

Chapter 4

Transportation

- Introduction
- Key Points
- History
- Existing Conditions
- Policy Plan
- Implementation Plan



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Key Points



The functionality and effectiveness of the transportation system is largely determined by the Future Land Use Plan.



Safety is of utmost importance, and transportation improvements that resolve outstanding safety issues will be prioritized.



The City's Pavement Management Program will evolve into a more comprehensive Infrastructure Renewal Program (IRP) in the coming years. This will shift the City's focus from reconstruction of roadways to preservation and maintenance.



Golden Valley will adapt streets to accommodate bicycle and pedestrian infrastructure. Complete reconstruction is the most cost effective way to complete this work, but some bicycle and pedestrian facilities can be built during pavement rehabilitation projects or as part of redevelopment projects.



PHOTO BY CITY OF GOLDEN VALLEY

Section 1: Introduction

To provide for safe, multi-modal transportation facilities that offer adequate capacity with a high level of mobility, the City must adopt and implement a transportation improvement plan that corresponds to the overall Comprehensive Plan. Golden Valley's transportation plan was developed to provide guidance over the next 10 years based on needs anticipated through 2040. It assesses all modes

of transportation, including streets and highways, trails and sidewalks, transit facilities, and airport accessibility, and it expresses the location, limits, function, and capacity of all transportation facilities in Golden Valley. The plan also recognizes the changing travel needs of its residents, commuters, visitors, commercial transporters, pedestrians, and cyclists making trips through the community.





PHOTO FROM CITY OF GOLDEN VALLEY ARCHIVES

Section 2: History

The earliest routes through Golden Valley were muddy roads used by horses and wagons. Watertown Rd (now Golden Valley Rd) was often impassable in the spring. It connected Watertown in Carver County with St Anthony and wound to avoid swamps, hills, and homes. In 1912, the Electric Luce Line railroad was built through the village and was the only form of public transportation available, though there was no depot and waiting passengers had to flag down the train. Several other railroad lines were built around the turn of the century to accommodate freight shipments.

The original date of construction of Hwy 12 is unknown, but records show it was widened to 20 feet in 1920. The road that eventually became Hwy 55 was constructed in 1922. Hwy 100 was graveled and graded by the county in 1932 and became known as the Belt Line, or Lilac Way, due to the number of lilacs planted along it. Hwy 169 was established as major route in the 1930s.

In the 1940s, a planning and zoning framework established the location of commercial properties along major streets and industrial properties near railways. Residential streets were planned to accommodate hills and valleys, resulting in sweeping curves. Golden Valley developed rapidly in the 1950s, 1960s, and 1970s.

In 1987, construction began to upgrade Hwy 12 to I-394, Hwy 100 was upgraded to a freeway system, and improvements were made to Hwy 169 and Hwy 55. In the 1990s, the City began reconstructing local streets as they reached the end of their life span.

Personal automobiles have been the predominant mode of transportation for most of Golden Valley's history. Most Golden Valley residents drive alone to work, and that has not changed in 25 years or more. This is typical for suburban communities with robust roadway networks, but has the likelihood of decreasing between today and 2040.





PHOTO BY CITY OF GOLDEN VALLEY

Section 3: Existing Conditions

Roadway System

Functional Classification

Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. A basic premise in examining a community's functional classification system is that individual streets and highways do not function independently—most travel involves movement through a network of roadways.

This travel demand is served by a logical and efficient hierarchy of roadways within the transportation network. Functional classification defines the role any particular street or highway plays in serving the flow of trips through the network. Golden Valley has four functional classifications of streets and highways: principal arterials, minor arterials, collectors, and local streets (see Figure 4.1).

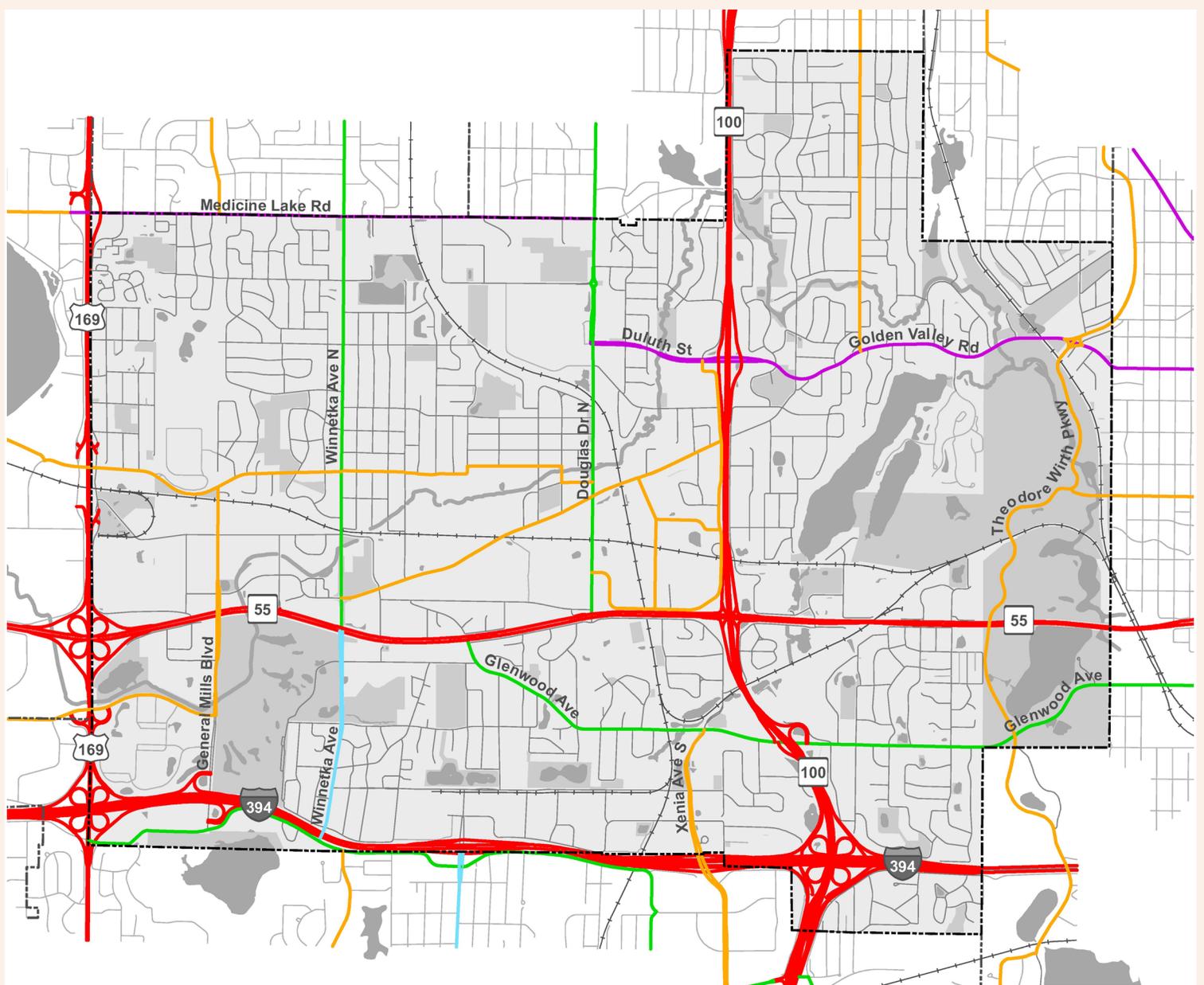
Principal Arterials

Urban principal arterial roadways carry the highest traffic volumes and serve the majority of trips entering or leaving Golden Valley. They typically connect regional business districts, employment centers, and residential districts. They are also high-speed facilities (posted speed limits up to 60 mph) that serve primary bus transit routes and generally have controlled or restricted access. Golden Valley has approximately 14.5 miles of principal arterial roadways, which include I-394, Hwy 169, Hwy 100, and Hwy 55. While principal arterials are crucial assets to the capacity and mobility of the transportation system, they can create significant connectivity barriers for the bicycle and pedestrian network.

Minor Arterials (Relievers And Augmenters)

Minor arterial roadways accommodate trips of moderate length at a somewhat lower level of travel mobility than principal arterials. They also carry lower traffic volumes and place more emphasis

Figure 4.1: Functional Classification System



Existing Functional Classification

- | | | |
|---|---|--|
| <p>Principal Arterial
 Regional freeways and expressways</p> <p>A-Minor Reliever
 Relieves congestion on parallel Principal Arterials</p> | <p>A-Minor Augmenter
 Supplement to the Principal Arterial system in densely developed areas</p> <p>B-Minor Arterial
 Classification no longer used</p> | <p>Collector
 Connect major traffic generators, job centers and neighborhoods</p> <p>Local
 Access within commercial and residential neighborhoods</p> |
|---|---|--|



Sources: Hennepin County Surveyors Office for Property Lines (2017), City of Golden Valley for all other layers (2017).

on land access. These roadways are suitable for bus transit routes but ideally do not penetrate local neighborhoods. Posted speed limits are around 30 to 50 mph.

The Metropolitan Council has further refined minor arterial roadways with a series of additional classifications that define their purpose and function. “A” minor arterials are classified as relievers, augmenters, expanders, and connectors. Golden Valley has approximately 11.4 miles of minor arterials. This includes relievers such as Winnetka Ave, Glenwood Ave, Douglas Dr, Xenia Ave, and General Mills Blvd. It also includes augmenters such as Duluth St and part of Golden Valley Rd.

Collectors

Collector roadways provide a balance between land access and mobility that moves local street traffic to and from the arterial roadway system. Collectors can support retail or other commercial establishments and may carry relatively high traffic volumes. Golden Valley has approximately 11.7 miles of collector streets, including Laurel Ave, Plymouth Ave, Country Club Dr, Theodore Wirth Parkway, Noble Ave, Zane Ave, parts of Golden Valley Rd, and several others.

The Metropolitan Council’s functional classification system includes major collector and minor collector definitions; however, minor collectors are not recognized as regional facilities in urban-

ized cities such as Golden Valley. It is proposed that only one collector classification be used in Golden Valley and that all collectors be equivalent to major collectors as defined by Metropolitan Council.

Local Streets

All other public and private streets in Golden Valley are classified as local streets. Local streets provide the highest level of direct access and therefore carry the lowest traffic volumes at the lowest speeds. Golden Valley has approximately 90 miles of local streets that provide private property access in low-density residential areas.

Traffic Volumes And Capacity Analysis

The capacity of a roadway is a measure of its ability to accommodate a certain volume of moving vehicles. Factors affecting capacity include traffic volumes, roadway geometric conditions (such as number of lanes and traffic controls), and vehicle characteristics. Table 4.1 summarizes the capacity for different roadway types based on the Highway Capacity Manual and the regional travel demand forecast model. The degree of congestion is measured in terms of Level of Service (LOS), which can range from A (free flow, no delay) to F (excessive congestion and delay). More detail is provided in Appendix 4.

Table 4.1: Generalized Average Daily Traffic Thresholds By LOS

Facility Type	Number of Lanes	LOS B	LOS C	LOS D	LOS E	LOS F	Capacity
Metered Interstate Freeway	8	95,600	1110,000	125,000	140,000	154,000	147,000
	6	71,500	82,500	93,500	105,000	116,000	110,000
Unmetered Interstate Freeway	4	47,500	54,800	62,100	69,400	76,700	73,000
	6	64,400	73,300	84,200	94,100	104,000	99,000
Expressway	4	42,900	49,500	56,100	62,700	69,300	66,000
	6	40,300	46,500	52,700	58,900	65,100	62,000
Divided Arterial	4	26,700	30,800	34,900	39,000	43,100	41,000
	6	31,200	36,000	40,800	45,600	50,400	48,000
Undivided Arterial	4	20,800	24,000	27,200	30,400	33,600	32,000
	2	10,400	12,000	13,600	15,200	16,800	16,000
Collector	6	27,300	31,500	35,700	39,900	44,100	42,000
	4	18,200	21,000	23,800	26,600	29,400	28,000
V/C Ratio	2	9,100	10,500	11,900	13,300	14,700	14,000
	4	12,400	14,300	16,200	18,100	20,000	19,000
	2	5,900	6,800	7,700	8,600	9,500	9,000

Estimated based on freeway daily capacity in HCM and hourly capacity in the Metro Council Activity Based Model (ABM). City of Golden Valley is designated as developed area type in the Metropolitan Council’s System



PHOTO BY CITY OF GOLDEN VALLEY

Westbound Hwy 55 is more congested during the evening peak travel time.

Table 4.1 also illustrates the LOS categories and approximate volume-to-capacity (V/C) ratio for each facility type. A planning-level congestion analysis was performed for the existing roadways based on the daily traffic demand and roadway capacity.

Figure 4.2 illustrates the most current traffic volumes and capacity documented for roadways in the city. Capacity issues are evident on the freeway and expressway systems that pass through Golden Valley. Hwy 169 is severely congested, and the effects of regional traffic demand growth are evident at the intersecting arterial corridors of I-394 and Hwy 55. Long-term congestion on the freeway system causes motorists to look for alternative routes using Golden Valley's minor arterial and collector roadway system. Daily morning peak period (also called rush hour) capacity issues are evident at locations such as eastbound Hwy 55 at Boone Ave, Winnetka Ave, and Douglas Dr, where traffic demand results in delays for all users.

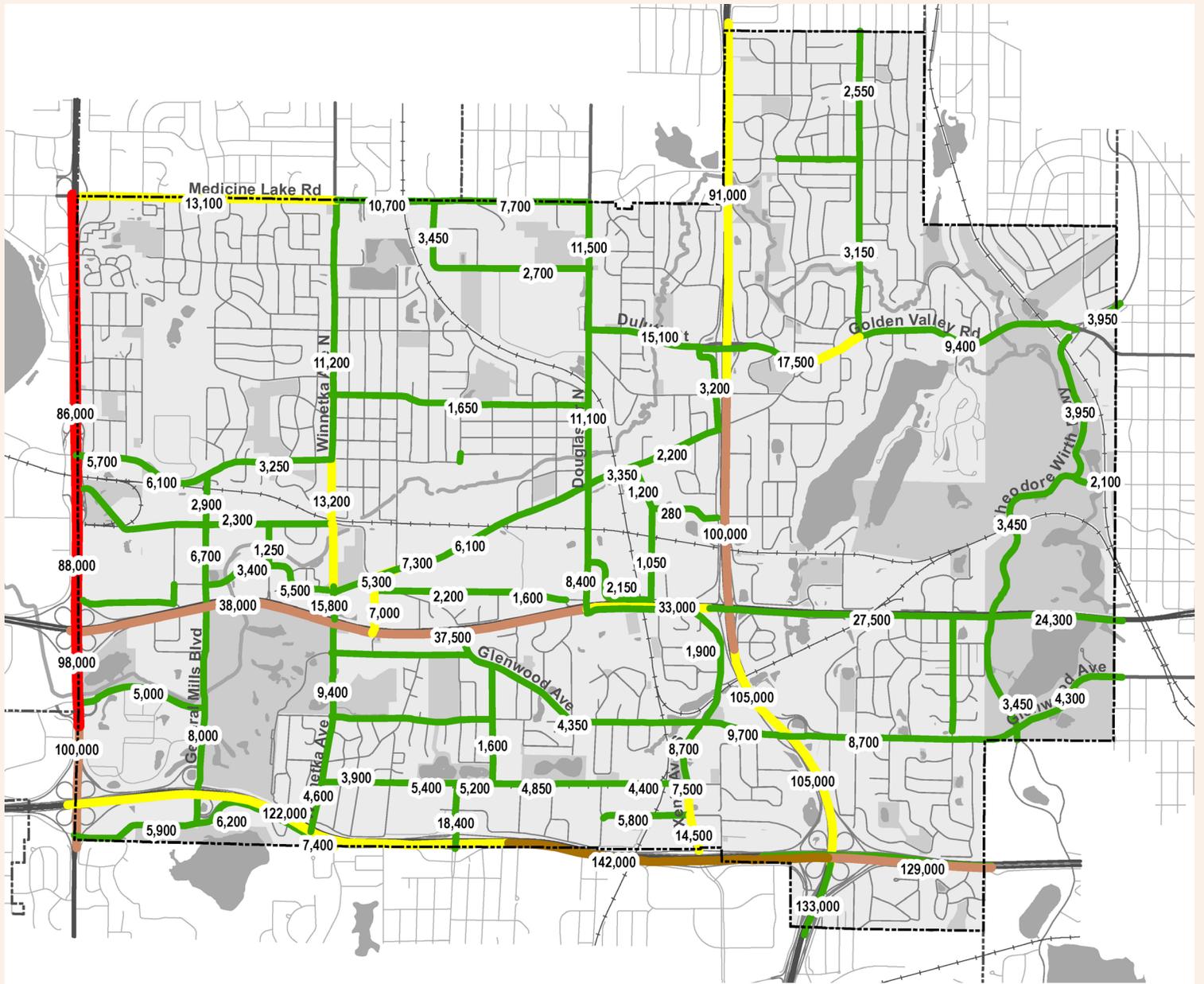
Collector routes are subjected to overflow traffic demands during peak periods. An example of this is Medicine Lake Rd and Mendelssohn Ave, which serves as an alternative to Hwy 169 during congested periods. Another example is Wayzata Blvd between Hwy 100 and Theodore Wirth Parkway, which is used as an alternative to I-394. These are intended to serve a combination of local and longer trips, but freeway congestion periodically causes an undue level of regional trips being served on the local system. Added demand on the local roadway system results in issues related to access management, intersection control, street continuity and connectivity, and neighborhood livability.

Traffic Forecast Analysis

The City conducted an analysis of future travel conditions based on population growth and anticipated development patterns using the Metropolitan Council's travel demand model from the 2040 Transportation Policy Plan (TPP). The travel demand model allocates population and employment data to individual geographic Transportation Analysis Zones (TAZs) based on the 2040 Future Land Use Plan (see Appendix 4 for detailed results). Based on this analysis, Figure 4.3 shows the projected levels of daily traffic and congestion in 2040. The following findings were compiled as a result of the forecasting exercise and based on comparison of 2015 and 2040 Metropolitan Council travel demand models:

- Approximately 235,000 vehicle trips originate or terminate within Golden Valley on an average day.
- Trips that begin or end in Golden Valley are expected to increase by 8 percent by 2040.
- For trips served by all roads in Golden Valley, approximately 37 percent originate or terminate in the city and 63 percent pass through without stopping.
- Regional routes through Golden Valley will experience greater travel demand increases than local routes.
- During peak periods, if regional routes cannot serve the demand volumes, excess demand will spill over onto local roadways.
- Since capacity issues will continue to be a challenge on principal arterials, the City will continue to pursue and support

Figure 4.2: Existing Roadway Daily Traffic And Congestion Levels



Level of Service

- LOS A or B
- LOS C
- LOS D
- LOS E
- LOS F

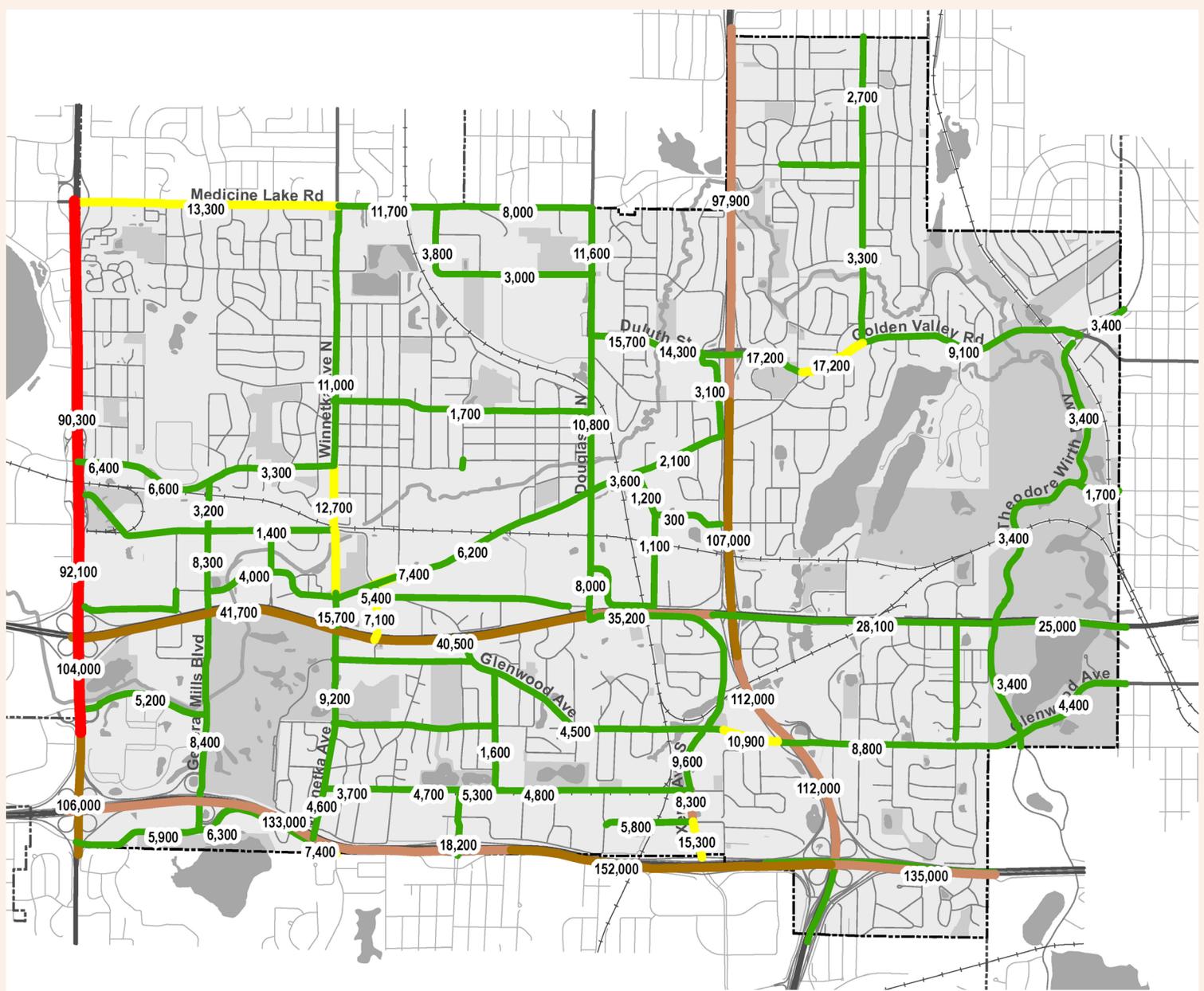
X,XXX Existing AADT



NOTE: Daily capacities for roadways are estimated based on the number of lanes and functional class in the original Regional Model.

Sources: Hennepin County Surveyors Office for Property Lines (2017), City of Golden Valley for all other layers (2017).

Figure 4.3: Projected 2040 Daily Traffic And Congestion Levels



Level of Service

- LOS A or B
- LOS C
- LOS D
- LOS E
- LOS F

X,XXX 2040 AADT

NOTE: Daily capacities for roadways are estimated based on the number of lanes and functional class in the original Regional Model.



Sources: Hennepin County Surveyors Office for Property Lines (2017), City of Golden Valley for all other layers (2017).

regional transit projects and travel demand management strategies for these corridors.

- The Future Land Use Plan accommodates development densities around transit that is consistent with the Metropolitan Council's Transportation Policy Plan (2040 TPP).
- No further adjustments to the Future Land Use Plan are necessary to maintain adequate capacity of the roadway system; however, the review process for individual developments will continue to be necessary to address site-specific impacts to traffic safety, accessibility, and capacity.

Traffic Impact Management And Mobility

Golden Valley will continue to support and promote regional roadway capacity improvements on congested principal arterial corridors that impact traffic flow on parallel minor arterial and collector routes. Hwy 169 demonstrates the highest level of need for improvement due to the closely spaced interchanges at I-394, Betty Crocker Dr, and Hwy 55. Congestion in this corridor results in driver delay and higher crash rates. The Metropolitan Council, MnDOT, and Scott County addressed this need and provided a conceptual design solution with the Hwy 169 Mobility Study, which also identified improvement concepts that add MnPASS and Bus Rapid Transit (BRT) facilities in the corridor. Correction of the interchange spacing issues may have impacts on accessibility to adjacent land uses, such as General Mills in the northeast quadrant of I-394 and Hwy 169. Golden Valley will continue to support intersection capacity and safety improvement

projects on arterial and collector routes in the city, such as along Hwy 55 at Boone Ave, Winnetka Ave, and Douglas Dr. These projects are typically administered through a cooperative agreement with MnDOT and/or Hennepin County and can be locally led.

Mobility issues in Golden Valley relate to the balance that must occur to preserve the character of the community's established neighborhoods with new investments and redevelopment projects in the community. Opportunities for new commercial and residential development present increasing demands on the existing transportation system and need to be carefully monitored to assess impacts and the need for potential mitigation.

Proposed development in Golden Valley is reviewed to identify potential traffic impacts that may occur. Site access locations are examined for safety and capacity issues. Development proposals that may cause significant traffic impacts are required to submit a traffic impact analysis. If the City determines the traffic impact on the surrounding transportation network will be significant, it may ask the applicant to include specific improvements with the development.

In addition, local trips in the community should be accommodated on an efficient system of minor arterial and collector streets to reduce the number of local trips adding to congestion on the freeway system. It should be a priority to provide attractive transit facilities and services where they are needed most. Enhancing the pedestrian and bicycle network will also improve mobility in the community.

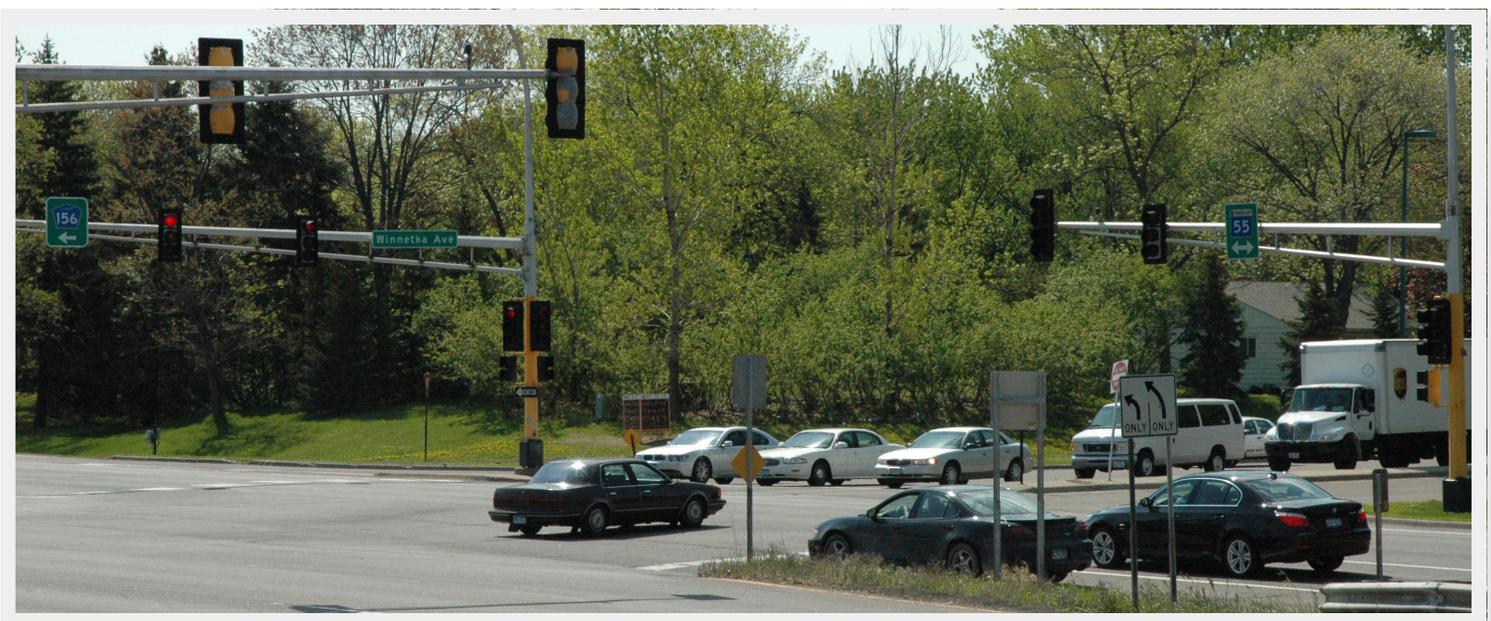


PHOTO BY CITY OF GOLDEN VALLEY

Hwy 55 and Winnetka Ave intersection



PHOTO BY CITY OF GOLDEN VALLEY

The Medicine Lake Rd/Douglas Dr intersection was redesigned for improved safety.

Safety Analysis

Safety issues are also noted primarily on the freeway and expressway routes that pass through Golden Valley. Substandard interchange ramp design and spacing on Hwy 169 at Betty Crocker Dr, for example, leads to vehicle weaving issues, congestion, and crashes. In addition, there are several examples of roadway design issues, particularly at intersections along Hwy 55 and minor arterials, where delay and congestion issues contribute to the frequency of crashes.

The Safety Analysis Map in Figure 4.4 presents the locations and frequencies of crashes throughout Golden Valley, using crash rates calculated for each intersection that experienced five or more crashes. The crash rate represents the number of crashes that occurred for every million entering vehicles. It can then be compared to the statewide average rate for intersections that operate with the same type of traffic control. The critical crash rate is a statistical value unique to each intersection and based on vehicular exposure

and the statewide average crash rate for similar intersections. An intersection with a crash rate above the critical rates indicates a sustained crash problem. The intersections in crash map are color-coded to indicate whether the average crash rate is exceeded or whether the critical rate has been exceeded.

Intersections with crash rates higher than their critical rates or the average rate for similar intersections should be reviewed to determine causal contributing factors. Intersections that have had crashes involving pedestrians or bicycles should be reviewed for opportunities to improve contributing conditions. Problem locations will be monitored and further evaluated as deemed appropriate by City staff. Intersection geometric changes and/or traffic control changes can often be identified to reduce the frequency of, or possibly the severity of, crashes that will occur in the future. Opportunities to improve intersection safety are routinely reviewed as part of larger corridor construction or reconstruction projects.

As shown in Figure 4.4, the following four intersections have historical crash rates that exceed their critical rates:

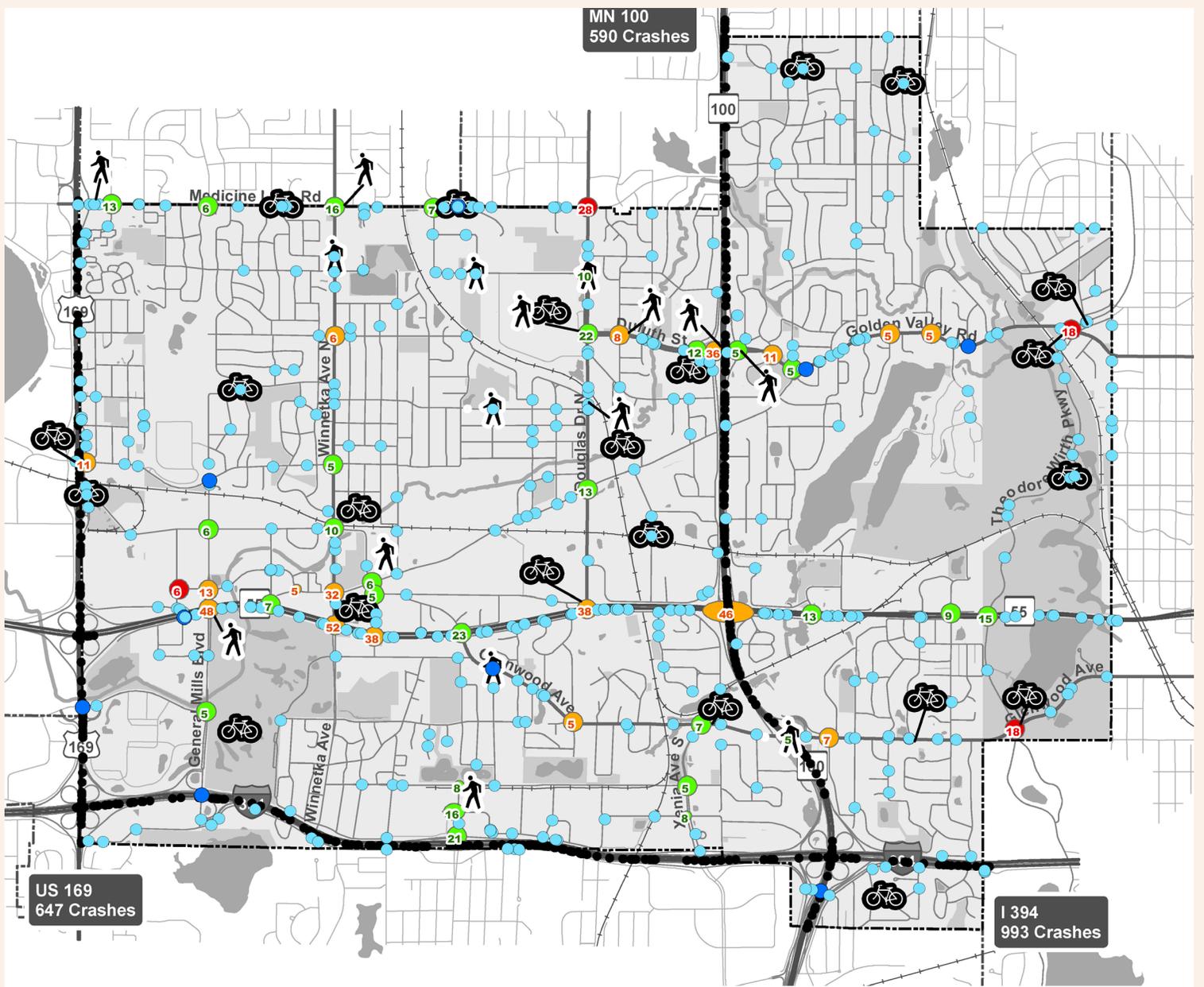
Medicine Lake Rd And Douglas Dr

Safety improvements at this intersection were recently made with the Douglas Dr reconstruction project. Before reconstruction, the eastbound to southbound right turn movement was served by a “free right” turn lane. The old geometry put the right turning driver in a disadvantaged position to look for gaps in the southbound traffic stream. Drivers would often choose inadequate gaps then suddenly stop, making them vulnerable to rear end collisions by following vehicles. The 2016 reconstruction project corrected this issue by eliminating the free right turn lane. Crash frequency should be monitored to determine if any additional treatment is warranted.

Golden Valley Rd And Theodore Wirth Parkway

The intersection operates as a multi-lane intersection controlled by an all-way stop with channelized free right turn lanes. This creates uncertainty for drivers regarding who should turn next in the sequence of arrivals from multiple approaches and lanes, resulting in conflicts and crashes. Pedestrians and bicyclists frequently use the intersection, and at least one crash at the intersection involved a bicycle. As part of the METRO Blue Line Extension project, the intersection will be reconstructed to operate under signalized control with revised lane geometry. While this will resolve the current conflicts, traffic signals will create other types of conflicts, such as rear-end collisions. After the traffic signal is constructed, the intersection should be periodically monitored to determine effectiveness and safety in case additional corrective measures are prudent to serve motorized and non-motorized users.

Figure 4.4: Safety Analysis Map



Crash Location

Number of Occurrences

- 1 - 2 Crashes
- 3 - 4 Crashes
- Crashes on US 169, I 394, MN 100



Bicycle Crash
(25 City-wide Crashes
2011 - 2015)



Pedestrian Crash
(16 City-wide Crashes
2011 - 2015)

- 5 or more crashes
Below Average Crash Rate*
Below Critical Crash Rate **
- 5 or more crashes
Above Average Crash Rate*
Below Critical Crash Rate **
- 5 or more crashes
Above Average Crash Rate*
Above Critical Crash Rate **

* Average crash rate for intersections of similar traffic control

** Critical crash rate indicates a substantial safety issue



Sources: Hennepin County Surveyors Office for Property Lines (2017), City of Golden Valley for all other layers (2017).

Theodore Wirth Parkway And Glenwood Ave

Glenwood Ave is a commuting route to and from downtown Minneapolis. This intersection operates as an all-way stop and serves motorized and non-motorized recreational traffic along the parkway. The mix of user types may contribute to unexpected intersection conflicts. Glenwood Ave is a county road and Theodore Wirth Parkway is managed by the Minneapolis Park and Recreation Board. A thorough review of operating conditions and user behavior should be performed to determine causal factors and identify potential safety treatments.

Decatur Ave And 7th Ave

The intersection of 7th Ave and Decatur Ave forms a T intersection. There is a stop sign for drivers on 7th Ave, and Decatur Ave operates without traffic control. A thorough review of operating conditions and user behavior should be performed to determine causal factors and identify potential safety or traffic control treatments.

Access Management

Key transportation corridors are important to the overall flow and ease of travel in and through Golden Valley. Principal arterials, minor arterials, and collector streets function best with proper access spacing. Golden Valley will continue to observe MnDOT’s guidelines for access spacing (see Table 4.2). Minor arterial roadways in Golden Valley observe more permissive access and traffic signal standards than principal arterial roadways, with one-quarter mile access and signal spacing considered acceptable. For collector roadways, acceptable access spacing is one-eighth mile and traffic signal spacing is one-quarter mile.

Access management along principal arterial corridors is essential in maintaining the ease of flow and speed continuity. Ramp metering is used along I-394, Hwy 169, and Hwy 100 to manage entering

traffic. Access points along these corridors have been consolidated over time, and all access points are controlled and allowed only at interchanges. Hwy 55 has traffic signals at all full access points and partial access at other intersections.

Corridors in Golden Valley that need additional access management considerations include Hwy 169, Hwy 55, Douglas Dr, Winnetka Ave, Golden Valley Rd, and Noble Ave. These corridors were fully developed before the adoption of access management standards, and most of the accessibility issues have been addressed with minor improvements over time.

Major improvements, such as Hwy 169’s inadequate interchange spacing between Hwy 55, Betty Crocker Dr, and I-394, as well as other intersections that present safety and congestion problems related to excessive access, remain as unmet needs.

When opportunities occur for redevelopment in Golden Valley’s commercial districts, driveway entrances to commercial and industrial properties are carefully monitored, realigned, and reduced when possible to better manage property access. Considerations include driveway spacing, truck and delivery traffic needs, trip generation, and peak hour turning movement characteristics. In addition, as sidewalks and trails are retrofitted on minor arterial and collector corridors, accessibility concerns for pedestrians and bicyclists are considered.

Pavement Management And Infrastructure Renewal Program

Golden Valley’s Pavement Management Program (PMP) is an ongoing systematic method for improving local roadways to provide a safe, efficient, high-quality transportation system in a long-term cost effective manner. Funding for the PMP integrates City resources,

Table 4.2: Access And Signal Spacing Guidelines

Functional Classification	MnDOT Access Category and Subcategory	Intersection Spacing		Signal Spacing	Example Corridors in Golden Valley
		Primary Full Movement Intersection	Conditional Secondary Intersection		
Principal Arterials (Expressways)	Category: 4 Subcategory: B	1/2 mile	1/4 mile	1/2 mile	Hwy 55
Principal Arterials (Freeways)	Category: 4 Subcategory: B	1 mile interchange		N/A	I-394, Hwy 169, Hwy 100
Minor Arterials	Category: 5 Subcategory: B	1/4 mile	1/8 mile	1/4 mile	Douglas Dr, Winnetka Ave N
Collectors	Category: 6 Subcategory: B	1/8 mile	N/A	1/4 mile	Golden Valley Rd, Noble Ave



PHOTO BY ANNA SILVERMAN, 2006 VIEWS OF THE VALLEY

Since the PMP began in 1995, the City has reconstructed 105 miles of roadway to current standards.

special assessments, and Municipal State Aid (MSA). As part of the program, the City evaluates the sanitary sewer, water, and stormwater systems under each street and completes the highest priority repairs or replacements as part of the project. In addition, the City considers integrating intersection safety, sidewalk and trail, water quality, or other needed improvements. Since the PMP began in 1995, the City has reconstructed 105 miles of roadway to current standards.

Street pavement deterioration is caused by many factors, including the freeze/thaw cycle, traffic volume and loading, the effects of moisture, and the quality of the soils beneath the street. As pavement deteriorates, certain types of distresses occur (potholes, settling, rutting, and cracking). These distresses indicate what type of maintenance or rehabilitation is needed to prolong the lifespan of a street in a cost-effective manner. The investments made during the PMP program will last through 2040 with proactive and continual maintenance; however, increasing precipitation and freeze/thaw cycles may impact the resilience of the investment over time. Golden Valley is in the process of implementing a plan for long-term maintenance costs.

When the PMP transitions into the Infrastructure Renewal Program (IRP) in 2022, the City will shift its focus to preserving its roadways and will increase its reinvestment in aging underground utilities and other related public assets. The IRP will be a continuous process for maintaining and rehabilitating the City's infrastructure.

Right-Of-Way Preservation And Character

The transportation system is comprised of 1,478 acres of right-of-way, which is approximately 22 percent of the total land in the Golden Valley. The majority of this right-of-way is owned by the City, but right-of-way is also owned by MnDOT, Hennepin County, and railroad companies. Right-of-way preservation is its coordinated control or protection for planned future transportation improvements. Right-of-way is also used for other public amenities, such as benches, public art, plazas, stormwater management, and special signage. Right-of-way preservation is often addressed in the context of corridor management, which coordinates land use planning and long-term visioning in important transportation corridors.

Preservation Benefits And Strategies

Right-of-way preservation provides numerous benefits to communities, taxpayers, and the public. It promotes orderly and predictable development, minimizes damage to existing homes and businesses, reduces the costs of acquiring right-of-way, and decreases adverse social, economic, and environmental impacts on people and communities.

There are many different techniques and strategies available to protect right-of-way for future transportation corridors. The basic approaches include:

- land acquisition (easement or title purchase, eminent domain)
- landowner agreements (development agreements, transferable development rights)
- land use regulations (development exactions, setback ordinances, official mapping, subdivision regulations)
- access management (limiting curb cuts, reverse lot frontage)

The applicability of these approaches is dependent on many factors, including available funding, immediacy of development, and timing of the need for the road improvements.



Public right-of-way at Winnetka Ave and Golden Valley Rd

Character

Since right-of-way comprises such a significant amount of land in the city and it is highly visible to the public, the character of the right-of-way is part of the entire community's character. Character is defined by the way a corridor looks and feels as well as the presence of special amenities. Examples of amenities include public art, informational displays, special signage, and benches.

The visual character of a corridor can be a reflection of the community's values. For example, the Douglas Dr reconstruction included green infrastructure, extensive landscaping, undergrounding of overhead utilities, ADA accessibility improvements, signage for Bassett Creek, sidewalks with benches, on-street bicycle lanes, and a multi-use trail. These improvements are a reflection of community values, which include sustainability, active living, and inclusivity of all populations. The City will continue to integrate community values and character into the right-of-way used for transportation purposes.

Advanced Telecommunications

Telecommunication (telecom) technologies are constantly evolving as private carriers are currently in the midst of next generation 5G implementation. As this system expands, it is anticipated there will be a need for smaller and more frequent facilities to locate in already crowded public rights-of-way. As a result, the City will track the progress of telecom technologies and determine if changes need to be made in its engineering design standards, zoning requirements, and/or permitting processes.

Freight

A safe, efficient, high-capacity freight transportation system is essential to the economic prosperity of Golden Valley. There are several industrial areas of the city that must accommodate truck traffic to move goods. Stores and restaurants must also be served by trucks. Manufacturing and warehouse facilities are generally located near the principal arterial and minor arterial roadway network with site accessibility from collector roadways. Some of the larger manufacturing operations that generate significant truck traffic include:

- Tennant Company on Lilac Dr north of Hwy 55, with access to Hwy 55 via Zane Ave, the Hwy 55 Frontage Rd, and Douglas Dr
- Honeywell on Douglas Dr, with access to Hwy 100 via Duluth St
- Lubrication Technologies, Inc on Mendelsohn, with access to Hwy 169 via the Plymouth Ave interchange

PHOTO BY CITY OF GOLDEN VALLEY



PHOTO BY CITY OF GOLDEN VALLEY

Truck mobility and access is critical to successful commerce in the city.

- General Mills James Ford Bell Tech Center on Plymouth Ave, with access to Hwy 169 at the Plymouth Ave interchange
- Liberty Carton on Louisiana Ave, with access to I-394 via the Louisiana Ave interchange

There are also several areas of the city with a concentration of industrial uses that generate truck traffic:

- North Wirth Business Park
- Nevada Ave and Sandburg Rd area, with access to Hwy 169 via Medicine Lake Rd
- Hwy 55 and Douglas Dr
- Zane Ave and Lindsey St area
- 10th Ave and Boone Ave area

The other primary type of goods movement in Golden Valley has to do with delivery of products to retail outlets. These areas include:

- Golden Valley Shopping Center, with access to Hwy 55 via Winnetka Ave
- Golden Valley Commons, with access to Hwy 55 via Winnetka Ave and Rhode Island Ave
- Golden Valley Town Square, with access to Hwy 55 via Winnetka Ave and Rhode Island Ave
- Spring Gate Shopping Center, with access to Hwy 100 via Duluth St and Lilac Dr N

- I-394 commercial area between Winnetka Ave and Xenia Ave, with access to I-394 via Xenia Ave and Louisiana Ave from Market St and Laurel Ave
- a concentration of commercial uses on Golden Valley Rd, with access to Hwy 55 via Decatur Ave, Boone Ave, and Wisconsin Ave
- a concentration of commercial uses on Wayzata Blvd S Frontage Rd between Hwy 169 and Winnetka Ave, with access to I-394 via General Mills Blvd

According to MnDOT, one of the top-ranking strategies to reduce congestion for trucks traveling in and through the Twin Cities is to provide design guidance to local governments for accommodating trucks on local roads. The guidance is intended to help local governments identify locations where land uses generate heavy truck movements, present unique traffic control needs, and demonstrate concerns for local street pavement and geometric design to accommodate heavy truck dimensions and weight. The guidance can be used to improve truck, motorist, and non-motorized vehicle safety and traffic flow.

Although all business owners and residents rely on the efficient movement of goods, freight movement is often regarded as incompatible with many land uses. The Future Land Use Plan aims to minimize these conflicts by separating large industrial and commercial uses from residential and institutional uses. Thoughtful site planning and site plan review for new developments is also



PHOTO BY GRETCHEN VAN ESS, 2015 VIEWS OF THE VALLEY

used to minimize conflicts. Railroads are not managed by local governments, but local governments must plan for the possibility of increased freight traffic in the future.

Railroads

Railroads accommodate the movement of freight through the community. The following railroad lines are active in Golden Valley:

- The Canadian Pacific (CP) Railway, formerly the Soo Line, operates a north–south line that has 12 local crossings and serves about four trains per day at speeds up to 25 mph. This line connects with other CP lines in Crystal and Savage. In addition, an east–west spur running parallel to Laurel Ave has five local crossings and serves up to two trains per week at speeds of 10 mph. A second spur passes near Breck School and through Theodore Wirth Regional Park on its way to Minneapolis.
- The Union Pacific (UP) Railroad operates an east–west line that runs parallel to Hwy 55 and terminates in Plymouth. It has 12 local street crossings and serves two trains per day at speeds up to 10 mph.
- The Burlington Northern Santa Fe (BNSF) Railway operates a line in the far eastern part of the city that serves two trains

per day at speeds up to 25 mph. The line begins in Minneapolis and terminates in Monticello, MN, and it has three grade-separated local roadway crossings.

The railroad industry nationwide is healthy because of the high energy costs related to the trucking industry. Railroad operations in Golden Valley will remain active through 2040. However, significant changes in train traffic are not expected because the rail lines provide local rather than long distance service. The City will continue to advocate for sharing the railroad right-of-way with other transportation uses like transit and multi-use bicycle and pedestrian trails.

Emerging Transportation Technologies

Technologies that apply to transportation and traffic management are evolving rapidly and have the ability to make major impacts to transportation and land use planning decisions. The City will monitor these trends for influences that may have impact on the public. The City will also continue to work with its agency partners to seek opportunities to embrace technologies that may be beneficial. Changes to land use and transportation policies and practices may be necessary to adapt to these emerging technologies.

Autonomous Vehicles

An autonomous vehicle (also known as a driverless vehicle, self-driving vehicle, or robotic vehicle) is capable of sensing its environment and navigating without human input. Many such systems are evolving, and several pilot projects have been initiated throughout the country.

Autonomous cars use a system of technologies. The first system is for general navigation; a GPS system provides accurate location of a road and the overall direction of the vehicle. The second is a system of sensors, radars, or cameras to recognize dynamic conditions (other roadway users, stopped cars, road construction, bikers, pedestrians, etc). The third system aggregates all of the data collected from the mix of navigation sensors to provide action for the autonomous vehicle. Further technologies are under development that will allow vehicles and other objects to “speak” to one another, which will significantly enhance safety and operations.

A number of direct transportation benefits could arise from the use of autonomous vehicles including, but not limited to, reduced congestion or increased mobility, improved safety for all roadway users (vehicles, bicyclists, pedestrians), and lower infrastructure costs. Other benefits may include lower insurance costs, lower fuel consumption, less need for parking, and enhanced mobility of youth, disabled, low-income, and/or elderly populations.

Among the main obstacles to widespread development are technological challenges, government regulations, funding, liability, replacement of existing vehicles, and security. As autonomous vehicle technology continues to evolve and gain acceptance and use, the City will follow and evaluate the potential of such vehicles and its implications to regulations and design requirements.

Drones

Drones, or Unmanned Aerial Vehicles (UAVs), have become smaller, more powerful, and less expensive. As a result, they have become much more common. The Federal Aviation Administration (FAA) predicts the number of drones will grow from approximately 2.5 million in 2017 to more than 8 million by 2020. It is anticipated that over the next 20 years, an increasing number of drones will carry out services hundreds of feet above our roadways.

Cities will need to plan for activities not just on the ground but also in the air. Several issues surround the use of drones, including safety, noise, nuisances, personal intrusion, and privacy. The City will need to account for their legal limits and restrictions (land use and zoning powers) and have a solid

understanding of its role in protecting the public realm by possibly designating when and where drones can operate.

Complete Streets

The City has a long history of supporting the Complete Streets philosophy, which promotes streets that are safe and convenient for all users, including pedestrians, bicyclists, transit riders, and motor vehicle drivers of all ages and abilities. The National Complete Streets Coalition notes there is no singular design prescription for Complete Streets, but a design will likely include sidewalks, bike lanes, comfortable and accessible transit stops, safe crossings, narrower travel lanes, roundabouts, and more.

The designs encourage street connectivity and aim to create a comprehensive, integrated, and connected network for all modes. The City will continue demonstrating its support for Complete Streets by incorporating its principles and design options into all transportation plans and policies.

Transit System

Metro Transit currently operates many bus routes along Golden Valley’s principal and minor arterial routes. Bus service is more frequent during the morning and evening peak commute times. Figure 4.5 illustrates current transit system routes, stops, and support facilities in Golden Valley.

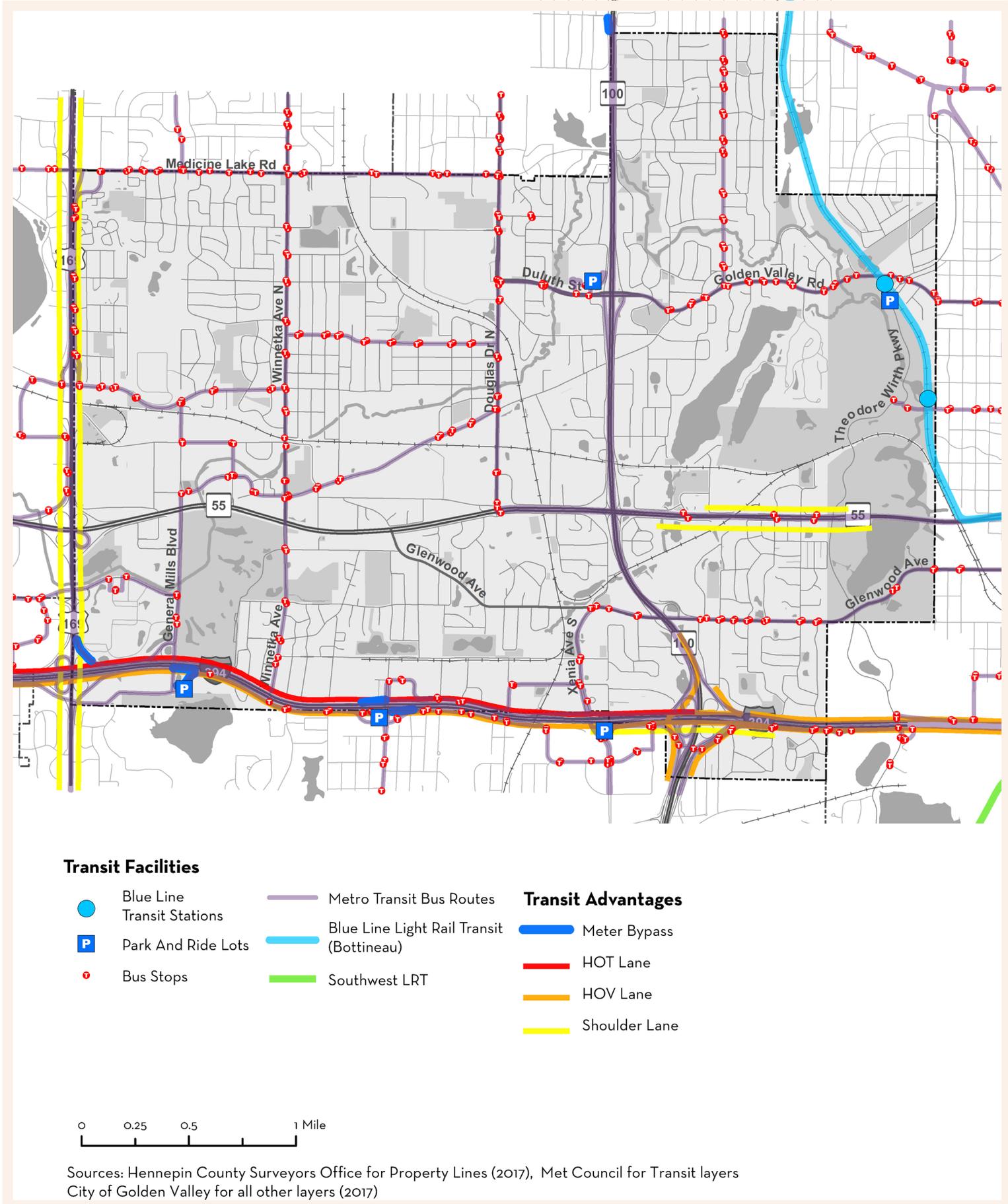
Golden Valley supports increased frequency of transit service and bringing service to areas not currently served. The City will



PHOTO BY CITY OF GOLDEN VALLEY

Metro Transit operates a park and ride on Wayzata Blvd near General Mills Blvd

Figure 4.5: Transit System Map



work with transit providers to identify potential future service options and facilities consistent with the Metropolitan Council's Transportation Policy Plan (TPP) and the applicable Transit Market Areas.

Most of Golden Valley is located in Metropolitan Council's Transit Market Area III. This area is defined as typically having moderate-density development but tending to have a less traditional street grid that can limit the effectiveness of transit. Transit service in Market Area III is primarily commuter express bus service with some fixed-route local service providing basic coverage.

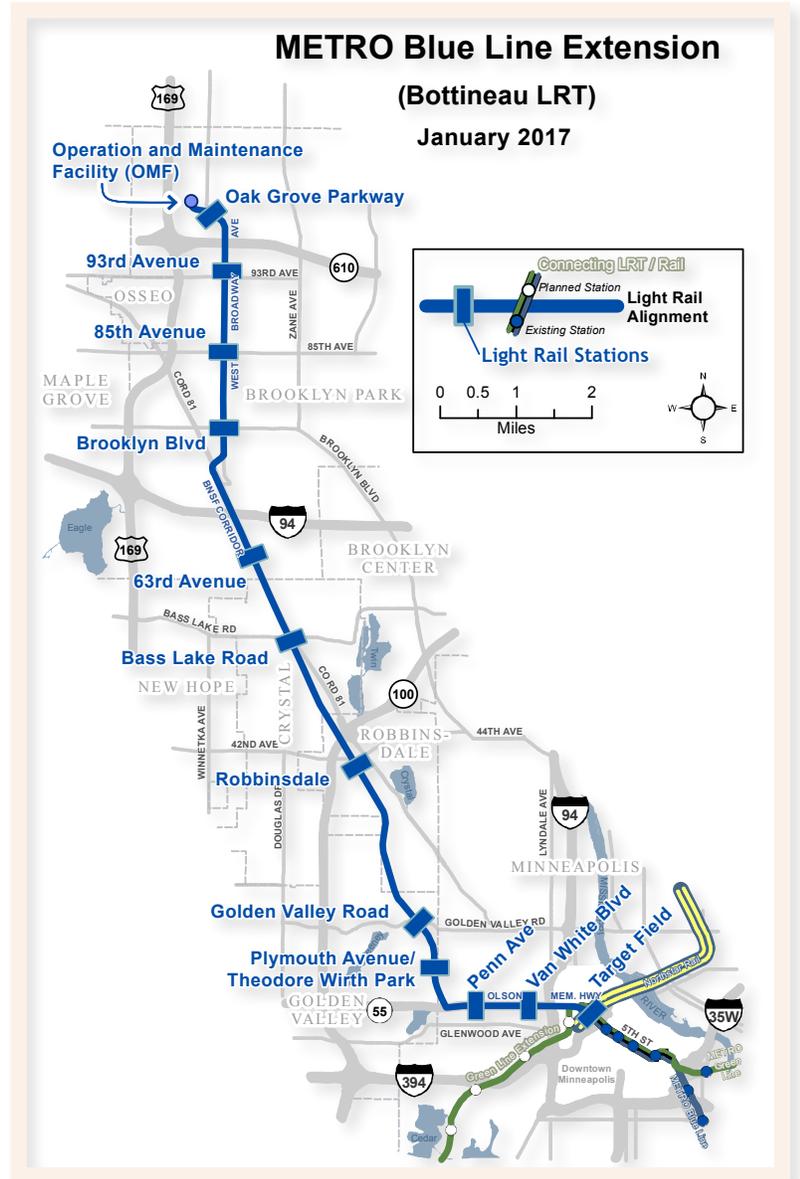
Service options for Market Area III include regular-route local service, commuter express service, special needs paratransit (for senior citizens and compliant with the Americans with Disabilities Act), and ridesharing through the Ridematch and Vanpool programs.

Passenger and support facility improvement needs should be continuously monitored. This includes shelters, transit stations, and park-and-ride lots. Metro Transit operates two park and ride facilities in Golden Valley. The one at Wayzata Blvd and General Mills Blvd is served by several bus routes, and its 123 parking spaces are 95 percent filled on an average weekday. The one along Duluth St just west of Hwy 100 is served by two bus routes and has 50 parking spaces. Although it is well used, the actual percentage of lot capacity used is unclear because it is a shared use lot.

Unique transit needs in the community are presented by populations housed in group quarters and facilities that offer specialty care services for temporarily or permanently disabled populations, such as patients at the Courage Kenny Rehabilitation Center. Their varied needs are typically met by specialized paratransit providers that offer express or demand-response services, such as the Metro Mobility program administered by the Metropolitan Council. Transit Link is the Twin Cities dial-a-ride small bus service for areas where regular route transit service is not available. Transit Link is for trips that cannot be accomplished on regular transit routes alone and may require a combination of regular route and Transit Link service.

The City will continue to advocate for additional transit options and the enhancement of existing services to ensure community members have safe, affordable, and practical transit options. This requires collaboration with regional transit providers as well as advocacy for stable, long-term transit funding from state and federal sources.

Figure 4.6: METRO Blue Line Extension



METRO Blue Line Extension

The Blue Line Extension is a dedicated light rail transit (LRT) corridor that will extend from downtown Minneapolis to northern Brooklyn Park. Formerly known as the Bottineau LRT, the line will be an extension of the existing Blue Line (Hiawatha LRT) into the northwest suburbs. The line will travel out of downtown Minneapolis, through Golden Valley along the Burlington Northern Santa Fe Railroad Corridor, then into Robbinsdale, Crystal, and Brooklyn Park, where it will end north of Hwy 610.

Two Blue Line Stations are planned in Golden Valley. The first will be at Plymouth Ave/Theodore Wirth Park and the second will be at Golden Valley Rd near the Theodore Wirth Parkway intersection (see Figure 4.6). The Plymouth Ave/Theodore Wirth Park

station will provide convenient access to Wirth Chalet and the amenities of the park. The Golden Valley Rd station will include a 90-space park-and-ride facility and will serve as a trailhead for bicycle and pedestrian routes that converge at the station. As part of the project, a new grade-separated trail connection will be built to the west of the existing rail corridor to connect Theodore Wirth Park with Sochacki Park.

Enhanced Metro Transit bus service is planned to support ridership at the Golden Valley Rd station. While bicycle racks will be present at both stations, additional racks will be included at the Golden Valley Rd station. The feasibility of a City circulator or other shared mobility option will continue to be explored.

Construction is anticipated to begin in 2020, with fare service beginning in 2024. To accommodate light rail, three bridges in Golden Valley will need to be reconstructed on Plymouth Ave, Theodore Wirth Parkway, and Golden Valley Rd. In addition, the intersection of Golden Valley Rd and Theodore Wirth Parkway will be rebuilt to include a traffic signal and bicycle and pedestrian improvements.

Transit-Supportive Land Use Planning

The City acknowledges the link between transit and land use planning. The areas surrounding the Golden Valley Rd station and Plymouth Ave/Theodore Wirth Park station are located in Metropolitan Council’s Transit Market Area II. This area is defined as typically having high to moderately high population and employment densities that can support fixed-route transit such as light rail. The Land Use Chapter of the 2040 Comprehensive Plan includes policies that support future growth around transit stations consistent with Metropolitan Council policies in regards to Land Use and Local Planning, found in Chapter 3 of the 2040 Transportation Policy Plan.

The City will focus redevelopment efforts near high-frequency transit service and implement transit-oriented development policies in these areas. In addition, the City will educate residents about the relationship between development density and transit. Lastly, the improvements identified in the Bicycle and Pedestrian Plan will increase accessibility to the transit stations.

Hwy 55 Bus Rapid Transit

MnDOT, Scott County, and Metro Transit completed the Hwy 169 Mobility Study in 2018. It assessed opportunities for improved mobility and safety along the Hwy 169 corridor from Shakopee to downtown Minneapolis. The study included consideration of MnPASS highway travel express lanes along Hwy 169, and Bus Rapid Transit (BRT) along the entire length of the study area. Routing options along Hwy 55 and I-394 were also considered for BRT. Figure 4.7 shows the study’s recommendation for the optimized scenario, which includes a BRT route on Hwy 55 with stations at General Mills Blvd, Winnetka Ave, Douglas Dr, and Theodore Wirth Parkway.

Figure 4.7: Highway 169 Mobility Study Optimized Scenario

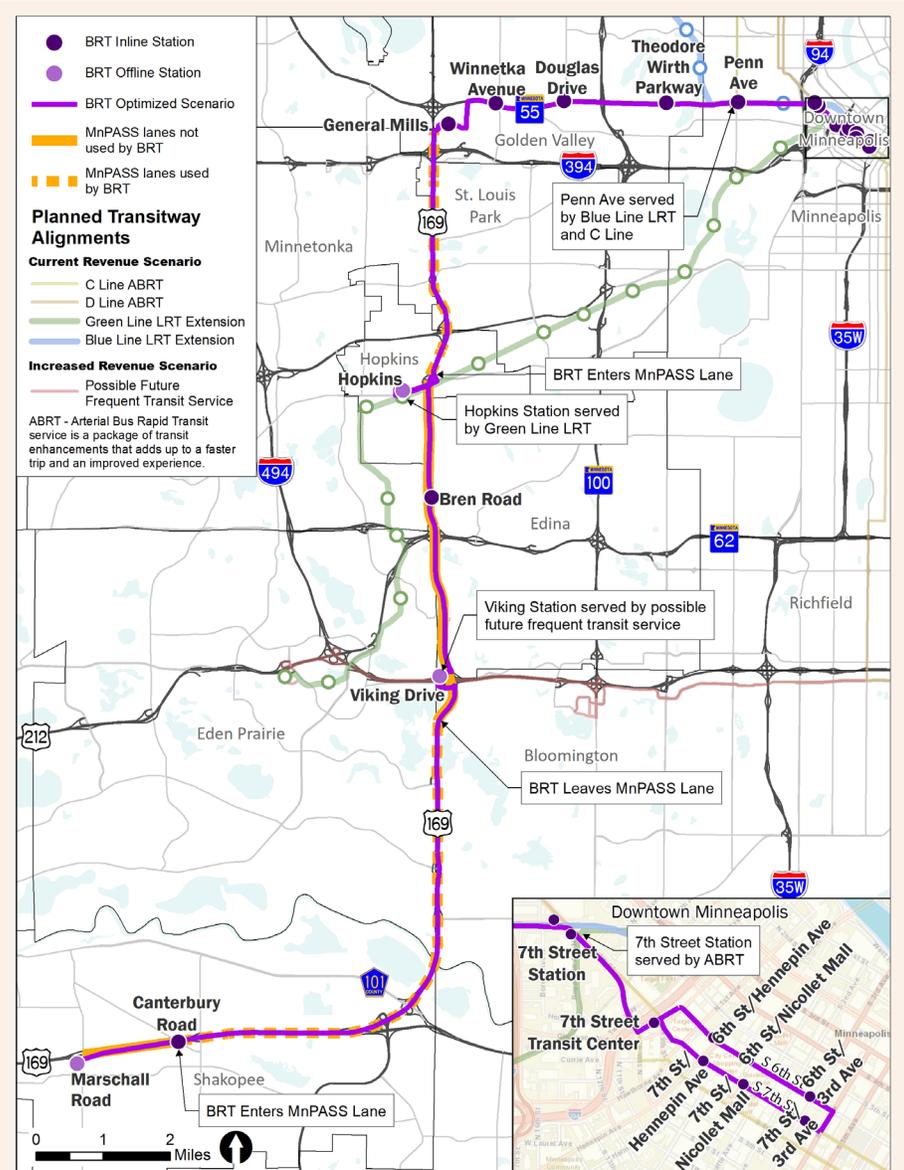




PHOTO BY MRS JOHN OLINGER, 1996 VIEWS OF THE VALLEY

Because of the community's support for frequent, high-quality transit service on Hwy 55, the City took an active role in this transit study. The project is included as part of an Increased Revenue Scenario in the 2018 update to the Metropolitan Council's 2040 Transportation Policy Plan (TPP), which is required in order to receive federal and regional funding for implementation. The City supports the inclusion of this corridor in the TPP and will continue to support further planning and design of the Hwy 55 BRT option in coming years.

Golden Valley's Future Land Use Plan supports increased transit options and provides opportunities for redevelopment in the downtown area of Golden Valley as well as along Douglas Dr, both of which intersect potential stations for future BRT. Additional environmental, operations, and design studies are needed to further develop the project.

In conjunction with the implementation of BRT on Hwy 55 and MnPASS lanes on Hwy 169, the study also identified the need for safety and mobility improvements on Hwy 169 at the Hwy 55, Betty Crocker Dr, and I-394 interchanges. Identifying federal, state, regional, and county funding for this project will be a priority for the City.

Bicycle And Pedestrian Network

Golden Valley has 54.3 miles of local sidewalks and trails. There are also 12.8 miles of regional trails and 5.4 miles of on-street bicycle lanes in Golden Valley. These facilities are for non-motorized vehicle and pedestrian use. Some sidewalks are denoted

for pedestrian only use. Many local sidewalks and trails connect to the Minneapolis Park and Recreation Board's (MPRB) trails in Theodore Wirth Regional Park and Three Rivers Park District regional trails in the community.

Hennepin County has also identified a series of corridors appropriate for additional on-street and off-street bikeway facilities in Golden Valley. Community members have expressed a strong interest for additional pedestrian and bicycle facilities that are comfortable and safe for users of all ages and abilities. The City has a long history of implementing these types of facilities and will continue to prioritize this work in the future.

Local Network

Paved local sidewalks, on-street bike lanes, and multi-use trails are located on local streets, minor arterial, and collector roadways. They provide connections to the community's parks and recreation areas, local businesses, schools, and regional trails. See Figure 4.8 for the location of local sidewalks and trails.

Regional Network

Regional bicycle and pedestrian trails provide commuting and recreational opportunities for residents, employees, and visitors. There are three off-street, multi-use regional trails in Golden Valley:

- Theodore Wirth Regional Trail runs north-south through Theodore Wirth Regional Park and is maintained by the Minneapolis Park and Recreation Board.

- The Bassett Creek Regional Trail connects to a pedestrian bridge over Hwy 100 adjacent to Unity Ave near Briarwood Nature Area, then connects west and north to the trail system in Bassett Creek Park and adjacent residential neighborhoods in Crystal and French Regional Park in Plymouth. The eastern portion will be constructed in the coming years, primarily on Golden Valley Rd from Regent Ave to Theodore Wirth Parkway. The trail is maintained by Three Rivers Park District, which also maintains the Luce Line Regional Trail.
- The Luce Line Regional Trail runs east–west and enters the city at Hwy 169. It runs through the center of the Golden Valley before terminating at Theodore Wirth Regional Trail.

Bicycle And Pedestrian Plan

In 2016, the City established a Bicycle and Pedestrian Planning Task Force to assist in planning for additional bicycle and pedestrian facilities in the community. The Task Force evaluated input from the community and provided additional direction on City priorities, which were incorporated into the Policy Plan of this chapter. The planning process resulted in a map (see Figure 4.8) of recommended routes and intersection improvements (see Appendix 4 for a detailed list) and identified funding sources and potential partnerships with other agencies.



PHOTO BY CITY OF GOLDEN VALLEY

The hello! Apartments provide multiple bike racks for tenants.

Bicycle Route Improvements

Since most of the roadways in Golden Valley have been reconstructed in the last 25 years, reconstruction is not expected again on most roadways for several decades. During reconstruction, the City has the opportunity to build sidewalks, multi-use trails, or protected bike lanes at a fraction of the cost of stand-alone projects. It is more cost-effective to complete many of these bicycle and pedestrian improvements at that time. In the meantime, City staff will implement improvements that balance the space and cost constraints on current roadways. Sidewalks, multi-use trails, and protected bike lanes will be implemented as financial resources become available or redevelopment opportunities arise.

Bicycle routes with wayfinding signage as well as on-street bicycle lanes can be constructed with mill and overlay projects, which occur in a shorter time frame than road reconstruction. Signs can be erected on these routes as a routine maintenance activity. The City divides its maintenance program into five geographic zones. Each year, staff will implement the signed bicycle routes and on-street bicycle lanes identified within that zone.

Through 2040, City improvements to the bicycle network will focus on:

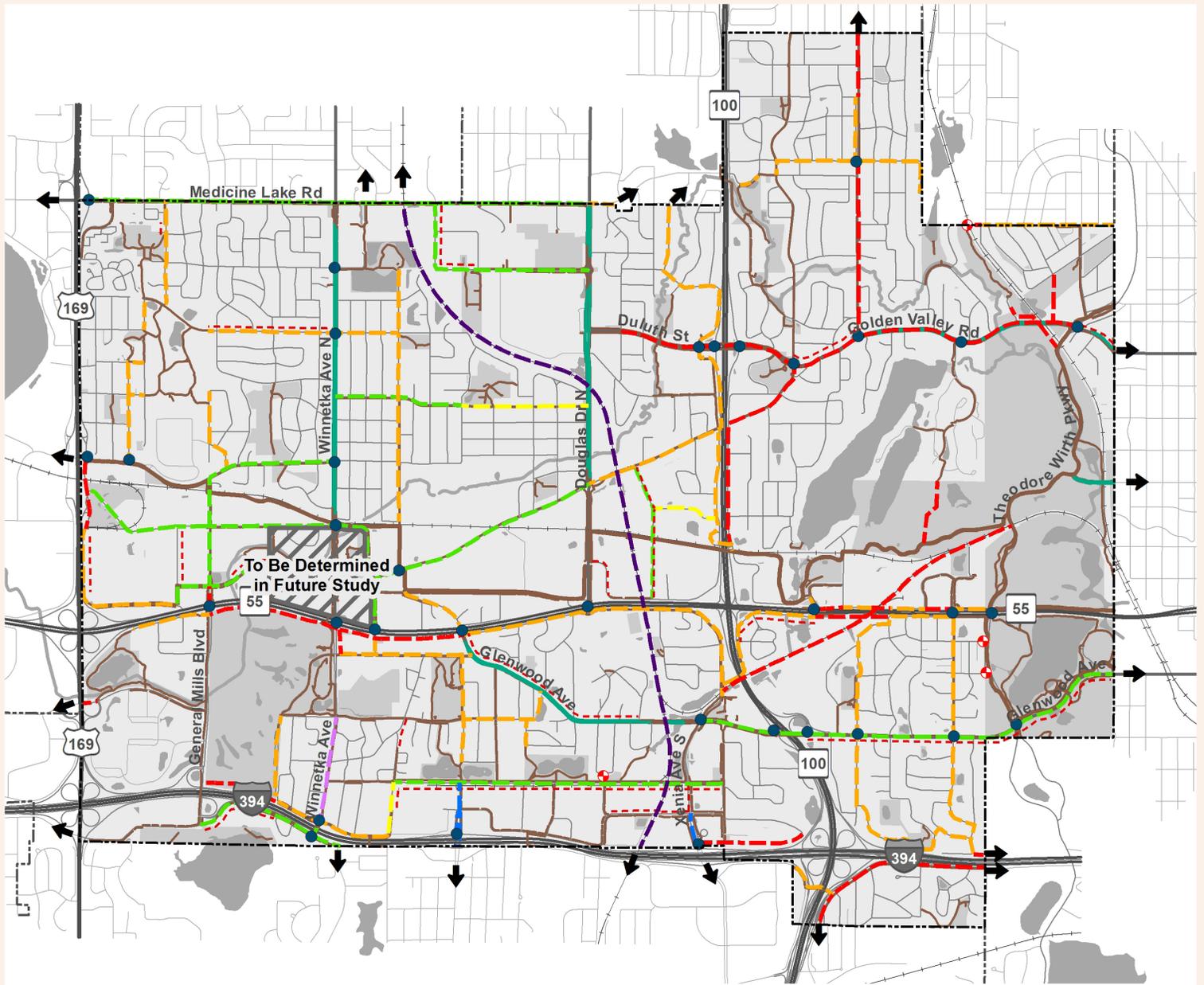
- constructing new routes to destinations such as Brookview, Blue Line light rail stations, schools, parks and nature areas, downtown, retail centers, senior housing developments, healthcare facilities, and the West End
- prioritizing the implementation of north–south routes in the network to improve connectivity
- maximizing comfort and safety for bicyclists by applying industry best practices for bicycle facility design and providing a clear separation between bicyclists and vehicle traffic
- identifying and removing safety challenges for bicyclists at intersections, particularly on principal arterial roadways like Hwy 55
- installing bicycle racks throughout the community

Pedestrian Route Improvements

The City has focused on implementing pedestrian routes for several decades. Nearly all major roadways in Golden Valley have a sidewalk or trail on at least one side. Through 2040, the City will focus on the following improvements for the pedestrian network:

- filling important gaps in the existing sidewalk network
- prioritizing the enhancement of crossings and intersections for pedestrian safety and comfort

Figure 4.8: Bicycle And Pedestrian Network



Bicycle & Pedestrian Network

Existing

- Regional Trail
- Local Trail or Sidewalk
- On-Street Bike Lane

Proposed

- Protected Bikeway
- Bike Lane
- Enhanced Sharrow
- Signed Bike Route

- Multi-Use Trail
- Regional Multi-Use Trail
- Facility Type TBD
- Sidewalk

- Connection to Trail System in Adjacent City
- Intersection for Potential Crossing Treatments
- Multi-Use Trail Connection
- Future Study Area



Sources: Hennepin County Surveyors Office for Property Lines (2017), City of Golden Valley for all other layers (2018).

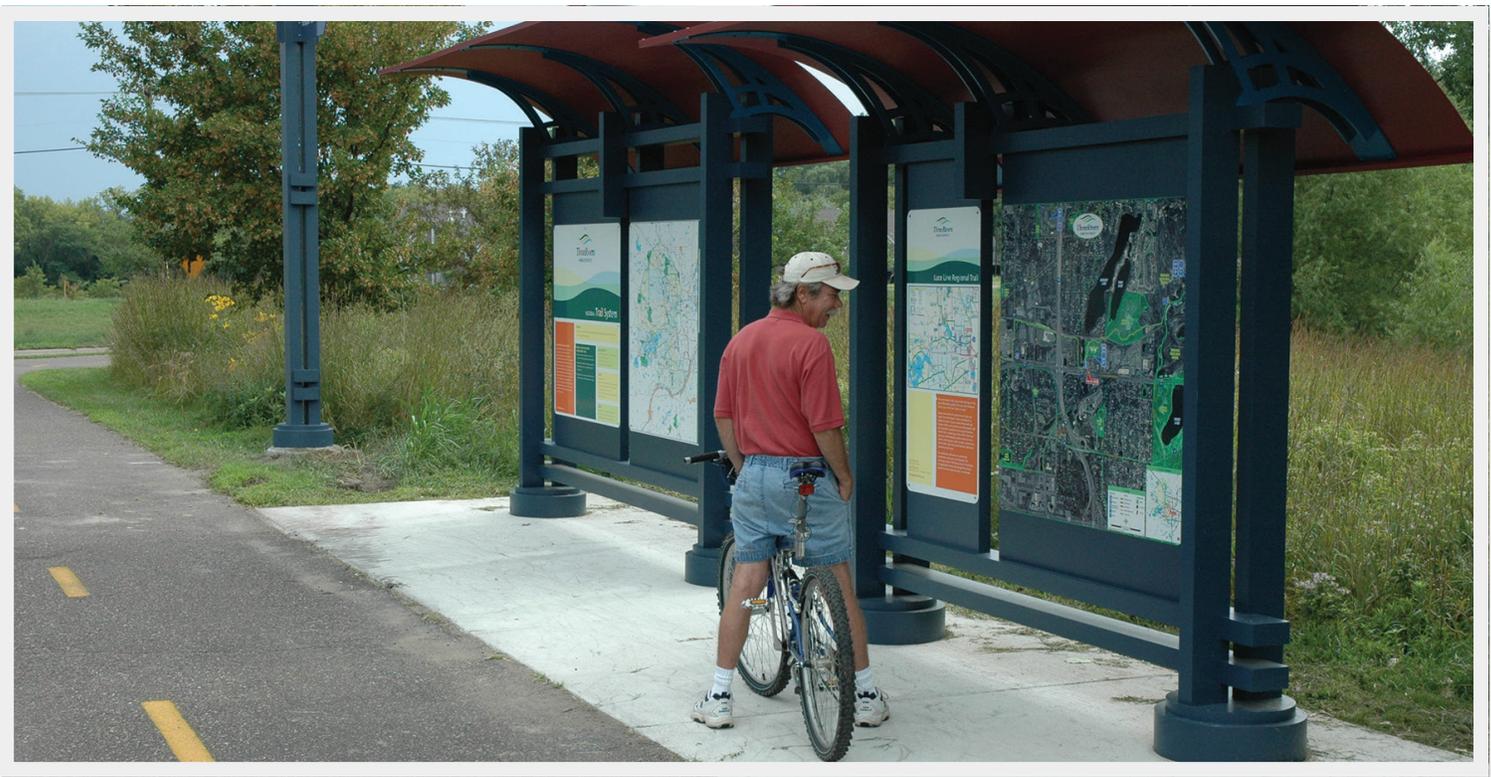


PHOTO BY CITY OF GOLDEN VALLEY

The Luce Line Regional Trail runs through Golden Valley.

- continuing to bring existing facilities into compliance with the standards established by the Americans With Disabilities Act
- continuing to conduct regularly scheduled maintenance on existing pedestrian facilities
- exploring options for improving winter maintenance (snow removal) of existing and future facilities

Implementation

Implementation of bicycle and pedestrian network improvements will occur as opportunities arise and financial resources become available. Exact timing of implementation will depend on funding, staff time, grant funding, and opportunities to partner with other organizations and property owners.

It is important that City staff evaluate the assumptions made when this plan was created and update the plan as assumptions change. These assumptions include cost estimates, local financial resources, grant funding programs, future population and employment growth projections, the City's Future Land Use Plan, existing technologies and best practices, community and City Council input on goals and priorities, existing roadway classifications, rate of accidents involving bicyclists or pedestrians, destinations within the community, and other factors that affect timing, cost, and prioritization.

Aviation Facilities

No airports, heliports, or seaplane operations are currently located in or planned for Golden Valley. Although there are no airport facilities in Golden Valley, the community is located northwest of the Minneapolis–St Paul International Airport and south of the Crystal Airport, both of which are owned and operated by the Metropolitan Airports Commission (MAC). These airports each distribute air traffic over Golden Valley. The safety of the air traffic over Golden Valley is a concern for local officials, and protection of the airspace travel lanes is included as part of construction authorization.

The Federal Aviation Administration's (FAA) Federal Aviation Regulations require that any new construction planned to exceed 200 feet above ground level must be approved by the FAA as well as MnDOT. Such structures in Golden Valley are limited and include utility and telecommunications towers at scattered locations. The tallest structure in Golden Valley is a 400-foot communications tower owned and operated by Hennepin County. There are currently no commercial or residential buildings that exceed 200 feet.

The Minneapolis–St Paul International Airport (MSP) is the closest commercial airport that serves Golden Valley. One of two main runways at MSP distributes arriving and departing aircraft in airspace over Golden Valley. Depending on weather conditions and

the time of the year, air traffic over Golden Valley can exceed 400 commercial operations daily. Golden Valley's distance from MSP buffers it from being included in the MAC's 2007 noise policy area. Golden Valley is also outside the MAC's 2007 noise policy area for its reliever airport in Crystal.

Sub-Area Plans

Sub-area plans provide guidance for key redevelopment areas and other areas in need of improvements in the future.

Downtown West Planning District

Hwy 169 And Hwy 55 Interchange Area (NE Quadrant)

To serve changing land uses in the area, transportation improvements are programmed for a portion of the district between Mendelssohn Ave and Boone Ave along 7th Ave, Decatur Ave, and Golden Valley Rd. Changes will include street and sidewalks improvements plus a safety improvement at the right-in/right-out access to Decatur Ave from Hwy 55.

As redevelopment occurs in this area, the City will continue to require that site access points be safely located and configured. The City will also require that traffic impacts on the roadway network

be mitigated in recognition of existing capacity constraints at the Hwy 55/Boone Ave intersection as well as the proximity to the congested operating conditions along Hwy 169.

Winnetka Ave And Hwy 55 (SE Quadrant)

The City's Future Land Use Plan for this area indicates a change to medium density residential land use. Since Winnetka Ave south of Hwy 55 operates near its capacity and experiences congested flow in peak periods, land uses that do not contribute significant peak period traffic flow should be encouraged.

Access management guidelines should be observed and enforced to avoid impacts to traffic safety and flow. Direct access to Winnetka Ave should not be allowed; site access should be planned to Harold Ave or Rhode Island Ave. Traffic operations would benefit from the addition of a westbound right turn lane on Harold Ave approaching Winnetka Ave as well as the southerly extension of the northbound right lane on Winnetka Ave from Harold Ave to Hwy 55. Right-of-way dedication to accommodate these improvements along with bicycle and pedestrian improvements should be considered when site redevelopment occurs.

I-394 Corridor District

The City's Future Land Use Plan identifies retail, office, and mixed uses along the corridor generally between I-394 and Laurel Ave from Pennsylvania Ave to Hwy 100. Freeway access to this area is served by interchanges on I-394 at Louisiana Ave and Xenia Ave. Local roadway system performance is subject to monitoring and review, as defined in the I-394 Overlay District that applies to land uses in Golden Valley as well as in St Louis Park.

Xenia Ave Northwest Area

Many of the residential and office sites near Xenia Ave have been constructed or will soon be occupied. Roadway, sidewalk, and safety improvements will continue to be made as development of these parcels is completed. When significant occupancy is achieved, the City should monitor and assess traffic operations and safety in the Xenia Ave corridor to inform future potential infill development in the corridor.

Protected bikeway improvements over I-394 in the Xenia Ave/Park Pl corridor are identified in Golden Valley's and in St Louis Park's planned bicycle and pedestrian networks. The bikeway will enhance multi-modal opportunities between the West End development area south of the freeway and residential and employment centers in the Golden Hills area north of I-394. The two cities should collaborate on development of a concept plan and jointly pursue funding opportunities.



Westbound Hwy 55

PHOTO BY CITY OF GOLDEN VALLEY

Hwy 100/I-394 Interchange Area (SW Quadrant)

The West End shopping center's surrounding area is in Golden Valley and St Louis Park. High-density redevelopment is expected to continue. Traffic impacts related to the proposed Central Park West development have been studied, and several improvement needs were identified that affect traffic operations in Golden Valley (only some of which have been implemented). Specific elements yet to be constructed include traffic calming, safety and trail improvements on Wayzata Blvd between Quentin Ave and France Ave, I-394 eastbound entrance ramp capacity improvements to maximize capacity of the I-394/Hwy 100 interchange and collector-distributor roadway, and interconnection and coordination (timing plans) of traffic signals on Park Place Blvd and Xenia Ave.

Market Street Extension

Extension of Market St between Louisiana Ave and Pennsylvania Ave would provide improved access and circulation in the western end of the I-394 Corridor District. The extension should be considered if land use changes are proposed by adjacent owners.

Travel Demand Management Plans (TDMP)

The I-394 Overlay District regulations require that a TDMP be developed for sites that generate a significant number of daily or peak period trips. The scope of the TDMP for a given site will be prepared at the expense of the developer to the satisfaction of the Cities of Golden Valley and St Louis Park. TDMP requirements could include traffic capacity and safety mitigation through a variety of on-site or off-site management strategies.

Douglas Drive Corridor Planning District

Douglas Dr has been reconstructed from Hwy 55 to Medicine Lake Rd with improvements to safety, intersection control, sidewalks, and trails. While the larger corridor construction improvements have been made, additional improvements are desirable.

Hwy 55 And Douglas Dr

The intersection of Hwy 55 and Douglas Dr experiences congestion and safety problems, including operation issues on the south side of the intersection due to minimal separation between the frontage road and Hwy 55. Pedestrian crossings of Hwy 55 are also a concern. One example is the safety of students crossing from the north side transit stop to the Perpich Center for Arts Education School on the south side. An improvement concept has been identified and agreed upon by the City, Hennepin County, and MnDOT that creates a larger separation from Hwy 55 to the south frontage road and controls the frontage road intersection with a mini-roundabout. A pedestrian underpass would be included to provide safe crossing opportunities for pedestrians and students. The City will continue cooperative efforts with MnDOT and Hennepin County to fund the improvements.

Country Club Dr/Frontage Rd Extension

As part of the Douglas Dr project, direct access from Country Club Dr to Douglas Dr north of Hwy 55 was eliminated as a safety improvement. The access was realigned to operate as a right-in/right-out between Country Club Dr and Hwy 55. To improve local street connectivity, it is desirable to extend Country Club Dr north to join the existing signalized intersection of Douglas Dr and the



CenterPoint Energy's upgraded facility on Douglas Dr

PHOTO BY CITY OF GOLDEN VALLEY

North Hwy 55 Frontage Rd east of Douglas Dr. This would require acquisition of right-of-way from the currently vacant site in the northwest quadrant of Hwy 55 and Douglas Dr.

Other Sub-Areas

Hwy 169 From I-394 To Hwy 55

MnDOT, Scott County, and the Metropolitan Council completed the Hwy 169 Mobility Study in 2018. The study provided conceptual designs that improve safety and mobility on Hwy 169 at the Hwy 55, Betty Crocker Dr, and I-394 interchanges. These improvements can be made in preparation for the eventual construction of MnPASS lanes on Hwy 169 and BRT on Hwy 169 and Hwy 55. Identifying federal, state, regional, and county funding for this project will be a priority for the City. Golden Valley will continue to be cooperative and supportive of these study recommendations to resolve safety and capacity problems while simultaneously improving transit service in the city.

Golden Valley Rd Light Rail Transit Stop

The Metropolitan Council's Blue Line Light Rail Transit (LRT) project includes a transit station near the intersection of Golden Valley Rd and Theodore Wirth Parkway. It also includes plans for intersection improvements and a traffic signal to resolve existing safety issues at the intersection and more safely facilitate the increase in pedestrian and bicycle traffic. The City is planning for additional trail improvements along routes to and from the LRT station (see Bicycle and Pedestrian Plan) and will coordinate with Metro Transit to improve transit service along Golden Valley Rd to serve the new demand generated by the Blue Line Extension.

Hwy 100/Hwy 55 Interchange Area (NW Quadrant)

Land use changes are planned in this area to accommodate potential industrial expansion. Area roadways operate within their capacities today and are still expected to in 2040. So new problems are not created, the City should employ access planning and site layout guidelines as new land uses in this area are defined. Problems reported in the area due to existing uses include pedestrian crossing issues between existing industrial sites, on-street parking issues, driveway location issues, and truck access issues. Best practices for site design and access management should be followed to correct existing deficiencies and avoid new operational and safety issues on the streets.

Hwy 55 South Frontage Rd East Of Glenwood Ave

The intersection of Glenwood Ave and the Hwy 55 South Frontage Rd occurs immediately adjacent to the Glenwood

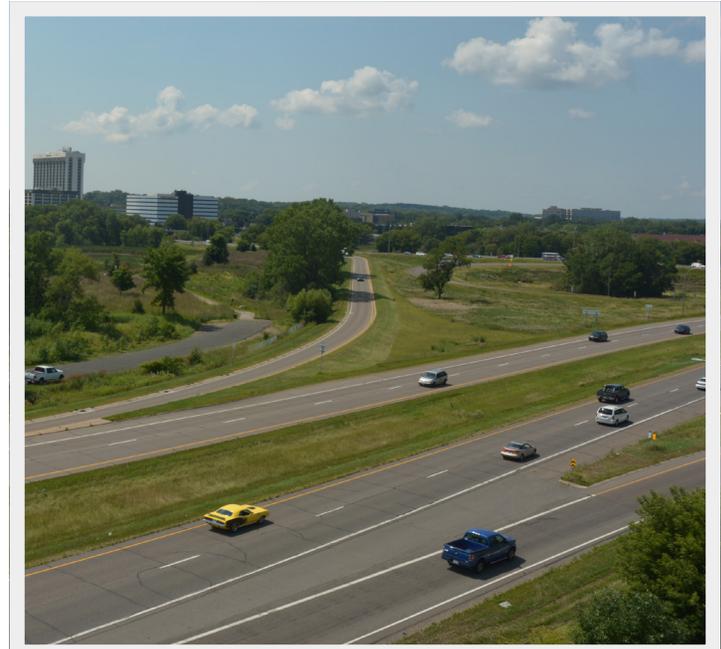


PHOTO BY CITY OF GOLDEN VALLEY

The Hwy 169 exit ramp to eastbound Hwy 55

Ave/Hwy 55 intersection. Access to and from the frontage road creates safety conflicts with vehicles approaching Hwy 55 from the south or waiting to be served by the traffic signal. Closing frontage road access to Glenwood Ave would create a street served by access only from the east. A cul-de-sac would allow turn-around maneuvers by passenger vehicles, delivery trucks, school buses, and street maintenance trucks. Dedication of right-of-way for the cul-de-sac should be considered if adjacent residential lots are subdivided.

Glenwood Ave And Ottawa Ave

The Breck School campus is located north of Glenwood Ave, with primary site access provided from Ottawa Ave. School arrival and dismissal activity creates traffic congestion in both directions along Glenwood Ave, especially between Ottawa Ave and the Hwy 100 ramp intersections. The school employs Golden Valley Community Service Officers to routinely perform intersection traffic control at the Ottawa Ave intersection and at the easterly Hwy 100 ramp intersection on school days. Resolution of the congestion problem without the need for traffic control officers will require roadway capacity and intersection control improvements. If expansion of the school site or enrollment increases are considered, the roadway capacity and traffic control improvements should be made.





PHOTO BY GREG LARSON, 2010 VIEWS OF THE VALLEY

Section 4: Policy Plan

The Policy Plan includes a set of long-term goals and objectives that will be fulfilled through specific actions and policy decisions. This long-range document expresses the values of the community and establishes a vision. It provides direction and guidance for the future of the City in terms of policy making, improvements, programs, investments,

priorities, and work plans. It can be used for decision-making purposes by elected officials, commissions, boards, staff, and other interested members of the community. The Policy Plan is updated every 10 years based on new data and community feedback as required by Minnesota law.

GOAL 1

Preserve And Enhance The Transportation System

Protect the public investment in transportation infrastructure through regular maintenance and management. Construct new facilities to standards that minimize maintenance and environmental impacts.

Objectives

1. Proactively maintain the existing transportation system by making scheduled improvements to replace worn or obsolete components
 - 1.1 Employ cost-effective maintenance practices to maximize the lifespan of city infrastructure
 - 1.2 Continue the Pavement Management Program (PMP) to reconstruct and maintain facilities following best practices that manage lifecycle costs and minimize environmental impact
 - 1.3 Transition to the Infrastructure Renewal Program (IRP) to preserve, maintain, and rehabilitate infrastructure
 - 1.4 Encourage the state legislature to provide stable, long-term roadway funding for capital improvements and maintenance
2. Enhance the transportation system with environmentally sustainable project design to the extent practical to minimize the impacts of the transportation system on the environment
 - 2.1 Reduce impervious surface in public right-of-way to the extent feasible
 - 2.2 Incorporate green infrastructure that enhances water quality and reduces stormwater runoff in transportation infrastructure to the extent possible
3. Enhance the transportation system in a way that is inclusive of all populations and their needs
 - 3.1 Address the unique transportation needs of an aging population
 - 3.2 Continue to make improvements to existing infrastructure that comply with the Americans With Disabilities Act
 - 3.3 Ensure that all residents and employees have safe and cost-effective travel options
4. Preserve the existing transportation network through right-of-way preservation and acquisition
 - 4.1 Continue to use zoning and subdivision regulations to preserve right-of-way
 - 4.2 Employ right-of-way preservation strategies that proactively limit the need for acquisition at a future date
 - 4.3 Acquire additional right-of-way when necessary while minimizing impacts to existing residences and businesses



PHOTO BY VAIKE RADAMUS, 2005 VIEWS OF THE VALLEY



Improve The Functionality And Safety Of The Roadway Network

Improve mobility for efficient movement of people and goods on the local and regional roadway network. Improve safety for motorized and non-motorized traffic.

Objectives

1. Increase safety by reducing crashes on the roadway network, especially at intersections
 - 1.1 Prioritize improvements that eliminate known safety issues within the network
 - 1.2 Make traffic more compatible with lower speed bicycling and walking on local streets by employing traffic calming measures
 - 1.3 Implement intersection improvements that reduce vehicle crashes involving bicycles and pedestrians
 - 1.4 Provide strategic enforcement of traffic laws in targeted areas where repeated violations occur
 - 1.5 Coordinate with other agencies to study opportunities for roadway safety improvements on Hwy 169
2. Balance the need for mobility and accessibility in the roadway network
 - 2.1 Provide access to the local street system in a manner that balances safety and efficiency with the need for access to land
 - 2.2 Minimize and consolidate driveway entrances as opportunities arise and discourage driveway entrances along arterial roadways
3. Incorporate new technologies and innovative best practices into transportation project design, planning, and asset management
 - 3.1 Increase the operational efficiency of the roadway network with advanced traffic operation technologies
 - 3.2 Continue to explore and incorporate new and emerging technologies to construct, rehabilitate, maintain, and manage public assets and infrastructure in an efficient, cost-effective manner
 - 3.3 Monitor potential impacts on the transportation system that may arise with emerging vehicle technologies, such as automated and connected vehicles
 - 3.4 Plan, design, and maintain infrastructure to accommodate emerging vehicle technology, most notably automated and connected vehicles
4. Use Travel Demand Management (TDM) practices and land use planning principles to reduce congestion and increase mobility
 - 4.1 Implement a transportation system that supports the Future Land Use Plan
 - 4.2 Require development proposals with potential for significant traffic impacts to prepare a traffic impact study or TDM plan and make improvements that mitigate impacts determined in the study
 - 4.3 Encourage joint and shared parking, car sharing, ride sharing (car pools and vanpools), bicycle parking, and increased transit use
5. Accommodate the efficient movement of goods in the city while minimizing the impacts of freight traffic on adjacent land uses
 - 5.1 Maintain a network of truck routes that ensures the safe and efficient delivery of goods to businesses
 - 5.2 Direct truck traffic to a limited number of streets with the appropriate weight limits
 - 5.3 Continue to consolidate and cluster industrial land uses in the city
 - 5.4 Invest in safety improvements along viable railroad corridors as necessary



Expand The Bicycle And Pedestrian Network To Provide A Balanced System Of Transportation Alternatives

Expand sidewalk, multi-use trail, and on-street bicycle facilities to provide greater opportunity to choose alternative modes of travel. Improve existing non-motorized transportation infrastructure systems.

Objectives

1. Ensure that local and regional destinations are accessible by biking and walking
 - 1.1 Prioritize the construction of routes and intersection improvements near destinations such as Brookview, Blue Line light rail stations, schools, parks and nature areas, downtown, retail centers, senior housing developments, health-care facilities, and the West End
 - 1.2 Improve the bicycle and pedestrian environment in the downtown area to ensure it is a safe and enjoyable place to walk
 - 1.3 Encourage healthy lifestyles by creating loop routes that can be used for outdoor recreational purposes
 - 1.4 Continue to create and enforce standards for building placement and site design to create a pedestrian-friendly environment
2. Seek opportunities with other agencies and property owners to construct new bicycle and pedestrian routes, fill gaps in the network, make improvements to intersections, and provide bike-sharing opportunities
 - 2.1 Collaborate with other agencies to implement recommended improvements to the network
 - 2.2 Work with adjacent Cities to implement consistent facility treatments across municipal boundaries
 - 2.3 Apply for grant funding as projects become eligible, and pursue opportunities for funding through corporate sponsorships and redevelopment projects
 - 2.4 Request bond funding from the state legislature for large infrastructure projects that include bicycle and pedestrian facilities
3. Prioritize the implementation of primary north-south bicycle routes in the network
 - 3.1 Prioritize improvements to north-south connections to the Luce Line Regional Trail
 - 3.2 Prioritize improvements to the north-south crossings at Hwy 55 and I-394
4. Implement a multi-modal system that balances space and financial constraints
 - 4.1 Implement cost-effective bicycle facilities by using existing road width when roads are scheduled for pavement replacement
 - 4.2 Reevaluate facility options when roads are scheduled for reconstruction and build multi-use trails, buffered bikeways, or protected bikeways as well as sidewalks when feasible

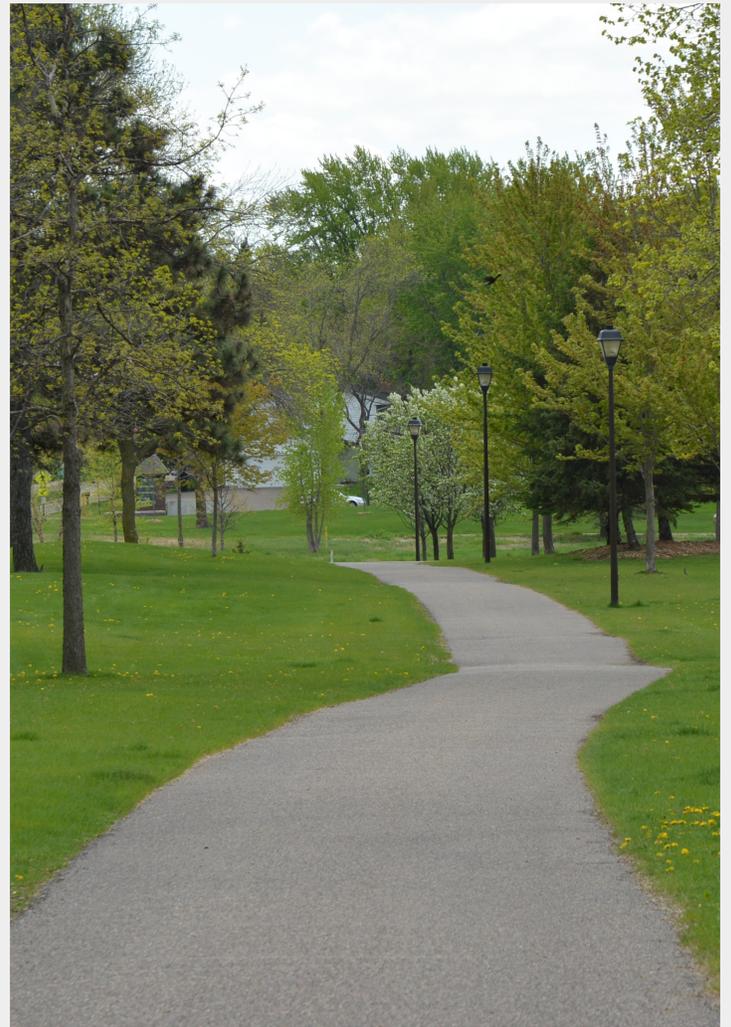


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Maximize Safety, Comfort, And Convenience For Bicyclists And Pedestrians

Provide and maintain sidewalks, off-road trails, and on-street bicycle facilities to a high standard for the comfort and safety of use by pedestrians and bicyclists of all ages and abilities.

Objectives

1. Identify and remove safety challenges for pedestrians and bicyclists at intersections, particularly on principal arterial roadways
 - 1.1 Continue to monitor accidents with bicyclists and pedestrians and prioritize the improvement of facilities that reduce potential for accidents
 - 1.2 Work with MnDOT to improve intersections on Hwy 55 for bicyclists and pedestrians, with consideration for grade-separated crossings
 - 1.3 Continue enhancing existing pedestrian facilities to comply with standards established in the Americans With Disabilities Act
 - 1.4 Prioritize the construction of sidewalks and trails along roadways in locations identified as uncomfortable or unsafe for pedestrians
2. Design routes and facilities that are comfortable for users of all ages and abilities
 - 2.1 Build multi-use trails in identified locations to maximize comfort and safety
 - 2.2 Provide a clear separation between different modes of transportation
 - 2.3 Prioritize the construction of sidewalks and trails along roadways in locations identified as uncomfortable or unsafe for pedestrians, particularly on arterial routes
 - 2.4 Apply industry best practices for pedestrian and bicycle facility design
 - 2.5 Integrate state-of-the art safety features in pedestrian and bicycle facility improvements
3. Ensure the bicycle and pedestrian network is a convenient and easily understood system
 - 3.1 Fill gaps in the network to maximize connectivity and convenience
 - 3.2 Provide consistent wayfinding signage on bicycle and pedestrian routes that includes mileage to major destinations, including routes in adjacent cities
 - 3.3 Provide bicycle racks at destinations located along existing and planned bicycle routes
 - 3.4 Strive for a consistent design in bicycle and pedestrian facilities for the entire length of a route
4. Provide information that educates and builds awareness about safety precautions
 - 4.1 Review City Sidewalk Policy for bicyclists, make adjustments to policy as bicycle and pedestrian network expands, and educate the public about this topic
 - 4.2 Develop an education campaign on bicycle and pedestrian safety and motorist awareness
 - 4.3 Explore programming that encourages walking and biking in Golden Valley
5. Encourage year-round walking and biking by ensuring that winter maintenance of bicycle and pedestrian facilities is adequately addressed
 - 5.1 Continue providing winter maintenance on bicycle and pedestrian facilities in the city
 - 5.2 Evaluate the option of shifting winter maintenance responsibilities to property owners
 - 5.3 Consider enhancing volunteer opportunities to ensure timely winter maintenance

GOAL 5

Support And Promote Increased Transit Usage

Support and promote increased transit usage by improving connectivity, improved accessibility, and reliability of the transit services.

Objectives

1. Advocate for additional transit options and the enhancement of existing services to ensure community members have safe, affordable, and practical transit options
 - 1.1 Collaborate with regional partners to prioritize transit service and capital improvements along the major transportation corridors in the community, particularly Hwy 55
 - 1.2 Take an active role in transit studies conducted by other agencies to advocate for increased transit in Golden Valley
 - 1.3 Continually assess and report the changing transit needs of area residents and visitors to transit providers
 - 1.4 Advocate for enhancements to highly used transit stops in the community
2. Ensure that redevelopment projects are served with optimal, high-quality transit facilities and services
 - 2.1 Focus redevelopment efforts near high-frequency transit service, and implement transit oriented development policies in these areas
 - 2.2 Pursue development of a circulator system within the city that includes access to light rail stations
 - 2.3 Incorporate transit stations and stops into site design for redevelopment projects as applicable
3. Promote the benefits of transit to funders, residents, and business owners
 - 3.1 Encourage state legislature to provide stable, long-term transit funding
 - 3.2 Encourage employers to offer incentives for employees, guests, and clients to use transit
 - 3.3 Educate residents about the relationship between development density and transit

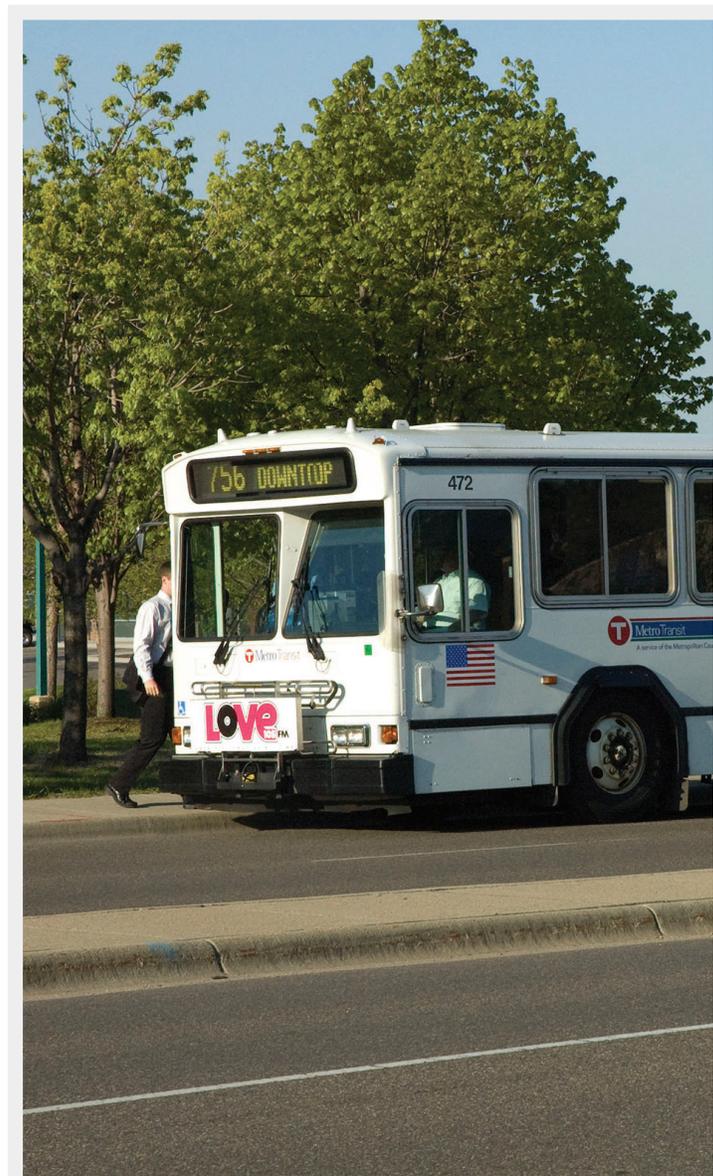


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Integrate Community Values And Character Into The Transportation System

Employ a context sensitive design approach to integrate transportation infrastructure with natural resources, bicycle and pedestrian facilities, public art, community resilience and sustainability, public realm improvements, and other features that represent community values, character, and identity.

Objectives

1. Provide aesthetic treatments in public rights-of-way that are appropriate for the scale of the area, conform with selected community themes, and can be maintained within the City's financial resources
 - 1.1 Balance a variety of community needs, interests, and values into the design process for transportation projects while maintaining a priority on safety and efficiency
 - 1.2 Include public realm improvements, such as seating and public art, in prominent public rights-of-way
 - 1.3 Encourage beautification of local roadways with amenities such as boulevard trees, native plantings, and decorative street lighting in appropriate locations
 - 1.4 Place utilities underground wherever possible with assistance from the utility provider when the adjacent street is reconstructed
2. Continue to incorporate the community's values, identity, and character into public right-of-way projects
 - 2.1 Integrate community input, land use plans, and transportation needs into the long-term vision for transportation corridors
 - 2.2 Incorporate community resilience and sustainability practices into transportation infrastructure projects
 - 2.3 Continue to assess whether enhancements to the transportation system are inclusive of all populations and their needs





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Section 5: Implementation Plan

The Implementation Plan includes a set of specific actions to accomplish the goals and objectives set forth in the Policy Plan. It differs from the Policy Plan in that it provides the opportunity to easily measure progress and note tangible outcomes from each task. Each task provides an approximate cost estimate for the work and notes a time

frame in which the specific action should take place. Tasks are prioritized based on financial feasibility, staff capacity, importance or urgency for action, and other factors. The Implementation Plan is updated every five years (mid-cycle of the 10-year Policy Plan) based on progress and new opportunities.



Preserve And Enhance The Transportation System

Implementation Actions:

- **Continue the Pavement Management Program** until transitioning to the Infrastructure Renewal Program (IRP).
- **Transition to the IRP** and establish districts within the city for implementation of maintenance, preservation, and rehabilitation projects.
- **Provide long-term and sustainable funding for maintenance** staff, equipment, and related resources to allow restoration and improvement of aged or worn infrastructure.
- **Address infrastructure funding in the City's legislative priorities** to encourage the state legislature to provide stable, long-term funding for capital improvements and maintenance.
- **Review transportation project designs for opportunities to incorporate green infrastructure**, which could include rain gardens, rainwater harvesting practices, green alleys or parking lots, pervious pavement, green roofs and walls, tree trenches and boxes, and native plantings.
- **Continue to make ADA improvements to existing infrastructure.**
- **Continue employing right-of-way preservation strategies.**



Improve The Functionality And Safety Of The Roadway Network

Implementation Actions:

- **Conduct vehicle speed audits in areas of concern**, and provide additional enforcement of speed limits or consideration for traffic calming measures when necessary.
- **Monitor crash statistics** for trends, and tailor crash reduction improvements for targeted areas.
- **Review redevelopment projects** for opportunities to implement roadway improvements, monitor traffic impacts, implement access management strategies, and resolve safety deficiencies.
- **Continue the work of the Traffic Safety Committee** to review and respond to safety and traffic control issues in the city.
- **Assess existing network for traffic calming opportunities**, particularly on local streets.
- **Follow MnDOT guidance on emerging vehicle technologies**, such as automated and connected vehicles.
- **Improve intersection geometry** in identified areas to address safety issues and delays.
- **Improve traffic control at intersections** in areas with a determined need to reduce intersection delays on signalized corridors.
- **Update traffic signal phasing and timing** to promote efficient traffic flow as appropriate.
- **Promote High Occupancy Vehicle (HOV) bypasses** for congested highways such as Hwy 169.
- **Require development proposals to include TDM plans or traffic impact studies** when significant traffic impacts are expected, and require developers to fund and/or construct improvements that prevent or mitigate traffic impacts.



Expand The Bicycle And Pedestrian Network To Provide A Balanced System Of Transportation Alternatives

Implementation Actions:

- **Continue to assess existing bicycle and pedestrian facilities** for condition, safety, and improvement needs.
- **Research ways to increase bicycle mode share** by identifying locations for the highest potential bicycle trip generation and seeking opportunities to increase the mode share in those areas.
- **Improve the pedestrian environment in the downtown area** to ensure it is a safe, enjoyable, and accessible place to walk, and encourage strategies such as wider sidewalks for pedestrian movement, trees, landscaping, street furniture, improved transit facilities, and additional bicycle facilities.
- **Implement cost-effective on-street bike routes** and bike lanes in conjunction with pavement marking and traffic sign replacement/maintenance programs.
- **Conduct site plan review** as redevelopment occurs to ensure sites provide an environment conducive to walking and biking.
- **Require developers and property owners to install trails and sidewalks** in identified areas as redevelopment occurs.
- **Conduct further study on bicycle improvements for the downtown area** by assessing existing conditions to understand the feasibility of implementing new facilities in the area.
- **Use the City's facility design guide** for planning and construction of new bicycle and pedestrian facilities in the community.
- **Apply for grant funding as projects become eligible**, monitor grant funds, and match funding with projects identified in the bicycle and pedestrian plan.
- **Request state bond funding for large infrastructure projects** that include bicycle and pedestrian improvements.



Maximize Safety, Comfort, And Convenience For Bicyclists And Pedestrians

Implementation Actions:

- **Work with MnDOT to prioritize north-south crossings** at Hwy 55 and I-394.
- **Evaluate policy for biking on sidewalks** and assess whether it will continue to be allowed.
- **Install wayfinding or directional signage** in strategic locations
- **Educate the public about bicycle and pedestrian safety** using CityNews, the City website, and social media.
- **Monitor crash data that includes bicycle and pedestrians**, and prioritize improvements that reduce bicycle and pedestrian crashes in the community.
- **Install bicycle racks** in various locations throughout the city and require installation by private property owners as redevelopment occurs.
- **Explore programming that encourages walking and biking.**
- **Research methods and practices to cost-effectively enhance winter maintenance of trails and sidewalks.**

GOAL 5

Support And Promote Increased Transit Usage

Implementation Actions:

- **Continue to coordinate with Metro Transit** to continuously assess the existing transit system performance and adapt to changing needs.
- **Take an active role in transit studies** conducted by other agencies, and promote additional transit in Golden Valley.
- **Require and build transit-friendly infrastructure in planning districts** identified in the Future Land Use Plan.
- **Advocate for enhancements to transit stops**, focusing on the heavily used transit stops in the community that lack amenities such as shelter and heating.
- **Research circulator system options** with a focus on access to light rail and major employers.
- **Advocate for additional transit funding from the state legislature**, which is necessary to meet the transit goals of Golden Valley and surrounding communities.
- **Develop educational material about the necessary relationship between density and transit.**



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GOAL 6

Integrate Community Values And Character Into The Transportation System

Implementation Actions:

- **Assess the condition of existing aesthetic treatments in the right-of-way**, including landscaping, decorative lighting, wayfinding or interpretive signage, benches, etc, and determine maintenance needs and opportunities for improvement.
- **Develop and apply a uniform design scheme in the right-of-way** that would apply to landscaping, signage, lighting, benches, and other features.
- **Identify locations appropriate for public art**, such as in gateway locations or community spaces.
- **Work with regional transportation partners to incorporate local design schemes** and aesthetic treatment themes chosen by the community into projects.
- **Secure funding partnerships to construct and maintain unique public infrastructure**, including corporate sponsorships and partnerships with nonprofit organizations, schools, and other community groups or individuals.
- **Research ways to incorporate racial equity evaluations** into transportation planning and design.
- **Continue to gather community input** for the planning and design of transportation projects in the city.
- **Bury existing overhead utilities during projects as resources and opportunities arise.**

Summary Of Implementation Actions

Action	Estimated Cost	Time Frame
Preserve And Enhance The Transportation System		
Continue the Pavement Management Program	\$\$\$	0-5 years
Transition to the Infrastructure Renewal Program (IRP)	\$\$\$	Ongoing
Provide long-term and sustainable funding for maintenance	\$\$\$	Ongoing
Address infrastructure funding in the City's legislative priorities	\$	0-5 years
Review transportation project designs for opportunities to incorporate green infrastructure	\$	Ongoing
Continue to make ADA improvements to existing infrastructure	\$\$	Ongoing
Continue employing right-of-way preservation strategies	\$	Ongoing
Improve The Functionality And Safety Of The Roadway Network		
Conduct vehicle speed audits in areas of concern	\$	Ongoing
Monitor crash statistics	\$	Ongoing
Review redevelopment projects	\$	Ongoing
Continue the work of the Traffic Safety Committee	\$	Ongoing
Assess existing network for traffic calming opportunities	\$	Ongoing
Follow MnDOT guidance on emerging vehicle technologies	\$	Ongoing
Improve intersection geometry	\$\$	0-5 years
Improve traffic control at intersections	\$\$	0-5 years
Update traffic signal phasing and timing	\$\$	0-5 years
Promote High Occupancy Vehicle (HOV) bypasses	\$	Ongoing
Require development proposals to include TDM plans or traffic impact studies	\$	Ongoing
Expand The Bicycle And Pedestrian Network To Provide A Balanced System Of Transportation Alternatives		
Continue to assess existing bicycle and pedestrian facilities	\$	Ongoing
Research ways to increase bicycle mode share	\$	5-10 years
Improve the pedestrian environment in the downtown area	\$\$	5-10 years
Implement cost-effective on-street bike routes	\$	0-5 years
Conduct site plan review	\$	Ongoing
Require developers and property owners to install and maintain sidewalks	\$	Ongoing
Conduct further study on bicycle improvements for the downtown area	\$	0-5 years
Use the City's facility design guide	\$	Ongoing
Apply for grant funding as projects become eligible	\$	Ongoing
Request state bond funding for large infrastructure projects	\$	Ongoing
Maximize Safety, Comfort, And Convenience For Bicyclists And Pedestrians		
Work with MnDOT to prioritize north-south crossings	\$\$\$	0-5 years
Evaluate policy for biking on sidewalks	\$	5-10 years
Install wayfinding or directional signage	\$	0-5 years
Educate the public about bicycle and pedestrian safety	\$	Ongoing
Monitor crash data that includes bicycles and pedestrians	\$	Ongoing
Install bicycle racks	\$	0-5 years
Explore programming that encourages walking and biking	\$	5-10 years
Research methods and practices to cost-effectively enhance winter maintenance of trails and sidewalks	\$	5-10 years

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Summary Of Implementation Actions (cont'd)

Action	Estimated Cost	Time Frame
Support And Promote Increased Transit Usage		
Continue to coordinate with Metro Transit	\$	Ongoing
Take an active role in transit studies	\$	Ongoing
Require and build transit-friendly infrastructure in planning districts	\$\$	0-5 years
Advocate for enhancements to transit stops	\$	0-5 years
Research circulator system options	\$	0-5 years
Advocate for additional transit funding from the state legislature	\$	0-5 years
Develop educational material about density and transit	\$	5-10 years
Integrate Community Values And Character Into The Transportation System		
Assess the condition of existing aesthetic treatments in the right-of-way	\$	0-5 years
Develop and apply a uniform design scheme in the right-of-way	\$	Ongoing
Identify locations appropriate for public art in the right-of-way	\$	0-5 years
Work with regional transportation partners to incorporate local design schemes	\$	Ongoing
Secure funding partnerships to construct and maintain unique public infrastructure	\$	5-10 years
Research ways to incorporate racial equity evaluations	\$	0-5 years
Continue to gather community input	\$	Ongoing
Bury existing overhead utilities during projects as resources and opportunities arise	\$\$\$	Ongoing