Enforcement programs often include participation from local law enforcement with a focus on enforcing traffic safety laws like speed limits, parking regulations, and safe roadway behavior from all users.

8.1 Enforcement and system safety

8.1 Enforcement and system safety

People tend to avoid activities that feel dangerous. Providing a network of facilities that not only *feel* safe, but actually *are* safe, is essential in promoting and supporting walking and bicycling trips.

Safety evaluation

A successful pedestrian and bicycle network is safe, comfortable, and convenient to users. Not feeling safe is a common concern among people who are wary of walking, and especially riding a bike, for more of their trips. There are three measures of safety, all of which should be considered when designing facilities and assessing system safety:

Actual safety

Actual safety can be measured quantitatively by tracking the frequency and severity of collisions involving people walking or biking. What is the actual risk of being involved in a collision as a pedestrian or bicyclist, and how severe will it be?

» Track frequency and severity of collisions involving people walking or biking.

» Prioritize improvements in areas with high rates of collisions.

Perceived safety

Also called subjective safety, perceived safety may be influenced by the speed, volume, and proximity of passing vehicles. Is it easy to cross the street? Do you have to bike fast in order to keep up with car traffic?

» Provide separation between people driving, walking, and biking.

» Take measures to calm traffic along corridors where people walk and bike.

» Reduce noise of motor vehicles by using quieter road surfaces.

» Enforce speed limits and proper yielding behavior by motorists.

» Provide designated pedestrian and bicycle signal phasing at intersections.

» Highlight pedestrian and bicycle pathways through intersections with crosswalks, colored paint, lighting, and refuge medians.

Social safety

Social safety can be tied to public safety issues. Is the route well lit? Does the route feel isolated, or are there "eyes on the street"? Is crime or theft a concern?

» Design tunnels so that people can see out of them as they are entered. Avoid blind corners on paths whenever possible.

» Install sidepaths that are wide enough to allow users to comfortably pass. Address issues of crime.

» Keep facilities clean, and free of litter and graffiti.

» Maintain vegetation so that grass, shrubs, and trees do not encroach on walkways or bikeways.

» Keep walkways and bikeways well lit at night so that users can easily see obstacles, other people walking and biking, and be easily seen by people driving.

Safety measures do not operate in isolation. Addressing one safety issue is likely to improve others. Calming traffic, for example, is likely to improve both perceived and actual safety, as slower moving drivers are more likely to stop for people walking and

biking, and less likely to cause severe injuries in the case of a collision.

The city should consider providing an easy way for people walking and biking in Edina to report incidents or areas of concern, and establish a way of monitoring and addressing user conflicts.

Safety enforcement methods

A variety of law enforcement methods can help change unsafe behaviors, making it easier for people of all ages and abilities to walk and bike in Edina. Regardless of the method used, enforcement methods require consistency and follow-up in order to maintain effectiveness. To measure the effectiveness of an enforcement method, study behaviors before and after efforts. Studies may be as simple as measuring speeds or observing behavior of people driving, walking, and biking. If results are positive, continue with that method of enforcement. If results indicate little improvements in unsafe behavior, another method should be used.

Students learning safe winter biking techniques for a school activity.

Speed trailers

Portable speed trailers display drivers' real-time speeds compared to posted speed limits. Devices may help reduce driver speeds and increase awareness of local speed limits. Speed trailers are most effective when they flash "slow down," or flash lights that mimic photo speed cameras or police cars when drivers surpass the speed limit. Some trailers have the ability to collect traffic data including vehicle counts and speed information, which can be used to identify times when additional enforcement may be needed. In some cases, back-up enforcement by police officers may be needed to stop and/or ticket individuals who are speeding.

Active speed monitors

Active speed monitors are permanent devices to keep drivers aware of speeds and remind them of the need to slow down in school zones. Speed monitors are typically displayed below school speed limit signs, and visually display drivers' speed in real time as they pass.

Traffic complaint hotlines

Traffic complaint hotlines or non-emergency numbers (311) allow community members to report traffic problems directly to city staff and local police. Comments can be used to identify problem traffic areas with the most frequent complains. Police may then follow up by providing concentrated enforcement in the area as needed.

Progressive ticketing

Issuing tickets is the strongest enforcement strategy, and is usually reserved for changing unsafe behaviors that other strategies fail to change. Progressive ticketing is a method of introducing ticketing through a three-stage process: educating, warning, and ticketing.

Photo Courtesy of OK Solar

Photo Courtesy of Keeping Communities Connected

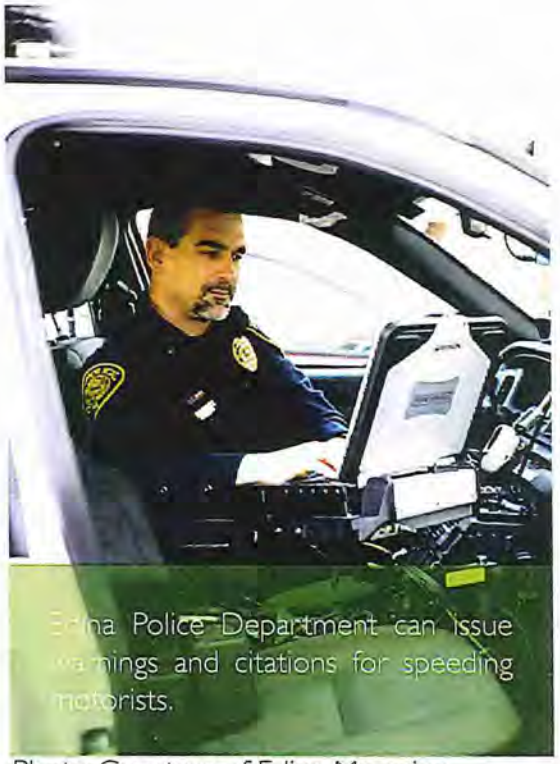


Photo Courtesy of Edina Magazine

Educate
First, community awareness of the problem must be established. Raising awareness of the issue will change some behaviors and will create public support for follow-up enforcement efforts.

Warn
Second, warn the public about actions to be taken and why by distributing flyers, posting signs, and sharing information using social and traditional media. Issuing warnings allows police to contact many more non-compliant motorists compared to writing citations. High frequency of stops also ensures that many other people witness warning stops, prompting them to obey the rules. Give people time to change behaviors before ticketing starts.

Ticket
Finally, after the "warning" time expires, clearly announce when and where ticketing operations will occur. If offenders continue to violate the law, officers begin writing tickets. Ticketing gives the program credibility by establishing police follow-through.

Speed enforcement in school zones

Strict enforcement of speed limits in school zones is one enforcement tool that can improve safety for students and families walking and biking to school. A 'zero tolerance' policy for speeders in established school zones, and an increase in fines for drivers who violate posted school speed limits, are useful approaches.

In Minnesota, drivers who violate speed limits in school speed zones are fined double the amount of the basic fine unless the ordinary fine is less than $25. Any ordinary speeding violation fine less than $25 automatically receives an additional $25 fine.

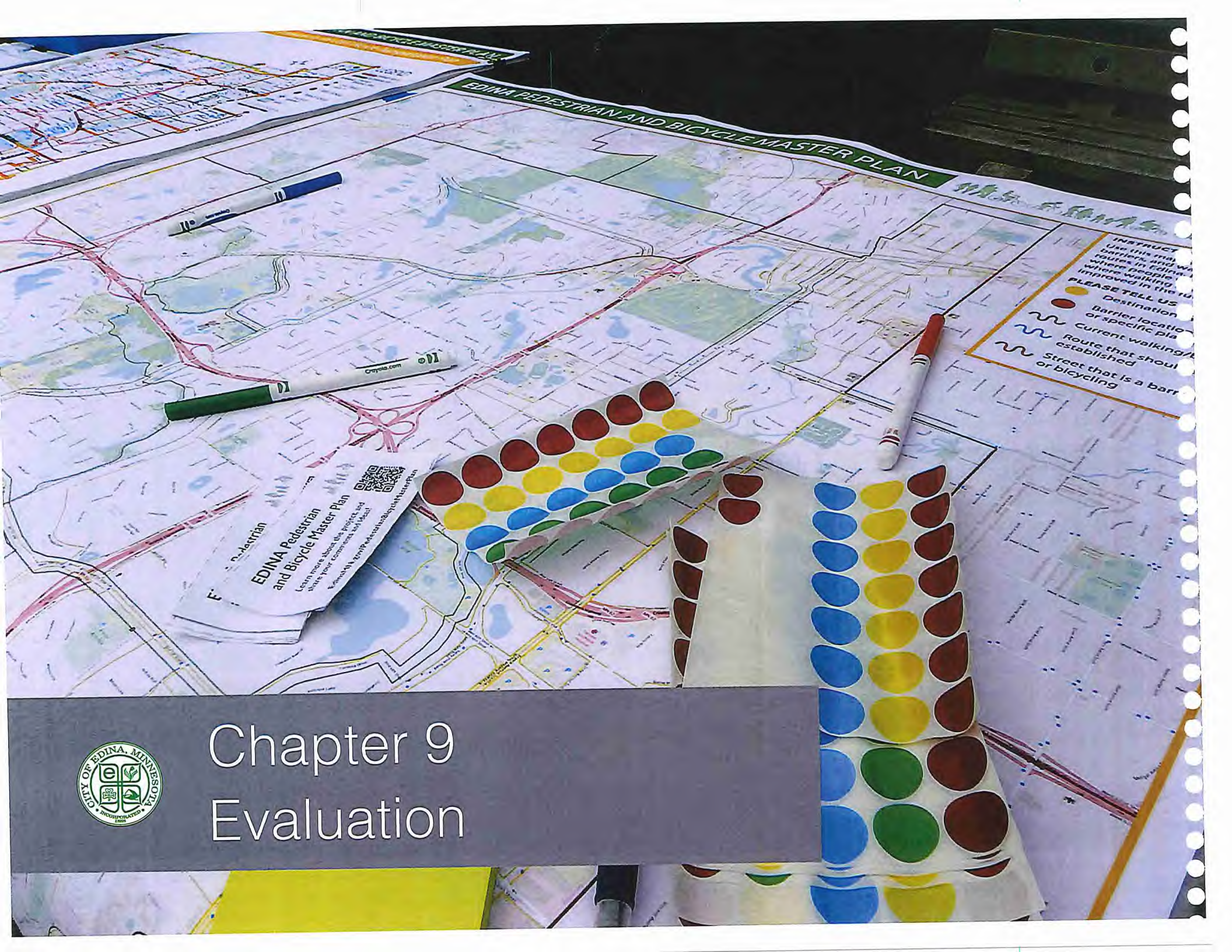
"Share the Road" signs increase motorized vehicle drivers' awareness of bicycle riders on the road and help enforce safe use of the road.

ADJUSTING SPEED LIMITS

According to current Minnesota Statutes, Minnesota cities must, in general, defer to the Minnesota Department of Transportation when setting or adjusting speed limits, even on their own road facilities.

Minnesota Statutes, however, also reserve the right for cities to set their own speed limits on their road facilities under the following circumstances, according to Minnesota Statutes § 169.14 and § 160.263:

- A city may, without any additional engineering or traffic investigation, reduce the speed limit to not less than 25 mph on roads that have a designated bicycle lane.
- A city, without any additional engineering or traffic investigation, reduce the speed limit to 25 mph on a "residential roadway." (A city street or town road whose total length is up to a half-mile).
- A city may, without any additional engineering or traffic investigation, reduce speed limits to 30 mph for a city street in an "urban district" (Any segment of a city street or town road that is built up with structures spaced less than 100 feet apart for a minimum distance of a quarter-mile).
- A city may, with support from an engineering or traffic study, reduce the speed limit to not less than 15 mph, or more than 30 mph below the surrounding speed limit in school zones (A segment of street or highway that abuts school grounds where children have access to the roadway or where a school crossing is in place).



Chapter 9
Evaluation

Evaluation helps measure the success of investments at achieving desired outcomes. Evaluation takes place before and after programming and infrastructure improvements to establish a baseline and measure progress overtime.

9.1 Evaluation and performance measures

Performance measures are instruments that help assess the extent to which progress is being made in implementing a plan. They are a set of goals, trends or targets that are meant to be met at a certain point of time in the future - for example, to double the rate of people walking or biking in Edina within ten years of the adoption of this plan. Targets or trends can also be checked at recurring intervals, or at a closer or farther time in the future.

The performance measures recommended the system address four broad categories:

» Safety and user comfort

» Use of facilities

» Facilities and network

» Community and municipal awareness and support

Safety and user comfort

Pedestrian and bicycle crashes should be tracked. Fewer crashes per year would indicate an improved environment, especially if more people are walking and biking for their daily trips. Data can be obtained from the Minnesota Department of Public Safety.

Recommended performance measures:

» Number of pedestrian-vehicle crashes

» Severity of pedestrian-vehicle crashes

» Number of bicycle-vehicle crashes

» Severity of bicycle-vehicle crashes

Optional measures:

» Pedestrian sense of safety (intercept or general community survey)

» Bicyclist sense of safety (intercept or general community survey)

» Automobile compliance and awareness in areas with high rates of pedestrian and bicycle use (observation)

Facility use

Volunteer counts are conducted in many communities in the Twin Cities to track the number of people walking or biking along a given corridor, or through a specific intersection. Edina current counts at five locations. Increasing the number of locations for these counts will expand the current data. An increase in observed walkers or bikers would indicate an improved environment, especially if collisions involving people walking or biking decrease over the same period.

Recommended performance measures:

» Percent of residents who walk or bike to work

» Percent of students who walk or bike to school

» Percent of residents who walk or bike to other destinations

» Annual pedestrian and bicycle counts

Facilities and network

A system's physical facilities and network provide the foundation for increasing travel by foot or bike. Measuring progress in the implementation and development of facilities will help measure success in plan implementation, and provide additional context for understanding potential gains in user safety and facility use that may occur as new facilities are added.

Recommended performance measures

- Miles of sidewalks and trails
- Miles of on-street bicycle facilities
- Number of new bicycle parking spaces
- Miles of gaps in pedestrian network
- Miles of gaps in bicycle network
- Percent of planned facilities installed

Municipal awareness and support

Effective implementation of this plan and the realization of its goals require the participation of government and community partners, and the interest and engagement of the broader community. The performance measures included in this category describe the level to which walking and bicycle interests, attitudes, and practice have permeated Edina's culture. Performance measures that help evaluate awareness and support include:

Recommended performance measures

- The City currently has a Living Streets Plan
- The City does annual pedestrian and bicycle counts
- Pedestrian and bicycle maps and information are available to the public
- Events promoting walking and biking (i.e. Open Streets) are held regularly
- Police enforce laws that protect people walking and biking
- Number of public interest or advocacy clubs or organizations
- Active Routes To School (ARTS) programs are active in Edina schools

9.2 Counting program

Pedestrian and bicycle counts are useful to understand where walking and biking are taking place and whether growth is occurring in use of non-motorized modes. This information can help the city evaluate the effectiveness of this investments, and guide how it should plan and implement infrastructure and programming investments.

Pedestrian and bicycle two-hour counts were conducted at 5 locations across Edina in 2016. The locations were:

- Brookside Avenue and 44th Street: 169 Bikes and 191 Pedestrians
- Interlachen Boulevard and Blake Road: 106 Bikes and 27 Pedestrians
- Wooddale and 54th Street: 129 Bikes and 123 Pedestrians
- Valley View Road Roundabout: 44 Bikes and 81 Pedestrians
- Valley View Road and Antrim Road: 54 Bikes and 637 Pedestrians

At three of the locations, measures were also taken previously in 2014.

At the corner of Brookside Avenue and W 44th Street, the number of bikes increased along 44th Street but decreased along Brookside Avenue.

At Interlachen Boulevard and Blake Road, the number of bikes increased along Blake road, but decreased on Interlachen. At the intersection of Wooddale Avenue and W 54th Street, The number of bicycles increased along Wooddale but decreased along W 54th Street. These data figures are the result of only two data points. More accurate data will come from continued monitoring of these locations.

Considerations for the counting program

Some items to consider when setting up a conducting program are:

Data irregularity

Some circumstances make data counts at certain locations difficult, like construction projects or other factors. If measuring pedestrian and bicycle counts at a certain location is too difficult, take the average change of the other count locations and apply to the previous year data for the uncountable location. In the following year, this extrapolated value should be replaced by the average of the two years on either side of the uncountable year. Transparency of extrapolation should be noted.

Automated technologies

Manual counts are relatively inexpensive but are subject to variability distortion due to small sample sizes. This makes yearly comparisons less statistically accurate. Data attained through automated technology can be supplemented with manual counts to expand the data available for analysis. Examples of affordable technologies include: infrared sensors, pneumatic tubes, or inductive loops.

Rolling averages

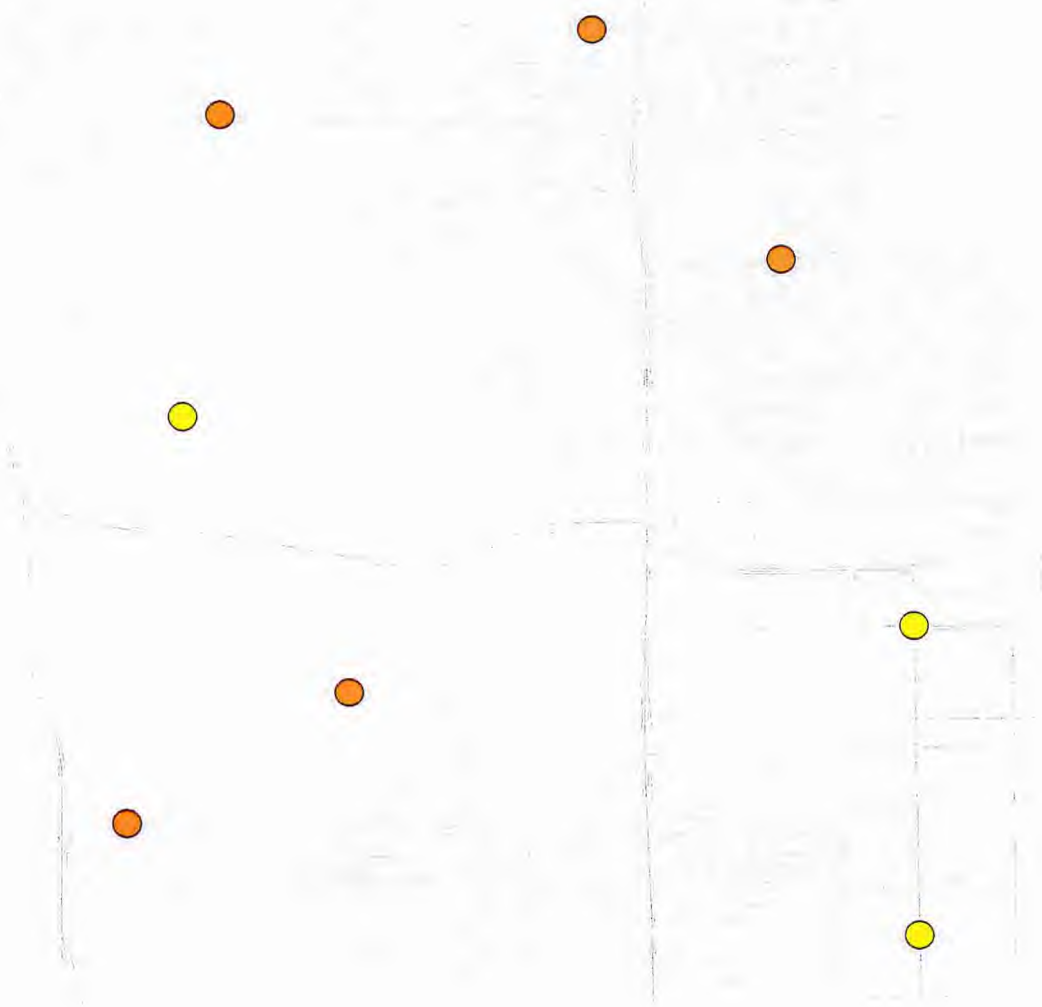
Once data has been collected for a minimum of five years, a rolling average can be applied. A rolling average looks at the three or four year average at a location over time. This helps eliminate yearly spikes and better predict long-term trends.

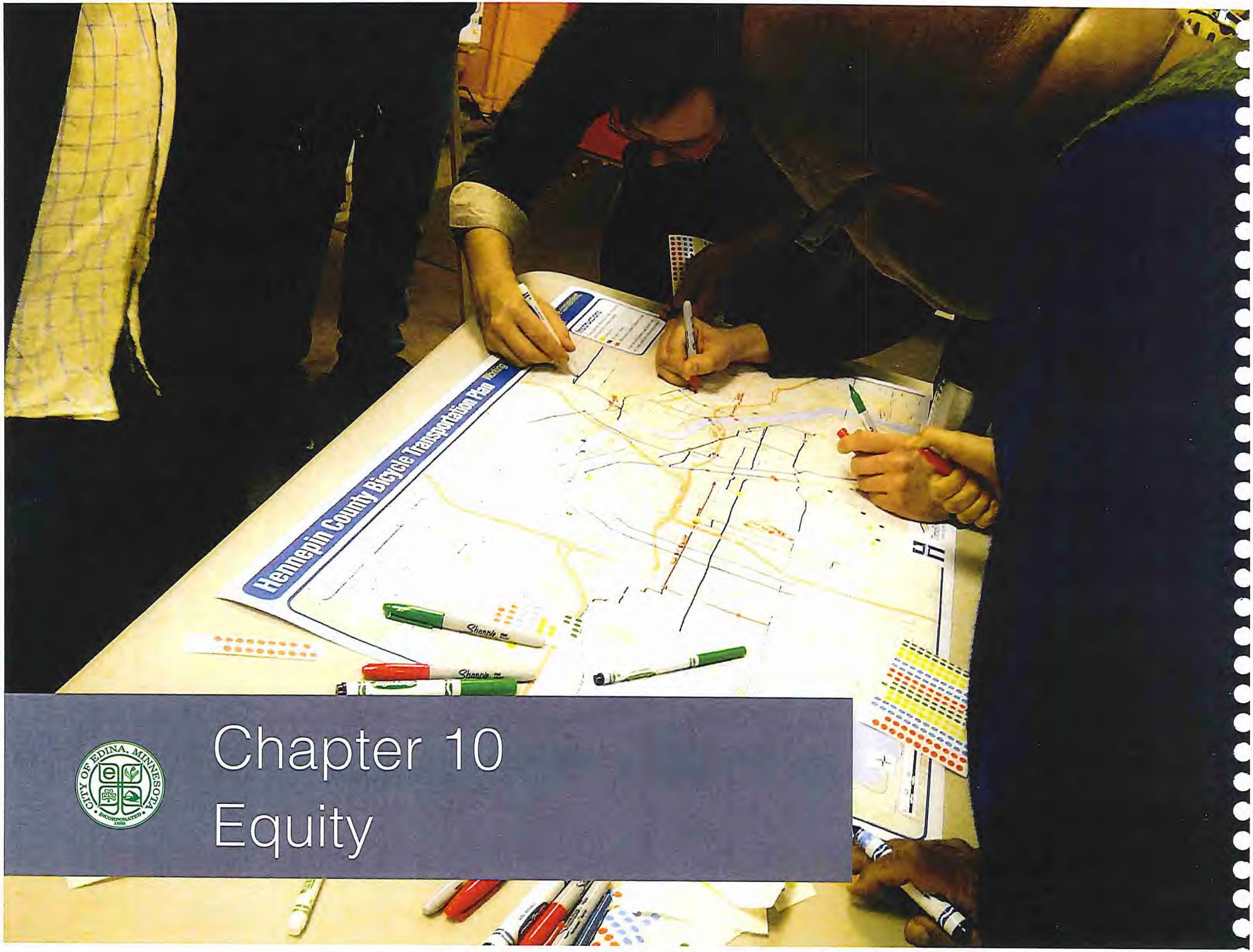
Travel Surveys

Surveys given to Edina residents and employees that ask their current

Locations for pedestrian and bicycle counts

- Current locations for counting program
- Additional locations where counts are recommended





Chapter 10
Equity

Equity focuses on distributing facility and programming improvements fairly throughout a community to ensure that residents of all neighborhoods and population groups have equal access to high quality facilities and programs. Equity includes intentional efforts for engaging specific diverse populations, and implementation of infrastructure and programs throughout a community to overcome economic, geographic, social, and physical barriers to walking and biking.

10.1 Increasing equitable access

10.1 Increasing equitable access

Bicycling and walking are on the rise.! Adults are realizing the health and economic benefits of active lifestyles and younger generations are choosing more walkable and bikeable transportation options for daily trips.

Diverse populations who utilize biking and walking at a high rate, such as youth, low income populations, minorities, the elderly, non-english speaking and those with disabilities have been traditionally overlooked in the transportation planning process and their needs not adequately met.

Equity in transportation seeks fairness in accessibility to meet the mobility needs of all community members. A key goal of transportation equity is to foster social and economic opportunities through the provision of equal levels of access to affordable and dependable transportation options based on the needs of the populations being served, specifically populations that are traditionally underserved.

The pedestrian and bicycle network recommendations in this plan aims to develop well-connected bicycle and pedestrian networks that serve all areas of the City, including areas that have a high density of historically underserved populations and relatively low levels of existing facilities.

The pedestrian and bicycle recommendations serve to achieve equity in two ways:

» By bringing pedestrian and bicycle infrastructure to populations with limited transportation choices, and by

» Distributing this infrastructure equitably throughout the city.

Population equity

A more comprehensive and accessible bicycle network can increase mobility for all populations. Network routes should be designed to accommodate ages 8 to 80. The southeast quadrant of Edina contains a larger proportion of elderly residents than other areas of the city and should ensure safe and comfortable access.

Geographic equity

The pedestrian and bicycle network should provide equitable coverage throughout the City, allowing residents in all areas of the City to have convenient access to the networks. Also, the bicycle network should be designed to distribute high quality facilities across the city so residents can reach all destinations.

Equity in ARTS Planning

When planning and implementing ARTS programming, it is important to design events and activities that are inclusive of students of all backgrounds and abilities. This plan identifies potential obstacles to participation and suggests creative outreach, low-cost solutions, and flexible program implementation to address language barriers, students with disabilities, personal safety concerns, and barriers related to school distance.

See Appendix A for additional detail on equity in ARTS Planning.

Chapter 11
Implementation

Effective plans lead to action. The purpose of this chapter is to provide guidance on how to implement the plan's recommendations so they lead to improvements that Edina residents can enjoy as soon as feasible.

11.1 Approaches to implementation

Once adopted, the Edina Pedestrian and Bicycle Plan will become part of the city's new Comprehensive Plan, which will guide planning work through the year 2030.

A productive approach for implementing infrastructure and programming recommendations during that time period should include:

» The development of initial concepts for pedestrian and bicycle network improvements based on recommendations from this plan, guidance from Edina staff and community, a review of existing conditions, and an analysis of gaps and opportunity corridors.

» A "test-run" of new projects by installing temporary pilot/pop-up versions of proposed changes. Pilot projects provide opportunities to measure impacts and gather comments from community members before investing in a permanent infrastructure improvement.

» Further refining of conceptual recommendations through additional engineering and land use analysis, as well as coordination with the local community.

» Funding support for implementation of this plan's recommendations from multiple sources. A table of potential funding sources is provided later in this chapter. The city should continue to work closely with Hennepin County regarding implementation of facilities along county roadways.

Temporary installations, also known as pop-up, pilot, or tactical urbanism projects, are useful for testing new ideas. Image: Test-run for a separated bike lane in Hopkins.

11.2 General guidance for facility implementation

Pedestrian and bicycle improvements are often implemented as part of larger streetscape and roadway improvements. For this reason, it is difficult to provide precise phasing recommendations for network implementation. Regardless, identifying priority areas and projects can be helpful in moving implementation forward fairly and effectively.

As much as possible, consider the following when selecting, designing, and implementing infrastructure recommendations:

» Coordinate pedestrian and bicycle improvements with scheduled road construction and repairs to avoid potential conflicts and take advantage of opportunities for simultaneous improvements.

» Street resurfacing, restriping, and streetscape projects provide opportunities to stripe on-street bicycle facilities or improve off-street sidewalk and trail connections at minimal costs.

» Treatments that require special consideration and careful design include raised crosswalks, channelized turn lane improvements, neighborhood slow streets with traffic calming elements, bicycle-specific traffic signals, and refuge islands.

» Pursue additional funding to support the design, implementation, and maintenance of pedestrian and bicycle improvements on a regular, ongoing basis.

» Act on opportunities to include pedestrian and bicycle improvements as part of development and redevelopment projects, or through spot improvements.

Installation of new sidewalk along a busy roadway, Saint Paul.

Implementing pedestrian network recommendations

Providing a continuous network of sidewalks and trails is key for supporting safe and comfortable walking trips. The following improvements will help to increase the safety and comfort of the existing network, and should be integrated into corridor projects to increase pedestrian comfort and accessibility:

» Upgrading pedestrian signals to include countdown timers, Accessible Pedestrian Signals (APS), and revising timing to provide more time for pedestrians to cross.

» Upgrading curb ramps to ADA standards.

» Installing pedestrian-scaled street lighting along sidewalks and trails.

» Providing pedestrian refuges through median retrofits and installation.

Implementing bicycle network recommendations

Space for accommodating on-street bicycle facilities may be created within existing right-of-way by using one or more of the following methods:

- Narrowing the width of existing travel and parking lanes:
  - 11 ft maximum recommended travel lane width
    - Adhere to minimum allowable width of 12 ft for state aid roadways with posted speed limits over 40 mph.
- 8 ft maximum recommended parking lane width
- Reduce the number of travel lanes:
  - On streets with four or more lanes, low to moderate through volumes (20,000 ADT and below), and high left-turn volumes, the two center-most lanes may be converted into a single dual-left-turn lane, improving ease and safety of left-turns, and freeing up space for on-street bicycle facilities. This conversion is often referred to as a road diet or safety conversion.
- Removing or consolidating on-street parking where present.
- Designate existing shoulders or excess roadway space for bicycle use.
  - Recommend against shared parking/bike lanes, as they provide inconsistent and unpredictable conditions for both bicycle riders and motorists - bicycle riders may have to mix with traffic in order to pass parked vehicles.

New sidewalks and shared use path being constructed as part of new segments of the Saint Paul Grand Round.

11.3 Implementing the Edina Twin Loops

Building Edina's All Ages and Abilities network

Edina's Twin Loops will work with the recently constructed Nine Mile Creek Regional Trail to form the backbone of Edina's All Ages and Abilities network.

Implementation of the proposed Inner and Outer Loops will occur over time due to the associated costs and potential impacts of some of the improvements.

To aid project scoping and implementation, the two loops were reviewed in greater detail to provide some direction for potential implementation options based on existing facilities, GIS data, and other identified opportunities and constraints.

The tables provided over the next pages list potential options for near-term accommodation of the loop alignments and also the potential configuration and considerations for longer term implementation. This provides a starting point in the project development process as reconstruction and reconditioning projects are planned.

Edina's Twin Loops, with Nine Mile Creek Regional Trail

Street segment	Design requirements	Approx. ROW	Proposed Inner Loop Improvements			
			Existing / Near-term		Long-term	
			Configuration	Considerations	Configuration	Considerations
W 70th St -Valley View to Hwy 100	State Aid	66'	• 5' Bike Lane, add 6-in buffer stripe • Sidewalk (both)	• 5' gutter pan • North side parking • Driveway Access	• 8 to 10' trail (south)	• Rail Bridge includes Nine Mile Creek Trail (south) • TH 100 underpass retaining wall for slope to provide trail connection • TH 100 Ramp crossing improvements, NTOR and Leading Pedestrian Phase for trail crossings
W 70th St - Hwy 100 to Cornelia Dr	State Aid	73'	• 5' Bike Lane, add 6-in buffer stripe • Sidewalk (both)	• 5' gutter pan • North side parking OR Turn Lane • Driveway Access	• 8 to 10' trail (south)	• Utilize Cornelia Dr traffic signal to cross 70th • Consider Leading Pedestrian Phase for trail crossing"
Cornelia Dr	Local	60'	• Bicycle Boulevard	• Sidewalk (west) • Driveway Access	• 8 to 10' trail (west)	• Reduce Street Width
W 68th St - Cornelia Dr to Southdale Rd	Local	60'	• Bicycle Boulevard	• Short Block	• 8 to 10' trail	• Reduce Street Width
Southdale Rd - W 68th St to W 64th St	Local	60'	• Bicycle Boulevard		• 8 to 10' trail (east)	• Extend 66th Street Median to provide refuge for two stage crossing • Consider pedestrian activated warning devices

Street segment	Design requirements	Approx. ROW	Proposed Inner Loop Improvements			
			Existing / Near-term		Long-term	
			Configuration	Considerations	Configuration	Considerations
W 64th St - Southdale Rd/ W 66th Street to TH 62 Bridge	Local	60'	• Bicycle Boulevard	• Parkway function • Parking Lot Access	• 8 to 10' trail (west)	• Expand 64th St to west, utilize existing east edge for trail • Consider street grade trail with flexible delineators or back of curb trail due to lake/natural feature constraints • Reconstruct TH 62 Bridge to meet ADA
Wooddale Ave - W 64th St to Valley View Rd	Local	30' on trail	• Bicycle Boulevard • Trail	• South of Garrison, narrow 30' ROW	• 10' trail south of Garrison • 8' trail north of Garrison	• South of Garrison consider share street or woonerf • North of Garrison utility and encroachment conflicts in ROW
Valley View Rd - Wooddale Ave to Concord Ave	State Aid	66'	• Sidewalk (south)	• No options on Valley View without reconstruction • Wooddale Ave north of Valley View Rd includes Bicycle Boulevard - utilize in near term to connect to 58th St/ Concord/ Southview • Consider pedestrian activated warning devices at Valley View Rd	• 8 to 10'Trail (north)	• North side there are utility and encroachment conflicts in ROW • Consider pedestrian activated warning devices at Valley View Rd Crossing
Concord Ave - Valley View Rd to South View Ln	State Aid	60'	• Sidewalk (west)	• Sidewalk (west) • Southview Middle School adjacent to sidewalk	• 8 to 10' trail (west)	• Southview Middle School adjacent to proposed trail • Maintain parking (west)

Street segment	Design requirements	Approx. ROW	Proposed Inner Loop Improvements			
			Existing / Near-term		Long-term	
			Configuration	Considerations	Configuration	Considerations
South View Ln - Concord Ave to Normandale Rd	State Aid	60'	• Sidewalk (south)	• Sidewalk (south) adjacent to Southview Middle School Parking (south) adjacent to Southview Middle School	• 8 to 10'Trail (south)	• Southview Middle School adjacent to proposed trail • Consider on-street parking needs (south)
Normandale Rd - South View Ln to Benton Ave	State Aid	Unknown	• Sidewalk (east)		• 8 to 10'Trail (east)	• Reconstruct sidewalk to include bituminous strip for trail width • Consider on-street parking needs • TH 100 Ramp crossing improvement
Benton Ave - Normandale Rd to Tracy Avenue	State Aid	60' (40' Hansen to Code)	• Partial Sidewalk (North)	• Railroad bridge • Benton Pond	• 8'Trail (north)	• Reduce street width • Constraints at Railroad bridge and Benton Pond
Tracy Ave - Benton Ave to TH 62	State Aid	60' and 66'	• 5' Bike Lane, add 6-in buffer stripe • Sidewalk (east) • Partial sidewalk (west)	• 5' gutter pan • Parking • Driveway Access	• 8 to 10' trail (east)	• Retaining wall impacts • TH 100 Ramp crossing improvements
Valley View Rd - TH 62 to Antrim Rd	State Aid	110'	• 5' Bike Lane, add 6-in buffer stripe or flexible delineators • Sidewalk		• 8 to 10' trail (north/west)	• Edina High School and Valley View Middle School at Antrim - consider crossing treatments

Street segment	Design requirements	Approx. ROW	Proposed Outer Loop Improvements			
			Existing / Near-term		Long-term	
			Configuration	Considerations	Configuration	Considerations
Lincoln Dr	Local	30'	• No Facility		• 8' trail (west)	• East side include topo and natural constraints, west side includes commercial property and driveways
Dovre Dr	Local	60'	• Sidewalk (north)		• 8' trail (north)	
Parkwood Ln - Dovre Dr to Parkwood Rd	Local	60'	• No Facility		• 8' trail (west)	
Parkwood Rd - Parkwood Ln to Telemark Trail	Local	60'	• No Facility		• 8' trail w/ 5' Blvd (west)	
Telemark Trail - Parkwood Ln to Malibu Dr	Local	60'	• No Facility		• 8' trail (south)	
Malibu Dr - Telemark Trail to Park Terrace	Local	60'	• No Facility		• 8' trail (east)	
Park Terrace - Malibu Dr to Interlachen Blvd	Local	60'	• No Facility		• 8' trail (south)	
Interlachen Blvd - Park Terrace to Blake Rd S	Local	60'	• No Facility		• 8 to 10' trail w/ 2 to 5' Blvd (south) as possible	• Street narrows to 30' at Park Terrace/ Interlachen Rd junction • Create trail connection into VanValkenberg Park • Bridge constraint at Blake Rd

Street segment	Design requirements	Approx. ROW	Proposed Outer Loop Improvements			
			Existing / Near-term		Long-term	
			Configuration	Considerations	Configuration	Considerations
Interlachen Blvd - Blake Rd S to Cooper Ave	State Aid	66'	• 5' Bike Lane, add 6-in buffer stripe or flexible delineators • Partial sidewalk (south)	• Consider driveway access needs with delineator layout	• 8 to 10' trail w/ 5' Blvd (south) as possible	• South side include topo and natural constraints near golf course
Cooper Ave - Interlachen Blvd to Circle E	Local	50'	• No Facility		• 8' trail (east)	
Circle E - Cooper Ave to Division St	Local	Unknown	• No Facility		• 8' trail (east/ south)	• South side include topo and natural constraints • Consider share street or woonerf
Division St - Circle E to Brookside Ave	Local	90'	• No Facility		• 8' trail (south)	• South side include topo and natural constraints • Consider share street or woonerf
Brookside Ave - Division St to W 44th St	State Aid	40'	• Sidewalk (west)		• 8' trail (west)	• Consider crossing treatments at 44th
W 44th St - Brookside to Grimes Ave S	State Aid	40' to 66'	• Sidewalk (north and both at east end)		• 8' trail (north)	• Bridge constraint over creek • TH 100 Underpass - piers constraint • Mature tree-lined boulevard (both sides)

Street segment	Design requirements	Approx. ROW	Proposed Outer Loop Improvements			
			Existing / Near-term		Long-term	
			Configuration	Considerations	Configuration	Considerations
Grimes Ave S - W 44th St to Sunnyside Rd	Local	60'	• Sidewalk (both)		• 8' trail (west)	• Large boulevard • Consider share street or woonerf
Sunnyside Rd and Arden Ave - Grimes Ave S to Arden Park	Local	60'	• Sidewalk (east and both at north end)		• 8' trail (east)	• At 50th Street consider pedestrian activated warning devices
Brookview Ave - Arden Park to W 54th St	Local	60'	• No Facility		• 8' trail w/ 5' Blvd (east)	• East side may include topo and natural constraints • West side includes residential driveway slopes
W 54th St - Brookview to Wooddale Ave	State Aid	60'	• Bike Lanes • Sidewalk (north)		• 8' trail (north)	
Wooddale Ave - W 54th St to 58th St	State Aid	66'	• Bike Lanes • Sidewalk (east)		• 8 to 10' trail (east)	
W 58th St - Wooddale Ave to Pamela Park	State Aid	60'	• No Facility		• 8' trail (north)	• North side west of Wooddale includes sidewalk • Consider crossing treatments at Pamela Park
W 62nd St - Pamela Park to France Ave	State Aid	66'	• No Facility		• 8' trail (north)	• North side may include utility and topo/natural constraints • South side includes residential

Street segment	Design requirements	Approx. ROW	Proposed Outer Loop Improvements			
			Existing / Near-term		Long-term	
			Configuration	Considerations	Configuration	Considerations
France Ave S - W 62nd to TH 62	State Aid	66' to 83'	• Sidewalk (west)		• 8 to 10' trail (west)	• Retaining wall impacts • TH 62 Ramp crossing improvements, NTOR and Leading Pedestrian Phase for trail crossings
France Ave S - TH 62 to W 66th St	State Aid	66' to 95' on TH 62 Bridge	• Sidewalk (west and both)		• 8 to 10' trail w/ 5' Blvd (west/ east)	• West side trail cross to east at 66th Street where east side trail begins
France Ave S - TH 62 to W 69th St	State Aid	108'	• Sidewalk (west) • Trail (east)		• In Place	
W 69th St - France Ave S to Galleria	State Aid	120'	• Partial Sidewalk (north) • Sidewalk (south)		• 8 to 10' trail (north)	• At uncontrolled crossing at Galleria Entrance consider additional improvements such as pedestrian activated warning devices
Galleria - W 69th St to W 70th St	Local	Unknown	• Sidewalk (both)		• 10' trail (east)	
W 70th St - Galleria - Centennial Lakes Trail	State Aid	80'	• Sidewalk (both)		• 8 to 10' trail (north)	• Consider crossing improvements on east leg of 70th St
Centennial Lakes to Promanade to Nine Mile Creek Trail	Local	Unknown	• Trail		• In Place	
Ohms Ln - W 72nd Blvd to W 74th St	Local	60'	• Bike Lanes		• 10' trail (north)	• Connects to existing Nine Mile Creek Trail

Street segment	Design requirements	Approx. ROW	Proposed Outer Loop Improvements			
			Existing / Near-term		Long-term	
			Configuration	Considerations	Configuration	Considerations
W 74th St - Ohms Ln to Dewey Hill Rd	Local	60'	• Partial Sidewalk (south)		• 8-10' trail (south)	
Bush Lake Rd - W 74th St to Dewey Hill Rd	Local	60'	• No Facility		• 8-10' trail (either)	
Dewey Hill Rd - Bush Lake Rd to Cahill Rd	Local	60'	• No Facility		• 8-10' trail (south)	• Reconstruct intersection at Cahill to four leg intersection with typical crossing
Dewey Hill Rd - Cahill Rd to Gleason Rd	State Aid	60'	• Sidewalk (south)		• 8-10' trail (south)	
Gleason Rd - Dewey Hill Rd to Creek Valley Rd	State Aid	60'	• Sidewalk (west) • Partial Sidewalk (east)		• 8-10' trail (west)	
Gleason Rd - Creek Valley Rd to TH 62	State Aid	60'	• Sidewalk (East)		• 8-10' trail (west)	• Bridge requires widening for trail • TH 62 Ramp crossing improvements
Gleason Rd - TH 62 to Vernon to Nine Mile Creek Trail	State Aid	66'	• Partial Trail Sidewalk (West)	• Nine Mile Creek Trail segment	• 8-10' trail (west) • Buffered Bike Lanes	• Connect to Trail to Nine Mile Creek Trail • Connect Buffered Bike Lanes to East leg of Vernon

11.4 Implementing programming initiatives

Effective and proactive programs are a key component of successful implementation of walk / bike initiatives, as they maximize the benefit of infrastructure investment and grow walking and biking.

The city's role in implementation of programming initiatives will vary depending on resources and capacity. The city may take the lead, provide support, or work in partnership with schools, neighborhood groups, local businesses or other organizations to initiate and implement a diverse array of programs.

Programs implementation should occur in coordination with infrastructure implementation and evolve as needed in the long term to educate all roadway users on how to safely operate in shared spaces including travel-ways and intersections, promote use of new facilities through encouragement programming, and support network safety through enforcement and facility maintenance.

When working to implement programs, the City of Edina can:

» Provide support to schools for further Active (Safe) Routes to School (SRTS / ARTS) planning and programming implementation at the school-, district- and city wide levels;

» Leverage partnerships with governmental and nongovernmental agencies, community organizations, and local businesses to support education and encouragement programming; and

» Work closely with local police to enforce traffic safety laws, lead safety workshops including community education classes or bike rodeos, and provide a positive example for safe driving and bicycling behavior.

Programs are often a key and cost-efficient investment for plan success. Crossing guards, for example, can make as much difference as new facilities in getting more students to walk and bike to school.

11.5 Potential funding sources

A variety of funding sources and programs are available to partially or wholly support the improvement of pedestrian and/or bicycle facilities in Edina. This section presents a compilation that can serve as a starting point for future efforts.

Additionally, the City of Edina should continue to coordinate closely with Hennepin County and Three Rivers Parks District during network implementation, as both agencies are continuing to expand facilities within their areas of jurisdiction. Hennepin County has developed dedicated funding sources to support implementation of facilities along or adjacent to County roadways.

Grant/Program Name	Organization	Description	More Information	Sample / Potential Project
Livable Communities Demonstration Account	Metropolitan Council	Intended to link housing, jobs, and other amenities through comprehensive, well-designed networks. Projects can occur on both local and regional scales.	http://www.metrocouncil.org/Communities/Services/Livable-Communities-Grants.aspx	Walk or bike routes linking to small area plan locations or other important destinations.
Hennepin County Complete Streets Cost Participation Policy*	Hennepin County	Cost participation policy to support the development of Complete Streets along Hennepin County's road network: • For sidewalks: $200,000 annual budget, providing up to 25% of the cost of a sidewalk along a county road. • For bikeways: $300,000 annual budget, providing up to 50% of the cost of trail or on-street bikeway identified on the Hennepin County bicycle system plan or gap map. • For bikeway gaps: $300,000 annual budget, providing up to 50% of the cost of trail or on-street bikeway identified on the Hennepin County bicycle system gap map.	http://www.hennepin.us/~/media/hennepinus/residents/transportation/documents/cost-part-policy-feb-2012-final.pdf	Shared-use paths, sidewalks, or bike lanes on Hennepin County roadways in Edina.

Grant/Program Name	Organization	Description	More Information	Sample / Potential Project
Hennepin County Sidewalk Participation Program*	Hennepin County	County participates at a cost of 25% up to maximum of $50,000 per project.	http://www.hennepin.us/~/media/hennepinus/Business/work-with-hennepin-county/bike-ped-cip/Hennepin%20County%20Sidewalk%20Participation%20Guidelines%202015.pdf	Walk infrastructure that connects pedestrians to trip generators such as schools, libraries and parks.
Hennepin County Capital Improvement Program*	Hennepin County	• Maximum awards for construction projects will be $100,000 and $20,000 for feasibility studies. • Bikeways must be on the Hennepin County Bicycle Plan map.	http://www.hennepin.us/~/media/hennepinus/residents/transportation/documents/biking-and-walking/pedestrian-plan.pdf	On-street bicycle facilities.
Hennepin County Transit Oriented Development Grant	Hennepin County	To be used with multi-jurisdictional projects in order to connect people with transit. This includes the provision of pedestrian and bicycle facilities.	http://www.hennepin.us/business/work-with-henn-co/transit-oriented-development	Shared-use paths, sidewalks, or bike lanes linking potential future BRT or LRT stations to other portions of the city.
Hennepin County Roadside Enhancement Partnership Program (REPP)	Hennepin County	CREPP's primary purpose is to enhance the roadside environment on county roads that are located entirely within the 1999 Metropolitan Urban Services area.	http://www.hennepin.us/~/media/hennepinus/residents/transportation/documents/biking-and-walking/pedestrian-plan.pdf	• Installation of street/and or pedestrian lighting. • Construction of sidewalks and or multi-use trails.
Corridor Investment Management Strategy (CIMS)	State of Minnesota	A MnDOT program that supports quality of life improvements along MnDOT trunk highways.	http://www.dot.state.mn.us/cims/	Improve pedestrian crossing at intersections between county roads and MnDOT trunk highways.
Hazard Elimination and Railway-Highway Crossing Programs	Federal Highway Administration (FHWA)	Uses funds from Highway Safety Improvement Program (HSIP) to eliminate hazards at railroad crossings and to provide safe crossing facilities.	http://safety.fhwa.dot.gov/safetealu/fact_sheets/ftsht1401d.cfm	Various railroad crossings throughout Edina.
National Highway System (NHS)	Federal Highway Administration (FHWA)	The NHS provides a number of different grants, including some that pertain to pedestrian and bicycle safety and facilities.	http://www.fhwa.dot.gov/environment/bicycle_pedestrian/overview/	Pedestrian and bicycle safety projects including crossing beacon/signal or refuge median.

Grant/Program Name	Organization	Description	More Information	Sample / Potential Project
Surface Transportation Program (STP)	Federal Highway Administration (FHWA)	Can be used for pedestrian or bicycle facilities, or the creation of non-construction projects such as maps or education.	www.fs.fed.us/eng/pubs/pdf/07771814.pdf	Safe Routes to School maps for schools, children and parents.
Congestion Mitigation and Air Quality Act (CMAQ)	Federal Highway Administration (FHWA)	Intended to reduce air pollution and congestion by encouraging walking and biking through provision of facilities or other resources such as maps and education.	http://www.fhwa.dot.gov/environment/air_quality/cmaq/	• Development of routes. • Streetscaping along routes. • Bikeshare.
National Scenic Byways Program (NSBP)	Federal Highway Administration (FHWA)	This grant is used for construction of pedestrian walkways along scenic byways. It requires 20% local contribution.	http://www.bywaysonline.org/grants/	
Recreational Trails Program	Federal Highway Administration (FHWA)	Can be used for construction and/or maintenance of recreational trails for motorized or non-motorized transport. At least a 5% local contribution is required.	http://www.fhwa.dot.gov/environment/recreational_trails/	Construction, improvements, and/or maintenance of shared-use trails in the city.
Highway Safety Improvement Program (HSIP)	Federal Highway Administration (FHWA)	Intended to increase safety and reduce fatalities on the National Highway System. This includes pedestrian and bicycle facilities. A 10% local contribution is required.	http://safety.fhwa.dot.gov/hsip/	
Transportation Alternatives Program (TAP)	Federal Highway Administration (FHWA)	Provide funding for programs and projects including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation, recreational trail projects, safe routes to school, and more.	http://www.fhwa.dot.gov/environment/transportation_alternatives/	Sidewalk gaps throughout the city; bike lane projects, especially near schools and trails.
Safe Routes To School (SRTS)	National Center for Safe Routes to School	This grant provides funding for pedestrian and bicycle facilities along school routes.	http://www.saferoutesinfo.org/	• Improvements near Edina schools. • Bicycle parking.
Active Living Research	Active Living Research	Supports studies which promote active living through policy, particularly in regards to childhood obesity.	http://www.activelivingresearch.org/grantsearch/grantopportunities	Monitoring and evaluation on plan implementation impact.

Grant/Program Name	Organization	Description	More Information	Sample / Potential Project
Safe Kids Walk This Way	Safe Kids USA	Intended to create a safer pedestrian environment by educating motorists and children. This goal is achieved through community engagement practices.	http://www.safekids.org/coalition/safe-kids-hennepin-county	Material development for safer pedestrian programing events in the city.
Job Access and Reverse Commute Grants	Federal Transit Administration (FTA)	This program aims to connect low-income residents and welfare recipients to work places via transit access and pedestrian and bicycle facilities.	http://fta.dot.gov/grants/13093_3550.html	Capital, planning and operating expenses for pedestrian and bicycle access to Edina transit stations and employment concentrations.
Land and Water Conservation Fund (LAWCON)	Department of Natural Resources (DNR)	Intended to protect local land and water resources in a number of ways including trails which promote the enjoyment and protection of resources via non-motorized transportation.	http://www.dnr.state.mn.us/aboutdnr/lawcon/index.html	Implementation of trails along wetlands and streams including Nine Mile Creek and others.
Rivers, Trails, and Conservation Assistance Program	National Park Service (NPS)	Provides guidance to communities for the preservation of land and water as well as the development of recreational trails and greenways.	http://www.nps.gov/ncrc/programs/rtca/contactus/cu_apply.html	Implementation of trails along wetlands and streams including Nine Mile Creek and others.
Federal Lands Access Program (FLAP)	Federal Highway Administration (FHWA)	Intended to improve transportation facilities that provide access to, are adjacent to, or located within Federal lands, including provisions to pedestrians and bicyclists.	http://flh.fhwa.dot.gov/programs/flap/	

* Hennepin County Complete Streets Cost Participation Policy, Sidewalk Participation Program, and Capital Improvement Program share the same original funding source.