2040 Comprehensive Guide Plan Steering Committee

Wednesday, Nov. 7, 2018

Dinner, Employee Lunch Room

6:00 – 6:15 p.m.

City Council Chambers, Minnetonka City Hall

6:15 – 8:00 p.m.

Agenda:

6:00 – 6:15	Dinner *(Employee Lunch Room, Lower Lever of City Hall)*
6:15 – 7:00	Transportation Plan *(Council Chambers)*
7:00 – 8:00	Feedback on Drafts
8:00	Adjourn

CITY OF MINNETONKA
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To: 2040 Comprehensive Guide Plan Steering Committee

From: Loren Gordon, AICP, City Planner

Date: Nov. 7, 2018

Subject: 2040 Comprehensive Guide Plan meeting #11 – November 7, 2018

This is the final meeting of the steering committee. The goal of the meeting is to provide any final comments to include in draft plan prior to review and adoption by the planning commission and city council. The first part of our meeting will be spent reviewing the remaining work on the transportation section related to roadway systems. The consultant team from SRF Consulting Group will cover this information.

Plan Sections

Staff is seeking specific input on plan content prior to the public hearing process. Below is a summary of the larger issues in each plan section.

- **Transportation**

  The steering committee previously reviewed the transportation plan components except for roadway system plans. The future modeling results will be presented to the steering committee for feedback. The roadway plans accommodate future population, household and employment growth identified in other plan sections such as land use and housing. The draft plan is attached.

- **Parks and Trails -** Click here

  Community input for during Imagine Minnetonka and the Comprehensive Plan processes continues to show strong support for parks and trail systems. These are themes for the future included in the plan:

  - Growing – Where additional densities are planned, add more parks and trails
  - Adapting – Programming of spaces, amenities and activities should reflect community desires
  - Connecting – Not only do parks and trails need physical connectedness, they also need to relate to and connect with the diversity of people in the community

- **Land Use –** Click here

  There are three primary themes:

  - Accommodate additional growth and redevelopment in three areas: the I-394 corridor, Opus business park and Shady Oak Station area.
  - Provide areas for a mix of uses to help increase vitality in commercial areas.
  - Preserve existing single family detached housing in established neighborhoods.

- **Housing –** Click here

  There are four primary areas of focus:
  - Strengthening neighborhoods by improving and preserving the existing housing stock;
  - Promoting new affordable and market-rate rental and for-sale housing;
  - Encouraging diversity in the types, sizes, and prices of housing units available in Minnetonka; and
  - Creating partnerships with other agencies to ensure the longevity of affordable housing.

- **Economic Competitiveness**

  The economic competitiveness chapter is an optional plan element the city has committed to in order to better understand the business and employment needs. The focus areas include:
  - Key Industries/Centers of Employment
  - Redevelopment
  - Education and workforce
  - Business Development
  - Economic Information, Monitoring and Strategic Incentives

  The draft plan is attached.

Community Outreach and Feedback

The most recent community outreach and feedback was sought during the month of October at venues throughout the community. In addition, draft plan sections were posted on Minnetonka Matters in a "book club" format for online feedback.

The outreach was posted on the city's website and social media sites.

Rise and Shine Coffee: Oct. 12-26
Start your day with a cup of coffee and chat with city officials about the future of Minnetonka. The first 20 people will receive a complimentary cup of coffee.

- Friday, Oct. 12 | 7:30–9:30 a.m. | Caribou Coffee | 14444 Excelsior Blvd.
- Wednesday, Oct. 24 | 7:30–9:30 a.m. | Caribou Coffee | 3434 County Road 101
- Friday, Oct. 26 | 7:30–9:30 a.m. | Dunn Bros. Coffee | 14525 Hwy 7

On-the-Go Input: Oct. 9–23
Stop by one of these events at your convenience to discuss the city and its future.

- Tuesday, Oct. 9 | 5–8 p.m. | Minnetonka City and Fire Department Open House | Minnetonka Community Center | 14600 Minnetonka Blvd.

- Monday, Oct. 15 | 4:30–6:30 p.m. | Ridgedale Center Rotunda | 12401 Wayzata Blvd.
- Tuesday, Oct. 23 | 11 a.m.–1 p.m. | Minnetonka Community Center | 14600 Minnetonka Blvd.

There were approximately two dozen people that engaged with staff during these six meetings. Morning coffees were the most popular. Attendee interest and discussion at these outreach sessions focused on the following:

- Resiliency – Would like additional focus in the plan on community resiliency especially as it relates to adapting to climate change.
- Land use – What are the areas of change, most specifically in the I-394 / Ridgedale area?
- Parks and Trails – Appreciate the focus on building more miles of trails. Snow plowing operations need to adapt to trends of increasing facility use by year round bike commuting, recreational cyclist and pedestrian trends.
- Housing - Providing affordable housing is an important community issue.

“Book Club”

The following draft plan section comments were received on the 2040 Comprehensive Plan “Book Club” discussion page on Minnetonka Matters. These discussion pages will remain open through Nov. 21, 2018 to allow feedback up to the planning commission public hearing on Nov. 29, 2018. Staff will develop responses to these comments and others received for the public hearing.

Parks and Trails

Comment #1:

This is a comment on Parks-rec. I have been a resident of Minnetonka since 1977. We have completed many trails and I have walked on many with my dogs (always on a leach). Some of our trails are underutilized greatly, like the one west of 494. We should not increase trails until we evaluate underutilization and plan to increase traffic on those.

Another issue is the comment on the health club. We have invested millions of dollars in a club which completes with tax paying business and non-profits. If we want to provide residents of those services we should contract with existing facilities and negotiate lower fees and /or city $ for resident members. This will reduce pressure on staffing and cost of facility up keep.

Finally we should not increase park size or acquire new parkland until we have used current facilities to the max. I have yet to see or hear about current park use statistics.

I forgot to add that buying more parkland will remove homes from our property tax base.

Comment #2:

Bullet 7 under Policy 3 - in addition to partnering with Three Rivers, lets identify opportunities to leverage that partnership with other partners (Hennepin County, MnDOT, Plymouth, etc) and do some REALLY fun stuff!

Bullet 7 under Policy 3 - in addition to partnering with Three Rivers, lets identify opportunities to

leverage that partnership with other partners (Hennepin County, MnDOT, Plymouth, etc.) and do some REALLY fun stuff!

p 10/13 - "multi-use trails ... that serve as transportation..."
I recognize that multi-use trails are the likely best compromise among widely varying uses, but if they are going to be formally recognized as providing transportation opportunities, perhaps the configuration can be changed from one wide path with no markings (less expensive to install, easier to maintain) to something where different modes are separated (more expensive to build & maintain?)? There could also be an educational component to this, for sure, but getting 100% coverage on education seems unlikely, as does getting 100% compliance, so we're back to trying to engineer it...

Housing

Comment #1:

First reaction, 199 pages of anything other than a novel is someone trying to justify their services. The main questions that stand out: Why is Minnetonka expected to accommodate a projected 4698 new HH's? What is the appropriate maximum number of HH's in Minnetonka for Minnetonka to maintain (protect) what has made Minnetonka so desirable the last 80 years? When will we know we have reached the "tipping point" (when growth has diluted the core attributes of Minnetonka)?

Transportation

Comment #1:

Policy 1.2 Provide and improve facilities for all users, encouraging safe design and mitigating accidents, especially with pedestrians and bicyclists, who are the most vulnerable users of the transportation system. Crashes, not accidents. #WordsMatter

Comment #2:

Policy 3.3 Create ways to improve connections within Minnetonka by providing an interconnected transit system and ways for those without a car to move around Minnetonka freely and easily. Please add to the end "at all times of day, with higher frequencies during times of higher need / demand / utility."

Case in point - Metro Transit Route 614 stops near MHS (Co Rd 101 & Hwy 7) at either 0654 or 0805. School starts at 0800, so neither option works.

Route 670 is slightly better in the morning (stop at Hutchins & Porter at 0725) but the afternoon options (again, at Hutchins & Porter) stop at 1702, 1732, and 1801. Nearly 3 hours after school gets out.

Next Steps

Prior to the public hearing, staff is hosting a meeting for all property owners with property a land use plan change from the 2030 to 2040 plan. The meeting will be held on Tuesday, Nov. 13, 2018 from 11:00 – 5:00 p.m. in the city council chambers. If property owners can’t make that time, staff will set up separate meetings to discuss the changes and answer questions or concerns. A copy of the notice is included as an informational item.

The planning commission public hearing is planned for Nov. 29, 2018. City council review and adoption of the plan is planned for Dec. 17, 2018. The steering committee is welcome to attend these meetings to provide input and insights.

Attachments:

- Transportation Plan Draft – updated
- Land Use Change letter

Table of Contents

Introduction **1**
Vision for the Transportation System 1
Report Organization 1
Summary of Regional Transportation Goals **2**
Minnetonka Goals and Policies **2**
Roadway System Plan **7**
Jurisdictional Classification 7
Functional Classification 9
Planned and Programmed Improvements 16
2040 Travel Demand Forecasts 19
Roadway Safety 33
Right-of-Way Preservation 36
Access Management 36
Traffic Management Strategies 38
Transit System Plan **39**
Transit Market Areas 39
Existing System Inventory 41
Existing Transit Facilities 41
Transit Service Types 44
Future Transit Development 46
Bicycle and Trail System Plan **47**
Planning for a Connected Pedestrian and Bicycle System 47
Existing Trail System 47
Gaps in Existing Trail System 49
Connections to Regional Employment Clusters 51
Regional Parks System Components 51
Regional Bicycle Transportation Network 52
Freight Plan **54**
Aviation Plan **56**
Funding Strategies **58**
Planning for the Future **59**

Introduction

The City of Minnetonka is located in Hennepin County, Minnesota, and is 5 miles southwest of downtown Minneapolis and 18 miles southwest of downtown Saint Paul. Minnetonka is the seventeenth largest City in Minnesota by population, and the City boundary encompasses 28 square miles and is bordered by the City of Plymouth to the north, St. Louis Park, Hopkins, and Edina to the east, Eden Prairie to the south, and Shorewood, Deephaven, Woodland, and Wayzata to the west.

Vision for the Transportation System

The purpose of the Transportation Plan is to provide a means to better connect the community, outline the policy and program guidance needed to make appropriate transportation related decisions when development occurs, and state when elements of the transportation system need to be upgraded and help forecast when transportation problems may occur. The Transportation Plan demonstrates how the City of Minnetonka will provide for an integrated transportation system that will serve the future needs of its residents and businesses, support the City's development plans, and complement the portion of the metropolitan transportation system that lies within the City's boundaries.

The City of Minnetonka maintains public roadways, as well as some of the trails and sidewalks within the City. Maintaining and improving this multimodal transportation system is important to the ongoing economic health and quality of life of the City and it is needed for people to travel easily and safely to work and other destinations, to develop property and to move goods.

Report Organization

The Transportation Plan is organized into the following sections:

- Roadway System Plan
- Transit System Plan
- Sidewalk and Trail System Plan
- Aviation System Plan
- Freight System Plan
- Implementation Plan

Summary of Regional Transportation Goals

Guidance for the development of the Transportation Plan is provided by the Metropolitan Council's 2040 Transportation Policy Plan (TPP). The Metropolitan Council's TPP includes six major themes that address regional transportation:

Transportation System Stewardship: Provide sustainable investments in the transportation system which are protected by strategically preserving, maintaining, and operating system assets.

Safety and Security: Ensure the regional transportation system is safe and secure for all users.

Access to Destinations: Allow people and businesses to prosper by using a reliable, affordable, and efficient multimodal transportation system that connects them to destinations throughout the region and beyond.

Competitive Economy: Ensure the regional transportation system supports the economic competitiveness, vitality, and prosperity of the region and state.

Healthy Environments: Confirm the regional transportation system advances equity and contributes to communities' livability and sustainability while protecting the natural, cultural, and developed environments.

Levering Transportation Investment to Guide Land Use: Leverage the region's transportation investments to guide land use and development patterns that advance the regional vision of stewardship, prosperity, livability, equity, and sustainability.

Minnetonka Goals and Policies

To respond to the above themes as well as to serve economic activities and improve the quality of life within Minnetonka, the city has adopted transportation goals and policies. These were developed in concert with the overall comprehensive plan goals and policies and include:

Goal 1. Provide a safe, convenient, effective, and integrated transportation system.

- Policy 1.1 Treat all modes of transportation and related facilities as one integrated system to be coordinated and developed with other partners and stakeholders.
- Policy 1.2 Provide and improve facilities for all users, encouraging safe design and mitigating accidents, especially with pedestrians and bicyclists, who are the most vulnerable users of the transportation system.
- Policy 1.3 Consider traffic control improvements where appropriate to accommodate roadway capacity and reduce delay.
- Policy 1.4 Collaborate with other agencies for local and regional transportation improvements and programs to lessen the impacts of congestion and provide the most effective transportation system for the city.

Policy 1.5 Prioritize investments in A-minor arterials that build, manage, or improve the system's ability to supplement the capacity of the principal arterial system.

Goal 2. Encourage appropriate "traffic calming" techniques within and near residential neighborhoods that are impacted by congestion and excessive traffic volumes and/or speeds.

Policy 2.1 Consider traffic-calming measures to discourage through traffic on local streets.

Policy 2.2 Encourage design of all local residential streets to prevent penetration by through traffic, and properly direct traffic to collector or arterial streets.

Policy 2.3 Support regional roadway improvements to reduce local roadway traffic levels, which otherwise belong on the regional system.

Policy 2.4 Manage the impact of new development upon the local transportation system and encourage the use of Transportation Demand Management (TDM) and other traffic management techniques.

Goal 3. Encourage, with other government agencies, the expansion of multimodal and transit services in the city to support resident and business transportation needs.

Policy 3.1 Promote public transit that serves all residents and provides special transit services for commuters and diverse populations.

Policy 3.2 Support regional transit initiatives such as Bus Rapid Transit (BRT), Light Rail Transit (LRT) and Commuter Rail.

Policy 3.3 Create ways to improve connections within Minnetonka by providing an interconnected transit system and ways for those without a car to move around Minnetonka freely and easily.

Policy 3.4 Promote telecommuting and flex scheduling to reduce traffic.

Policy 3.5 Identify or develop additional park-and-ride lots throughout the city to encourage transit ridership.

Policy 3.6 Utilize sound land use planning to promote multimodal travel alternatives to single-occupant vehicles, with a focus on strategic job, activity and industrial and manufacturing concentrations location on congested highway corridors served by the regional transit service.

Goal 4. Plan for trails and pedestrian ways as a transportation mode and provide a network of trails and pathway connections to schools, commercial areas, parks, activity centers, and access to transit services.

Policy 4.1 Maintain safe road crossings in high traffic areas and promote safe pathways for pedestrians and bicyclists in parking lots and internal traffic circulation areas.

Policy 4.2 Identify pedestrian/bike trails to connect with adjacent surrounding communities.

Policy 4.3 Focus bicycle and trail connections on activity centers within the community and in neighboring communities.

Goal 5. Recognize the interrelationship of land use and transportation, and anticipate impacts of the location and intensity of planned land uses on the transportation system.

Policy 5.1 Plan transportation facilities to function in a manner compatible with adjacent land uses.

Policy 5.2 Require pedestrian connections between complementary land uses.

Policy 5.3 Encourage compact and pedestrian-friendly mixed use developments that offer the type of retail and convenience services that will minimize peak hour traffic demand.

Policy 5.4 Implement land use policies that support future growth around transit stations and high-frequency service areas, and commit to development strategies that support successful transit in these areas.

Goal 6. Provide a transportation system that supports the economic vitality and prosperity of the city and the region.

Policy 6.1 Provide and protect efficient connections from major freight facilities to the regional highway system.

Policy 6.2 Identify and improve suitable truck routes while minimizing impacts; such as, noise and traffic to sensitive land uses.

Goal 7. Ensure the Minnetonka transportation system is resilient and built to accommodate changes in transportation infrastructure, safeguarding investments for many years to come.

Policy 7.1 Consider opportunities to improve the city's intelligent transportation system (ITS) infrastructure to be prepared to potentially support autonomous vehicles (AVs) and connected vehicles (CVs) in the future.

Policy 7.2 Mitigate impacts to the natural environment and cultural resources when planning, constructing and operating transportation systems.

Policy 7.3 Minimize the effect of air quality impacts on the natural environments with proposed transportation improvements.

Policy 7.4 Promote rideshare opportunities, such as Uber and Lyft, within the City of Minnetonka to help individuals achieve first and last-mile connections from transit and other modes of transportation.

Roadway System

The City of Minnetonka has excellent access to the regional transportation roadway system with routes I-494, I-394, US 169, US 12 and Highway 7 passing through the city. This section of the Transportation Plan identifies issues with the existing roadway system and recommends a plan for future roadway system improvements. The roadway system plan addresses jurisdictional alignment, the functional classification system, existing and future traffic volumes, congestion, safety, future roadway system issues and improvements, and key transportation policies.

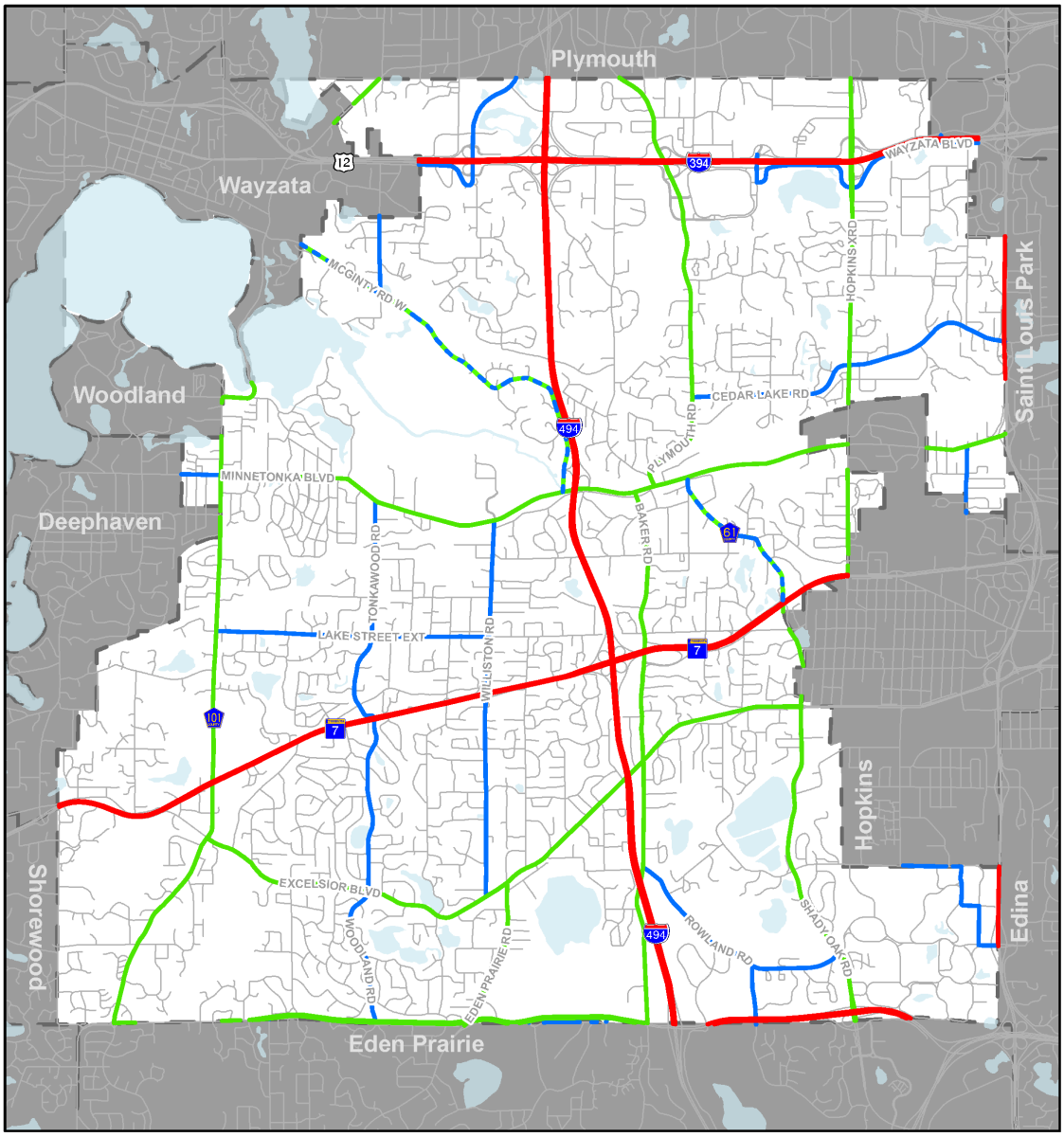
Jurisdictional Classification

Jurisdiction over the roadway system in Minnetonka is shared among three levels of government: the State of Minnesota, Hennepin County, and Minnetonka. MnDOT maintains the Interstate and Trunk Highway (TH) systems. Hennepin County maintains the County State Aid Highway (CSAH) and County Road (CR) systems, and the remaining streets and roadways are the responsibility of Minnetonka, including Municipal State Aid (MSA) streets. Often times, the municipal boundaries separating Minnetonka from adjacent cities lies within a roadway right-of-way, partnership with adjacent cities is required to coordinate maintenance of these roadways. Figure **1** displays the jurisdictional classification of each roadway within Minnetonka.

The jurisdictional classification system is intended to maintain a balance of responsibility among the agencies and is organized around the principle that the highest volume limited access roadways that carry regional trips are primarily maintained by MnDOT, the intermediate volume roadways that carry medium length trips are maintained by Hennepin County, and the local street system that provides access to individual properties is maintained by the city.

Occasionally, because of development, changes in traffic patterns or the construction of new facilities, the jurisdictional classification needs to be adjusted to reflect changes in the way certain roadways are used. Hennepin County has identified a couple of potential jurisdictional transfers as part of their planning efforts that the City of Minnetonka does not support (county transfers to city jurisdiction). The county's draft jurisdictional transfer policy states that "a proposed transfer should be evaluated within the context of the county's Asset Management Program to determine the resources needed, as the county works toward ensuring that the roadway has an adequate 10-year service life, to avoid burdening the accepting city with undue maintenance needs." If the city were to consider a jurisdictional transfer of the two identified roadways in the future, it would be challenging for the city to consider it based on only a 10-year service life – the long-term maintenance of these roads would put significant financial strain on the city in a very short timeframe.

Figure 1.



Existing and County Proposed Jurisdictional Classification

- Proposed County to City Turnback
- City Roadways
- County Roadways
- State Roadways

0 1 Miles

Source: Met Council, Hennepin County, & SRF Consulting

Functional Classification

The functional classification system defines both the function and role of a roadway within the hierarchy of an overall roadway system. This system is used to create a roadway network that collects and distributes traffic from neighborhoods and ultimately to the State or Interstate highway system. Functional classification planning works to manage mobility, access, and alignment of routes (Figure 2). Functional classification also seeks to align designations that match current and future land uses with the roadway's purpose.

A roadway's functional classification is based on several factors, including:

- Trip characteristics: length of route, type and size of activity centers, and route continuity
- Access to regional population centers, activity centers, and major traffic generators
- Proportional balance of access, ease of approaching or entering a location
- Proportional balance of mobility and ability to move without restrictions
- Continuity between travel destinations
- Relationship with neighboring land uses
- Eligibility for State and Federal funding

Within the Twin Cities Metropolitan Area, the Metropolitan Council has established detailed criteria for roadway functional classifications, which are summarized in Table 1.

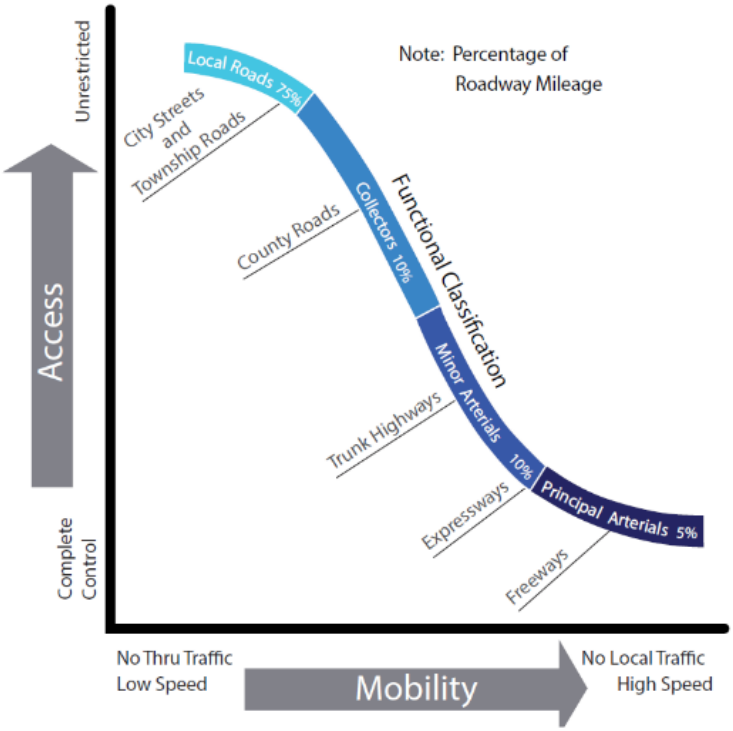


Figure 2.

Access and Mobility Relationship

Table 1. Roadway Functional Classification Guidance

Criteria	Principal Arterial	Minor Arterial	Collector	Local Street
Place Connections	Interconnects metro centers and regional business concentrations	Interconnects major trip generators	Interconnects neighborhoods and minor business concentrations	Interconnects blocks within neighborhoods and land parcels within commercial areas
Spacing	Developed areas: 2-3 miles Developing areas: 3-6 miles	Developed areas: ½-1 mile Developing areas: 1-2 miles	Developed areas: ¼-¾ mile Developing areas: ½-1 mile	As needed to access land uses
Roadway Connections	To interstates, principal arterials and selected minor arterials	To interstates, principal arterials, other minor arterials, collectors and some local streets	To minor arterials, other collectors and local streets	To collectors, other local streets and a few minor arterials
Mobility	Highest	High	Moderate	Low
Access	No direct property access	Limited property access	Property access is common	Unrestricted property access
Percent of Mileage	5-10%	15-25%	5-10%	65-80%
Percent of Vehicle Miles Traveled	40-65%	15-40%	5-10%	10-30%
Intersections	Grade-separated or high-capacity intersection controls	Traffic signals and cross street stops	All-way stops and some traffic signals	As required for safe operation
Parking	None	Restricted as necessary	Restricted as necessary	Permitted as necessary
Large Trucks	No restrictions	No restrictions	Restricted as necessary	Permitted as necessary
Typical Average Daily Traffic	15,000-200,000	5,000-30,000	3,000-15,000	Less than 3,000
Posted Speed Limits	45-65 mph	40-50 mph	30-45 mph	Maximum 30 mph
Right of way Width	100-300 feet	60-150 feet	60-100 feet	50-80 feet
Transit Accommodations	Priority access for transit in peak periods	Preferential treatment where needed	Designed for use by regular route buses	Normally used as bus routes only in non-residential areas

SOURCE: METROPOLITAN COUNCIL, TRANSPORTATION POLICY PLAN, ADOPTED JANUARY 14, 2015

The current functional classification of roadways in Minnetonka is shown in Figure 3. The functional classification system represents the system that has been approved by the Metropolitan Council and is in place at the writing of this document.

Further information on Metropolitan Council functional classification criteria can be found in Appendix D of the Council's 2040 Transportation Policy Plan.

Principal Arterials

Principal arterials are part of the Metropolitan Highway System and provide high-speed mobility between the Twin Cities and important locations outside the metropolitan area. They are also intended to connect the central business districts of the two central cities with each other and with other regional business concentrations in the metropolitan area. These roadways, which are typically spaced from three to six miles apart, are generally constructed as limited access freeways in the urban area but may also be constructed as multiple-lane divided highways.

In Minnetonka, there are five principal arterials: I-494, US 169, TH 62 and TH 5 (between I-494 and US 212). These facilities are envisioned to continue functioning as principal arterials for the planned future of Minnetonka.

Minor Arterials and Other Arterials

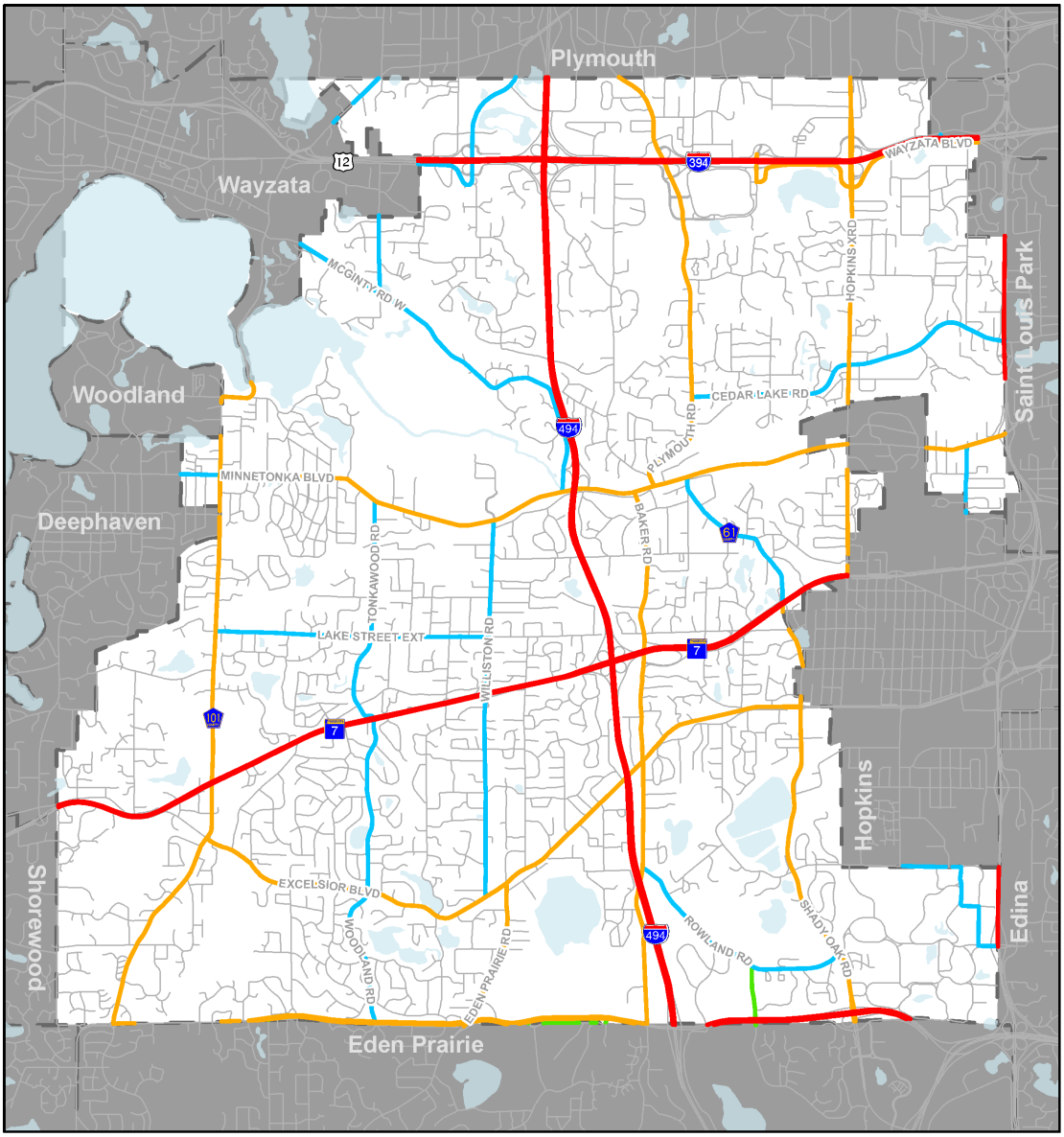
Minor arterials also emphasize mobility over land access, serving to connect cities with adjacent communities and the metropolitan highway system. Major business concentrations and other important traffic generators are usually located on minor arterial roadways. In urbanized areas, one-half to two-mile spacing of minor arterials is considered appropriate, depending upon development density.

A well-planned and adequately designed system of principal and A-minor arterials will allow the City's overall street system to function the way it is intended and will discourage through traffic from using residential streets. Volumes on principal and minor arterial roadways are expected to be higher than on collector or local roadways. Providing the capacity for these higher volumes will keep volumes on other city streets lower.

Collectors

Collectors, as the term implies, collect and distribute traffic from neighborhoods and commercial areas and provide a critical link between local streets, which are designed for property access, and minor arterials, which are designed for mobility. Collector streets have an equal emphasis on land access and mobility. It is this category of roadway that the City of Minnetonka has the greatest responsibility for since principal and A-minor arterials tend to be under the jurisdiction of either MnDOT or Hennepin County.

Figure 3. Functional Classification



Local Streets

Local streets provide access to adjacent properties and neighborhoods. Local streets are generally low speed and designed to discourage through traffic. All roadways in the City that are not included under the previous functional classifications above fall under the local road designation.

Proposed Functional Classification System

The functional classification system for roadways in the City of Minnetonka was reviewed to ensure appropriate network connectivity is maintained and for consistency with the functional classification criteria established by the Metropolitan Council. Based on this review, there are no recommended functional classification changes to the principal or A-minor arterial systems. Therefore, the functional classification system illustrated in Figure 3 is representative of future conditions for principal and A-minor arterial classifications in the City of Minnetonka.

Planned and Programmed Improvements

Figure 4 identifies programmed roadway improvements from the City of Minnetonka Capital Improvement Program (CIP), the Hennepin County CIP and MnDOT's Transportation System Plan (TSP). Programmed improvements have advanced through the project funding programming process and have funds committed to the improvement in a designated year; while planned projects have been formally studied and/or included in a transportation plan, but typically no commitments to fund the improvement have been made. COULD REPLACE THIS MAP WITH #OFLANES

Table 4. List of Planned and Programmed Improvements

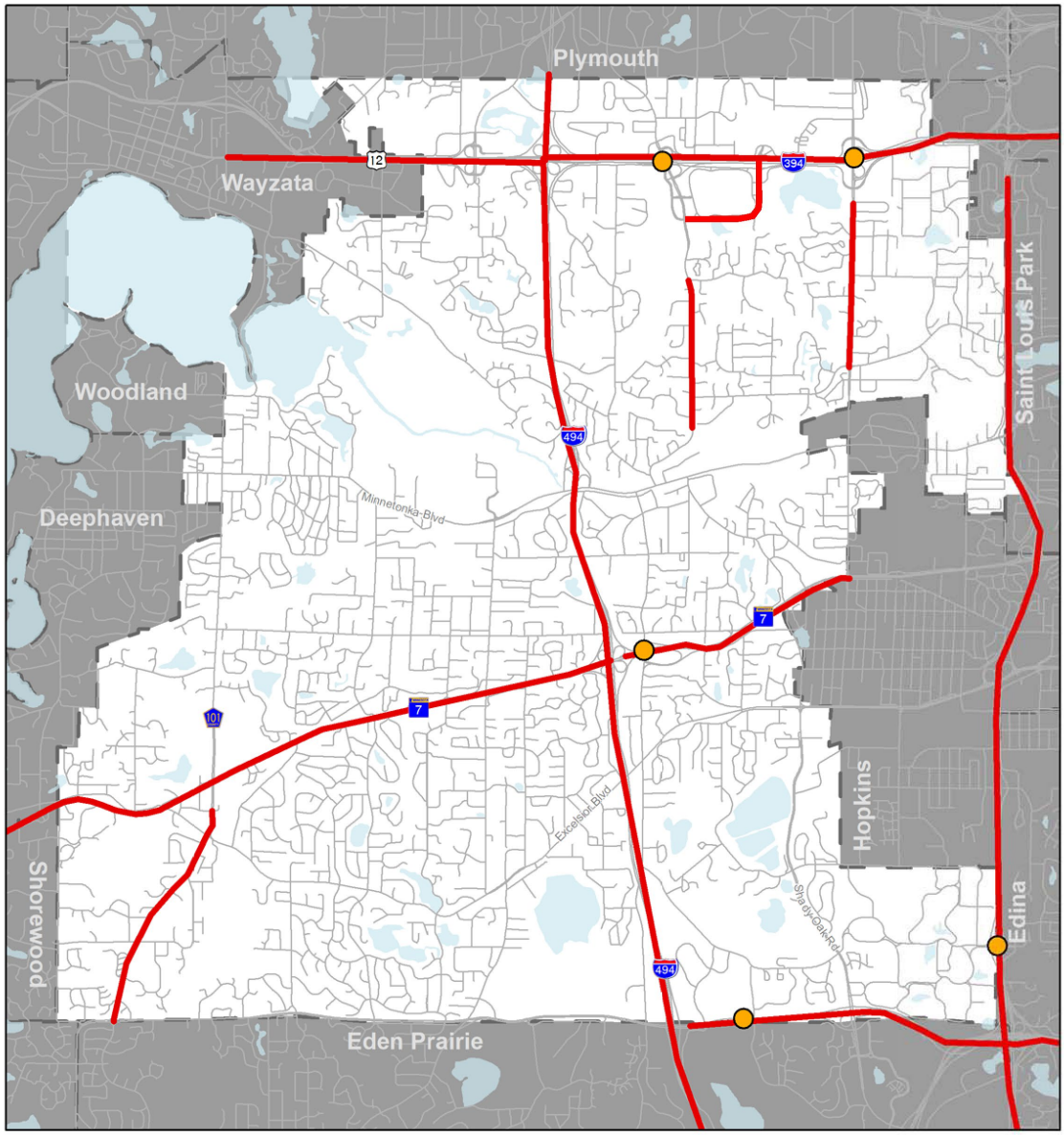
Roadway	Extents	Project Type	Jurisdiction
TH 7	East of I-494 to west of Louisiana Ave	Mill and Overlay (2018)	MnDOT
TH 62	Beach Road to Tracy Ave	Mill and Overlay, fence repair, curb and gutter, ADA improvements (2019)	MnDOT
CSAH 73 (Hopkins Crossroads)	Cedar Lake Road to I-394	Reconstruct as multi-lane roadway (2020)	Hennepin County, Minnetonka
CSAH 61 (Plymouth Road)	North of BNSF railroad (Cedar Lake Road) to Hilloway Road	Reconstruct as multi-lane roadway (2021)	Hennepin County, Minnetonka
TH 7	Christmas Lake Road to I-494	Mill and Overlay / reclaim (2022)	MnDOT
US 169	US 169	Repair redeck bridge #27551 (2019-2024)	MnDOT
TH 62	Nine Mile Creek	Overlay Bridge (2026)	MnDOT
I-394	I-494 to TH 100	Mill and Overlay (2026)	MnDOT
I-494	France Ave to US 12	Minor Concrete pavement repair (2027)	MnDOT
US 12	Wayzata Exit to I-494	Mill and Overlay (2025)	MnDOT
Old Excelsior Road		Reconstruction (2018)	Minnetonka

Woodhill Road	Excelsior Blvd (CSAH 3) to TH 7	Reconstruction (2018)	Minnetonka
Ridgedale Drive	Plymouth Road to I-394	Reconstruction (2019)	Minnetonka
Parkers Lake Road/Twelve Oaks Center Drive	US 12 to Kingsview Lane	Reconstruction (2020)	Minnetonka
Groveland Bay	Various locations	Reconstruction (2021)	Minnetonka
Tonka-Woodcroft (Phase I)	Various locations south of Minnetonka Blvd (CSAH 5)	Reconstruction (2022)	Minnetonka
Ford Road	Cedar Lake Road to I-394	Mill and Overlay (2018)	Minnetonka
Williston Road	Minnetonka Blvd (CSAH 5) to TH 7	Mill and Overlay (2018)	Minnetonka
Highland Road	Excelsior Blvd (CSAH 3) to TH 7	Mill and Overlay (2019)	Minnetonka
Minnetonka Mills Road	Hopkins Crossroad (CSAH 73) to Shady Oak Road (CSAH 61)	Mill and Overlay (2020)	Minnetonka
Rowland Road	Baker Road (CSAH 60) to Bren Road	Mill and Overlay (2020)	Minnetonka
Woodhaven Road	Orchard Road to Spring Lake Road	Mill and Overlay (2021)	Minnetonka
Whitewater Drive	Clearwater Drive to Rowland Road	Mill and Overlay (2021)	Minnetonka
Scenic Heights Drive	TH 62 to Excelsior Blvd (CSAH 3)	Mill and Overlay (2022)	Minnetonka

Coordination with Other Jurisdictions

The City of Minnetonka will continue to coordinate with adjacent jurisdictions (e.g., Bloomington, Chanhassen, Edina, Minnetonka, Savage, Shakopee, Carver County and Scott County) as well as Hennepin County and MnDOT when planning future improvements. Coordination among jurisdictions provides opportunities for collaboration that benefit all agencies and the public. This results in financial and time savings through economies of scale as well as potentially reducing construction impacts to residents and businesses.

Figure 4. Planned and Programmed Improvements



Planned and Programmed Improvements

Minnetonka Bridge Projects

Minnetonka Roadway Projects

0 1 Miles

Source: Met Council & SRF Consulting

2040 Travel Demand Forecasts

The pattern and intensity of travel within any city is directly related to the distribution and magnitude of households, population and employment within that community, in neighboring communities and in the region. This section provides an overview of the existing land use pattern in the City of Minnetonka.

Minnetonka is now largely developed. While this does not mean that there will be no change or growth within the community, it does mean that redevelopment is now the primary focus, except for certain areas of the city. The Ridgedale Mall area continues to redevelop with increased density and the Opus campus area with Transit Oriented Development. Land use, travel patterns, population and employment change over time and affect the efficiency and adequacy of the transportation network. This section also outlines expected changes in the city's land use pattern, households, population and employment, which will then be the basis for estimating future travel demand within the city.

Socioeconomic Data

Historic, existing and estimated population, households, and employment levels are shown in Table 5. The Metropolitan Council prepared estimates for the overall regional growth in terms of households, population, and employment for the years 2020, 2030, and 2040, allocating an appropriate portion to each municipality.

Table 5. Summary of Socioeconomic Data for Minnetonka

Year	Population	Households	Employment
2010	49,734	21,901	44,228
2020	53,200	24,200	54,400
2030	58,000	26,600	58,900
2040	61,500	28,300	63,200

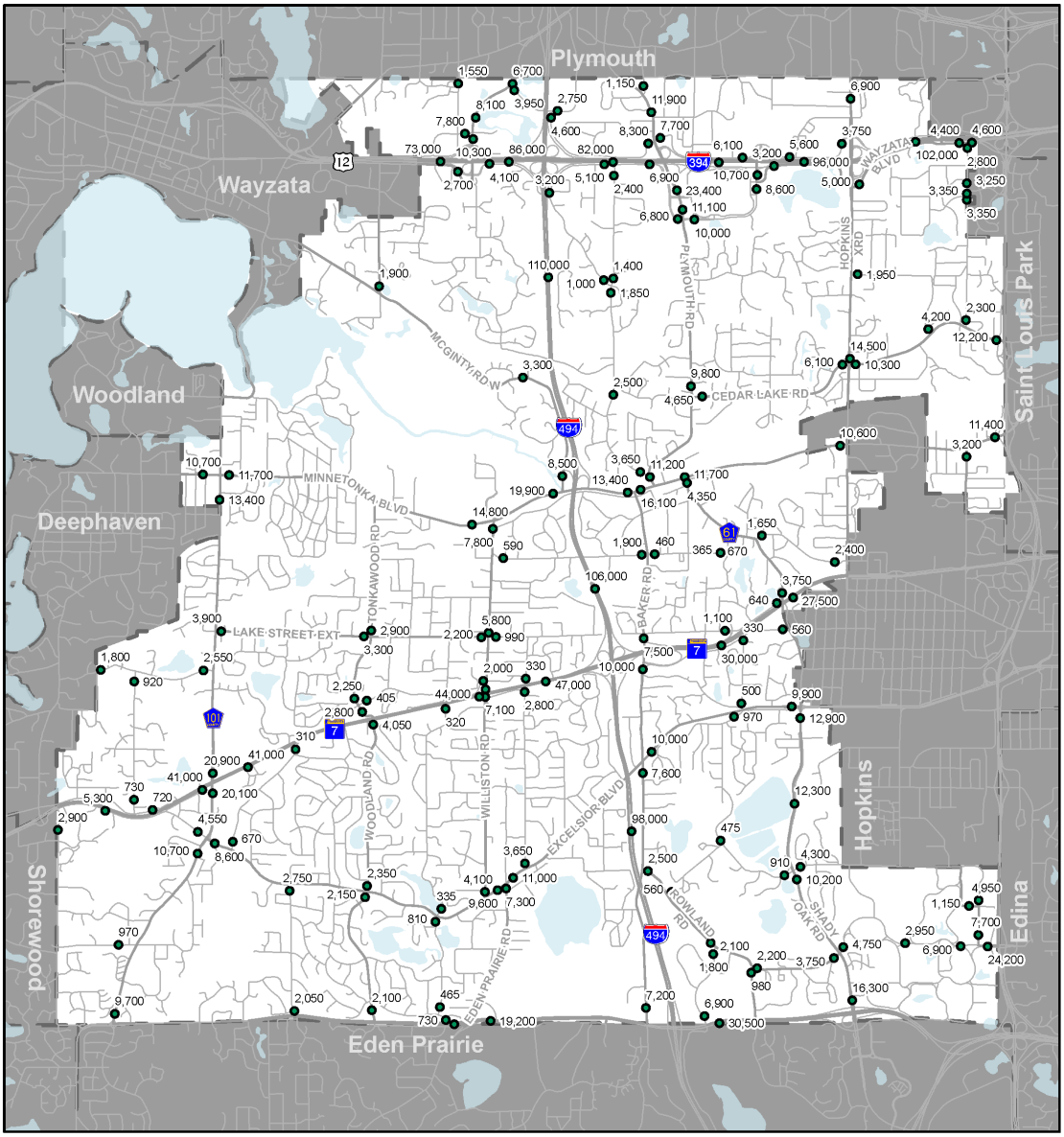
Source: Metropolitan Council, 2017.

Using the Land Use Guide Plan and development objectives as guidance, and with the assistance of the Metropolitan Council, the city has estimated existing and future population, employment and households for sub-areas of the city called Traffic Analysis Zones (TAZs). This information was required to complete the traffic forecasting procedures used to estimate future traffic volumes. Detailed breakdown of the TAZ allocation is provided as an appendix item.

Forecast 2040 Traffic Volumes

Figure 5 presents the base condition "existing" traffic volumes for the roadway system in Minnetonka. Forecasts for the City of Minnetonka were prepared based upon the socio-economic distribution identified for the year 2040. These forecasts are an essential analytical tool to determine the adequacy of the road system to handle future development. In addition to the programmed roadway projects identified earlier, the traffic forecast model considers future planned improvements that are in the Metropolitan Council's TPP for regional highways outside the city. The results of the forecast are shown in Figure 6.

Figure 5. Existing Traffic Volumes



Existing Annualized Average Daily Traffic Volumes

- Existing (2016) AADT Volumes

0 1 Miles

Source: Met Council, & SRF Consulting

Figure 6. Future (2040) Traffic Volumes

IN PROCESS

Existing and Anticipated Capacity Deficiencies

Congestion on the roadway system is judged to exist when the ratio of traffic volume to roadway capacity (v/c ratio) approaches or exceeds 1.0. The ratio of volume to capacity provides a measure of congestion along a stretch of roadway and can help determine where roadway improvements, access management, transit services, or demand management strategies need to be implemented. It does not, however, provide a basis for determining the need for specific intersection improvements.

Level of Service

Level of Service (LOS), as related to highways and local roadways, categorizes the different operating conditions that occur on a lane or roadway when accommodating various traffic volumes. It is a qualitative measure of the effect of traffic flow factors such as speed and travel time, interruption, ability to maneuver, driver comfort and convenience, and is an indirect measure of safety and operating costs. LOS is expressed as levels "A" through "F," with level "A" being a condition of free traffic flow with little or no restriction in speed or maneuverability caused by the presence of other vehicles, and level "F" being a forced-flow condition at low speed with many stoppages resulting in the roadway acting as a storage area. Further definition of LOS is described in Table 6.

Table 6. Planning-Level Roadway Capacities by Facility Type

Level of Service (LOS)	Traffic Flow	Vehicle/Capacity Ratio	Description
A	Free Flow Below Capacity	0.20	Low volumes and no delays.
B	Stable Flow Below Capacity	0.40	Low volumes and speed dictated by travel conditions.
C	Stable Flow Below Capacity	0.60	Speeds and maneuverability closely controlled due to higher volumes.
D	Restricted Flow Near Capacity	0.85	Higher density traffic restricts maneuverability and volumes approaching capacity.
E	Unstable Flow Approaching Capacity	1.00	Low speeds, considerable delays, and volumes at or slightly over capacity.
F	Forced Flow Over Capacity	>1.00	Very low speeds, volumes exceed capacity, and long delays with stop-and-go traffic.

The following section further describes LOS and the correlation between LOS and planning-level roadway capacities, which provides a better understanding of the operations and capacity levels on existing roadways within the City of Minnetonka. A method to evaluate roadway capacity for non-freeway and non-regional highways is described in Table 7.

For each facility type, the planning-level annual average daily traffic (AADT) capacity ranges and maximum AADT volume ranges are indicated. These volume ranges are based on guidance from the Transportation Research Board's Highway Capacity Manual, direction from the Metropolitan Council, and professional engineering judgment. Capacity ranges are used since the maximum capacity of any roadway design is a theoretical measure that can be affected by its functional classification, traffic peaking characteristics, access spacing, design speed, and other roadway characteristics.

Table 7. Planning-Level Roadway Capacities by Facility Type

Facility Type	Planning Level Daily Capacity Ranges (AADT)	Under Capacity			Approaching Capacity		Over Capacity
		LOS A	B	C	D	E	F
		0.2	0.4	0.6	0.85	1.0	>1.0
Two-lane undivided urban	8,000 – 10,000	2,000	4,000	6,000	8,500	10,000	> 10,000
Two-lane undivided rural	14,000 – 15,000	3,000	6,000	9,000	12,750	15,000	> 15,000
Two-lane divided urban (Three-lane)	14,000 – 17,000	3,400	6,800	10,200	14,450	17,000	> 17,000
Four-lane undivided urban	18,000 – 22,000	4,400	8,800	13,200	18,700	22,000	> 22,000
Four-lane undivided rural	24,000 – 28,000	5,600	11,200	16,800	23,800	28,000	> 28,000
Four-lane divided urban (Five-lane)	28,000 – 32,000	6,400	12,800	19,200	27,200	32,000	> 32,000
Four-lane divided rural	35,000 – 38,000	7,600	15,200	22,800	32,300	38,000	> 38,000
Four-lane expressway rural	45,000	9,000	18,000	27,000	38,250	45,000	> 45,000
Four-lane freeway	60,000 – 80,000	16,000	32,000	48,000	68,000	80,000	> 80,000
Six-lane freeway	90,000 – 120,000	24,000	48,000	72,000	102,000	120,000	> 120,000

Existing Capacity Deficiencies

Using the methodology described above, existing capacity deficiencies were identified by comparing existing ADT volumes and roadway characteristics to the thresholds noted in Table 7. Results of this analysis were mapped to identify roadways that currently exhibit capacity deficiencies. Roadway segments are defined as overcapacity if the volume-to-capacity ratio is at or above 1.0, which signifies that a segment of road has observed volumes which exceed its design capacity. Based on this analysis, the following road segments currently exceed their design capacity (Figure 7). Roadway segments are defined as near capacity if the volume-to-capacity ratio is at or above 0.85.

Table 8. Existing Roadways Over Capacity (V/C ≥ 1.00)

Roadway	V/C	Extents	

Table 9. Existing Roadways Approaching Capacity (0.85 ≤ V/C < 1.00)

Roadway	V/C	Extents	

The methodology described above is a planning-level analysis that uses average daily traffic volumes and is not appropriate for all traffic conditions. For example, traffic conditions that do not fit the average daily traffic criteria (e.g., weekend travel, holiday travel, special events, etc.) are likely to produce different levels of congestion. Additionally, factors such as the amount of access and roadway geometrics may influence capacity.

Figure 7. Existing Capacity Deficiencies

IN PROCESS

Congestion on the Regional Highway System

MnDOT defines freeway congestion as traffic flowing at speeds less than or equal to 45 miles per hour (mph). According to MnDOT's annual (2015) *Metropolitan Freeway System Congestion Report*, portions of US 169 an US 212 in Minnetonka are reported to have reoccurring congestion during either the a.m. and p.m. peak periods. In the a.m. peak period, the eastbound segment of US 212 west of I-494 exhibits congestion for up to an hour. Also in the a.m. peak period, the northbound segment of US 169 south of TH 62 exhibits congestion for upwards of 2-3 hours in some areas. During the p.m. peak period, the westbound segment of US 212 west of I-494 exhibits congestion for upwards of 1-2 hours in some areas. Also during the p.m. peak period, the southbound segment of US 169 south of TH 62 exhibits congestion for upwards of 2-3 hours in some areas.[1]

Future Capacity Deficiencies

A planning-level analysis was performed on the anticipated roadway system to identify locations where capacity problems are expected to occur by the planning horizon year. Demand was estimated using the 2040 traffic forecasts shown in Figure 6. Capacity was based upon the anticipated roadway geometrics shown in Figure 4, including the programmed roadway system improvements.

Using this data, a volume-to-capacity analysis, like that completed for existing conditions, was conducted for forecasted 2040 conditions. Using this methodology, Figure 8 illustrates Minnetonka's anticipated future capacity problem areas.

Table 10. Future Roadways Over Capacity (V/C ≥ 1.00)

Roadway	V/C	Extents	

Table 11. Future Roadways Approaching Capacity (0.85 ≤ V/C < 1.00)

Roadway	V/C	Extents	

[1] MnDOT Metropolitan Freeway System Congestion Report, 2016.

Figure 8. Future Forecasted (2040) Capacity Deficiencies

IN PROCESS

Roadway Safety

A central concern of transportation professionals is roadway safety. To assist in the evaluation of crashes, MnDOT maintains a database of crash records from around the State of Minnesota. These records identify the location, severity and circumstances associated with each crash. As shown in Table 12, this dataset was reviewed to identify the number, location and severity of crashes in the City of Minnetonka for the years 2011- 2015. Overall, there were 2,629 crashes, of which four involved fatalities, 816 involved personal injury and 1,809 involved property damage.

Table 12. Motor Vehicle Crashes in Minnetonka 2011 to 2015

Year	Number of Crashes					
	Fatal	Personal Injury Crashes			Property Damage	Total Crashes
		Type A Incapacitating Injury	Type B Non-Incapacitating Injury	Type C Possible Injury		
2011	1	3	37	153	355	549
2012	2	4	29	113	324	472
2013	1	6	42	127	385	561
2014	0	5	27	119	374	525
2015	0	4	32	115	371	522
Totals	4	22	167	627	1,809	2,629

These crashes were generally widely distributed throughout the city with most locations accounting for only one or two incidents, suggesting that a crash at that location was a random event. However, several of these crashes were concentrated at a limited number of locations. The 10 intersection locations with the highest frequency of crashes between 2011 and 2015 are listed in Table 13 and illustrated in Figure 9. These intersections were also evaluated for the critical index using MnDOT's crash rate methodology, also indicated in Table 13. Following MnDOT guidelines, a critical index of 1.00 or less indicates performance within statewide trends, and a critical index above 1.00 indicates that the intersection operates outside the normally expected range.

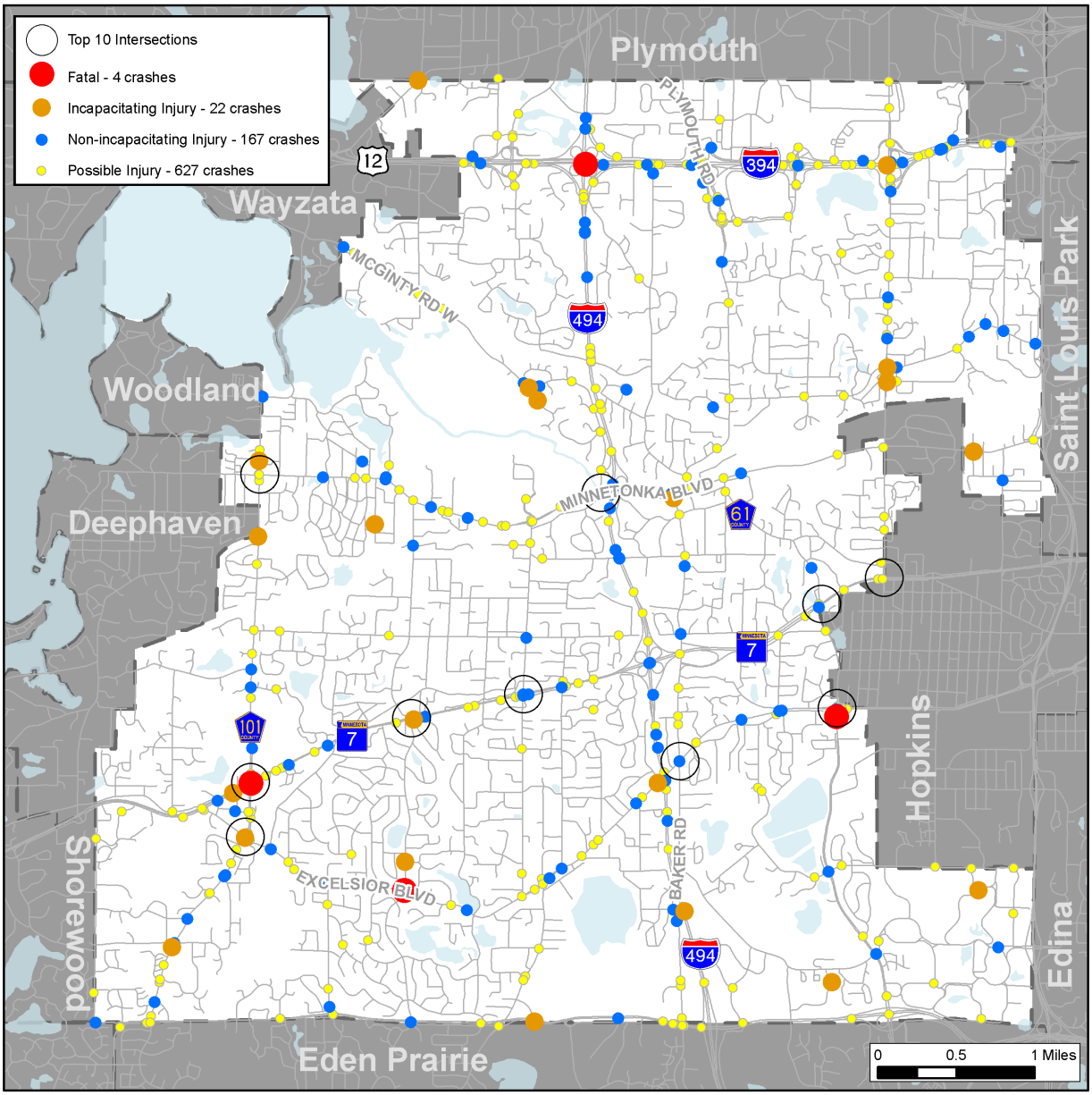
Critical Index

The critical index is the ratio of the observed crash rate to the critical crash rate. Critical indexes above 1.00 indicate there is likely an existing safety concern at the intersection. Additional analysis and observation of the intersection should be completed to determine the cause of the high critical index. Based on this conclusion, further investigation is recommended at the crash locations with a critical index above 1.00 as identified in Table 13 to determine the types of crashes occurring and identify mitigation approaches to increase safety.

Table 13. Top 10 Intersection Crash Locations in Minnetonka (2011-2015)

Intersection		Severity					Traffic Control	Critical Index	Severity Index
		Fatal	Type A	Type B	Type C	Property Damage			
1.	CSAH 101 and TH 7	1	1	5	26	65	Signal	1.37	1.00
2.	TH 7 and Williston Road	0	0	4	19	39	Signal	1.00	0.00
3.	TH 7 and CSAH 61 (Shady Oak Road)	0	0	4	14	25	Signal	0.99	0.00
4.	TH 7 and Woodland Road	0	1	0	7	20	Signal	0.50	0.58
5.	TH 7 and CSAH 73 (Hopkins Crossroads)	0	0	2	6	20	Signal	0.60	0.00
6.	CSAH 3 (Excelsior Boulevard) and CSAH 61 (Shady Oak Road)	0	0	2	11	14	Signal	0.56	0.00
7.	CSAH 3 (Excelsior Boulevard) and CSAH 60 (Baker Road)	0	0	3	9	13	Signal	0.85	0.00
8.	CSAH 101 and CSAH 5 (Minnetonka Boulevard)	0	0	0	5	14	Signal	0.56	0.00
9.	CSAH 101 and CSAH 3 (Excelsior Boulevard)	0	1	2	5	10	Signal	0.42	0.66
10.	CSAH 5 (Minnetonka Boulevard) and CSAH 16 (McGinty Road)	0	0	0	6	8	Signal	0.35	0.00

Figure 9. Recent Crash Data in Minnetonka (2011 to 2015)



As shown above, majority of the crash hotspots occurred at signalized intersections in the City of Minnetonka. The overwhelming crash types occurring at these intersections include: Rear End, Right Angle, and Left Turn into Traffic. These crash types commonly occur at signalized intersections due to the nature of how these intersections operate. MnDOT's Traffic Safety Fundamentals Handbook (2015) recommends the following strategies to reduce frequency and severity of intersection crashes:

- Use of multiphase signal operation combined with left turn lanes
- Provide a coordinated signal system along urban arterials
- Use overhead indications – one per through lane mounted at the center of each lane
- Provide dilemma zone protection and optimize clearance intervals
- Use advance-warning flashers to supplement static signs where a signal may be unexpected
- Pedestrian indications including the use of countdown timers

Additionally, an intersection traffic control change such as a roundabout or grade separation can also be considered. Roundabouts may have less crashes or as many crashes as a traffic signal, however the types of crashes associated with roundabouts tend to be less serve. Grade separating an intersection would provide the greatest reduction in intersection conflict points which would most likely reduced the frequency and severity of crashes. A more detailed intersection traffic study will need to be completed to determine the appropriate traffic control type.

Access Management

Access management is an important aspect of providing a safe and efficient roadway network. Access management measures include:

- Providing adequate spacing between access points and intersecting streets to separate and reduce conflicts.
- Limiting the number of driveway access points to reduce conflicts.
- Aligning access with other existing access points.
- Sharing access points, through internal connectivity between property owners.
- Encouraging indirect access rather than direct access to high volume arterial roads.
- Constructing parallel roads and backage or frontage roads.
- Implementing sight distance guidelines to improve safety.
- Using channelization to manage and control turning movements.

Access review is a major aspect of the city's project review process. The goal is to maintain the safety and capacity of the city's roadways while providing adequate land access.

Access management also involves balancing the access and mobility functions of roadways. Access refers to providing roadway access to properties and is needed at both ends of a trip. Mobility is the ability to get from one place to another. Most roadway serve both functions to some degree based on their functional classification. The four levels of functional classification and their corresponding mobility and access traits are as follows:

- Principal Arterials have the highest mobility with no direct land access.
- Minor Arterials have a high mobility with limited land access.
- Collector Streets have moderate mobility with some land access.
- Local Streets have low mobility with unrestricted land access.

Access to Principal Arterials

The City of Minnetonka should follow MnDOT guidelines for access to principal arterials. These guidelines recommend limiting cross-street access to one-half mile spacing within urbanized areas, with one- to two-mile spacing being optimal. No new driveway access is permitted to principal arterials.

Access to Minor Arterials

The City of Minnetonka strives to meet Hennepin County guidelines for access to the minor arterial system. These guidelines generally call for one-quarter mile spacing of all access points such as cross streets and driveways.

Driveway Access on City Streets (Collectors and Local Roads)

Driveways contribute to crashes and reduced traffic flow on major streets in local communities as they add to the number of locations where vehicle conflicts can occur. Therefore, it is desirable to have guidelines in place that:

- Limit the number of driveways to those that are needed to safely accommodate the traffic generated by each development;
- Provide adequate spacing between driveways so conflicts and resulting crashes between vehicles maneuvering at adjacent driveways are avoided;
- Ensure proper design to accommodate driveway traffic and minimize vehicle conflicts without significantly reducing roadway capacity.

Occasionally topographic features of an individual site or the needs of a unique land use may require special access features in a proposed development. The City of Minnetonka may wish to withhold approval of such developments or site changes until a study has been made of the potential impacts on the affected roadways and the adequacy of the proposed access design determined. The City may require that the following steps be included in the traffic study for the site:

- Estimate site traffic generation and future non-site traffic;
- Determine directional distribution of trips;
- Estimate turning movements at driveway and the resulting level of service;
- Analyze current and future access requirements;
- Provide necessary geometric and operational improvements to safely accommodate access requirements without negative impacts to traffic operation on the adjoining roadways.

The City of Minnetonka will continue to support MnDOT and Hennepin County's access management guidelines on the principal and minor arterial roadway network in the City through the measures listed above. In addition, the City utilizes Hennepin County's access spacing guidelines to guide access decisions on the City's arterial and collector roadway network.

Traffic Management Strategies

Traffic Signals

A well-coordinated traffic signal system will promote the efficient flow of traffic along the "A" Minor arterials in the City of Minnetonka, as this type of system reduces the likelihood of through traffic diverting to local streets. The City will work with Hennepin County to periodically monitor the progression of traffic signals on key County roadways to ensure efficient system operation.

Operational refinement of the signal system will take place on an ongoing basis. New traffic signals will be built at intersections where specific signal warrants are achieved, and funding is available. Intersection improvements will be considered on a site-by-site basis and will be constructed consistently with the warrants identified in the Minnesota Manual on Uniform Traffic Control Devices (MUTCD) when funding is available. Warrants include specific thresholds relating to traffic volumes and considerations of safety and pedestrian activity.

Stop Signs

The City of Minnetonka receives numerous requests for the installation of stop signs to manage speed and other perceived traffic safety problems in residential neighborhoods. City traffic engineers will evaluate each stop sign request by either applying the City's neighborhood traffic calming program for local or minor streets in residential areas or by utilizing MnDOT's uniform traffic warrant criteria for all other stop sign requests.

Traffic Calming

The primary function of minor collector and local streets is to provide access to residences and other uses along the roadway. However, these streets may also provide routes for traveling to and from or passing through a neighborhood. Conflicts arise between these latter functions when residents become concerned about traffic volumes, speeds and pedestrian safety.

Traffic calming generally refers to strategic physical changes made to streets to reduce vehicle speeds, improve safety, discourage through traffic on residential streets, and decrease the automobile's visual dominance in a neighborhood setting. There are several activities that may be referred to as traffic calming, examples of which include raised intersections and crosswalks, roundabouts, curvilinear streets, street narrowing, raised medians and islands, pedestrian treatments, and streetscaping. These traffic calming treatments are considered for low volume local and minor collector streets where excessive speeds pose a safety problem. The City of Minnetonka will consider requests for traffic calming devices on a case-by-case basis consistent with the City's adopted neighborhood traffic calming program.

Transit System Plan

The transportation needs of Minnetonka residents cannot be met by a comprehensive, well maintained roadway system alone. A complete transportation system supports a variety of transportation modes to meet the varied needs of residents, workers, and visitors.

Transit is an important element in the transportation network because it:

- Provides vulnerable populations access to housing, employment, and services in the area, including those who cannot afford a personal vehicle, people who cannot drive, and senior citizens.
- Provides opportunities for people who prefer an alternative to automobile travel.
- Removes a portion of existing and future automobile traffic from the roadway, reducing travel time and congestion for everyone on the roadway.

The City of Minnetonka is committed to supporting and preserving existing transit services and facilities in the city and seeking ways to complement the transit system as new service begins. Although the city does not have direct responsibility for the operation of services or the provision of facilities, the city can advocate for better service by promoting transit supportive land use patterns as sections of the city redevelop and building a complete sidewalk network that facilitates access to transit service areas.

This chapter identifies the existing transit services, facilities, and programs within the City of Minnetonka, suggests improvements, and discusses the city's role in supporting the transit system.

Transit Market Areas

The Metropolitan Council 2040 Transportation Policy Plan identified five existing transit market service areas for all communities within the Twin Cities metropolitan area. The market service areas were defined by:

- Population density
- Employment concentration and job density
- Intersection density
- Transit dependent segments of the population

Minnetonka falls completely within the Metropolitan Transit Taxing District and is served by Metro Transit. A small section of the Opus Campus is located within Transit Market area II, portions of the city are located within Transit Market Area III while others are located within Transit Market Area IV. Employers in the Opus Campus, located in the eastern portion of the city, have a comparatively high level of transit service, with frequent local and express service offered 12-20 hours a day, seven days a week. Most of the western half of the city is located within Transit Market Area IV and service is limited to peak-only express and commuter routes and dial-a-ride service. Please refer to Table X for detailed information on Transit Market Areas and their corresponding levels of service. Figure X illustrates existing transit services and facilities within the city.

Table 14. Transit Market Service Areas

Market Area	Propensity to Use Transit	Service Characteristics	Typical Transit Service	Presence in Minnetonka
I	Highest potential for transit ridership.	Frequency: 15-30 min. most modes. Span: Early to late, seven days a week. Access: Half mile between routes.	Dense network of local routes with highest levels of service accommodating a wide variety of trip purposes. Limited stop service supplements local routes where appropriate.	None
II	Approximately half ridership potential of Market Area I.	Frequency: 15-60 min. most modes. Span: Morning to night, seven days a week. Access: One mile between routes.	Similar network structure to Market Area I with reduced level of service as demand warrants. Limited stop services are appropriate to connect major destinations.	Opus Campus north of Bren Road
III	Approximately half ridership potential of Market Area II.	Frequency: 15-60 min. most modes. Span: Peak times, occasional weekends. Access: Varies on development patterns.	Primary emphasis is on commuter express bus service. Suburban local routes providing basic coverage. Public dial-a-ride complements fixed route in some cases.	Areas north of 394, most of the area east of 494, bordering Hopkins, Glen Lake area, and near Purgatory Park and Minnetonka High School
IV	Approximately half ridership potential of Market Area III.	Frequency: Three trips per peak express bus. Span: Peak times Access: Usually at large nodes.	Peak period express service is appropriate as local demand warrants. Public dial-a-ride services are appropriate.	Central and western Minnetonka
V	Lowest potential for transit ridership.	Frequency: 30 minutes, Commuter Rail. Span: N/A Access: N/A	Not well-suited for fixed-route service. Primary emphasis is on public dial-a-ride services.	None
Emerging Market Overlay	Varies, typically matches surrounding Market Area.	Varies	Varies. Typically matches surrounding Market Area.	None

Source: Metropolitan Council, 2040 Transportation Policy Plan, 2015.

Existing System Inventory

Minnetonka is served by three different transit services, Metro Transit, Plymouth Metrolink, and Metro Mobility. Metro Transit offers fixed-route service with both local and express routes. With the construction and opening of the Southwest Light Rail Transit (Southwest LRT, METRO Green Line Extension), Metro Transit will also offer a light rail connection south to Eden Prairie and northeast to downtown Minneapolis via Hopkins and St. Louis Park. Metro Transit also offers demand-response services, like TransitLink and VanPool that may serve Minnetonka residents. Plymouth Metrolink offers express service to businesses in Plymouth, but also has a few stops north of I-394 in Minnetonka. Metro Mobility offers demand-response services for people with disabilities.

Fixed-Route Transit Bus Service

Fixed-route transit service includes both local and express bus services that operate on a regular schedule and follow consistent routes. Fixed-route transit service in Minnetonka is provided by Metro Transit and Plymouth Metrolink. Plymouth Metrolink routes serve locations north of I-394 before entering the City of Plymouth. Table X shows the characteristics of the routes serving Minnetonka, including where in Minnetonka they serve, what time they serve Minnetonka, and how frequently trips of each route serve Minnetonka. Routes 568, 612, 664, 665, 673, and 675 have been eliminated or re-routed so that they no longer serve Minnetonka, or combined with other routes since the last comprehensive plan. They are not included in Table X.

Route	Type	Cities Served	Locations Served	Minnetonka Service Times	Frequency
9	Local	Minnetonka, St. Louis Park, Golden Valley, Minneapolis	Green Briar Road	Weekdays 5am-Midnight, Weekends 7am-11pm	60 minutes
12	Local	Minnetonka, Hopkins, St. Louis Park, Minneapolis	Opportunity Partners	Weekdays 5am-Midnight, more trips for traditional commutes, peak, bi-directional	20-60 minutes
46	Local	Minnetonka, Edina, Minneapolis, Saint Paul	Opportunity Partners	weekdays, peak, no reverse, 46 D	One trip at peak
614	Local	Minnetonka	Ridgedale Center, Plymouth Road, Minnetonka Blvd, City Hall, Minnetonka Heights	Weekdays 5am to 7pm	60 minutes

615	Local	Minnetonka, Hopkins, Saint Louis Park	Ridgedale, Hopkins High School, Greenbrier	Monday through Saturday 7am to 8pm	60 minutes
643	Express	Minnetonka, Golden Valley, St. Louis Park, Minneapolis	Cedar Lake Road to Greenbrier Road.	Weekdays, peak, no reverse.	5 trips in am, 3 trips in pm
645	Express	Mound, Orono, Wayzata, Minnetonka, Golden Valley, St. Louis Park, Minneapolis	Carlson south of I-494, Ridgedale Center, Plymouth Road Park-and-Ride, County Road 73 Park-and-Ride.	7 days a week	20-30 minutes at peak, midday and weekend 60 minutes
652	Express	Minnetonka, Golden Valley, St Louis Park, University of Minnesota	County Road 73 Park-and-Ride, Plymouth Road Park-and-Ride	Weekdays, peak, no reverse.	2 trips in the am, 2 trips in the pm
663	Express	Minnetonka, St Louis Park, Minneapolis	Cedar Lake Road, Green Brier Road	Weekdays, peak, no reverse	8 trips at each peak period
664	Express	Minnetonka, Hopkins, St Louis Park, Minneapolis	North Opus	Weekdays, peak, no reverse	4 trips each peak period
667	Express	Minnetonka, Hopkins, St Louis Park, Minneapolis	Spans Minnetonka through County Road 101 and Highway 7	Weekdays, peak, no reverse	3 trips each peak period
670	Express	Excelsior, Minnetonka, Hopkins, Minneapolis	Follows Excelsior Blvd through Minnetonka	Weekdays, peak, no reverse	3 trips each peak period
671	Express	Orono, Tonka Bay, Shorewood, Excelsior, Greenwood, Deephaven, Minnetonka, Minneapolis	Follows Minnetonka Blvd through Minnetonka	Weekdays, peak, no reverse	3 trips each peak period

672	Express	Wayzata, Minnetonka, St Louis Park, Minneapolis	Plymouth Road Park-and-Ride, businesses north of I-394	Weekdays, peak, bi-directional	4 to 5 trips each direction during peak periods
673	Express	Minnetonka, Minneapolis	County Road 73 Park-and-Ride	Weekdays, peak, bi-directional	11 trips east in am, 4 trips west in am, 10 trips west in pm
679	Express	Minnetonka, Minneapolis	County Road 73 Park-and-Ride	Weekdays, pm peak, eastbound	5 trips
747	Express	Plymouth, Minnetonka, Minneapolis	Carlson Towers	Weekdays, reverse	11 trips am, 10 trips pm

Metro Mobility

Metro Mobility is the Americans with Disability Act (ADA) public paratransit service for persons with disabilities. Metro Mobility operates service in Minnetonka during the same span of service each day as the fixed route service operates. Metro Mobility is a shared ride system, in which customers make a reservation and routes are developed to the trip origins and destinations. Rider eligibility is based on a person's functional inability to use regular-route services due to disability or health condition. The federal ADA provides parameters and requirements for the service structure that the Metropolitan Council must follow. Metro Mobility service is funded through appropriations from the Minnesota State Legislature, passenger fares and federal funding. The Metro Mobility service in Minnetonka is currently available to eligible customers from 5:00 a.m. to 2:00 a.m., seven days a week.

Existing Transit Facilities

Many express and local routes serve park-and-rides. There was a strong demand for park and ride service reported in the Minnetonka 2012 Transit Study. Minnetonka has four park-and-rides:

Park and Ride	Number of Stalls
County Road 73 South and I-394	732 Stalls
Plymouth Road and I-394	111 Stalls
Minnetonka Boulevard and Steele Street	25 Stalls
Minnetonka Boulevard and Baker Road	16 Stalls

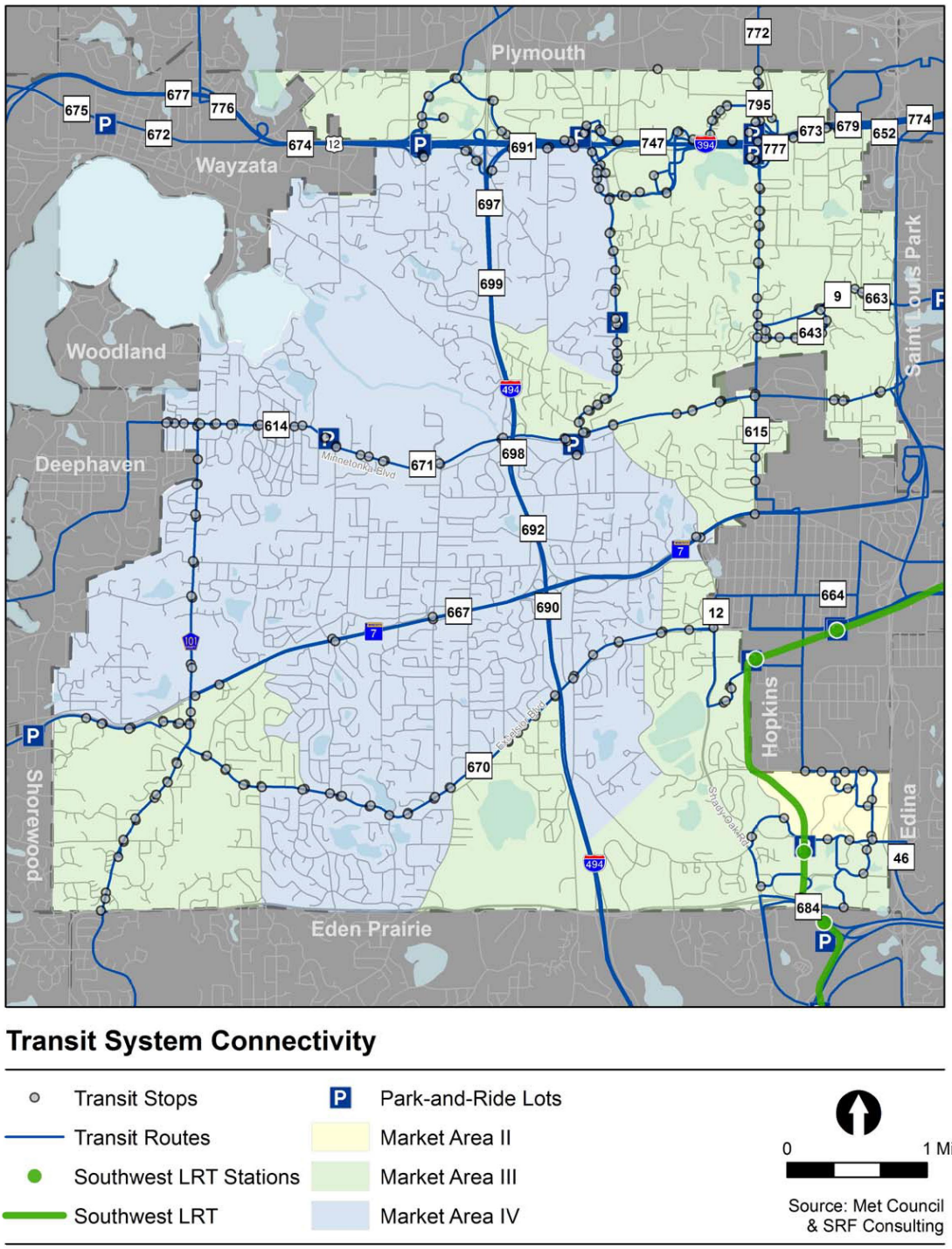
There is a park-and-ride that mirrors County Road 73 South & I-394 on the north side of I-394 that opens for special events. It is possible that in the future, this northern parking lot may be formalized and serve riders year-round. County Road 73 South & I-394 Park-and-Ride utilization has held steady between 65 and 75 percent utilization in the past six years. This park-and-ride is served by five routes and has a three-level parking ramp, an indoor waiting area, heated shelters, and real-time arrival information.

Plymouth Road Park-and-Ride is planned to close by 2030. Although utilization was falling for a few years, it has begun to rise again. This park-and-ride is served by four routes and has bike lockers.

Both park-and-rides on Minnetonka Boulevard have low capacity and are served by the same two express routes, 614 and 671. Utilization at these park-and-rides have been low to moderate. Neither Minnetonka Boulevard and Steel Street nor Minnetonka Boulevard and Baker Road park-and-rides have bus shelters and both appear to serve as overflow lots for churches on the weekends.

Park-and-rides are planned at METRO Green Line Extension stations in and near Minnetonka. Opus Station is expected to have 80 stalls for parking.

Figure 10. Existing Transit System in Minnetonka



Transit Advantages

Transit advantages is a term that describes physical features that provide a travel time advantage over automobiles using the same facility. These include bus-only shoulders, MnPASS lanes, and ramp-meter bypasses. Transit advantages improve the attractiveness of transit by allowing buses to move faster than automobiles making the same trip, effectively reducing the travel time for transit patrons relative to automobile users.

Bus only Shoulders

Bus-Only Shoulders (BOS) allow buses to use the roadway shoulder to bypass automobiles that are in the general flow of traffic. They may only be used when the speed in the general-purpose lanes drops to 35 mph or lower. BOS are useful in those areas where there is chronic peak-period congestion and increase the attractiveness of peak-hour express buses by allowing express buses to maintain a minimum speed through congested areas and adhere to schedules.

BOS have been established in the following areas that benefit transit routes in Minnetonka:

- Both directions on Highway 7 between Highway 169 and Shady Oak Road
- On I-494 south of I-394

Ramp Meter Bypasses

Ramp meter bypass lanes allow buses and cars with two or more people to bypass congested on ramps during peak travel times. There are six ramp-meter bypass lanes within the Minnetonka service area:

- I-494 westbound ramp from Minnetonka Boulevard
- I-494 northbound ramp from Highway 62
- I-394 eastbound from County Road 73
- I-394 eastbound from Ridgedale Drive
- Highway 12 eastbound from County Road 101
- Highway 12 eastbound from Highway 101

High Occupancy Vehicle Lanes

There are bidirectional MnPASS lanes along I-394 through Minnetonka. MnPASS lanes provide toll lanes for private drivers and quick access to downtown for express routes. Express routes that do not use MnPASS also benefit from the less traffic on general purpose lanes of I-394. There is also a dedicated bus lane on Plymouth Road, connecting to Plymouth Road Park-and-Ride.

Transit Strategies

Transit needs and strategies for the metropolitan area were identified in the Metropolitan Council's 2040 Transportation Policy Plan (TPP), 2015. This document essentially emphasized similar transit development goals. The findings and recommendations from these plans relevant to Minnetonka are summarized below.

- **Safety and Security.** Safety and security are essential elements of the transit system. Their consideration should be integrated with all investments.
- **Access to Destinations.** Providing access is a fundamental role of the transit system. The 2040 TPP has multiple considerations for increasing ridership and the availability of transit throughout the investment factors. Equity is also an important investment factor to address gaps in access to opportunities that exist in the region.
- **Competitive Economy.** The 2040 TPP includes transitway system investments (Southwest LRT) that will make the region a more attractive place to live and do business. The Plan also includes an Increased Revenue Scenario that will broaden the investments to include more bus service, allowing transit to serve more parts of the region. Connecting to jobs is an important emphasis on the investment factors.
- **Healthy Environment.** Considering impacts on the environment, particularly pollution related to congestion and also additional impacts could be related to land use planning that encourages a car-free lifestyle.
- **Leveraging Transportation Investment to Guide Land Use.** Helping shape the growth of the region with transit investments as catalysts for livable places. Investment factors help guide transit to areas that are adequately planning for high-density, livable places.

Travel Demand Management

Travel Demand Management (TDM) includes strategies and actions for reducing single-occupant vehicle travel, increasing vehicle-occupancy rates, and reducing vehicle miles of travel. Changes in travel behavior for the metropolitan area are constantly being sought to more effectively manage existing transportation facilities. By modifying demand for travel, congestion and the need for facility (roadway) expansion can be lessened.

Minnetonka is a member and active participant in the I-494 Corridor Coalition and their I-494 Commuter Services. This coalition is a Transportation Management Organization (TMO) funded by the Metropolitan Council and ongoing federal Congestion Mitigation and Air Quality (CMAQ) grants.

TDM may include strategies and incentives to reduce trip-making activity, decrease single-occupant vehicle travel, shift travel away from congested locations, increase high-occupancy vehicle travel and decrease peak-hour travel. Most TDM actions are targeted toward the peak-hour work trip in highly congested areas. TDM programs are more effective where there are multiple strategies for changing behavior.

The actions selected depend upon the stated objectives and priorities of the TDM sponsor, funding availability, administrative resources, and participant support. Minnetonka completed a TDM policy study in 2013, which led to the creation of a TDM program. The program that requires developers to provide a sidewalk/trail alignment plan and describe efforts to promote walking, biking, transit and carpools with each development proposal. As part of the city's TDM program, they will also consider reduced zoning ordinance requirements such as a reduction in requirements for auto parking in transit-oriented developments or bike/walk districts. Other TDM strategies applicable to Minnetonka are discussed below.

Ridesharing

Minnesota Rideshare provides carpool and vanpool matching services, promotes ridesharing, and sponsors demonstration projects in the Twin Cities area. Ridesharing can be especially attractive for longer trips on congested corridors such as work trips from Minnetonka to other metropolitan centers.

Transit/Ridesharing Incentives

Employers can encourage employees to rideshare or use public transit if available. The benefits to the employer may include a reduction in the need for parking facilities and less traffic congestion around the employment site. Incentives from employers can include subsidized bus passes, on-site sale of bus passes, distribution of transit schedules and ridesharing information, subsidy of vanpools, and preferential parking for those ridesharing.

Alternative Work Schedules

Variable work hours, flex time and the ability to work remotely can shift from the peak period or eliminate the trip altogether. However, changes in start-time tend to dilute the ability to share rides.

MnPASS Express Lanes

MnPASS facilities provide incentives for carpooling, vanpooling and transit. As highways become congested, riders can use MnPASS lanes for a toll charged to driver MnPASS Express Lane accounts. On I-394, eastbound between County Road 101 to Highway 100 is charged between 6am and 10 a.m. For westbound traffic on I-394 between Highway 100 and I-494 charge times are between 3 p.m. and 7 p.m.

Carpool and Vanpool

Minnetonka residents are part of the regional car pool matching database, a service for those wishing to share a ride. Carpool participants: qualify for the regional guaranteed ride home program; may use MnPASS lanes and meter bypass ramps; receive parking discounts in some circumstances; and may participate in occasional promotional benefits. Minnetonka commuters also can participate in the regional Metro Vanpool program. Metro Vanpool is a regional vanpool program sponsored by the Metropolitan Council. Vanpools are made up of 5 to 15 commuters picked up along the vanpool

route or at an agreed-upon location. Like buses and carpools, vanpools are eligible to use meter bypass lanes or ramps and MnPASS lanes.

Transit Service Types

Three basic types of transit service may be considered for implementation in Minnetonka. Based on peer City experience, the largest portion of a future service package will probably consist of **regular-route express commuter services**, connecting Minnetonka to downtown Minneapolis and St. Paul. Reverse commute service from the central urban areas to Minnetonka employment sites can also be provided on the return runs. Commuter express service normally operates Monday through Friday from roughly 5:45 a.m. to 9:00 a.m., and 3:45 p.m. to 7:45 p.m. Mid-day trips may also be included to provide better travel options.

The second type of service is **regular-route, scheduled local circulator bus service**. This could be limited to circulation within Minnetonka to facilitate travel to and from express services and transit hubs, and between other local destinations, or reach outside City boundaries to connect with other destinations. Local bus service might operate Monday to Friday from 6:00 a.m. to 6:30 p.m., with service concentrated around the peak periods to collect riders for the express services. Four routes and buses could essentially cover most of the City with acceptable walking distances, if adequate pedestrian amenities (sidewalks, stops, and shelters) are provided. If demand develops, circulator services could be expanded to nights and weekends.

A secondary benefit of providing regular route local bus service would be the expansion of ADA services. The Metropolitan Council is required by federal mandate to provide ADA complementary dial-a-ride services in those parts of the metropolitan area that is served by regular route local bus service.

The third type of available service is **dial-a-ride**. This is a curb-to-curb demand-response bus service that generally offers rides on a pre-arranged or reserved basis within the City, or beyond as desired. This service offers the maximum trip flexibility for a transit rider, but less convenience and predictability than scheduled circulators. Dial-a-ride service could operate Monday to Friday from 6:00 a.m. to 7:00 p.m., with expanded service nights and weekends as desired. Two to three small, accessible buses supported by a central reservations/dispatch office would probably provide all service necessary, based on peer system examples. If circulator service would be downplayed as a preference, dial-a-ride service during the peak periods, including standing orders (regular daily arranged pick-ups) or a subscription service, could provide local commuter connections at a somewhat lower capacity and flexibility but higher convenience (essentially door-to-door) for some riders.

Future Transit Development

Local Public Transit Services

Minnetonka has been provided by the Legislature, the right to operate an independent suburban transit authority, with the ability to locally manage and operate transit services for residents and share in a portion of regional operating and capital transit funds. The city obtained this authority in 2002, and currently receives and oversees transit services from the Metropolitan Council via a Memorandum of Understanding. Minnetonka could elect in the future to directly contract for and operate these services if the City Council so chooses for any reason. With or without independent transit operations, city staff may direct and provide input for service redesigns annually under current agreements. Local bus service redesign can benefit residents and provide for changing travel patterns, increase transit access and availability in and around Minnetonka, potential population growth, and business growth where it is deemed appropriate, depending on resource availability and transit usage.

Southwest LRT

Southwest LRT is in the final stages of applying for federal funding and has begun accepting bids for construction. A route has been selected, and includes one station in Minnetonka, and two stations near the southeast borders of the city in Hopkins and Eden Prairie (see Figure X). The Southwest LRT will connect Eden Prairie, Minnetonka, Hopkins, and St. Louis Park with downtown Minneapolis with 15 miles of light rail. The line is scheduled to open in 2020. Stations will be served with transit as frequently as every 10 minutes at peak travel times.

Shady Oak Station is just on the Hopkins side of Minnetonka's city border near Shady Oak Road and Excelsior Boulevard. This station serves nearby light-industrial businesses. It is expected that these light-industrial uses will turn to residential and office gradually. Today, there are nearly 3,000 jobs and more than 800 people living within a half-mile of the station. An operation maintenance facility for the light rail will be located just south of Shady Oak Station in Hopkins. There will be a park-and-ride lot that can handle more than 700 vehicles. This station will feature a public plaza complete with access to the regional trail, bicycle parking, landscaping, and a passenger drop off area.

Opus Station will serve Opus Business Park in southeast Minnetonka. Among the many multifamily residential and office buildings, more than a thousand people reside and more than 5,000 work within a half-mile. Currently, Opus is served by a handful of trips each day on route 12 and route 46, so the new station will bring more frequent service to the area. A park-and-ride lot will be built east of the station with 80 parking spaces. There will be a plaza between the station and the parking area with lighting, seating spaces, bike parking, and landscaping. In further support of LRT in the transit corridor, the city has planned for transit supportive uses and densities within one-half mile of the Opus Station.

City West Station will serve UnitedHealth Group's corporate campus just south of Minnetonka's border at Highway 62 near US Highway 212 in Eden Prairie. The station is within a half-mile of more than 5,500 employment opportunities, but currently reaches less than 800 people living in the same area. Future development is expected to expand residential and commercial options. Connections to the Opus Campus will be much simpler with the METRO Green Line.

Land Use Planning

Land use planning, as well as provision of trails and pedestrian amenities, play a crucial role in the success of transit in a community. Adequate and safe sidewalks, bus stops, shelters, and transfer or waiting facilities all are necessary components of a convenient and successful transit system. Mixed-use developments and other Transit-Oriented Development (TOD) around METRO Green Line station areas are also key for increasing transit use as they lead to more people living and working near transit stations.

The City of Minnetonka plans to guide dense development around the Opus LRT station that will create an engaging environment for transit passengers and Opus residents and visitors. Continued planning on the Opus Campus is paramount to making sure that there is enough transit-oriented development to support needed ridership at the station.

Improved Travel Demand Management

As noted earlier, TDM strategies and travel options, have had some success affecting commuter travel, especially ridesharing, car-pooling, and van-pooling, but has not had a significant impact on congestion or travel flexibility. Strategies such as flex work hours have not been adopted widely in the Twin Cities, nor has telecommuting. These both offer good potential as future measures, especially telecommuting as computer networks continue to grow in capacity and sophistication.

New TDM options will be supported and explored by Minnetonka as they develop. These include systems like automated vehicles, car-sharing, and short-term rental services. Transit promotions, new fare tools and transit incentives including expanded specialty pass programs, and changes to taxi regulation and other commercial services are other TDM activities that may provide benefits to Minnetonka residents and employers.

Table 15. Future Transit Stations

Station Name	Metro Transitway	Date of Implementation
Opus Station	SWLRT	

Multimodal System Plan

The following sections describe the three major moves the city is making toward realizing their vision for a stronger multimodal system; these include providing local connections to the RBTN network, providing connections to transit, and providing connections to regional employment clusters.

Planning for a Connected Pedestrian and Bicycle System

The City of Minnetonka is a suburban community that experienced significant growth from the 1960s to the 1990s during a period when the provision of bicycle and pedestrian facilities was not a common practice. Yet, the City of Minnetonka was ahead of the curve and has worked for a period of over 40 years to implement a well-developed trail system. These trails help reduce traffic by encouraging non-motorized transportation modes such as bicycling and walking.

The City will strive to achieve the following trail system goals as related to transportation:

- To enhance the transportation system through provisions for multiple modes of travel and intermodal connections;
- To encourage pedestrian and biking travel for local trips and for transit facilities access;
- To provide direct and continuous access for destination-oriented pedestrian and bicycle trips;
- To provide pedestrian and bicycle-oriented improvements that overcome natural and man-made barriers and promote neighborhood connectivity;
- To provide appropriate safe-crossings for pedestrians and bicyclists at intersections and destinations;
- To provide safe, attractive and convenient pedestrian-oriented improvements which meet the needs of users of all ages and levels of mobility;
- To provide for the integration of street and park system trails, to support the transportation, park, and land-use elements of the City's Comprehensive Plan.

The recreational and land use related policies and strategies for the city trail system and connections are discussed in Chapter III – Overall Policies, Chapter IV – 2040 Land Use Plan, and Chapter VII – Parks, Open Space, and Trails of this Comprehensive Plan.

Existing Trail System

The City of Minnetonka trail system connects neighborhoods, parks, businesses, schools, and two regional trails that extend through the city. The first trail segment was built in 1971 on Lake Street Extension. Since then, the system has expanded and currently is comprised of three facility types:

- Off-road trails: Typically located in an independent corridor, or parallel to roadways. While existing trails are primarily constructed from asphalt, the regional trails and some trails within parks are constructed from gravel.
- Sidewalks: Typically located parallel to roadways within the right-of-way, and primarily concrete in material.

- On-road trails: Typically located on wide roadway shoulders, allowing existing roadway pavement to be used by pedestrians and bicyclists.

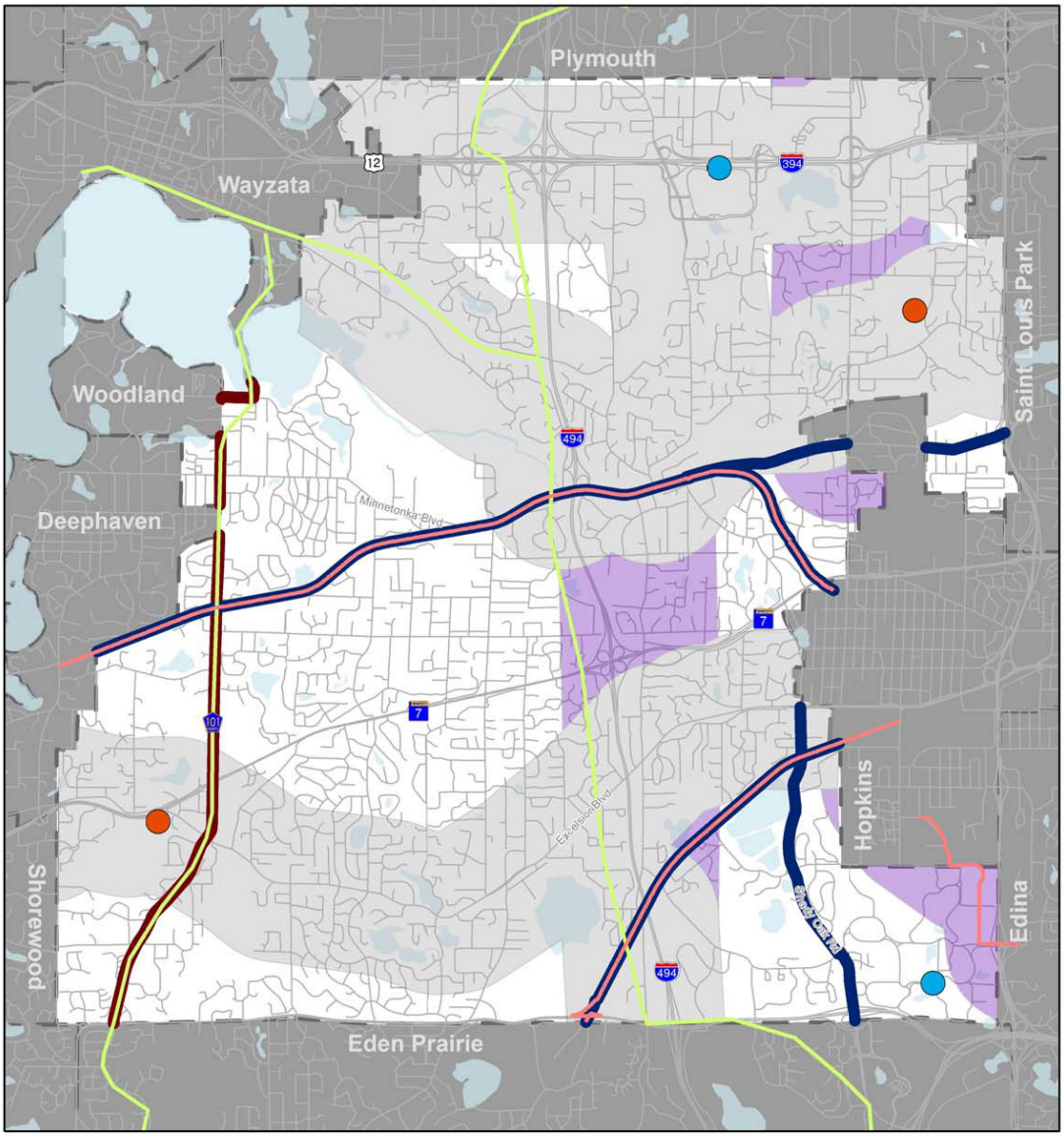
Over the last decade, Minnetonka has focused on incorporating off-road trails and sidewalks into new roadway improvements throughout the city, closing gaps in the trail network and increasing connections to neighborhoods. Major north-south facilities traverse Meadow Park and extend along the following roadways:

- Highway 101
- Parts of Williston Rd
- Beacon Hill Road
- Eden Prairie Road
- Woodhill Road
- Crosby Road
- Plymouth Road
- Shady Oak Road
- Interstate 494 from Interstate 394 to Minnetonka Boulevard

Major east-west facilities extend along Wayzata Boulevard (on the north side of Interstate 394) and Cedar Lake Road.

Regional and inter-city bicycle trips can be made today on the Minnesota River Bluffs LRT Regional Trail and the Lake Minnetonka LRT Regional Trail, maintained by Three Rivers Park District. Figure x, Existing and Funded Trail Facilities, shows existing trails and planned trails that are currently funded in Minnetonka.

Figure 11. Existing Trail System in Minnetonka



Gaps in the Existing Trail System

Improving the local trail system involves identifying and eliminating existing gaps to enhance connections to key destinations within and outside the city limits. Four primary connections for the local trail system include:

1. Connections to local parks and schools
2. Connections to regional parks
3. Connections to nearby Regional Employment Clusters
4. Connections to Regional Bicycle Transportation Network (RBTN)

The City prepared a draft Trail Improvement Plan in 2017. The goal of the study was to prioritize trails for construction based on ease of implementation and estimated demand. The ranking was performed on an inventory of 71 trail segments comprising more than 44 miles of trails that were currently not scheduled or funded. The trail segments were assigned priority rankings based on the following criteria: Degree of Difficulty, Cost Effectiveness, Nature of Use, and Community Access. The final ranked trail gaps are shown in Figure 2.

Additionally, Hennepin County conducted a bicycle system gaps analysis for the 2040 Bicycle Transportation Plan in 2015, which identified critical gaps in the County's trail system. Within Minnetonka, gaps were identified along:

- Cedar Lake Rd (Bridge over US 169) – designated as "On-street Bikeway System Gap"
- Fairchild Avenue (Minnetonka Boulevard to the existing trail connection) – designated as "On-street Bikeway System Gap"
- Gleason Lake Road (Glenhaven Road to Hunters Glen Road) – designated as "Undesignated Bikeway System Gap"
- Excelsior Boulevard (Williston Road to Glenview Drive) – designated as "On-street Bikeway System Gap"

In addition to fulfilling the important connections listed above, there are several gaps in the local trail network that, when completed, will enhance the overall trail network. The gaps identified include incomplete segments of trails that connect to the RBTN network. Additional identified trail gaps referenced above are depicted as Proposed Off-road Trails in Figure 3, Existing and Proposed Trail Facilities.

Figure 12. Planned Trail System in Minnetonka

Connections to Regional Employment Clusters

Creating strong multimodal connections to regional employment clusters with trails and sidewalks will enhance Minnetonka's trail network by providing residents and visitors alternatives to driving to frequently utilized services. The regional employment clusters are commonly located at the intersection of major highways. Major highways can create obstacles for local trails because there are often large bridges and expansive intersections at the edge and within the center of the regional employment cluster locations. Planning for trail connections to and within these locations is an important first step in ensuring that future development includes multimodal facility enhancements, such as off-road trails, independent pedestrian bridges, and Americans with Disabilities (ADA) compliant street crossings.

The City of Minnetonka has two regional employment clusters, Opus Business Park and Ridgedale Center Area, which are defined as concentrated areas of professional, commercial, retail, and industrial uses. The City desires to increase walking and biking to, and through, the regional employment clusters. Enhancing connections to these areas is particularly impactful in creating more diverse mode-share split opportunities to high density destinations.

The Opus Business Park is located northwest of Highway 169 & Highway 62 and lies approximately midway between the Nine Mile Creek Regional Trail and the existing trails along Shady Oak Road. The Opus Business Park is a major employment center that is home to more than 12,000 jobs, according the Southwest LRT Community Works website. Included in the development area are several large corporations, as well as multifamily apartments and condominiums. This area has more than six miles of off-road trails which provides a unique opportunity for non-motorized transportation to the planned Opus LRT station in the Opus Business Park.

The Ridgedale Center Area is located in the southeast quadrant of Interstate 394 and Plymouth Road, at the intersection of two Tier 2 RBTN corridors. Ridgedale Center shopping mall is the nexus of the cluster, with big box commercial to the west, and a County Library and Service Center to the south. Funded planned enhancements to the area include Plymouth Road connections to the north and south. Eliminating identified gaps along the ring road, and to neighboring commercial areas will aid further connectivity. Additionally, the City will focus its efforts on meeting with the Mall to develop facilities that increase connectivity within their internal site and traffic circulation areas to improve trail-to-door access. This type of "last mile" planning will provide clear and safe travel options for pedestrians and bicyclists to reach entrances to the Mall and other businesses.

Regional Parks System Components

Regional parks system components such as regional parks, park reserves, special recreation features, and regional trails are identified in the 2040 Metropolitan Council Regional Parks Policy Plan. There are currently no regional parks and park reserves within the City of Minnetonka. The Murphy-Hanrehan Regional Park Reserve borders the City to West.

Additionally, there a currently no regional trails within the City of Minnetonka. However, the Lake Marion Greenway and North Creek Greenway are planned regional trails identified by the 2040

Metropolitan Council Regional Parks Policy Plan. Further information regarding these planned regional trails is listed below:

- Lake Marion Greenway Regional Trail – Dakota County adopted the Lake Marion Greenway Master Plan in 2013. When completed, the 20-mile trail will travel through the cities of Burnsville, Savage, Lakeville and Farmington, and Credit River Township. Within the City of Lakeville, downtown will be connected to Lake Marion, Ritter Farm Park, and Murphy-Hanrehan Park Reserve.
- North Creek Greenway Regional Trail – Dakota County adopted the North Creek Greenway Master Plan in 2011. When completed, the 14-mile trail will travel through Eagan, Apple Valley, Lakeville, Farmington and Empire Township. The trail will pass through the Northeast quadrant of Lakeville linking the City to regional destinations including Lebanon Hills Regional Park, the Minnesota Zoo, and the Vermillion River.

Regional Bicycle Transportation Network (RBTN)

Future phases of the City's multimodal system will be guided by the Regional Bicycle Transportation Network (RBTN) in order to provide seamless connections to neighboring communities and the broader regional transportation network.

The RBTN was developed as an outcome to the Regional Bicycle System Study and serves as a framework of designated regional corridors and alignments that define critical bicycle transportation links needed to achieve regional bicycle facility connectivity. The RBTN is subdivided into two tiers for regional planning and investment prioritization:

- Tier 1 – Priority Regional Bicycle Transportation Corridors and Alignments. These corridors and alignments provide direct connections to regional activity centers in urban and suburban areas. They are expected to attract high bicycle ridership while also encouraging walking, biking and use of transit. Tier 1 corridors and alignments are given the highest priority for transportation planning and investment.

- Tier 2 – Regional Bicycle Transportation Network Corridors and Alignments. These corridors and alignments are the second highest priority for transportation planning and investment. They provide connections to regional facilities in neighboring cities, and serve to connections between priority regional bicycle transportation corridors and alignments.

RBTN Tier 1

- Lake Minnetonka LRT Regional Trail and the Minnesota River Bluffs LRT Regional Trail. Lake Minnetonka LRT Regional Trail extends between downtown Hopkin and Carver Park Reserve.

- The Minnesota River Bluffs LRT Regional Trail extends between downtown Hopkins and the Minnesota River Valley. From downtown Hopkins, both trails connect to additional regional trails that provide access further east.

- Shady Oak Road from Excelsior Boulevard extending south to Eden Prairie.
- Minnetonka Boulevard extending east from the Lake Minnetonka LRT Regional Trail into Hopkins and St. Louis Park.

Tier 1 Corridors within the city include:

- Interstate 494 between the Lake Minnetonka LRT Regional Trail and the Minnesota River Bluffs LRT Regional Trail.
- Hopkins Crossroad from northern city limits to Minnetonka Boulevard.
- Nine Mile Creek Regional Trail from Minnesota River Bluffs LRT Regional Trail extending east into Edina.

RBTN Tier 2

The City's only Tier 2 Alignment runs the full length of the City along Highway 101, extending north into Wayzata and south into Eden Prairie. Tier 2 Corridors include:

- Excelsior Boulevard between Hopkins and Highway 7 and then continuing to extend west along Highway 7.
- From the Minnesota River Bluffs LRT Regional Trail near Interstate 494, south into Eden Prairie.
- Cedar Lake Road from the Lake Minnetonka LRT Regional Trail eastward into St. Louis Park.
- McGinty Road between the Lake Minnetonka LRT Regional Trail to Wayzata where it will make a connection with the Dakota Rail Regional Trail.
- Interstate 394 between Wayzata and Golden Valley.
- Plymouth Road between the Lake Minnetonka LRT Regional Trail and Interstate 394 corridor.

Linking Local Trails to the RBTN

The existing network of trails in Minnetonka is strong, but could be further enhanced by increasing local connections to the RBTN network. Local trails should focus on neighborhood connectivity to primary routes that connect to RTBN alignments, which are often connected to regional facilities.

Several primary north-south and east-west trail corridors provide a solid base for the City's bicycle system, and are within RBTN corridors, including parts of Baker Road, Plymouth Road, Hopkins Crossroad, Woodland Road, Ford Road, and Essex Road. The primary east-west corridors that fit within the RBTN network include areas of McGinty Road, Orchard Road, Lake Street Extension, Highway 7, Excelsior Boulevard, Ridgedale Road, and Wayzata Boulevard.

Several incomplete segments near the Opus Business Area have been identified, and would provide enhanced connections from neighborhoods, schools, and businesses to Shady Oak Road, a Tier 1 RBTN Alignment. Proposed trails depicted in Figure 3 provide routes that meet the desired connections expressed in the RBTN corridors.

Local trails in Minnetonka provide important connections to the two regional trails in the city. The regional trail connections provide residents and visitors easy off-street access to regional parks and employment clusters. Plans to fill gap trails on the northwestern edge of Minnetonka, including segments along Highway 73/Hopkins Crossroad will strengthen local connections to the neighboring RBTN networks in Plymouth, as well as regional trails and parks: Luce Line Regional Trail, Medicine Lake Regional Trail, and Clifton E. French Regional Park.

Connections to Transit

Another important element of the City's trails network is its relationship to the transit system. Better trail connectivity to park-and-ride facilities and planned Light Rail Transit (LRT) stations provides residents the opportunity to travel to work and recreation destinations using transit.

Currently, there are trail connections to each of the park-and-ride lots within the City. As additional transit facilities are developed in the Minnetonka, the City will ensure adequate pedestrian and bicycle trail connections are available. Station area planning at the planned Opus and Shady Oak LRT stations will focus on providing paved sidewalks and trails that link to the existing trail network.

Sidewalk System Plan

In addition to providing trail facilities for bicyclists and pedestrians, the City of Minnetonka is committed to providing pedestrian sidewalk facilities, where appropriate. The majority of Minnetonka is suburban in nature and does not have sidewalks located in residential neighborhoods. Pedestrian sidewalk facilities are typically in the more "urbanized" areas of the city (near significant retail or commercial development) to provide safe and convenient walking connections between various destinations.

Typically, adding sidewalk facilities will occur at the time of redevelopment. The following key points will be used as guiding factors for the implementation of future sidewalk improvements:

- Maintain a goal to fill gaps in this existing sidewalk network;
- Install new sidewalks as roadways are reconstructed or redevelopment occurs.
- Use care to locate sidewalks to have the least impact on adjacent property owners, but provide the most efficient connectivity and system continuity.
- Locate sidewalks to connect major recreation, shopping and institutional uses.

- Construct sidewalks to support an interconnected network of trails (avoid sidewalk to nowhere trap).
- Where possible, ensure sidewalks can connect to existing and proposed trail networks.
- Develop trail-to-door connections at city destinations and commercial centers

Pedestrian Safe Crossing Criteria

In 2017, the City of Minnetonka developed a draft pedestrian crossing assessment process to identify appropriate pedestrian crossing treatments at intersections. Based on roadway traffic volumes, pedestrian crossing volumes, and pedestrian network connectivity, a two-part toolkit was prepared to help the community understand the process that the City of Minnetonka uses to determine if a pedestrian crossing treatment is needed for an intersection. A preliminary evaluation of nine City-identified pedestrian crossings was performed using the toolkit – a statement of guidance was provided for each crossing following the evaluation. The City intends to implement the guidance, and utilize the toolkit for future intersection treatments.

Maintenance Performance

Infrastructure maintenance is an important aspect of a pedestrian and bicycle facility network. Without dedicated funds, the pedestrian and bicycle infrastructure will be difficult to maintain, as well as unreliably accessible during winter months. The City of Minnetonka is committed to maintaining their trails and sidewalks to reasonably address the safety and accessibility needs of all people.

Freight System Plan

The movement of goods and services is just as important and the movement of people in Minnetonka. To best achieve the successful movement of goods and services, there needs to be a thoughtful process for the interconnectivity between the regional and local roadway networks, how adjacent lands uses cohabitate between one another, and ultimately how best to minimize the impact of freight on the local system.

Existing Freight System

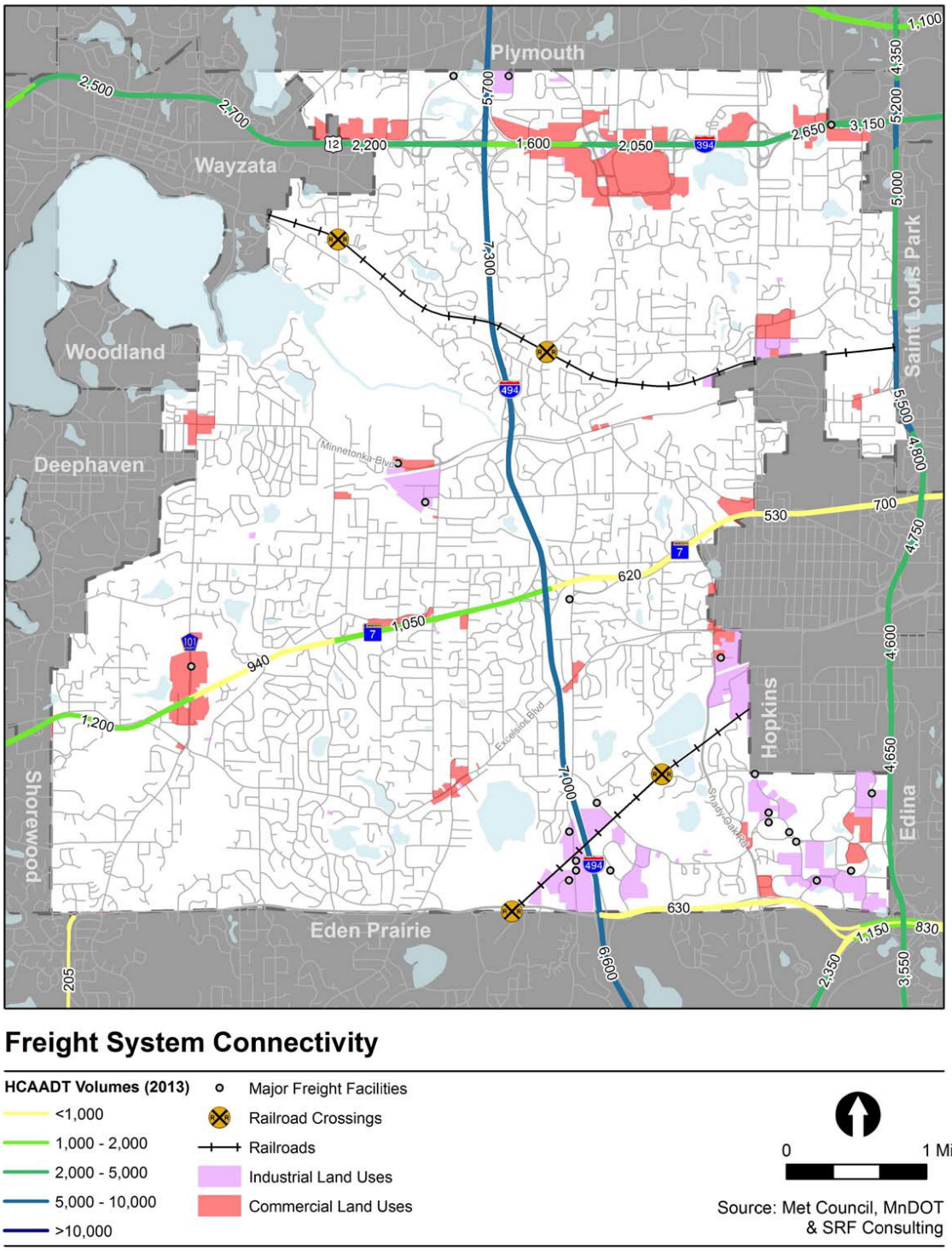
A major component of the City of Minnetonka's freight system lies in its roadway network (Figure X). Interstate 394 (I-394) and interstate 494 (I-494) run through the city, converging along the city's northern boundary. Key freight corridors within the city include Trunk Highway (TH) 7 , segments of US Highway (US) 169 as well as segments of TH 62 along the city's southern boundary.

The City of Minnetonka is located at a key area in the Twin Cities Metropolitan Region, at a critical crossroads within the regional freight system. The major roadways that pass through and along the borders of the city serve as major freight thoroughfares for interregional goods movement as well as the movement of goods from western Minnesota to markets in the Twin Cities.

The freight network is also comprised of rail. The rail network in the City of Minnetonka includes an active line that runs east-west across the northern third of the city operated by Burlington Northern Santa Fe (BNSF). Cutting across the southeastern corner of the city boundary runs a line that is operated by Canadian Pacific (CP) and Twin Cities & Western (TCWR) (Figure X). These lines intercept with all "Class I" railroads serving the Minneapolis-St. Paul area, providing connections to the entire North American rail network.

There are no barge facilities or intermodal freight terminals within the City of Minnetonka.

Figure 13. Existing Freight System



Freight System Connectivity

HCAADT Volumes (2013)
- <1,000
- 1,000 - 2,000
- 2,000 - 5,000
- 5,000 - 10,000
- >10,000

- Major Freight Facilities
- Railroad Crossings
- Railroads
- Industrial Land Uses
- Commercial Land Uses

0 1 Miles

Source: Met Council, MnDOT & SRF Consulting

Freight Generators

Figure X illustrates the location of freight generators in the City of Minnetonka and includes major economic centers. Of these economic centers, the land uses located in proximity to I-494, I-394, US 169, and TH 62 are significant to the city's freight network. These areas contain freight intensive clusters that generate substantial amounts of truck activity. These clusters primarily consist of manufacturing, wholesale trade, transportation and warehousing establishments, office complexes, and large retail and commercial establishments. The length of the I-394 corridor, stretching across the northern boundary of the city, is also a freight intensive cluster. Many major freight generators are located along its length, from US 169 in Golden Valley, west to the border with Wayzata. These businesses represent a variety of industries from food distributors, technology companies, financial firms, car dealerships, commercial retail space among others. Many of these businesses, and their employees, use US 169 as their primary route to transport goods to the area from the Twin Cities and other areas in Greater Minnesota.

Heavy Commercial Vehicle Volumes

Existing (2013) heavy commercial annual average daily traffic (HCAADT) volumes are depicted in Figure X. High volume corridors include I-494, I-394, TH 7, and TH 62. These roadways are estimated to support up to 1,200 trucks per day on the smaller trunk highways, 2,700 trucks per day along I-394, and up to 7,300 trucks per day on I-494. I-494 heavy commercial vehicles represent 15 percent of the total daily traffic based on 2013 MnDOT traffic volume data.

Safety and Capacity Issues

All industrial areas in the City of Minnetonka are located within adequate access to the metropolitan highway system (Figure X). US 169, TH 7 and TH 62 are part of either the National Truck Network or the Minnesota Twin Trailer Network, and are built to 10-ton axle loading standards, allowing extra capacity and flexibility for commercial trucking. This major highway coverage reduces the impact of truck traffic on local roadways and minimizes the potential for disruption of neighborhoods and areas of lower density.

It is important that commercial vehicle traffic from industrial, warehouse and commercial land uses be adequately considered. Increased traffic can be sufficiently accommodated through various measures including land uses, design standards, and signage (right sidebar).

Movement of Goods.

- Locate freight-intensive land uses in areas that are proximal to the metropolitan highway system and with ample access to minor arterials;
- Utilize acceptable design standards on arterials, ensuring adequate turning radius, pavement depth, and space for commercial vehicles;
- Provide adequate signage and markings along roadways to minimize commercial vehicle traffic through residential neighborhoods.

Truck travel reliability and freight mobility concerns have been identified within the city's freight network. Poor truck travel time reliability generally coincides with routes that contain several intersections and bottlenecks. I-394, I-494, TH 7, and US 169 are the most important freight corridors in Minnetonka.

Improvement Projects

Recent and planned projects of the US and County Roadway system that support the freight network in Minnetonka are identified below. Planned projects include:

- Ridgedale Avenue (MSAS 153): Reconstruction of ramps to provide full access, turn lanes, an underpass, and signaling from Ridgedale Avenue to CSAH 61 (2018-2021 TIP).
- TH 7: Mill and overlay and signaling from I-494 to Louisiana Avenue in St. Louis Park (2018-2021 TIP).
- TH 62: Mill and overlay and curb and gutter work from Beach Road to Tracy Avenue in Edina (2018-2021 TIP).
- US 169: Lengthen acceleration and deceleration lanes and installation of traffic management systems at Cedar Lake Road (2018-2021 TIP).
- County State-Aid Highway (CSAH) 101: Reconstruct of CSAH 101 as a multi-lane roadway from TH 62 to TH 3 (2017-2021 CIP).
- Hopkins Crossroad (CSAH 73): Reconstruction of CSAH 73 as a multi-lane roadway from Cedar Lake Rd to I-394 (2017-2021 CIP).

Future Considerations

In recent years, e-commerce and day-of deliveries have become increasingly more important to the national economy. This phenomenon is also reflected at a regional level throughout the greater Twin Cities area. The demands of customers, to receive seemingly any product of their choosing within a moment's notice has, and will continue to increase freight traffic on major and local roadways. Due to its location in the outer suburbs of the Minneapolis-St. Paul metropolitan area, Minnetonka is primarily residential. Minnetonka is already experiencing a rise in e-commerce deliveries in recent years as consumers now demand and expect items to be delivered within one or two days, sometimes within one to two hours. With population expected to increase dramatically by 2040, Minnetonka will see increases in e-commerce related deliveries which will put strains on the roadway and freight network. It is imperative that these trends be planned for to maintain traffic flows and avoid congestion along roadways in the City of Minnetonka.

Aviation Plan

There are no airports located within the Minnetonka. The closest airport to the city is the Flying Cloud Airport (FCM) located in the adjacent city of Eden Prairie. The US Federal Aviation Administration (FAA) classifies the FCM as a reliever airport on their National Plan of Integrated Airport Systems (NPIAS). As shown on Figure 9-1 in Chapter 9 of the Metropolitan Council's 2040 Transportation Policy Plan, the southern half of the City of Minnetonka lies within the six-nautical mile radius of the FCM which prohibits the construction of any new landfills or wind towers within this area. A small area in the northeastern portion of the city falls within the six-nautical mile radius of the Crystal Airport (MIC). The airspace over Minnetonka is used by aircrafts operating from the other eight metropolitan area airports as well as airports outside of the metropolitan area.

As noted in the Metropolitan Council's 2040 Transportation Policy Plan, no new general aviation airports are proposed in the future. There is adequate capacity at the airports surrounding the metropolitan area to support future growth.

Height and Safety Zoning

Structures which are 200 feet or higher above ground level may pose hazards to air navigation. Minnetonka has no existing structures of this height; does not permit such structures under its zoning ordinance, and has no plans to permit such structures in the future. Any applicant who proposes to construct such a structure shall notify the city and the Federal Aviation Agency (FAA) as defined under the provisions of Federal Regulation Title 14 Part 77, using the FAA Form 7460-1 "Notice of Proposed Construction or Alteration." These forms must be submitted 30 days before alteration/construction begins or the construction permit is filed, whichever is earlier. MnDOT must also be notified (see MnDOT Rules Chapter 8800). The Minneapolis-St. Paul (MSP) airport/community zoning board's land use safety zoning ordinance should also be considered when reviewing construction in the city that raises potential aviation conflicts.

Heliports

There are no heliports within the City of Minnetonka. Several heliports exist in the neighboring City of Plymouth, but are rarely used and do not affect Minnetonka airspace.

Float/Seaplanes

Wayzata Bay of Lake Minnetonka is designated in Minnesota State Rules Chapter 8800.2800 as authorized for purposes of safe seaplane use. The operation of seaplanes on Wayzata Bay must conform to all applicable marine traffic rules and regulations.

Funding Strategies

Roadways under City jurisdiction are maintained, preserved, constructed, and reconstructed by the City's Department of Public Works. Funding for these activities, including the administrative costs of operating the Department, are obtained from a variety of sources, including ad valorem taxes, special assessments, development fees, and tax increment financing. A major concern of the City is the availability of sufficient funds for maintenance and construction activities. If funds are unavailable, needed projects may be delayed or terminated and maintenance of existing facilities may fall short of acceptable standards. The following explains the existing sources of funding and potential new sources of revenue.

State Aid

An important source of revenue to the City is State Aid. A network of City streets called Municipal State-Aid Streets (MSAS) are eligible for funding assistance with revenue from the State Highway User Tax Distribution Fund. This constitutionally-protected funding allocation is comprised of gasoline taxes and vehicle registration fees and is allocated based on a formula that considers the population of a City and the financial construction needs of its MSAS system.

Ad Valorem Taxes

For situations in which 20 percent of the cost of a City project can be assessed to the adjacent property owners, the remaining cost of the project can be added to the ad valorem or property taxes of the remaining property owners in the City. Ad valorem taxes for street improvements are excluded from the State-mandated levy limits.

Tax Increment Financing

Establishing a tax increment financing (TIF) district is a method of funding infrastructure improvements that are needed immediately using the additional tax revenue to be generated in future years by a specific development. Municipal bonds are issued against this future revenue, which is dedicated for a period of years to the repayment of the bonds or to other improvements within the TIF project area. TIF districts can accelerate economic development in an area by ensuring that the needed infrastructure is in place without requiring support from the usual funding.

Grant Funding

There are many opportunities for metropolitan cities to take advantage of various grant funding initiatives. Regional Solicitation and Highway Safety Improvement Program (HSIP) are among grant solicitations for the Twin Cities metropolitan area. The City should monitor the grant funding opportunities available for applicable projects and submit applications when possible.

Planning for the Future

Throughout the City of Minnetonka's comprehensive planning effort, the City will consider how to address existing transportation needs, while setting the stage for future growth. Items for consideration include the following:

- System Preservation
- Assisted Driving and Autonomous Vehicles
- Travel Demand Management
- Complete Streets and Safe Routes to School

System Preservation

Infrastructure systems such as roadways, bridges, culverts, and sidewalks have become expensive and challenging to maintain in today's environment with aging infrastructure, rising costs of materials, and stagnant or declining revenue. In fact, many local agencies are being forced to pause, and ask questions about the costs and benefits of continuing to maintain assets throughout their entire system, or if other approaches should be explored to better balance needs with available resources. Generally, approaches to be considered include:

Performance Standards and Measures

A performance-based approach improves the accountability of local infrastructure investments, assesses risks related to different performance levels, and monitors progress and increases transparency.

Project Prioritization

Project prioritization can help the City rank infrastructure needs in a manner that is consistent with preservation goals and objectives. This technique can help avoid the typical "worst first" approach to programming preservation projects that tends to invest limited resources in the most expensive improvements instead of directing maintenance funds to infrastructure that merely need rehabilitation, which will provide more cost-effective solutions in a timely manner.

New Revenue Sources

There are methods to capture new revenue streams to close the financial gap in maintaining assets in a state of good repair. Exploring new revenue sources will allow the City to expand and accelerate preservation initiatives.

New Maintenance Techniques

There are new maintenance techniques that can extend the lifecycle of an asset. For example, new maintenance techniques for roadway surfaces can provide longer service life and higher traffic volume thresholds, resulting in more stable road maintenance costs. Cost reduction of life cycle extension strategies which save money, or extend surface life, can directly benefit preservation needs, and minimize any identified financial gap.

Asset Management

Tracking assets and their condition will provide a stronger outlook on lifecycle costs and replacement schedules. This will help establish funding plans and identified future funding gaps or shortfalls.

Travel Demand Management

Research has shown that Travel Demand Management strategies are a useful technique in helping alleviate parking demands in a geographical area. TDM strategies are applied to help reduce the number of single occupancy vehicles traveling and parking in a certain area. Opportunities to encourage TDM strategies are highlighted throughout this section.

Bicycle Amenities

Actively promoting bicycling as an alternative means of travel to and from a destination can be achieved through information dissemination and the provision of bicycle storage facilities and adding on-street bicycle lanes and additional connections to trails. These actions can help decrease the demand for vehicle parking.

Car Sharing Provisions

Car sharing programs provide mobility options to a cross section of residents who would not otherwise have access to a vehicle. These programs encourage the efficient use of a single vehicle among multiple users, while reducing the amount of parking needed to accommodate each resident within a neighborhood. Zoning language can encourage or require new developments of a certain size to include off-street parking provisions for car sharing programs.

Assisted Driving and Autonomous Vehicles

The potential for significant vehicle technology shifts in the coming decades influences how the City plans the future of multimodal mobility infrastructure. However, there is no way of knowing how things will change or to what extent. The planning process must not hamper the potential benefits of technology, yet brace for the potential disadvantages technology may bring with it. Today's changing needs demand that the City find ways to bring together old and new modes of mobility so that they complement and enhance each other. With more, and better, data available now than ever before, the City needs to think in terms of true mobility management.

Fully autonomous cars are still in the advanced testing stages, but partially automated technology and low-speed cars are beginning to embed themselves into markets across the country. In that respect, understanding autonomous vehicles will play an important role in how agencies manage their mobility assets, while setting the stage for investments. In addition to fully autonomous vehicles there are connected vehicles that will interact with the mobility system (vehicles that communicate with the roadside to complete driving functions or provide information to the driver to make informed decisions).

Aside from some of the more obvious predicted impacts such as the continued growth of car-sharing, and on-demand taxi services like Uber and Lyft, autonomous vehicles (AVs) and connected vehicles (CVs) also stand to disrupt the norms of both transportation and land use planning. Parking minimums, street design, right-of-way needs, development demand, signage and signalization, building siting and design, access management, and their accompanying norms and standards have the potential to change dramatically over the next 40-50 years.

Researchers have concluded that AVs and CVs will reshape future road rights-of-way. Autonomous vehicles are likely to be smaller than existing passenger vehicles, permitting narrower lanes, likely not requiring medians, and due to wireless communication between vehicles, will allow travel much closer to one another. By accommodating the same or more vehicular volume in less space, newly available street width can be reapportioned to other road users like pedestrians and bicycles.[2]

Although newly available street space may be configured for additional multimodal mobility, there are some potential drawbacks for pedestrians, bicyclists, and other users that the City will need to be conscious of when moving towards a more automated street type infrastructure. The reapportioning of rights-of-way may allow for expanded sidewalks and more dedicated bike lanes, however, due to potential signal removal this may cause longer waits at intersections dominated by free-flowing vehicles. Adding pick-up and drop-off locations could also fragment the streetscape, complicating travel for multimodal users.

The redevelopment of former parking lots has the potential to transform existing urban centers, such as Minnetonka and surround communities. Future site designs will be impacted by the implementation of autonomous vehicle structure, potentially allowing for buildings to more regularly front streets rather than parking lots. Accommodation for pick-up and drop-off locations within these parking lots will need to be a consideration. However, off-site parking reservoirs may reshape future site designs.

The City must be prepared to incorporate and accommodate communication between vehicles and infrastructure such as traffic signals (V2I). This is already available on a very limited basis, and has strong potential for use in safety notification of construction zones and weather or road hazards.

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[2] APA Minnesota. *Planning for the Autonomous Vehicle Revolution.* 2016. https://www.planning.org/blog/blogpost/ 9105024/

V2I systems can inform drivers of "time to green" when approaching red lights. Vehicle-to-infrastructure and other vehicles (V2X) communication is further behind the implementation curve, but is anticipated to greatly reduce the severity of crashes. V2X effectiveness is contingent on having a critical mass of similarly equipped vehicles on the road. The City should stay in close coordination with MnDOT and Hennepin County regarding potential for research projects in the coming years regarding this technology.

A very important area for the city to be focused is how AVs will interact with pedestrians and bicyclists. Less is known about how AVs will communicate with and avoid pedestrians and bicyclists. Research suggests that a safer environment will be possible, especially if AVs are programmed to stop and yield to pedestrians and bicyclists. In urban areas, greater separation of vehicle and pedestrian/bicycle infrastructure may be needed.

Minnetonka should monitor autonomous vehicle technology adoption, as well as other technological innovations that will have an impact on mobility trends and infrastructure, and consider system changes when they make sense for the community. It is also understood that more traditional planning and operations practices will likely predominate through the current ten-year Comprehensive Plan cycle.

Shared Mobility

Shared mobility includes bikesharing, carsharing, and ridesourcing services provided by companies such as Uber and Lyft. Predictions indicate that by creating a robust network of mobility options, these new modes will help reduces car ownership and increase use of public transit, which will continue to function as the backbone of an integrated, multimodal transportation system.

Travel Demand Management Plans (TDMP)

A TDMP outline measures to mitigate parking demand as part of the development permit process, which can result in innovative solutions that are tailored to the specific needs of a neighborhood or district. These types of plans may require specific strategies for reducing single-occupancy vehicle trips and promoting alternative modes of transportation.

Complete Streets and Safe Routes to School

Complete Streets are commonly defined as roadways that accommodate all users such as pedestrians, bicyclist, vehicles and transit, regardless of age and ability. This is important to consider when recognizing the diversity of people traveling throughout the community.

The Transportation Plan's goals and policies embrace several elements of complete streets, such as safety for pedestrians and bicyclists. MnDOT has adopted a Complete Streets Policy, last updated in May 2016, and has committed to assessing opportunities for incorporating complete street design principles in all MnDOT projects. MnDOT's Complete Streets Policy can serve as a resource to the City for incorporating complete street design standards into City projects.

Safe Routes to School is a national initiative to increase safety and promote walking and bicycling for America's youth. The Safe Routes to school program will assist in providing infrastructure and non-infrastructure grants to build trails, paths, and safe connections to local schools.

Planning for safe routes to schools will require specific attention to certain elements such as bike routes, complete street treatments, sidewalk networks, pedestrian/bicycle amenities and wayfinding signage. Combined, these elements can create Safe Routes to Schools or Complete Streets.

2040 Comprehensive Plan – Economic Competitiveness

Staff Person(s):
Alisha Gray, EDFP, Economic Development and Housing Manager
Julie Wischnack, AICP, Community Development Director

Consultant Report:
Marquette Advisors ":An Update on Commercial Real Estate Market Conditions: City of Minnetonka"

Summary of Chapter Minimums:
None

Recommended Chapter Elements:

Key Industries/Centers of Employment

- Consider an analysis of the number and character of jobs and industries within your community. The U.S. Cluster Mapping Project can be a useful tool for examining Traded and Local industry clusters down to a countywide level, while American Fact Finder provides 2012 Economic Census data to a place and zip code level (to be released by June 2016).
- Utilize your community's Employment Forecasts to help characterize and guide the future development of employment areas in your community.
- Local plans can identify where, when, and how new employment areas will be guided to most effectively remain accessible to the regional workforce and leverage public and private investment in infrastructure.
- Many communities use the comprehensive plan to identify the proportion of housing opportunities that are accessible to employees in your community using a jobs-housing ratio.

See Exhibit A

Redevelopment

- Identify the presence of brownfield challenges in your community through mapping and characterizing these issues, and setting objectives and policies that position brownfield properties as an economic opportunity. MPCA's "What's in My Neighborhood" application can be useful in locating perceived and confirmed brownfields.
- Municipalities and counties in Minnesota have the authority to enact several programs and strategies towards the redevelopment of declining properties and neighborhoods, and there are examples throughout the region of special authorities, districts, and financial tools that have been put in place to do just that. Identify those resources within your community and determine how local policies and programs can be directed to support those resources. Land that is underutilized and potentially contaminated contributes to blight, loss of property values and may adversely affect public health (Minnesota Healthy Planning: How-To Guide, page 47).

Education and workforce

- Investigate local data related to educational attainment, and match your strengths and weaknesses to economic goals, policies, issues, and opportunities.
- Integrate data and trends on employment and unemployment that help to reveal the need for policies and programs that can help to keep unemployment rates low.
- Strengthen your plan by integrating an assessment of your community's workforce. Indicate program and resource opportunities for education and workforce development to provide insights into housing choice, public services, and other key considerations.
- Workforce productivity can be a telling indicator of the strength and quality of the workforce, as it measures the output (for example, gross metropolitan product) per a specific input measure (such as hours worked).
- In the context of the comprehensive plan, your community will benefit from a better understanding of the local workforce's level of compensation.
- Identify programs that currently operate in your community and, where needed, support and strengthen the community's workforce development network through local policy and goal-setting.

See Exhibit A

Business Development

- Gather and analyze information on the mix of businesses in the community.
- Identify and assess the effectiveness of your community's existing Business Recruitment, Attraction, Retention, and Expansion efforts, and set goals and priorities for the efforts moving forward.
- Cultivate small business stability and growth by identifying resources, partnerships, networks, and programs that assist small businesses and entrepreneurs with issues such as management, accounting, financing, real estate, and marketing that the small business may not have the background or capacity to tackle without assistance.
- Assess existing incentive policies and programs in relation to your community's current character and future growth, as well as to identify opportunities to create, revisit or restructure your community's approach to business incentives.
- Identify appropriate areas where economic and land use conditions exist that might be strengthened through exploration of a special service district.
- Local food production and sales can improve community assets and provide fresh produce and healthy foods to nearby neighborhoods (Minnesota Healthy Planning: How-To Guide, page 72). For more information, please visit the Minnesota Department of Health Healthy Places website.

See further in report.

Economic Information, Monitoring and Strategic Initiatives:

- Identify the key indicators that are important to your community, and establish a methodology for tracking and reporting on that information.

- Prepare an Economic Development Strategic Plan that directly addresses the community's short- and long-term economic development agenda. The Comprehensive Plan may help to set the framework for such an effort, and allow for the strategic plan to remain adaptable and attainable through the setting of strategic goals and actions for enhancing the local business climate.

See Economic Improvement Program Document starting at page 433

Overview:

Following is an outline of business development services that are currently available or could be utilized by the City of Minnetonka to enhance business development within the community. These services include a variety of tools, resources and activities that are being proposed to support Minnetonka's business community and achieve the goals of the Economic Development Advisory Committee, Economic Development Authority and City Council.

Elements of the strategy include the Business Retention and Expansion Program, Marketing and Communications, Small Business Development Resources, Financing Programs, and Partnerships. The following is a summary of those elements:

Business Retention and Expansion Program (BR&E)

A BR&E program is a tool to help identify barriers local businesses face as they work to survive and grow. A successful BR&E Program develops and maintains strong relationships with local business leaders to assess business concerns, understand the structure of the local economy, set priorities, and implement programs or projects that will help make the business community thrive.

In the short-term, a BR&E Program can demonstrate community support for local businesses though enhanced communication and can help solve immediate business concerns. Long term goals of a BR&E Program include: Building community capacity to sustain business growth and development, increasing local businesses' capacity to compete in the global economy, and establishing and implementing a strategic priorities to address businesses' needs.

Business Retention and Expansion Outreach Recommended Approach:

2018-2019 Connect with partnership organizations to explore outreach opportunities

- Grow Minnesota! – MN Chamber of Commerce
- TwinWest Chamber of Commerce
- GreaterMSP
- Department of Employment and Economic Development
- Develop and maintain a comprehensive business list
- Facilitate communication with business community
- Identify key business leaders
- Harness community branding efforts to establish an economic development marketing plan to attract and retain residents and businesses
- Connect with Minnetonka Businesses

- Develop a template for an annual business newsletter to connect with the business community. Publication will highlight:
- Investment updates

Business Development Strategy

- Available business development and financing opportunities
- Launch of a business survey with business visit opportunities
- Highlight single point of contact at the city for business inquiries

2019-2021 Analysis and Implementation

- Partner with TwinWest, Grow MN, GreaterMSP, and DEED to conduct business outreach visits
- Analyze business surveys for industry trends and business needs
- Develop proactive business development strategies to meet the needs of businesses

Marketing and Communications

Economic development marketing and communications are important tools in promoting a community as a promising destination for business expansion and relocation by increasing its visibility and demonstrating its benefits. Following are the examples of tools that can be utilized in marketing and communications efforts:

- Business Centric Marketing: Marketing aimed at positively positioning the community in the minds of the target audience of business executives, site selection firms, bankers, and commercial brokers.

- Community Branded Economic Development Resources: A comprehensive package of custom designed economic development resources will be utilized in a variety of applications. Such applications include the presentation of information at special events and meetings with business and development prospects. Tailored information relevant to each use is able to be included. Ie: Housing, Business Development, and Transit.

- Web Presence: A portion of the website will be dedicated to information about demographics, available land and buildings, financing opportunities, maps, utilities and workforce resources. This information corresponds to that identified by site selection firms and businesses as key data considered when conducting site searches.

- Media Relations: Public relations staff coordinate the distribution of press releases on important development projects and business-related programs and events.

- Relationship Building: Staff works to maximize participation in the area chambers of commerce and industry-specific trade organizations and professional associations in order to promote Minnetonka as a strong place to do business.

Business Financing Programs

To help support business expansions and relocations or equipment purchases, a number of general financing programs are available for businesses in Minnetonka. Staff works to establish and promote a range of financial resources to meet the changing needs of businesses. A number of these resources are available on a local, regional or state basis, including the following:

- The Property Assessed Clean Energy (PACE) Program allows local governments to fund the up-front cost of energy improvements on commercial and residential properties. The funding is paid back over time by the property owner which provides and incentive to invest in energy improvements that might otherwise be cost prohibitive.

- Hennepin County Common Bond Fund is a loan fund for growing manufacturing companies. Tax-exempt or taxable revenue bonds are issued on behalf of private borrowers to provide lower interest rates on long-term financing. Projects can include land acquisition, new facility construction, additions to existing facilities, purchase and renovation of existing structures, and production equipment purchase.

- Hennepin County Economic Development Infrastructure Fund is a grant available to support business recruitment and expansion through targeted investments in infrastructure upgrades and extraordinary costs associated with starting a business. Eligible uses include demolition, site clearance, relocating utilities, and replace aging or inadequate water and sanitary sewer systems,

- The Minnesota Investment Fund is a program through the Minnesota Department of Employment and Economic Development. The program's purpose is to provide low interest loans to create and retain high-quality jobs in industrial, manufacturing, and technology-related industries; increase the local and state tax base; and improve the economic vitality for the state. Eligible loan uses include land, buildings, infrastructure improvement, equipment, and training.

- The Job Creation Fund is a program through the Minnesota Department of Employment and Economic Development. The program provides financial incentives to new and expanding businesses that meet certain job creation and capital investment targets. Companies deemed eligible to participate may receive up to $1 million for creating or retaining high-paying jobs and for constructing or renovating facilities or making other property improvements.

- The Economic Gardening Program provides scholarships to owners of second stage growth business for business research combined with peer learning and business forums.

Small Business Development Resources

Supporting small business development is a continual focus of Community Development Department. Staff works to guide entrepreneurs through the process of establishing or growing their business in Minnetonka and publicize the availability of resources in Minnetonka. To help direct these small business entrepreneurs to the appropriate resources, staff has established relationships with partner organizations that can provide technical assistance and micro lending options. Following is a listing of some of the organizations:

- Metropolitan Consortium of Community Developers (MCCD) is an association of nonprofit community development organizations that promote entrepreneurship and small business development by offering access to capital and technical assistance. MCCD also offers more focused assistance to Minnetonka through monthly office hours at City Hall and is named "Open to Business".

- Small Business Development Centers provide free consulting, offering assistance with strategic business plans, market research, financial planning and analysis, loan packaging and cash flow management.

- Service Corp of Retired Executives (SCORE) provides free one-on-one counseling and low-cost workshops in key subject areas critical to small business success.

- Neighborhood Development Center offers business training, financing, and ongoing support and business incubation to ensure that businesses participating in its programs succeed through the start-up and growth phases of their businesses.

- University of Minnesota Office for Business and Community Development (OBCED) is a social enterprise whose purpose is to leverage the assets and resources of the University to create programs and services that provide innovative solutions to real-world social-economic problems that impact urban communities.

Partnerships

- GreaterMSP is the regional economic development organization for the Minneapolis/St. Paul region. They partner to help provide a vision and agenda for regional economic development as well as brand and market the region. GreaterMSP offer services in business retention and expansion, data tools and research, and targeted industry assistance (manufacturing, small business, technology).

- The Department of Employment and Economic Development (DEED) is a state agency assisting in economic development through programs targeting business recruitment, expansion and retention; workforce development; and community development.

- Twin West Chamber of Commerce serves ten communities in the western and northwestern metro area, including Minnetonka. It offers relevant, timely programming as well as numerous networking opportunities for area business people. The chamber

supports local workforce and high school education through its philanthropic arm, the Twin West Foundation.

- The primary focus of Grow Minnesota! (Minnesota Chamber of Commerce) is to retain and grow Minnesota's businesses. Grow Minnesota!'s business assistance resources include confidential one-on-one site visits with businesses to identify their specific expansion plans, workforce recruitment and development needs, exporting opportunities, and relevant business financing services.

- Hennepin County provides assistance to businesses and municipalities through a variety of programs designed to support businesses, promote economic development, create and retain jobs, and cultivate entrepreneurs.

- Metropolitan Council provides regional infrastructure, services, and amenities that serve as a foundation for economic growth to support economic development efforts. The Council provides grants to help clean up polluted sites for redevelopment, expand affordable housing opportunities and build pedestrian friendly transit-oriented developments.

Administrative Resources

- Single Point of Contact: Staff acts as a single point of contact by providing a reliable, responsive information source for questions related to business development in Minnetonka. In this role, staff acts as a liaison between various city departments, assists in the coordination of city approvals and researches answers to a wide range of questions. Staff also helps facilitate the creation of public/private partnerships with partner organizations such as the State of Minnesota and Hennepin County as appropriate.

- Site Location Services: Staff receives requests for information on site options on a regular basis. Requests can be as simple as the availability of a certain square footage of office space to lengthy, complex requests for large corporate users. Staff also provides a key service of promoting available office, retail and industrial locations in Minnetonka that may not be listed with a broker as well as redevelopment opportunities**.**

- Development Policies: A number of policies have been established to help guide the use of available resources within the community. These policies indicate development focuses such as targeted industries and redevelopment areas.

- Property Monitoring: Staff monitors the existing building market.

- Workforce Development: Staff will participate in workforce development discussions and will continue to stay informed of workforce development opportunities available to Minnetonka businesses.

- Business List: Staff will develop a comprehensive business list and map of businesses within the community that includes basic information such as

employment sector or specialty, to assist with visualizing the business climate and sectors within the city.

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CITY OF MINNETONKA
14600 Minnetonka Blvd. | Minnetonka, MN 55345 | 952-939-8200 | eminnetonka.com

October 23, 2018

RE: 2040 Comprehensive Plan

Dear Property Owner:

As you may be aware, the city is updating its long range comprehensive plan. Every ten years all metropolitan cities are required to update their local comprehensive plans that guide decisions for the next 20 years. A component of the comprehensive plan addresses future land use for all properties in the city.

This letter is to inform you about a proposed change to the future land use designation proposed in the city's 2040 comprehensive plan that relates to the property located at . The proposed land use changes the designation from to . A summary of the proposed changes are included. More detailed information on the draft land use plan can be found on the city's website: https://tinyurl.com/DraftLandUsePlan

As the property owner, you should know this change does not change the current use of the property but rather guides any future use of the property. This proposal does not change the current zoning of your property. Zoning is for current use of your property whereas comprehensive plans address the long term possibilities of what may occur on your property.

Although the proposed change will not have an impact in the immediate use and operations of the property, you may wish to better understand broader city goals. The city will be hosting an informational session for all property owners on Tuesday, Nov. 13, 2018 between 11:00 a.m. and 5:00 p.m. in the Minnetonka Community Center, City Council Chambers which is located at 14600 Minnetonka Blvd. City staff will be on hand to answer questions during this time. There will not be a formal presentation so feel free to drop in when it's convenient.

In the interim or if you can't attend the informational meeting, please contact me at lgordon@eminnetonka.com or by phone at (952)939-8296 if you have questions or concerns you wish to discuss, or want to set up a separate meeting.

Regards,

Loren Gordon, AICP
City Planner
City of Minnetonka

Summary of proposed 2030 to 2040 land use changes

Area	Geography	2030 Designation	2040 Designation
1	Twelve Oaks	Commercial	High Density Residential
2	Fairfield Rd. W.	Low Density Residential	Medium Density Residential
3	Correns Dr.	Medium Density Residential	High Density Residential
4	Wayzata Blvd. (Sunset Hill)	Commercial	Mixed Use
5	Wayzata Blvd. (Fairfield Rd.)	Service Commercial	Mixed Use
6	Wayzata Blvd. (Westwood Rd.)	Service Commercial	Mixed Use
7	Cartway Ln.	Commercial	Mixed Use
8	Plymouth Rd.	Office	Mixed Use
9	Cedar Lake Rd.	Commercial	Mixed Use
10	Highwood Dr.	Low Density Residential	Medium Density Residential
11	Hwy 7	Commercial	Mixed Use
12	Shady Oak Station	Commercial / Industrial	Mixed Use
13	Glen Lake	Commercial	Mixed Use
14	Mtka. Blvd. / 101	Commercial	Mixed Use