Drive as a destination.

Northwest Growth Area Plan (2020)

The Northwest Growth Area is located adjacent to the US Highway 14/County State Aid Highway (CSAH) 41 interchange northwest of existing City of North Mankato limits. The Plan provides a guide for development in the area to ensure the right mix of uses is planned and integrated in a way that complements those already being developed and at a capacity that the area can support.

Webster Avenue Area Plan (2021)

The Webster Avenue Area Plan examines land uses surrounding Webster Avenue identifying a redevelopment and revitalization strategy based on a shared vision of the area.

North Mankato Housing Study (2021)

The North Mankato Housing Study provides a snapshot of housing in North Mankato, measuring residential development for all densities, identifying deficiencies, and establishing goals for future development to ensure North Mankato is capturing its share of housing construction among neighboring communities.

Lookout Drive Area Plan (2023)

The Lookout Drive Area Plan ran concurrently with the Lookout Drive Corridor Study to identify a vision for land use surrounding Lookout Drive. The plan identifies future opportunities for housing, economic development, non-motorized transportation, and area design.

Greater Mankato 2040: Transforming Tomorrow Together (2023)

In April of 2023, Greater Mankato Growth (Greater Mankato's chamber of commerce) began the Greater Mankato 2040 (GM2040) planning and visioning project aimed at exploring the future strategic positioning of the Greater Mankato region in a fast-changing world. Housing availability, talent creation and retention, and next generation livability were identified as Key Drivers for transformation.

INVENTORY AND ANALYSIS

Existing Land Use Characteristics

Figure 3-1 illustrates the location, amount, and types of existing land uses in the City of North Mankato in 2023. The inventory reflects general development patterns and is intended for general planning purposes only. **Table 3-1** summarizes the amount and type of existing land uses in North Mankato.

Table 3-1. Summary of Existing Land Use 2023

Existing Land Use	Gross Acres*	Net Percent of City
Low Density Residential	1,317	41.4%
Low Density Small Lot Residential	92	2.9%
Medium Density Residential	190	6.0%
High Density Residential	75	2.3%
General Commercial	85	2.7%
Neighborhood Commercial (Includes the CBD)	12	0.4%
Institutional	229	7.2%
Light Industrial	84	2.6%
Heavy Industrial	354	11.1%
Open Space/Park	479	15.1%
Vacant/Undeveloped	265	8.3%
Total	**3,182**	**100%**

Gross acres determined by City staff based on Nicollet County parcel data and North Mankato land use designations.

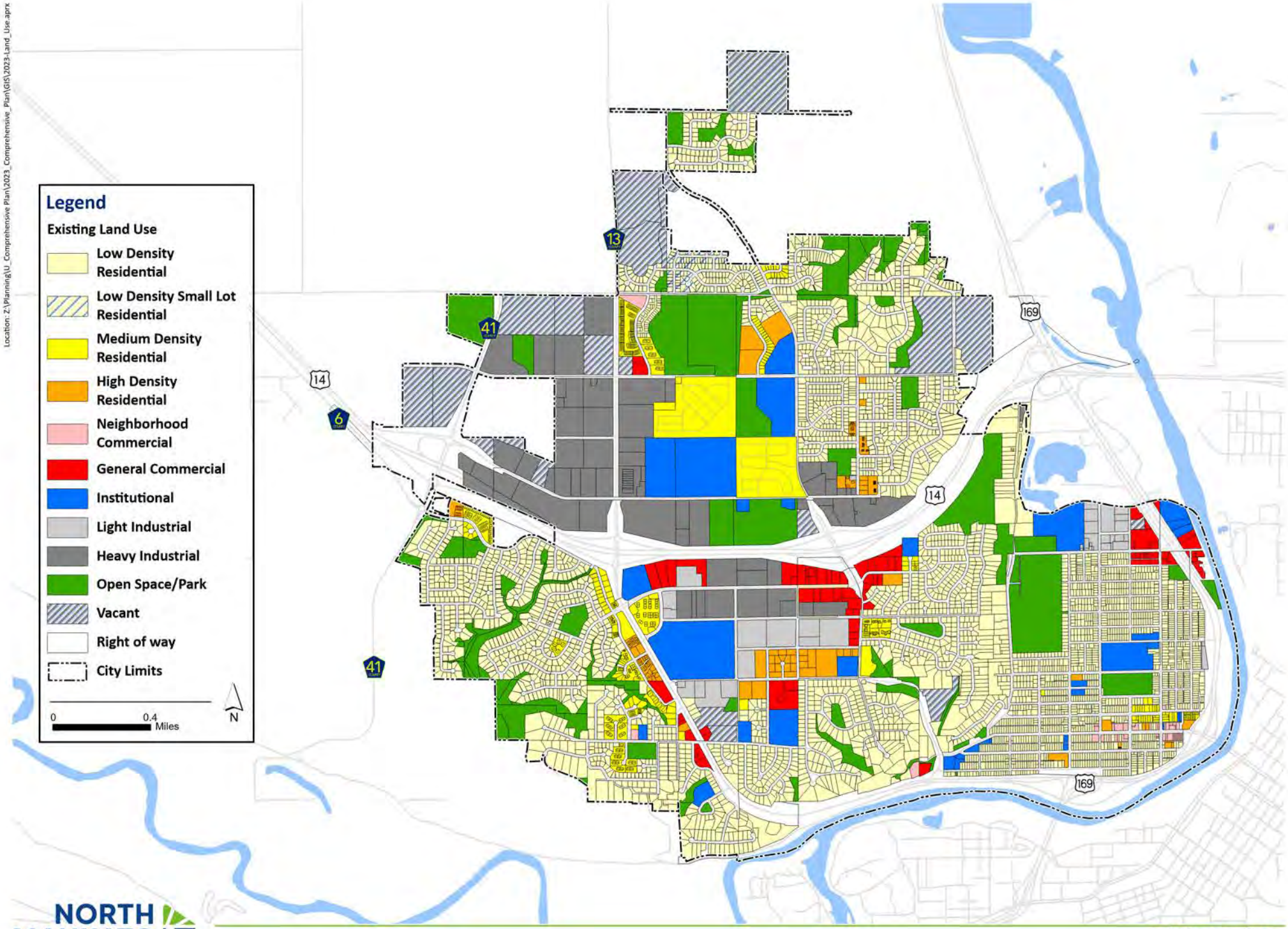
The following provides a general description of each of the existing land uses in North Mankato.

A. Low Density Residential

Low Density Residential is the largest land use within the City of North Mankato in terms of total acres, making up almost half of the City's area with 1,317 acres or 41.4%. This land use is largely characterized by single-family homes with densities of 1 to 5 dwelling units per acre. One of the greatest strengths of the City of North Mankato is the quality and variety of its single-family homes, which helps make it such an attractive community for families. The City has an abundance of older single-family homes, mostly in Lower North, that have been well preserved and provide a classic "small town" feel to these neighborhoods. Alternatively, there has been an abundance of new single-family and two-family home construction, mostly in Upper North, which provides a more modern style of home. Ensuring older housing stock continues to be well maintained is a priority, as is the ongoing efforts to add new housing units. This balance between old and new ensures a quality and variety of housing stock is available throughout the City.







NORTH MANKATO
MINNESOTA

Existing Land Use
August 2023



B. Low Density Small Lot Residential

Low Density Small Lot Residential makes up 92 acres or 2.9% of the City's area. It includes single-family detached dwellings on smaller lots with smaller side yard setbacks as those used in the Low Density Residential land use areas. Densities targeted in this category average 1 to 8 per acre. The only zoning district that would correspond to this land use designation is the R-1S, One Family Dwelling, Small Lot District. It is expected that single-family development in this category will offer entry level housing opportunities.



C. Medium Density Residential

Medium Density Residential makes up 190 acres or 6.0% of the total acreage in the City. Medium Density Residential is mostly characterized by townhome style development, duplexes, and small-scale apartment and condo buildings with densities of 5 to 10 dwelling units per acre.



D. High Density Residential

High Density Residential land use consists of all forms of multi-family attached housing units such as apartment buildings and condominiums. High density residential has densities of over 10 dwelling units per acre. In 2023, roughly 75 acres or 2.3% of North Mankato was classified as high-density residential use. High Density Residential units may be rental units or may be owner- occupied and can provide housing options for all income levels. In some cases, high-density residential units in North Mankato are exclusively for seniors, while in other cases there are no limitations for who can live in the development.



E. Neighborhood Commercial

Neighborhood Commercial uses generally serve the nearby surrounding areas and are intended to allow residents to meet some of their basic needs within a close proximity to where they live. These uses are generally smaller in nature and may be mixed in with residential uses. Examples of some Neighborhood Commercial uses might include bakeries, drug stores, banks, coffee shops, post offices and similar types of uses. Roughly 12 acres or 0.4% of North Mankato is classified as Neighborhood Commercial land use.

F. General Commercial

The General Commercial designation is intended for more intense commercial uses that may draw from a wider geographic area. It includes a broad range of commercial uses that are generally larger in size, require more parking spaces, and may not be compatible adjacent to residential uses in some cases. Examples of General Commercial uses might include department stores, restaurants, offices, health care services and similar types of uses. Many residents currently travel to Mankato to meet most of the needs generally served by this land use category. In 2023, roughly 85 acres or 2.7% of North Mankato was classified as General Commercial use.



G. Light Industrial

The Light Industrial land use includes all forms of businesses with manufacturing, distribution, warehousing or other industrial uses that are less intense and may have fewer negative impacts to surrounding properties generally associated with industrial uses such as noise, odor, dust or low-quality aesthetics. Light Industrial land use makes up approximately 84 acres or 2.6% of the City.



H. Heavy Industrial

Similar to the Light Industrial land use category, Heavy Industrial land uses are all forms of businesses with manufacturing, distribution, warehousing or other industrial uses. Heavy Industrial uses may be more intense than the types of uses in the Light Industrial land use category and may be less compatible with residential and commercial uses. Heavy Industrial Land uses may exhibit more of the impacts generally associated with industrial uses such as noise, odor, or dust or storage of equipment. Heavy Industrial land use makes up approximately 354 acres or 11.1% of the City.



I. Public/Institutional

Public/Institutional uses make up approximately 229 acres or 7.2% of area in North Mankato. These uses include all government buildings, schools (including colleges), libraries, and religious institutions. These types of uses are generally mixed in with residential or commercial uses.



J. Park and Open Space

The Park and Open Space category contains public parks and open spaces and all property owned by the City that is preserved as natural land. Approximately 479 acres or 15.1% of land in 2023 is allocated to the Park Open Space land use. Park and Open Space uses are intended to provide a variety of recreational opportunities for all residents of the community. The City of North Mankato is generally well served by the amount and placement of existing park facilities.



K. Vacant/Undeveloped

Vacant/undeveloped land refers to land that is in an undeveloped state, but that is guided and zoned for future development. In 2023, roughly 265 acres or 8.3% of North Mankato consisted of vacant/undeveloped land.



KEY LAND USE ISSUES AND OPPORTUNITIES

With over 3,180 acres of land, an analysis of the existing land use illustrates several important issues about current and future development:

Land Supply and Demand

A. Infill Development and Annexation

The "vacant/undeveloped" category includes all of the non-developed land uses within City limits. Most remaining vacant land supply is located north of Highway 14, including several properties in the northwest that are guided for industrial/commercial uses and land located in north-northeast portions of the City that is guided for low-density residential use.

Opportunities exist for potential annexation of land beyond City limits as much of the land is currently agricultural, very flat, and quite suitable for development. The Northwest Growth Area Study provides land use guidance for this area as the City considers future land annexation. To continue the orderly growth of the City, the City should work with Belgrade Township to initiate an orderly annexation agreement as a proactive measure for the future annexation of property adjacent to the City.

B. Commercial and Industrial Development

Commercial and industrial uses represent 16.8% of total land use (18.4% of non- vacant uses) and there are significant development opportunities for these uses in the northwest portion of the city.

Most of the existing commercial uses in the community would generally be characterized as neighborhood commercial uses that serve the immediate surrounding area. North Mankato is lacking in community-scale, general commercial uses and residents typically travel to the City of Mankato for these types of goods and services. Considering general commercial uses as well as new neighborhood commercial nodes will be necessary as the community continues to grow north-northwest, especially as residents are pushed farther from Mankato commercial uses. North Mankato may be able to attract the types of businesses that residents currently travel to Mankato for, such as larger retailers, as this growth occurs.

The City has a strong and growing industrial presence. Industrial uses supply a significant number of jobs for residents. The City anticipates, and data supports, that continued growth of industrial uses westward, north of Highway 14 will be successful. Heavy industrial uses should be evaluated for compatibility with adjacent land uses. Controls should be in place to protect against negative impacts to neighboring property. The Northwest Growth Area Study begins to consider solutions to this with a residential/commercial/industrial flex zone that would guide the transition from low-density residential to industrial.

C. Redevelopment

The City also has some redevelopment opportunities identified in small area plans developed for key locations throughout the City. The City should continue to evaluate the community to ensure the highest and best of land is pursued through strategic redevelopment of underutilized and/or blighted properties to enhance City character.

Development and Neighborhood Character

A. Lower North

As mentioned in the 2015 Comprehensive Plan, the older housing stock in Lower North Mankato provides a small-town character that isn't found in Upper North. Homes were developed prior to the 1960s on a typical grid pattern and many have been well maintained, preserving the historic character. The Central Business District on Belgrade Avenue is also part of Lower North Mankato. Continuing to preserve the small-town feel of Lower North and the CBD will be both challenging and should be a priority in the future. The City has established design guidelines for the CBD to maintain character and encourage cohesive architectural design, however, more will need to be done to encourage property owners to find value in preservation and contribute to that end.

B. Upper North

Areas west of Lake Street developed later and generally follow more of a suburban style layout with a series of arterials and residential streets. These newer residential subdivisions tend to have winding streets, which result in varying lot shapes and sizes. Cul-de-sacs are also common in many of these neighborhoods. Generally, these newer subdivisions have larger lots and are desirable for families. The City should continue to provide strong family oriented residential neighborhoods but also consider needs for increased higher-density neighborhoods.

C. Housing Density

The largest land use category in the City is low density residential. Data from the 2021 North Mankato Housing Study states that North Mankato represents 23% of the population of Greater Mankato but is capturing 32% of single-family housing construction. This indicates the City is strong in this category and is capturing more than its share. It's anticipated this trend will continue in the near term. The four residential categories account for 52.6% of the total land use in the City. Residential uses make up 57.4% of all non-vacant land use.

The 2015 Future Land Use Plan lacked guidance for higher-density multi-family development. According to the 2021 Housing Study, the City was only capturing 15% of single-family attached and 6% of multi-family in the Greater Mankato housing market. A large inventory of low density, single-family homes has drawn a significant number of residents to the community who prefer large-lot, low density neighborhoods and are opposed to higher density residential development. Greater Mankato Growth, the area's chamber of commerce, has also suggested that a lack of available work-force housing is deterring some industries from locating in North Mankato.

The City will need to thoroughly examine new locations for higher-density, multi-family development. This may require building community acceptance by educating residents on the City's obligation to provide multi-family options, associated benefits it can bring, and broadening perspectives to lessen negative perceptions of higher-density residential.

Business Districts

North Mankato is served by several business districts that meet a variety of community needs. Land use in these districts should be frequently reviewed through updates to small area plans to ensure the highest and best uses of land are being considered and areas are on course to thrive. More information on North Mankato business districts is included in **Chapter 9: Business District Redevelopment**.

A. Central Business District (CBD)

Downtowns have made a comeback as cities realize the value they provide in creating identity and sense of community. Although not the geographic center of the City, the CBD has many attributes of a traditional, "Main Street" downtown. It is pedestrian oriented in nature with greater commercial and residential densities and some buildings built to the sidewalk. It serves as a premier gathering place for community events throughout the year such as Blues on Belgrade, Bells on Belgrade, and Bier on Belgrade. Parking for area uses and events is typically on-street, in the rear of buildings, shared among several users, or in nearby public parking lots. Access to Highway 169 and a bridge connection to Mankato also make the CBD one of the main gateways into the City.

Since the 2015 Comprehensive Plan, infill development and site redevelopment identified in the Belgrade Avenue Master Plan has occurred, shifting the character of the downtown closer to a shared community vision of the area. The City should continue to focus on improvements to the CBD that optimize the pedestrian environment, including encouraging a mix of uses such as small shops, restaurants, office, and service uses, and higher housing densities. This, combined with streetscaping improvements such as improved lighting, façade improvements, trees and other vegetation, outdoor seating, traffic calming lane configurations, and additional public art will enhance downtown vibrancy. Buildings should be built no more than ten feet from front lot lines and parking should be in the rear of buildings where possible. Long and narrow lots should be preserved to encourage smaller store fronts. The City should also continue efforts begun with the establishment of design guidelines to preserve many of the existing buildings that give the downtown its cherished character.

B. Commerce Drive Business District

The Commerce Drive Area Development Plan identifies a vision for Commerce Drive that includes streetscaping and redevelopment options that would make the business district more of a destination. A 2019 road resurfacing project improved the pedestrian realm by widening sidewalks to multi-use paths, realigning property access for traffic safety, and creating seating nodes and public art sculptures. The City should continue to look for opportunities for redevelopment that would expand commercial and even residential uses in the area, making it more of a destination. This may include encouraging or incentivizing some more industrial-type uses to relocate to the Northport Industrial Park to open options for commercial-retail development and other mixed-use type development.

C. Lookout Drive Business District

The Lookout Drive Business District is located near the Lookout Drive/Marie Lane intersection. This location is situated close to South Central College and many residential neighborhoods. The business district is very auto oriented. Properties in the district have large parking lots and Lookout Drive through this area is five lanes with center turn-lane. The Lookout Drive Corridor Study and Lookout Drive Area Plan provide a vision for the district and broader corridor that the City can begin initiating. Improvements are aimed at creating a more inviting, walkable environment that is safer for all modes of traffic and has increased commercial and residential development.

Vacant land nearby is zoned R-4 Multiple Dwelling which could accommodate multi-family development to increase supply of affordable housing and provide student housing options. The 2015 Future Land Use Plan identifies general commercial development along Lookout Drive,

stemming from this intersection. The City should look for opportunities to expand commercial/residential development here as land becomes available.

D. Webster Avenue Business District

The area surrounding Webster Avenue contains many uses including commercial, light industrial, residential, institutional, and parks and open space. The Webster Avenue Area Plan was completed in 2021 to establish a vision for the corridor. At the time of this plan, the site previously known as the Norwood Inn was a major redevelopment opportunity as the most prominent site in the area. In the past, the site functioned quite well as a Best Western hotel. The City anticipates this site will continue to be commercial use, perhaps including some higher-density residential uses mixed in. Other vacant properties in the district provide opportunities for development also. Other redevelopment opportunities may arise as the industrial presence is aging and lacking in quality design. Some would like to convert this area to an entertainment district, building on the success of the Mankato Brewery that is located there.

Other opportunities include potential redevelopment of the Public Works Yard and development and redevelopment of properties across Highway 169.

Northport Industrial Park

The City will continue to expand its industrial base in the Northport Industrial Park which has been quite successful. Industrial businesses supply roughly 3,000 jobs in North Mankato as reported by the 2020 Decennial Census. Continuing to attract industry to this area is viewed as an opportunity that will help ensure the long-term economic health of the community, as they tend to provide higher wage jobs than most retail businesses.

The Northport Industrial Park is conveniently located near two interchanges with Highway 14 including the Lookout Drive interchange and the CSAH 41 interchange which provide access to many sites that are fully serviced and ready to build.

The Future Land Use Map shown in **Figure 3-2** guides several parcels in the Northport Industrial Park for Commercial/Industrial Mixed Use. Given prime access to Highway 14 and anticipated nearby residential growth, these parcels may be attractive for commercial development that would fill the commercial gaps in the community today. The City acknowledges that these sites would also be appropriate for industrial use and believes this land use designation provides some flexibility.

Recreation Opportunities and Facilities

One of the greatest strengths of the City of North Mankato is the quality and quantity of existing park space. The City of North Mankato currently has an extremely healthy ratio of nearly 20 acres of park space per 1,000 residents. In addition, a wide variety of quality recreational programs are offered for both adults and youth. Opportunities exist to strengthen North Mankato as a recreational center within the region.

A. Athletic Complexes/Facilities

Caswell Park is one of the premier softball complexes in the nation, having hosted numerous state, regional and national tournaments since opening in 1987. The City continues to improve this facility to ensure continued success.

The Caswell North Soccer Complex hosts several local and state soccer tournaments and has become the location for youth football for Greater Mankato. This complex continues to grow, with more programs added and new fields constructed, including an artificial turf field.

The City is also targeting an indoor recreational facility on the Caswell Park site, continuing efforts begun during the 2015 Comprehensive Plan. Many residents and sports organizations have requested a facility for year-round activities. The indoor recreation facility would further enhance North Mankato as a recreational destination.

B. Community/Regional Parks

The City is well served by existing park facilities. There are approximately 479 acres of Park and Open Space uses. General guidelines for parks and open spaces suggest cities should strive for 10.5 acres of municipal, developed park land per 1,000 residents and that 90% or more of residents should be within one-half mile of a park or protected green space.

Some key Community/Regional Parks in North Mankato include:

Benson Park

Benson Park is a natural resources themed community park and destination with habitat restoration, natural resource education, nature-based play and water quality improvements, a natural amphitheater, outdoor classrooms, demonstration areas, and more.

Spring Lake Park

Spring Lake Park is another significant park in the community with a variety of amenities and has something for everyone. Continuing to maintain and strengthen these existing facilities is a priority of the City.

As the City grows, new park and facility locations will need to be identified. **Chapter 8: Parks, Trails and Recreation** provides more information on future park and recreation development.

Institutional Considerations

Independent School District (ISD) 77 owns the parcel of land just east of the Caswell North Soccer Complex. As of January 2023, ISD 77 has plans to locate an elementary school in this location, but that plan is not certain. The lot is currently guided as a Central Redevelopment District. The City will need to consider how to appropriately guide the property if ISD 77 chooses not to locate the school there.

VISION FOR LAND USE

The City of North Mankato is a complete community that provides a well-balanced and wide range of places to live, work, shop and play. Land uses make efficient use of existing infrastructure, contribute to a strong local economy, preserve natural resources and contribute to a high quality of life.

Residential Uses

A diverse housing stock allows people at any stage in their life to be able to find a home in North Mankato. Older housing is well maintained while new development respects the character of existing neighborhoods.

Commercial and Industrial Uses

A significant amount of commercial and industrial uses can be found within the City that allow residents to work in North Mankato, while also being able to meet all of their day-to-day needs. Commercial and industrial uses are compatible with their surrounding land uses.

Public/Institutional

Public and institutional uses are viewed as valued resources to the community and contribute to making

North Mankato a better place to live and do business.

Parks and Open Space

Quality parks and open space are within close proximity to all residents, providing recreational opportunities to encourage an active lifestyle. A wide variety of community facilities are provided to serve a range of interests.

GOALS, OBJECTIVES, AND POLICIES

The following is the primary goal for land use followed by a series of objectives and policies intended to influence future land use decisions in a direction that is aligned with the Vision Statement.

GOAL 1: Maximize the use of land within the City of North Mankato in a way that strengthens the local economy, preserves natural resources, and ensures a high-quality of life for all residents.

Objective 1.1: Preserve and enhance the business environment in North Mankato business districts.

Policy 1.1.1: Encourage and promote the renovation and rehabilitation of existing buildings within business districts.

Policy 1.1.2: Connect businesses with façade improvement grants and loans as the City becomes aware of new resources.

Policy 1.1.3: Make infrastructure improvements that enhance the pedestrian realm such as lighting and seating.

Policy 1.1.4: Explore opportunities for creating a public plaza within the CBD as a central gathering place for community activities.

Policy 1.1.5: Consider expanding parking options in the CBD through either acquiring and converting property or constructing a multi-level parking garage.

Objective 1.2: Use land in a manner that strengthens the economy of North Mankato.

Policy 1.2.1: Expand the amount of property guided for industrial and commercial use in the northwest portions of the City within the industrial park.

Policy 1.2.2: Continue to identify all areas prime for redevelopment and analyze the best use for each property. Work to re-zone these properties and amend this plan as appropriate.

Policy 1.2.3: Increase the number of residential housing units in the City to improve the local market for commercial opportunities.

Policy 1.2.4: Target locations for medium- and high-density residential uses to resolve deficiencies identified in the 2021 North Mankato Housing Study while providing more affordable workforce housing options that will attract new industries.

Policy 1.4.8: Target innovative housing solutions that include characteristics and amenities that are future-oriented to attract and retain talent.

Policy 1.2.5: Actively work to infill vacant land.

Policy 1.2.6: Consider a new mixed-use zoning district to accommodate commercial and industrial uses.

Objective 1.3: Protect and preserve natural resources for long term environmental sustainability and the enjoyment of residents.

Policy 1.3.1: Work with landowners to either obtain property or ensure protection of natural areas with high ecological value.

Policy 1.3.2: Work with the watershed district to ensure that all ground and surface water ordinances are consistent with the recommended standards.

Policy 1.3.3: Discourage "leapfrog" patterns of development.

Objective 1.4: Use land in a manner that ensures a high quality of life for residents.

Policy 1.4.1: Target General Commercial growth that provides community-scale commercial amenities such as large retailers as residential development continues in North Mankato.

Policy 1.4.2: Ensure small area plans continue to be updated to ensure the highest and best use of land is identified and considered throughout the community.

Policy 1.4.3: Maintain a ratio of 15-20 acres of park land per 1,000 residents as the City's population continues to grow.

Policy 1.4.4: Review and encourage methods of development which promote linkages to recreational facilities using trails and sidewalks.

Policy 1.4.5: Evaluate land uses for compatibility with adjacent land uses by ensuring controls are in place that protect against negative impacts to neighboring property.

Policy 1.4.6: Consider options for preserving older housing stock and features that support a small-town feel.

Policy 1.4.7: Develop an orderly annexation agreement with Belgrade Township.

Policy 1.4.8: Gage community interest in establishing community gardens on publicly owned green space with plots that can be rented by residents lacking space on personal property.

LAND USE PLAN

The land use plan provides the framework for the growth and development of the City. The land use plan serves as a guide for the character and intensity of development and will be supported by other land use controls and public actions taken pursuant to the Comprehensive Plan.

The land use map appears in **Figure 3-2: Future Land Use**. The plan illustrated by this map evolved from inputs and evaluations received through the planning process completed in 2023. The Plan builds on the existing community pattern to achieve the desired vision for the future of North Mankato. Where the Future Land Use map guides property for something different than the existing zoning, zoning approvals such as variances and conditional use permits should not be considered inconsistent with the comprehensive plan if otherwise deemed appropriate.

Table 3-2. Summary of Future Land Use 2023

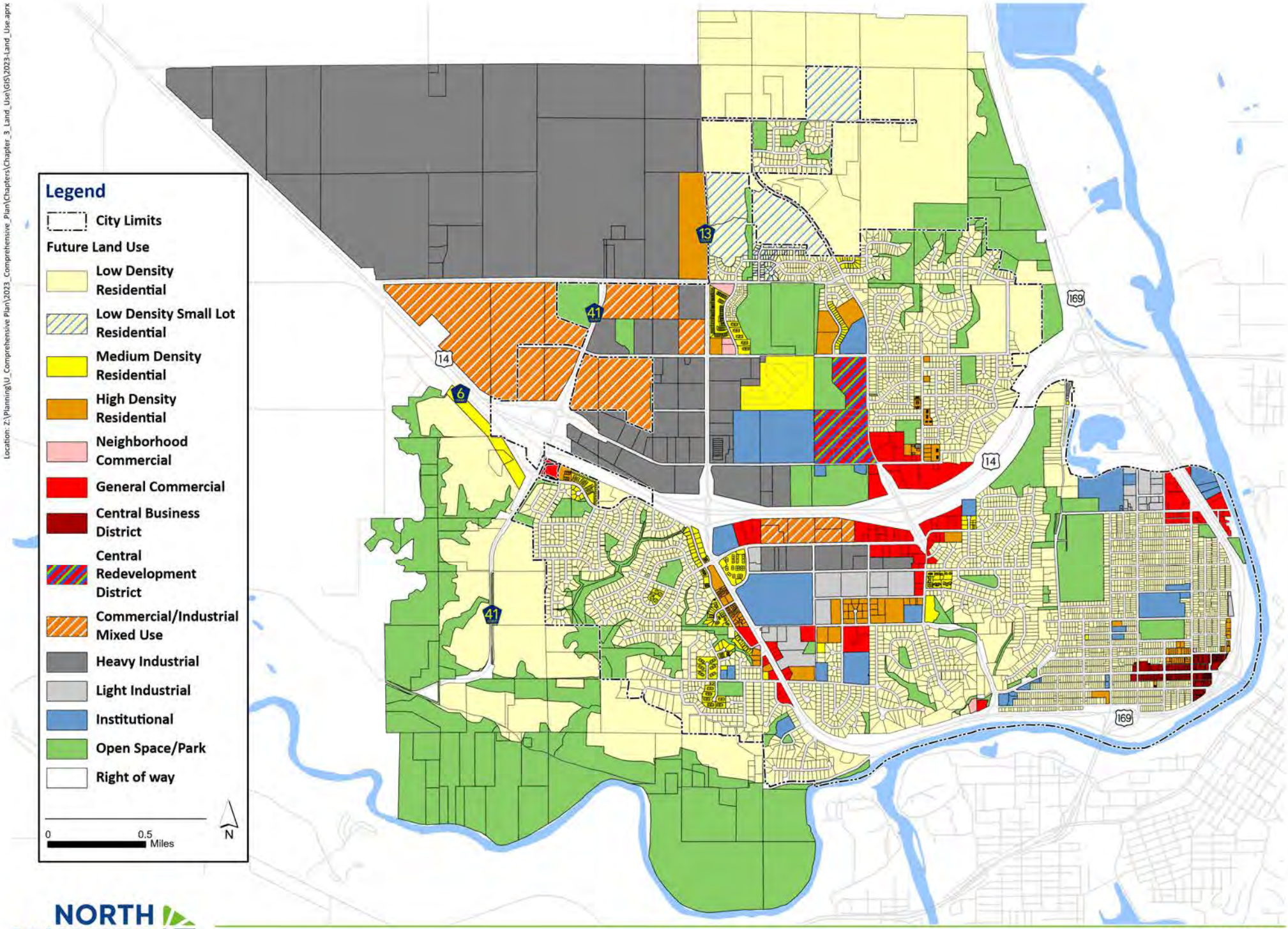
Existing Land Use	Gross Acres*	Net Percent of City
Low Density Residential	2,521	36.4%
Low Density Small Lot Residential	183	2.6%
Medium Density Residential	151	2.2%
High Density Residential	88	1.3%
Neighborhood Commercial	19	0.3%
General Commercial	166	2.4%
Central Business District	20	0.3%
Central Redevelopment District	62	0.9%
Commercial/Industrial Mixed Use	325	4.7%
Light Industrial	81	1.2%
Heavy Industrial	1,622	23.4%
Institutional	209	3.0%
Open Space/Park	1,484	21.4%
Total	**6,931**	**100%**

Gross acres determined by City staff based on Nicollet County parcel data and North Mankato land use designations.

Low Density Residential

The land use in this category is single-family detached homes. The City anticipates, and trends suggest, this is where the majority of new housing units will be added over the next 20 years. One of the biggest strengths of the City of North Mankato is its attractiveness to young families. Part of this attraction is due to the amount of quality single-family homes. Continuing to add new housing units will provide more opportunities for all





NORTH MANKATO
MINNESOTA

Future Land Use
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families to locate in North Mankato, while making older housing more affordable. Several areas in Upper North are expected to see new low-density residential development. Densities targeted in this category are 1 to 5 dwelling units per acre with an overall average of 3.5 dwelling units per acre. However, an important policy of this Plan is that the allowable density of each neighborhood will be based on the desired character of the neighborhood. The primary zoning district that would generally correspond to this land use designation would be the R-1 One Family Dwelling District. As shown on **Figure 3-2**, most areas guided for residential development outside the current City limits are shown as low density residential. Should it be determined in the future that any area guided for low density residential is better suited for medium or high-density residential development, the Planning Commission and City Council will openly consider amendments to the Future Land Use Map.

Low Density Small Lot Residential



The land use in this category is single-family detached dwellings on smaller lots with smaller side yard setbacks as those used in the Low-Density Residential land use areas. Densities targeted in this category average 1 to 8 per acre. The only zoning district that would correspond to this land use designation is the R-1S, One-Family Dwelling, Small Lot District. It is expected that single-family development in this category will offer entry level housing opportunities.

Medium Density Residential

Medium density residential uses are typically in the form of townhomes, duplexes, and small-scale apartment and condo buildings. Advantages of these types of housing are that less property maintenance may be required since yards are smaller and some medium density developments may have associations that handle lawn care and snow removal. As a result, these types of housing tend to be very attractive to seniors. As part of the community engagement process, some residents felt there was a shortage of quality medium density housing. Providing enough medium density housing options helps residents stay within the City of North Mankato as they age to different stages in their lives. As a result of the Northwest Growth Area Plan, the City is targeting property adjacent to CSAH 6 for medium density residential. Densities targeted in this category are over 5 dwelling units and up to 10 dwelling units per acre. The primary zoning districts that would generally correspond to this land use designation would be the R-2 One- and Two-Family Dwelling District and the R-3A Medium Density Residential District.



High Density Residential

The High-Density Residential land use category consists of multiple family attached housing oriented in a vertical fashion, more commonly referred to as apartments and condominiums. Housing units may be owner or renter occupied. High density housing is an efficient land use because it contains more dwelling units per acre than other residential uses.

High density residential uses are located in places with compatible adjacent land uses and where the local street system will accommodate the traffic. Ideally, they are located near commercial uses or employment centers to maximize the number of people who can walk or use alternative modes of transportation. Residential areas near the downtown suitable for redevelopment may be prime locations for new high-density housing.

Because high density housing is generally associated with renting, it may be a very attractive option for recent graduates looking to live in North Mankato. Providing enough quality high density residential housing is essential for providing a diverse housing stock and the City will need to prioritize this in the future. The densities targeted in this category are over 10 dwelling units per acre. The primary zoning districts that would generally correspond to this land use designation would be the R-3 Limited Multiple Dwelling District and the R-4 Multiple Dwelling District.

Commercial

A. Neighborhood Commercial

Areas guided for Neighborhood Commercial are those intended to serve the nearby surrounding area. Neighborhood commercial uses are small scale businesses that are generally compatible with residential uses. These uses may include bakeries, drug stores, coffee shops, banks, small offices and similar uses. Residential properties suitable for redevelopment should be analyzed as potential neighborhood commercial uses. Single family homes located in and adjacent to the CBD may be especially well suited for this.

B. General Commercial

General Commercial land uses are those that may have a wider draw beyond the nearby surrounding area. They are larger in size than Neighborhood Commercial uses and are intended to serve the entire community and potentially adjacent communities as well. They are generally clustered together and situated along arterial roadways. North Mankato has traditionally been underserved with these types of commercial uses but may create demand for some additional general commercial uses as the population continues to grow. Because residents in the northern parts of the city are generally farthest from the City of Mankato, it is anticipated that there will be demand for additional commercial uses as this area continues to grow and develop.

Properties at all corners, except for the northwest corner of the intersection of Lor Ray Drive and Howard Drive have been guided for General Commercial use despite having a different existing land use. The City values these existing uses and will wait to rezone these properties until the current property owners are prepared to sell or redevelop the sites so as to not make these uses non-conforming. In the case of the existing industrial businesses at this intersection, the City may consider negotiating a land swap for property in the Northport Industrial Park. The City views General Commercial as the best use for these sites long term.

The City anticipates redevelopment opportunities east and west of Lookout Drive between Carol Court and Commerce Drive. Redevelopment of this area could incorporate new General Commercial uses in the future. See Chapter 5: Economic Development for more details.

The property at the northeast corner of Pleasant View Drive and CSAH 41, adjacent to the Highway 14 interchange, is guided for future commercial development based on its proximity to Highway 14 and the Pleasant View Drive roundabout. In addition to existing city regulations, commercial signage and lighting proposals for commercial uses on the site should minimize the effect of their presence on the surrounding residential neighborhood. In addition, the use of landscaping berms and trees should be incorporated along the east side of the property and the south side from Raymond Drive to the east property line. In an attempt to direct commercial traffic to the Pleasant View Drive roundabout, appropriate signage will be installed by the City.

C. Central Business District



The Central Business District is generally the property adjacent to Belgrade Avenue between Highway 169 and property just west of Center Street. This land use category is a mixed-use district for a combination of residential and commercial uses. It has historically served as the City's Central Business District and, ideally, will contain a wide mix of commercial uses which bring people to the area for a variety of different reasons. Although a number of single-family homes currently exist in the Central Business District, new residential development should be consistent with medium or high-density districts. Increasing the residential population in the downtown will help support a healthy business environment and allow more people to be able to walk to their destinations.

Buildings should be located close to the street and parking should be located in the rear or side of properties. Streetscape improvements that enhance the pedestrian realm, such as street trees, outdoor seating, public art, street lighting, should be prioritized here. The City should continue to work with business owners and encourage façade improvements by connecting them to grant and funding opportunities.

A number of the community's small businesses are located here. It is also the location for several community events throughout the year. Rather than guiding individual parcels for a specific use, this district provides flexibility in that it envisions commercial, residential, or a combination of both.

Industrial

A. Light Industrial

Light Industrial uses include all forms of businesses with manufacturing, distribution, warehousing or other industrial uses that are less intense and may have fewer of the negative impacts to surrounding properties generally associated with industrial uses such as noise, odor, dust or low-quality aesthetics. As a result, these uses can be in closer proximity to residential, commercial, park and open space uses, without causing as many negative impacts as might occur with Heavy Industrial uses.

B. Heavy Industrial



Heavy Industrial uses also include manufacturing, distribution, warehousing or other industrial uses; however, these uses are generally more intensive than light industrial uses. This means that the nature of activity typically requires more land, generates more noise and truck traffic, and may involve outdoor storage. Areas guided as new Heavy Industrial are located in the Northport Industrial Park, located north of US Highway 14 and near Lookout Drive. The new interchange at CSAH 41 and US Highway 14 improves access to other sites and minimizes the number of semi-trucks on arterial roadways. In addition, there is a significant amount of undeveloped land to the northwest that is currently outside the City limits, which could be added in the future.

C. Commercial/Industrial Mixed Use

This land use designation is intended to provide flexibility in that it allows for commercial or industrial uses. There are many uses already in the City of North Mankato that may be appropriate in either an industrial or commercial zoning district. This plan calls for the creation of a new zoning district that accommodates this existing mix and provides flexibility depending on market demand by allowing for a wider variety of uses. There are two key areas guided for this land use designation: north of the interchange at Highway 14 and CSAH 41 in Northport Industrial Park and along the north side of Commerce Drive between Lor Ray Drive and Lookout Drive.

Despite much of the surrounding area being guided for Heavy Industrial, the Commercial/ Industrial Mixed-Use area north of the interchange at Highway 14 and CSAH 41 is intended to accommodate commercial uses that may also wish to locate in this area due to the proximity of the interchange. There are few other parcels north of Highway 14 that are guided for commercial use on the Future Land Use Map. Therefore, this area provides an opportunity to provide additional commercial uses where they may be underserved. For the Commercial/Industrial Mixed-Use area along Commerce Drive, this designation is intended to accommodate the existing mix of uses that may be appropriate in either a commercial or industrial zoning district and supports a continuation of these types of uses.

In developing a new commercial/industrial mixed use zoning district, the City must determine the types of commercial and industrial uses that can easily coexist. Therefore, any permitted industrial uses should be those more closely associated with light industrial uses; those being uses that are cleaner from an aesthetic standpoint and have fewer impacts to adjacent properties. Due to the location of these mixed-use areas along key roadways with high visibility,

commercial uses envisioned would be those more closely aligned with General Commercial uses. These types of uses have a wider draw than Neighborhood Commercial uses, may be larger in scale, and generate higher traffic volumes.

Central Redevelopment District



This specialized land use designation applies specifically to the property located on the west side of Lor Ray Drive between Howard Drive and Carlson Drive. This site currently contains Camelot Park, a manufactured home community. The manufactured home community is an asset to the broader community in that it is well maintained and provides an affordable housing option for residents. The City supports the continuation of this use until the property owner chooses to redevelop. Should this occur, the City views the redevelopment of this property as a significant opportunity due to the key location of the property. In the event of redevelopment, a mix of uses is envisioned, including a combination of park, regional multi- sport facilities, institutional, residential, and commercial land uses. The exact layout and quantity of each type of use is not known at this time and a future planning study should be performed prior to site redevelopment. Redevelopment of this area could be a great opportunity for a public/private partnership between the City, school district, and private developers.

Park and Open Space

This land use category includes all City parks, as well as natural preserve areas such as woods and wetlands. As new residential subdivisions develop, sufficient park and open space should be added to serve new residents.

The property located at 1955 Howard Drive West, West Central International is currently used and guided for industrial purposes. The northernmost portion of the property is currently undeveloped. In the future, if the property owner were interested in subdividing the property, the City may be interested in acquiring this property for additional park land space to contribute to the Caswell Park regional park area; however, the City also supports a continuation of industrial uses at the site should the property owner desire to do so.

Required Zoning Changes

The City has adopted zoning regulations for the purpose of carrying out the policies and goals of the land use plan element of the Comprehensive Plan. The application of zoning districts and the specific regulations should support the objectives of the Plan. As a result, an outcome of adopting the plan will be the review and modification of the Zoning Ordinance and Zoning Map as necessary.

The land use plan provides the basis for guiding zoning decisions that will be made by the City and private property owners. Minnesota Statutes Section 462.357 states that "...the planning agency shall study and propose to the governing body reasonable and practical means for putting the plan into

effect. Subject to the limitations of the following sections, such means include, but not limited to, zoning regulations, for the subdivision of land, an official map..."

This statute anticipates that the zoning regulations will be reviewed and updated to ensure implementation of the land use plan. In a broad sense, this review of the zoning ordinance should examine the following:

The regulations for each zoning district should be reviewed to determine if they fit with the intent of the Comprehensive Plan.

Zoning districts should be examined in relationship to the land use designation. Changes in zoning districts may be needed to match zoning with land use.

The City will need to thoroughly review and update its Ordinances to address inconsistencies and conflicts to integrate the concepts described in this Comprehensive Plan. Updating the Zoning Ordinance will be a large undertaking that will require significant input, time and energy.

One of the policy decisions the City will need to make is how to implement the land use plan through the zoning map. Unlike the Metropolitan Land Planning Act (Minnesota Statutes Section 473), which requires consistency between the land use plan and zoning in cities within the Twin Cities metropolitan area, North Mankato may choose to take a number of implementation strategies. Each has varying implications for existing property uses and current zoning. The strategies include, but are not limited to, the following:

- Keep current zoning in place until such time as the use terminates or redevelopment is initiated.
- Rezone property to a zoning district compatible with a land use plan category.
- Develop an interim strategy to address current use situations as they relate to long term objectives.

Chapter 4: Housing



INTRODUCTION

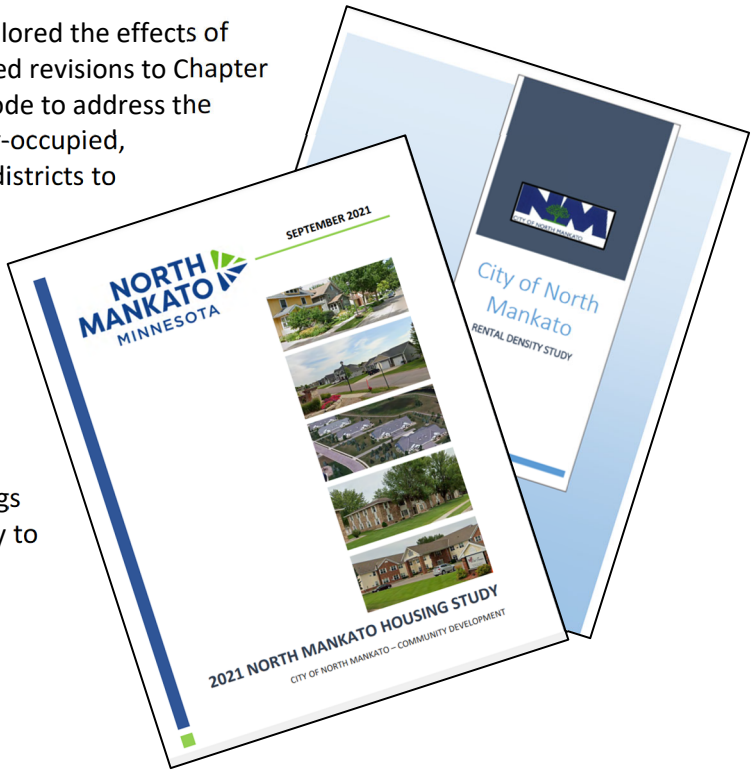
Housing is an important component of all communities. Not only do the quality, availability, affordability, and diversity of housing enhance the quality of life in a city, it also supports economic development and contributes to a community's sense of place.

Housing is not a single, one size fits all, commodity. Personal housing needs change as life passes from young, single adults to family, to elderly. This chapter provides an inventory and analysis of North Mankato's existing housing and paints a broad picture of future residential development.

PREVIOUS AND ONGOING HOUSING RELATED PLANS

North Mankato Rental Density Study and Ordinance (2016)

The North Mankato Rental Density Study explored the effects of properties within the community and provided revisions to Chapter 151, Section 18 of the North Mankato City Code to address the increasing conversion of single-family, owner-occupied, residential homes in low-density residential districts to multi-family.



North Mankato Housing Study (2021)

The City studied its residential housing stock to identify needs and set targets for various types of housing options including single-family detached, single-family attached, and multi-family including apartments and senior living facilities. Findings from the Study are incorporated as necessary to help shape North Mankato housing goals, objectives, and policies.

2021 NORTH MANKATO HOUSING STUDY

The following are key highlights from the 2021 North Mankato Housing Study:

Finding	Details	City Targets
North Mankato is a Growing Community:	North Mankato's population is growing. In 2020, it was up 1,085 (8.1%) from 2010.	Target an additional 1,600-2,255 (1.1%- 1.6%) population growth by 2030
Housing Unit Demand Exists in All Categories:	The City added approximately 50 households annually from 2010-2020.	Target housing unit increase to 74 units per year to spur population growth.
Home Ownership Housing is in Demand:	• Age groups inclined to purchase homes are increasing (i.e. Ages 33-44 and 65+) • Single-family are most constructed	Target 49-50 owner-occupied, single-family homes per year
Rental Housing Needed:	• Very low vacancy on all rental types (i.e. market rate, tax credit, subsidized units).	Target 25 units per year
Senior Housing Demand is Low:	• Unused capacity in Greater Mankato • Growth in 65+ will increase demand	Re-evaluate needs in the future as 65+ population increases

INVENTORY AND ANALYSIS

The 2015 Comprehensive Plan examined estimates of housing unit supply and characteristics provided by the U.S. Census Bureau's American Community Survey (ACS). While Census data is generally acceptable when observing a community's big picture, it's estimates contain margins of error that can skew that picture. In 2021, the city of North Mankato completed a housing study which takes a deeper dive into housing unit construction from 2011-2020. Data from both sources is integrated into this chapter as appropriate to provide the most accurate "snapshot" of current housing trends in the City during the development of this plan.

Housing Supply

A. Quantity and Types of Housing Units

Table 4-1 shows data from the 2000-2020 ACS regarding the quantity and types of housing units in North Mankato compared to Nicollet County and the state of MN. The ACS estimates that in 2020 there were 6,015 housing units in North Mankato, which is 283 more units than identified in 2010**.** Roughly 63.7% of those were single-family detached houses, which is lower than the county (67.8%) and the state (67.0%). Roughly 6.2% were single-family attached units (townhouses), which is slightly higher than the county (5.8%) but lower than the state (7.4%). The City had a slightly higher percentage of multi-family housing than the county (and a slightly lower percentage than the state. There was no data available for the Mankato Metropolitan Statistical Area (MSA).
According to the 2020 ACS, there were decreases in the number of single-family attached, 2–4-unit multi-family, and mobile homes. As noted in **Table 4-1**, a decrease in the number of units is unlikely. Based on known trends in the community, the decrease shown in the data is likely due to the margin of error occurring ACS statistics. Also, ACS data estimates are conservative, showing only 283 additional units in the City over the 2010-2020 timeframe.

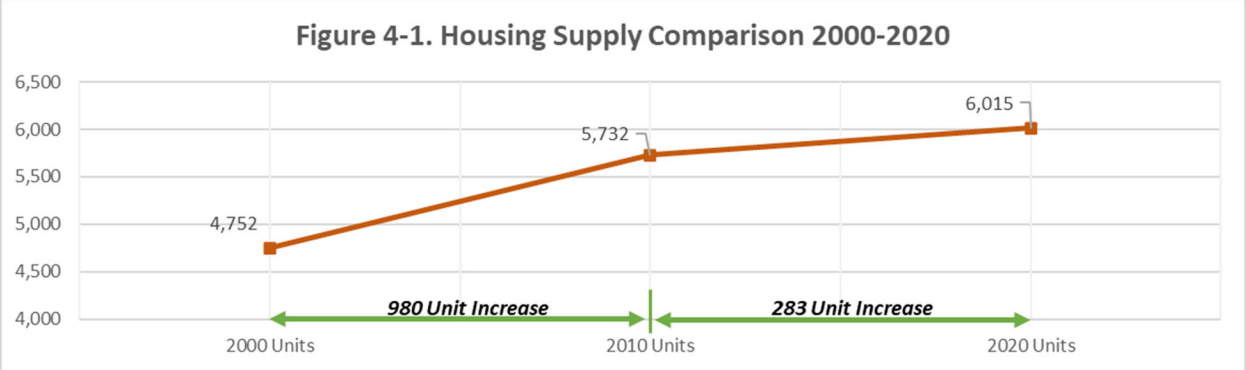
Table 4-1. Housing Supply by Type - 2000 - 2020

Housing Type	2000 Units	2000 %	2010 Units	2010 %	2020 Units	2020 %	2020 Nicollet County %	2020 State %
Single-Family Detached	3,066	64.5%	3,430	59.8%	3,831	63.7%	67.8%	67.0%
Single-Family Attached	252	5.3%	380	6.6%	372	6.2%	5.8%	7.4%
2-4 Unit Multi-Family	459	9.7%	597	10.4%	426	7.1%	5.8%	4.1%
5+ Unit Multi-Family	728	15.3%	931	16.2%	1,104	18.4%	14.9%	18.2%
Mobile Home	247	5.2%	394	6.9%	282	4.7%	5.3%	3.2%
Total Units	**4,752**	**100%**	**5,732**	**100%**	**6,015**	**100%**	**100%**	**100%**

Source: *US Census Bureau, 2000-2020 American Community Survey 5-Year Estimates*
Note: *Its unlikely that estimates for 2020 Single-Family Attached or 2-4 Unit Multi-Family homes would have decreased within the 2010 to 2020 timeframe. This decrease is likely due to high margins of error in the ACS calculations.*

Building permit data from the City of North Mankato (referenced from the 2021 Housing Study) shows the construction of 527 housing units over the period from 2010 through 2020 which is significantly higher than those estimated in the ACS. Data indicates that over that period, the City constructed 279 (53%) single-family detached, 113 (21%) single-family attached, and 135 (26%) multi-family housing units.

Despite the differences between the ACS and City data, the ACS reported that the period from 2000 to 2010 exhibited substantially more housing unit construction than the period from 2010 to 2020 with an estimated 980 units vs. 283 units respectively over the 10-year periods (**Figure 4-1**).



Source*: US Census Bureau, 2000-2020 American Community Survey 5-Year Estimates.*

B. Characteristics of Household Type

Table 4-2 compares the distribution of family and non-family households in North Mankato, the county, the MSA, and the state in 2010 and 2020. North Mankato's family households did not exhibit the same increase as comparison geographies from 2010 to 2020. North Mankato family households increased by 2.9%, which is similar to the state (3.4%), but lower than the county (5.5%) and the MSA (8.9%) over the decade.

The number of households reported by the ACS is somewhat conservative compared to 2020 data used in the 2021 Housing Study reported by Esri (Environmental Systems Research Institute) which shows that there was 8.9% growth over the period from 2010 to 2020. Regardless of this, data show that the number of households continues to grow, but at a decreasing rate as shown in **Figure 4.1**.

Table 4-2. Household Type Distribution - 2010 - 2020

Household Type	2010				2020				Change #/%			
	North Mank.	Nicollet Cnty	MSA	MN	North Mank.	Nicollet Cnty	MSA	MN	North Mank.	Nicollet Cnty	MSA	MN
Total Households:	5,402	12,150	36,039	2,085,917	5,705	12,821	39,211	2,207,988	303 (5.6%)	671 (5.5%)	3,172 (8.8%)	122,071 (5.9%)
Total Family Households:	3,456	8,018	21,920	1,358,178	3,556	8,457	23,861	1,404,798	100 (2.9%)	439 (5.5%)	1,941 (8.9%)	46,620 (3.4%)
Total Non-Family Households:	1,946	4,132	14,119	727,739	2,149	4,364	15,350	803,190	203 (10.4%)	232 (5.6%)	1,231 (8.7%)	75,451 (10.4%)
Married Couple:	2,859	6,530	17,673	1,082,905	2,759	6,764	18,433	1,110,550	*-100 (-3.5%)*	234 (3.6%)	760 (4.3%)	27,645 (2.6%)
Male Household, no Wife Present:	143	428	1,340	82,987	273	610	2,096	95,422	130 (90.9%)	182 (42.5%)	756 (56.4%)	12,435 (15%)
Female Household, no Husband Present:	454	1,060	2,907	192,286	524	1,083	3,332	198,826	70 (15.4%)	23 (2.2%)	425 (14.6%)	6,540 (3.4%)

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

C. Comparison of Owner-Occupied and Renter-Occupied Units

It is important for communities to have a mixture of both owner-occupied and renter-occupied units. In general, many communities strive to have roughly 65-70% of their housing units owner-occupied. In 2020, approximately 72.6% of the housing units in North Mankato were owner-occupied, which is less than the county (73.5%) but higher than the MSA and the state (71.9%). Refer to **Tables 4-3** and **4-4**, for additional information.

In the past, it was becoming increasingly common for the city of North Mankato to have owner-occupied, single-family homes sold and converted to rentals. While conversion of some owner-occupied homes to rental housing is necessary to accommodate market forces and provide housing choices, too much turnover within established neighborhoods can have a detrimental impact.

The City completed the Rental Density Study in 2016 to identify issues related to the increasing conversion of single-family and two-family, owner-occupied, residential homes to renter-occupied homes in R-A, R-1, R-1S, and R-2 residential zoning districts. The study findings informed revisions to Chapter 151, Section 18 of the North Mankato City Code to place a cap on the number of rental licenses that can be issued to dwelling units in these zoning districts.

Table 4-3. Owner- Vs. Renter-Occupied Housing Tenure - 2020

	Occupied Units	Owner-Occupied Units		Renter-Occupied Units	
		#	%	#	%
North Mankato	***5,705***	***4,139***	***72.6%***	***1,566***	***27.4%***
Nicollet County	12,821	9,420	73.5%	3,401	26.5%
MSA	40,715	27,828	68.3%	12,887	31.7%
State	2,207,988	1,588,611	71.9%	619,377	28.1%

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

Table 4-4. Housing Tenure by Type - 2020

Units per Structure	Owner-Occupied					Renter-Occupied				
	North Mankato		County	MSA	State	North Mankato		County	MSA	State
	#	%	%	%	%	#	%	%	%	%
Single-Family Detached	***3,450***	***84.4%***	87.2%	85.7%	85.3%	***212***	***13.5%***	17.5%	17.7%	19.2%
Single-Family Attached	***279***	***6.8%***	5.0%	4.2%	7.8%	***93***	***5.9%***	9.1%	10.1%	8.3%
2-4 Unit Multi-Family	***62***	***1.5%***	0.8%	0.8%	1.2%	***355***	***22.7%***	19.1%	17.2%	11.7%
5+ Unit Multi-Family	***31***	***0.8%***	0.3%	1.6%	2.7%	***892***	***57.0%***	53.0%	53.1%	59.3%
Mobile Home	***268***	***6.6%***	6.6%	7.7%	3.0%	***14***	***0.9%***	1.4%	1.9%	1.5%
Total Units	***4,090***	***100%***	**100%**	**100%**	**100%**	***1,566***	***100%***	**100%**	**100%**	**100%**

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

Since the adoption of the revised Code, the City has limited the number of rental licenses issued to 10% of properties per block which has limited the conversion of homes to rentals throughout the city, thus preserving the community's residential character.

D. Vacancies

Today, the city of North Mankato has an overall housing vacancy rate of 4.4%, which is 0.4% lower than the vacancy rate for the county, nearly 2% lower than the MSA, and almost 5% lower than the state. North Mankato had a lower vacancy rate than comparison geographies in 2010 also. Vacancy rates for all comparison geographies have decreased across the board with the City and County decreasing approximately 0.4% and the state decreasing by 1.8%. Low vacancy rates indicate a need for more housing units and data from this and the 2021 Housing Study show there is a shortage of options in all housing categories.

Table 4-5. Vacant Housing - 2020

Year	North Mankato		County	MSA	State
	#	%	%	%	%
2000	***302***	***6.0%***	5.3%	N/A	8.3%
2010	***284***	***4.8%***	5.2%	N/A	11.1%
2020	***270***	***4.4%***	4.8%	6.2%	9.3%

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

E. Value of Housing

The median value of owner-occupied housing units in North Mankato in 2020 was $207,600 – up 23.4% (or $39,300) from the median value in 2010 of $168,300. Housing valued in the range of $200,000 to $299,000 is the largest concentration of owner-occupied housing using units in North Mankato, consisting of 38% of total owner-occupied units. The 2015 Comprehensive Plan suggested there was a relatively small choice of higher valued housing units in North Mankato in 2012, as 92.8% of housing is valued below $300,000. This percentage has since decreased, with roughly 85% of housing valued below $300,000 in 2020.

The 2020 median values of owner-occupied housing in the county, the MSA, and the state were $205,000, $198,100 and $235,700 respectively. Refer to **Table 4-6** for additional information.

Table 4-6. Owner-Occupied Housing by Value - 2020

	North Mankato		Nicollet County	MSA	State of MN
Owner-Occupied Units	***4,139***	***100.0%***	**9,363**	**25,321**	**1,551,290**
Less than $50,000	***343***	***8.3%***	7.0%	7.5%	5.1%
$50,000 to $99,999	***95***	***2.3%***	6.7%	7.2%	8.5%
$100,000 to $149,999	***541***	***13.1%***	17.5%	19.2%	13.8%
$150,000 to $199,999	***974***	***23.5%***	28.0%	25.7%	18.9%
$200,000 to $299,999	***1,571***	***38.0%***	27.0%	25.5%	27.0%
$300,000 to $499,999	***456***	***11.0%***	11.6%	12.0%	19.4%
$500,000 to $999,999	***110***	***2.7%***	1.8%	2.5%	6.2%
$1,000,000 or more	***49***	***1.2%***	0.4%	0.4%	1.1%
Median (dollars)	***$207,600***		**$205,000**	**$198,100**	**$235,700**

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

F. Owner monthly Costs as Percentage of Household Income

Housing decisions should not be based solely on the value of housing, but also the cost of housing expenses in relation to household income. In general, housing costs (taxes, insurance, principal, interest, etc.) should not exceed 30% of total household income.

The North Mankato Housing Study references data from the ACS which indicates that North Mankato exhibited a substantial increase of 21.4% in median household income over the period from 2015 to 2019. In 2019, median income was $67,278, which was the highest increase among geographies examined. 64% of households in North Mankato had incomes greater than $50,000 which was lower than the MSA but higher than the county and the state at the time.

In 2020, 21.4% of homeowners (with a mortgage) in North Mankato had monthly costs that were 30% or more of their household income, compared to 23% in the county and 22.2% in the MSA, and 21.6% in the state. This is a 7% decrease from the 28.1% of homeowners in 2012 (from the 2015 North Mankato Comprehensive Plan) spending more than 30% on housing costs. Refer to Table: 4-7. These figures suggest that housing was generally equally affordable

Table 4-7. Owner Monthly Costs as Percent of Household Income - 2020*

	North Mankato		County	MSA	State
	# of Units	% of Units	% of Units	% of Units	% of Units
Total (# of Units)	***2,781***	***100.0%***	**100%**	**100%**	**100%**
Less than 20%	*1,437*	*51.7%*	52.0%	52.2%	51.8%
20% to 24.9%	*450*	*16.2%*	14.5%	16.1%	16.3%
25% to 29.9%	*299*	*10.8%*	10.5%	9.5%	10.2%
30% to 34.9%	*71*	*2.6%*	4.4%	5.8%	6.2%
35% or more	*524*	*18.8%*	18.5%	16.4%	15.4%

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

**** Housing Units with a Mortgage***

compared to the comparison geographies. They also suggest that about one out of five homeowners in North Mankato may find it difficult to make their mortgage payments. Consequently, some may default on their loans and others may find it difficult to keep up with household maintenance and repairs.

G. Contract Rent

The 2015 Comprehensive Plan reported that in 2012, rental housing units accounted for roughly 26.9% of the occupied housing units in North Mankato. As of 2020, the number of renter-occupied units has increased to 28.9%.

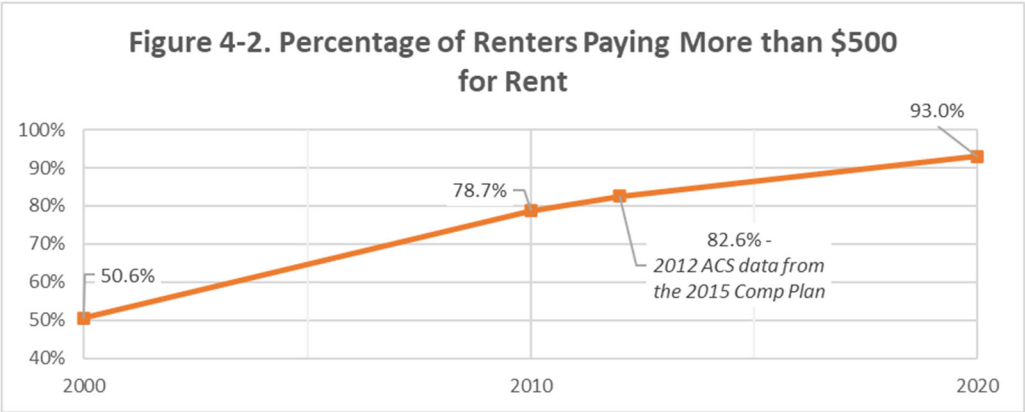
In 2012, roughly 82.6% of the renter-occupied units had a monthly rent of $500 or more. This has increased to nearly 93%, which is higher than all other geographies by a margin of 9.5% to 12.5%.

The percentage of those paying more than $500 for rent in the county, MSA, and state were 83.4%, 83.1%, and 80.4% respectively. Refer to **Table 4-8** for additional information. **Figure 4-2** shows the significant rent increase that occurred from 2000 to 2020.

Table 4-8. Renter-Occupied Housing Units by Gross Rent - 2020

	North Mankato		County	MSA	State
	# of Units	% of Units	% of Units	% of Units	% of Units
Total Units Paying Rent	***1,566***	***100.0%***	**3,401**	**13,621**	**619,377**
Less than $200	*0*	*0.0%*	3.0%	1.7%	2.7%
$200-$299	*9*	*0.6%*	2.8%	2.8%	4.5%
$300-$499	*84*	*5.4%*	8.5%	9.1%	8.3%
$500-$749	*640*	*40.9%*	31.5%	28.9%	16.8%
$750-$999	*525*	*33.5%*	31.6%	25.0%	23.4%
$1,000 to $1,499	*174*	*11.1%*	14.2%	21.7%	27.1%
$1,500 or more	*116*	*7.4%*	6.0%	7.5%	13.1%
Median (Dollars)	*818*	-	836	857	944
No Rent Paid	*18*	*1.1%*	2.3%	3.2%	4.1%

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates



The 2021 North Mankato Housing Study reports that, while there was a 12.2% increase in homeowner income since 2010 (2019 ACS estimates), renter income exhibited little to no increase (less than 0.3%). This proves homeowners are positioned to absorb increased housing costs while

renters are not, justifying the need for more affordable housing options in the City.

H. Renter Monthly Costs as Percentage of Household Income

In 2020, 39.6% of renters paid over 30% of their household income in rent (**Table 4-9**). This is a slight decrease from the 40.2% recorded in the 2012 ACS (2015 Comprehensive Plan). This is slightly higher than the county (38%) but significantly lower than the MSA (46.2%) and the state (44%).

Table 4-9. Gross Rent as Percent of Household Income - 2020

	North Mankato		County	MSA	State
	# of Units	% of Units	% of Units	% of Units	% of Units
Total Specified Units	***1,593***	***100.0%***	***100.0%***	***100.0%***	***100.0%***
Less than 15%	*255*	*15.3%*	*14.8%*	*13.2%*	*13.0%*
15% to 19.9%	*191*	*11.5%*	*16.8%*	*12.1%*	*12.9%*
20% to 24.9%	*279*	*16.8%*	*14.8%*	*12.2%*	*13.0%*
25% to 29.9%	*209*	*12.6%*	*11.4%*	*10.6%*	*11.6%*
30% to 34.9%	*85*	*5.1%*	*7.1%*	*9.0%*	*8.8%*
35% or more	*574*	*34.5%*	*30.8%*	*37.2%*	*35.2%*

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

I. Age and Maintenance of Housing Stock

In 2020, roughly 48.5% (2,891 units) of the City's housing units were constructed before 1980. Just 14.2% of the housing units in North Mankato were built before 1940. The number of new housing units built since 2010 (8.8%) is generally consistent with the MSA (7.6%) but higher than the county (5.0%) and the state (5.7%) (**Table 4-10**).

Table 4-10. Year Structure Built

Year Built	North Mankato		County	MSA	State
	# of Units	% of Units	% of Units	% of Units	% of Units
Built 2010 or Later	*527*	*8.8%*	5.0%	7.6%	5.7%
Built 2000 to 2009	*793*	*13.3%*	18.3%	16.1%	13.7%
Built 1990 to 1999	*823*	*13.8%*	13.8%	11.9%	13.5%
Built 1980 to 1989	*931*	*15.6%*	11.5%	10.2%	12.6%
Built 1970 to 1979	*669*	*11.2%*	12.8%	13.3%	14.8%
Built 1960 to 1969	*574*	*9.6%*	10.4%	9.5%	9.4%
Built 1950 to 1959	*451*	*7.6%*	7.6%	8.1%	9.7%
Built 1940 to 1949	*347*	*5.8%*	4.2%	4.3%	4.5%
Built 1939 or Earlier	*850*	*14.2%*	16.4%	18.9%	16.1%
Totals	***5,965***	***100%***	**13,600**	**42,391**	**2,458,030**

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates; City of North Mankato Building Permit Data (*City of North Mankato building permit data was used for calculating the total units from 1990 to 2020. The total number of units and percentages have been modified from the ACS dataset to reflect this change* ***).***

J. Residential Construction

527 new housing units were added in North Mankato between 2010 and 2020. This includes 135 multi-family units and 392 single-family homes. Single-family units include all single-family detached (single dwelling per lot) and single-family attached (townhomes, duplexes, etc.). More information on housing types can be referenced in the 2021 North Mankato Housing Study. Single-family home construction averaged about 25.4 homes per year during that timeframe. The first four years of this decade (2010-2013) have averaged lower numbers at about 24 homes per year. Single-family home construction peaked during the last decade in 2017, with construction of 54 single-family homes and 32 multi-family homes that year.

Data shown in **Table 4-11** and **Figure 4-3** is derived from City records referenced in the 2021 North Mankato Housing Study. The City used the Housing Study to determine North Mankato's performance in the Greater Mankato (herein defined as Mankato, North Mankato, Eagle Lake) housing market to ensure it maintains its share based on population proportion. At the time of the study, North Mankato's population made up 23% of the Greater Mankato area.

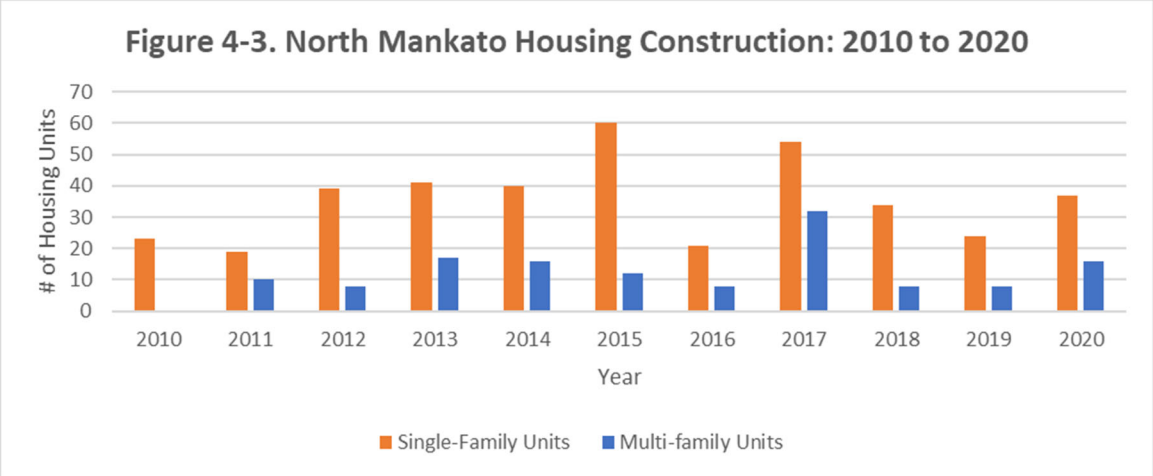
According to the Housing Study, North Mankato remains strong in the single-family detached housing market, exceeding its share while capturing 32% of the market over the 2010-2020 period. However, North Mankato captured only 15% of the market for single-family attached housing stock and 6% of multi-family units, indicating the City should diversify housing stock, increasing those housing types.

Overall, the Housing Study suggests that North Mankato is capturing only 18-19% of the market area housing unit construction and while targeting 23%. The City hopes to construct more housing to spur population growth and fill any housing option gaps that exist. The City can accomplish capturing 23% of the market by constructing 74 housing units annually including 35 single-family detached units, 14 single-family attached units, and 25 multi-family units per year. Refer to the 2021 North Mankato Housing Study for more information.

Table 4-11. North Mankato Housing Construction Activity 2010 to 2020

Year	Single-Family Units	Multi-family Units	Total Units
2010	23	0	**23**
2011	19	10	**29**
2012	39	8	**47**
2013	41	17	**58**
2014	40	16	**56**
2015	60	12	**72**
2016	21	8	**29**
2017	54	32	**86**
2018	34	8	**42**
2019	24	8	**32**
2020	37	16	**53**
Totals	**392**	**135**	**527**

Source: City Records



Source: *City of North Mankato Records*

K. Plumbing, Kitchen, and Telephone

The ACS identified that of the 5,705 occupied housing units in North Mankato in 2020 and estimated that 94 lacked complete plumbing facilities, 65 lacked complete kitchen facilities, and 102 had no telephone service. The City maintains that, while data from the ACS is reliable, there is a margin of error to take into account that may skew estimations. While it may be likely that telephone service is down due to increased cellular usage and a decreasing need for a land line, it is unlikely from the City's view and knowledge of housing that the estimated lack of plumbing and kitchen facilities are accurate. High margins of error support the City's point of view.

L. Tenure by Age of Householder

Table 4-12 and **Figure 4** show the distribution of the owner-occupied and renter-occupied housing units in North Mankato in the year 2020. The figures break down the number of units by the age cohort, as housing needs tend to differ at key stages of a person's life. The figures also show the gradual change in the rate of homeownership within the City.

Rental housing is generally most popular with young adults (35 and under) as well as older seniors (75+) in the State of Minnesota. The same is true in North Mankato as there is a lower ownership percentage for younger and older age groups in comparison to those that are more middle aged. With the low cost generally associated with the cost of renting as well as the flexibility in housing situations, young households typically find renting as the preferred housing option. Increased burdens of home maintenance can make rental housing a desirable alternative for seniors.

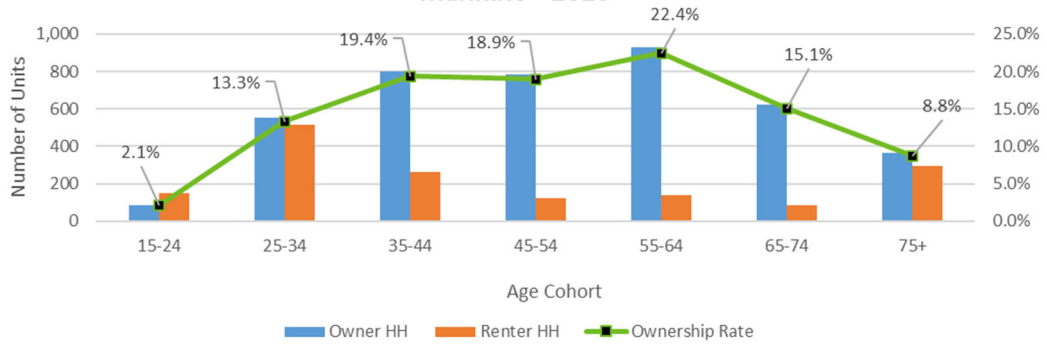


Table 4-12. Household Tenure by Age of Householder - 2020

Household (HH) Age	North Mankato		County	MSA	State
	# of Units	% of Units	% of Units	% of Units	% of Units
Owner HHs					
15-24	*87*	*2.1%*	1.2%	1.5%	1.1%
25-34	*552*	*13.3%*	12.4%	13.7%	11.7%
35-44	*802*	*19.4%*	18.1%	17.7%	17.4%
45-54	*784*	*18.9%*	19.3%	18.0%	19.5%
55-64	*928*	*22.4%*	22.4%	21.5%	22.9%
65-74	*623*	*15.1%*	17.6%	16.9%	16.5%
75+	*363*	*8.8%*	9.1%	10.7%	11.0%
Total Owner HHs	***4,139***	***100%***	**100%**	**100%**	**100%**
	North Mankato		**County**	**MSA**	**State**
	# of Units	**% of Units**	**% of Units**	**% of Units**	**% of Units**
Renter HHs					
15-24	*149*	*9.5%*	10.3%	32.3%	12.1%
25-34	*516*	*33.0%*	29.5%	24.9%	27.4%
35-44	*260*	*16.6%*	14.4%	11.6%	16.5%
45-54	*122*	*7.8%*	10.1%	9.6%	12.4%
55-64	*137*	*8.7%*	10.6%	8.5%	12.2%
65-74	*85*	*5.4%*	6.6%	4.5%	7.9%
75+	*297*	*19.0%*	18.5%	8.6%	11.4%
Total Renter HHs	***1,566***	***100%***	**100%**	**100%**	**100%**
	North Mankato		**County**	**MSA**	**State**
	# of Units	**% of Units**	**% of Units**	**% of Units**	**% of Units**
Total HHs					
15-24	*236*	*4.1%*	3.6%	12.2%	4.2%
25-34	*1,068*	*18.7%*	16.9%	17.6%	16.1%
35-44	*1,062*	*18.6%*	17.1%	15.6%	17.1%
45-54	*906*	*15.9%*	16.9%	15.1%	17.5%
55-64	*1,065*	*18.7%*	19.3%	16.9%	19.9%
65-74	*708*	*12.4%*	14.7%	12.6%	14.1%
75+	*660*	*11.6%*	11.6%	10.0%	11.1%
Total Households	***5,705***	***100%***	**100%**	**100%**	**100%**

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

Figure 4-4. Household Tenure by Age of Householder City of North Mankato - 2020



Life-Cycle Housing and Profile of Households

The housing needs of a community relate to the demographic profile of the household. Typically, households move through several life-cycle stages; including entry-level households, first time homeowners, move-up buyers, empty nesters/young seniors, and older seniors.

The following describes each of these household types and the effect that they have on housing demands in North Mankato.

A. Entry-Level Households

People in the 19- to 24-year-old age group typically leave their childhood home and establish their own household. They often rent a house or an apartment because they generally do not have the income and savings needed to buy a home. In addition, many people in this age group move frequently, so they are hesitant to buy a house. They are also more apt to share housing with other unrelated people of similar age.

The entry-level household population in North Mankato will fluctuate annually. Many North Mankato residents that graduate from high school move to other communities to attend a university or to pursue other job opportunities. In the long term, unless current conditions and trends change, North Mankato will not see significant increase in the 19- to 24-year-old age group.

B. First Time Homeowners

First time homeowners are typically in their 20s and 30s. They are usually “move-up” renters, meaning they “move up” from an apartment to a home. They are often married with young children and prone to moving within a few years of buying their first home for several reasons; including, increased salaries allowing them to move to more expensive housing, an increased number of children may require larger housing, and job opportunities may require that they move to another community.

C. Move-Up Buyers

Move-up buyers are typically in their 30s and 40s. They move up from the smaller, less expensive house that they had purchased earlier. From an economic growth perspective, this is an important age group of people. Typically, move-up buyers have children in school and an established job. They are less apt to move to another community and start over. Also, professionals who are moving to a community to advance their career are generally looking to move to a more expensive house than what they had in their previous community. North Mankato should continue to ensure that it has adequate choices for those who are looking for move-up housing that will satisfy their needs until they are in their late 50s and beyond.

D. Empty Nesters and Young Seniors

Empty nesters and young seniors are generally in their 50s and 60s. Often, their children have moved out of their house and left them with a larger house than needed. Empty nesters and young seniors often want to live in a smaller house, like a townhouse, that has less maintenance.

As the baby boom generation moves into this age group, this population will likely increase in North Mankato and there may also be a shift in this population group from

their homes into apartments. There has already been a notable increase in apartment rentals in North Mankato by members of the baby boom generation.

E. Old Seniors

Those in their 80s and older are often looking for low maintenance or assisted living housing. Senior living community options in North Mankato include the Oak Terrace Senior Retirement Community, Koppen Gardens, and Monarch Meadows. As the population ages, North Mankato should continually ensure that it has adequate housing to meet the needs of seniors.

F. Special Needs

Housing for those with special needs includes housing for those with mental and/or physical disabilities or health issues and those who are in need of temporary or transitional housing. The number of people with special housing needs is expected to increase as the population of North Mankato continues to age. Currently, Monarch Meadows, Oak Terrace Senior Retirement Community, and Birchwood Cottages offer assisted living units and existing housing for those with Alzheimer's or dementia to help meet some of the special housing needs in North Mankato.

Affordable Housing

The United States Department of Housing and Urban Development (HUD) generally defines housing as affordable if it costs less than thirty (30) percent of a household's income. However, HUD's Section 8 Income Guidelines are the basis for most affordable housing programs. Section 8 guidelines define low and moderate incomes on a sliding scale, depending on the number of persons in the family. For example, a four-person household is considered "moderate income" if their family income is eighty (80) percent of the area's median family income.

It is noted most housing affordability programs and data place emphasis on creating owner- occupied units at eighty (80) percent of the median family income (moderate income) and rental units at fifty (50) percent of the median family income (low income). Since low-income persons are typically renters, the definition of "low income" is tied to the number of persons in each unit. This plan identifies "affordable Owner-Occupied units" as those affordable for moderate income families (eighty (80) percent of median income). Affordable rental units are based on fifty (50) percent of the median income and reflected on a per capita and per family basis.

As mentioned previously, homeowner incomes have generally increased while renter's have not. At the time of this Comprehensive Plan update, market rate multi-family units dominate the rental inventory and vacancy rates are low (0-1.5%) which means costs are high and availability is low. According to the Housing Study, the City contained 185 tax credit units and 73 subsidized units in 2019, among which vacancy rates were 0.7% and 2.7% respectively. Many sources indicate that a 5.0% vacancy rate is ideal as it allows for normal turnover and an adequate supply of options for prospectives renters. The limited availability means there are often waiting lists for prospective tenants. During this process, the need for more affordable housing in the Greater Mankato area was significant and at the top of priority lists for local agencies.

Income by Age of Householder

Looking at income data is also important when predicting future housing demands in the city of North Mankato. In 2012 (data used in the 2015 Comprehensive Plan), the median household income was $60,836 and the largest employment industries were educational, health and social services, manufacturing, and retail trade. By 2020, the median household income increased to $71,023 and the top employment industries were the same. The total population in 2020 age 16 and over was approximately 10,603, of which approximately 75.3% were considered to be in the labor force. The

unemployment rate in the city of North Mankato in 2020 was approximately 3.7%. During this same time, Minnesota had an unemployment rate of about 4.6%.

Table 4-13. Household Income by Age of Householder

	Under 25		25-44		45-64		65+	
Income	#	%	#	%	#	%	#	#
Less than $10,000	10	4%	42	2%	13	1%	**43**	3%
$10,000 to $14,999	0	0%	86	4%	116	6%	**125**	9%
$15,000 to $19,999	0	0%	141	7%	8	0%	**37**	3%
$20,000 to $24,999	49	21%	66	3%	27	1%	**67**	5%
$25,000 to $29,999	0	0%	28	1%	58	3%	**98**	7%
$30,000 to $34,999	45	19%	146	7%	72	4%	**113**	8%
$35,000 to $39,999	2	1%	24	1%	66	3%	**62**	5%
$40,000 to $44,999	20	8%	141	7%	38	2%	**78**	6%
$45,000 to $49,999	0	0%	110	5%	49	2%	**62**	5%
$50,000 to $59,999	42	18%	200	9%	61	3%	**107**	8%
$60,000 to $74,999	15	6%	181	8%	230	12%	**132**	10%
$75,000 to $99,999	21	9%	330	15%	274	14%	**174**	13%
$100,000 to $124,999	0	0%	275	13%	391	20%	**95**	7%
$125,000 to $149,999	0	0%	129	6%	137	7%	**44**	3%
$150,000 to $199,999	32	14%	144	7%	192	10%	**35**	3%
$200,000 or more	0	0%	87	4%	239	12%	**96**	7%
Total HHs	**236**	**100%**	**2130**	**100%**	**1971**	**100%**	**1368**	**100%**

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

Income distributions as reported by the U.S. Census Bureau can be compared to affordability standards to determine how many households and families in the city of North Mankato may require affordable housing. **Table 4-14** depicts the number of households that may require affordable housing (based on family income) as shown in the shaded area. An estimated 2,329 households (41%) have annual household incomes of less than 80% of the median household income reported by the American Community Survey in 2020.

Table 4-14. North Mankato Household Income - 2020

Income	# of HHs in Category	% of Total
Less than $10,000	108	1.9%
$10,000 to $14,999	327	5.7%
$15,000 to $24,999	395	6.9%
$25,000 to $34,999	560	9.8%
$35,000 to $49,999	652	11.4%
$50,000 to $59,999	410	7.2%
$60,000 to $74,999	558	9.8%
$75,000 to $99,999	799	14.0%
$100,000 to $149,999	1,071	18.8%
$150,000 to $199,999	403	7.1%
$200,000 or more	422	7.4%
Total HHs	**5,705**	**100.0%**

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

Table 4-15. Median Household and Family Income - 2020

Year	North Mankato	Nicollet County	MSA	State
Median Household Income	$71,023	$69,174	$63,288	$73,382
Median Family Income	$96,558	$88,651	$83,590	$92,692

Source: US Census Bureau, 2010-2020 American Community Survey 5-Year Estimates

FUTURE POPULATION AND PROJECTIONS

The future housing projections assume a continued rate of 69 housing units constructed per year, which has been the average number of units constructed over the past 25 years since 1995. This annual rate is approaching the City's construction target of 74 units per year to get back to historic levels of 1.6% annual growth.

The following future population projections were developed by multiplying the number of future housing units by the existing ratio of residents per household (2.42). Therefore, these projections assume a continued rate of housing development of 69 units constructed per year and a constant ratio of residents per household of 2.42. The City recognizes that there are many factors and demographic trends that influence the number of housing units constructed and household size and that these numbers will likely change from year to year.

Table 4-16. Future Population and Housing Projections

	2020*	2025	2030	2035	2040	2045	2050
North Mankato Population	14,275	15,107	15,939	16,771	17,603	18,435	19,267
North Mankato Housing Units	6,015	6,359	6,703	7,046	7,390	7,734	8,078

Source: City Records, US Census Bureau; *2020 population from 2020 US Census Bureau 2020 Decennial Census

HOUSING PROGRAMS AND ORGANIZATIONS

Many municipal powers related to housing come from the housing and redevelopment authority statues as outlined in Minnesota Statutes, Section §469.001 to §469.047. The Housing and Redevelopment Authority (HRA) Act lists the following activities as public purposes:

- To provide a sufficient supply to adequate, safe, and sanitary dwellings in order to protect the health, safety, morals, and welfare of the citizens of the state;
- To clear and redevelop blighted areas;
- To perform those duties according to comprehensive plans;
- To remedy the shortage of housing for low- and moderate-income residents, and to redevelop blighted areas, in situations in which private enterprises would not act without government participation or subsidies; and
- In cities of the first class, to provide housing for persons of all incomes.

The city of North Mankato can partner or coordinate with various housing programs and organizations that can help address the City's housing needs. The following provides a brief overview of key housing programs and organizations. However, many other government and non-government organizations can help the City address its housing needs as well.

Minnesota Housing Finance Agency

Minnesota Housing has worked for over 40 years to provide access to safe, decent and affordable housing across the state. The agency finances affordable housing for low- and moderate- income individuals and has a national reputation as one of the finest housing agencies in the country. Minnesota housing partners with for-profit, non-profit and government sectors to achieve its mission. Products and services are provided to help Minnesotans buy and fix up their homes, for the purpose of stabilizing neighborhoods, communities and families. Minnesota Housing also works to support the development and preservation of affordable rental housing through both financing and long-term asset management.

On an annual basis, the City applies for MHFA funds to assist first time homebuyers.

Department of Housing and Urban Development (HUD)

Operating as a department of the Federal Government, HUD awards grants and financing for a wide variety of housing initiatives including housing development, home buying, rental assistance, avoiding foreclosure and more. For a complete overview of programs visit the department's website at http://portal.hud.gov/ hudportal/HUD . As a HUD Entitlement Community, the city of North Mankato receives an annual allocation of CDBG funds through HUD.

CommonBond Communities

CommonBond Communities is a Minnesota-based non-profit that provides affordable housing throughout the Midwest. The organization develops, owns and manages affordable rental apartments and townhomes for low income and disabled individuals and families. CommonBond operates within 50 cities in Minnesota, Wisconsin and Iowa and serves over 5,400 housing units for over 8,500 people.

Northside Revivals

Northside Revivals is a home improvement program which offers incentives to homeowners completing major remodeling projects valued at $20,000 or more. Financial incentives include a grant up to $3,000 and a 50% rebate on your building permit fees. Properties must be homesteaded, owner-occupied homes at least 50 years old. There are no income or housing value limits for participants of this program. Some eligible improvements include:

- Facade Improvements
- Building an addition
- Building a sunroom
- Finishing previously unfinished space
- Constructing a covered front porch
- Converting an attached garage into livable space



As the grant and rebate offered will only cover a small portion of your project, a low-interest loan of up to $25,000 is available at an interest rate of Prime +1%. Homeowners may borrow up to 100% of the improved value of the property and take up to 20 years to repay.

VISION FOR HOUSING

The city of North Mankato has a high-quality housing stock and variety of options that allow residents to find housing at all stages of life. Quality housing is available for all income and age ranges. Existing homes have been well maintained and renovated, as the unique character of each neighborhood is preserved. The City is open to creatively seeking opportunities to meet our housing needs and responsibly providing our share of affordable housing. Housing in North Mankato continues to be a strength in attracting young families to the area.

GOALS, OBJECTIVES, AND POLICIES

The following section outlines the primary goals for housing, followed by a series of objectives and policies intended to influence future housing development to align with the community visions in this plan.

GOAL 1: Allow all people the opportunity to call North Mankato their home.

Objective 1.1: Accommodate a variety of housing options to ensure a diverse housing stock.

Policy 1.1.1: Update the 2021 North Mankato Housing Study every five years to re-evaluate community housing needs and to gage if the City is achieving targeted housing unit growth.

Policy 1.1.2: Attract a variety of residential developers to ensure a diversity of housing styles, layouts and costs.

Policy 1.1.3: Provide a variety of different residential zoning districts that have varying regulations with regard to setbacks, height, density, and lot coverage.

Policy 1.1.4: Ensure that land is available in applicable zoning districts to allow for senior and assisted living facilities.

Policy 1.1.5: Target development of patio-type homes for "empty-nesters" age 55+ looking to downsize.

Objective 1.2: Provide quality and sufficient affordable housing that meets the area's demand.

Policy 1.2.1: Work with developers on providing affordable market rate housing.

Policy 1.2.2: Explore opportunities for providing tax credit and subsidized housing units for low-income individuals and families in North Mankato to meet the needs identified in the 2021 North Mankato Housing Study.

Policy 1.2.3: Work with South Central College to understand the need for student housing.

GOAL 2: Provide attractive and desirable residential properties.

Objective 2.1: Maintain residential properties to a high standard while encouraging redevelopment opportunities.

Policy 2.1.1: Consider amendments to the zoning code that promote redevelopment activities and allow residents to make reasonable additions to their homes.

Policy 2.1.2: Monitor "at risk" or "blighted" properties or areas and connect property owners to housing improvement programs, loans and assistance opportunities for rehabilitation.

Policy 2.1.3: Regularly analyze existing ordinances to ensure reasonable maintenance is required to all residential property and make amendments as necessary. Proactively address any properties where compliance is not being met.

Policy 2.1.4: Work with the North Mankato Port Authority to purchase blighted or vacant homes for demolition.

Policy 2.1.5: Revisit the 2016 Rental Density Study to gage its effectiveness in minimizing the turnover of owner-occupied single-family homes to rental units within established

neighborhoods. Explore outcomes and update section 151.18 of the North Mankato City Code as necessary.

Policy 2.1.6: Maintain a rental licensing program that allows the City to enforce compliance with existing codes and minimum standards.

Objective 2.2: Provide residential neighborhoods that are well designed.

Policy 2.2.1: For new development or redevelopment, consider streetscape improvements such as attractive street lighting, boulevards, sidewalks on at least one side of the street, landscaping and vegetation, and other amenities that enhance the visual appearance of neighborhoods. Consider similar opportunities in existing neighborhoods as street reconstruction projects occur.

Policy 2.2.2: Seek opportunities to provide additional green space and recreation amenities in residential areas that may be lacking them.

Policy 2.2.3: Promote moderate and higher density housing in areas where appropriate, such as within and near downtown, commercial areas, and along arterial roadways. Promote development practices that result in low traffic volumes near low density residential areas.

Policy 2.2.4: Promote residential development that occurs in an orderly manner consistent with the future land use plan and that makes efficient and responsible use of municipal utilities and infrastructure expansion.

Chapter 5: Economic Development

INTRODUCTION

A strong business community is the cornerstone of a vibrant city. Economic development encompasses the policies and activities that improve the long term economic and social wellbeing of the community. Communities with strong economies have financial resources to support the levels of service that their residents need and desire. Successful communities realize that economic development is about bringing together social, natural, infrastructure, and economic assets in the community to sustain the "whole" community.

The City experienced much success after completing the first Comprehensive Plan in 2015. Following the recommendations from that Plan, the City completed several small area plans and studies to assess the potential for economic development throughout the community. These plans include the Belgrade Avenue Master Plan, Commerce Drive Area Development Plan, the Northwest Growth Area Plan, the Webster Avenue Area Plan, and the Lookout Drive Area Plan. These have resulted in targeted efforts to promote investment in the community by the City and private developers. For instance, since the development of the Belgrade Avenue Master Plan, major development has taken place on both the north and south sides of the 200 Block of Belgrade Avenue which opened up other opportunities in the downtown for redevelopment and economic impact. The City plans to continue proactively planning for economic development into the future.



Figure 5-1. Infill development on the 200 Block of Belgrade Avenue.

PREVIOUS AND ONGOING ECONOMIC DEVELOPMENT AND PLANNING

Several past and ongoing efforts focused on economic development in North Mankato have been reviewed as part of developing this chapter. Some of these efforts remain more relevant than others and all have contributed to economic development efforts in the City.

Previous studies and materials that focus on economic development in the area and guide the recommendations in this chapter include:

Envision 2020 (2006)

This document was a long-range regional community plan involving over 200 community stakeholders in 2006. The plan included an economic development vision which supported a "high quality of life for all its citizens" and advocated for progress in several areas. A 2014 progress report highlighted some of the successes due to the Envision 2020 visioning process including the establishment of the regional Chamber of Commerce and Economic Development Organization (Greater Mankato Growth or "GMG"), the creation of the Regional Economic Development Alliance (REDA), and the designation of the Greater Mankato area as a Metropolitan Statistical Area. This effort has concluded, and agencies are no longer meeting. Preliminary discussions with regional institutions indicate another broad planning effort may

emerge in the next five years. Should progress occur, North Mankato will participate and include any relevant recommendations in amendments to the updated plan.

North Mankato Port Authority

The North Mankato Port Authority Commission was created by an act of the legislature in 1985 and began operations in 1986. Throughout its existence, the Port Authority has undertaken many initiatives such as the construction of new industrial buildings, building additions, building upgrades, façade improvements, removal of blighted properties and housing opportunities. In 1993, the Port Authority began the development of the North Port Industrial Park to accommodate new industrial development. To date there are 25 industrial buildings within the industrial park providing over 1,300 jobs.

Mankato/North Mankato Area Planning Organization (MAPO)

The Mankato/North Mankato Area Planning Organization (MAPO) was established in 2012 in response to the 2010 U.S. Census which designated the Mankato/North Mankato area as an urbanized area requiring the formation of a metropolitan planning agency under 23 USC 134 and 49 USC 5303. The 2020 Planning Work Program for the Mankato/North Mankato Area Planning Organization provides for the consideration and implementation of projects, strategies, and services that will promote consistency between transportation improvements and State and local planned growth and economic development patterns. Economic development and transportation are intrinsically linked and state funding for economic development is often tied to transportation projects. Policies and programs initiated and executed by the MAPO must work in conjunction with North Mankato's overall economic development initiatives.

Belgrade Avenue Master Plan (2016)

The purpose of this document is to establish a framework for redevelopment, develop a plan for Investment in the Central Business District (CBD) by the City of North Mankato, and achieve a shared vision of the future of the CBD by the city, citizens, and property owners in the downtown area. Belgrade Avenue serves as a gateway to North Mankato and is a critical part of the community. A report outlining a plan for the build-out of the 200 block of Belgrade Avenue was developed in 2011. The Belgrade Avenue Master Plan was informed by that effort, expanding the study area through the 500 block of Belgrade Avenue (the western extent of the CBD) for a broader look at redevelopment opportunities throughout the CBD.

Caswell Sports Operations Review and Economic Impact Analysis (2016) and Project Background & Financial Feasibility Report for Proposed Caswell Fieldhouse 2019

The purpose of this study is to quantify the regional economic impact of the Caswell Sports Complex, provide an operational overview of the agency, explain the growth of the event coordination service with local partners, and setting future parameters for projecting the impact of expanding Caswell Sports in the future to accommodate more sports such as ice hockey and other facilities expected for a growing community. A record number of spectators, participants, tournaments, and events were held at Caswell Park in 2019, producing an estimated $8,165,621 in regional economic impact. The park hosted twenty-two tournaments consisting of fifty days of tournament play. Tournaments brought in 716 total teams, with 325 of those teams being from out of town, defined as any team outside a 75-mile radius of North Mankato. The estimated total visitors were 34,498 with 11,860 of those estimated to be out of town visitors.

Market Demand Study for a Proposed 70-Room Limited-Service Hotel (2018)

This analysis provided insight into potential market demand for a 70-room limited-service hotel to be

located in North Mankato. The market study concludes that the development of the proposed midscale or upper midscale, limited-service hotel is market justified and would be well suited for the North Mankato market. This study observed five potential sites in which to locate the hotel including (1) Rockford Road and US 14, (2) NE Quadrant of Lookout Drive and Carlson Drive, (3) Commerce Drive, (4) Caswell Sports, and (5) Vacant Residential Property on Lor Ray Drive, south of Walgreens.

Commerce Drive Area Development Plan (2018)

Completed in 2018, the Commerce Drive Area Development Plan outlines a business and streetscaping improvement plan for the business district at the heart of North Mankato's major employment area. The vision for Commerce Drive includes fostering a greater diversity of businesses along and around the corridor, activating a business association, emphasizing the importance of the corridor for the city, increasing walkability through streetscaping and land use density, and establishing Commerce Drive as an attractive destination.

Northwest Growth Area Plan (2020)

The Northwest Growth Area is located adjacent to the Trunk Highway (TH) 14/County State Aid Highway (CSAH) 41 interchange northwest of existing City of North Mankato limits. This is the one of three areas of growth for the City bordering the growing Northport Industrial Area and close to developing recreational, residential, and commercial zones. The area is primarily agricultural land guided for future industrial, general commercial, park, and commercial/industrial mixed-use development according to the City's Future Land Use Plan for property located North of Highway 14. Area's south of Highway 14 and guided for general commercial, recreation, and housing development. The Plan provides a guide for development in the area to ensure the right mix of uses is planned and integrated in a way that complements those already being developed and at a capacity that the area can support.

Webster Avenue Area Study (2021)

This study examines Webster Avenue from Lake Street to U.S. Trunk Highway (TH) 169 as well as River Drive, east of the Webster Avenue/TH 169 intersection to define a future vision for that area. This area provides one of several commercial/industrial areas in the community and is situated in close proximity to a major highway interchange making it regionally connected. The area includes a mix of uses containing park, institutional, single-family residential, and light industrial. Businesses surrounding Webster Avenue are reliant on Highway 169 and Highway 14 for truck deliveries and servicing. The plan identifies existing issues and concerns related to transportation, recreation, and land use and identifies potential opportunities for redevelopment and revitalization in the area.

Lookout Drive Area Plan (2022)

This plan was developed in conjunction with the Lookout Drive Corridor study to examine the area surrounding Lookout Drive to understand potential redevelopment and other opportunities. This plan considered the future development of vacant land south of Highway 14 where portions are guided for commercial uses, potential development that may occur on/near the South Central College campus, as well as industrial/commercial development north of the highway.

Greater Mankato 2040: Transforming Tomorrow Together (2023)

As mentioned, GMG began the Greater Mankato 2040 (GM2040) planning and visioning project aimed at exploring the future strategic positioning of the Greater Mankato region in a fast-changing world. Talent creation and retention, investment courage, shifting priorities of the workforce, next generation livability, and increased demand for societal innovation were identified as Key Drivers for transformation related to economic development.

INVENTORY AND ANALYSIS

Existing Characteristics of the Economy

Retaining and attracting jobs is an ongoing objective for the City of North Mankato. The MN Department of Revenue City/Town Property Tax Data[1] indicates that, in 2021, commercial and industrial properties made up 30 percent of the tax base in North Mankato at 15% each. Estimates from the MN Office of Employment and Economic Development's Quarterly Census of Employment and Wages[2] indicate there were 307 businesses employing nearly 6,801 employees in North Mankato in 2020.

The MnDEED Local Area Unemployment Statistics (LAUS)[3] estimates that, in December 2021, the unemployment rate in North Mankato was at 2 percent, which is lower than Nicollet County (2.1 percent) and the state (2.7 percent). Compared to the total population, there is a 0.48 employment/population ratio; which means there is about 1 job per every two residents in the community.

Table 5-1 shows the employment and business profile of North Mankato classified by the North American Industry Classification System (NAICS) codes. The highest employment industry is manufacturing which provides 42.2 percent of all jobs in North Mankato. Trade, Transportation, and Utilities is the second highest employment industry at 19.2 percent.

Table 5-1. Business Summary

North Mankato				
Area:	**6.01 square miles**			
Total Business Establishments:	**307**			
Total Employees:	**6,801**			
Total Residential Population (2020):	**14,275**			
Employee/Residential Population Ratio	**0.48**			
by NAICS Codes	**Employees**		**Establishments**	
	Number	**Percent**	**Number**	**Percent**
Construction	**141**	**2.10%**	**29**	**9.40%**
Manufacturing	**2,868**	**42.20%**	**26**	**8.50%**
Trade, Transportation and Utilities	**1,306**	**19.20%**	**60**	**19.50%**
Wholesale Trade	349	5.10%	22	7.20%
Retail Trade	545	8.00%	24	7.80%
Health & Personal Care Stores	*23*	*0.30%*	*3*	*1.00%*
Gasoline Stations	*68*	*1.00%*	*3*	*1.00%*
Transportation & Warehousing	411	6.00%	14	4.60%
Transit and Ground Passenger Transportation	*11*	*0.20%*	*4*	*1.30%*
Postal Service	*1*	*0.00%*	*1*	*0.30%*
Couriers and Messengers	*149*	*2.20%*	*4*	*1.30%*

[1] MN Department of Revenue, City/Town Property Tax Data (2021): https://www.mndor.state.mn.us/ReportServer/Pages/ReportViewer.aspx?/Property%20Tax/Property_Tax_Info_Cities

[2] MN Department of Employment and Economic Development (MnDEED), Quarterly Census of Employment and Wages (QCEW): https://mn.gov/deed/data/current-econ-highlights/qcew-econ-highlights.jsp

[3] MN Department of Employment and Economic Development (MnDEED), Local Area Unemployment Statistics (LAUS): https://apps.deed.state.mn.us/lmi/laus/CurrentStats.aspx

Table 5-1. Business Summary Continued

by NAICS Codes	Employees		Establishments	
	Number	Percent	Number	Percent
Information	**267**	**3.90%**	**8**	**2.60%**
Financial Activities	**105**	**1.50%**	**33**	**10.70%**
Finance and Insurance	83	1.20%	21	6.80%
Real Estate, Rental & Leasing	22	0.30%	12	3.90%
Professional and Business Services	**670**	**9.90%**	**38**	**12.40%**
Professional, Scientific & Tech Services	78	1.10%	15	4.90%
Management of Companies & Enterprises	353	5.20%	5	1.60%
Administrative & Support & Waste Management & Remediation	239	3.50%	18	5.90%
Education and Health Services	**865**	**12.70%**	**53**	**17.30%**
Leisure and Hospitality	**305**	**4.50%**	**25**	**8.10%**
Arts, Entertainment & Recreation	48	0.70%	5	1.60%
Accommodation & Food Services	258	3.80%	20	6.50%
Other Services (except Public Administration)	**115**	**1.70%**	**30**	**9.80%**
Repair & Maintenance	44	0.60%	10	3.30%
Public Administration	**159**	**2.30%**	**5**	**1.60%**
Total	**6,801**	**100%**	**307**	**100%**

Source: MN Office of Employment and Economic Development's Quarterly Census of Employment and Wages: MN State (2020 Data); Population Data from U.S. 2020 Decennial Census

Date Note: Data classification is derived from the North American Industry Classification System (NAICS).

Northport Industrial Park

Northport Industrial Park is owned by the North Mankato Port Authority Commission in partnership with BENCO Electric. Lots in the Industrial Park are eligible for development incentives to qualifying businesses. The Port Authority also provides Tax Increment Financing and operates a revolving loan fund available to qualifying businesses.

Completion of an interchange in 2013 at Highway 14 and CSAH 41 provides additional access to the Industrial Park. The City anticipates that the majority of future economic development will occur in the Northport Industrial Park. The Future Land Use plan guides this area to include a mix of industrial as well as commercial uses and bring a variety of different jobs to North Mankato. As of 2021, there are 66 acres of land owned by the Port Authority for sale and well over 300 acres of developable property guided for expansion of the Northport Industrial Park. Industrial development remains a top priority for City officials and the Port Authority to create job opportunities for residents and to balance the impact of property taxes between residents and businesses.

Commuting

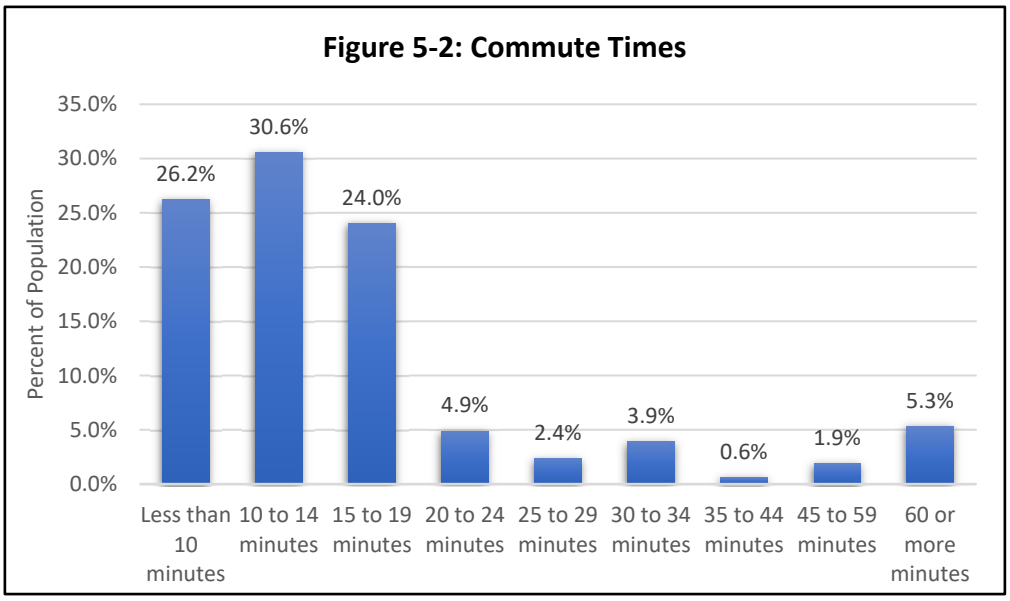
The 2015-2019 ACS estimates over 82 percent of residents drove alone in their commutes to work. A little over seven percent carpooled, almost four percent walked, and roughly four percent worked from home. The Census Bureau reported that less than one percent of residents commuted by public transportation and about half a percent by other means. **Table 5-2** shows statistics from the Census regarding modes of transportation used by residents for commuting to work. Many of the residents commute a little over seventeen minutes each day, as depicted by **Figure 5-1**.

Table 5-2: Commute Modes of Transportation

Car, Truck, or Van - Drove Alone	82.20%
Car, Truck, or Van - Carpooled	7.20%
Public transportation (excluding taxicabs)	0.60%
Walked	3.90%
Bicycle	0.90%
Taxicab, Motorcycle, or other means	1.40%
Worked at home	3.90%
Mean travel time to work (minutes)	17

Source: U.S. Census Bureau, Commuting Characteristics by Sex, 2019 American Community Survey 5-Year Estimates

Figure 5-2: Commute Times



Source: American Fact Finder, Commuting Characteristics by Sex, U.S. Census Bureau, 2019 American Community Survey (ACS) 5-Year Estimates

A. Employment Inflow/Outflow Analysis

Not all employees in North Mankato live in the City. Alternatively, not all who live in the City and are employed work in the City. **Figure 5-3** illustrates the 2017 employment inflow and outflow for North Mankato. This data is derived from the U.S. Census Bureau, Center for Economic Studies. The U.S. Census Bureau estimated there were a total of 7,832 individuals employed in the city in 2017[4] with a total of 1,382 (17.6%) employees living and working in the City and 6,450 (82.4%) working in the City but living elsewhere. While 6,450 are coming into the City for work, 5,867 residents are working elsewhere. This data may indicate that, while there are many jobs in

[4] This data is derived from the US Census Bureau's "On the Map" tool from the US Census Bureau's Center for Economic Studies. These employment estimates from the US Census vary from MnDEED QCEW estimates but do provide a close representation of inflow/outflow of employees in the City. The MnDEED QCEW should be considered where more accurate employment statistics are required.

North Mankato, there may not be adequate housing stock for the workforce including entry level homes and affordable housing options. The 2022 Housing Study supports the need for these and other forms of housing to support the growing workforce in the City as well.

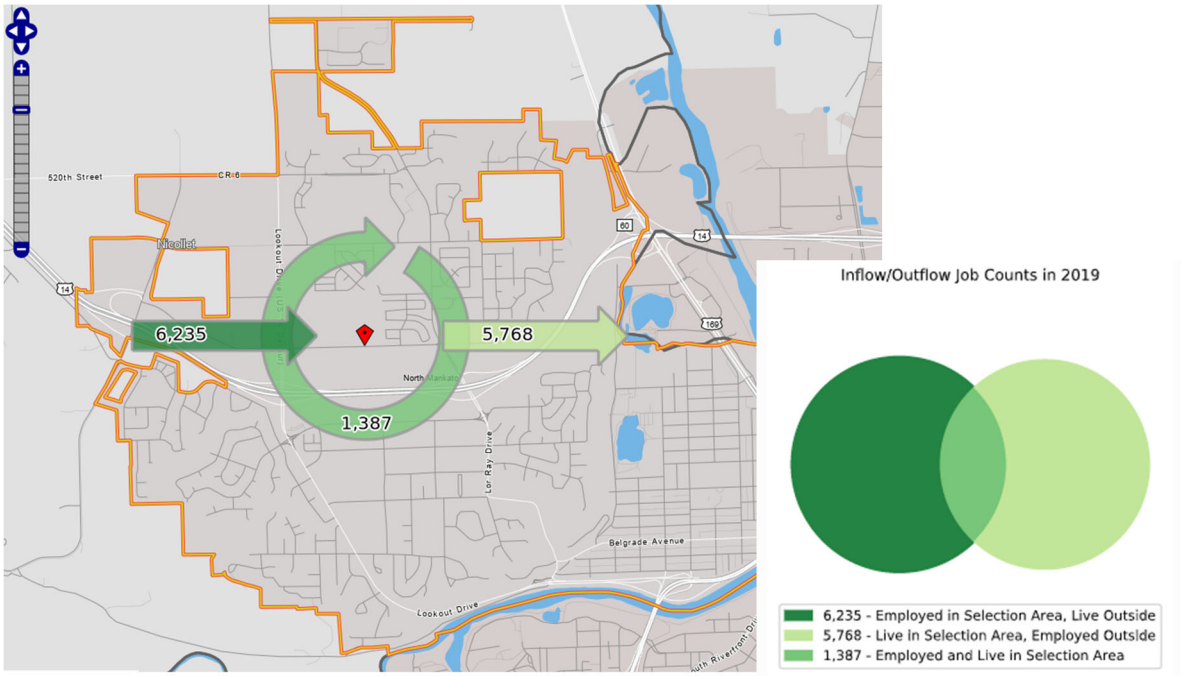


Figure 5-3. US Census Bureau, Center from Economic Studies "On The Map" Employment Inflow/Outflow Analysis for the City of North Mankato. *Source:* *https://onthemap.ces.census.gov/*

Analysis of Local Supply and Demand

Table 5.3 summarizes a consumer spending and retail demand outlook for North Mankato, providing a snapshot of consumer spending today and a forecast of 2027 demand. Esri forecasts a 14.6% increase in consumer spending for 2027. For each product or consumer behavior, a Spending Potential Index (SPI) is provided which represents the amount spent in the area relative to a national average of 100.

Consumer spending in North Mankato was highest in Shelter (Housing), Health Care, and Food. Generally, consumer spending behaviors hovered around the national average of 100, with some at or above. Those at or above include entertainment & recreation, health care, household furnishings and equipment, personal care products & services, support payments/cash contributions/gifts in kind, and vehicle maintenance & repairs. The increased spending on these products/behaviors may indicate that the City can support more businesses providing them

However, North Mankato's proximity and ease of access to the much larger City of Mankato means that it may not be lacking in any categories. It is not unusual in regions like the Mankato-North Mankato MSA for communities like North Mankato to rely, to varying degrees, on a larger principal city to meet commercial needs. The City's proximity to the neighboring larger City of Mankato results in many commercial needs being conveniently offered and met by Mankato businesses. That said, North Mankato should continue to explore new and unique commercial opportunities to meet local and regional needs. Through further analysis of regional economics, North Mankato should identify gaps in regional commercial supply and create a strategy for targeting commercial offerings.

For the greatest chance of successful economic growth, any economic development effort should be targeted in and around existing commercial districts (outlined below), while supporting concepts of diverse, walkable commercial centers and destinations. There are numerous factors that contribute to successful economic development, and careful consideration should be given to North Mankato's economic development.

Table 5.3 - Consumer Spending & Retail Demand Outlook

Product/Consumer Behavior*	2022 Consumer Spending	2027 Forecasted Demand**	Projected Spending Growth	Average Spent (HH Annual)	Spending Potential Index (SPI***)
Apparel and Services (Men's, Women's, Children's, Footwear, etc.)	$14,032,851	$16,062,750	$2,029,899	$2,396	99
Education	$10,383,298	$11,885,277	$1,501,979	$1,773	90
Entertainment & Recreation (Admissions, TV, Pets, Games, Rec. Vehicles, Sports, etc.)	$21,404,497	$24,500,729	$3,096,232	$3,654	***100***
Food at Home	$35,545,788	$40,687,606	$5,141,818	$6,068	98
Food Away from Home	$24,870,682	$28,468,310	$3,597,628	$4,246	98
Health Care (Prescription, Non-prescription Drugs, Eyeglasses)	$42,154,998	$48,252,860	$6,097,862	$7,196	***102***
Household Furnishings and Equipment (Furniture, Appliances, Housewares, etc.)	$15,093,859	$17,277,236	$2,183,377	$2,577	***101***
Personal Care Products & Services	$5,971,975	$6,835,841	$863,866	$1,019	***100***
Shelter	$129,032,383	$147,697,350	$18,664,967	$22,027	96
Support Payments/Cash Contributions/Gifts in Kind	$16,239,321	$18,588,393	$2,349,072	$2,772	***102***
Travel (Air Fairs, Lodging, Auto Rental, etc.)	$16,563,270	$18,959,203	$2,395,933	$2,827	98
Vehicle Maintenance & Repairs	$7,541,190	$8,632,048	$1,090,858	$1,287	***102***

**Consumer spending shows the amount spent on a variety of goods and services by households that reside in the area. Expenditures are shown by broad budget categories that are not mutually exclusive. Consumer spending does not equal business revenue. Total and Average Amount Spent Per Household represent annual figures. Source: Consumer Spending data are derived from the 2018 and 2019 Consumer Expenditure Surveys, Bureau of Labor Statistics. Esri.*

***Source: Esri forecasts for 2022 and 2027; Consumer Spending data are derived from the 2018 and 2019 Consumer Expenditure Surveys, Bureau of Labor Statistics.*

****The Spending Potential Index represents the amount spent in the area relative to a national average of 100.*

Development, Redevelopment, & Revitalization

The roots of development are inherently tied to local economic factors. Limitations on income equates to a lack of disposable income needed to reinvest in property. Over time, the lack of investment leads to a deterioration of property. These conditions of blight often spread to adjacent properties.

Redevelopment will become an increasingly important community development issue for North Mankato. Several factors define the need for city action:

- Redevelopment becomes a public issue because market forces are not likely to solve the problem. While North Mankato has the ability to expand, development demand can bypass redevelopment parcels and seek out vacant land. There is little or no incentive to correct the problems on blighted parcels. Vacant land avoids many of the barriers of redevelopment sites.
- Redevelopment property is often more expensive. Acquisition includes both land and buildings. Redevelopment often requires the assembly of smaller parcels into a larger site. Multiple property owners with differing interests compound the complexity of land acquisition.

- Redevelopment sites have more site preparation costs.
- Redevelopment may face the need and cost of environmental remediation. Old buildings may have asbestos or other hazardous materials that require special treatment. Certain commercial and industrial uses may have allowed pollutants to enter the soil.

All of these factors combine to create significant economic barriers to redevelopment. Removal of these barriers is a primary focus of city actions related to redevelopment.

A. New Development

The City of North Mankato is a growing community with much agricultural and vacant land bordering city limits, especially in the northwest. This land is optimal for city expansion, but the City needs to carefully plan how expansion will occur in a sustainable manner that serves the needs of the community while enhancing quality of life.

Northwest Growth Area

The Northwest Growth Area encompasses approximately 620 acres north and south of US Trunk Highway 14, west of Lookout Drive, all the way to the Highway 14 & County State Aid Highway (CSAH) 6 convergence. The growth area represents the newest development opportunity for North Mankato including a significant increase in land allowance to its industrial base and potential opportunities for additional commercial retail and high-density residential uses. In January 2020, a technical evaluation was completed, outlining a framework for future site development.

Multi-Family Residential Development as a Catalyst for New Commercial-Retail Development

When planning for new commercial-retail development, the City must consider if an area can support that additional development. Many factors will contribute to the success of development including proximity to a critical mass of residents expected to use it for everyday services. A multi-family (high-density) residential complex creates a new mass of people in need of services. Residents occupying multi-family complexes are more likely to utilize nearby commercial retail uses for convenience. Multi-family complexes provide affordable workforce housing, which is always needed in North Mankato. In this light, the City should consider additional multi-family housing complexes as a catalyst for additional commercial-retail development. The 2022 North Mankato Housing Study confirms the City's need for increased multi-family housing options.

B. Redevelopment & Revitalization

The City of North Mankato has several areas which developed over a wide range of different time periods. As such, there are several older areas that developed at a time when there was a stronger need for particular uses than there may be today. These areas may have become somewhat blighted or under-utilized. In addition, there may be alternative uses that



Figure 5-4. Redevelopment of a former gas station site to a new Frandsen Bank & Trust facility.

would improve the quality of life for residents in the surrounding area. Based on the City's goals identified in this plan, several areas have been identified for potential redevelopment. It is not the intention of the City to discontinue the existing uses within the areas identified; rather it is an opportunity to plan for these areas should an opportunity for them to redevelop arise.

Commerce Drive

Commerce drive is a primary business district within North Mankato that contains an array of land uses. The Commerce Drive Area Development Plan aims to diversify businesses, increase walkability, and establish the area as an attractive destination. To attain this vision, the City intends to attract mixed-use development, particularly within underutilized or infill locations; consider opportunities for residential uses while improving physical connectivity to surrounding residential districts; and promote investment and economic activity without compromising existing businesses or community objectives.

Belgrade Avenue (Downtown CBD)

Belgrade Avenue is a central corridor through the City's original CBD. It provides the major gateway between North Mankato, and the City of Mankato. A 2017 Master Plan, and supportive Corridor Study, identify a community vision of Belgrade Ave as a vibrant destination that builds on the area's existing character. The Belgrade Avenue Master Plan sets forth a vision and implementation plan for redevelopment to create a high-quality business district on a block-by-block basis.

Highway 169 and Webster Avenue

The area surrounding Webster Avenue is one of the first areas people see as they come into North Mankato from the north and provides visitors with their first impression of the community. Area development will likely remain commercial/industrial uses but should have greater consideration for their appearance and design. In addition, uses which draw people into the community should be encouraged. The Webster Avenue Area Study identifies potential redevelopment/revitalization that could provide improvements the area needs to become an attractive gateway to the City.

Intersection of Lor Ray Drive and Howard Drive

Properties at the northeast, southeast, and southwest corners of the intersection of Lor Ray Drive and Howard Drive have been guided for general commercial use despite having a different existing land use. The City values these existing uses and will wait to rezone these properties until the current property owners are prepared to sell or redevelop the sites so as to not make these uses non-conforming. In the case of the existing industrial businesses at this intersection, the City may consider negotiating a land swap for property in the Northport Industrial Park. The City views general commercial as the best use for these sites long term.

Lookout Drive and Marie Lane

Currently this block contains a laundromat, auto repair, a gas station/convenience store, an apparel store, and a dentist. Although all are desired uses within the community, these could be augmented with additional retail or other commercial uses. Located along Lookout Drive, this business district serves numerous residents living in the western half of the City, as well as those traveling to and from Northport Industrial Park and South Central College. There are very few commercial land uses located in the western half of the City to serve these residents. Redevelopment of this block could include a denser, multi-unit commercial building that might

include a restaurant, coffee shop, bakery, retail store, etc. Potential uses that take the most advantage of the number of drivers along Lookout Drive should be encouraged.

Camelot Park

Currently Camelot Park, a manufactured home community, exists at the northwest corner of Lor Ray Drive and Howard Drive. The manufactured home community is an asset to the community in that it is well maintained and provides an affordable housing option for residents. In 2015, this site was being considered as a significant redevelopment opportunity site. In 2020, the property was acquired by a national mobile home manufacturing chain who is revitalizing the park with plans for to stay for the long-term. The City supports a continuation of this use. Should the property owner choose to redevelop, the City envisions a mix of uses including a combination of park, regional multi-sport facilities, institutional, residential, and commercial land uses. A future planning study should be performed prior to site redevelopment.

FINANCE TOOLS

Community development actions require a framework for financial decision-making. The investment of public dollars to achieve community development objectives should be guided by several key principles:

- Financial resources are limited. The city has limited funding to apply to community development initiatives, so the use of resources must be targeted to achieve the greatest effect on community needs.
- Financial decisions require a long-term perspective. The current use of financial resources may reduce monies available in the future. In evaluating short-term opportunities, it is important to question the long-term impact on community development.
- Public funds should lead to private investment. While this section focuses on public finance actions, the Comprehensive Plan cannot become reality without private investment. The use of public funds should be targeted to actions that encourage private investment in North Mankato.

Tax Increment Financing

Tax increment financing (TIF) is the primary development finance tool available to Minnesota cities (Minnesota Statutes, Sections 469.174 through 469.179). TIF is simple in concept, but complex in its application. Through tax increment financing, the property taxes created by new development (or redevelopment) are captured and used to finance activities needed to encourage the development. The challenge in using TIF lies with the complex and ever- changing statutory limitations.

Tax Abatement

Tax abatement acts like a simpler and less powerful version of tax increment financing. With TIF, the city controls the entire property tax revenue from new development. Under the abatement statute (Minnesota Statutes, Sections 469.1812 through 469.1815), the city, county and school district have independent authority to grant tax abatement.

Special Assessments

Public improvements are often financed using the power to levy special assessments (Minnesota Statutes Chapter 429). A special assessment is a means for benefiting properties to pay for all or part of the costs associated with improvements, and to spread the impact over a period of years. This tool can be applied to both the construction of new improvements and the rehabilitation of existing improvements.

Utility Revenues

The city operates three municipal utilities: water, sanitary sewer and storm water. The revenues from the operation of these utilities are available to pay for capital improvements in support of community development initiatives. State Law (Minnesota Statutes, Section 444.075) gives the authority to pledge these revenues to general obligation bonds for utility system improvements.

Capital Improvement Bonds

Cities may issue capital improvement bonds (Minnesota Statute, Section 475.521) for specific purposes. It is essential that cities follow statutory procedures (such as providing notice and a public hearing) when issuing this, or any, type of bond. In this context, "capital improvement" means acquisition or betterment of public lands, buildings, or other improvements for the purpose of a city hall, town hall, library, public safety facility, and public works facility. An improvement must have an expected useful life of five years or more to qualify. Three-fifths of the members of a five-member governing body must vote to approve the bonds. In the case of a governing body having more or less than five members, at least two-thirds of the council must vote to approve them. Capital improvement does not include light rail transit or any activity related to it, or a park, road, or bridge. City halls or town halls qualify as capital improvements as well as the land for any of these public facilities. These bonds are not subject to a vote unless voters petition for a reverse referendum.

Grant and Loan Programs

Cities can leverage funding from various grant programs to help take on economic development initiatives. There are numerous grant programs available to cities provided by various state and federal agencies related to economic development and downtown redevelopment:

- The Community Development Block Grant program (CDBG) administered by the U.S. Department of Housing and Urban Development (HUD) provides grants on an annual basis to states and eligible local governments for community development activities. In some cases, communities may choose to use these dollars for business retention and job growth activities. The City should also explore the use of these dollars for downtown redevelopment.
- The Minnesota Department of Employment and Economic Development (DEED) is another agency with financial assistance available to local governments for business development, infrastructure, community development and site cleanup and redevelopment.
- Many other funding sources exist, and city staff should monitor and pursue these opportunities when appropriate. The City of North Mankato Port Authority previously had its own redevelopment grant and loan program for the Central Business District. Funds were allocated mainly towards building rehab and infrastructure costs. The City should revisit the idea of bringing this program back for downtown redevelopment purposes.

VISION FOR ECONOMIC DEVELOPMENT

The City of North Mankato will remain focused on retaining a high quality of life, while at the same time working to encourage and facilitate job growth in its commercial and industrial sectors.

GOALS, OBJECTIVES, AND POLICIES

The following section outlines the primary goals for economic development, followed by a series of objectives and policies intended to influence future economic development efforts that align with the community visions in this plan.

GOAL 1: Encourage economic growth to meet the demand for industrial development.

Objective 1.1: Develop and expand North Port Industrial Park.

Policy 1.1.1: Strive to maximize the community's strategic location as a valuable resource.

Policy 1.1.2: Actively target companies, both large and small, that offer good employment prospects, draw from the local labor pool, and are good corporate citizens.

Policy 1.1.3: Work to maintain a labor force in the immediate area that supports the growth of business and industry in the North Port Industrial Park.

Policy 1.1.4: Encourage continuation of communication and coordination of planning between the Port Authority, Planning Commission, and City Council.

Policy 1.1.5: Follow the recommendations of the Northwest Growth Area Study.

GOAL 2: Support redevelopment and infill development throughout the City.

Objective 2.1: Continue and expand redevelopment efforts.

Policy 2.1.1: Address unique development challenges including the reuse and redevelopment of vacant buildings.

Policy 2.1.2: Foster private investment and economic activity without compromising community objectives to maintain and enhance North Mankato's environment.

Policy 2.1.3: Encourage landowners in areas guided for redevelopment to consolidate land and develop a master plan for future development rather than piecemeal development.

Policy 2.1.4: Monitor the status of vacant commercial buildings in order to encourage and facilitate redevelopment of underutilized or distressed properties into viable commercial, industrial and retail developments by working with property owners and interested developers.

GOAL 3: Maintain North Mankato's reputation as a resource for new businesses and business expansion.

Objective 3.1: Retain and support local business and industry.

Policy 3.1.1: Set attracting new, and retention of existing, businesses and industries as a priority of the City's economic development plan.

Policy 3.1.2: Continue outreach by City Staff and Elected Officials whereby the City representatives meet periodically on an individual basis with businesses and industries to listen to concerns and discuss opportunities for success. During these meetings, identify any perceived or real barriers or obstacles (such as overly restrictive ordinances) that the City could potentially remove or minimize to help industries and businesses prosper, while still protecting the overall health, safety and welfare of the community.

Policy 3.1.3: Coordinate with Greater Mankato Growth, higher education institutions, the School District, and others in their efforts to promote training opportunities that can help businesses and industries prosper. If appropriate, co-sponsor and/or offer City facilities and/or meeting space for employee training programs.

Policy 3.1.4: Continue to promote North Mankato's high quality of life as a means to help attract new businesses and industries.

Policy 3.1.5: Continue to work with local businesses and industries to ensure needs for expansion and development are adequately met.

Policy 3.1.6: Pursue ways to streamline the development approval process while still maintaining high quality development standards.

Policy 3.1.7: Periodically review economic development incentive programs such as Tax Increment Financing (TIF), Tax Abatement and other regional and state incentive programs.

GOAL 4: Understand links between increased multi-family housing options and economic development opportunities.

Objective 4.1: Work with developers to strategically locate multi-family housing facilities in areas that can support new commercial-retail development.

Policy 4.1.1: Follow recommendations of North Mankato Housing Study.

Policy 4.1.2: Identify optimal locations for new commercial-retail options to serve a critical mass.

Chapter 6: Transportation



INTRODUCTION

The purpose of the Transportation chapter of the Comprehensive Plan is to provide guidance to the City of North Mankato, as well as existing and future landowners in preparing for future growth and development. As such, whether an existing roadway is proposed for upgrading or a land use change is proposed on a property, this Plan provides the framework for decisions regarding the nature of roadway infrastructure improvements necessary to achieve safety, adequate access, mobility, and performance of the existing and future transportation system. The primary goal of this Plan is to establish local policies, standards, and guidelines to guide major transportation investments and policy decisions.

To accomplish these objectives, the Transportation Plan provides information about:

- Previous planning through the Mankato/North Mankato Planning Organization's (MAPO) 2045 Long Range Transportation Plan (2020) which identified existing and potential deficiencies of the existing arterial-collector street system.
- The functional hierarchy of streets and roads related to access and capacity requirements.
- Access management policies and intersection controls.
- Existing sidewalk facilities and associated potential improvements.
- Freight and transit network information and plans.
- The City's local planning efforts that identify roadway needs to serve new development/redevelopment efforts.

TRANSPORTATION SYSTEM PRINCIPLES AND STANDARDS

The transportation system principles and standards included in this Plan create the foundation for developing the transportation system, evaluating its effectiveness, determining future system needs, and implementing strategies to fulfill the goals and objectives identified.

Functional Classification

MnDOT defines functional classification as the grouping of streets and highways into classes or systems according to the character of service they are intended to provide. Basic to this process is the recognition that most travel involves movement through a network of roads. Functional classification defines the role that any road or street plays in serving the flow of trips through a network. Understanding the function of a roadway is critical in determining its design features such as street widths, speed, and intersection control.

The functional classification system typically consists of five major classes of roadways: Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors and Local Streets. Roadways are classified based on several criteria including (but not limited to) geographic units connected, types of streets connected, length of trip served, distance between streets of the same classification, volume of traffic carried by the facility, speed limit and design (right-of-way width and access provisions).

The existing roadway classifications in North Mankato are described below.

A. Principal Arterials

Principal Arterials typically connect large urban areas to other large urban areas, or they connect metro centers to regional business concentrations via a continuous roadway without stub connections. They are designed to accommodate the longest trips. Their emphasis is focused on mobility rather than access. They connect only with other Principal Arterials, interstate freeways, and select Minor Arterials and Collector Streets. There are two Principal Arterial roadways in the City of North Mankato, HIGHWAY 14 and HIGHWAY 169/MN 60. HIGHWAY 14 provides east-west connectivity across the southern portion of the state of Minnesota. HIGHWAY 169/MN 60 runs north-south with connections into Iowa on the south and to the Twin Cities metropolitan area and beyond on the north. The MAPO 2045 Long-Range Transportation Plan identifies the transition of Highway 14 traveling west and Highway 169/MN 60 traveling north from Principal Arterial to Principal Arterial Freeway/Expressway in the future. However, recommended improvements from the Highway 169 Corridor Study identify at-grade roundabouts or traffic signals at the highway's intersections with Webster Avenue in North Mankato and River Lane in Mankato. Implementation of these traffic controls would prevent this highway section's conversion to a freeway for the long term.

B. Minor Arterials

Minor Arterials typically link urban areas and rural Principal Arterials to larger towns and other major traffic generators capable of attracting trips over similarly long distances. Minor Arterials service medium length trips, and their emphasis is on mobility as opposed to access in urban areas. They connect with Principal Arterials, other Minor Arterials, and Collector Streets. Connections to Local Streets should be avoided if possible. Minor Arterials are responsible for accommodating thru-trips, as well as trips beginning or ending outside the North Mankato area. Minor Arterial roadways are typically spaced approximately ½ to 1 mile in developed areas and approximately 1 to 2 miles in developing areas. All or portions of Lookout Drive, Lor Ray Drive, Lee Boulevard and Belgrade Avenue are identified as Minor Arterial roadways in North Mankato.

C. Major Collectors

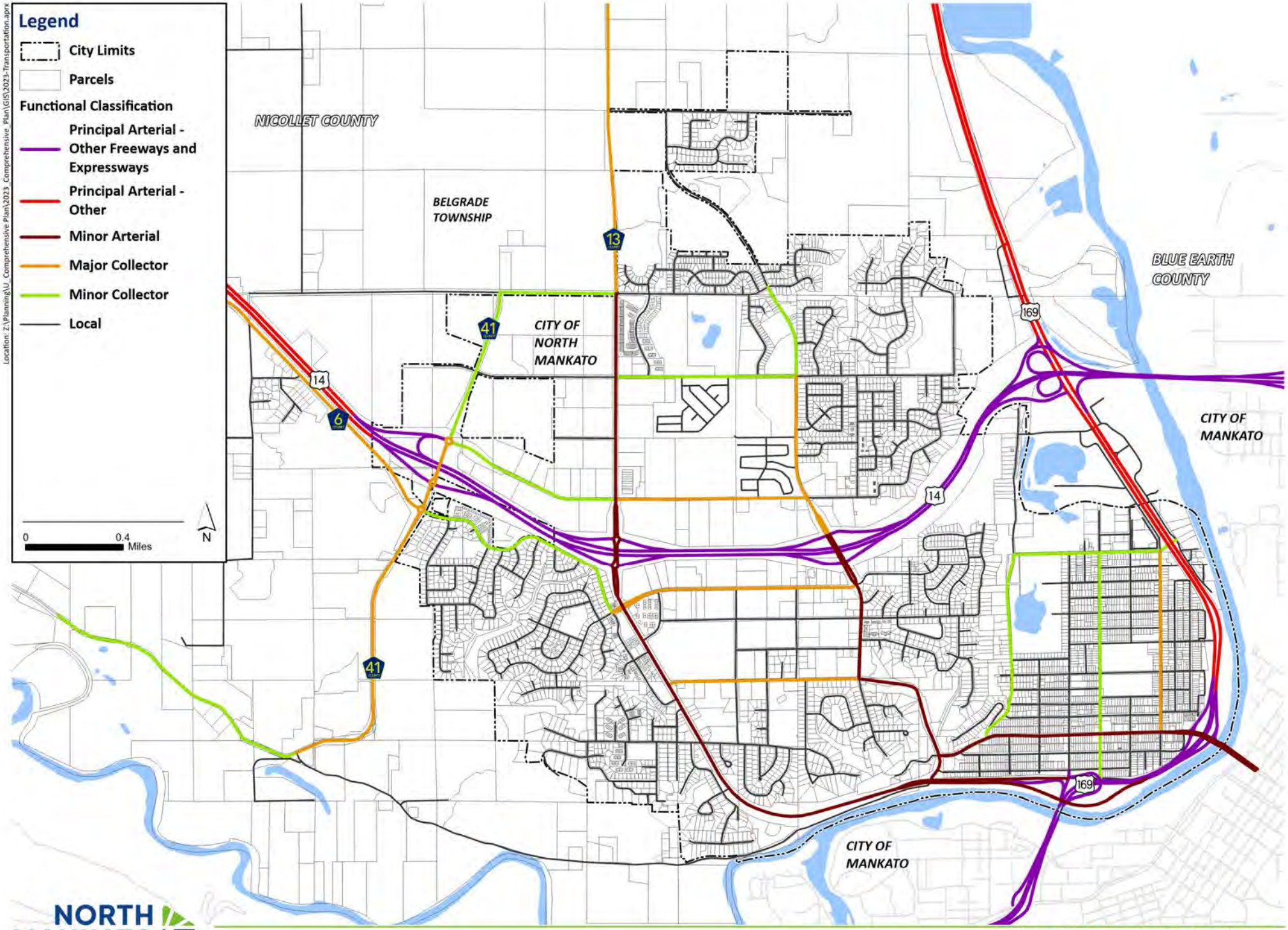
Major Collectors typically link neighborhoods together within a city or they link neighborhoods to business concentrations. In highly urban areas, they also provide connectivity between major traffic generators. A trip length of less than 5 miles is most common for Major Collector roadways. A balance between mobility and access is desired. Major Collectors generally connect to Minor Arterials, but they can be connected to any of the other four roadway functional classes. Local access to Major Collectors should be provided via public streets and individual property access should be avoided. Generally, Major Collector streets are predominantly responsible for providing circulation within a city. However, the natural features associated with wetland and drainage complexes and parks, and location of principal arterials through the community results in circulation within North Mankato being reliant on a combination of the Minor Arterial and Major Collector roadways. Major Collectors are typically spaced approximately ¼ to ¾ mile in developed areas and approximately ½ to 1 mile in developing areas. All or portions of County State Aid Highway (CSAH) 13 (north of Lookout Drive), Rockford Road (CSAH 41), Howard Drive, Commerce Drive, Lee Boulevard, Lor Ray Drive, CSAH 6, and Range Street are functionally classified as Major Collector roadways in the North Mankato area.

D. Minor Collectors

Minor Collectors typically include city streets and rural township roadways, which facilitate the collection of local traffic and convey it to Major Collectors and Minor Arterials. Minor Collector streets serve short trips at relatively low speeds. Their emphasis is focused on access rather than mobility. Minor Collectors are responsible for providing connections between neighborhoods and the Major Collector/Minor Arterial roadways. These roadways should be designed to discourage short-cut trips through the neighborhood by creating jogs in the roadway (i.e. not direct, through routes). All or portions of Rockford Road (CSAH 41), Howard Drive, Pleasant View Drive, Carlson Drive, Timm Road, Lor Ray Drive, Lake Street, Webster Avenue, and Center Street are classified as a Minor Collectors. With the recent improvements to Benson Park, continued residential development north of the park, and development in Northport and NW Growth areas, portions of Timm Road, Carlson Drive, and Lor Ray Drive may become Minor Collector roadways.

E. Local Streets

Roadways in this classification typically include city streets and rural township roadways, which facilitate the collection of local traffic and convey it to Collectors and Minor Arterials. Their function is to provide direct property access.



NORTH MANKATO
MINNESOTA

Figure 6-1. Functional Classification
April 2023

Roadway Capacity

Capacities of roadway systems vary based on the roadway's functional classification. Based on accepted standards, roadway capacity per lane for divided arterials is 700 to 1,000 vehicles per hour and 600 to 900 vehicles per hour for undivided arterials. These values tend to be around 10% of the daily physical roadway capacity.

A. Principal and Minor Arterials

Table 6-A: Typical Traffic Capacity by Roadway Type/Configuration

Facility Type	Daily Capacities
Minor Collector Street	Up to 1,000
Urban 2-Lane	7,500 - 12,000
Urban 3-Lane or 2-Lane Divided	12,000 - 18,000
Urban 4-Lane Undivided	Up to 20,000
Urban 4-Lane Divided	28,000 - 40,000
4-Lane Freeway	Up to 70,000

Based on the per lane capacity figures cited above, a two-lane arterial roadway has a daily capacity of 12,000 to 18,000 vehicles per day, a four-lane divided arterial street has a daily capacity of 28,000 to 40,000 vehicles per day, and a four-lane freeway has a daily capacity of approximately 70,000 vehicles per day. The variability in capacities is directly related to many roadway characteristics including access spacing, traffic control, adjacent land uses, as well as traffic flow characteristics, such as percentage of trucks and number of turning vehicles. Therefore, it is important that the peak hour conditions are reviewed to determine the actual volume-to-capacity on roadway segments with average daily traffic volumes approaching these capacity values.

B. Major Collectors and Minor Collector Streets

Major Collector and Minor Collector streets have physical capacities similar to those of a two-lane arterial street, however the acceptable level of traffic on a residential street is typically significantly less than the street's physical capacity. The acceptable level of traffic volumes on Major Collectors and Minor Collector streets vary based on housing densities and setbacks, locations of parks and schools, and overall resident perceptions. Typically, traffic levels on Major Collector streets in residential/educational areas are acceptable when they are at or below 50% of the roadway's physical capacity, resulting in an acceptable capacity of 6,000 to 9,000 vehicles per day. Acceptable traffic levels on Minor Collector streets are considerably less. Typically, a daily traffic volume of 1,000 to 1,500 vehicles per day is acceptable on Minor Collector streets in residential areas.

The capacity of a transportation facility reflects its ability to accommodate a moving stream of people or vehicles. It is a measure of a supply side of transportation facilities. Level of Service (LOS) is a measure of the quality of flow. The concept of LOS uses qualitative measures that characterize operational conditions with a traffic stream and their perception by motorists. Six LOS are defined for roadways. They are LOS A, B, C, D, E, and F. LOS A represents the best

operating conditions and LOS F represents the worst. The LOS of a multilane roadway can be dictated by its volume-to-capacity (v/c) ratio. The LOS of a two-lane roadway is defined in terms of both percent time-spent-following and average travel speed. LOS F is determined when v/c ratio is over 1.00. The criteria for LOS and general v/c ratio for multilane highways and speed for two-lane highways are provided in **Table 6-B.**

Table 6-B: Highway Level of Service

LOS	Multilane	Two-Lane
	v/c Ratio	Avg. Travel Speed (mph)
A	<0.28	>55
B	>0.28 – 0.45	>50-55
C	>0.45 – 0.65	>45-50
D	>0.65 – 0.86	>40-45
E	>0.86 – 1.00	≤
F	> 1.00	v/c >1.00

For roadways in urban sections, the urban street class and average travel speed determine the LOS. This is generally similar to the LOS for two-lane highways but takes into account the free flow speed of the facility (average speed achieved with no other vehicles present on roadway) and the addition of traffic control. These criteria are established in Table 6-C below:

Table 6-C: Urban Street Level of Service

Range of Free-Flow Speed	55 to 45	45 to 35	35 to 30	35 to 25
LOS	Avg. Travel Speed (mph)			
A	>42	>35	>30	>25
B	>34-42	>28-35	>24-30	>19-25
C	>27-34	>22-28	>18-24	>13-19
D	>21-27	>17-22	>14-18	>9-13
E	>16-21	>13-17	>10-14	>7-9
F	≤	≤	≤	≤

Generally, the City of North Mankato should consider capacity improvements on roadways with a LOS D or worse and volume-to-capacity ratios over 0.75 during the peak hours.

Access Management Guidelines

Access management guidelines are developed to maintain traffic flow on the network so each roadway can provide its functional duties, while providing adequate access for private properties to the transportation network. This harmonization of access and mobility is the keystone to effective access management.

Mobility, as defined for this Transportation Plan, is the ability to move people, goods, and services via a transportation system component from one place to another. The degree of mobility depends on a number of factors, including the ability of the roadway system to perform its functional duty, the capacity of the roadway, and the operational level of service on the roadway system.

Access, as applied to the roadway system in North Mankato, is the relationship between local land use

and the transportation system. There is an inverse relationship between the amount of access provided and the ability to move through- traffic on a roadway. As higher levels of access are provided, the ability to move traffic is reduced. The graphic below illustrates the relationship between access and mobility.

Each access location (i.e. driveway and/or intersection) creates a potential point of conflict between vehicles moving through an area and vehicles entering and exiting the roadway. These conflicts can result from the slowing effects of merging and weaving that takes place as vehicles accelerate from a stop turning onto the roadway, or deceleration to make a turn to leave the roadway. At signalized intersections, the potential for conflicts between vehicles is increased, because through-vehicles are required to stop at the signals. If the amount of traffic moving through an area on the roadway is high and/or the speed of traffic on the roadway is high, the number and nature of vehicle conflicts are also increased.

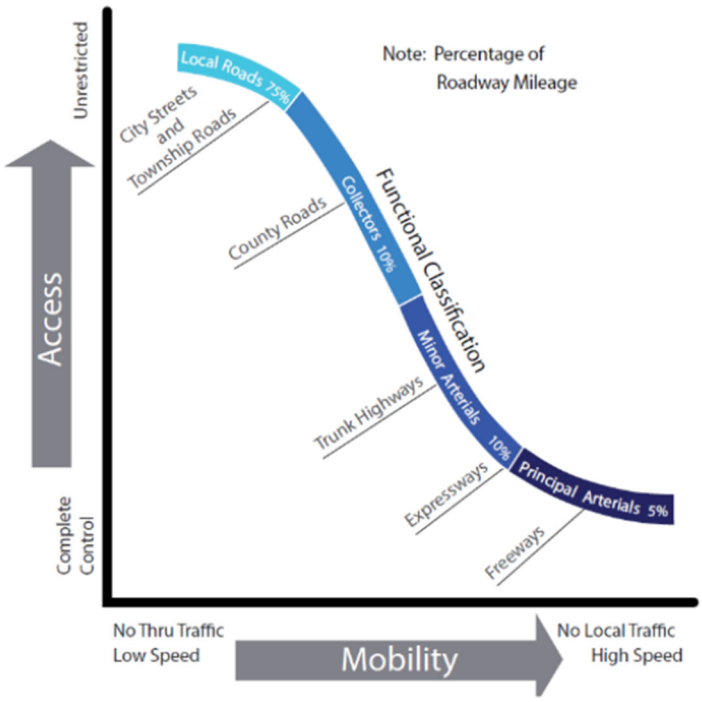


Figure 6-2. Access vs. Mobility Dynamic. Source: Nicollet County Comprehensive Plan.

Accordingly, the safe speed of a road, the ability to move traffic on that road, and safe access to cross streets and properties adjacent to the roadway all diminish as the number of access points increase along a specific segment of roadway. Because of these effects, there must be a balance between the level of access provided and the desired function of the roadway.

In North Mankato, access standards and spacing guidelines are recommended as a strategy to effectively manage existing ingress/egress onto City streets and to provide access controls for new development and redevelopment. The proposed access standards (driveway dimensions) are based on MnDOT State-Aid design standards. **Tables 6-D and 6-E** present the proposed access standards and access spacing for the North Mankato roadway network:

Table 6-D: Roadway Access Standards

	Maximum Curb Cut (Measured at Property Line)	Maximum Number of Curb Cuts	Minimum Distance Between Curb Cuts	Minimum Side Yard Driveway Setback
Single Family Interior Lot	24 feet	1	20 feet	10 feet
Single Family Corner Lot	24 feet	1	20 feet	10 feet
Single Family Corner Lot utilizing circular drive	14 feet	2	20 feet	10 feet
Single Family Cul-de-Sac Lot	24 feet	1	20 feet	10 feet
Multi-Family (2-8 Units)	24 feet	1	20 feet	10 feet
Multi-Family (Over 8 Units)	24 feet	2	20 feet	10 feet
Commercial/Business	36 feet	2	20 feet	10 feet
Industrial	50 feet	4	20 feet	10 feet

Table 6-E: Access Spacing Guidelines for Collector Roadways in North Mankato (1) (2)

Type of Access by Land Use Type	Minor Arterial/Major Collector	Minor Collector
Low & Medium Density Residential		
Private Access	Not Permitted (3)	As Needed (4)
Minimum Corner Clearance from a Collector Street	660'	300'
Commercial, Industrial or High Density Residential		
Private Access	Not Permitted (3)	As Needed (4)
Minimum Corner Clearance from a Collector Street	660'	660'

(1) Some existing City streets that are currently functionally classified as Minor Arterial, Major Collector, or Minor Collector do not meet these criteria. These guidelines should be used for new streets and roadways that will functionally classify as Minor Arterial, Major Collector, or Minor Collector

(2) These guidelines apply to City streets only. Nicollet County and MnDOT have access authority for roadways under their jurisdiction.

(3) Access to Minor Arterials and Major Collectors should be limited to public street access. Steps should be taken to redirect private accesses on Major Collectors to other local streets. New private access to Major Collectors is not permitted unless deemed necessary.

(4) Private access to Minor Collectors is to be evaluated by other factors. Whenever possible, residential access should be directed to non-continuous streets rather than Minor Collector roadways. Commercial/Industrial properties are encouraged to provide common accesses with adjacent properties when access is located on the Minor Collector system. Cross-traffic between adjacent compatible properties is to be accommodated when feasible. A minimum spacing between accesses of 660' in commercial, industrial, or high-density residential areas is encouraged for the development of turn lanes and driver decision reaction areas.

Right-of-Way Width

Right-of-way width is directly related to the roadway's width and its ability to carry vehicular and pedestrian traffic in a safe and efficient manner. For Minor Collector streets in residential areas, a minimum right-of-way width of 80 feet is recommended for the added roadway width, as well as to provide added setback distance between the roadway and homes along the roadway. Right-of-way widths of 80 feet to greater than 100 feet may be required on Minor Arterials and Major Collector roadways within commercial areas to accommodate the potential for higher traffic volumes and the need for additional lanes.

For the City of North Mankato, geometric design standards for the reconstruction or construction of new Minor Arterial, Major Collector, and Minor Collector Streets will be based on MnDOT State-Aid standards.

A. Geometric Design Standards

Geometric design standards are directly related to a roadway's functional classification and the amount of traffic that the roadway is designed to carry. The following is a discussion of various geometric design elements and how each element relates to a particular roadway's ability to perform its function in the roadway network.

Roadway Width

Roadway and travel lane widths are directly associated with a roadway's ability to carry vehicular traffic. On Minor Arterial roadways, Major Collector roadways, Minor Collector streets and local streets, a 12-foot lane is required for each direction of travel. The 24-foot total travel width is needed to accommodate anticipated two-way traffic volumes without delay. In addition to the travel width, minimum shoulder/parking lane widths are also required to accommodate parked or stalled vehicles. Roadway widths not meeting the Geometric Design Standards will result in decreased performance of the particular roadway and additional travel demand on the adjacent roadway network components. For example, a substandard Major Collector roadway may result in additional travel demand on an adjacent Minor Collector street resulting in an overburden for adjacent landowners. Similarly, additional local circulation may result on an adjacent Minor Arterial resulting in reduced mobility for regional trips.

Sidewalk/Trail

Sidewalks and/or trails are recommended to be adjacent to all Minor Arterial, Major Collector and Minor Collector roadways within North Mankato to accommodate pedestrian, bicycle, and other non-motorized travel in a safe and comfortable manner. These roadways are expected to carry a significant amount of vehicular traffic and separation of travel modes is necessary. In commercial and industrial areas, the requirements for trails and sidewalks may vary to accommodate additional pedestrian and bicycle traffic.

Along Minor Arterials and Major Collector roadways, an 8-foot-wide bituminous or concrete trail and/or 6-foot-wide concrete sidewalk is recommended on either side of the roadway to accommodate local pedestrian and bicycle travel. The pedestrian facilities on both sides of these roadways allow for pedestrian travel within the corridor without introducing excessive crossing demand on Minor Arterials and Major Collectors. A sidewalk and trail will accommodate pedestrian and bicycle travel along the corridor, as well as provide a safe, comfortable link between lower volume residential streets and the other pedestrian and trail facilities within the community. A 10-foot-wide trail would be more desirable as the 10-foot width would better accommodate two-way bicycle traffic. The City of North Mankato's comprehensive trail plan will be utilized to determine where bike trails are required.

Along Minor Collector roadways, a 5-foot-wide concrete sidewalk is recommended on at least one side of the roadway, both sides being preferred. With the anticipated vehicular volumes on Minor Collector streets, pedestrians can safely cross the roadway, however, pedestrian travel along the roadway may become uncomfortable.

Design Speed

The design speed of a roadway is directly related to the roadway's function in the roadway system. The focus of Minor Arterial roadways is mobility; therefore, these roadways should be designed to accommodate higher travel speeds. Likewise, Minor Collector roadways are more focused on accessibility and should be designed to accommodate lower travel speeds. The function of Major

Table 6-F: Roadway Design Speed Guidelines

Functional Classification	Design Speed (1)
Minor Collector Street	30 mph
Major Collector Roadway	35 – 40 mph
Minor Arterial Roadway	45 – 55 mph

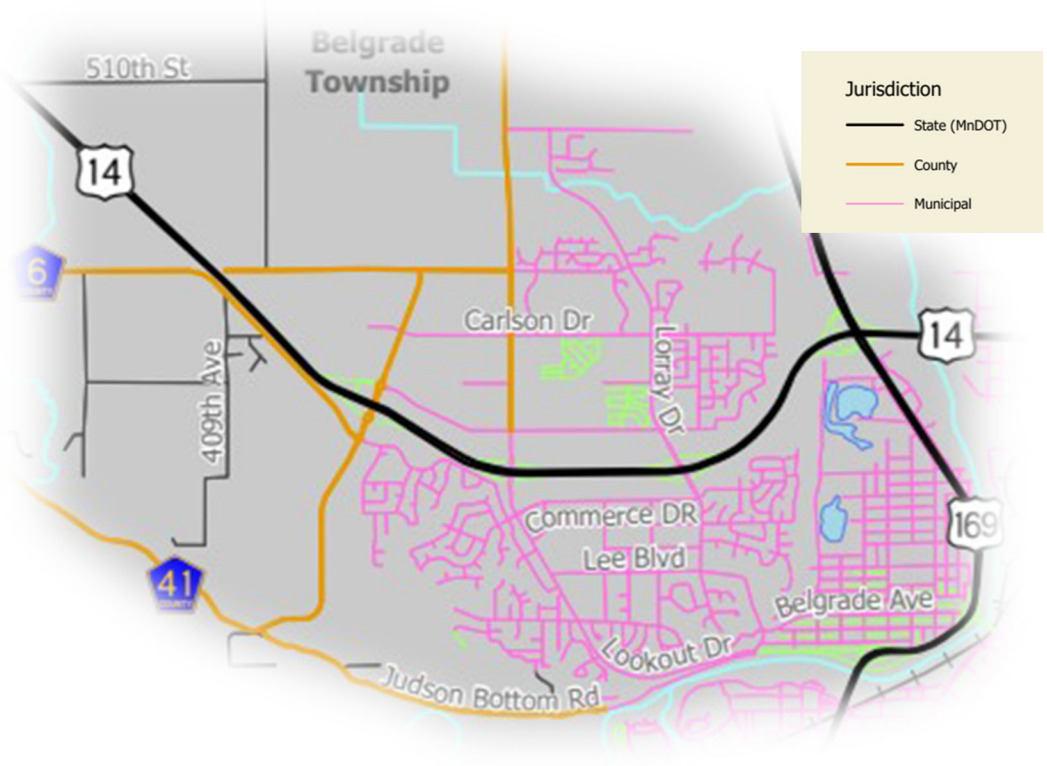
(1)At the discretion of the City Engineer for City roadways, with approval by the City Council

Collectors is balanced between mobility and accessibility; therefore, these roadways should be designed accordingly. **Table 6-F** below presents the recommended design speed for the North Mankato roadway network.

Roadway Jurisdiction

Roadway jurisdiction directly relates to functional classification of roadways. Generally, roadways with higher mobility functions (such as arterials) should fall under the jurisdiction of a regional level of government. Recognizing that these roadways serve greater areas resulting in longer trips and higher volumes, jurisdiction of Principal Arterial and Minor Arterial roadways should fall under the jurisdiction of the state and county, respectively. Similarly, roadways with more emphasis on local circulation and access (such as collectors) should fall under the jurisdiction of the local government unit. These roadways serve more localized areas and result in shorter trip lengths and lower volumes. Major Collector and Minor Collector roadways should fall under the jurisdiction of the City of North Mankato.

As roadway segments are considered for turn-back to the City, efforts will be taken to evaluate the roadway features for conformance to current standards, structural integrity, and safety. This effort will help the City develop short and long-range programs to assume the responsibilities of jurisdictional authority.



EXISTING TRANSPORTATION SYSTEM EVALUATION

Transportation Planning Efforts Since the 2015 North Mankato Comprehensive Plan

Several past and ongoing efforts focused on transportation in North Mankato and the surrounding Metropolitan Statistical Area (MSA) have been reviewed as part of developing this chapter. Some of these efforts are more relevant than others but all have contributed to the transportation network of the City. Planning efforts since 2015 that focus on transportation in the area and guide the recommendations in this chapter include:

A. MAPO 2045 Long Range Transportation Plan (2015; Updated in 2020)

The Mankato/North Mankato Area Planning Organization's (MAPO) Long Range Transportation Plan (LRTP) coordinates and prioritizes improvements to the interconnected regional Transportation network with mobility, safety, freight, and congestion mitigation to accommodate planed growth in the area.

- Advises MAPO policymakers about the metropolitan area's major transportation assets
- Presents key technical findings that inform policy discussion
- Provides data on the multimodal improvements needed to maintain and upgrade the transportation infrastructure
- Provides a fiscally constrained program of projects for future public investments.

MAPO is a Metropolitan Planning Organization (MPO) designated because the Mankato/North Mankato urbanized area is now larger than 50,000 population. It is charged with carrying out the 3-C metropolitan transportation planning process (continuing, cooperative, and comprehensive). MAPO is comprised of Blue Earth and Nicollet counties; the cities of Mankato, North Mankato, Eagle Lake, and Skyline along with the townships of Belgrade, Lime, South Bend, LeRay and Mankato. All Plan elements were coordinated with MAPO member jurisdictions and the Minnesota Department of Transportation (MnDOT).

B. Safe Routes to School Plan (2015)

Safe Routes to School (SRTS) is a national program which assists communities and school districts in enabling and encouraging children to walk and bike to school and making it a safer, healthier, and more appealing transportation option. The program facilitates the planning, development, and implementation of projects and activities that improve safety, and reduce traffic, fuel consumption, and air pollution near schools. The planning process identified various pedestrian and bicycle infrastructure improvements surrounding Monroe, Garfield (now Bridges), and Hoover Elementary Schools and Dakota Meadows Middle School in North Mankato. The City has leveraged the SRTS Plan to obtain federal funding for infrastructure improvements surrounding each school and continues to leverage the plan to identify other needed improvements.

C. Sidewalk Maintenance and Installation Policy (2016)

This policy, in addition to existing provisions in the city code and plans adopted by the city of North Mankato outline the installation, replacement, and maintenance policy for public sidewalks in the City. It includes a map of existing, proposed, and SRTS planned additions to the sidewalk system.

D. Complete Streets Plan and Policy (2016)

Complete Streets are streets and sidewalks that are designed and constructed to accommodate all modes of transportation serving pedestrians, bicyclists, and drivers. They consider the transportation needs of all people, including children, older adults, and people with disabilities or impaired mobility. As state and local governments have worked to improve the road network, they have primarily focused on efficiency, making the flow of traffic better for drivers, to the detriment of pedestrians. The emphasis on improving the efficiency of vehicle traffic has in many cases created streets that are unfriendly to pedestrians and bicyclists creating an increasing need to drive. Complete Streets policies and projects are aimed at changing streets from places where vehicles dominate to places where all users are accommodated.

E. Belgrade Avenue Corridor Study (2017)

MAPO and the City of North Mankato, in partnership with MnDOT, completed this study to identify a long-term vision for multimodal improvements on Belgrade Avenue in North Mankato. The study extent includes Belgrade Avenue from Lee Boulevard on the west to the Veteran's Memorial Bridge on the east. The Belgrade Avenue corridor has served the City of North Mankato as the central corridor of the downtown business district since before the City was incorporated in 1899. It provides the gateway to the City from US Trunk Highway (TH) 169 and the City of Mankato to the east. The City has demonstrated a commitment to enhancing the quality of downtown through planning efforts and public outreach. The most recent effort, the Belgrade Avenue Master Plan, ran concurrently with this effort and is described in the Economic Development chapter of this Comprehensive Plan document.

F. Updated Pavement Management Report (2019)

This report is an update of the Pavement Management System Report (2014). The goal of the earlier report was to assist the City with understanding the condition of the bituminous pavement system and provide recommendations for pavement management going forward. The report update outlined successes in improved condition ratings of the roadway inventory and maps future improvement projects.

G. North Mankato ADA Transition Plan (2019)

The North Mankato ADA Transition Plan is part of the larger MAPO Mankato/North Mankato Area Planning Organization (MAPO) – ADA Transition Plan & Inventory for Public Rights-of-Way completed in 2019 for the cities of Mankato, North Mankato, Eagle Lake, and Skyline, along with the counties of Blue Earth and Nicollet. The Plan fulfills the requirement for all cities in MN evaluate services, policies and practices and the effects thereof that do not meet the requirements set forth in the ADA and provide and implementation plan for remediation. An ADA transition plan is required for a city to obtain funding through various state and federal grant programs.

H. North Mankato Area Transit Study (2020)

The City examined local transit to understand the existing and future needs of transit in the community including busing and dial-a-ride services. The study provides recommendations for shifting the frequency and routing of fixed route service and curb-to-curb dial-a-ride transit services.

I. Nicollet County Comprehensive Plan (2020)

The Nicollet County Comprehensive Plan identifies potential jurisdictional transfers and a potential future roadway extension of CSAH 41, north of the Northport Industrial Park. The Plan also outlines a future Nicollet County Transportation Plan that will provide a comprehensive assessment of highway system characteristics and plan to maintain the highway system in a state of good repair.

J. Northwest Growth Area Plan (2021)

This plan guides residential, commercial, and industrial growth areas surrounding CSAH 41 (Rockford Road)/CSAH 13. The results of this effort helped guide the Future Land Use Map in this Comprehensive Plan and have also assisted with forecasting for future transportation trips in the Lookout Drive Corridor Study.

K. Webster Avenue Area Plan (2021)

This plan examined transportation improvements to the Webster Avenue intersections with US Highway 169/MN 60 and Range Street to ensure future access to the City from the major highway system. This effort informed the development of the US Highway 169 Corridor Study (2022).

L. North Mankato Capital Improvements Plan (2021)

This plan lays out transportation projects planned for completion in the City within the 2023-2026 timeframe.

M. Highway 169 Corridor Study (2022)

This Study examined intersection and roadway improvements along Highway 169/MN 60 from Lake Street (north of the Highway 14 interchange) south to the Highway 169/MN 60 split. The Northern Subarea of the Study identified improvements to the Highway 169/MN 60 intersection with Webster Avenue. Two options were supported by the City including constructing a roundabout at that location or maintaining a signal for traffic control. Options were also identified for intersections north of Webster including the closure of Lind Street and conversion of the River Lane intersection to full access. While these intersections are north of City limits, they have potential to impact North Mankato as well. The study concluded in early 2022.

N. Future Transportation Preparedness Study (2022)

The City collaborated with the Urban and Regional Studies Institute (URSI) at Minnesota State University (MSU), Mankato to research trends in transportation and how the City can be prepared as technology shifts. The study reviewed trends in autonomous vehicles, electric vehicles, e-bikes, and e-scooters to guide City transportation infrastructure and policy planning for these technologies.

O. Lookout Drive Corridor Study (2022)

The Lookout Drive Corridor Study examined Lookout Drive from its southern intersection with Lee Boulevard to its intersection with 512th Street (Somerset Lane). The project identified an ultimate vision for the corridor through public and agency consensus ultimately providing an implementation plan for safety and mobility improvements.

P. Highway 14 Pedestrian Bridge Feasibility Study (2022)

North Mankato has identified the need for better north/south trail connections in Upper North Mankato in several planning documents. The Highway 14 Pedestrian Bridge Feasibility Study examined the feasibility of installing a grade-separated pedestrian/bicycle bridge over Highway 14 spanning from properties on the north side of Commerce Drive to the Caswell Park Sports Complex. A bridge addition at this location would enhance that connection, providing a safe alternative to using the interchanges at Lookout Drive and Lor Ray Drive to cross the highway. This planning initiative was recommended through the MAPO 2045 LRTP process.

Q. HIGHWAY 169 and Belgrade Avenue Study (2022)

MnDOT identified the pending 2025 rehabilitation of the Veteran's Memorial Bridge as an opportunity to further evaluate the ramp intersections of Highway 169 with Belgrade Avenue. The Belgrade Corridor Study and other City efforts identified intersection treatments for the southbound intersection in the past. MnDOT considered findings and recommendations from those efforts to define intersection improvements at the ramps that will best serve existing and future vehicle traffic.

Roadway Projects Completed Since the 2015 North Mankato Comprehensive Plan

Since the development of the 2015 Comprehensive Plan, there have been several roadway infrastructure projects completed. **Table 6-G** outlines these projects.

Table 6-G. Completed Projects: 2015-2022

Year	Project
2015	Lookout Dr Reconstruction
2016	Carlson Dr Extension
	Roe Crest Dr Reconstruction
2018	Jefferson Ave Reconstruction
	Marie Ln Reconstruction
2019	Tyler Ave Reconstruction
	Commerce Dr Reconstruction
2020	Howard Dr (Dakota Meadows Middle School) Safe Routes to School Pedestrian Improvements
	Monroe Ave Reconstruction
	Countryside Dr Reconstruction
2021	Harrison Ave Reconstruction
	Cliff Court Reconstruction
2022	McKinley Ave Reconstruction
	Lor Ray Drive Reconstruct (Rural to Urban) from White Oak Drive to Somerset Lane

Existing Traffic Conditions

Among the several planning efforts have been completed to inform this chapter, the MAPO 2045 LRTP provides much of the following analysis of the existing transportation system in the City of North Mankato. The City of North Mankato's participation in that effort was substantial. The City will continue to have both technical and policy board representation in iterations of the MAPO Long Range Transportation planning processes.

A. Traffic Operations

Traffic Volumes

Existing traffic volumes were collected through the MAPO 2045 LRTP and are depicted in **Figure 6-3**. As Principal Arterial roadways, Highway 14 and Highway 169 carry significant volumes of vehicle and freight traffic through the City of North Mankato. Other important roadways carrying significant vehicle traffic include Lee Boulevard (hill) from Lookout Drive to Lor Ray Drive (12,600), Commerce Drive from Tower Boulevard to Lor Ray Drive (11,500), and Lor Ray Drive from James Drive to Howard Drive (14,800). Lookout Drive is another roadway carrying significant traffic volumes providing access to the Northport Industrial Area and providing connections between Highway 14 and Highway 169.

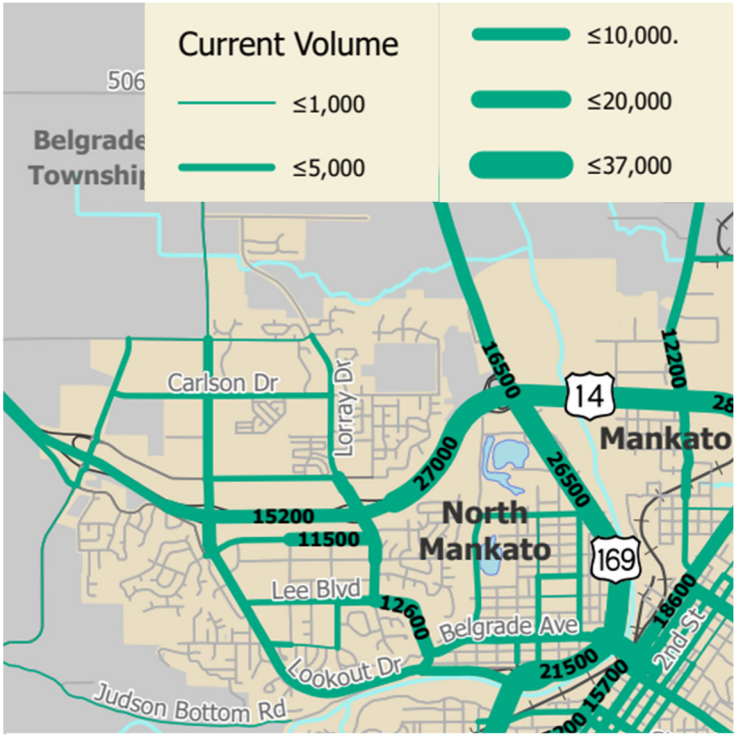


Figure 6-3. Most recent Average Annual Daily Traffic Volumes using MnDOT Data. Source: MAPO 2045 LRTP.

Capacity

The MAPO 2045 LRTP found no existing roadway capacity issues within North Mankato meaning there are no congested roadway segments.

B. Traffic Safety

Vehicle Crashes

Figure 6-4 shows crash severity throughout North Mankato using MnDOT data from 2014 through 2018. There were no fatal vehicle crashes during this period in the City. Serious injury crashes did occur on Range Street, Webster Avenue, and James Drive during this period. Various minor injury crashes and

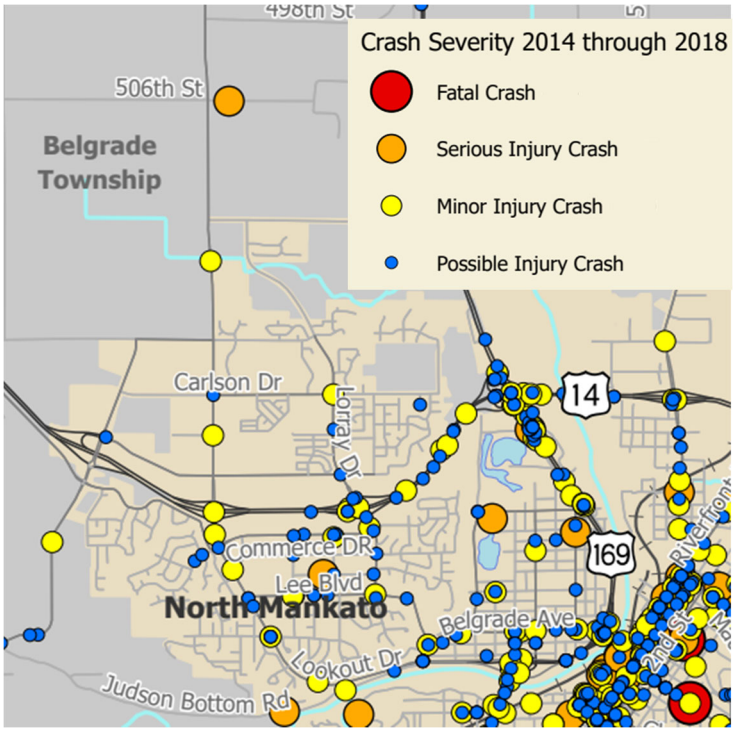


Figure 6-4. Vehicle Crash Severity. Source: MAPO 2045 LRTP

possible injury crashes did occur in several locations throughout the City. There were no locations of high crash occurrence reported in the MAPO 2045 LRTP. However, the following crash concerns were identified through other planning processes as follows:

- *Belgrade Avenue Corridor Study (2017)* – The intersection of Belgrade Avenue and Sherman Street showed serious injury crashes outside of the normal range for similar intersections in the state.
- *Webster Avenue Area Development Plan (2021)* – Webster Avenue/Range Street intersection showed crash frequency above the critical rate for similar type intersections in the state making this a candidate for further study.

Pedestrian & Bicycle Crashes

Figure 6-5 shows crash severity for the period from 2014 to 2018. During this period, there were no fatal pedestrian and bicycle crashes in the City. There was only one serious injury crash reported on Range Street near its approach to Webster Avenue. Some minor injury crashes did occur along Belgrade Avenue. While not identified as a major crash area of concern, Belgrade Ave does show elevated frequency of crashes when compared to other areas in the City (**Figure 6-6**). Minor injury crashes did occur at the junction of Lee Boulevard and Lor Ray Drive and also at the northbound ramp of the Lor Ray Drive/Highway 14 Interchange.

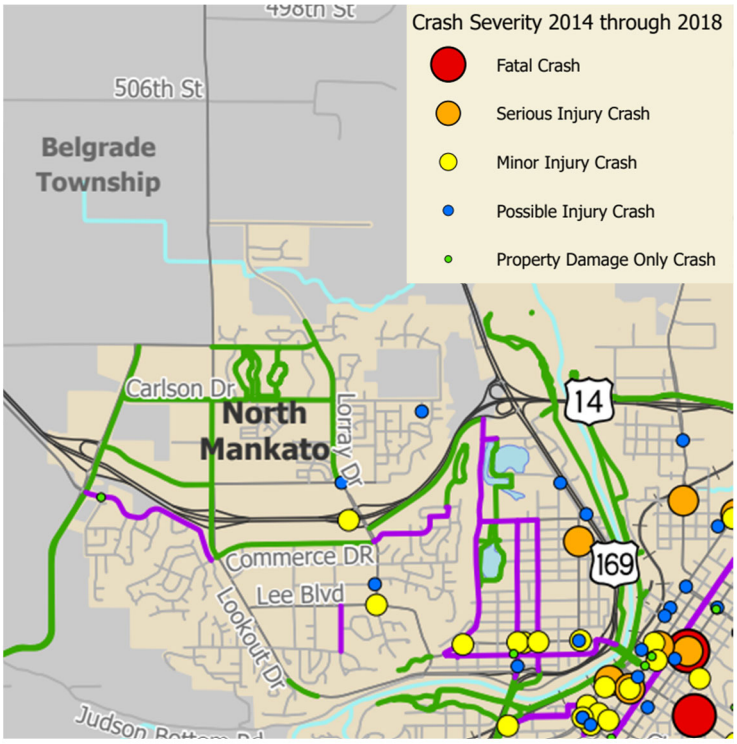


Figure 6-5. Pedestrian/Bicycle Crash Severity. Source: MAPO 2045 LRTP

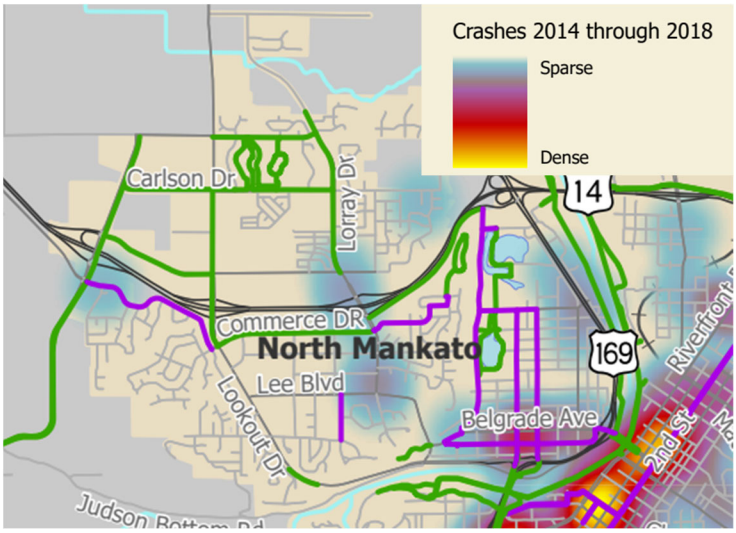


Figure 6-6. High Frequency Pedestrian/Bicycle Crash Locations. Source: MAPO 2045 LRTP.

C. Multi-modal

Pedestrian & Bicycle

The North Mankato Sidewalk Maintenance and Installation Policy along with the City's

Complete Streets Plan and Policy both identify various gaps in the City's sidewalk system that will need to be addressed with future infrastructure projects. The Complete Streets policy suggests that, whenever feasible, residential, commercial, and industrial development should accommodate varying modes of transportation.

Some plans take a more granular look at gaps and deficiencies in pedestrian and bicycle facilities in the City. The Belgrade Avenue Corridor Study identifies a gap in connectivity on Belgrade Avenue between its intersections with Lake Street and Nicollet Avenue. The Plan also identifies a lack of safe pedestrian crossings in the 200 Block of Belgrade Avenue where demand exists and pedestrians are crossing four lanes of traffic without safe facilities in place.

The Commerce Drive Area Development Plan identifies the need for a more defined, continuous, north/south pedestrian and bicycle connection in Upper North Mankato including the City's desire to incorporate a grade-separated bridge crossing of Highway 14 to complete this connection.

The Webster Avenue Area Plan identifies perceptions of area residents that on-street bicycle trail facilities along the roadway are unsafe as they conflict with heavy truck traffic. In that same vicinity, the Highway 169 Corridor Study identifies the need for safer pedestrian/bicycle crossings of Highway 169 for trail users accessing the area and trails east of the highway from along Webster Avenue.

Lookout Drive poses another set of issues for pedestrians and bicyclists. Participants in the public engagement process for the Lookout Drive Corridor Study repeatedly stated that pedestrian crossings are unsafe in this location and are generally lacking. Participants also would like to see a dedicated multi-use path along Lookout Drive from Lee Boulevard at the bottom of the hill, northwest to Claire Drive on the hill; a connection the City has examined numerous times in the past.

As with any City, sidewalk and trail infrastructure ages and winter weather cycles take their toll. To meet requirements of the Americans with Disabilities Act (ADA), the City completed the ADA Transition Plan & Inventory for Public Rights-of-Way. This plan identifies significant ADA deficiencies throughout the community and provides an implementation plan to bring existing facilities into ADA compliance within the next 30 years.

Transit

The City of North Mankato examined transit service in 2020 for improvements to the system. This included a review of the fixed route system, mobility service, and general service paratransit. In the past, the City has seen several changes to fixed service routes and continues to have one route available. Fixed transit Route 5 is depicted in **Figure 6-7**. The North Mankato Route 5 operates from 6:05 a.m. to 8:35 a.m. and 3:05 p.m. to 5:05 p.m. Monday through Friday. Kato Flex provides on-demand service in the Mankato Area Monday through Friday and requires a reservation. A paratransit mobility bus operates seven days a week and requires a reservation.

During this Comprehensive Plan Update, the City of Mankato was updating the Mankato Transit Development Plan to guide changes for a more efficient system. North Mankato was a partner in that process to identify existing and future system needs.

The City has been exploring ways to improve transit services in the community as existing frequency and routing of the North Mankato Route 5 are not aligned well with work shift times or customer interest in a travel time competitive option. Also, same-day/real-time reservations for curb-to-curb pick up are not currently available but could improve transit availability in the future. Better scheduling in paratransit and mobility services is also needed.



Figure 6-7. Mankato Area Bus Route 5. Source: City of Mankato (https://www.mankatomn.gov/home/showpublisheddocument/1704/637824346751530000).

D. Freight

The following roadways are significant freight corridors within the MAPO area due to their importance to the regional and state economies:

- TH 169 from Mankato/North Mankato to the Twin Cities
- HIGHWAY 14 from South Dakota to I-35 and Rochester
- MN 60 from Iowa to Mankato/North Mankato (for ethanol plants and shuttle elevators)

Specifically, TH 169 is the primary transportation corridor for funneling freight into the Twin Cities from the Mankato/North Mankato region and southern Minnesota. This area produces almost half of Minnesota's corn, soybeans and ethanol, making Minnesota third in the nation for production among all states. Other major commodities moving along this corridor include aggregates, clay and sand, hogs, manufactured goods and food products.

Highway 14 and Highway 169 are on the National Truck Network which includes highways designated for larger commercial trucks. Highway 14 carries the highest number of heavy commercial vehicles in the MAPO planning area with up to 2,600 trucks per day on some segments.

E. Roadway Jurisdiction

Table 6-H outlines existing system mileage for each jurisdiction within city limits.

Figure 6-8 depicts existing roadway jurisdiction in North Mankato.

Table 6-H. Roadway Jurisdiction

Jurisdiction	Mileage
State	9.5
County	3.5
Municipal	71.7
Private, Ramp, or Other	12.3

F. Pavement Condition

The MAPO 2045 LRTP identifies several roadways exhibiting poor pavement condition. While the City's Pavement Management Plan needs updating, the issues identified in the MAPO 2045 LRTP have been remedied in recent years following projects have occurred:

- Cliff Court: Reconstructed
- Cliff Drive (segment): Overlaid
- Marvin Boulevard: Overlaid
- Garfield Avenue: Overlaid

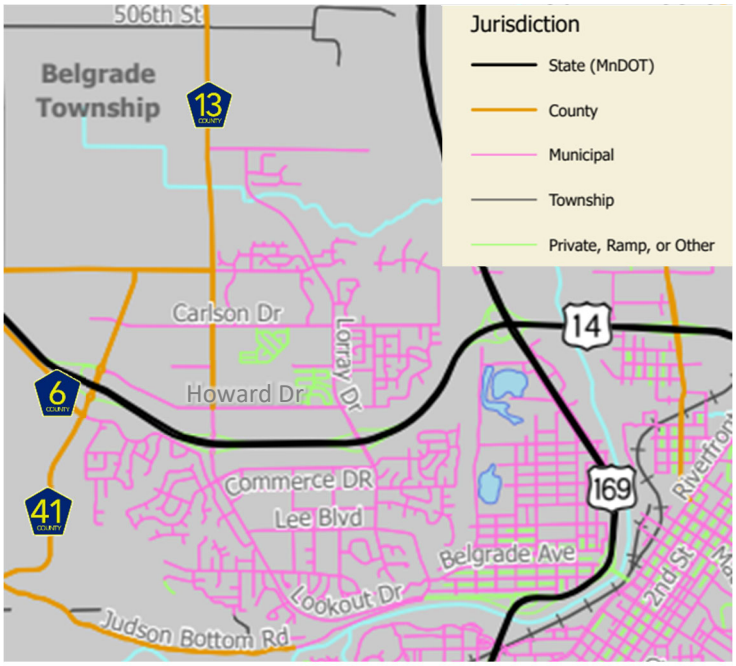


Figure 6-8. Roadway Jurisdiction. Source: MAPO 2045 LRTP

G. Lane Configuration

Through several past planning efforts, the City has examined the current number of lanes of certain roadways to gauge if configurations are necessary to carry existing and forecasted traffic volumes. A roadway with several lanes of traffic may pose issues to safe and efficient pedestrian and bicycle movement along a corridor or create an environment that encourages higher traffic speeds in roadway segments where safety for all users is jeopardized.

The Belgrade Avenue Corridor Study identifies three-lane options for the current four-lane configuration that would provide two thru-traffic lanes with a center turn-lane with the aim to slow traffic, provide wider sidewalks, and accommodate pedestrians with a mid-block crossing. These options have been examined several times by the City to identify what will work best but nothing has been decided on.

In 2022, MnDOT performed the HIGHWAY 169 and Belgrade Avenue Study to begin planning for the 2025 rehabilitation of Bridge No. 52009 and the Veteran's Memorial Bridge spanning over Highway 169 and the Minnesota River into Mankato. This Study examined options to improve the functionality of the Highway 169 ramp intersection with Belgrade Avenue to solve any deficiencies at that location. Options for the intersection considered three- and four-lane configurations of Belgrade Avenue to keep options open in the event the City pursues lane reduction.

The Lookout Drive Corridor Study (2022) considered alternatives to the five-lane roadway extending from Marie Lane to Highway 14. Pedestrian crossings along this section are perceived as unsafe which prevents pedestrians and bicyclists from choosing to cross the roadway. Also, the current five-lane configuration is unnecessary to accommodate existing and future forecasted traffic volumes. Options included in the plan consider various lane-reduction scenarios.

Existing transportation conditions and observed concerns throughout the system are summarized in **Table 6-I** below.

Table 6-I: Summary of Existing Transportation System Conditions & Issues Identification

Topic	Plan Referenced	Existing Conditions/Issues Identification
Traffic Operations	MAPO 2045 LRTP*	• No issues with roadway congestion currently exist in North Mankato.
	Webster Ave. Area Devel. Plan	• Traffic back-ups identified extending from the Webster Ave/Highway 169 intersection past the Webster Ave/Range St intersection and on Range St approaching Webster Ave. • Property Access between Webster Ave and Highway 169 can be problematic.
	Belgrade Ave. Corridor Study	• Identified delay on Belgrade Ave for westbound traffic entering Lee Blvd. • Identified backups at Belgrade Ave/Range Street intersection during PM peak hour. • High traffic speeds concerning on 200 Block of Belgrade Ave.
*Safety - Vehicle Crashes***	MAPO 2045 LRTP*	• No fatal crashes identified in North Mankato. • Serious injury crashes occurred on Range St, Webster Ave (western), and James Dr. • Various minor injury crashes and possible injury crashes occurred throughout the City. • No locations of high crash occurrence were reported.
	Webster Ave. Area Devel. Plan	• Crash concerns identified at the Webster Ave/Range St intersection.
	Belgrade Ave. Corridor Study	• Identified serious injury crashes outside normal range at the Belgrade Ave/Sherman St.
*Safety - Pedestrian/Bicycle Crashes***	MAPO 2045 LRTP*	• No fatal crashes identified in North Mankato. • One serious injury crash reported on Range St approaching Webster Ave. • Minor injury crashes occurred along Belgrade Ave. • Minor injury crashes occurred at the junction of Lee Blvd and Lor Ray Dr and also at a Highway 14 ramp interchange with Lor Ray Dr.
Multi-Modal	Sidewalk Maintenance and Installation Policy	• Various locations throughout the City lack sidewalk continuity; Many have been completed since the adoption of this policy but some remain.
	North Mankato Complete Streets Plan and Policy	• Residential, commercial, and industrial developments need to accommodate varying modes of transportation.
	North Mankato ADA Transition Plan	• Identifies extensive ADA deficiencies throughout the sidewalk and trail system in the City. An implementation plan is provided to bring existing facilities into compliance over a 30-year period working within funding constraints.
	Belgrade Ave. Corridor Study	• Identified gap in the bicycle network connecting Lake St to Nicollet Ave. • Identified pedestrian bicycle crashes. • Lack of marked pedestrian crossings on 200 Block of Belgrade Ave where demand exists.
	Commerce Dr Area Devel. Plan	• Identifies need for a continuous north/south pedestrian/bicycle connection in Upper North Mankato.
	Webster Ave. Area Devel. Plan	• Perceptions of unsafe on-street bicycle facilities with the presence of heavy truck traffic.

Table 6-I Continued

Topic	Plan Referenced	Existing Conditions/Issues Identification Summary
	Highway 169 Corridor Study	• Identified need for safer pedestrian/bicycle crossings over Highway 169.
	Lookout Dr. Corridor Study	• Pedestrian crossings perceived as unsafe and generally lacking. • Lack of pedestrian facilities on Lookout Dr between Lee Blvd (south intersection) and Claire Ct.
Transit	2020 North Mankato Area Transit Study	• Existing frequency and routing of the fixed transit route are not aligned with work shift times or customer interest in a travel time competitive option. • Same-day and real-time reservations for curb-to-curb pick up are not currently available but would improve transit availability in the future. • Better scheduling in paratransit and mobility services is needed.
Freight	MAPO 2045 LRTP	• Highway 14 and Highway 169 are on the National Truck Network. • Highway 14 carries the highest number of heavy commercial vehicles in the MAPO planning area.
	Lookout Drive Corridor Study	• There is a desire among residents to reroute truck traffic from Lookout to Highway 14 and Highway 169 for safety and reduction in noise complaints from J-breaking. Lookout Drive provides a connection between Highway 14 and Highway 169 used often by heavy commercial vehicles.
Jurisdictional Transfer	Nicollet County Comprehensive Plan	• Identifies the transfer of the following roadways from Nicollet County to the City of North Mankato: ◦CSAH 6 from CSAH 13 to CSAH 41 ◦CSAH 13 from Howard Drive to CSAH 6 ◦CSAH 13 from CSAH 6 to CSAH 41
Pavement Condition	MAPO 2045 LRTP*	• North Mankato Pavement Management Plan needs to be updated to identify current pavement issues.
Lane Configuration	MnDOT US 169 and Belgrade Ave. Study	• Bridge No. 52009 (Veteran's Memorial Bridge) in disrepair and planned for rehabilitation project in 2025 spurring redesign of the intersection at Belgrade Ave and Highway 169 Ramp. Options explored for 3- and 4-lane configurations of Belgrade Ave.
	Belgrade Ave. Corridor Study	• Current 4-lane configuration of Belgrade Ave in 200 Block poses issues for pedestrian crossings and invites speeding traffic.
	Lookout Dr. Corridor Study	• Current 4-lane configuration unnecessary to accommodate current and future traffic volumes.
New Technologies	2022 Future Transportation Preparedness Study (2022)	• The City will need to consider private sector infrastructure when considering funding the installation of future public infrastructure. • The City will need to understand implications for vehicle storage and usage of electric bicycles and electric scooters on the transportation system. • The City will need to understand changes to roadway infrastructure needed to accommodate semi- and fully-autonomous vehicle technologies in the future.

**The MAPO 2045 LRTP examined all arterial and collector roadways and a small subset of local roadways*

***The MAPO 2045 LRTP examined crash data from the Minnesota Crash Mapping Analysis Tool (MnCMAT) for the period from 2014 to 2018.*

FUTURE TRANSPORTATION SYSTEM

The 2015 North Mankato Comprehensive Plan did not include analysis of the City's future transportation needs. As discussed, several planning efforts have analyzed the transportation system and provide the necessary analysis of future system needs. The primary source of system-wide information is the MAPO 2045 LRTP which leads the following discussion. Other planning efforts are corridor specific and are integrated into the discussion as necessary.

Roadway Projects Planned for North Mankato for the 2023-2026 Timeframe

The City has several projects planned for completion within the 2023-2026 timeframe referenced from the Capital Improvements Plan (CIP). Those projects are listed in **Table 6-J**.

Table 6-J. Planned Projects: 2023-2026

Year	Project
2023	Howard Dr/Lor Ray Drive Intersection Improvements
	Somerset Drive Reconstruct (Rural to Urban) from Lookout Drive to Lexington Lane
2024	Somerset Drive Reconstruct (Rural to Urban) from Lookout Drive to Lexington Lane
2025	Garfield Ave Infrastructure
	Cross St Infrastructure
2026	Sherman Street Infrastructure
	Page Ave Infrastructure
	Wheeler Ave Infrastructure

Future Traffic Operations

A. Forecasted Traffic Volumes

The MAPO 2045 LRTP used the volume data from 2014-2018 to forecast future traffic volumes throughout the MAPO planning area. Updated growth rates were calculated and assessed to identify short-term and long-term trends. More information on how traffic volume forecasts were generated can be found in the MAPO 2045 LRTP at https://mnmapo.org/lrtp/.

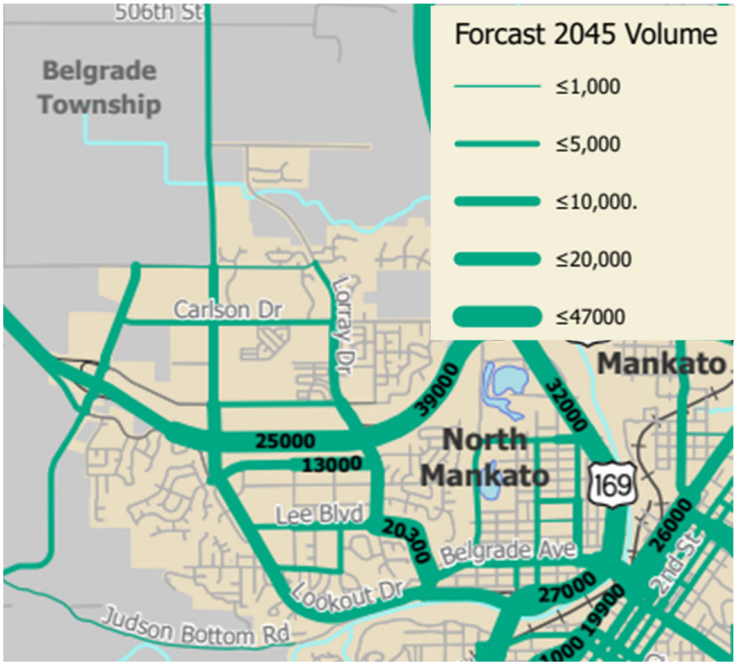


Figure 6-10. Forecast Traffic Volumes. Source: MAPO 2045 LRTP

Traffic volume forecasts developed through the MAPO 2045 LRTP are depicted in **Figure 6-10**. Traffic volumes are forecasted to increase significantly on Highway 14, increasing from 15,200 just north of Commerce Drive and 27,000 east of Lor Ray Drive to 25,000 and 39,000 respectively by 2045. Volumes passing through the Commerce Drive business district are anticipated to grow from 11,500 today to

13,000 in that same timeframe. Lee Boulevard from Lookout Drive to Lor Ray Drive is anticipated to nearly double, from 12,600 currently to 20,300. Highway 169 is anticipated to carry 32,000 in 2045, an increase of 5,500 vehicles per day.

The Lookout Drive Corridor Study forecasts increased volumes throughout the corridor. Just north of Highway 14, traffic is anticipated to increase from 8,800 in 2021 to 14,000 in 2045. Similarly, segments of the corridor south of Highway 14 are anticipated to increase from roughly 8,500 to 13,600+. Directly south of Highway 14, near the ramps, volumes are anticipated to increase from 11,300 to 13,900 by 2045.

Of course, the nature and intensity of industrial, commercial, and residential development surrounding Lookout Drive will ultimately determine traffic growth. The Northport Industrial Park continues to grow North of Highway 14 and there is some opportunity south of the highway for additional residential/commercial/industrial growth as well.

B. Forecasted Capacity: Congested Roadway Segments

Figure 6-11 identifies future roadway congestion. Roadways nearing congestion, operating at LOS D by 2045 include:

- Lor Ray Drive from Lee Boulevard to Highway 14
- Commerce Drive from Tower Boulevard to Lor Ray Drive
- Lookout Drive from Marie Lane to Lee Boulevard (southeast intersection)
- Belgrade Avenue from Lee Boulevard to Range Street.
- Highway 169 from Webster Avenue north to Highway 14 is anticipated to operate at LOS E by 2045.

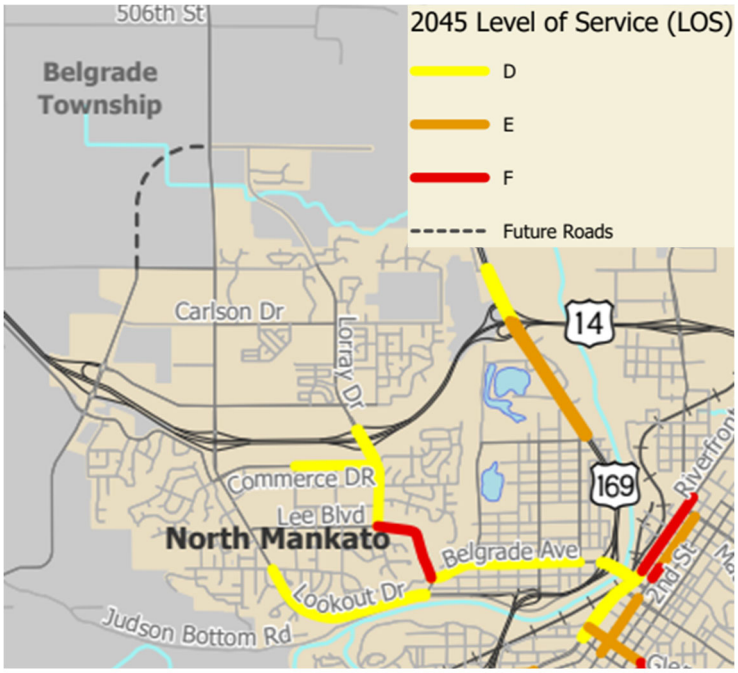


Figure 6-11. Future Roadway Congestion. Source: MAPO 2045 LRTP

Perhaps the most significant forecasted congestion is Lee Boulevard from Belgrade Avenue to Lor Ray Drive, which is forecasted to exceed capacity by 2045, operating at LOS F. This signals that roadway capacity improvements may be needed.

C. Future Roadway Functional Classification

The MAPO 2045 LRTP calls for the following roadway segments to transition functional classification from local roadway to Minor Collector roadway by 2045:

- Carlson Drive (east of CSAH 13 to CSAH 41)
- Timm Road (west of CSAH 13 to Lor Ray Drive)
- Lor Ray Drive (north of Timm Road to 512th Street)
- 512th Street (east of Lor Ray Drive to CSAH 13)
- A potential future extension of CSAH 41 (Rockford Road) would be a Minor Collector if constructed.

- Portions of both Highway 169 and Highway 14 are anticipated to transition from Principal Arterial – Other Freeways and Expressways to Principal Arterials – Other.

These changes are reflected in **Figure 6-12**.

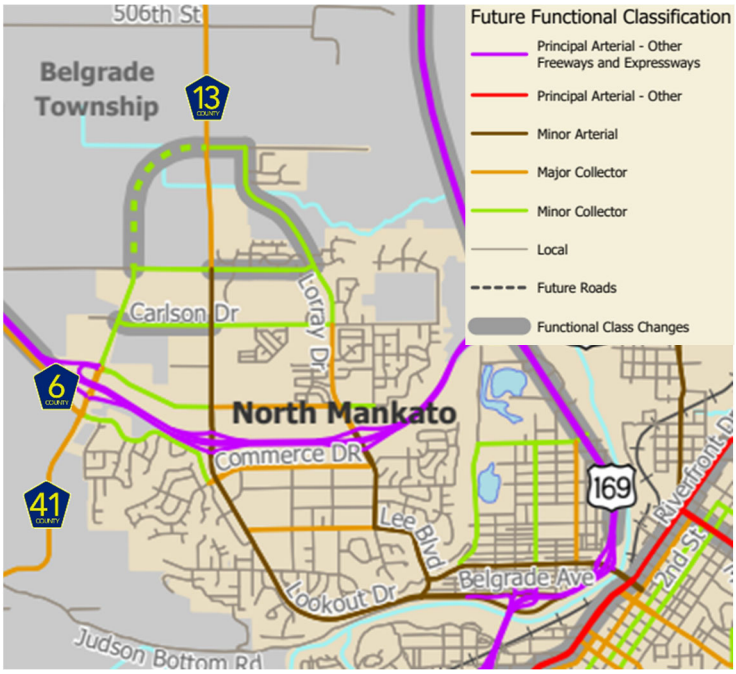


Figure 6-12. Future Functional Classification. Source: MAPO 2045 LRTP

D. Jurisdictional Transfers

Several Nicollet County roadways are located at the periphery of North Mankato and have potential for transfer of ownership from county to city jurisdiction in the future as the City continues to develop. The Nicollet County Comprehensive Plan (2020) identifies recommended jurisdictional transfers to the City as opportunities arise. This includes:

- CSAH 6 from CSAH 13 to CSAH 41
- CSAH 13 from Howard Drive to CSAH 6
- CSAH 13 from CSAH 6 to CSAH 41 (potential future connection)

The MAPO 2045 LRTP identifies these roadways but also includes Judson Bottom Road from North Mankato City Limits to CSAH 41. Future Roadway Jurisdiction can be seen in **Figure 6-13**.

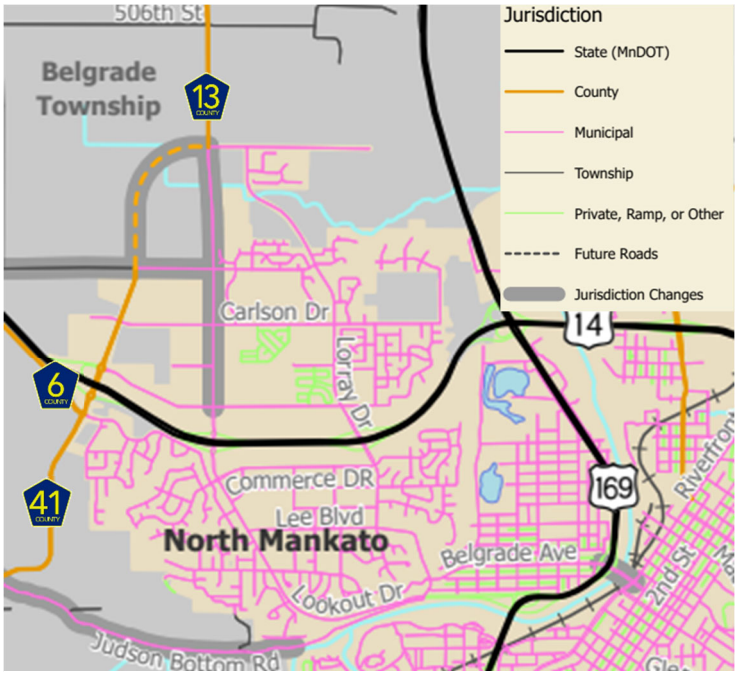


Figure 6-13. Future Roadway Jurisdiction. Source: MAPO 2045 LRTP

E. Future Pedestrian and Bicycle System

Pedestrian and bicycle system improvements are at the forefront of every plan completed by or for the City of North Mankato. The City consistently looks for state and federal funding opportunities to fund safe routes to school initiatives and additional sidewalk and trail along new roadway construction. Per the City's Complete Streets Plan and Policy, bicycle and pedestrian design will be considered in all

street construction, reconstruction, rehabilitation, and pavement maintenance conducted by or on behalf of the City, as appropriate, subject to some exceptions. Also, the City shall plan, design, build and maintain all bicycle and pedestrian facilities in accordance with acceptable federal, state and local standards and guidelines, but will consider innovative and/or non-traditional design options as appropriate. This suggests that any new development will need to incorporate sidewalk and trail on new streets where feasible.

The North Mankato American with Disabilities Act (ADA) Transition Plan and Inventory developed in 2019 identifies improvements to curb ramp and sidewalk locations that are not compliant. Existing facilities are brought into compliance as they are reconstructed during street improvement projects. The City should continue to explore grant funding opportunities to increase implementation of compliant facilities.

Discussed in the *Chapter 8 – Parks and Trails*, the City has enhanced its trail system with wayfinding signage which ties North Mankato trails into the larger Greater Mankato Trail Systems. This system improvement should aid in increased bicycle usage in the community and signal to cyclists that the area is a destination for cycling. It may also strengthen the City's position to obtain state and federal grant funding assistance to make improvements to areas of the system in need.

Consistent with other North Mankato planning documents, the 2045 LRTP identifies a grade-separated north-south trail crossing of Highway 14 at Caswell Park as a key improvement in the Future Pedestrian and Bicycle System Plan. MAPO and the City of North Mankato completed the *Highway 14 Pedestrian Bridge Feasibility Study (2022)* to understand any barriers to bridge construction. A bridge over Highway 14 in this location will add a safer connection for recreation and safe routes to school for all users in the community. The City is planning to pursue grant funding opportunities in the coming years to assist with costs of bridge implementation.

F. New Technologies – Electric and Autonomous Vehicles

Electric and Autonomous Vehicles

A group of students from Minnesota State University, Mankato assisted the City with development of the Future Transportation Preparedness Study. This study not only considered E-bikes and E-scooters, but also electric and autonomous vehicles.

In terms of electric vehicles, the City is preparing for new locations for charging infrastructure and there is uncertainty regarding how the private sector will provide chargers in the future for business vehicle fleets or patrons during business hours. The City has received funding assistance from electric utility companies and private donors to construct E-vehicle chargers at three locations in the City including Caswell North Soccer Complex (top right image), Caswell Park Sports Complex (middle right image), and the MGM Strip Mall on Commerce Drive (bottom right image). The City will need to consider private sector infrastructure investment when considering funding the installation of new public charging infrastructure in the future.



Figure 6-14. Caswell North Soccer Complex Electric Vehicle Charger.

The City will also need to understand changes to roadway infrastructure needed to accommodate

semi- and fully autonomous vehicle technologies in the future.



Figure 6-15. Caswell Park Sports Complex Electric Vehicle Charger.



Figure 6-16. MGM parking lot Electric Vehicle Charger on Commerce Drive.

E-bikes and E-Scooters

E-bikes and E-Scooters are quickly integrating into daily life as an option for short trips in fair weather. An E-Scooter program has operated on the Minnesota State University, Mankato campus for the last couple of years and it is only a matter of time before they make their way down into Mankato and across the river to North Mankato. This may be in the form of share programs where E-bikes and E-scooters are available from various docking stations around the area or are left at random locations where users leave them until another user chooses to ride. E-bike and E-scooter usage will require action on the part of the City to understand implications for vehicle storage and usage of E-bikes and E-scooters on the transportation system.

Future Rehabilitation, Capacity Expansion, and Intersection Safety and Expansion Projects

Several transportation-focused projects resulted from the MAPO 2045 LRTP process that were identified through various local plans. The following tables provide a summary of all projects along with project description, cost, and timeframe. The City should revisit this list when considering which projects to incorporate into the CIP.

Table 6-H. MAPO 2045 LRTP - Major Rehabilitation and Reconstruction Projects

ID	Facility	Location/Termini	Project Description	Plan	Agency	Lead Agency	Distance (Miles)	Y.O.E. Estimated Cost (Based on Timeframe)	2020 LRTP Fiscally Constrained Priority Timeframe	Lead Agency Cost (Y.O.E.)	Partner Agency 1 Cost (Y.O.E.)
R10	Pleasant View Drive	Peregrine Lane (E. int.) to North Ridge Drive	Two-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.25	$ 688,000	Short	$ 688,000	N/A
R14	Somerset Lane (512th Street)	Lookout Drive to Lor Ray Drive	Two-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.24	$ 1,101,000	Short	$ 1,101,000	N/A
R18	Webster Avenue	Lake Street to US 169	Two-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.64	$ 2,147,000	Mid 1	$ 2,147,000	N/A
R21	Lee Boulevard (lower)	Lookout Drive to Belgrade Avenue	Three-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.10	$ 679,000	Mid 2	$ 679,000	N/A
R46	Belgrade Avenue	Lee Boulevard to Range Street	Two-Lane Urban Reconstruct and Multimodal Improvements (improvements per the Belgrade Avenue Corridor Study)	Belgrade Avenue Corridor Study	North Mankato	North Mankato	0.93	$ 3,396,000	Mid 2	$ 3,396,000	N/A
R47	Belgrade Avenue	Range Street to Nicollet Avenue	Three-Lane Urban Reconstruct and Multimodal Improvements (improvements per the Belgrade Avenue Corridor Study)	Belgrade Avenue Corridor Study	North Mankato	North Mankato	0.10	$ 1,342,000	Mid 1	$ 1,342,000	N/A
R60	Howard Drive	Lookout Drive to Lor Ray Drive	Two-Lane Urban Reconstruct	MAPO 2045 LRTP	North Mankato	North Mankato	0.79	$ 4,163,000	Long	$ 4,163,000	N/A
R62	Lake Street	Belgrade Avenue to Webster Avenue	Two-Lane Urban Reconstruct	MAPO 2045 LRTP	North Mankato	North Mankato	0.80	$ 3,506,000	Long	$ 3,506,000	N/A
R63	Lee Boulevard (upper)	Lookout Drive to Lor Ray Drive	Two-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.79	$ 4,163,000	Long	$ 4,163,000	N/A
R64	Lor Ray Drive	Howard Drive to Carlson Drive	Three-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.52	$ 2,629,000	Long	$ 2,629,000	N/A
R69	Pleasant View Drive	CSAH 41to Peregrine Lane (W. int.)	Two-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.71	$ 2,887,000	Mid 2	$ 2,887,000	N/A
R78	Carlson Drive	Lookout Drive to Lor Ray Drive	Three-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.75	N/A	Illustrative	N/A	N/A
R79	Center Street	US 169 to Webster Avenue	Two-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.95	N/A	Illustrative	N/A	N/A
R83	Howard Drive	CSAH 41to Lookout Drive	Two-Lane Urban Reconstruct	MAPO 2045 LRTP	North Mankato	North Mankato	0.74	N/A	Illustrative	N/A	N/A
R84	Lor Ray Drive	Carlson Drive to Timm Road	Three-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.39	$ 975,000	Long	$ 975,000	N/A
R85	Lor Ray Drive	Lee Boulevard to Commerce Drive	Three-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.39	N/A	Illustrative	N/A	N/A
R87	Lor Ray Drive	Commerce Drive to Howard Drive	Four-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.45	N/A	Illustrative	N/A	N/A
R88	Range Street	Belgrade Avenue to Webster Avenue	Two-Lane Urban Reconstruct and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.57	N/A	Illustrative	N/A	N/A
R92	CSAH 13 (Lookout Drive)	506th Ave to Howard Drive	Two- and Three- Major Rehabilitation (pavement or concrete overlay), Safety, and Multimodal Improvements	MAPO 2045 LRTP Update	Nicollet Co, North Mankato	Nicollet Co	2.40	$ 3,681,000	Long	$ 2,761,000	$ 920,000
R93	Lookout Drive	Commerce Drive to Marie Lane	Three- and Five- Lane Urban Major Rehabilitation (pavement or concrete overlay), Safety, and Multimodal Improvements	MAPO 2045 LRTP Update	North Mankato	North Mankato	0.60	$ 4,820,000	Long	$ 4,820,000	N/A
R95	Lookout Drive	Marie Lane to Lee Boulevard (lower)	Three- and Five- Lane Urban Major Rehabilitation (pavement or concrete overlay), Safety, and Multimodal Improvements	MAPO 2045 LRTP Update	North Mankato	North Mankato	1.20	N/A	Illustrative	N/A	N/A

Table 6-I. MAPO 2045 LRTP - Corridor Capacity Expansion Projects

ID	Facility	Location/Termini	Project Description	Plan	Agency	Lead Agency	Distance (Miles)	Y.O.E. Estimated Cost (Based on Timeframe)	2020 LRTP Fiscally Constrained Priority Timeframe	Lead Agency Cost (Y.O.E.)	Partner Agency 1 Cost (Y.O.E.)
E2	Lor Ray Drive	Timm Road to Somerset Lane	Construct Three-Lane Urban Roadway and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.80	$ 3,212,000	Short	$ 3,212,000	N/A
E7	Lee Boulevard (lower)	Lor Ray Drive to Belgrade Avenue	Construct Four-Lane Urban Roadway and Multimodal Improvements	MAPO 2045 LRTP	North Mankato	North Mankato	0.55	N/A	Illustrative	N/A	N/A

Table 6-J. MAPO 2045 LRTP - Intersection Capacity Expansion Projects

ID	Facility	Location/Termini	Project Description	Plan	Agency	Lead Agency	Distance (Miles)	Y.O.E. Estimated Cost (Based on Timeframe)	2020 LRTP Fiscally Constrained Priority Timeframe	Lead Agency Cost (Y.O.E.)	Partner Agency 1 Cost (Y.O.E.)
I3	Lor Ray Drive	Howard Drive	Single-lane Roundabout (ICE Completed)	ICE Report 2018	North Mankato	North Mankato	N/A	$ 1,950,000	Short	$ 1,950,000	N/A
I7	Lee Boulevard	Belgrade Avenue	Single-lane Roundabout (ICE Completed)	Belgrade Corridor Study	North Mankato	North Mankato	N/A	$ 2,547,000	Mid 2	$ 2,547,000	N/A
I20	Lookout Drive (CSAH 13)	Carlson Drive	Traffic Control Improvement (ICE Needed)	MAPO 2045 LRTP Update	Nicollet Co, North Mankato	Nicollet Co	N/A	N/A	Illustrative	N/A	N/A
I21	Lookout Drive (CSAH 13)	Timm Road	Traffic Control Improvement (ICE Needed)	MAPO 2045 LRTP Update	Nicollet Co, North Mankato	Nicollet Co	N/A	N/A	Illustrative	N/A	N/A

Table 6-K. MAPO 2045 LRTP - Safety Projects

ID	Facility	Location/Termini	Project Description	Plan	Agency	Lead Agency	Distance (Miles)	Y.O.E. Estimated Cost (Based on Timeframe)	2020 LRTP Fiscally Constrained Priority Timeframe	Lead Agency Cost (Y.O.E.)	Partner Agency 1 Cost (Y.O.E.)
S1	Lor Ray Drive	Carlson Drive	Construct Mini-Roundabout (ICE Completed)	ICE Report 2017	North Mankato	North Mankato	N/A	$ 2,013,000	Mid 1	$ 2,013,000	N/A
S4	Lor Ray Drive	Carlson Drive	Remove sight distance obstructions near intersection	MAPO 2045 LRTP	North Mankato	North Mankato	N/A	$ 7,000	Short	$ 7,000	N/A

Table 6-L. MAPO 2045 LRTP - Pedestrian & Bicycle Projects

ID	Facility	Location/Termini	Project Description	Plan	Agency	Lead Agency	Distance (Miles)	Y.O.E. Estimated Cost (Based on Timeframe)	2020 LRTP Fiscally Constrained Priority Timeframe	Lead Agency Cost (Y.O.E.)	Partner Agency 1 Cost (Y.O.E.)
P1	CSAH 6 (520th Street)	CSAH 41to 409th Avenue	New Trail	MAPO 2045 LRTP Update	North Mankato, Nicollet Co	North Mankato	1.00	$ 6,000	Short	$ 6,000	N/A
P2	Judson Bottom Road	Lookout Drive to CSAH 41	New On-Street Route	N. Mankato Proposed Bike Trails/Routes Plan	North Mankato	North Mankato	2.80	$ 401,000	Short	$ 401,000	N/A
P9	Lookout Drive	Marie Lane to Commerce Drive	SRTS Infrastructure Improvements (New Trail and Improved Crossings)	MAPO 2045 LRTP	North Mankato	North Mankato	0.65	$ 537,000	Mid 1	$ 537,000	N/A
P12	Lor Ray Drive	Lee Boulevard to Howard Drive	New Trail	MAPO 2045 LRTP	North Mankato	North Mankato	0.43	$ 287,000	Short	$ 287,000	N/A
P14	Marie Lane	Lookout Drive to Roe Crest Drive	SRTS Infrastructure Improvements (New Trail and Improved Crossings)	N. Mankato Proposed Bike Trails/Routes Plan	North Mankato	North Mankato	-	$ 2,000	Short	$ 2,000	N/A
P15	Range Street	Nicollet Avenue to Webster Avenue	New On-Street Route	N. Mankato Proposed Bike Trails/Routes Plan	North Mankato	North Mankato	0.82	$ 2,000	Short	$ 2,000	N/A
P16	Tower Boulevard	Commerce Drive to Marie Lane	New On-Street Route	N. Mankato Proposed Bike Trails/Routes Plan	North Mankato	North Mankato	0.64	$ 1,000	Mid 1	$ 1,000	N/A
P17	Webster Ave/N. River Dr/Pauley Way	Center Street to the Rex Macbeth River Trail	New On-Street Route	N. Mankato Proposed Bike Trails/Routes Plan	North Mankato	North Mankato	0.40	$ 537,000	Mid 1	$ 537,000	N/A
P18	Future Carlson Drive	CSAH 41to Timm Road (CSAH 6)	New Trail	N. Mankato Proposed Bike Trails/Routes Plan	North Mankato	North Mankato	0.60	$ 604,000	Mid 1	$ 604,000	N/A
P30	Lookout Drive (CSAH 13)	Carlson Drive to 512th Street	New Trail	North Mankato Trail Plan	North Mankato, Nicollet Co	North Mankato	1.10	$ 2,684,000	Mid 1	$ 2,684,000	N/A
P31	US 14	Howard Drive to Caswell Park	Grade-separated pedestrian and bicycle crossing	MAPO 2045 LRTP Update	North Mankato, MnDOT	North Mankato	-	$ 701,000	Long	$ 701,000	N/A
P32	Timm Road (CSAH 6)	CSAH 41to 405th Avenue	New Trail	North Mankato Trail Plan	North Mankato, Nicollet Co	North Mankato	0.80	N/A	Illustrative	N/A	N/A
P59	Lee Boulevard	Lookout Drive to Lor Ray Drive (hill segment)	New Trail	MAPO 2045 LRTP	North Mankato	North Mankato	0.63	N/A	Illustrative	N/A	N/A
P60	Lookout Drive	Lee Boulevard (lower) to Marie Lane	New Trail	MAPO 2045 LRTP	North Mankato	North Mankato	1.10	N/A	Illustrative	N/A	N/A
P62	W Lind Street	US 169 to existing trail 600' N. of Lind St	New Trail	N. Mankato Proposed Bike Trails/Routes Plan	North Mankato	North Mankato	0.30	N/A	N/A	N/A	N/A

TRANSPORTATION SYSTEM GOALS, OBJECTIVES, AND POLICIES

The following section outlines the primary goals for the transportation system followed by a series of objectives and policies intended to influence future development efforts that align with the community visions in this plan.

GOAL 1: **Participate in the preparation of future updates to the Mankato/North Mankato Area Planning Organization (MAPO) Long-Range Transportation Plan (LRTP).**

Objective 1.1: Continue to provide representation on behalf of the City of North Mankato throughout the LRTP preparation process.

Policy 1.1.1: The Community Development Director and City Engineer, as MAPO Technical Advisory Committee (TAC) members, will represent the interests of the City of North Mankato throughout the LRTP preparation process.

Policy 1.1.2.: The City Councilperson designated as the MAPO Policy Board member, will represent the interests of the City of North Mankato throughout the LRTP preparation process.

Objective 1.2: Provide information, input and feedback relative to the City of North Mankato's transportation system throughout the LRTP preparation process.

Policy 1.2.1: The MAPO TAC members and Policy Board Representative will promptly provide the technical information requested throughout the preparation of the LRTP, utilizing other City staff members and other resources as required.

Policy 1.2.2: The City's TAC representatives and Policy Board representative will periodically update the City Council on the progress of the LRTP preparation.

Policy 1.2.3: The City's TAC representatives and Policy Board representative will seek input from the City Council on decisions impacting the City of North Mankato's transportation system and communicate such input as appropriate during the LRTP preparation process.

Policy 1.2.4: Continue to support options for the TH 169/TH 14 interchange and adjacent TH 169 corridor to the south that will maintain full access conditions at the TH 169/ Webster Avenue intersection.

GOAL 2: Implement and enforce standards for new streets and roadways within identified growth areas.

Objective 2.1: Assign appropriate functional classification to existing and new streets and roadways.

Policy 2.1.1: Community Development Director and City Engineer will provide the MAPO TAC and Policy Board with recommendations regarding functional classification of new streets and roadways.

Policy 2.1.2: Community Development Director and City Engineer will monitor traffic and other transportation characteristics of existing streets and roadways and make

recommendations regarding changes to the functional classification of the existing streets and roadways.

Objective 2.2: Implement and enforce standards for existing and new streets and roadways.

Policy 2.2.1: Incorporate standards related to access management standards and geometric design standards as outlined herein and as developed in the LRTP into the City's zoning ordinances related to new streets and roadways.

Policy 2.2.2: Monitor opportunities to incorporate standards related to access management standards and geometric design standards as outlined herein and as developed in the LRTP into the reconstruction of existing streets and roadways and implement to the extent practical.

GOAL 3: Accommodate new technologies in North Mankato's transportation system.

Objective 3.1: Implement and enforce standards for new transportation technologies as they integrate into the transportation system.

Policy 3.1.1: Incorporate appropriate regulations into the City of North Mankato Code of Ordinances to ensure new technologies such as electric and autonomous vehicles are operating safely and efficiently within the transportation system.

Policy 3.1.2: Encourage private sector installation of electric vehicle charging infrastructure to serve vehicle fleets and patrons visiting businesses.

GOAL 4: Establish Highway 169 Corridor as a major gateway into the Greater Mankato Area.

Objective 4.1: Ensure the reconstruction of Highway 169 from north of Highway 14, south to the Veteran's Memorial Bridge includes elements that make an attractive gateway into the Greater Mankato Area.

Policy 4.1.1: Work with the City of Mankato and MnDOT to incorporate beautification elements such as lighting, structures, signage, and other elements into roadway design.

Chapter 7: Public Utilities

INTRODUCTION

The City of North Mankato has a significant investment in its existing public utilities systems (water, wastewater, and stormwater). The continued expansion and development within the growth areas identified in this Comprehensive Plan will require the extension of public utilities into those areas. In general, the existing infrastructure system is well-positioned and of adequate size to support the required expansion into the growth areas. However, coordination will be required between community development and the required expansion of the utility system. In some cases, the cost of providing utility service may dictate where and when future growth will occur.

The following sections provide a general description of the existing water system, wastewater system and storm drainage system within the City of North Mankato. This Chapter is not intended to be a detailed infrastructure master plan, but rather a source of information that will assist stakeholders (citizens, City staff, and potential developers) with the information about these systems and factors that may impact decision-making regarding development strategies.

PREVIOUS AND ONGOING PLANNING INITIATIVES

Water Supply Plan (2017)

Public water suppliers serving more than 1,000 people are required to prepare and submit a water supply plan. The goal of the WSP is to help water suppliers implement long-term water sustainability and conservation measures, develop critical emergency preparedness measures. A water crisis or emergency can be avoided or mitigated if the long-term sustainability measures of a WSP are implemented.

Wellhead Protection Plan (2017)

This plan identifies the land area around the wellhead infrastructure, the vulnerability of the land to contamination, impact of land and water use changes on the water supply wells, and a contingency strategy to address a water supply interruption.

WATER SYSTEM

Existing Systems

The City of North Mankato operates an extensive water treatment and supply system, serving residential, commercial, and industrial users in two pressure zones: the upper system and the lower system.

Under normal circumstances, the two systems operate independently, each with their own supply, treatment, storage, and distribution systems. However, there is a connection between the two systems to facilitate the transfer of water between systems in the event of an emergency.

Water supply in the lower system is provided by two groundwater wells, Well No. 5 and Well No. 6, both located near Water Treatment Plant No. 1 at the intersection of Belgrade Avenue and Nicollet Avenue. Both Wells and No.5 and No.6 as shown in **Table 7-A** below, are multi-aquifer wells. Minnesota Department of Health (MDH) requires any multi-aquifer well to be converted to a single aquifer well if and when the well undergoes a major rehabilitation (pump replacement is exempted). Converting wells 5 and 6 to single aquifer wells will significantly reduce the pumping capacity of these wells. Therefore,

the city needs to have a long-term plan with respect to future of Wells No. 5 and No. 6 and the Water Treatment Plant No.1. This is briefly discussed under Future Improvement section below. The upper system is currently provided by three groundwater wells, Well No. 7, Well No. 8. and Well 9. Well No. 7 is located within the Water Treatment Plant No. 2 on Howard Drive. Well No. 8 is located in the Caswell Park complex, just east of Water Treatment Plant No. 2. A third well, Well No. 9, is located east of the Water Treatment Plant No.2 and south of the volleyball courts.

Table 7-A below shows a summary of the well characteristics:

Table 7-A: Well Data

Well No.	5-Lower	6-Lower	7-Upper	8-Upper	9-Upper
Year Constructed	1950	1959	1975	1986	2015
Year Last Rehab	2020	2021	2016	2018	
Well Depth (ft)	680	687	860	845	845
Casing Diameter (in)	16	24/20	24/20	30/24/18	30/24/18
Water Bearing Foundation	Ironton / Galesville / Mt. Simon	Ironton / Galesville / Mt. Simon	Franconia / Mt. Simon	Mt. Simon	Mt. Simon
Pump Type	Vertical Turbine	Vertical Turbine	Vertical Turbine	Vertical Turbine	Vertical Turbine
Capacity (gal/min)	1000	1440	1100	1100	1100

As mentioned previously, two water treatment plants treat the well water before it is pumped into the distribution system. Treated water for the lower system is provided by Water Treatment Plant No. 1, located at the intersection of Belgrade Avenue and Nicollet Avenue. This facility was initially constructed in 1959 with rehabilitation work completed most recently in 2017. The facility consists of a steel gravity filter which treats the raw water for iron and manganese and has a capacity of 1440 gallons per minute (gpm). The Water Treatment Plant No.1 is operated at flow rate of 1300 gpm. Treated water for the upper system is provided by Water Treatment Plant No. 2, located on Howard Drive just east of the Caswell Park athletic complex. This facility was constructed in 1975 and expanded in 2001 to increase the treatment capacity to 2,200 gpm.

The existing treated water storage for the City of North Mankato consists of five reservoirs. Three ground- level storage reservoirs provide a total of 750,000 gallons of water storage for the lower system. One of the ground storage reservoirs (500,000 gallons) is located at Water Treatment Plant No. 1. The other two reservoirs for the lower system with a combined capacity of 250,000 gallons are located in the hillside bluff overlooking the lower North Mankato area and thus act as elevated reservoirs for the lower system. The upper system is served by two 500,000-gallon elevated water towers, one located on Tower Drive, constructed in 2011 and one located on Carlson Drive, constructed in 1993. In addition, a 750,000-gallon ground storage reservoir is located adjacent to Water Treatment Plant No. 2.

High service pumps are utilized to pump water from the two ground storage reservoirs located at the water treatment plants. Two high service pumps at Water Treatment Plant No. 1 are capable of pumping 1,200 gpm each and approximately 2,000 gpm when operating together. In addition, the pumps at this plant are capable of transferring water from the lower system to the upper system at a rate of approximately 1,000 gpm. All high service pumps at Water Treatment Plant No. 2 are provided

with variable speed drives and are capable of delivering 2,200 gpm from the ground storage reservoir at Water Treatment Plant No. 2. Each high service pump at this location is capable of delivering up to 1,100 gpm to the distribution system.

The existing water distribution system consists of 4-inch diameter through 16-inch diameter mains. The oldest watermains are in the lower North Mankato area. Those that have not been replaced with ductile iron or polyvinyl chloride (PVC) pipe within the past 20 to 25 years are cast iron pipe. Most of the upper system is ductile iron or PVC pipe. Dead end mains have, in general, been minimized, which provides for adequate circulation and very few areas of stagnant water throughout the lower and upper systems. The City's water department staff flushes the system on a regular basis in order to clean sediment and rust from the system. Numerous reconstruction projects over the past 25 to 30 years, primarily in the lower system, have greatly improved the water supply and pressure, and have increased the reliability of the system.

The existing water system in North Mankato is shown on **Figure 7-1**.

Future Improvements

The following table shows the current and projected water usage demands for the City of North Mankato:

Table 7-B: Water Usage

	Lower System			Upper System			Overall System		
	Annual Water Use	Peak Day Water Use		Annual Water Use	Peak Day Water Use		Annual Water Use	Peak Day Water Use	
		without flushing	with flushing		without flushing	with flushing		without flushing	with flushing
Year	(mg)	(mgd)	(mgd)	(mg)	(mgd)	(mgd)	(mg)	(mgd)	(mgd)
2020	123	0.6	0.9	351	1.7	1.8	474	2.2	2.3
2025	123	0.6	0.9	366	1.8	1.9	123.9	2.3	2.4
2030	123	0.6	0.9	377	1.9	2.0	123.9	2.4	2.5
2040	123	0.6	0.9	400	2.0	2.1	123.9	2.5	2.6

Since the water used for watermain flushing can significantly impact the pumping rates for the wells and the water treatment plants, **Table 7-B** shows the actual peak daily water use during flushing and estimates of the peak daily water usage with no flushing.

Firm peak day capacity, calculated over 24 hours with the largest well in each system out of service is 1.4 million gallons per day (mgd) in the lower system and 3.2 mgd in the upper system. With the addition of the new Well No. 9 in the upper system in 2015, the well capacity is adequate to meet the projected water demands throughout the planning period. The City will continue to implement an on-going well maintenance program in order to maximize the useful lives of the well casings, pumps, piping and equipment. Periodic repairs and replacements will be performed as required.

The capacity of the water treatment plants and high service pumping should equal the maximum day demands for the planning period. The projected future peak day demands for the planning period are 0.9 mgd in the lower system and 2.1 mgd in the upper system. Treatment capacity of Plant No. 1 is 1.8 mgd and the treatment capacity of Plant No. 2 is 2.6 mgd. Since the capacity of each treatment plant

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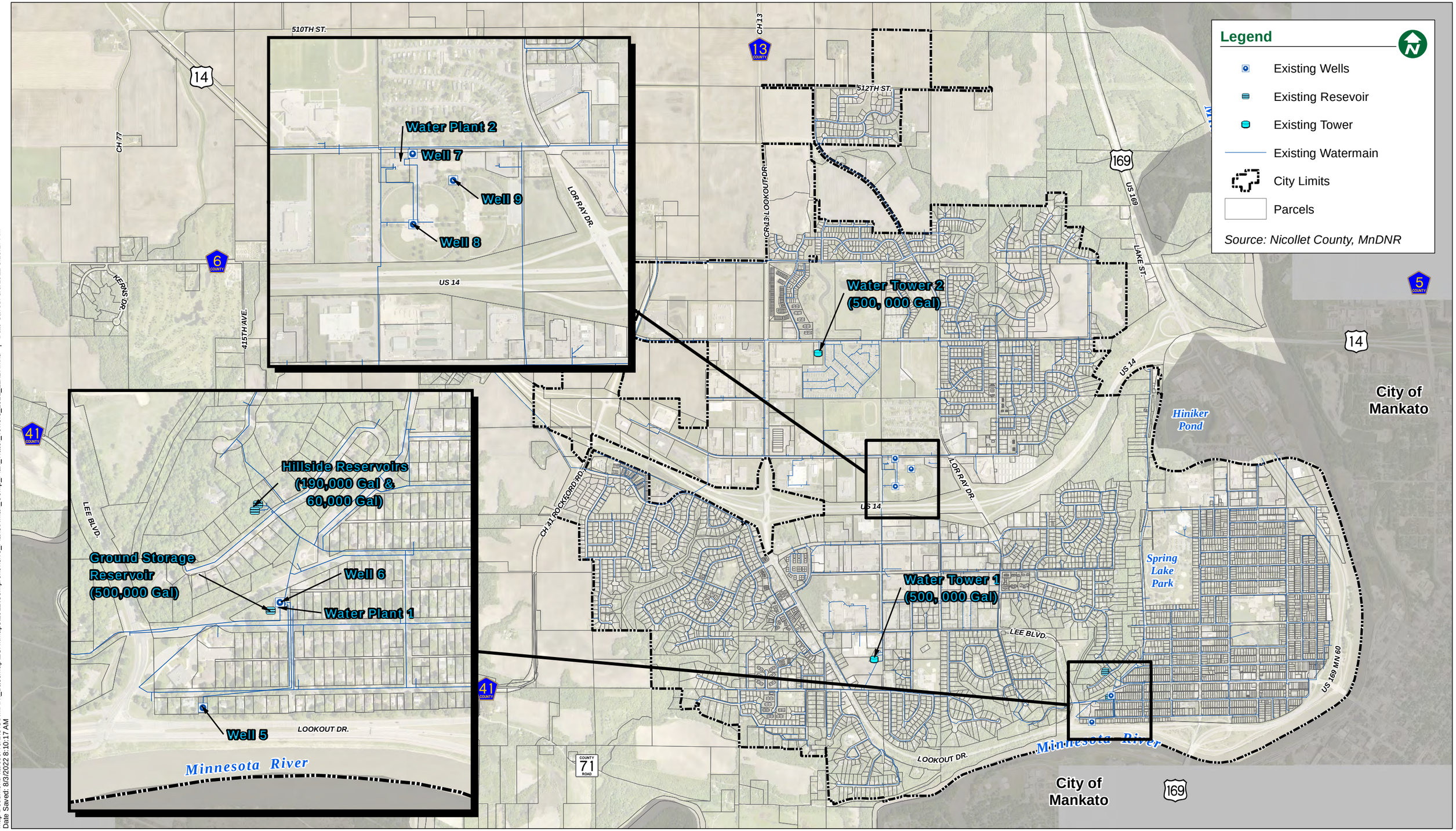
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City of North Mankato, Minnesota

Figure 7.1 Existing Water System

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exceeds the projected peak day demand for each facility, the capacity of both plants is adequate for the planning period. Water Treatment Plant No. 1 was refurbished most recently in 2017 and is good condition. Water Treatment Plant No. 2 is scheduled for a rehabilitation project in 2022, but no further expansion of treatment capacity is proposed with that project. After the rehabilitation project on Water Treatment Plant No. 2, is completed, water treatment facilities will be adequate in capacity and condition for the foreseeable future.

Water storage for the City of North Mankato is located in both the upper and lower distribution zones. Storage adequacy can be assessed in several ways. The recommended water storage volume is based on fire demand, emergency reserve and equalization. Based on average day demand, a worst case fire event, and equalization volume equal to 20 percent of the average daily flow, an analysis indicates that the water storage provided in the upper area by the ground storage/high service pumps and the two elevated water towers is adequate to meet the projected storage requirements through the planning period. A similar analysis indicates that the lower system is currently deficient in storage by approximately 200,000 gallons. Since water demand in the lower system is not expected to increase significantly during the planning period, the lower system will be approximately 200,000 deficient in storage at the end of the planning period. However, water from the upper system can be diverted to the lower system without limiting services in the upper system, so the need to add storage in the lower system is not anticipated. The two hillside ground storage reservoirs in the lower system were rehabilitated in 2019. The Carlson Drive water tower on the upper system received an interior re-painting/rehabilitation in 2013 and exterior repainting/rehabilitation in 2020. The Tower Boulevard water tower on the upper system received an exterior repainting/rehabilitation in 2020. It is anticipated that both elevated water towers will require interior repainting/rehabilitation within the planning period. It is recommended that the reservoirs continue to be drained, inspected and maintained every 3 to 5 years.

The adequacy of the City's water supply, treatment and storage systems throughout the planning period assumes that industrial development in undeveloped areas within the current City limits and industrial development within the projected growth areas will continue to have relatively low water demands. Future industrial developments having high water usage may require that the capacity of the water supply, treatment and/or storage be increased, either by adding new facilities or expanding existing facilities.

If industrial development with high water usage in the upper system requires the city to expand the supply (wells) and the treatment capacity in the upper system, then City should consider abandoning Wells No.5 and No.6 and Water Treatment Plant No.1 and move the entire water treatment to the upper system. Abandoning Well No.5 and No.6 will make obtaining the required Minnesota Department of Natural Resources (DNR) and MDH permits to drill two new wells in the Mt. Simon aquifer much easier. Since the peak day demand for the for the Water Treatment Plant No.1 is only 0.9 mgd, any new treatment facility proposed for industrial development could be expanded to include this demand very cost effectively.

In general, the water distribution system for the City of North Mankato is well maintained and well managed. Although much of the old cast iron watermain system has been replaced through numerous reconstruction projects in the lower system in recent years, portions of the old system still remain. These segments should be replaced and, where required, increased in size as street construction projects are implemented. As previously noted, most of the upper system is much newer (relatively speaking) than the lower system and consists primarily of ductile iron and cast-iron pipe. As with the lower area, the existing watermain system in the upper system should be evaluated for improvement and/or replacement when the City is contemplating street reconstruction projects.

Most of the water system improvements in the upper area will be driven by residential, commercial and/or industrial development in the undeveloped areas within the City limits and the projected growth areas beyond the City limits. A system of trunk watermains ranging in size from 10 to 16 inches in diameter will be extended into these growth areas as they develop.

WATER SYSTEM GOALS, OBJECTIVES, AND POLICIES

The following section outlines the primary goals for the water system followed by a series of objectives and policies intended to influence future development efforts that align with the community visions in this plan.

GOAL 1: Expand existing water system infrastructure to meet the demands generated by continued development.

Objective 1.1: Expand the trunk watermain system into future growth areas.

Policy 1.1.1: Implement the expansion of the trunk watermain system as areas outside the limits of the existing water distribution system are developed.

Policy 1.1.2: The trunk watermain system within the future growth areas will be based on the type, location, configuration and sequence of the future development. Final trunk watermain sizes and locations should be based on detailed engineering studies as more information regarding future development becomes available.

Policy 1.1.3.: Develop a financing strategy for funding the expansion of the trunk watermain system.

Objective 1.2: Expand the water supply, water treatment, and water storage systems as required to accommodate future development demands.

Policy 1.2.1: As future development occurs, detailed engineering studies should be performed to evaluate the capacity of the existing water supply, water treatment, and water storage systems considering new water demands and to determine required improvements.

Policy 1.2.2.: Develop a financing strategy for funding the expansion of the trunk watermain system.

GOAL 2: Monitor, evaluate and improve the condition of the City's existing water system infrastructure.

Objective 2.1: Replace aging water distribution system infrastructure.

Policy 2.1.1: Prepare a study to document the condition of deficient watermains based on age, materials and history of breaks, leaks, freezing and other deficiencies.

Policy 2.1.2: Utilize the information from the watermain condition study, in conjunction with the condition information for other infrastructure elements, to develop, expand and prioritize projects to be included in the capital improvements.

Objective 2.2: Monitor the condition of existing water supply, treatment, and storage infrastructure and replace as required.

Policy 2.2.1: Monitor changes in drinking water quality standards and identify possible changes to the treatment processes currently utilized by the City's two water treatment facilities.

Policy 2.2.4: Monitor the condition of the existing wells and related equipment and continue with regular inspections, maintenance and miscellaneous equipment replacement as required.

Policy 2.2.5: Monitor the condition of the water storage facilities and related equipment and continue with regular inspections, maintenance and miscellaneous equipment replacement as required.

WASTEWATER SYSTEM

Existing Systems

The existing wastewater collection system within the City of North Mankato consists of a network of sanitary sewers ranging in size from 8 inches to 24 inches in diameter. There are also 12 lift stations located throughout the City that collect and pump the wastewater from those areas which cannot be served by gravity sewers. The sanitary sewers and lift stations throughout the City collect into four main trunk sewers. Most of the trunk sewers flow to the City's Main Lift Station complex (Lift Station No. 1 and Lift Station No. 2) located on the east side of Trunk Highway (T.H.) 169 at Pierce Avenue. The two lift stations making up the Main Lift Station complex operate in tandem to pump all of the wastewater generated within the City North Mankato, across the Minnesota River to the City of Mankato's wastewater treatment facility. The following Table provides a summary of the existing trunk sanitary sewers within the City.

Figure No. 7-2 shows the three trunk sewers as well as with the areas served by each.

Table 7-C: Existing Trunk Sanitary Sewers

Trunk Sanitary Sewer Designation	Service Area			Pumps to	Pipe Size(s)	Pipe Material	Year(s) Constructed/ Replaced
	Region	Area Served (Existing)	Service Area Fully Developed?				
Trunk Sanitary Sewer 1	Lower and Upper Area	1240	Yes	Main Lift Station Complex	12" to 18"	Clay, PVC	1950's, 1970's, 2010's
Trunk Sanitary Sewer 2	Lower and Upper Area	1360	Yes	Main Lift Station Complex	18"	Clay, PVC	1970's, 2000's
Trunk Sanitary Sewer 3	Upper North Mankato	1250	No	Main Lift Station Complex	27"	PVC	1990's

The existing trunk sewer that runs along Cross Street and Pierce Avenue is a clay pipe that ranges in size from 24 inches to 27 inches in diameter that was constructed in the 1950's. This trunk sewer collects wastewater from most of the lower North Mankato area and transports the wastewater across Highway 169 at Pierce Avenue to the Main Lift Station complex. One of the manholes on this trunk sewer experienced a failure during the extreme high-water condition in the Minnesota River in 2019, resulting in the pipe being plugged with sand and causing back-ups in portions of the sanitary sewer system. This problem area was repaired, and the trunk sewer resumed functioning adequately. Considering the age of the pipe, it is generally good condition, but it is recommended that the sewer be rehabilitated by re-lining within the next several years.

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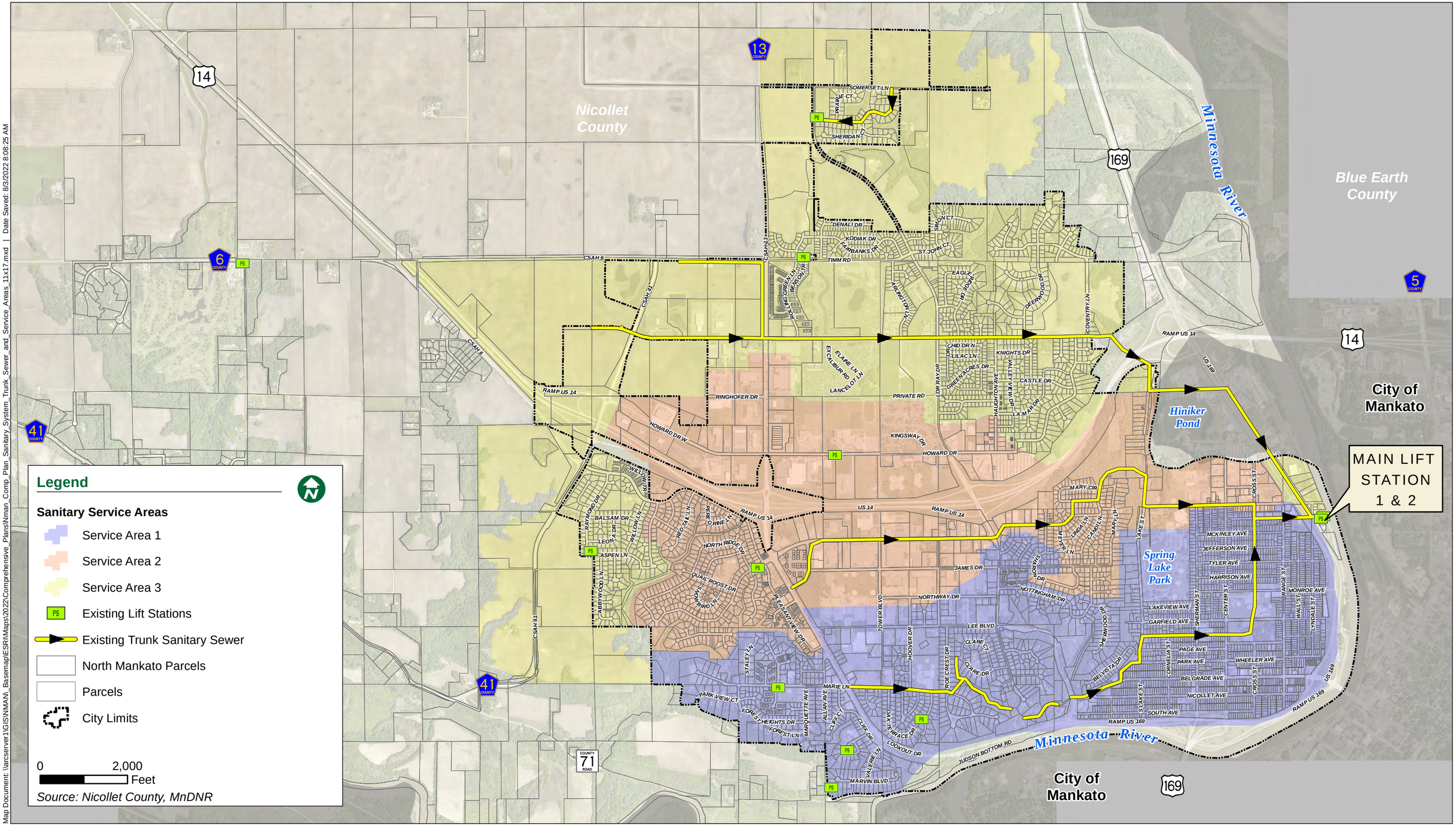
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City of North Mankato

Figure 7.2 Existing Sanitary Trunk Sewer & Service Areas

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The capacity of the existing wastewater collection system is controlled, for the most part, by the capacity of the existing lift stations and trunk sewers. The sanitary sewer system and the lift stations within the City of North Mankato are well maintained and well managed. The sanitary sewers are cleaned and televised on a regular basis, and the lift stations are also inspected and maintained regularly. Although much of the old clay sanitary sewer systems in the lower North Mankato area have been replaced through numerous reconstruction projects in recent years, portions of the old system still remain. These segments should be replaced as street construction projects are implemented using newer materials less susceptible to inflow and infiltration of ground water and surface water into the system. Most of the sanitary sewer system in the upper North Mankato area is newer and consists primarily of plastic pipe. However, as with the lower area, the existing sanitary sewers in the upper system should also be evaluated for improvement and/or replacement when the City is contemplating street reconstruction projects.

The City will continue to implement an on-going maintenance and equipment replacement program to maximize the useful lives of the lift stations. Periodic repairs and replacements will be performed as required.

Future Improvements

Table 7-D shows the current and projected wastewater flows from the City of North Mankato:

The average daily wastewater flow is the total annual volume of wastewater collected within the City of North Mankato and pumped to the Mankato Wastewater Treatment Plant divided by 365 days. The average wet weather wastewater flow is average daily flow for the 30 consecutive days that have the highest total flow during that 30-day period in each year.

Table 7-D: Current and Projected Wastewater Flows

Year	Total Projected Average Daily Wastewater Flow (mgd)	Total Projected Average Wet Weather Wastewater Flow (mgd)
2020	1.50	1.86
2025	1.54	1.90
2030	1.58	1.94
2040	1.66	2.02

The City completed a major rehabilitation project on Lift Station No.1 in 2015. With this improvement, the wastewater collection system has adequate capacity to accommodate the projected wastewater flows from residential, commercial and industrial development within a 20-year planning period. Most of the areas projected for future development are located within or adjacent to the existing city limits in the upper North Mankato area. The trunk sewer line on Carlson Drive and Countryside Drive will serve these future development areas. This trunk sewer line and Lift Station No. 2 were constructed in the mid-1990's and have capacity for the projected wastewater flows within the planning period of this Comprehensive Plan.

A system of sanitary sewers will be extended from the trunk sewers into the development areas in the upper north Mankato area. These sewers will range in size from 8 inches to 15 inches in diameter. The exact size and configuration of the sanitary sewer system will be dependent on the type and density of development, existing and proposed topography, and in the case of commercial and industrial areas, the extent of water usage/wastewater discharged. As the development expands beyond the limits of gravity sanitary sewer service, additional lift stations will need to be added to the system. **Figure 7-3** shows the limits of the existing trunk sewer and lift station service areas, as well as the service areas to be served by future lift stations.

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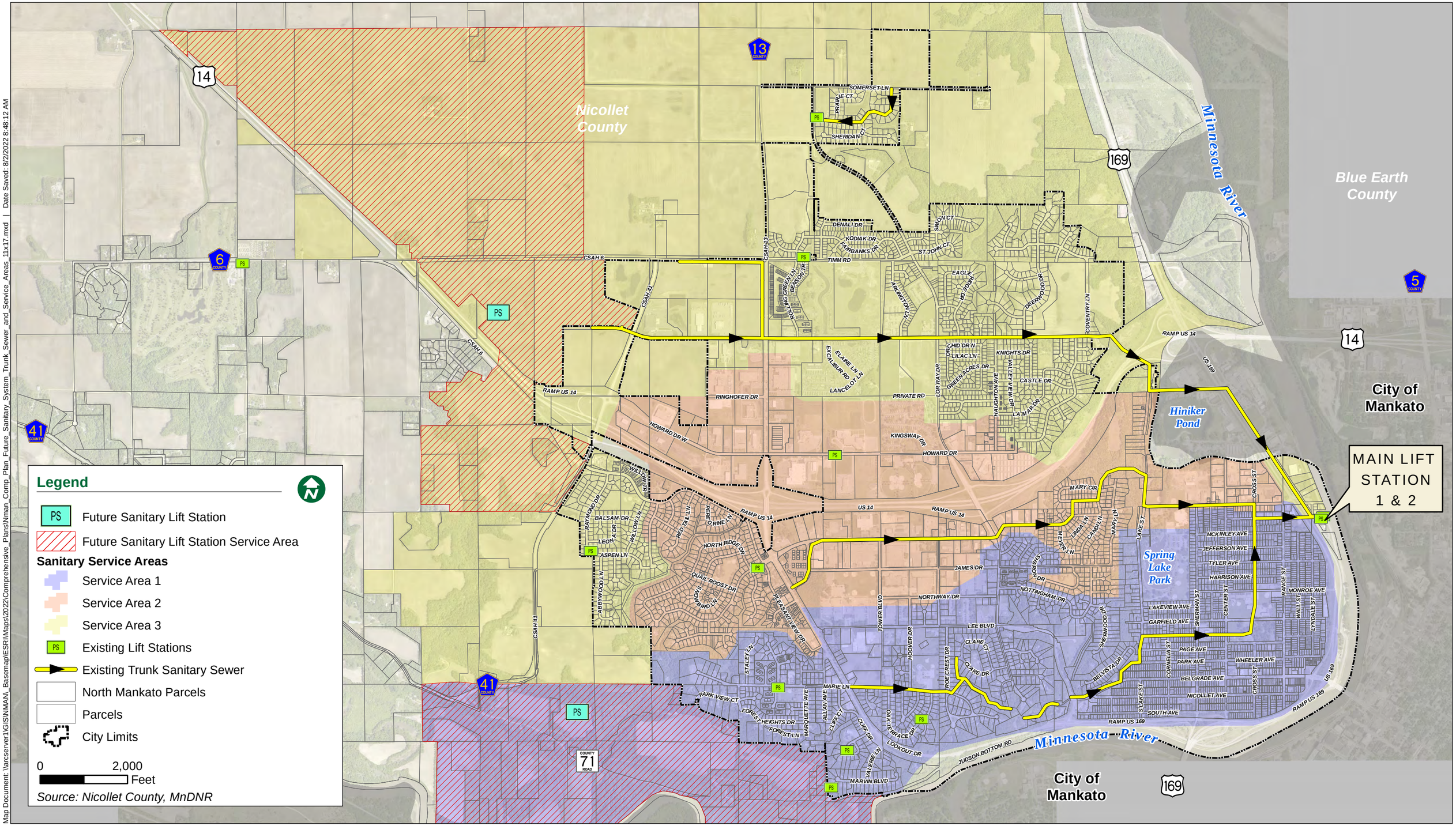
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City of North Mankato

Figure 7.3 Future Trunk Sanitary Sewer and Lift Station Areas

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Legend

- PS — Future Sanitary Lift Station
- Future Sanitary Lift Station Service Area

Sanitary Service Areas

- Service Area 1
- Service Area 2
- Service Area 3
- PS — Existing Lift Stations
- Existing Trunk Sanitary Sewer
- North Mankato Parcels
- Parcels
- City Limits

0 2,000 Feet

Source: Nicollet County, MnDNR

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WASTEWATER SYSTEM GOALS, OBJECTIVES, AND POLICIES

The following section outlines the primary goals for the wastewater system followed by a series of objectives and policies intended to influence future development efforts that align with the community visions in this plan.

GOAL 1: Expand existing wastewater system infrastructure to meet the demands generated by continued development.

Objective 1.1: Expand the trunk wastewater system into future growth areas.

Policy 1.1.1: Implement the expansion of the trunk sanitary sewer system as areas outside the limits of the sanitary sewer collection system are developed. Final trunk sanitary sewer sizes, locations, and depths should be based on detailed engineering studies as more information regarding future development becomes available.

Policy 1.1.2: Construct new lift stations as areas outside the limits of the existing lift station service areas are developed. Final lift station sizes, locations, and depths should be based on detailed engineering studies as more information regarding future development becomes available.

Policy 1.1.3.: Develop a financing strategy for funding the expansion of the trunk sanitary sewer system and lift stations.

GOAL 2: Monitor, evaluate and improve the condition of the City's existing wastewater system infrastructure.

Objective 2.1: Replace aging sanitary sewer system infrastructure.

Policy 2.1.1: Prepare a study to document the condition of deficient sanitary sewers and collection system lift stations based on age, materials and deficiencies identified in sewer televising reports.

Policy 2.1.2: Utilize the information from the sanitary sewer condition study, in conjunction with the condition information for other infrastructure elements, to develop, expand and prioritize projects to be included in the capital improvements.

Objective 2.2: Monitor the condition of existing wastewater pumping and treatment infrastructure and replace as required

Policy 2.2.1: Monitor changes wastewater quality standards and identify possible changes to the treatment processes currently utilized by the City of Mankato's wastewater treatment facility and potential impacts to the treatment costs paid by the City of North Mankato.

Policy 2.2.2: Monitor the condition of the City's two main lift stations (Lift Station No. 1 and Lift Station No. 2) continue with regular inspections, maintenance and miscellaneous equipment replacement as required.

STORMWATER SYSTEM

General

The goal of the plan is to maintain and improve surface water quality and minimize the impacts of increased water quantity through appropriate planning, policy enforcement, and capital improvement projects.

Most Minnesota cities have existing pipe networks that were designed to relieve ponding within the original platted city limits. When these systems were designed, the concern for the downstream properties was not a consideration. The goal was the efficient and cost-effective removal of stormwater runoff from developed areas. In North Mankato's case, this meant the construction of direct pipelines to the Minnesota River.

Since 2007, the City of North Mankato has been required to obtain a permit for its Minnesota Small Municipal Separate Storm Sewer Systems General Permit (MS4). The MS4 permit is renewed every 5 years and the permit rules continue to evolve. The MS4 and the Minnesota Construction Stormwater General Permit (CSW) require consideration of the impacts to downstream properties of rate and volume increases due to development as well as the water quality of stormwater runoff leaving the City.

Development and redevelopment construction projects are required to provide for to volume reduction when the amount of impervious in the project is 1.0 or more acres. Stormwater conveyance systems are recommended to be designed to handle the 10-year 24-hour storm event. Stormwater treatment facilities such as basins are recommended to be designed to handle the 100-year 24-hour storm and have engineered overflow spillway routes to prevent property damage for larger storms.

In addition to rate and volume standards, the City of North Mankato is required to meet water quality requirements. The City has been assigned waste load allocations (WLAs) that are based on adopted standards for the Total Maximum Daily Loads (TMDLs) for regional watersheds.

One of the best methods of mitigating the effects of growth is through the construction of stormwater treatment facilities. These facilities are designed to encourage volume reduction through infiltration and provide water quality treatment and discharge rate control.

Stormwater treatment facilities require ongoing maintenance to function efficiently. Typically, the most efficient and economical option is to construct regional facilities instead of several smaller localized options throughout the City. Regional ponds cannot be located in an existing wetland without the costly mitigation of the impacted wetland. They are also not recommended in floodplains. This comprehensive plan considers these factors when recommending Best Management Practices (BMPs). It also considers information from residents of North Mankato and City staff regarding the observation of the natural ponding associated with heavy rainfalls when siting regional basins.

One drawback associated with regional stormwater treatment planning is finding a funding mechanism to purchase the land needed and finding ways to have new development assist in their construction. Ideally, the costs to construct and maintain stormwater facilities should be paid using funds generated by area charges and stormwater utility fees for the area being served by the facilities. Two challenges are that the stormwater treatment facilities typically must be completed before the area served is fully developed and high area charges and stormwater utility fees may be a concern when trying to attract new businesses and development to the area.

Construction projects that include the construction or reconstruction of 1.0-acre or more of impervious surfacing must take all appropriate measures to reduce the additional runoff volume created by the impervious surfaces (roofs and pavement).

Typically the most cost-effective way of accomplishing the required volume reduction is through infiltration or rainwater harvesting. Infiltration practices reduce runoff volumes by taking a portion of the runoff and recharging the groundwater. As such, they are often touted by surface water management agencies and review authorities. However, they must also be strategically placed to prevent the potential for contamination of drinking water wells. Infiltration practices within the drinking water wellhead protection area or well capture zone require a higher level of engineering review and may only be constructed if the review shows that the treatment system does not pose a risk for adverse impacts to groundwater.

Filtration practices, such as filtration basins, biofilters, iron-infused sand filters, etc., are similar to the more common infiltration practices but are designed so that the stormwater filters through plants and filter media before draining into a storm sewer. Filtration basins are recommended to manage stormwater runoff and improve water quality within the 1-year Wellhead Protection Area (WHPA) where infiltration methods are not advised. Filtration basins are recommended wherever they will fit into the designs and should be encouraged wherever local private property owners might request retrofitting them into their landscaping. Any private filtration basins that are installed will help lessen the load on the existing storm sewer system, reduce regional pond maintenance costs, and improve water quality.

Lower North Mankato is conducive to infiltration because the underlying soils are predominately sandy. Upper North Mankato soils are predominately clay soils that are not conducive to infiltration. The city may need to consider planning additional infiltration opportunities in lower North Mankato to account for the general inability for infiltration in upper North Mankato.

Rainwater harvesting is the storing and use of rainwater for irrigation or other non-potable uses. Rainwater harvesting should be encouraged wherever practicable.

Because of water quality regulations, it may be advantageous to plan regional ponds for flood prevention associated with extreme rainfall events, while planning smaller water quality BMPs on a neighborhood or individual development scale.

As part of the ongoing MS4 permit requirements, the City will need to consider new opportunities to retrofit water quality measures associated with its reconstruction projects. Because retrofitting to add water infiltration on linear projects such as street reconstructions is often more difficult, the MS4 permit requires less water volume to be infiltrated than is required for new projects.

Wetlands

In 1991, the Minnesota Legislature passed the Wetlands Conservation Act (WCA). The WCA is administered according to Minnesota Rules Chapter 8420 to implement the purpose of the Act, which is to:

1. Achieve no net loss in the quantity, quality, and biological diversity of Minnesota's existing wetlands;
2. Increase the quantity, quality, and biological diversity of Minnesota wetlands by restoring or enhancing diminished or drained wetlands;
3. Avoid direct and indirect impacts from activities that destroy or diminish the quantity, quality, or biological diversity of wetlands;
4. Replace wetland values where avoidance of activities is not feasible and prudent.

Pretreatment of all stormwater from new developments is required before discharge into any wetlands. Wetlands may be and are currently being used for stormwater storage for larger rainfall events. They

may continue to be used for this purpose even after upstream development, provided that:

1. There is acceptable Best Management Practice pretreatment of the runoff as required by the CSW and MS4 permits, and
2. The bounce from the normal water level to the high water level does not exceed two feet.

The Minnesota Wetland Conservation Act (WCA) requires the designated Local Governmental Unit (LGU) in charge of administering the WCA to generate a Notice of Wetland Conservation Act Decision for any impact on wetlands. The designated LGU for projects located within the City of North Mankato is the City of North Mankato.

In all but minor decisions, the LGU will call for a Technical Evaluation Panel (TEP) review of the application or impact before issuing a decision. The LGU must give notice of proposed actions affecting wetlands to all of the following:

1. The Minnesota Board of Water and Soil Resources
2. The Soil and Water Conservation District
3. The Minnesota Department of Natural Resources
4. The U.S. Army Corps of Engineers
5. Interested citizens requesting notification of such actions

If a TEP meeting is required, all listed parties are invited to review the proposed action. However, it is not uncommon for a TEP meeting to consist of only a small contingent of this list, as some invitees may have no jurisdiction over the proposed action.

NPDES Phase II Considerations

G. General City Permits

In 1987, the US Congress amended the Clean Water Act to include stormwater pollution and directed the Environmental Protection Agency (EPA) to initiate rulemaking. The first round of EPA rules was implemented in 1991 when NPDES Phase I permits were required for all cities exceeding 100,000 in population. Phase II was implemented in 2003 and targeted all cities with populations exceeding 10,000. In 2008, the Phase II rulemaking expanded the list of targeted cities to include cities with populations exceeding 5,000 and that discharge into impaired waters. The Minnesota Pollution Control Agency (MPCA) assumed responsibility for implementing the rules and issuing all Phase II permits. The NPDES Phase II rules apply to all construction disturbances of 1.0- acres or more.

The City of North Mankato has been assigned WLAs for impaired waters like the Minnesota River that have approved TMDLs. The City is required by federal and state regulations to facilitate correcting the impairments by implementing water quality standards to meet the assigned WLAs.

The primary targets of TMDL requirements are urban runoff and construction runoff. This is because urban runoff carries pollutants from cars, lawn fertilizers, pesticide spills, and other contaminants into our lakes, wetlands, and streams without entering wastewater treatment systems. Construction runoff is often laden with sediment caused by large areas of open, exposed soil that is loosened by excavation and grading.

The federal mandates are intended to regulate these sources of continued environmental degradation. New developments have become increasingly targeted. All new developments, creating more than one acre of impervious surfacing, are required to have some form of stormwater treatment. In general, this need can be satisfied by properly designed stormwater

treatment facilities.

The following is a listing of the available stormwater quality and quantity systems currently being designed to handle the water quality/quantity issue:

Regional Wet Retention Basins

Numerous studies have been done on the water quality treatment afforded by wet retention basins, most notably one by William Walker Jr. for the Vadnais Lake Area Water Management Area (1987). The Walker study found that properly sized wet retention basins can effectively remove pollutants through sediment removal. When properly sized, these ponds can significantly reduce the contaminant levels, including phosphorus, commonly found in urban stormwater runoff. According to the MPCA's Stormwater Manual, on average wet retention basins can remove 84% of suspended solids, 50% of total phosphorus, and 30% of total nitrogen. Wet retention basins also provide flood storage. Wet retention basins are also well known for their stormwater quantity handling capabilities and work well for areas with Hydrologic Soil Group Type D (clay) soils.

Bioretention Systems

Another method of managing stormwater runoff is to install bioretention practices in strategic locations where stormwater will be collected and allowed to filtrate through the planting media or be taken up by vegetation before entering the storm sewer.

Infiltration/Filtration Bioretention Basins

According to the MPCA's Stormwater Manual, bioretention facilities capture rainwater runoff to be filtered through a prepared soil medium. Pollutants are removed by several processes including adsorption, filtration, volatilization, ion exchange, and decomposition (Prince George's County, MD, 1993). Filtered runoff from bioretention basins can either be allowed to infiltrate into the surrounding soil (functioning as an infiltration basin or rainwater garden) or be collected by an under-drain system and discharged to the storm sewer system or directly to receiving waters ("filtration only" bioretention basin). Due to the groundwater vulnerability and the WHPA covering a portion of lower North Mankato, lined filtration basins are recommended for the areas of North Mankato within the 1-year WHPA. Runoff from larger storms is generally allowed to bypass the filled bioretention basin and flow directly to the storm drain system. Infiltration/filtration basins are typically designed for treating the water quality and not for the water quantity of urban stormwater runoff. That is, the MPCA requirement for water quality is to treat the first 1 inch of runoff from a site (water quality volume). This is in contrast to the larger amount of runoff that may be leaving the site for a 3 to 6-inch rainfall (water quantity). Because stormwater quality has become a greater issue, bioretention basins have become a significant design tool for municipal stormwater systems. Bioretention basins can remove 85% of suspended solids, 100% of total phosphorus, and 50% of total nitrogen.

NPDES/SDS Construction Stormwater General Permit

A State construction permit is required for any disturbance of 1.0-acres or more. This permit is in addition to any permits required by the City of North Mankato. The permit process is best summarized in the following table:

Table 7-E - Construction Stormwater Permit Requirements

Item	Requirement
Agency	MN Pollution Control Agency (MPCA)
Disturbance Triggering a permit	1.0-acres or more
Connected actions	
(i.e. new homes)	Smaller construction sites, such as a single-family home, require a permit if they are part of a larger development that is 1.0-acres or more.
Application Process	1. Application is made online to the MPCA. There is a permit fee set by MPCA that must be paid to obtain a permit. A properly designed Construction Stormwater Pollution Prevention Plan is required to apply for a permit.
Permittee	The property owner and the construction contractor are joint permittees.
Responsibility for compliance	All permittees are responsible for compliance.

1. *Inspection reports and certifications are required.*

Stormwater Pollution Prevention Plan (SWPPP)

As an MS4, the City must review the SWPPP for any project that is 1.0-acres or more to ensure it meets the requirements detailed in the CSW.

Permanent Stormwater BMPs

If 1.0-acres or more of impervious surface is constructed, then permanent stormwater BMPs are required. If the filtration or infiltration alternatives listed above are not possible, a permanent wet retention basin is the most utilized method of meeting the requirements.

The stormwater volume reduction requirements are:

1. For construction activity (excluding linear projects):

The water quality volume must be calculated as one (1) inch times the sum of the new and the fully reconstructed impervious surface.

2. For linear projects:

The water quality volume must be calculated as the larger of one (1) inch times the new impervious surface or one-half (0.5) inch times the sum of the new and the fully reconstructed impervious surface. Where the entire water quality volume cannot be treated within the existing right-of-way, a reasonable attempt to obtain additional right-of-way, easement, or other permission to treat the stormwater during the project planning process must be made.

Volume reduction practices must be considered first when designing the permanent BMPs. The CSW does not consider wet sedimentation basins and filtration systems to be volume reduction practices. If the General Permit prohibits infiltration or other volume reduction practices, a wet sedimentation basin, or filtration basin may be considered.

Offsite permanent stormwater BMPs must be selected in the following order of preference:

1. Locations that yield benefits to the same receiving water that receives runoff from the original construction activity;

locations within the same Department of Natural Resource (DNR) catchment area as the original construction activity;

locations in the next adjacent DNR catchment area up-stream; or

locations anywhere within the permittee's jurisdiction.

All permanent stormwater BMPs must be constructed in compliance with the requirements outlined in CSW and have maintenance access.

Regional Pond Considerations

An area regional pond may be used provided that:

1. The regional pond is not a wetland.
2. Must be designed to meet the treatment pond criteria for all impervious surfaces.
3. The regional pond owner's authorization must be secured as part of the permitting process.

Municipally Separate Storm Sewer System (MS4)

The City of North Mankato is a Municipally Separate Storm Sewer System (MS4). The City of North Mankato ultimately drains to the Minnesota River. The City of North Mankato operates an extensive stormwater treatment system, serving residential, commercial, and industrial users in two zones: the upper system and the lower system. Several ravines drain water from the upper system. Spring Lake, in the lower system, receives stormwater from North Mankato, and it is not impaired water. There are also several stormwater ponds in the City's stormwater system. The majority of stormwater ponds are in the upper system, as that area was developed later when stormwater treatment was required and there was more space and flexibility to incorporate stormwater ponds into the development plans. There is also a difference in soils between the upper and lower systems; generally, the lower system has soils that have higher infiltration rates and the upper system has soils that have lower infiltration rates.

All areas served by public ditches are subject to the rules governed by Minnesota Statute 103E and under the governance of Nicollet County. Minnesota Statute 103E states that all connections to the ditch, or in this case, the County Tile, must be petitioned to the County Auditor.

There is no other record that the City has entered into any water resource management-related agreements with its neighboring cities, the county, watershed district, lake associations, or the state of Minnesota. The City of North Mankato has been responsible for construction, maintenance, and other projects in or along the City's stormwater collection systems outside of the mainline County ditch and tile systems.

Total Maximum Daily Load Limits (TMDL)

The current 303d list of impaired waters on the MPCA website shows the following:

1. The Minnesota River is the ultimate receiving water for both the upper and lower stormwater systems. Two segments of the river receive stormwater from the City of North Mankato. Both the Minnesota River segment 07020007-504 (upstream of the confluence with the Blue Earth River) and segment 07020007-502 (downstream of the confluence with the Blue Earth River) are impaired and have a US Environmental Protection Agency (EPA)

approved Total Maximum Daily Load (TMDL) for Mercury in Fish Tissue. These river segments require a TMDL plan to be written for:

a. Polychlorinated biphenyl (PCB) in Fish Tissue

b. Turbidity

These impairments affect Aquatic Consumption and Aquatic Life.

2. North Mankato is subject to the established Lower Minnesota River's Dissolved Oxygen TMDL, which has a waste load allocation of 30.5 lbs/day or a 30% reduction in phosphorus loading from the City's existing impervious surfacing as of the year 2000. This level is finite, meaning that, if the City grows, the impervious area grows as well, but the level of phosphorus loading is not allowed to increase.

To meet this requirement, the City has had P8 phosphorus modeling performed to establish the baseline phosphorus loading in the year 2000 and the current phosphorus loading associated with the current development conditions. The MPCA and the model also considered the phosphorus removal rates of its existing BMPs to determine the level of retrofitting needed to meet the TMDL requirements.

The City has a list of recommended retrofitting projects that will help it meet the TMDL requirements. In addition, volume reduction through infiltration as required by the CSW also results in phosphorus reduction.

Additional TMDL restrictions can be may anticipated in the future as the Minnesota River is tested for other impairments. It is hoped that the measures taken to limit turbidity and phosphorus will automatically remove other impairments as well.

Future Improvements

Generally, the City will work to ensure erosion control and surface water quality standards are met through enforcement of the City's permitting requirements and implementation of Best Management Practices (BMPs) such as regional stormwater ponds. The City will ensure compliance with the National Pollutant Discharge Elimination System (NPDES) Phase II permits for municipal operations and construction activity greater than 1 acre. City cooperation with the Minnesota Pollution Control Agency (MPCA) and Nicollet County is key to maintaining the relevance of the City's plan.

This comprehensive plan covers several growth areas. Stormwater treatment facilities and new storm sewer pipes will be provided in these areas as they develop. The storm sewer system and stormwater treatment systems will be based on the type, location, configuration, and sequence of the future development. The sizes and locations of storm sewer and stormwater treatment facilities within the growth areas should be based on detailed engineering studies as more information regarding future development becomes available. In addition to those BMPs, the City of North Mankato will implement stormwater treatment BMPs within the existing developed portion of the City as opportunities arise. These will comply with the MPCA's requirements for stormwater treatment at the time they are constructed.

STORMWATER SYSTEM GOALS, OBJECTIVES, AND POLICIES

The following section outlines the primary goals for the stormwater system followed by a series of objectives and policies intended to influence future development efforts that align with the community visions in this plan.

GOAL 1: Expand existing stormwater management system infrastructure to meet the demands generated by continued development.

Objective 1.1: Expand the stormwater collection, treatment, and outfall system into future growth areas.

Policy 1.1.1: Implement the expansion of the stormwater collection, treatment, and outfall system as areas outside the limits of the existing stormwater collection system are developed, with a focus on regional stormwater ponds, where possible.

Policy 1.1.2: The stormwater collection, treatment, and outfall system within the future growth areas will be based on the type, location, configuration, and sequence of the future development. The sizes and location of the final storm sewer and stormwater treatment facilities should be based on detailed engineering studies as more information regarding future development becomes available.

Policy 1.1.3.: Develop a financing strategy for funding the expansion of the stormwater collection, treatment and outfall system.

GOAL 2: Monitor, evaluate and improve the condition of the City's existing stormwater system infrastructure.

Objective 2.1: Replace aging storm sewer system infrastructure.

Policy 2.1.1: Prepare a study to document the condition of deficient storm sewers and ponds based on age, materials, and other known deficiencies.

Policy 2.1.2: Utilize the information from the storm sewer condition study, in conjunction with the condition information for other infrastructure elements, to develop, expand and prioritize projects to be included in the capital improvements.

Objective 2.2: Address sedimentation issues in the City's existing stormwater treatment ponds.

Policy 2.2.1: Develop a study to determine the levels and characteristics of sediment in the City's existing stormwater ponds.

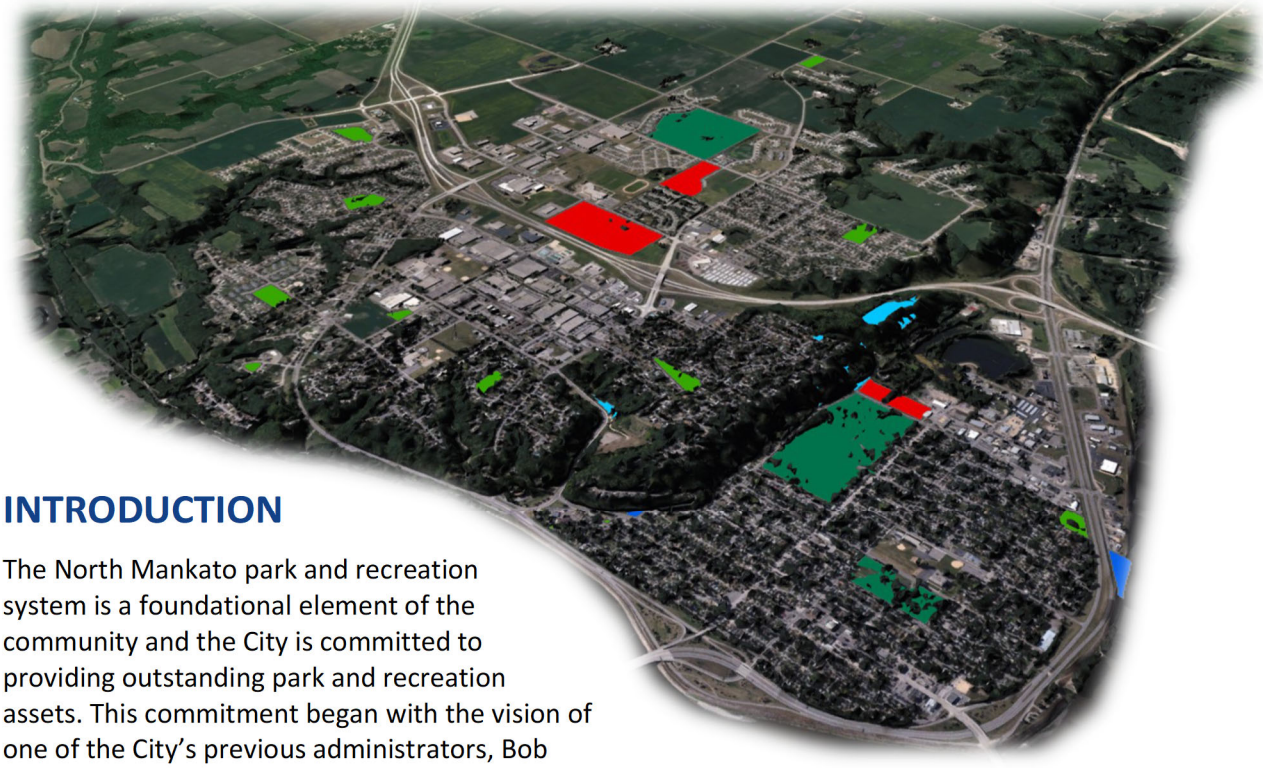
Policy 2.2.2: Develop a plan for cleaning sediment from ponds and for disposal of sediment.

Objective 2.3: Incorporate BMPs to Meet TMDL Limits.

Policy 2.3.1 Implement the recommended retrofitting projects that will help it meet the TMDL requirements, targeting the current phosphorus TMDL and the future turbidity removal needs.

Policy 2.3.2 Develop a BMP strategy for undeveloped areas that are based on existing area soils and targets the current phosphorus TMDL and the future turbidity removal needs.

Chapter 8: Parks, Trails, and Recreation



INTRODUCTION

The North Mankato park and recreation system is a foundational element of the community and the City is committed to providing outstanding park and recreation assets. This commitment began with the vision of one of the City's previous administrators, Bob Ringhoffer. His leadership and enthusiasm for the outdoors led to the establishment and enhancement of some of the finest recreational features in the region including the Spring Lake Park Swim Facility, the Caswell Park Sports Complex, North Links Golf Course and several neighborhood and community parks. Referring to them as the "crown jewels" of the community, Mr. Ringhoffer ensured as the community grew in population every neighborhood was served by a park or greenspace. This resulted in North Mankato having nearly 20 acres of park per 1,000 residents which is above the national average of 9.5 acres per 1,000 residents. It also resulted in some of the best neighborhoods in Southern Minnesota and a fine quality of life for residents. Lastly, his work cemented North Mankato's continued support of parks and recreational amenities for continued generations of residents. In honor of his legacy and commitment to parks and recreation for the benefit of all, the parks and recreation chapter of the Comprehensive Land Use plan outlines the communities vision, guidelines, criteria, and standards for future development and enhancement of these amenities in the City of North Mankato.

The existing park system was initially developed with a strong emphasis and need placed on youth recreation opportunities. Most parks have children play structures and ball fields for youth sports. However, park amenities have increasingly included accommodations for adult and/or family focused recreation uses as well. Many parks have added volleyball courts, pavilions, scenic overlooks and high-quality trails that can be used by the whole family, not just youth.

A robust sidewalk network is provided throughout community neighborhoods and the City has placed high priority on the conversion of sidewalk to multi-use trails in key locations throughout the community (i.e. approaching schools, commercial areas, etc.) The current sidewalk and trails system needs a stronger north and south connection over Highway 14 and another east and west connection over the Minnesota River to enhance system continuity and regional connectivity. Alternative transportation

through the use of trails should continue to be expanded and enhanced. Recreation programming opportunities are currently offered through city programming, the local YMCA, the Taylor Library, the Parks Department, and the Community Education Department of the Mankato Area Public Schools.



GUIDING ASSUMPTIONS

- The City's population is projected to increase. Interest in trails, passive parks, cultural and fine arts programs, and indoor year-round recreation and programming has been, and is anticipated to, continue to increase.
- Exercise and health will continue to be an integral part of the lives of the people of North Mankato. A comprehensive trail system would help meet these demands. A trail loop network with connections to key local destinations and to regional and state trails is needed to meet recreation, active living and non-vehicular transportation needs. A City and regional trail system would attract both residents and visitors alike.
- Parks, trails, and open space play an important role in attracting tourism, and for neighborhood and community quality of life.
- Maintenance, cleanliness and safety of parks and recreation facilities are a key factor in satisfaction with the park system.
- Partnerships for park and recreation facility development and operation will continue to increase in importance. Enhancement of those partnerships and expansion of other partnerships will help provide the best and most efficient system.

The purpose of the Parks, Trails, and Recreation section of the Comprehensive Plan is to:

- Address the community's desire to create year-round recreation programming and facilities.
- Guide development of new bike routes, grade-separated crossings, and off-street trails.
- Guide the City in acquiring land for new parks and trail corridors.
- Assist with leveraging grant funding for system improvements.
- Guide continued maintenance and enhancement of existing park, trail, and recreational assets
- Commit to opening greenspace access and trail system expansion in tandem with ravine and bluff improvement projects.

VISION FOR PARKS, TRAILS, AND RECREATION

To provide a comprehensive and balanced system of parks, greenways, trails, and support for providers of recreation-orientated activities and programs for City residents in a cost-effective manner that continues North Mankato's commitment to outstanding recreational assets.

PREVIOUS PARKS, TRAILS, AND RECREATION PLANNING EFFORTS

Several planning efforts and studies focused on parks, trails, and recreation in North Mankato have been reviewed as part of developing this chapter. Some of these efforts remain more relevant than others and all have contributed to planning efforts in the City. Previous studies, initiatives, and materials that focus on parks, trails, and recreation in the area guide the recommendations in this chapter including:

Benson Park Plan (2009)

The purpose of this plan was to create a concept for future development of the park. Founded in 1997, the 69-acre park began as a mostly undeveloped space with a few trails, benches, and a drinking fountain. The preferred concept for development includes an additional entry drive and parking lot/drop-off area from Timm Road, a main shelter and a water feature, and areas with restored habitats consisting of native species. Much of this has been constructed since 2015.

Parks Plan (2015)

The purpose of this plan is to advance a commitment to parks and outdoor recreation in North Mankato to enhance the quality of life for residents. The plan serves as an organizing document for current park inventory and future park development, makes the costs of maintaining and improving the park system easily accessible to the public, and advances a shared vision for the future of the park system within North Mankato.

Public Art Ideas Plan (2017)

The goal of this plan is to highlight the importance of public art and how it can be used by the city as a guide to integrate public art into existing and future planning initiatives and identify those areas that could be enhanced by public art. It lays out what public art is, why it should be invested in, and creates a reference guide/idea bank of public art ideas for specific locations.

North Mankato Swim Facility Assessment (2017)

This assessment examined the physical state of the swim pond infrastructure of Spring Lake Park and recommended upgrades to improve the efficiency and attractiveness of the swim pond. These recommendations included replacing piping, pumps, and valves with larger equipment designed for longer lifespans, replacement of the liner and pond bottom as both had exceeded their lifespans, improve accessibility for those in need of assistance, and the addition of play features and amenities. The facility was reconstructed in 2019 incorporating recommended improvements from that assessment.

Parks & Amenities Update (2018)

This report begins with North Mankato parks of the past, outlines an inventory of existing parks by decade of construction, and proposed renovations to existing parks.

Walter S. Farm Conceptual Master Plan (2018)

A map of possible amenity upgrades that could be incorporated into Walter S. Farm Park. These include the addition of north-south trails through the park connecting Countryside Drive on the north to La Mar Drive on the south, picnic shelter pavilions, baseball field and hockey rink, and a small parking lot in the northwest corner.

Bluff Park Master Plan (2018)

A map of possible amenity upgrades to be incorporated into Bluff Park. These include the addition of an educational overlook built around existing mature trees, an enlarged gazebo/picnic area, ornamental tree/orchard/arboretum, park entrance landscaping, and additional paved trails. Many of these improvements, as well as a major prairie restoration project have been constructed since 2015.

Caswell Report (2020)

This report outlines the number of spectators, participants, tournaments, and events that took place at Caswell Park in 2020. The 2020 season began later than normal due to the Covid-19 Pandemic and the number of tournaments and visitors decreased due to this along with the overall economic impact when compared to previous years. Still, there were 14 tournaments over 30 days with 573 teams participating, with 64 of the teams coming from beyond the 75-mile radius of the City where those within the radius are considered “day visitors”. This equates to 13,867 day visitors and 6,472 overnight visitors accounting for an estimated 5,994 hotel room nights. This resulted in an estimated economic impact of $4,346,476. This is compared to 2019 where the park hosted 22 events with 716 total teams, 325 of those being teams staying overnight, and 34,498 total visitors accounting for $8,165,621 of economic impact to the region.

Highway 14 Pedestrian Bridge Feasibility Study (2022)

North Mankato has identified the need for better north/south trail connections in Upper North Mankato in several planning documents. The Highway 14 Pedestrian Bridge Feasibility Study examined the feasibility of installing a grade-separated pedestrian/bicycle bridge over Highway 14 spanning from properties on the north side of Commerce Drive to the Caswell Park Sports Complex. A bridge addition at this location would enhance that connection, providing a safe alternative to using the interchanges at Lookout Drive and Lor Ray Drive to cross the highway. This planning initiative was recommended through the Mankato/North Mankato 2045 Long-Range Transportation Plan (MAPO 2045 LRTP) process.

North Mankato Splash Pad (2022)

The construction of a splashpad in the Caswell Park Sports Complex was completed in 2022 on the property north of Fallenstein Park and Miracle Field.

North Mankato Indoor Recreation Facility (2022)

In 2021-2022, the City of North Mankato submitted a state bonding request for $8.5 million to help fund the design and construction of the North Mankato Indoor Recreational Facility on the Caswell Park Sports Complex. The facility is planned to be 115,000 square feet at a cost of nearly $20 million. Bonding was not obtained at the time this Plan was adopted. The City plans to continue its pursuit of funding opportunities to make this a reality. The facility will include eight basketball courts that convert to pickleball and six tennis courts.

NORTH MANKATO PARK SYSTEM

Park and Greenway Classifications

The system plan consists of a variety of parks and open spaces defined under various classifications. Each classification serves a particular purpose in meeting local park and recreation needs. Although some flexibility is warranted, classifying parks is necessary to ensure a well-balanced system and that all recreational needs are effectively and efficiently met.

The classifications applied to North Mankato are based on guidelines recommended in the National Parks, Recreation, Open Space and Greenways Guidelines (National Recreation and Parks Association, 1996) and Planning and Urban Design Standards (American Planning Association, 2006), albeit expanded or modified to address circumstances unique to the city. The following table provides an overview of each classification used in North Mankato. (Each of the classifications is further expanded upon later in this section.)

Table 8-A. North Mankato Park Types

Classification	Common Guidelines	Application to North Mankato
Neighborhood Park (and MiniNeighborhood/ Pocket Park)	Neighborhood parks are the basic units of the park system and serve a recreational and social purpose. Focus is on informal active and passive recreation. Neighborhood parks are typically 5 acres or more, with 8 to 10 acres preferred for new parks. Mini-neighborhood parks, which are used only on a limited basis when securing more land is impractical, are 1 to 3 acres of developable land. Service area is ¼-mile radius for mini parks and up to a ½-mile for a typical neighborhood park, uninterrupted by major roads and other physical barriers.	Neighborhood parks remain a basic unit of the park system in North Mankato. In areas with urban densities, a service area of ¼- to ½-mile radius remains appropriate. When new parks are connected with greenway-based trails, service areas can be expanded to ½-mile radius or slightly more since trails and open space become part of the park experience. 5 acres* is typically adequate for new parks if the park is integrated into larger greenway system.
Community/ Regional Park	Community parks serve a broader purpose than neighborhood parks. Focus is on meeting communitybased recreational needs, that may also provide amenities that have a regional draw, as well as preserving unique landscapes and open spaces. Size varies, depending on function. 20 acres minimum preferred, with 40 or more acres optimal. Service area can be community-wide, several neighborhoods in a given area of the city, or a larger regional area.	The community has a long tradition of setting aside land for Community and Regional Parks like Spring Lake, Wheeler, and Benson. As additional land develops this tradition should be continued.

Table 8-A. North Mankato Park Types Continued

Classification	Common Guidelines	Application to North Mankato
Regional Athletic Complex/Facility	Consolidates programmed adult and youth athletic fields and associated facilities to a limited number of sites. Tournament level facilities are appropriate. Size varies, with 20 acres or more desirable, but not absolute. 40 to 80 acres is optimal. These complexes serve both the community as well as a regional area.	This classification has application to North Mankato to meet local and regional needs for athletic facilities (in concert with school sites.) As a growing community with families, facility demand will continue to grow in sync with age-group population growth.
Greenway/ Natural Open Space/ Conservation Areas	Lands set aside for preserving natural resources, remnant landscapes, and open space, and providing visual aesthetics/buffering. Also provides passive use opportunities. Ecological resource stewardship and wildlife protection are high priorities. Suitable for trail corridors. Overall land area varies depending on opportunity and general character of natural systems within a city.	Within the city proper, the potential for establishing greenways and preserving open space is limited. This reinforces the importance of working closely with landowners and developers in growth areas to set aside land for greenways and interconnected trails systems.
Special Use	Covers a broad range of parks and recreation facilities oriented toward single-purpose uses – such as a nature center, historic sites, plazas, urban squares, aquatic centers, campgrounds, golf courses, etc. Overall size varies, depending on need.	The use of this classification will be limited in North Mankato, primarily the open space and plaza areas in the downtown area.
School Site	Covers school sites that are used in concert with, or in lieu of, city parks to meet community recreation needs. School sites often provide the majority of indoor recreational facilities within a community. Size varies, depending on specific site opportunities.	Continuing the established relationship between the School District and the City is vital to successfully meeting the longterm demand for athletic facilities in a cost-effective manner.

* Neighborhood park size note: The recommended minimum 5 acre size for new neighborhood parks may be modified at the City's discretion if the park is part of an overall public amenity package associated with a given development area. This might include, for example, providing enhanced streetscapes and public squares that add value to the public realm and complement neighborhood park features. Note, however, that the essential value of a neighborhood park should be retained to ensure that 1) the recreational needs of local residents are adequately meet, and 2) the City does not accept a series of smaller mini-parks in lieu of a neighborhood park, which is inefficient and inconsistent with the system plan as defined in this section.

Cumulative Park System Acreage Standards

The current national guidelines are for each community to evaluate and determine its own park and open space needs and desired level of service through local public process, then, if necessary, compare that evaluation against similar situations within the region. North Mankato's system plan falls within standard practices and compares favorably to other communities in terms of public land area and park distribution to service community needs. General guidelines for parks and open spaces suggest there are at least 7 acres of municipal park land per 1,000 residents and that 90% or more of residents are within one-half mile of a park or protected green space.

Nuances with North Mankato's system include the opportunity for an extensive natural greenway/open

space system surrounding the city and along the riverfront. This is a unique opportunity that sets North Mankato apart from many communities of similar size. However, due to the floodwalls along the river it is recognized that challenges do exist when attempting to create recreational opportunities along the river.

Park Inventory & Analysis

Although the greenway and park system functions as a cohesive whole, individual parks will continue to have a significant and defined purpose consistent with their classifications. **Figure 8-1** illustrates the location and name of each park within the system, and the general proposed areas where new parks will be needed as development occurs. The following table provides an overview of the total number of parks under each classification (existing and proposed future), along with the approximate number of total acres.

Note: Park acreage and designations remain unchanged since the development of the 2015 North Mankato Comprehensive Plan.

Table 8-B. Park Inventory

Park Classification	Existing Parks		Proposed Parks	
	#	Acres	#	Acres
Neighborhood Parks	12	42.5	1	2.7*
Community Regional Parks	3	138.5	1	2.7
Athletic Complex / Facility	2	47.8	1	7
Special-Use Parks	2	8.6	0	0
Open Space Parks	2	40.3	0	0
Totals	**21**	**277.7**	**3**	**12.4**

Contingent on extent of future residential development and annexation; based on 5 acres per site and a ½-mile service area radius.* ***Note* *: Greenways are not included in the table.*

A. Neighborhood Parks

Neighborhood parks are the basic unit of the park system and serve a recreation and social purpose. Development focuses on informal recreation. Programmed activities are typically limited to youth sports practices and very occasionally, games. There are 12 existing parks within the North Mankato system that serve neighborhood uses, including:

- Forest Heights Park
- King Arthur Park
- Langness Playground
- North Ridge Park
- Pleasant View Park
- Reserve Park
- Roe Crest Park
- South Avenue Playlot
- Storybook Park
- Tower Park
- Walter S. Farm Park
- Wallyn Park

In general, the existing parks are capable of meeting the primary needs of the neighborhoods they serve and, collectively, meet acceptable standards for neighborhood parks. Placement of the parks and the areas they serve are also well-distributed throughout the city.

B. Community/Regional Parks

Community/Regional parks typically serve a broader and more specialized purpose than neighborhood parks and are sometimes referred to as community and/or regional parks. Their

focus is on meeting community-based recreational needs, regional-based recreational needs, as well as preserving unique landscapes and open spaces. The general palette of amenities typically found within this class of park includes:

- Amenities common to a neighborhood park, albeit at a larger scale
- Larger group picnic facilities
- More extensive looped trail systems
- Open maintained green space for passive and active use
- Winter activities, such as ice skating, sledding, and skiing
- Event space
- Special use facilities having a community appeal

In addition to specific amenities, community/regional parks also often serve an important aesthetic role by providing green space and buffering, along with creating an appealing sense of place that helps define the essential character of the community.



As illustrated on **Figure 8-1**, there are three parks that fall under the community/regional park classification.

- Benson Park
- Spring Lake Park
- Wheeler Park

C. Regional Athletic Complexes/Facilities

The Parks Plan includes athletic facilities in a number of parks for varying levels of programmed uses. City-provided facilities are also complemented by the local schools, colleges, and neighboring communities' athletic facilities. There are currently three defined parks for regional programmed athletics, which include:

- Caswell Park Softball Complex
- Caswell North Soccer Complex
- Webster Ball Diamonds

Extension of the local sales and use tax in 2016 by voters and 2018 by the Minnesota State Legislature included language allowing the use of funding for indoor recreational amenities. The City of North Mankato has approved a facility assessment and operating documents for a future 115,000 square foot indoor sports facility that will provide a recreational asset to the community that will host tennis, pickleball, basketball, and volleyball tournaments. Continued work on design and eventual construction of this amenity will continue throughout the life of this plan. As mentioned, state bonding was received to assist with constructing the new facility.

D. Special-Use Parks

In addition to the parks and athletic facilities previously defined, a number of special-use facilities and amenities are also part of the system plan, including the following parks:

- Centennial Park
- Riverview Park

E. Open Space

- Bluff Park
- Lee Boulevard Park

F. Schools/Colleges

- South Central College
- Dakota Meadows Middle School
- Hoover Elementary
- Monroe Elementary
- Bridges Community Elementary

Recently Constructed, Planned, And Proposed Improvements To North Mankato Parks And Recreation

- Caswell Park: Fallenstein Playground – The Fallenstein Playground is an inclusive playground built in 2018 to accommodate users of all abilities. Fallenstein Playground is located adjacent to Miracle Field in Caswell Park.
- Benson Park – In line with the Benson Park Master Plan, recent improvements have included a new parking lot on the north side of the park along Timm Road and restroom facilities. This was completed in 2020.
- Bluff Park – In line with the Bluff Park Master Plan, recent improvements include a new educational overlook with views of the valley and Hiniker Pond. Completed in 2020.
- Caswell Park Indoor Recreation Facility – North Mankato citizens have expressed interest in continued development and expansion of the Caswell Sports Complex to include an indoor recreation facility for year-round athletic use. The City continues to pursue funding to construct this.
- Splash Pad - This amenity has been desired by residents for some time and locating it next to the Fallenstein Playground and future indoor recreational facility would provide a fine recreational asset to the community.
- Walking trails accompanying ravine improvement projects will enhance the trail system and livability of neighborhoods.
- Potential for a new neighborhood park in the Waters North Subdivision.
- Improvements to the trail connecting Spring Lake Park and Mary Circle.
- Potential expansion of the Taylor library.
- Continued use of public art in parks for beautification.
- Any enhancements referred to in the Parks and Greenways Enhancement Plan.

Table 8-C. North Mankato Park Facilities

X - Included P - Proposed O - Open Skating H - Hockey S - Shelters L - Lighted	Picnic Area	Restrooms	Water Fountains	Basketball Court	Tennis Court	Sand Volleyball	Horseshoe Court	Ball Fields	Playground Area	Trails* Distance	Soccer Fields	Swimming	Ice Skating	Warming House	Sliding	X Country Skiing	Wildlife/Nature	Dump Station	Fishing	Lake Depth	ADA Inclusive Play Equipment	Scenic Overview	Park Size (Acres)
Benson Park 2000 Carlson Drive	X2	X	X						X	1+					P	X	P		Blue Gills	8 ft			69.12
Bluff Park 194 Mary Circle		X	X							1.2						X	X					X	30.01
Caswell Park 625-3621 1875 Howard Drive	X	X	X			4		L6	X												X		25.00
Caswell North Soccer 1875 Carlson Drive		X	X								X7+												17.00
Centennial Park 840 Belgrade Ave			X																				1.00
Forest Heights Park 401 Marie Lane	X		X	X	L2			1	X				O			X							5.00
King Arthur Park 1580 Sharon Drive	X		X	X	L2			1	X				O			X							5.10
Langness Playground 355 Carol Court	X			X					X							X							1.10
Lee Boulevard Rest Area 1500 Lee Blvd	X																						1.20
North Ridge Park 1720 Quail Roost Drive	X		X	X				1	X				O			X							6.50
Pleasant View Park 2215 Pleasant View Drive	X		X	X				1	X				O			X							7.79
Reserve Park 1902 Lexington Lane	S1		X	X					X							X							5.39
Riverview Park 900 North River Drive		X	X							X						X	X	X					6.20
Roe Crest Park 2214 Clare Drive	X		X					1	X				O			X							3.80
South Avenue Playlot 937 South Avenue	X								X														0.75
Spring Lake Park 641 Webster Avenue	S5	X	X	X		4		3	X	0.8		X	H	X		X	X		Crappies	12 ft			52.00
Tower Park 1525 Tower Boulevard			X		L2																		3.00
Walter S. Farm Park 1601 Countryside Drive	X		X	X			1	1	X				O			X							6.10
Wallyn Park 201 Pierce Avenue	X							1	X							X							2.30
Webster Ball Diamonds 640 Webster Avenue								2		0.3					X	X							6.50
Wheeler Park 387-5187 402 Page Avenue	S2	X	X	X	2		12	1	X				O	X		X							12.50
South Central College (Leased April-August)											X												

**Trails Distance in Miles*

NEW PARK FACILITIES

As the City grows and more families begin to call North Mankato their home, the need to expand the parks system will grow as well. **Figure 8-2** identifies new park target zones identifying potential locations for new parks in the future serving areas where residential areas are anticipated. To identify potential new park target zones, park service areas (**Figure 8-1**) were examined from the 2015 Parks Plan to identify gaps in the system where residential uses exist or are anticipated to exist in the future. Park service areas include the area within ½ mile of existing Neighborhood Parks, ¼ mile of existing Neighborhood Mini-Parks, ½ mile from Athletic Complexes, and 1 ½ miles from Community Parks. An area extending ½-mile from the edge of existing park service areas was identified to ensure the ½-mile service area is maintained for new parks [5]. This area was then reduced to only those areas with potential to be future residential uses and those served by existing or planned sanitary sewer services areas within ½-mile of the existing park service areas. Exact locations of new parks will be determined as needed during residential development site design.

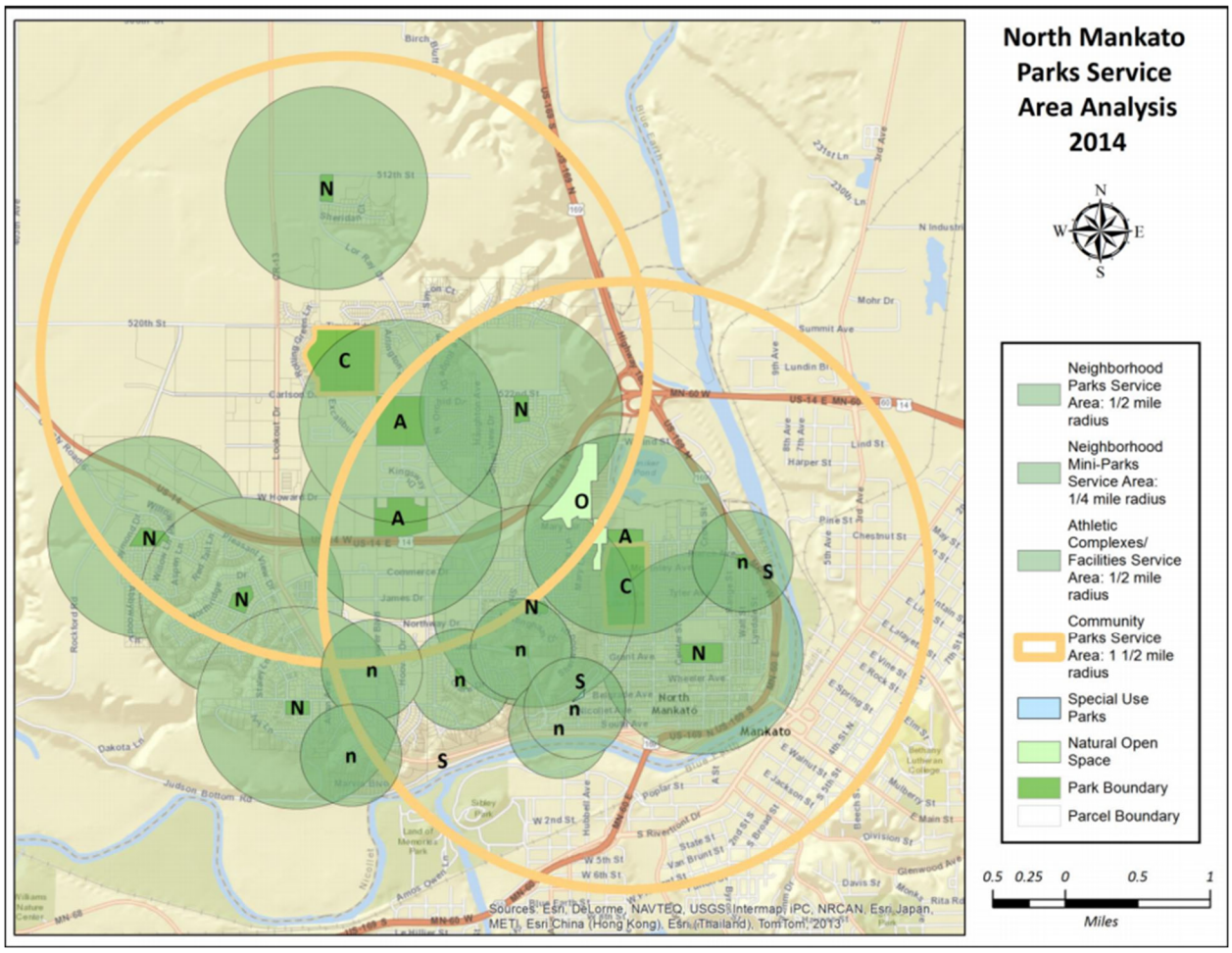
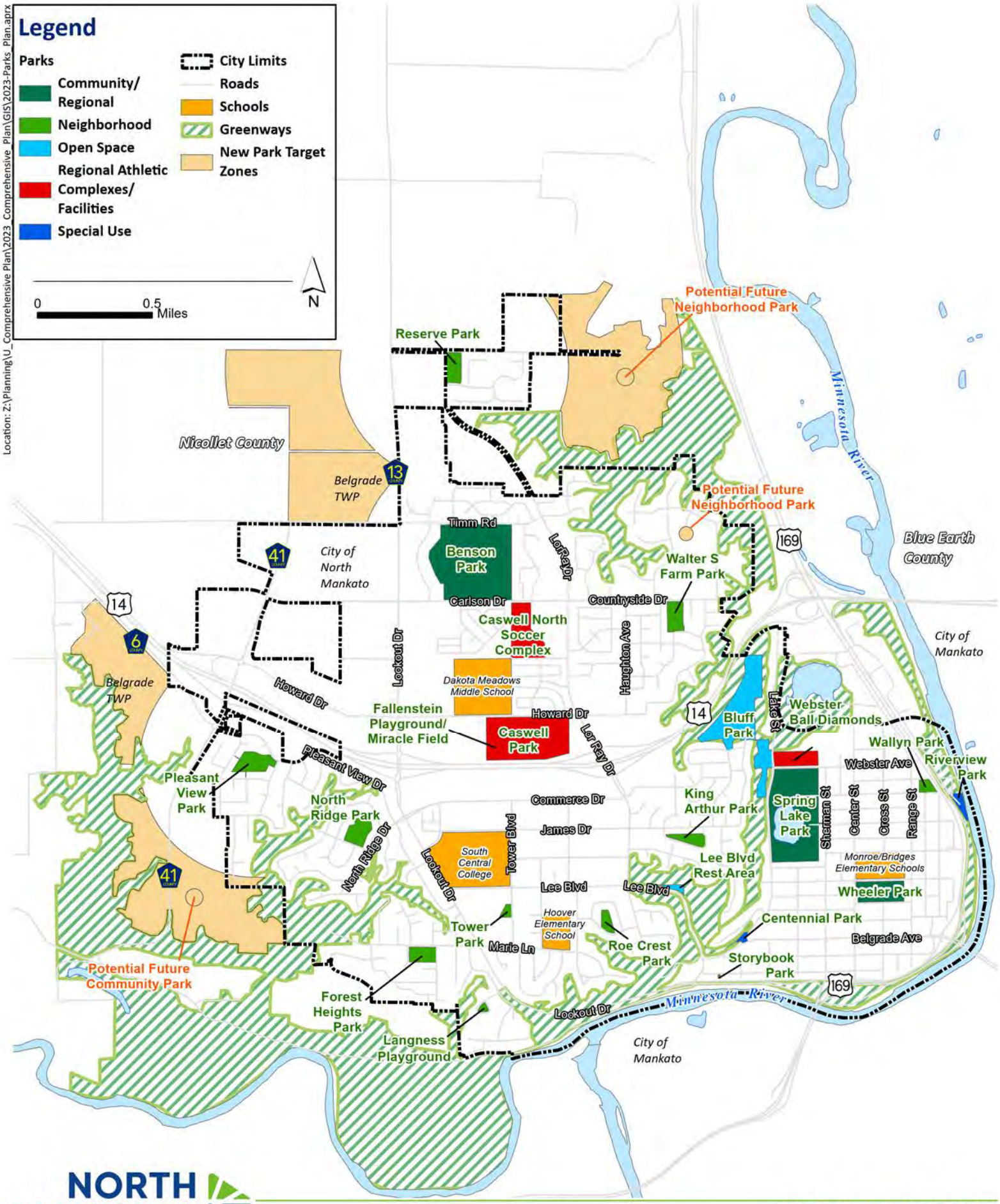


Figure 8-1. Park Service Areas referenced from the 2015 North Mankato Parks Plan.

[5] For the purposes of locating new park areas for new residential neighborhoods, existing "Community Parks" were given a service area of ½-mile despite having an identified service area of 1 ½ miles in the 2015 Parks Plan. This is necessary to ensure new neighborhoods are within a ½-mile of neighborhood style park amenities, which are included in both Community Parks in the system.



NORTH MANKATO
MINNESOTA

Figure 8-2. Parks Plan
April 2023

PARK GOALS, OBJECTIVES, AND POLICIES

The following section outlines the primary goals for parks followed by a series of objectives and policies intended to influence future development efforts that align with the community visions in this plan.

GOAL 1: Plan for a sustainable park system.

Objective 1.1: Plan and design parks in a way that ensures their long-term viability.

Policy 1.1.1: All park properties that are set aside (and/or are proposed in the future) must take into account the long-term commitments required to develop, operate, and maintain across their lifecycles.

Policy 1.1.2: Balance maintained turf areas with natural areas to add aesthetic appeal, control maintenance costs, infiltrate stormwater, provide wildlife habitat, and reduce carbon emissions.

Policy 1.1.3: Update the parks plan every 5-10 years depending on the amount of change and development within the city.

Policy 1.1.4: Explore alternative methods for parkland dedication that will assure sufficient park facilities well into the future.

Objective 1.2: Understand current trends and community issues, opportunities, and needs related to parks within the city.

Policy 1.2.2: Master plans should be prepared for each park prior to their development to ensure that the right mix of amenities are provided, and the park's design is cohesive and complementary to the design for other parks and public spaces.

Policy 1.2.3: Ensure public participation in the master planning process is included for each park development project.

Policy 1.2.4: Analyze the placement and use of "nature play" equipment in existing and proposed parks.

Policy 1.2.5: Provide all users an opportunity to participate in park activities by ensuring trails, buildings, fountains, etc. are ADA compliant and playgrounds include inclusive play equipment where feasible.

GOAL 2: Provide additional park and recreation opportunities in areas of new development throughout the city.

Objective 2.1: Service local park and recreation needs by providing neighborhood and community parks as residential growth occurs.

Policy 2.1.1: Consider constructing neighborhood parks where as is necessary to maintain a half-mile park service area for all new and existing residential development.

Policy 2.1.2: Explore the possibility of including a community park in appropriate areas of the City.

Policy 2.1.3: Locate new parks based on how they can be best integrated with the new development that the park will serve.

GOAL 3: Adhere to Park Master Planning and Facility Design Quality / Development Standards.

Objective 3.1: Ensure the quality standard for built features within the park system is consistent with industry standards for safety, durability, and accessibility.

Policy 3.1.1: Periodically inspect and repair all parks, trails, and recreation facilities for hazardous conditions, including unsafe play equipment, fallen vegetation, etc.

Policy 3.1.2: The design of individual parks should be of a consistent quality.

GOAL 4: Ensure North Mankato's parks meet the diverse interests and recreation needs of the community.

Objective 4.1: Partner with the relevant organizations and others that cannot be met exclusively by the city.

Policy 4.1.1: Coordinate with relevant local organizations to address park and recreation issues during the creation of the Parks, Trails, and Open Space System Plan.

Objective 4.2: Consider the desire of the community to construct a multi-use, indoor athletic facility for residents and to attract regional tournaments and events.

Policy 4.2.1: Explore the impacts of developing such facilities, including impacts to adjacent neighborhoods.

Policy 4.2.2: New facilities should provide year-round activities and programs for all age groups, abilities, and all income levels.

GOAL 5: Create a comprehensive signage program for park facilities.

Objective 5.1: Provide a consistent message and information to park visitors through the use of a uniform sign style and program throughout the city.

Policy 5.1.1: Identify the information to be included on the signage. Typically, this includes: park names, direction to features, general information and rules, and ecological stewardship program and interpretive information.

Policy 5.1.2: Ensure the program remains an ongoing priority by providing an annual investment in a signage program.



NORTH MANKATO TRAIL SYSTEM

Trail System Inventory & Analysis



North Mankato's trail system primarily parallels major vehicular routes throughout the City with some internal trail loops within the community parks, and a section of trail that follows the river. There are many gaps within the City and opportunities to cross major barriers such as Highway 14, Highway 169, and the Minnesota River are limited as indicated in the existing trail system plan. There is a great trail system surrounding North Mankato and it was verified in the community process that safer and easier connections are desired. **Figure 8-2** shows the plan for trails within the City of North Mankato.

Recently Constructed, Planned, And Proposed North Mankato Trails

Many of the following trail connections have been constructed since the 2015 Comprehensive Plan was adopted. Trail additions have been spurred by recommendations from the North Mankato Trails Plan and the City's ability to obtain federal funding through roadway improvements and safe routes to school sources.

A. Commerce Drive

South side multi-use trail from Lookout Drive to Lor Ray Drive Completed in 2019.

B. Dakota Meadows Middle School Safe Routes to School (SRTS)

North side trail addition along Howard Drive from Lookout Drive to Lor Ray Drive and an off-street trail from Howard Drive to Carlson Drive Completed in 2020.

C. Hoover Elementary School SRTS

Trail upgrade on east side of Lookout Drive from Commerce Drive .to Marie Ln. as well as on Marie Ln. from Lookout Drive to Roe Crest Drive Planned for construction in 2024.

D. Potential TH 14 Pedestrian Bridge Crossing

This pedestrian crossing over Highway 14 would provide a connection from Tower Boulevard on the south side of the highway to Caswell Park on the north side of the highway near Fallenstein Miracle Field and Playground. The pedestrian bridge is identified in the Commerce Drive Area Development Plan, the Lookout Drive Area Plan, and other city documents. The proposed bridge would facilitate recreational trail expansion and provide safer routes to area schools. The city aims to pursue funding opportunities to construct the overpass in the coming years.

E. Potential Belgrade Avenue/Roe Crest Drive Connector Trail

The city aims to improve the trail connection extending from the western end of Belgrade Avenue to Roe Crest Drive through a wooded ravine setting where city utilities have been put in place and a wood chip trail has been installed. Improvements would include applying asphalt

pavement.

F. Mary Lane to Spring Lake Park (Lake Street)



Through development of the City Trail System Plan, some expressed interest in revitalizing the trail connection from Lake Street in Lower North Mankato to Mary Lane. The trail was paved in its entirety in 2022.

G. Planned On-Street Facilities

Several on-street facilities are planned throughout the system that will occur in the short term. These include Howard Drive east of Lor Ray Drive, Range Street, Tower Boulevard, and Countryside Drive.

Redefining the Trail System

A. Trail Loop System

The trail system in North Mankato has grown to the point where a new type of trail identification seems appropriate to guide users through the system. In 2021, the North Mankato Bicycle Commission was reconvened to provide input on the status of the North Mankato trail system. A series of trail loops were identified to redefine the system and provide guidance on trail locations, potential future facilities, and existing trail amenities. Figure 8-3 illustrates these loops along with key trails, identified for their connections to destinations throughout the City and/or expected use. The following loops and key trails have been identified in the City of North Mankato:



Gran Fondo (12.5 miles)

A Grand Fondo is a type of long-distance road cycling ride originating in Italy in 1970, and roughly translates into English as “Big Ride” (Source: Wikipedia). While this trail loop doesn’t provide the typical 75 miles considered the norm for a Gran Fondo in Italy, it does traverse the entire periphery of the City of North Mankato. It utilizes on- and off-road trails taking users from the top of the bluff in Upper North to the valley in Lower North.

Prairie Loop (6.4 miles)

This loop provides connections to parks, schools, and area commercial businesses and amenities.

Brickyard Trail Loop (4.4 miles)

This trail passes the original brickyard locations in and around Wheeler Park in Lower North Mankato. This loop utilizes on-street trails providing connections between Lower North parks, lakes, schools, and commercial areas including the Central Business District.

North Ridge Loop (1.4 miles)

This trail provides a short, family-friendly loop through the quiet North Ridge neighborhood with access to North Ridge Park.

Dakota Chaku Trail (0.5 Miles)

This translates to "Dakota Road". This trail's proximity to Dakota Meadows Middle School makes this name quite appropriate and provides perhaps an inspirational opportunity for education on Dakota heritage. This trail has potential for future expansion to the south as the City pursues funding for a pedestrian bridge crossing Highway 14.

Commerce Trail (1 mile)

The Commerce Trail was constructed in 2019 and provides a connection between Lor Ray Drive and Lookout Drive. Users can access the Commerce Drive Commercial District on the eastern portion of the trail.

B. Agency Coordination: Greater Mankato Trails Systems

In 2021-2022, the Greater Mankato Bicycle Task Force consisting of representatives from North Mankato, Mankato, Blue Earth County, Nicollet County, Visit Mankato, Greater Mankato Bike & Walk Advocates (GMBWA), Mankato Area Mountain Bikers (MAMB), and the Statewide Health Improvement Partnership (SHIP) began a process to establish the Greater Mankato Trail Systems branding. Efforts included establishing a cohesive brand to be included on wayfinding signage and information kiosks throughout trails in the systems. Agencies anticipate a boost in "cyclo-tourism" in the area as branding will create awareness of the Greater Mankato area as a cycling destination for tourists. Signage for North Mankato was developed during the same period and kiosks were produced that include the Greater Mankato Trail Systems Map showing how North Mankato's trail system integrates into the regional system.



Figure 8-3. Greater Mankato Trail Systems logo developed through the branding effort.

Regional & State Trails

These regional and state trails provide commuting and recreational value to the area. Providing connections to these trails from North Mankato should be a high priority for the City.

Table 8-D. Regional & State Trails

Trail Name	Length (miles)	Termini	Surface Type
North Minnesota River Trail	4.8	US 14 and North Riverfront Drive to Sibley Parkway	Asphalt
Red Jacket Trail	13	North Minnesota River Trail under Highway 169 to Huffy Lane in Rapidan, MN	Asphalt
Sakatah Singing Hills State Trail	39	North Riverfront Drive and Highway 14 to State Route 21 in Faribault, MN	Asphalt
South Route Trail	8.3	County Road 69 to State Route 22 and County Road 90	Asphalt

Trail User Group Guidelines

The proposed trail system plan is consistent with MN DNR's Trail Planning, Design, and Development Guidelines (2007) for designing and developing sustainable trails. The DNR guidelines are recognized as the most comprehensive standards for trails and address trail planning, design, and development. All trail development should be consistent with these guidelines as applicable to the classifications used in North Mankato.

A key concept of the trail guidelines is maximizing the value of trails to local residents. The values ascribed to trails are important because they are at the core of why a person uses a particular trail on a repeat basis. Studies clearly indicate that trail users make a distinction between trails based on their perception of value, as the figure below illustrates.

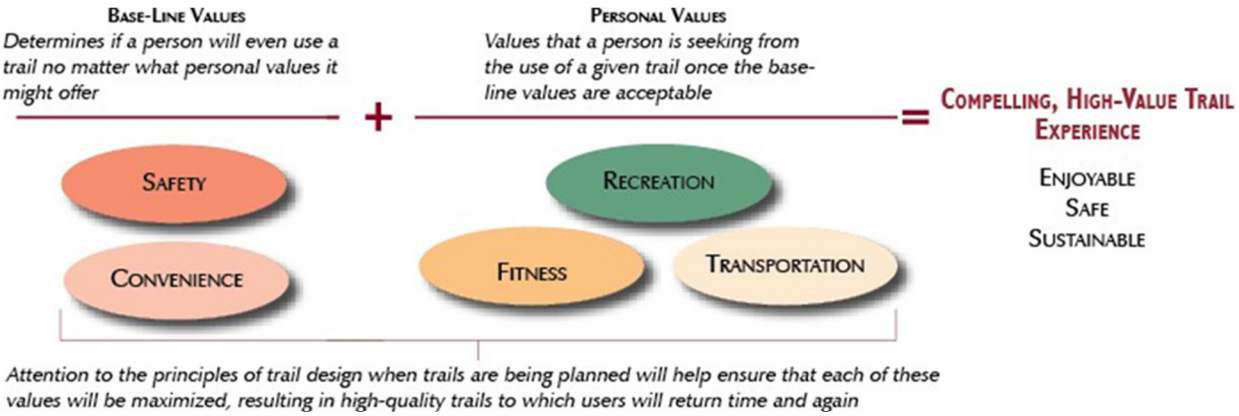


Figure 8-4. User perceptions of Trail Value.

As the graphic illustrates, safety and convenience are base-line determinants for whether a person will even use a trail irrespective of its quality. Once these two values are perceived as being acceptable, then the personal values will be given more consideration by a trail user. The following considers each of these values in greater detail.

A. Safety

A sense of physical and personal safety is the most important trail value in that without it people are disinclined to use a trail irrespective of how many other values it might provide. Physical safety can be relatively assured through good trail design. Personal safety, which relates to a sense of well-being while using a trail, is a less tangible yet still important factor that cannot be taken lightly.

B. Convenience

Convenience is important to day-to-day use of a trail. Studies have shown that the vast majority of shared- use paved trails are used by those living within a few miles of the trail they use most frequently.

Although convenience is important, its influence is still tempered by recreational value. No matter how convenient, a poorly designed trail in an uninteresting setting will have limited recreational value. Alternatively, a well-designed trail in an interesting setting might draw users from some distance. The point is that trails should be located where they are both convenient and offer the recreational amenities that users are seeking.

C. Recreation

Of all the values ascribed to a trail, its recreational value is the most important in terms of predicting its level of use, assuming that safety and convenience are not issues. In general, trails offering a high-quality recreational experience are those that:

- Are scenic and located in a pleasant park-like setting, natural open space, or linear corridor away from traffic and the built environment
- Provide a continuous and varying experience that takes visitors to a variety of destinations and is a destination unto itself
- Offer continuity with limited interruptions and impediments to travel

This underscores that trail planning must be based on criteria that go beyond simply providing miles of trail – with considerable emphasis on the quality of the trail experience as much or more than quantity.

In North Mankato, creating trails with high recreational value inherently affects community planning and development. Planning for trails that follow greenways that seamlessly traverse public open spaces and private developments alike is considerably different than planning for trails that follow road rights-of-way. While greenway- based trails often pose more challenges to plan and implement, the

value of these trails to the community has proven to be very high and worth the investment. Cities that have successfully integrated these types of trails often highlight them as key aspects of the community's quality of life.

D. Fitness

Fitness is a growing value that cannot be overlooked. Fortunately, this value is generally achieved if safety, convenience, recreational, and transportation values are met. Most critical to accommodating this value is developing an interlinking trail system that provides numerous route options with trail lengths necessary for the types of uses envisioned.

E. Transportation (Commuting)

The transportation (commuting) aspect of trails is valuable to a growing subset of the user population. This is especially the case with shared-use paved trails, where bicycling, in-line skating, and walking are viable means of transportation, especially for people in urban and suburban settings.

On-road bikeway facilities are also viable and important means of transportation if developed to acceptable standards. Importantly, promoting the use of trails and on-road bikeways for

transportation will only be successful if the system is perceived as safe and convenient relative to a user's skill level. Without such a system, residents would simply use their vehicle.

F. Trail Classifications

The proposed trail connections indicated in the comprehensive plan are a baseline to continue to add to. It is recommended the city complete a multi-modal system plan study to identify additional key connections throughout the city.

Understanding the different classifications of trails appeal to different users is critical to the success over the overall system. Each classification serves a particular purpose in meeting local trail needs. The distinction between trail types is important due to the variability in their recreational value, which greatly affects the value of the system to residents and the degree to which a trail or system of trails will be used.

Table 8-E provides an overview of the classifications for trails North Mankato should consider.

Table 8-E. North Mankato Trail Classifications & Guidelines

Classifications	Common Guidelines	Applications to North Mankato
Destination Trails	Destination trails are paved trails for walking, jogging, bicycling, and in-line skating located within a greenway, open space, park, parkway, or designated trail corridor.	Destination trails will be the backbone of the greenway-based trail system that loops the city and connects to adjoining communities and college campuses.
Linking Trails	Linking trails emphasize safe travel for walking, jogging, bicycling, and in-line skating to/from parks and around the community. Linking trails are most often located within road rights-of-way or utility easements.	Linking trails will be primarily used as a means to connect neighborhoods and developed areas to the destination trail system and provide safe routes to schools.
Sidewalks	Sidewalks emphasize safe travel for walking and jogging within residential areas and business districts and to/ from parks and around the community. Although biking and in-line skating are allowed on sidewalks, the narrower width and concrete surface limit their use for this purpose. Sidewalks are most often located within road rights-of-way of a	Sidewalks work in concert with linking trails and are primarily used as a means to connect neighborhoods and developed areas together and to the destination trail system, as well as provide safe routes to schools.
Nature Trails	Nature trails are commonly used in areas where natural tread is desired and harmony with the natural environment is emphasized. Use is limited to hikers and joggers in North Mankato.	Natural trails will be primarily used in nature areas and as secondary connections to the destination trail system, especially within a preserved natural area or conservation easement.
On-Road Bikeways	Bike routes and lanes are on-road facilities that primarily serve fitness and transportation bicyclists and in-line skaters, as well as recreationalists with a higher skill and comfort level being around automobiles.	Bikeways augment, but do not take the place of, the trail and sidewalk system.

G. Character and Value Comparison between Trail Classifications

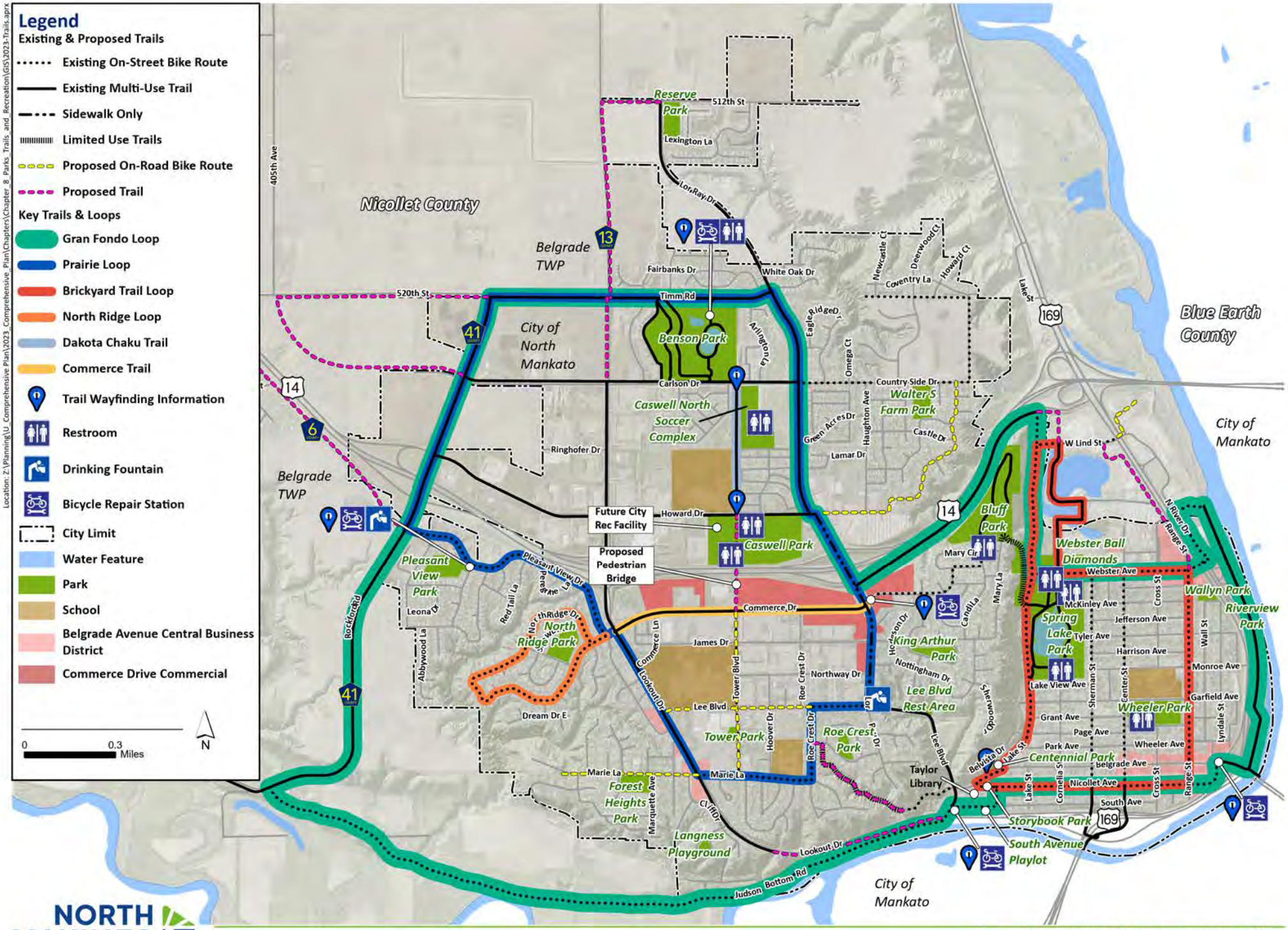
Each of the trail classifications defined above:

- Accommodate specific types of trail users
- Provide a certain type of recreational experience and value to pedestrians, bicyclists, in-line skaters, and wheelchair users
- Are located in a specific type of setting appropriate for the activity
- Follow design guidelines that allow for a safe and enjoyable use of the facility

Table 8-F considers the expectations of the most common types of trail users in North Mankato, and the values and preferences that are likely to be of most importance.

Table 8-F. Trail User Types

User Group	Value and Preferences
Family Group – Various Modes	Safety and convenience are top priorities, followed by a pleasant recreational experience. Controlled, traffic-free access to sidewalks and trails is preferred. Length of trail is less important than quality of experience. Will typically only use low-volume residential streets when biking or skating, and rarely busy streets even with bike lanes or routes.
Recreational Walker, Bicyclists, and In- Line Skater	Same as family user group, with trail continuity and length also being important for repeated use. 20 miles of connected trails are needed for bicyclists, at a minimum. This user group is also more comfortable with street crossings. Bicyclists and in-line skaters will use roads that are not too busy. Loops are preferred over out-and-back routes for variety.
Fitness Walker/ Jogger, Bicyclists, and In-Line Skater	Length of trail and continuity are most important, although an appealing setting is also desired. Bikers are reasonably comfortable on busier roads, but prefer bike lanes/routes to provide separation from vehicles. Bikers will often use a combination of roads and trails to create a desirable loop, which is much preferred over out-and-back routes.
Transportation Walker, Bicyclists, and In-Line Skater	Directness of route is important. Will use a combination of sidewalks, trails, residential streets, and roads that are relatively safe, convenient, and direct. Bike lanes/routes are preferred on busy roads to improve safety. Bicyclists are not overly dependent on trails, but will use them if convenient and not too heavily used by families and recreational users, who tend to slow them down. Walkers need a trail or sidewalk.



NORTH MANKATO
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Figure 8-3. City Trail System Master Plan
April 2023

TRAIL SYSTEM GOALS, OBJECTIVES, AND POLICIES

The following section outlines the primary goals for trails followed by a series of objectives and policies intended to influence future development efforts that align with the community visions in this plan.

GOAL 1: Expand on the existing interlinking system of trails throughout the City that connect with adjoining communities, regional, and state trails.

Objective 1.1: Continue to maintain the trail system plan for the City to better understand community needs and desires.

Policy 1.1.1: Ensure the quality standard for trails within the system is consistent with industry standards for safety, durability, and access.

Policy 1.1.2: Continue to create a comprehensive signage program for trail facilities.

Policy 1.1.3: Integrate new residential, commercial, and industrial development into the existing and expanding trail system when possible.

Policy 1.1.4: Include the development of trails in North Mankato's Capital Improvements Plan.

Policy 1.1.5: During the planning process for major street and utility improvements, evaluate the appropriateness of developing community and neighborhood trails with the proposed improvements, even if the Trail System Master Plan does not show proposed trails associated with the areas to be improved.

Policy 1.1.6: Incorporate trails into ravine restoration or improvement when practical and feasible.

Objective 1.2: Strengthen east and west connections over the Minnesota River to enhance system continuity and regional connectivity.

Policy 1.2.1: Explore the feasibility of, and options for, the construction of a dedicated pedestrian/bicycle bridge over the Minnesota River from North Mankato to Mankato and the regional trail system.

GOAL 2: Strengthen trail connectivity within City limits

Objective 2.1: Create a stronger north and south connection over Highway 14 in Upper North Mankato

Policy 2.1.1: Construct proposed on-street and multi-use trails as identified in the City Trail System Master Plan.

Policy 2.1.2: Pursue grant funding opportunities identified in the Highway 14 Pedestrian Bridge Feasibility Study to construct a pedestrian/bicycle bridge over Highway 14 that will connect the Commerce Drive Trail and planned on-street trail facilities on Tower Boulevard to the Caswell Sports Complex and trails north.

RECREATION PROGRAMS

Current Programming Opportunities

Currently, many of the recreation opportunities are administered by the City of North Mankato. Other opportunities are offered by the Mankato Area Public Schools Community Education and Recreation Program, YMCA, YWCA, and MSU-Mankato.

There are also many organized sports groups for soccer, baseball, softball, hockey, figure skating, basketball, lacrosse, swimming etc. that offer their own programming opportunities for league play.

Regarding the arts, most programs and events are run by Twin Rivers Council for the Arts (TRCA), which is a non-profit organization devoted to promoting arts and culture in Greater Mankato. TRCA serves as a great resource for information related to the arts and cultural events. The City of North Mankato recognizes the importance of arts and culture and its contribution to quality of life. The City will support the use of parks and other public spaces for cultural and art related events and activities.



NORTH MANKATO GREENWAY SYSTEM

Greenway System Definition & Characteristics

The Greenway Corridor System protects, preserves, and enhances natural areas and open spaces, and maintains connections among these areas. The Greenway System is designed to grow with local communities and provide connections to neighboring communities and nearby natural and cultural resources.

The City's Northwest Growth Study identifies western expansion of City limits which includes additions to the greenway system. **Figure 8-6** identifies the Greenway System and indicates that the system includes broad "green" loops. A long-term vision for a Greenway System should include a system that protects natural resource areas as the community grows and provides recreation opportunities for area residents.

Wildlife Management in the Greenway System

The Greenway System in North Mankato not only provides opportunities for recreation, but also significant wildlife habitat. Many in the community welcome wildlife, such as deer, rabbits, and geese. However, wildlife in an urban environment where there are no natural predators and ample food can become problematic if left unchecked.

While there are many that welcome wildlife, there are also many that have experienced significant damage to landscaping and other vegetation on private properties. This has resulted in City staff working with the Minnesota Department of Natural Resources (MNDNR) to identify appropriate steps the City should take to effectively manage wildlife. That process was in progress during the development of this Plan.

GREENWAY GOALS, OBJECTIVES, AND POLICIES

The following section outlines the primary goals for greenways followed by a series of objectives and policies intended to influence future development efforts that align with the community visions in this plan.

GOAL 1: Create a greenway system that provides recreational opportunities, protects and enhances natural resources, is valued by the community, and can be maintained long-term by the City.

Objective 1.1: Complete an action plan that further defines the limits and opportunities of the greenway corridors and includes strategies, timelines, and costs for implementing the system.

Policy 1.1.1: Develop an operations and maintenance strategy for each greenway to assure the public that the City has the capacity to meet these responsibilities.

Policy 1.1.2: Clearly define how improvements will be funded, and the potential costs to the average homeowner in the City, to avoid any uncertainties in this regard.

Policy 1.1.3: Make strategic prioritized investments toward the greenway system that will continue to expand their role as defining elements in the City's infrastructure and enhance the region's economic prospects by attracting new residents and supporting robust levels of tourism.

Policy 1.1.4: During platting of development, ravines and greenways will be either dedicated to the City or covered by conservation easement allowing continued

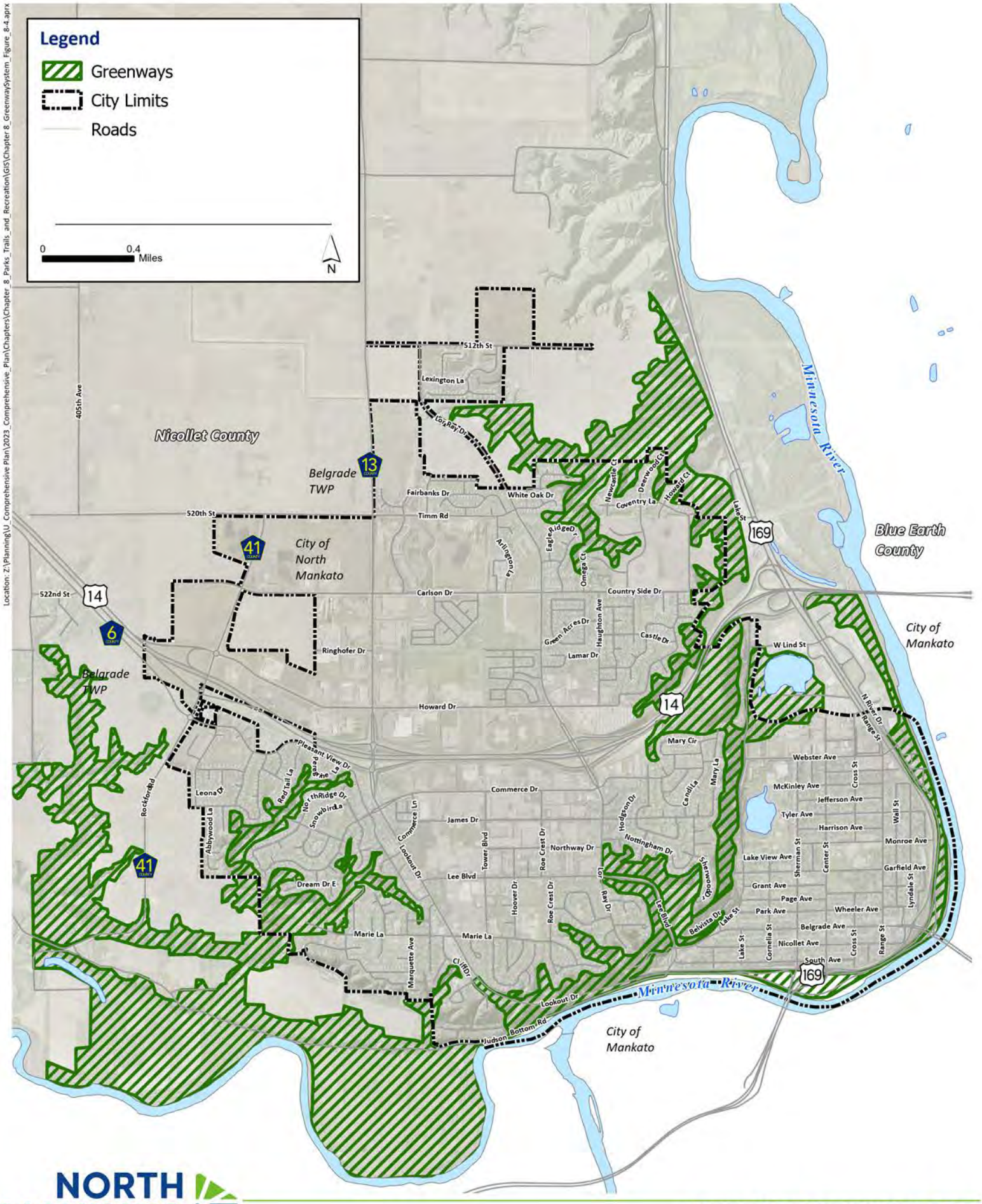
protection against erosion and other degrading activities (i.e. sump pumps, dumping brush and grass, clear cutting, and other personal property).

Objective 1.2: Effectively manage wildlife within City limits to minimize impacts to personal and publicly owned property.

Policy 1.2.1: Investigate the scale of wildlife impacts on the Greenway System and private properties.

Policy 1.2.2: Seek guidance from the MNDNR and other MN State agencies on wildlife management best management practices (BMPs).





NORTH MANKATO
MINNESOTA

Figure 8-4. Greenway System
April 2023

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POTENTIAL FUNDING SOURCES FOR PARKS, TRAILS, AND GREENWAYS

The availability of funding for implementing the park, open space and trail system initiatives will have direct impacts on the timing of implementing the plan. The following table provides a brief overview of the funding sources typically available to local governments. It also provides an overview of a strategic approach to implementing the System Plan.

Important underpinnings to consider for further developing the implementation strategy in the Parks, Trails, and Open Space System Plan include:

Understanding that the opportunities to enhance the park and trail system are substantial and diverse

Recognizing that the magnitude of investments needed to achieve full plan implementation presents a major challenge and will require the community to set priorities that respond to public will and realistic limitations of resources

With this in mind, the underlying strategy for implementing this plan is to undertake initiatives that best respond to the prioritization criteria set forth in this section. By making strategic, prioritized investments, the city's parks and trails will continue to expand their role as defining elements in the city's infrastructure and enhance the region's economic prospects by attracting new residents and supporting robust levels of tourism.

Note that each of the non-local funding sources requires an application process that includes an action plan and description of funding requirements. All of these funding sources are competitive and/or require political action, local funding commitments.

Table 8-G. Trail Funding Sources

Funding Source	Description / Overview	Probability
State Outdoor Recreation, LCCMR, Legacy Fund, and Similar Grants	The State of Minnesota annually allocates funds for park acquisition and development projects which meet recreational needs identified by the State Comprehensive Outdoor Recreation Plan. In recent years, Legacy Amendment Fund has emerged as a legitimate potential funding source for projects of regional or state-wide significance. Whatever the program, the grants are competitive and awarded according to project merits.	Very competitive, especially with very tight public funding available at all levels. Most promising might be Legacy Amendment Funds, especially for parks or trails of regional significance.
Land and Water Conservation Fund	The federal government allocates monies each year to states for public acquisition and development projects. The State of Minnesota Administers these grants through the Department of Natural Resources.	Funding availability through this program has been limited in recent years.
Federal Transportation Funds (T-21, RTP, etc.)	The federal government allocates monies each year for alternative forms of transportation, which includes bicycle trails that focus on transportation.	Funding availability through this program has been significant in past years. The potential for receiving funding for local trails is relatively good.

Table 8-G Cont'd. Trail Funding Sources

Funding Source	Description / Overview	Probability
Fees/ Enterprise Funds	Minnesota statute allows cities to prescribe and provide for the collection of fees for the use of any city park or other unit of the city park system or any facilities, accommodations, or services provided for public use therein.	Becoming a much more relied upon funding source, especially for singular use facilities ranging from ballfields to hockey arenas.
Partnerships	Relates to partnerships formed with adjacent cities, the county, and school districts to develop, maintain, and operate parks and recreational facilities on a joint-use basis.	Although limited public funding availability is an issue at all levels, forming partnerships to spread the cost of providing a specific type of service or facility still has merit whenever there is an opportunity.
Park Dedication Fees	The park dedication fund provides funding for parks as long as community development continues to occur. Any controls imposed on the extent (i.e., total number of units) or rate of development (i.e., number of units per year) allowed within the city will limit the revenue generated under this fund. The City will need to ensure the fees imposed are consistent with current state statutes.	Even with periodic adjustments, park dedication fees alone will not be adequate to fund the system plan to an optimal level.
Donations	Donations related to cash donations, gifts, volunteerism, and professional services donated to the park for planning, acquisition, or development purposes.	Limited potential from a cash perspective, but important with respect to the use of volunteers to offset some program costs.

Chapter 9: Business District Redevelopment

INTRODUCTION

The City of North Mankato has several business districts in the community as depicted in **Figure 9-1**. While all districts provide important retail and service amenities for residents and visitors, the most prominent are the Central Business District (CBD), or downtown, and the Commerce Drive Business District. These business districts provide the main locations for retail and service amenities in Lower and Upper North Mankato respectively.

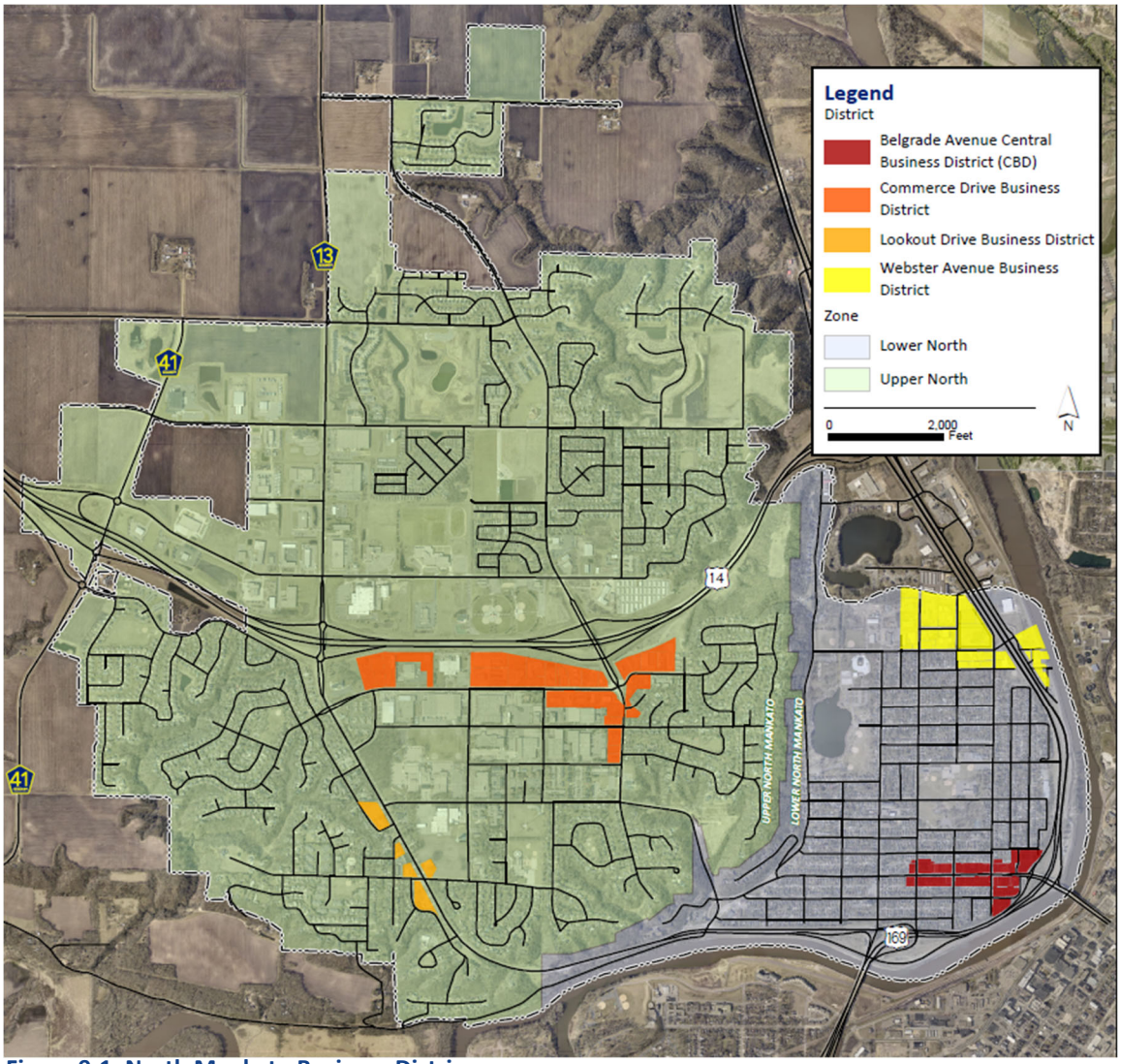


Figure 9-1. North Mankato Business Distric.

The initial 2015 Comprehensive Plan provided a chapter on Downtown Redevelopment, looking only at the CBD and efforts completed to strengthen and guide that location. However, all business districts require planning and have been added to this discussion.

This chapter discusses redevelopment/revitalization opportunities for each district. It also considers locations where future business districts are anticipated to grow in the future.

CENTRAL BUSINESS DISTRICT (CBD)



Figure 9-2. 200 Block of Belgrade Avenue in the Central Business District.

North Mankato's CBD is a vital community asset with combined elements of a traditional, historic downtown and some more modern architecture. The CBD is in the southeast part of the City along Belgrade Avenue extending from Highway 169 to properties on the west side of Center Street. Belgrade Avenue has been a key commercial corridor within the City for many years. There are numerous established businesses that serve the commercial needs of area residents, as well as a variety of housing densities. The higher density nature of the CBD provides for a more naturally walkable environment by having numerous residents and businesses within close proximity. The CBD serves as a gathering place for annual community events such as Blues on Belgrade, Bier on Belgrade, Bells on Belgrade, Oktoberfest, and the CityArt Walking Sculpture Tour among others.

As a major gateway to North Mankato, Belgrade Avenue provides visitors with a first impression of the community. Therefore, a healthy downtown is critical for developing a successful image of the city, as well as a strong sense of place. The future downtown should be memorable, vibrant, attractive and welcoming to pedestrians.

Previous Planning for the CBD

There has been significant redevelopment in the CBD since the adoption of the 2015 Comprehensive Plan undoubtedly spurred by the Plan and subsequent planning efforts focused on downtown redevelopment and revitalization and traffic improvements. Through these efforts, the City can confirm that North Mankato residents share a vision for a memorable, vibrant, attractive, and welcoming downtown as mentioned. The City will need to revise and update these plans as redevelopment/ revitalization takes place in the CBD.

The ideas expressed in this chapter apply to the area identified on **Figure 3-2**: Future Land Use Map designated as the Central Business District.

A. Downtown Planning Study (2012)

This Plan provided a vision for downtown and a framework for the future buildout of the CBD, offering design concepts, façade and streetscape improvements, and parking enhancements. This Plan provided a beginning framework for the Belgrade Avenue Master Plan.

B. Belgrade Avenue Master Plan (2016)

The Belgrade Avenue Master Plan process examined major issues and themes occurring in the CBD and also provided a 5-, 10-, and 20-year outlook for redevelopment/revitalization along the corridor. Design guidelines were also part of the Belgrade Avenue Master Plan process. This updated Comprehensive Plan aims to emphasize the themes that evolved from that Plan and other public processes completed for the downtown (**Figure 9-3**).

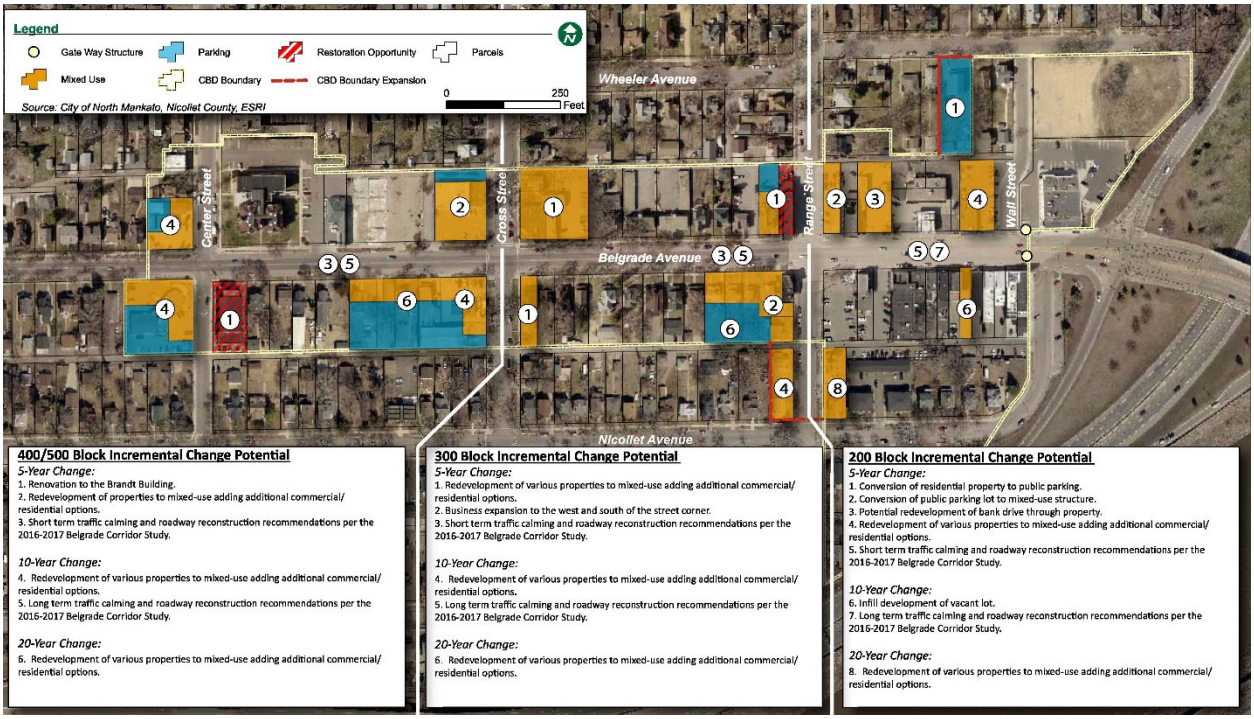


Figure 9-3. CBD Implementation Plan for 5, 10, and 20 years referenced from the Belgrade Avenue Master Plan (2016).

C. Belgrade Avenue Corridor Study (2017)

The City of North Mankato and the Mankato/North Mankato Area Planning Organization (MAPO), in partnership with MnDOT, completed the Belgrade Avenue Corridor Study to identify a long-term vision for Belgrade Avenue including initial and long-term recommendations for changes to the transportation infrastructure. The City continues to explore options for implementing improvement recommendations from that plan.

D. Public Art Ideas Plan (2017)

This Plan provides a public ideas bank that can be used by the City as a guide to integrate public art into downtown planning initiatives. This Plan defines policy and procedure around current public art projects and assets.

CBD Existing Conditions

The CBD is mostly one- and two-story buildings, many of which date back to the early part of the 20th century which are in various states of physical condition. Some can accommodate modern uses while others remain vacant and may require redevelopment and/or revitalization to enhance commercial and residential presence of the CBD. Several modern buildings are also mixed within. The downtown currently has a very healthy mixture of neighborhood serving uses including restaurants, drinking establishments, offices, retail stores, service businesses, and both single- and multi-family residential uses.

The 200 block of Belgrade Avenue contains the highest concentration of businesses and is predominantly commercial on both sides of the street, although upper levels of some buildings are used as apartments. The 300 and 400 blocks contain more single-family homes, apartments, and some larger commercial uses. As the CBD has grown, numerous single-family homes along Belgrade Avenue have been converted for commercial use.

The development pattern and many of the existing buildings provide a sense of community, which residents value. Most buildings are built close to the street or sidewalk and have parking located in the rear or side of the building. Throughout the downtown sidewalks are provided on both sides of the street. These qualities contribute to making the downtown pedestrian friendly and could be incorporated in new development to maintain the existing downtown character. Some existing characteristics such as large storefront windows, awnings, facade details and unique signage also contribute to an engaging pedestrian atmosphere.

Key Issues and Opportunities

The following provides an overview of the key issues and opportunities pertaining to the CBD.

A. Attractive Pedestrian Realm

An attractive, safe, and walkable downtown is a key element for any community and is desired by residents in North Mankato. Elements of an inviting downtown include various streetscape features such as boulevard trees and plantings, outdoor seating and gathering areas, plazas, signage, fountains, decorative lighting, wide sidewalks, safe pedestrian crossings, sidewalk pavers, and other pedestrian amenities. Planning efforts such as the Belgrade Avenue Master Plan, Belgrade Avenue Corridor Study, and Public Art Ideas Plan provide streetscape design and art recommendations that can be implemented.

Where possible in the CBD, sidewalks should be widened to accommodate pedestrian flow. The sidewalk should be kept free of potential barriers such as utility poles or street signs. Through previous planning efforts, residents have stated that pedestrian crossing of Belgrade Avenue are seen as lacking or unsafe, specifically in the 200 Block. The Belgrade Avenue Corridor Study considered options for lane reduction in the 200 Block of Belgrade in the CBD from four lanes to three with a center turn lane and mid-block crossing. This type of improvement has potential to improve pedestrian movement and increase safety along and across Belgrade Avenue in the heart of the CBD. The City continues to explore options for lane-reduction based on this planning effort.

The City should continue to work with businesses in the CBD and future developers to encourage attractive storefronts, ground level facades, and appropriate public art pieces that attract and engage pedestrians. Design guidelines were developed through the Belgrade Avenue Master Plan that have given the City a tool to encourage attractive and cohesive development in the CBD, a trend that should continue. The City should also continue to work with property owners of older buildings to ensure their upkeep and prevent any deterioration.

Belgrade Avenue is a major gateway into the community that provides a first impression to visitors. Therefore, the importance of the appearance and impression of Belgrade Avenue should not be understated. An attractive and unified public realm can enhance the branding for North Mankato, making it memorable and reflecting a positive image for the City.

B. Business Mix

The CBD provides area residents with a variety of businesses that serve many daily needs. This is desirable and allows residents the opportunity to meet different commercial needs near one another. It is also desired that new businesses will locate in the CBD to increase the area's draw, including both neighborhood serving and destination type businesses. Making the downtown desirable to potential businesses will depend on several factors, including zoning, upkeep and appearance of surrounding buildings and the streetscape, and available parking, which are all addressed in this chapter and other portions of this plan.

The physical state or conditions of some buildings in the downtown may result in those buildings no longer being desirable to potential commercial tenants. The City will need to continue to explore where redevelopment should occur by updating planning efforts such as the Belgrade Avenue Master Plan. For cases of redevelopment, mixed use buildings are encouraged to support an increase in the downtown residential population, while also providing additional commercial opportunities; however, standalone residential or commercial uses are also supported. Older buildings that are in good condition and remain desirable for commercial use should be preserved to maintain some of the historic feel to the downtown.

The 200 Block of Belgrade tends to be the focus of most developer interest. This is likely due to its characteristics as a more traditional "Main Street" downtown with buildings fronting the street and density of businesses. However, residents have expressed a desire for some redevelopment to be focused on the 300, 400, and 500 Blocks of Belgrade throughout the extent of the CBD. The City should encourage such redevelopment as stated in the Belgrade Avenue Master Plan moving forward.

As the economy changes and new types of businesses are created, it is important to review existing zoning standards and regularly update the zoning code. The list of permitted and conditional uses should be updated to include any desirable uses that may not currently be permitted. In addition, the list of performance standards should be regularly reviewed to ensure that businesses are not unnecessarily constrained by zoning requirements. An up-to-date zoning code can have a significant impact on the development potential of a community.

C. Parking

Development patterns typical of most downtowns tend to provide mixed opinions about the availability of parking. In many downtowns, it is typical to incorporate a variety of different parking strategies to achieve an adequate supply of parking such as on-street parking, shared parking and municipal lots. Several businesses currently have parking in the rear or side of their property. On-street parking is currently allowed along most of Belgrade Avenue throughout the downtown, with the exception of the north side of the 200 block.

CBD planning studies have found that, although there is a perceived shortage of parking, the supply is generally sufficient for the existing uses during most times of the day. However, some of the available parking may be perceived as inconvenient and may lack visibility. Improved way-finding signage could help visitors and residents make better use of the existing parking supply.

Parking supply will need to increase as new businesses and residential units are added. This will likely occur through a combination of parking provided on-site, on-street parking and shared parking lots. The City has purchased and converted several lots to public parking and has plans for expansion as the need arises.

However, as the downtown grows and new businesses and residential units are added, the parking supply will also need to increase. The City should look to identify property that could be developed for future parking lots specifically designated for downtown businesses.





Vision for the CBD

The North Mankato Central Business District is a growing and safe district characterized by cohesive architectural design, pedestrian friendly streetscapes, and new destinations all contributing to a beautiful, thriving, and inviting area serving as the core for community convention.

COMMERCE DRIVE BUSINESS DISTRICT

The Commerce Drive Business District provides a key retail and service district for residents in Upper North Mankato. With commercial and industrial development beginning around Commerce Drive in the 1970's, the Commerce Drive Business District differs from the CBD in Lower North. Where portions of the CBD have characteristics of a traditional downtown with dense structures in a mostly walkable environment, Commerce Drive has been developed to be more auto oriented with large lots and ample parking. The District is also not designated in the City's Zoning Map or land use map as a special or "Central" business district like the CBD. Nonetheless, it serves that role for Upper North Mankato.



Figure 9-4. Commerce Drive Business District.

Previous Planning for the Commerce Drive Business District

A. Commerce Drive Area Development Plan (2018)

The Commerce Drive Area Development Plan was developed as a precursor to the 2019-20 resurfacing of Commerce Drive. This improvement provided an opportunity for the City to rethink the streetscape and implement improvements that promote vehicle and pedestrian safety and area beautification. Through the Commerce Drive Area Development Plan, residents expressed the desire to re-envision this core business district as a community destination with an enhanced business presence, improved transportation facilities, and enhanced area design.

The Plan succeeded in laying the framework for many initiatives that were completed in concurrence with the resurfacing project including conversion of a narrow sidewalk to a multi-use path, property access re-alignment for improved traffic flow, safer pedestrian crossings, and seating nodes infused with public art. This Plan also recommends redevelopment alternatives that could be considered in the future as opportunities arise.

Another Plan initiative included the encouragement of businesses to develop a business association. The Connecting Commerce Business Association was created shortly after the planning process and has brought together businesses to host area events and provide customer incentives that benefit and strengthen the district as a destination.

B. Highway 14 Pedestrian Bridge Feasibility Study (2022)

This study focused on developing alternatives for a safe and efficient pedestrian crossing of U.S. Highway 14 in upper North Mankato. The study was developed from guidance and collaboration between the MAPO, the City of North Mankato, and MnDOT. The study team looked at previous planning efforts associated with enhancing multimodal opportunities in upper North Mankato to gage what's been done and understand needs and concerns of the public.

Commerce Drive Business District Existing Conditions

The Commerce Drive Business District is located on the eastern end of Commerce Drive surrounding its intersection with Lor Ray Drive. It includes a mix of area serving retail amenities including a drug store, various restaurant type establishments, two gas stations, a hotel, banks, two gas station/convenience stores, and a lumber yard, among other businesses.

New businesses have come to the area in the past few years, strengthening the district's commercial offerings including new restaurants and coffee shops. Properties seen as not serving their highest and best use have been recently redeveloped, which were identified as opportunities in previous planning efforts. The City should continue to look for redevelopment opportunities in the future as properties come up for sale and redevelopment recommendations identified in previous planning efforts can be revisited and potentially implemented.

Key Issues and Opportunities

The following provides an overview of the key issues and opportunities pertaining to the Commerce Drive Business District.

A. Pedestrian and Bicycle Connections

Improvements stemming from the Commerce Drive Area Development Plan have improved pedestrian safety and area connections. This includes the multi-use sidewalk on the south side of the roadway and improved pedestrian crossings stemming from the Plan and implemented through the resurfacing project in 2019-2020. The new trail addition connects to the Bluff Valley Trail in the northeast quadrant of the Commerce Drive/Lor Ray Drive intersection, trail and sidewalk on Lookout Drive, and area on-street facilities.

The City may consider constructing a pedestrian bridge over Highway 14 to enhance the connection from Commerce Drive to the Caswell Sports Complex where many regional softball tournaments are held. There are also plans for an indoor recreational facility that will serve the area at the Complex. This bridge will provide a needed north/south pedestrian/bicycle connection in Upper North Mankato. The City should continue to seek funding to implement this connection.

B. Redevelopment Opportunities

The Commerce Drive Area Development Plan recognizes that all the businesses currently located along Commerce Drive are valued contributors to the local economy and overall corridor vitality. It is anticipated, however, that there will be changes over time that create additional opportunities for redevelopment that could increase the potential for additional retail uses to locate in the district. After significant discussion with property owners, a conceptual

redevelopment vision was created and included in the Plan. The City should revisit Plan initiatives and keep open dialog with property owners to continue to guide the district.

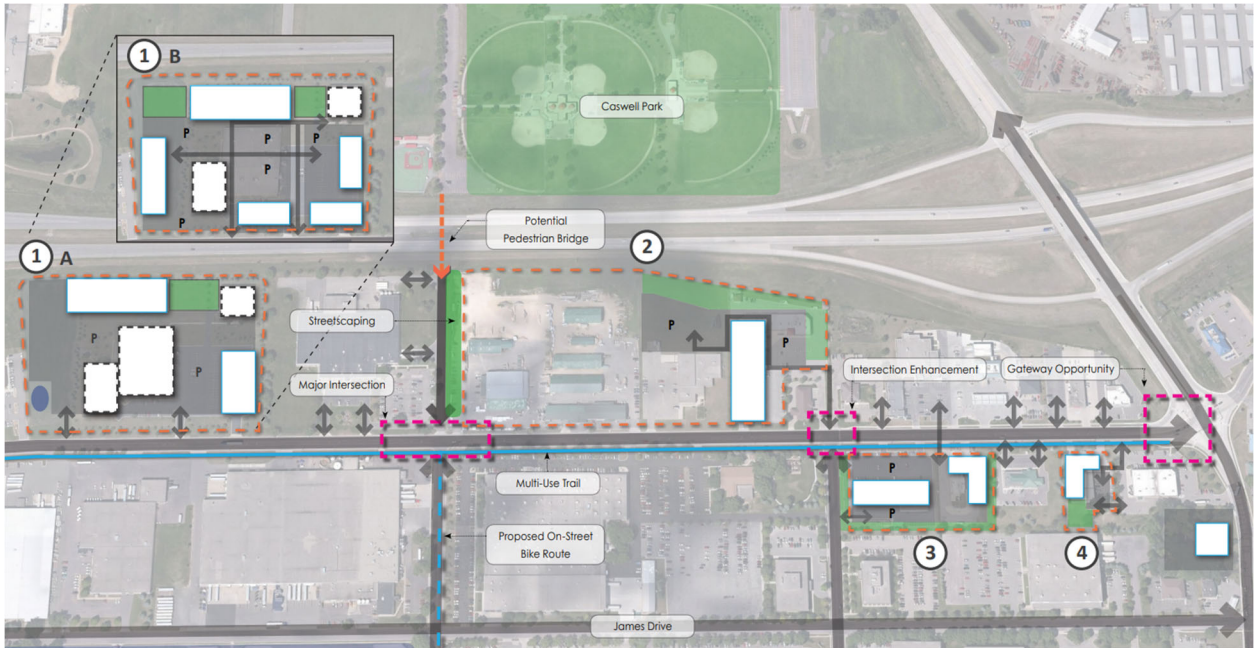


Figure 9-5. Commerce Drive Improvements Conceptual Plan. Source: Commerce Drive Area Development Plan (2018).

C. Housing

The Commerce Drive Business District borders higher-density housing east of Lor Ray Drive. However, there is currently no housing among the businesses in the district. The Commerce Drive Area Development Plan identifies goals for incorporating housing options in mixed-use redevelopment along with targeting more commercial uses to serve potential residents. The City should revisit these goals as redevelopment opportunities present themselves in the future.

D. Area Design

Commerce Drive is often viewed as an area lacking design consistency. Participants in the visioning process for the Commerce Drive Area Development Plan expressed that the corridor could offer much more than it does today and asked what options exist to enhance buildings and the streetscape. Commerce Drive is not a downtown "Main Street" environment and wasn't planned to be, given the aforementioned "auto-oriented" design with large lots with ample parking and on-site vehicle circulation. However, residents would like to improve the character of the corridor by creating a more cohesive, themed design. The streetscape has improved significantly since the 2019 resurfacing project; however the City should consider methods for encouraging private investment in the business facades in the district and design guidance for any new buildings constructed through redevelopment.

Vision for Commerce Drive Business District Redevelopment

The Commerce Drive Business District is a growing and diverse community destination supporting many uses that provide livability for area residents and a major employment sector for North Mankato's workforce, while also providing a safe and efficient vehicle and pedestrian environment including connections to area recreation facilities.

WEBSTER AVENUE BUSINESS DISTRICT

The Webster Avenue Business District includes businesses surrounding the intersection of Webster Avenue with Highway 169. This is a much smaller business district with limited existing amenities. However, it does have significant potential for future redevelopment given its proximity to the highway, regional recreation amenities, and major redevelopment occurring just to the north in Mankato, along with its position as one of the major gateways into North Mankato.

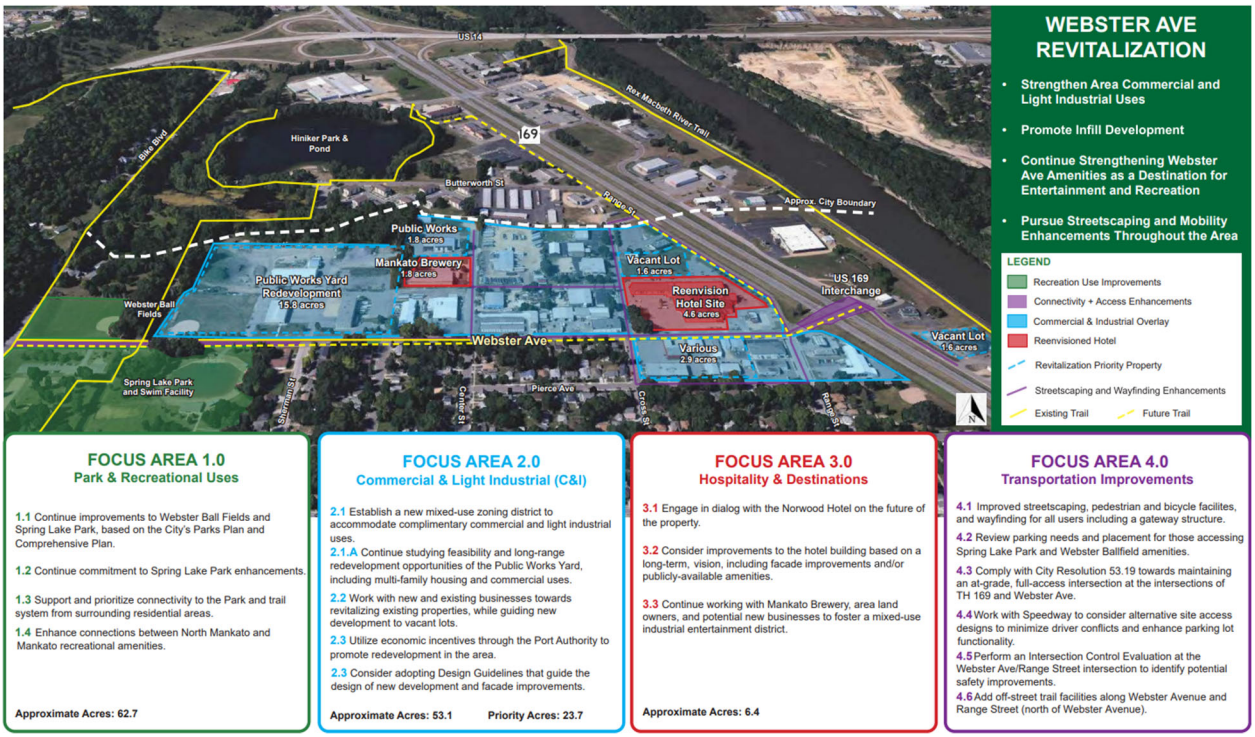


Figure 9-6. Webster Avenue Revitalization Plan. Source: Webster Avenue Area Plan (2021).

Previous Planning for the Webster Avenue Business District

A. Webster Avenue Area Plan (2021)

The Webster Avenue Area Plan was developed to supplement the Highway 169 Corridor Study being undertaken by the MAPO and its partners. The study examined land uses surrounding Webster Avenue and identified redevelopment and revitalization opportunities while defining a shared vision for the area.

B. Highway 169 Corridor Study (2022)

This study was undertaken by the MAPO and its partners in conjunction with MnDOT who examined Highway 169 traffic and developed improvement options. The ultimate recommendations from the study support the continuation of the Webster Avenue/Highway 169 intersection as an "at-grade", full access intersection. The findings removed uncertainties surrounding the future of the intersection and the future of businesses relying on the access to the highway. This assurance has high potential to spur redevelopment.

Webster Avenue Business District Existing Conditions

The Webster Avenue Business District's proximity to a major highway interchange combined with its access to downtown North Mankato makes this a prime location for businesses. The small business district extends both east and west of Highway 169. West of the highway uses include small-scale commercial, a restaurant, a gas station, a liquor store, and a hotel adjacent to light industrial uses that are oriented heavily around trucking, shipping, and vehicle repairs. Present commercial uses provide some services to the low-density single-family residential neighborhood in Lower North Mankato. East of the highway uses include some restaurant type uses, and car sales. Both east and west have vacant properties.

Key Issues and Opportunities

The following provides an overview of the key issues and opportunities pertaining to redevelopment opportunities in the Webster Avenue Business District.

A. The Norwood Inn (former Best Western Hotel)

At the time of this Comprehensive Plan update, the structure formally known as the Norwood Inn (previously Best Western) was under the ownership of the North Mankato Port Authority. The City was leasing the facility to HyLife Foods; owners of a pork processing plant in Windom, MN who used the facility to house migrant workers. The City took ownership of the hotel and entered into a two-year agreement with the company after previous ownership allowed the building to go into disrepair. This was a strategic move by the City to remove previous ownership and use the two-year timeframe to formulate a strategy for the structure moving forward.

This location is the most prominent site in the district with high visibility from the highway and significant space onsite. The structure functioned quite well in the past as a Best Western, offering a good hospitality experience, a popular function hall, and pool facility used not only by visitors, but area residents alike. The building will need significant renovation to bring it back to that level of functional state.

The property just north of this was also vacant at the time of this Plan update. A market analysis completed as part of the Webster Avenue Area Plan included the results of interviews with developers asking if they had interest in the locations as redevelopment opportunities. Many stated that the uncertainty of the future of the Webster Avenue intersection was a barrier to investment in the properties and that, once removed, the area would be more appealing for long-term redevelopment decisions.

Since the adoption of both the Webster Avenue Area Plan and the Highway 169 Corridor Study, the City has been speaking with interested developers to gage interest in redevelopment at this location. The City should continue to actively pursue redevelopment of this location, or refranchising of the hotel, and consider offering incentives to developers to build interest.

B. Vacant Properties

As mentioned, the property north of the Norwood Inn was vacant at the time of this Plan update. If the hotel is refranchised and this property is not included in a larger redevelopment project, the City should continue to actively seek interested developers to develop.

One other property located on the east side of Highway 169 remains vacant after containing a

landscaping company for some years. This is also an opportunity for future development that the City should steer development toward.

C. Area Design and Revitalization

Many participants in the public process for the Webster Avenue Area Plan stated that the structures in the Webster Avenue Business District could benefit highly from revitalization as many are lacking cohesive architectural design and desirable aesthetics. To grow its tax base and promote infill development, the city should coordinate opportunities for revitalizing existing buildings, look for incentives, and attract new commercial businesses along Webster Avenue.

Vision for Webster Avenue Business District Redevelopment

The Webster Avenue Business District contains a variety of businesses that serve the needs of local residents and visitors with retail and hospitality amenities.

LOOKOUT DRIVE BUSINESS DISTRICT

The Lookout Drive Business District is located primarily at the intersection of Lookout Drive and Marie Lane in Upper North Mankato. This is a small district, and, like the Commerce Drive and Webster Avenue business districts, there is no special zoning designation delineating the district. This area is centrally located along Lookout Drive with no immediate access to a major highway. However, there is anticipated growth near this location and plans that provide a revisioning of how Lookout Drive serves the community. These factors may influence the future of this district.

Previous Planning for the Commerce Drive Business District

A. Lookout Drive Area Plan (2022)

The Lookout Drive Area Plan was completed in conjunction with the Lookout Drive Corridor Study to inform future roadway improvements. Area businesses and residents were engaged to help develop a vision for future area development.

B. Lookout Drive Corridor Study (2022)

This study was undertaken by the MAPO and its partners who examined Lookout Drive traffic and developed alternative options for lane configuration and intersection control with a focus on improved pedestrian movements along and across Lookout Drive. Study recommendations serve as guidance for the City to effectively plan for the future of the roadway as needs and opportunities arise with any development/redevelopment.

Lookout Drive Business District Existing Conditions

The Lookout Drive Business District includes a gas station/convenience store, some financial planning businesses, an auto repair shop, a dentist, a health clinic, a laundromat, and a clothing apparel store. The district is in close proximity to a substantial number of low- and medium-density residential neighborhoods as well as the South Central College Campus and the Hoover Elementary School. This is an auto-oriented district on a five-lane roadway; this is not a walkable business district environment.

Key Issues and Opportunities

The following provides an overview of the key issues and opportunities pertaining to redevelopment opportunities in the Lookout Drive Business District.

A. Development of Vacant Properties

There are two large vacant properties in the northeast quadrant of the intersection. The southernmost is zoned *R-4 Multiple Dwelling* and the northern is zoned *I-1 Planned Industrial.* South Central College is also nearby. The possibility of new multi-family residential uses occupying the area may open up opportunities for increased retail and service amenities in a mixed-use development. The City's future land use plan (seen in **Figure 3-2**) identifies the conversion of a portion of the vacant property and residences adjacent to Lookout Drive on the east side to commercial uses in the future. The City will need to monitor development in this location to ensure it meets the vision set forth in the Lookout Drive Area Plan as opportunities arise and developers gain interest.

B. Redevelopment

Several houses north of the intersection of Lookout Drive and Marie Lane are guided for future commercial development. These properties are currently zoned I-1 Planned Industrial.

C. Walkability

The Corridor Study found that the five-lane configuration of Lookout Drive in this location is problematic for pedestrians wishing to cross the roadway. Improvements to crossings of Lookout Drive will be necessary if a walkable business district is desired in the future.

Vision for Lookout Drive Business District Redevelopment

The Lookout Drive business district provides area serving commercial-retail amenities and innovative housing options in an area that is inviting and creatively designed.

PLANNING FOR FUTURE BUSINESS DISTRICTS

Trends show that the City of North Mankato will continue to grow which inevitably will require careful planning for new business districts to serve newly developed areas. The City has attempted to stay ahead of this with planning efforts such as the Northwest Growth Area Study and the Future Land Use Plan seen in **Figure 3-2**. These plans suggest that commercial development is guided for much of the area surrounding the Highway 14/CSAH 41 interchange, which is a likely location given highway access.

Participants in the public process for previous planning efforts have repeatedly requested the addition of additional retail amenities in Upper North Mankato, specifically a grocery store and more hotels. A market analysis completed as part of the Northwest Growth Area Study concluded that the area could support a small grocery store currently. The City has also been able to attract a hotel in Upper North along Commerce Drive.

The City will continue to work with developers to target locations for additional amenities as opportunities arise in the future, using the findings and recommendations from previous planning efforts to guide those discussions.

BUSINESS DISTRICT GOALS, OBJECTIVES, AND POLICIES

The following is a series of goals for all business districts followed by a series of objectives and policies intended to influence future land use decisions in a direction that is aligned with Vision Statements.

GOAL 1: Expand the number and variety of businesses and residential varieties in all business districts where possible.

Objective 1.1: Redevelop underutilized parcels or outdated and deteriorating buildings.

Policy 1.1.1: Work with property owners and businesses to determine which buildings are no longer well suited or marketable for commercial use to identify redevelopment areas.

Policy 1.1.2: Actively recruit and match entrepreneurial start-up businesses with underutilized buildings.

Policy 1.1.3: Pursue state and federal grants which aid in the revitalization of business districts.

Policy 1.1.4: Assess the potential for creating tax increment financing (TIF) districts to aid in business district revitalization.

Policy 1.1.5: Work with property owners and explore “outside-the-box” solutions for accommodating businesses that wish to expand their business.

Policy 1.1.6: Work with property owners that have deteriorating buildings and connect them to resources for making improvements.

Objective 1.2: Increase the number of businesses and residents in business districts.

Policy 1.2.1: Update market studies to determine commercial and residential needs, existing capacity and areas for growth within business districts.

Policy 1.2.2: Incorporate principles that support a “live, work, play” mentality for all business districts as applicable.

Policy 1.2.3: Identify locations for small public spaces which will attract residents and provide greater visibility for businesses.

Policy 1.2.4: Explore opportunities for new events and festivals to expand the branding of North Mankato business districts and increase awareness of businesses in each district.

Policy 1.2.5: Regularly review the list of permitted and conditional uses for business districts to ensure that an ideal mix and type of uses are allowed.

Policy 1.2.6: Review the list of performance standards for business districts and remove any standards that may unnecessarily constrain existing or potential future businesses.

Policy 1.2.7: Support the transition of residential homes to commercial uses along Belgrade Avenue and Lookout Drive.

Objective 1.3: Ensure adequate parking for all businesses.

Policy 1.3.1: Assess and where necessary amend the parking requirements for commercial uses in business districts.

Policy 1.3.2: Consider establishing parking districts to create a revenue source for future parking improvements.

GOAL 2: Create a safe and inviting pedestrian realm.

Objective 2.1: Improve safety for pedestrians

Policy 2.1.1: Pursue intersection improvements recommended in district-relevant plans and studies where conditions may be dangerous for pedestrians crossing the street and implement improvements at those intersections.

Policy 2.1.2: Provide adequate pedestrian facility lighting in all business districts at night.

Policy 2.1.3: Adhere to the implementation plan identified in the North Mankato Americans with Disabilities Act (ADA) Transition Plan for the removal of obstructive barriers from the pedestrian realm.

Policy 2.1.4: Incorporate wide sidewalks where possible.

Objective 2.2: Improve the appearance of the streetscape and façades in business districts.

Policy 2.2.1: Implement streetscape policies consistent with the improvements called for in district-relevant plans and studies.

Policy 2.2.2: Encourage and work with businesses to allow them to place items in the pedestrian realm that enhance their storefronts such as planter boxes, seating, public art, sandwich board signs, etc.

Policy 2.2.3: Using district-relevant Design Guidelines, encourage façade characteristics that enhance the pedestrian realm such as large storefront windows, awnings, architectural detail at the ground level, and interesting signage.

Policy 2.2.4: Develop a streetscape plan to promote a positive and unified image for business districts to meet their respective Vision Statements.

Policy 2.2.5: Consider implementing design standards for business districts outside of the CBD.

Objective 2.3: Pursue key trail construction that will connect businesses districts to other destinations in the community.

Policy 2.3.1: Secure funding from local, state, and federal sources to construct trail facilities that will bring pedestrians and bicyclists to North Mankato business districts such as the Highway 14 from Commerce Drive to the Caswell Sports Complex and/or a grade-separated pedestrian/bicycle crossing of Highway 169 from Webster Avenue to the Minnesota River.

GOAL 3: Ensure smart and effective small-area planning continues for new business districts in North Mankato.

Objective 3.1: Proactively plan for new business districts as development occurs in North Mankato growth areas.

Policy 3.1.1: Develop small area plans to guide new business district development in ways that avoid issues identified in previous planning initiatives.

Policy 3.1.2: Ensure roadways are effectively planned for a walkable environment in new business districts moving forward.

Chapter 10: Community Design



INTRODUCTION

Community design is about the cohesiveness of many different elements of a city, including scale, character, mobility, and density among others. Good community design results in places that are inviting, comfortable, and user friendly. It influences how people interact and move about within their environment. A key component of community design is the relationship between the natural and built environment. Development patterns such as block shape and form, the sidewalk, and landscaping are also part of community design. Many issues and topics covered in other parts of this plan have an influence on community design.

PREVIOUS AND ONGOING COMMUNITY DESIGN RELATED PLANS

Several past and ongoing efforts include elements of community design and have been reviewed as part of developing this chapter. These efforts are listed below.

City of North Mankato Complete Streets Plan & Policy (2016)

The City of North Mankato adopted the Complete Streets Plan and Policy to ensure streets and sidewalks are well designed and constructed to serve everyone – pedestrians, bicyclists, and drivers – and they take into account the transportation needs of all people, including children, older adults, and people with disabilities or impaired mobility. This Plan and Policy is aimed at changing streets from places where vehicles dominate to places where all users are accommodated.

Belgrade Avenue Master Plan (2017)

The Belgrade Avenue Master Plan process included development of design guidelines for the Central

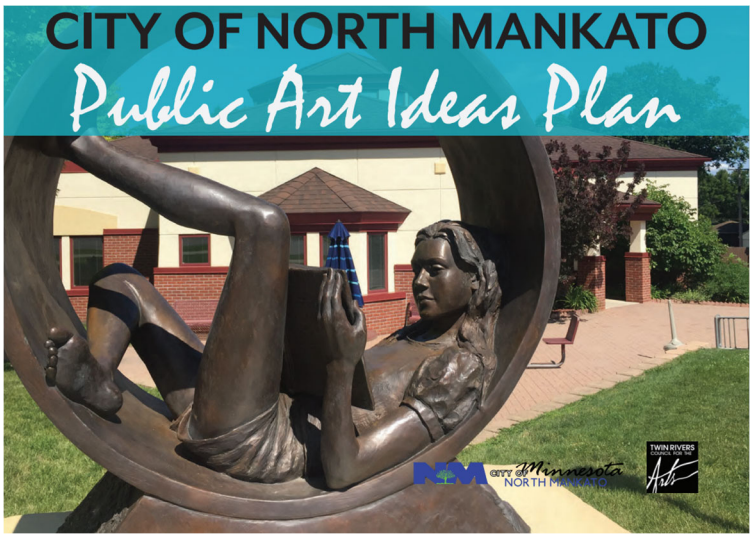
Business District (CBD) along Belgrade Avenue. While design guidelines are not requirements for developers, they are meant to encourage developers to use architectural design elements in structures that maintain cohesive area design. The City can require developers to follow design guidelines when they are seeking financial assistance or incentives from the City to ensure projects include design elements that fit the context of the CBD.

Belgrade Avenue Corridor Study (2017)

MAPO and the City of North Mankato, in partnership with MnDOT, completed this study to identify a long-term vision for multimodal improvements on Belgrade Avenue in North Mankato. The Study included streetscape design elements that would improve vehicle and pedestrian circulation through the downtown.

Public Art Ideas Plan (2017)

The goal of this plan is to highlight the importance of public art and how it can be used by the city as a guide to integrate it into existing and future planning initiatives and identify those areas that could be enhanced. It lays out what public art is, why it should be invested in, and creates a reference guide/idea bank of public art ideas for specific locations.



Commerce Drive Area Development Plan (2019)

The Commerce Drive Area Development Plan included elements of streetscape design that improved the pedestrian realm such as seating nodes, mid-block crossing, and expanded trails and sidewalks along Commerce Drive that connect to the larger sidewalk and trail system. Building design and architectural cohesiveness were also part of the discussion.

Lookout Drive Area Plan (2022)

The Lookout Drive Area Plan considered locations along the corridor that could accommodate area design in streetscaping and green spaces.

North Mankato Americans with Disabilities Act (ADA) Transition Plan (2019)

The North Mankato ADA Transition Plan provides a framework for fixing existing sidewalk infrastructure ADA deficiencies and also best practices for how pedestrian facilities should be constructed to maintain compliance.

EXISTING CONDITIONS

The City of North Mankato has several areas which developed at different time periods, resulting in different development patterns and building forms. Lower North is the older part of the city which developed consistent with early 20th century development patterns. City blocks in Lower North are mostly on a grid network. Most single-family homes in Lower North are older and well maintained. Many also have detached garages in the rear yard and many blocks have alley access. Residential lots

are generally smaller in Lower North than in residential areas that developed at a later time period. Homes are also generally built with limited setbacks. Most streets have a sidewalk on both sides of the street and trees have been well preserved.

Lower North is comprised mostly of low-density residential with parks, schools, institutional uses and some higher density residential uses mixed in. Belgrade Avenue serves as the primary commercial corridor in Lower North and is the City's downtown. Many of the original buildings in the downtown remain. These buildings are built to the sidewalk and have relatively narrow storefronts creating a pedestrian friendly atmosphere. The combination of older houses and the downtown give Lower North a distinguishable quaint character and small-town feel.

Upper North consists of newer development with more modern suburban style subdivisions. Residential lots are generally bigger than those in Lower North and are not on a grid network. Most single-family homes have driveways off the front of their lots with garages in front of the home. Commercial, industrial and institutional uses are generally situated along arterial roadways. Sidewalks are generally located on at least one side of the street. Several small neighborhood parks are mixed throughout residential areas, but several larger parks attract users from a wider area. In parts of Upper North, natural areas have been well preserved where residential subdivisions have been built around forested areas. Some areas in Upper North, such as Commerce Drive and Northport Industrial Park are designed with the consideration of accommodating large truck traffic in mind. Lot size, visibility, streets and intersections are all well designed for supporting a business-friendly environment that should be considered attractive to existing and potential businesses.

Key Issues and Opportunities

The following provides an overview of the key issues and opportunities pertaining to community design for North Mankato.

A. Development Pattern

As mentioned previously, North Mankato developed with two different development patterns over time. Both have value for the City by offering residents variety in neighborhood character. Land available for future development in the City is mostly to the north and west. Growth areas in Upper North are mostly planned for low density residential and industrial; however, the Land Use Plan aims to mix in more commercial uses in close proximity to residential areas to minimize the distance required to travel and allow for biking and walking. This is mostly in the form of key commercial nodes and corridors. As such, key streets should be designed to accommodate cyclists and pedestrians to get to their destinations. Special consideration should be given for enhanced landscaping between residential neighborhoods and key destinations where walkers and cyclists may go. With new subdivisions, any proposed street network should also be analyzed for connectivity and the ability to efficiently get from one point to another.

B. Climate Sensitive Design

Designing for Weather

Being in Minnesota, special design considerations are necessary for new infrastructure to ensure usability throughout all seasons. The winter months generally have the greatest implications for impacting livability. Snow and ice can create a wide variety of problems for mobility and safety. Available space for snow storage is something that should be analyzed for new developments.

Standards such as driveway setbacks are examples of controls that can help mitigate impacts from snow or storm water runoff. In the public realm, streets, sidewalks and bikeways should be designed to accommodate easy snow removal and storage and be compatible with snow removal equipment. Space should be provided between the sidewalk and the street to allow for snow storage. Landscaping enhancements could also be considered in key pedestrian areas for wind screening.



Alternative Energy

The City should encourage the use of solar panels (or other non-fossil fuel sources) on new public and private buildings.

The City should also continue to ensure vehicles using alternative power sources are accommodated effectively as mentioned in *Chapter 6: Transportation*.



C. Public Spaces

Well-designed public spaces can be a tremendous asset to a community. These may be in the form of plazas, public squares, parks, amphitheaters, gardens or others. These spaces provide areas for residents to spend time outdoors and provide opportunities for social interaction. Much of the public space in North Mankato is in the form of parks. Neighborhood parks are evenly spread throughout the community to provide public space in close proximity to most residents. Many of these parks offer playground equipment, picnic areas, and athletic facilities for sports such as tennis, soccer, basketball or softball. How public spaces are designed should be thoroughly analyzed. It is important to not just provide public spaces, but that they also be designed to consider safety, comfort and aesthetics. Elements such as lighting and vegetation can be designed to help improve the perception of



safety at night. Any amenities that are installed such as seating should be comfortable and attractively designed.



A public art movement has also taken place in the Greater Mankato area and that includes North Mankato. The City is beginning to place emphasis on enhancing public spaces such as space along trails and/or sidewalks with seating and art. The City has incorporated the City Art sculpture walk in the CBD and has also incorporated various public gathering spaces, seating nodes, and murals throughout the community. Many of these art installations rotate in and out on a seasonal basis, ensuring a new sculpture every year, while others are just one-time temporary or, alternatively, permanent installations. The City should continue to incorporate public art as opportunities arise.



In 2022, the City Center Partnership staged temporary outdoor seating in North Mankato on a portion of sidewalk in the CBD where a bicycle fix-it station, trail information kiosk, and planters were located. This was a demonstration project to activate the space, providing a location for those walking the sculpture tour, or using the trail system to sit for a moment. This temporary seating arrangement can be seen in the image to the right.

D. Architecture and Character

North Mankato contains a variety of buildings and homes with different architectural styles, which is partly due to the varying time periods over which different areas developed. There is a noticeable difference in architectural style between the homes in Lower North near the east end of Belgrade Avenue, homes constructed in the 1970s, and homes built in the last ten years. Many of the homes in Lower North were constructed in the early part of the 20th century but have been well preserved and maintained over the years. These charming neighborhoods provide a classic small town feel that is valued by many of the residents.

Over the years, North Mankato has continued to see an influx of new residential development. New development has generally moved towards the north and west over time. Homes built towards the latter half of the 20th century offer a more traditional suburban style home. Many

of the homes built in the last ten years present a more modern architectural style. The wide range of architectural styles of homes and buildings is an asset to the community because it provides a wide range of housing options, as some residents may prefer one style of home over another. The City of North Mankato will continue to support a varying degree of architectural styles through new development and redevelopment of existing areas.



E. Transportation

The ability for residents to move quickly and easily throughout the City is an important factor that influences livability. The transportation network should be designed to efficiently and safely accommodate all modes of travel during all seasons. Roads are designed based on the amount of traffic and speeds they are intended to accommodate. The expected type of traffic, such as large truck traffic, can also influence road design. This means that the location and design of new roadways is greatly influenced by land use. For example, larger commercial uses that tend to generate more traffic should be located adjacent to roadways that can accommodate such traffic. Residential streets are generally narrow and may not be striped while arterial roadways may be several lanes across. Buildings may be designed differently based on the type of roadway they are adjacent to. For example, a commercial use adjacent to a larger roadway with faster speeds will generally want to be setback farther from the roadway and have a wider storefront for improved visibility.

The design of roadways should always consider the user friendliness of alternative modes of transportation all while preserving on-street parking where feasible. This does not mean that a bike lane should be striped on every street; however, if one is not provided, sufficient width should be provided to accommodate space for cyclists with two-way traffic. In some areas, it may be beneficial to construct off-road trails as an alternative to biking on the street. Design of these trails should be wide enough to allow for bikes traveling in each direction. Barriers and structures should not be located directly adjacent to paths or impede visibility at intersections. Directional signage and pavement markings can also help with flow and safety. For pedestrians,



sidewalks should generally be located a few feet off the street to provide some separation from vehicles and provide space for snow storage. In key pedestrian areas, landscaping enhancements should be considered to improve the aesthetics of the surroundings.

VISION FOR COMMUNITY DESIGN

The City of North Mankato will incorporate and support community design that enhances the livability and quality of life for residents. Strategic improvements will enhance the functionality of the public realm and result in a more enjoyable and aesthetically attractive environment.

GOALS, OBJECTIVES, AND POLICIES

The following is a series of goals for community design followed by a series of objectives and policies intended to influence future development decisions in a direction that is aligned with the Vision Statement above.

GOAL 1: Enhance the livability of North Mankato through quality design.

Objective 1.1: Make enhancements that improve the functionality of the public realm.

Policy 1.1.1: In the design of new infrastructure, consider designs which accommodate seasonal variability and allow for use during all times of the year.

Policy 1.1.2: Make infrastructure and public realm improvements that complement the surrounding land uses.

Policy 1.1.3: Where appropriate, promote features that provide a physical buffer and transition between land uses of varying intensities, such as landscaping, fencing or setbacks.

Policy 1.1.4: Support the development of medium and high-density housing near commercial or high traffic areas.

Policy 1.1.5: Make improvements to public spaces that improve the comfort and enjoyment of those areas.

Policy 1.1.6: Consider non-motorized modes of transportation in the design of new roadways. Explore opportunities for off-road trails where appropriate.

Policy 1.1.7: For new subdivisions, promote street patterns that maximize connectivity and efficiency of getting from one point to another.

Policy 1.1.8: Periodically update the City of North Mankato plans and policies that include design guidance, including the North Mankato Complete Streets Plan and Policy, the Public Arts Ideas Plan, and small area plans to ensure new development and redevelopment incorporate up-to-date design guidance.

Policy 1.1.9: Explore opportunities for new forms of public spaces such as plazas, public squares or outdoor performing areas.

Policy 1.1.10: Analyze existing pedestrian areas and public spaces for lighting and make improvements where necessary to increase safety at night.

Objective 1.2: Make decisions that enhance the appearance and attractiveness of the public realm.

Policy 1.2.1: Promote the protection and enhancement of natural resources as a means to maintain the integrity, heritage and local character of the community.

Policy 1.2.2: Consider landscaping improvements along key pedestrian and bike corridors and in other public spaces.

Policy 1.2.3: Continue to incorporate public art including sculptures, decorative seating nodes, murals, etc. throughout the community.

Policy 1.2.4: When installing amenities such as seating, trash receptacles, pedestrian lightings, or others similar types of features, explore the feasibility of more attractive options.

Policy 1.2.5: Encourage reuse of existing buildings where feasible.

Policy 1.2.6: Consider developing a plan or implementation tool that offers incentives for infill development and removal of substandard buildings or consolidating of land where feasible.

Policy 1.2.7: Consider design standards applied using overlay districts to effectively manage structure design.

GOAL 2: Promote the use and accommodation of alternative energy sources in building and infrastructure design.

Objective 2.1: Facilitate the use of alternative energy sources on buildings.

Policy 2.1.1: Consider city code amendments that incorporate alternative energy sources in the construction of all new public buildings.

Policy 2.1.2: Consider retrofitting existing public buildings with alternative energy sources.

Policy 2.1.3: Promote the use of alternative energy sources in private development.

Objective 2.2: Ensure transportation infrastructure accommodates advances in vehicles using alternative energy sources.

Policy 2.1.1: Continue to research new trends in alternative energy usage in transportation and how elements could or should be integrated into the North Mankato system.