Active Transportation

ACTION PLAN

City of Richfield, MN

Richfield
The Urban Hometown

Fall 2023

Acknowledgement

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Project Partners:

- Richfield Public Schools
- Hennepin County
- Bloomington Public Health
- Bike Walk Richfield
- Bicycle Alliance of Minnesota

DEPARTMENT OF TRANSPORTATION

The Action Plan was funded through the Minnesota Department of Transportation's (MnDOT) Active Transportation Program.

Learn more:

https://www.dot.state.mn.us/active-transportation-program/

Contents

Executive Summary

The Active Transportation Action Plan is the result of planning effort from October 2022 to September 2023 funded by MnDOT. Richfield's Planning Team included members from the City, Hennepin County, Richfield Public Schools, Bike Walk Richfield, Bloomington Public Health and Bicycle Alliance of Minnesota. The Planning Team came together to set direction, co-create strategy and help develop this Plan.

The Action Plan stitches together network priorities from the Bicycle Plan (2012), Pedestrian Plan (2018), recent accomplishments and refreshed perspectives based on community input to provide a framework for the Public Works team. It serves as a **living guide**. It is intended to **be used**, **acted on** and **updated** to continue to create more sustainable and equitable streets by design.

The focus of the Action Plan is to continue to **build out a connected network of separated bike lanes, quality walking routes, compact intersections and neighborhood greenways** to make sure **all people in Richfield can connect safely, easily, intuitively and with pride from their door to community resources by walking, biking, rolling and taking transit.**

As the City takes steps towards achieving this vision, starting with the adoption of a reduced citywide speed limit, this Plan outlines other key action steps focus on:

1. **Neighborhood Traffic Calming:** Develop a program and seek funds to implement and continue quick-build projects on residential streets, intentionally involving residents, business owners and community organizations
2. **City-County-State Partnerships:** Continue to deepen relationships with other street authorities including Hennepin County on the Nicollet Avenue redesign and Penn Avenue; MnDOT to address critical pedestrian/bicycle bridge repairs and other active transportation links that are needed due to the highway system
3. **Pedestrian and Bicycle Safety and Crossings:** Prioritize safety for people walking, rolling and biking, especially at intersection crossings (roundabouts, signalized and unsignalized) and mid-block locations.

What's Included in the Plan?

Introduction

SECTION 1

Why an Active Transportation Action Plan?

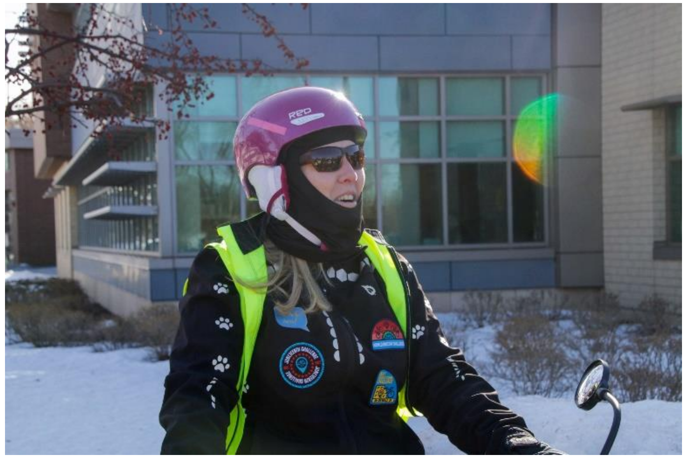
The City of Richfield believes that walking, biking and rolling* are essential ways people of all ages and abilities reach the places they want to go, connect with the people they want to see, and improve their physical and mental health. The City identifies active transportation as a necessary tool for improving community resiliency and environmental health by reducing the City's carbon footprint.

The Action Plan provides a framework, a living guide, for the City to track, maintain and grow a safe active transportation network for everyone. It builds on the Bicycle Plan (2012), Pedestrian Plan (2018) and Complete Street projects that have been implemented, like 66th Street and Lyndale Avenue, with separated bike lanes, wider sidewalks and modern roundabouts. The focus of the Action Plan is to continue to **build out a connected network of protected bike lanes, quality walking routes, compact intersections and neighborhood greenways** to make sure **all people in Richfield can connect safely, easily, intuitively and with pride from their door to community resources by walking, biking, rolling and taking transit.**

The Plan lays out priority actions and tools to continue to make Richfield the most walkable and bikeable city in Minnesota. Making equitable investments that improve safety and comfort for all people drives the street design decision making process. This is done by placing the most vulnerable user – people walking, rolling and biking– first.

** Rolling refers to people using a wheelchair, stroller, scooter or other assistive mobility device.*

How the Plan Was Developed



Photos (clockwise from top left):

- Winter bike ride participant.
- Person waiting for bus along 66th Street in February.
- Participants of a network planning workshop.

Four **planning team meetings**, **walking and mapping workshops, pop-up conversations** and **online engagement** with an interactive comment map and survey informed the development of Richfield's Active Transportation Action Plan.

INSIGHT

Process of discovery

During the first two planning team meetings, the team identified the vision and goals, shared perspectives on existing conditions, current policy, planned and executed an online comment map, walking and biking workshops to learn from the community and existing conditions.

IDEATE

Turning key insights into actions

The planning team discussed and synthesized what they learned from existing conditions and community input to identify action steps for improving biking, walking and rolling in Richfield.

ITERATE

Putting the plan together

The planning team solidified priority projects, programs, and policies and documented them in this Plan to provide the city with steps to continue improving active transportation in Richfield.

Why Active Transportation?

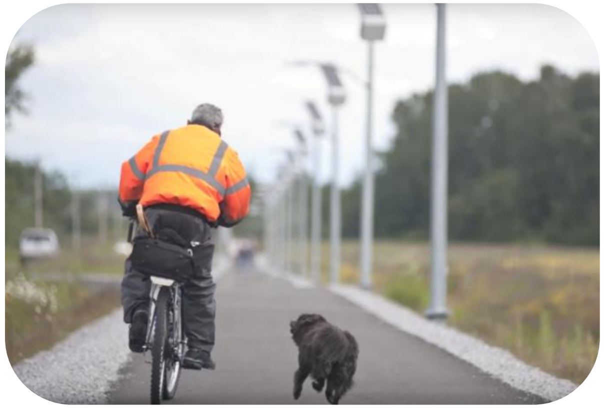
Equity

Owning one car costs roughly **$10,700 per year** (AAA, 2022). **33% of** people who walk, roll, bike and use transit to get to work in Richfield **do not have access to a car**.

Car ownership should not be a requirement for getting around safely and efficiently.

U.S. Census 2021 ACS 5-year estimates for Richfield

Environment



Minnesota must **reduce transportation** related **greenhouse gas emissions** by **80%** and **vehicle miles traveled by 20%** by **2050** to reach its climate goals.

Active transportation networks help people shift from driving. Less driving means cleaner air.

Street trees add to active transportation users' comfort and help absorb and filter rainwater, reducing stormwater costs and urban heat gain.

"Statewide Pedestrian System Plan", Minnesota Department of Transportation, n.d.

Economy

Active transportation stimulates local economies through job creation, tourism and business development.

People walking and biking make **more frequent trips** than people driving, **spending more money at local businesses**.

"Walking the Walk; How Walkability Raises Home Values in U.S. Cities", Joe Cortright, n.d.

"Cyclists and Pedestrians Can End Up Spending More Each Month Than Drivers", Emily Badger, n.d.

Why Active Transportation?

Health & Wellbeing

Bike commuting at least **2 miles, 3 times per week** is linked to:

46% lower odds of **heart disease or diabetes, 31%** lower odds of **obesity, 28%** lower odds of **high blood pressure,** lower medical costs, and better quality of life

"Active Transportation: Benefitting health, safety and equity", American Public Health Association, n.d.

Social Connection

"Humans are social creatures—we live in community**. Individual health and wellbeing** is **intricately tied** to the **health of our communities** and our **interactions with others."**

"How Do Our Social Networks Effect our Wellbeing", University of Minnesota, n.d.

Happiness

Researchers at the University of Minnesota have found **bicycling** to be the **happiest form of transportation**.

"U Of M Researcher: Biking Found To Be The Happiest Form Of Transport, Public Transit The Least", CBS News Minnesota, n.d.

Safe System Approach

More communities and agencies, including Minnesota Department of Transportation (MnDOT) and U.S. Department of Transportation/Federal Highway Administration (USDOT/ FHWA) are following a Safe System Approach to traffic safety, which aims to eliminate fatal and serious injuries for all road users, including people walking, bicycling and rolling.

Safe System focuses roadway safety efforts on ways to effectively:

1. **Design for the people in the system**
2. **Manage vehicle speeds by design**
3. **Employ proactive tools to manage risks across an entire roadway network, especially for the most vulnerable users**
4. **Foster integrated, collaborative and coordinated action**

> [MnDOT] can prevent traumatic life-altering, costly crashes by focusing on creating low-speed environments in population centers and around other destinations where people are likely to walk [and bike]." - Statewide Pedestrian Systems Plan

Source: FHWA

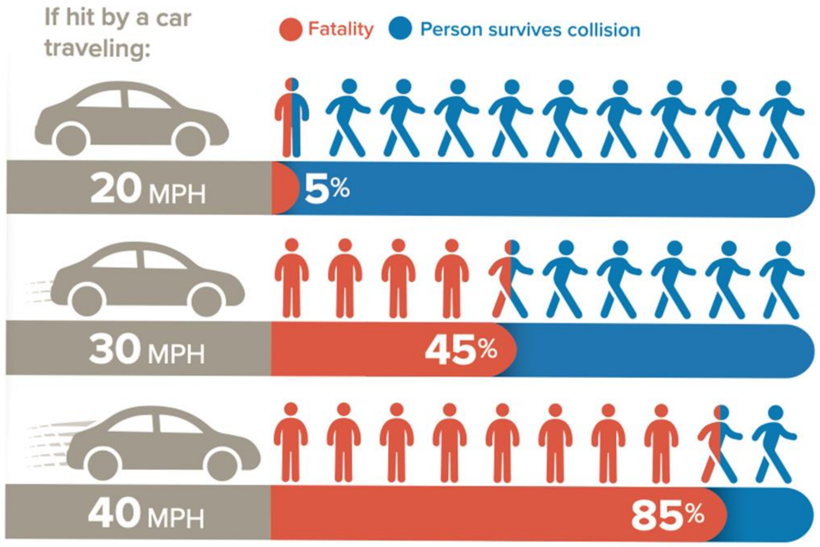
Making Safety a Priority Over Speed

This Plan focuses on designing safer streets to ensure all people have safer, more comfortable options and more transportation choices. Reducing driver speeds directly improves the safety of streets and sense of place.

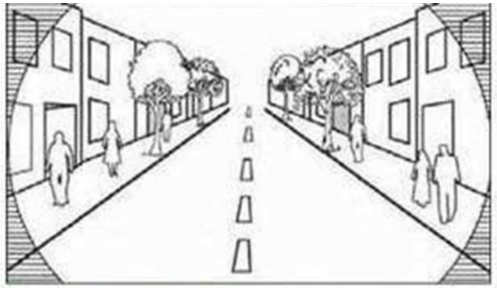
Why Speed Matters

The negative impact of motor vehicle travel speed on crashes that involve people walking and biking is well documented. For example, a person walking has a 95-percent chance of surviving the crash if struck by a person driving at 20 mph. The chances of survival decrease by almost 50 percent when the person driving is traveling only 10 mph faster. Traffic crashes that kill and injure people are a serious transportation and public health concern. **The Minnesota Toward Zero Deaths initiative is working statewide with cities to achieve zero traffic-related injuries and deaths, believing they are unacceptable and preventable.**

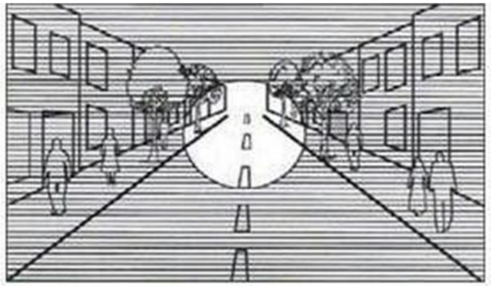
Lower speed streets better support businesses by increasing visibility. At lower speeds, drivers can see more of their surroundings and have more time to react, yield and stop for people crossing, parking and to avoid potentially fatal crashes.



National Traffic Safety Board (2017) Reducing Speeding-Related Crashes Involving Passenger Vehicles. Available from: https://www.ntsb.gov/safety/safety-studies/Documents/SS1701.pdf



Field of vision at 15 MPH



Field of vision at 30 to 40 MPH

Target Speed | Designing for Safe Speeds

Street Design Influences Behavior

The design of streets directly influences behavior. Most motorists drive to match the "design speed" of the road, using cues such as lane width, street texture, the distance between buildings, street trees, other edge features and sight-line distances rather than solely relying on the posted speed limit. In turn, streets should be designed to promote safety by taking a proactive design approach to ensure lower "target" speeds—the speed drivers *should* be going.

Historically, roadways have been designed by observing the operating speed of the majority of drivers and designing the street for that speed. This has resulted in design speeds that are often higher than the posted speed due to wide turn radii, wider travel lanes, clear zones and more.

Streets should be designed using target speed, a proactive approach to multimodal street design, by first identifying the speed drivers should go and then implementing street design treatments to ensure the operating speeds of motorists are aligned with the target speed. This convention **puts vulnerable users like people walking, rolling and biking first in the roadway design** while also providing safety for motorists.

Conventional Street/Highway Design

Operating Speed = Design Speed = Posted Speed

Proactive Multimodal Street Design

Target Speed = Design Speed = Posted Speed

Adapted from NACTO.org

Streets throughout Richfield should be designed to achieve a target speed of 25 mph or less. A lower target speed is a key characteristic of streets in walkable, bikeable, mixed use, neighborhoods and commercial nodes.

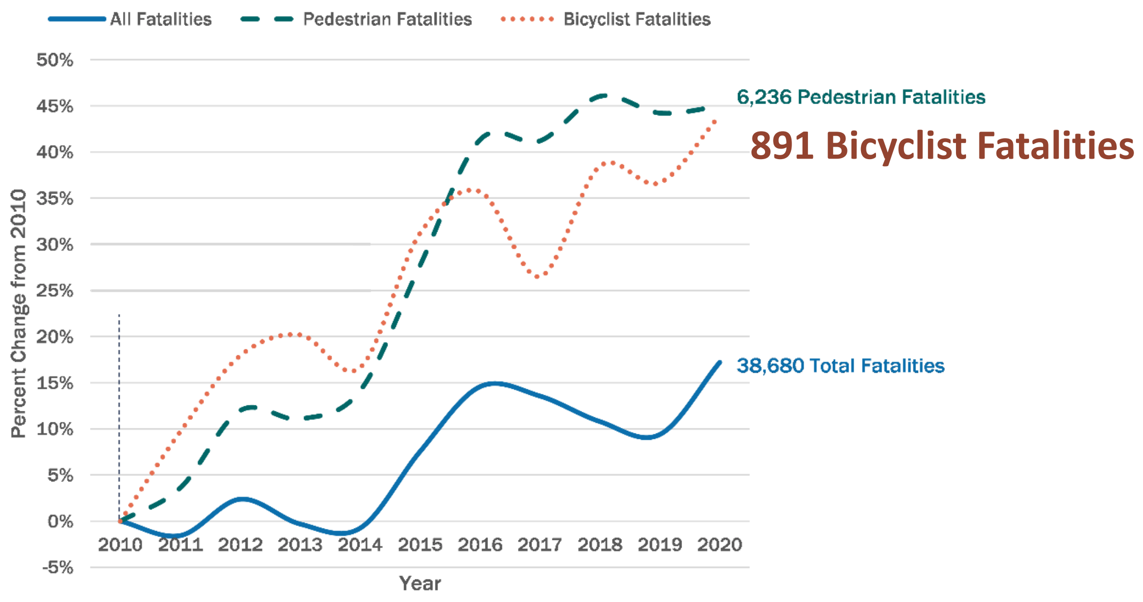
This Action Plan provides starter recommendations on how to start to bring the design speed more in line with the target speed through narrower lane widths, streetside landscaping, modern roundabouts and other traffic calming tools to create a safer and higher quality environment for all.

Read more on target speed: https://nacto.org/publication/urban-street-design-guide/design-controls/design-speed/

Safety is Not Shared Equally

Addressing road safety for people who are most impacted helps achieve simultaneous goals of safety for all users, equity and climate.

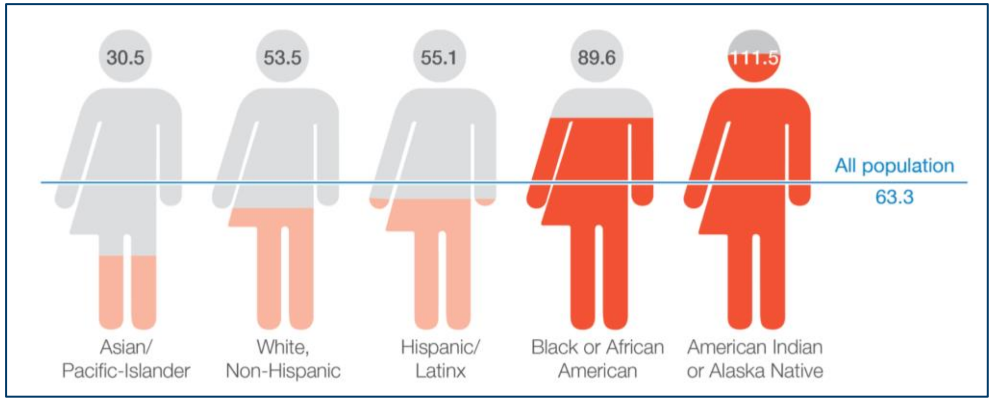
We have a national road safety problem. Fatalities of people walking and biking have increased faster than total traffic-related fatalities between 2010-2020.



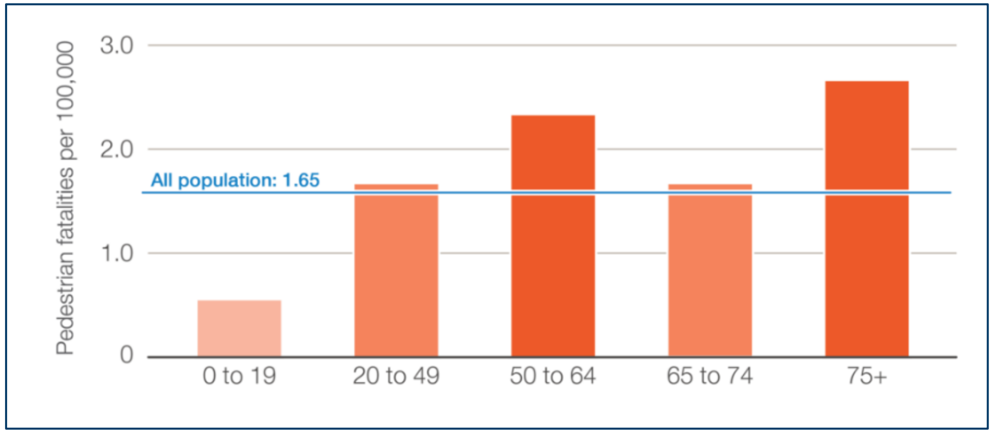
Source: US DOT

Older adults and people who are Black and American Indian are disproportionately represented in fatal crashes involving people walking.

Relative Pedestrian Danger by Race and Ethnicity (2010-2019)



Pedestrian Fatalities by Age (2010-2019)



Source: Dangerous by Design, Smart Growth America, 2021

Advancing Equity

People walk, bike and roll to meet their daily needs for many reasons: for exercise, to connect with friends, enjoy nature, access transit, get to work, school, the grocery store and more.

All trips begin and end by walking –everyone is a pedestrian at some point of their day– even trips by bike, bus and car. Bicycling is the most sustainable, efficient, healthy and affordable way to extend the radius in which community resources can be accessed.

Priority populations, which includes, but not limited to, Black people, Indigenous people, people of color, people with low incomes, limited- or non-English speaking communities, immigrants and refugees and people with disabilities, face historic and ongoing disadvantages due to systemic inequalities in transportation and land use decision-making.

Focusing on the most vulnerable users – priority populations, pedestrians and bicyclists – ensures the active transportation network connects people to opportunities through safe, reliable and affordable mobility options.

A connected, safe and comfortable active transportation network ensures all people have equitable access and opportunity to contribute to a vibrant, age-friendly and healthy city.

Foundational to the Plan, equity is infused into the goals and recommendations. The City's Community Alliance for Racial Equity (CARE) Team is developing an Equity Plan which will further guide prioritization and implementation of projects identified in this Action Plan.

This Plan uses a broad definition of pedestrian and walking. The terms "pedestrian" and "walking" includes people who travel on foot and use mobility devices such as wheelchairs, strollers and scooters. In addition, the term "rolling" is used to also include people who use mobility aid devices to move around Richfield.

Active Transportation Principles

To provide transportation choice and encourage active trips, routes must be:

Safe: Does the route minimize risk of injury and danger (both traffic and personal security)?

Comfortable: Does the route appeal to a broad range of age and ability levels and are there user amenities (e.g., places to sit, protection from the weather)?

Coherent: How easy is it to understand where to go? How to navigate a crossing or an intersection? How connected is the network?

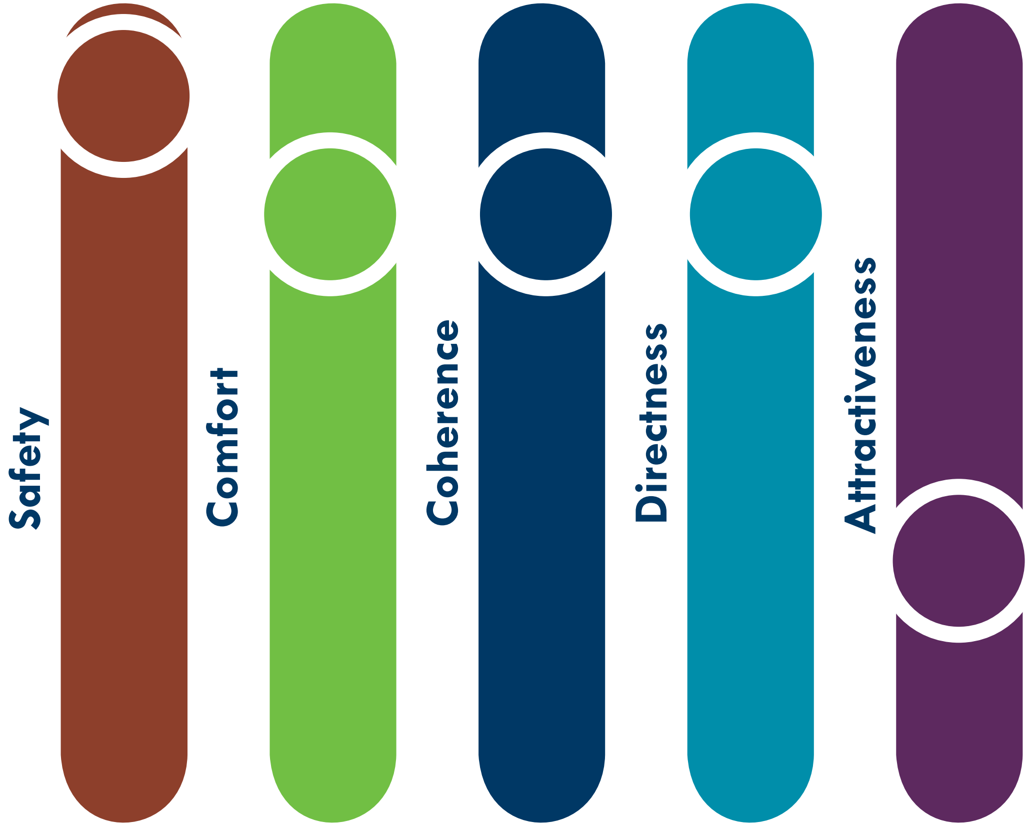
Direct: Does the route provide direct and convenient access to destinations?

Attractive: What opportunities does the route provide for people to view nature, art, historical or cultural points of interest? Is the route beautiful and well cared for (e.g. well-maintained)?

These Active Transportation Principles are founded in a Safe System Approach. The significance of each principle may vary from route to route and from person to person. For example, people walking or biking to the grocery store often prioritize directness whereas people out for a recreational bike ride value attractiveness and comfort more than a direct route. **Regardless of trip type, <u>safety</u> is critical for all users**, especially when ensuring children and elders have safe routes to school, parks and other places they want to go.

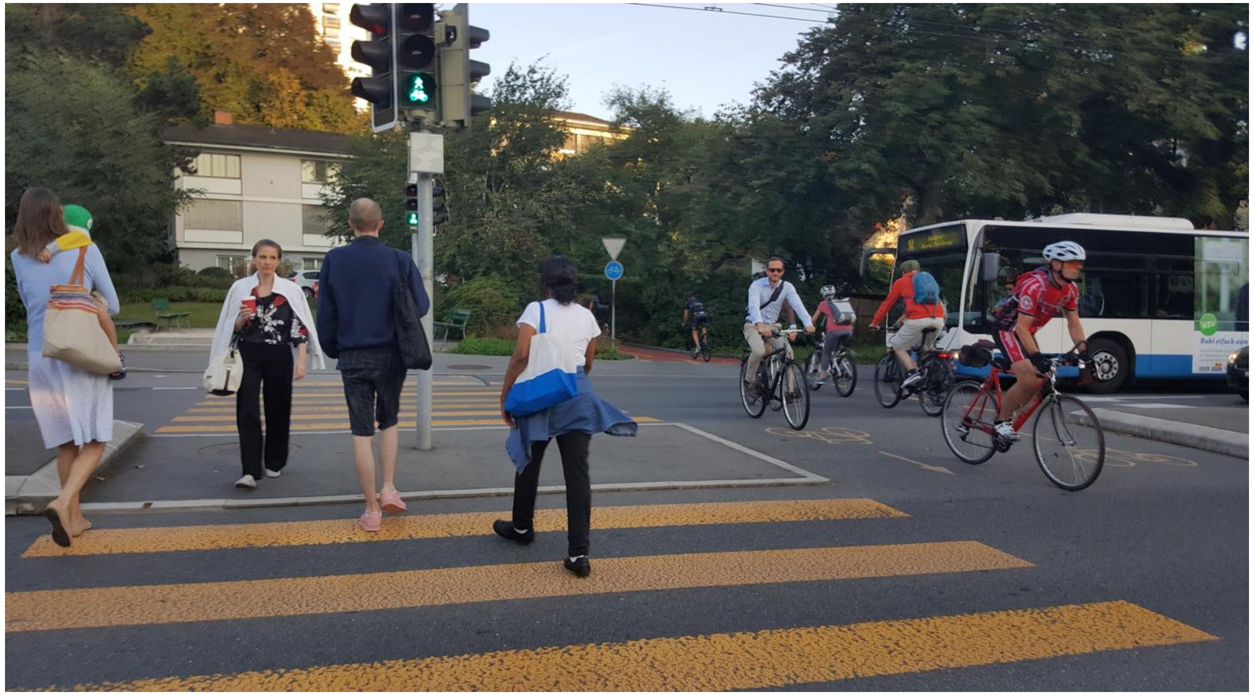
Active Transportation Principles | **School Trips**

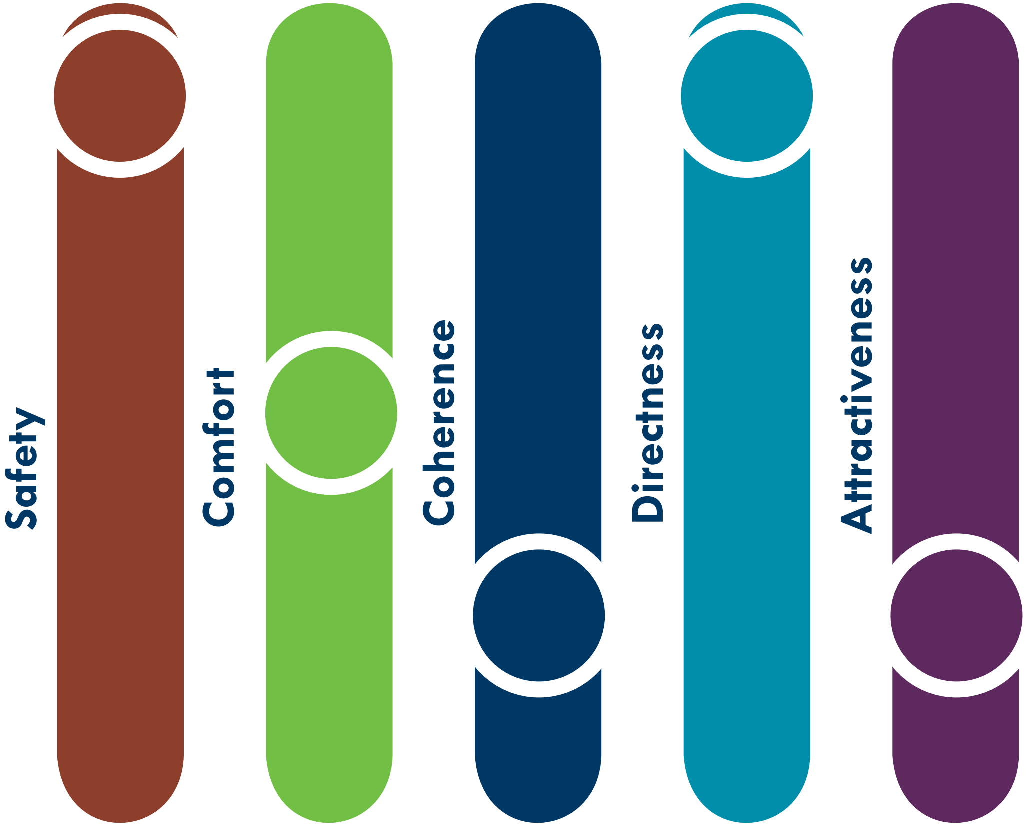
School trips refers to elementary aged children walking or biking to school. This is the hardest group to design for. Safety is vital, but all characteristics are important. The route is only as strong as the weakest link, making safety at intersections and crossings critical.



Active Transportation Principles | **Commuter/ Errand Trips**

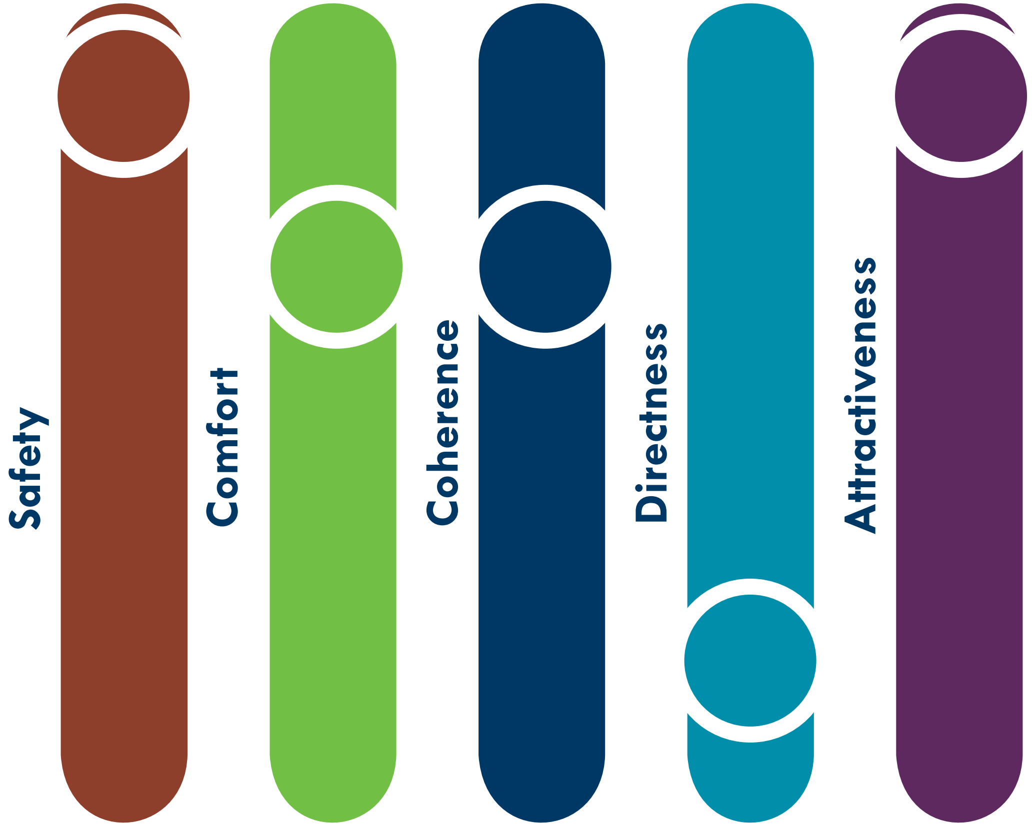
Safety and directness are the most important principles for people commuting to work or running an errand on foot, scooter or bike. A key motivation is time – people value efficiency and want to be at their destination using the most direct route to minimize their commute time.





Active Transportation Principles | **Recreational/ Leisurely Trips**

Recreational trip-goers or people out for a stroll with friends often see directness as the least important principle since walking, biking, rolling is the main purpose. While safety is still paramount, attractiveness is also key. Without the connection to nature, local art and cultural attractions the trip likely wouldn't be made.



Comfort Types of Bicyclists

Low Stress Tolerance

High Stress Tolerance

NO WAY NO HOW

33%

People will not bike out of disinterest or inability to do so.

INTERESTED BUT CONCERNED

51-56%

People in this group would like to bike more, but do not feel safe on busy streets with fast moving traffic nearby. Biking on streets with fewer and slower-moving cars, or a space separated from vehicles, would help them feel more comfortable. National research and local survey data (page/slide 49) confirm **over half of the population are interested in bicycling more often** but are **concerned about having to share the road with motor vehicles. They would like lower stress street environments to bike.**

ENTHUSED & SOMEWHAT CONFIDENT

5-9%

People who have been biking for transportation for some time. They are sometimes comfortable sharing the street with drivers, but would prefer to ride on streets with bike lanes or separated paths.

HIGHLY CONFIDENT

4-7%

People who will ride regardless of roadway conditions and bicycle facility. Highly confident riders represent the smallest category of people willing to bike.

All Ages and Abilities

Who Are We Designing For?

Richfield is working to implement an "All Ages, All Abilities" cycling network. **To maximize the potential for more people to bike,** and achieve the plan vision, it is important to **design streets with the "interested but concerned" bicyclist in mind**.

Designing for this type of bicyclist will ensure a route and facility type that is lower stress and higher comfort to a wider audience, attracting more people of all ages and abilities.

INTERESTED BUT CONCERNED

"This is the bicyclist user profile that MnDOT typically considers when selecting a bicycle facility type."

- Minnesota Bicycle Facility Design Guide

Safe System Approach: When to Mix, When to Separate?

The **greater the vehicle speed** and the **higher the vehicle traffic,** the **greater the physical separation** needs to be between people driving and people biking.

A **shared street environment** (pictured right), where users are mixed in the same space, can be created for **people biking and driving** when **target speeds are at or below 20 mph and vehicle volumes are relatively low**. This is a common environment on neighborhood residential streets.

Separate and **protect people** from moving traffic when **vehicle speeds are above 20 mph**. This can be done visually with painted bike lanes or buffered bike lanes or physically with bikeways fully separated by curbs, street trees, on-street parking and more.

Low volume, low speed residential streets become nice shared walking and biking streets with traffic calming tools such as neighborhood traffic circles.

Comfort Types of Bicyclists

Low Stress Tolerance — High Stress Tolerance

WHAT IS TRAFFIC STRESS?

Bicycle Level of Traffic Stress (LTS) is a way to evaluate the stress a person bicycling may feel when they ride on a road close to traffic. It assigns a stress level to streets and bikeways based on factors such as:

- Traffic speed
- Number of travel lanes
- Number of vehicles
- Frequency of on-street parking turnover
- Ease of intersection crossings
- Presence of bike lanes
- Presence of physical barrier to bike lane

LTS 1 Most children will feel safe bicycling on these streets.

LTS 2 The “interested but concerned” adult population will feel safe bicycling on these streets.

LTS 3 Streets that are tolerable to “enthused and confident” riders who still prefer having their own dedicated space.

LTS 4 High stress streets with high speed limits, multiple travel lanes and limited or non-existent marked bikeways.

Putting it Together

Successful streets that are safe for people walking and biking reduce the frequency and severity of crashes and minimize conflicts between users.

How street space is allocated plays a large part in managing speeds and ensuring streets are safe for all users, especially the most vulnerable. For example, narrowing, removing travel lanes and/or adding curb extensions reduces the amount of time people walking are exposed to potential conflict while crossing the street. Minimizing the crossing distance reduces the amount of time a motorist must stop while waiting for someone to cross. Narrowing and/or removing travel lanes also allows space to be reallocated for bike lanes, buffered bike lanes, fully separated paths or wider sidewalks. Installing intersection treatments like modern roundabouts or neighborhood traffic circles help manage speeds and are proven safety countermeasures, reducing the occurrence and severity of crashes.

Streets that are right-sized put people first and become even greater community assets. **They are places where people want to walk and bike, rather than places where people can walk and bike if they must.** In turn, more people choose to walk and bike.


Roundabout, tree-buffered sidewalk, separated bike lane and on-street parking.


Chicanes provide traffic calming and space for native vegetation.


Neighborhood traffic circle in winter.

Richfield, MN

Putting it Together: High Quality Streets for All

Before | ~11,600 Average Daily Trips (ADT)

A roundabout better manages motorist flow while maintaining a low speed environment and shortening the crossing distance for people walking and biking.

Mixed-use building with residential units setback after the first story helps to create human scale.

Building provides "eyes on the street" supporting natural surveillance and making people feel watched over. Lighting also adds to a person's sense of security.

Landscape median and edge lane markings help to further manage vehicle speeds.

On-street parking provides a traffic-calming effect.

Potential space for café style chairs and tables or benches to further activate the sidewalk.

Curb space provides an area for street lights, signage, parking meters, snow storage and more.

Cycle track is a different concrete color to further differentiate space.

Landscape buffer zone separates people walking and biking. It provides space to better absorb rain water, store snow and access the street edge.

Wide commercial sidewalk (8-10 feet) allows for social walking (two-by-two).

Vision & Goals

SECTION 2

VISION

All people in Richfield can connect safely, easily, intuitively and with pride from their door to community resources by walking, biking, rolling and taking transit.

Goals

'Feet' on the Street & Ridership: Increase mode share and number of people walking, biking and riding transit

All Season Choice & Convenience: Increase year-round active transportation access, choice, autonomy and equity

Vibrant Streets: Create welcoming and inclusive streets that invite social connection and celebrate Richfield's cultural diversity

Neighborhood Oriented: Ensure all residents have easy and safe connections to reliable community resources (e.g. transit, food, parks) within a 10-minute walk (1/2 a mile) of their homes

Innovation: Pursue innovative projects and initiatives that put Richfield at the leading edge of active transportation

Equitable Streets, Co-Created: Center people's lived experience in public realm design and decision making to build trust, reduce racial, social and health inequities, and improve everyone's quality of life

Resiliency: Ensure development in Richfield encourages active transportation trips and aligns with land uses that support the city's financial resiliency

Our Streets Today

SECTION 3

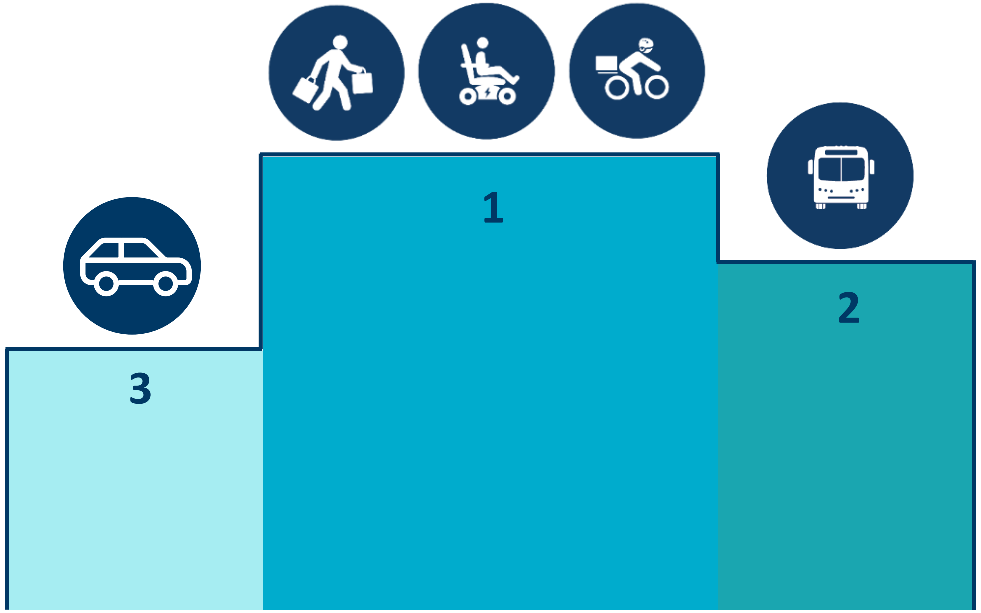
Plan and Policy Context

Several plans and policies guide the development of active transportation infrastructure in Richfield. Notably, Richfield's 2040 Comprehensive Plan places people walking, rolling, cycling and taking transit ahead of people driving. Richfield’s Transportation Commission developed 8 Guiding Principles to be used to guide the design of streets:

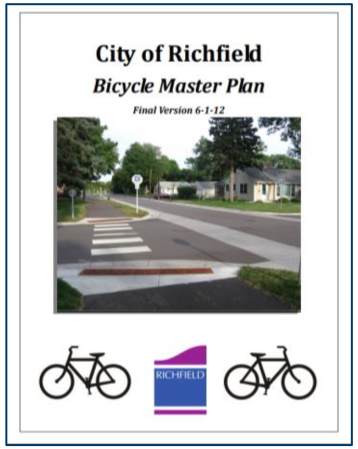
- **Multimodal Design**
- **Connectivity and Public Realm**
- **Local Economy**
- **Design for People**
- **Community Character and Identity**
- **Sustainable Solutions**
- **Healthy and Active Lifestyles**

Additionally, Richfield’s “Sweet Streets” program provides a multimodal vision for the public works department in a way that is easy for the public to understand.

MODAL PRIORITIES

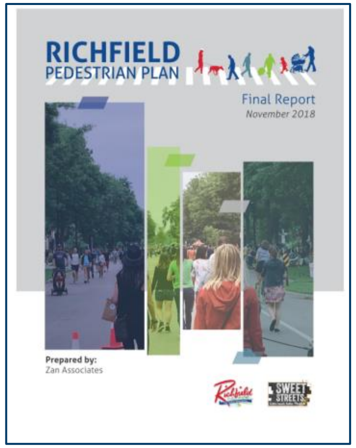


Plan and Policy Context



Bicycle Master Plan – 2012

The Bicycle Master Plan focuses on promoting friendly coexistence between cyclists and other modes. It identifies key east-west and north-south routes for cyclists and advocates for making room on collector and arterial streets for bike lanes by narrowing and reducing car lanes or for locating bike routes on parallel local streets.



Richfield Pedestrian Plan – 2018

The Pedestrian Plan identifies 12 pedestrian priority routes in the city that are "missing links" in the pedestrian network to address crossing barriers and connections to key activity centers. The plan also establishes best practices for pedestrian treatments at intersections and along roadways.

Safe Routes to School Comprehensive Plan- 2014

Identifies opportunities and priorities to increase walking and biking to schools through implementation of the five "E's": Education, Encouragement, Enforcement, Engineering and Evaluation.

Climate Action Plan - 2020

Richfield's Climate Action Plan identifies personal vehicle miles as the largest contributor to transportation-related Greenhouse Gas emissions in the city. The plan notes the importance of the city's Complete Streets Policy in creating places for people to use active transportation modes and includes Objective 4: *Encourage alternate forms of transportation, promoting a healthier mobility network.*

Complete Streets Policy

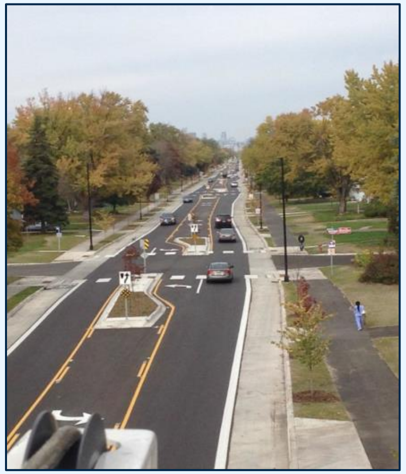
Richfield's Complete Streets Policy emphasizes the importance of balancing the needs of all modes in street design and ensuring that street design aligns with community values through early and frequent public engagement.

Plan and Policy Context

Lyndale Ave

The city completed the reconstruction of Lyndale Ave between 66^{th} St and 76^{th} St in 2020. The project reallocated roadway space to people walking and biking with sidewalks, trails and bike lanes. Street trees and compact roundabouts were added to green the street and address intersection safety concerns.

richfieldsweetstreets.org/learn/past-projects



Portland Ave

Hennepin County, in partnership with the City of Richfield reconstructed Portland Ave between 67^{th} and 77^{th} in 2016. The 4-lane road was converted from 4-lanes to 3-lanes—one lane in each direction plus a center turn lane. Bike lanes, trails, wider sidewalks, grass buffers and street trees were added to make the street a more complete street to all users.

dot.state.mn.us/trafficeng/safety/road-diet-richfield.html

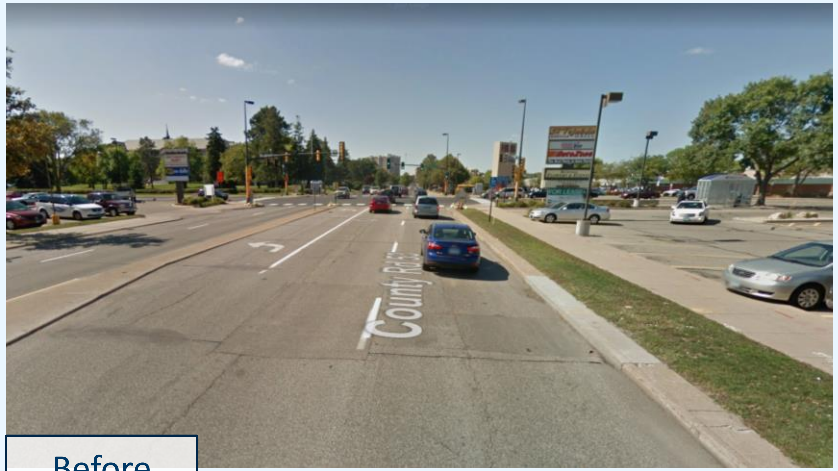
dot.state.mn.us/trafficeng/safety/road-diet-richfield

West 76^{th} St

West 76^{th} St between I-35W and Cedar Avenue was reconstructed for a sewer project. As part of the reconstruction, the street was put on a road diet. Travel lanes were reduced from two lanes each direction to one lane each direction, sidewalks were added to the street where they were missing and bike lanes with contrasting pavement were added.

Plan and Policy Context

66th Street



Before

After

Photos (top):
Before and after of 66th Street & Nicollet Avenue intersection (over 23,500 vehicles per day). A modern roundabout manages traffic more efficiently while breaking the crossing distance into two, 24-foot segments (versus over 60 feet before).

Photos (bottom): 66th Street was right-sized from 4-to 2-lanes with tree-landscaped center medians and left turn pockets. The additional space was reallocated for a landscape boulevard, separated bike lane and new sidewalks. Edge lane pavement was used to mark travel lane edges to further manage motorist speeds and help preserve the edge of pavement. The section pictured carries over 12,000 vehicles per day.

WALK AUDITS

What We Observed, Learned

Residential streets are typically 36 feet wide with no sidewalks. Wider streets, mostly flat topography, lack of sidewalks and little to no visual features to break up sight distances contribute to higher motorists' speeds than what is desired for neighborhood streets where people driving are expected to share the space with people walking, rolling, biking and playing.

What We Observed, Learned

On higher-speed, higher-volume streets more care and consistency is needed for crossing locations. While there are many crossing treatments being used that shorten crossing distance and increase motorists' yielding behavior, crosswalk pavement markings are inconsistent or missing altogether. Use paint! As pictured below, many crossings lack high-visibility ladder, zebra, or continental crosswalk markings. These styles are more visible to approaching vehicles, especially in low light (e.g. winter, night, early morning) than standard parallel pavement markings.

WINTER BIKE

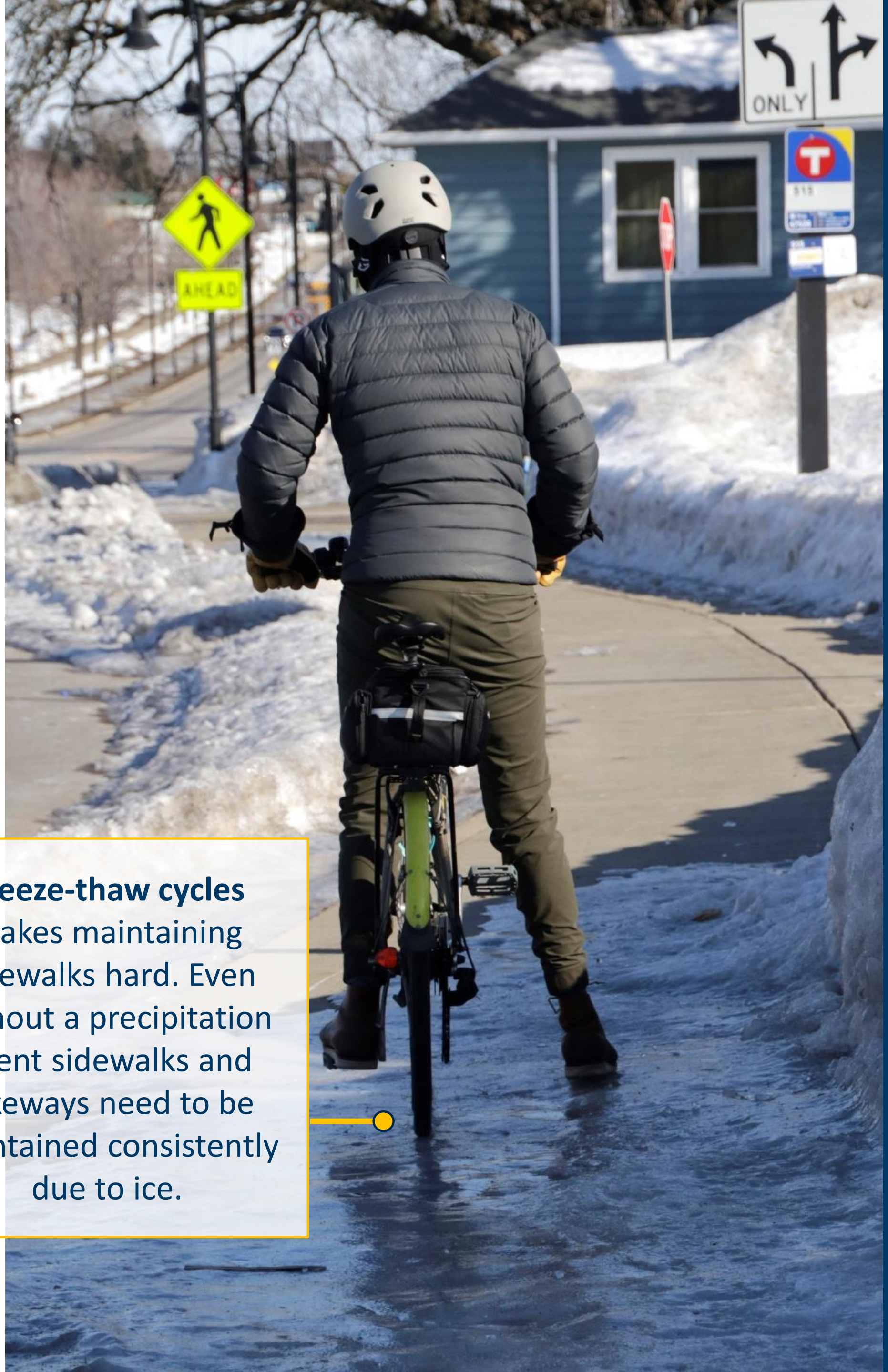
What We Observed, Learned

Richfield is committed to year-round walking, rolling and biking as safe, accessible, equitable and convenient options for people to get around. Winter brings a set of complexities, especially as it relates to maintenance. There are opportunities for the city to continue to enhance the quality and consistency of clearing snow and ice from sidewalks and bikeways. Winter bike participants found riding in the middle of the street on neighborhood residential streets the most pleasant place to ride in the winter.

Corner and bus stop clearing is mixed.

Buffered bike lane becomes more like a standard on-street bike lane in the winter due to snow encroachments from the curb edge. On-street bike lanes are one of the most challenging bicycle facilities to maintain in the winter.

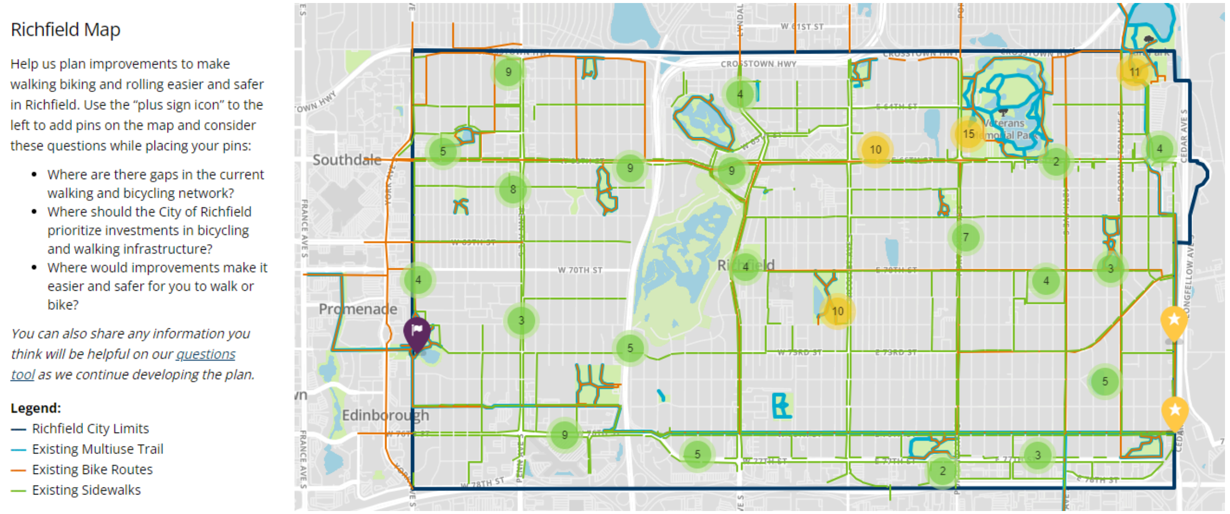
Boulevard space is an important spot for snow storage.



Freeze-thaw cycles makes maintaining sidewalks hard. Even without a precipitation event sidewalks and bikeways need to be maintained consistently due to ice.

INTERACTIVE ONLINE MAP & POP-UP

What We Heard, Observed, Learned



Photos (from top):

- Let's Talk Richfield interactive online comment map
- Richfield Eco Fair comment map

- **54+** people engaged with the online comment map, adding comment pins
- **420** people visited the online site
- **150** people engaged in sharing comments and discussion at the **Richfield Eco Fair** (4/15/23)

"I'd like to see the city prioritize traffic calming improvements on residential streets to better manage vehicle speeds and get drivers to slow down."

– Community Member

INTERACTIVE ONLINE MAP SUMMARY

Penn Ave has many destinations that serve the community, but is **a barrier to people walking and biking** today. Many shared the needed for marked crossings, wider sidewalks and bike facilities, including:

"Not a comfortable pedestrian experience due to narrow sidewalk with no boulevard adjacent to fast moving traffic."

"I wish there were bike lanes on Penn. There are many things I'd love to bike to with my kids, but as a new and very cautious biker, I'm not comfortable."

"We need a real fix to Penn."

"I would like to be able to safely bike along Penn from 66th to 76th."

"The stretch of Penn from the light at 69th to 72nd Streets has no crosswalks. It's dangerous trying to cross during heavy traffic. It deters me from using the bus or letting my kids go visit friends/Adams Hill Park."

66th St & 35W is a **complex intersection** and discourages people walking/rolling. People shared:

"I regularly walk to the Orange line stop to get downtown [Minneapolis]."

"This intersection is treacherous to cross when walking."

Wood Lake Nature Center is a **popular place** to walk/bike to. An idea was shared to **open the gate** to pedestrians at **Lake Shore Drive and Humboldt Ave.**

Pedestrian Bridge over 35W is one of a few East-West crossing over the highway. It is **not ADA** and **doesn't support people on bikes**.

Lyndale Ave between **66th St and 70th St** is **enjoyed** by many:

"A great example of ped/bike friendly design! The paths are wide and well maintained, crossings feel safe, noise is low, and there is an abundance of shade during the summer months."

"Fantastic job with the paths/sidewalks on the west side of Lyndale. Wide and safe. Excellent lighting too!"

Higher motorist speeds and limited sightlines make the crossing at **Colfax and 77th Ave** *"extremely dangerous and unfriendly,"* several community members shared. Median refuge island, pedestrian signal and lower speeds were noted as possible solutions.

Better marked crossings to/from **Taft Park** are needed (e.g. at **Bloomington Ave and 62nd St**) with tools like median refuge islands. The intersection of **Bloomington Ave and Richfield Pkwy** is a complex intersection due to the skew and high motorist turning speeds making it uncomfortable to people bicycling and walking. Additionally, people shared a need for **slower motorist speeds** along **Richfield Pkwy** and better bike/ped connections to Target.

Desire for a pedestrian and bike link through Christian Park.

*"The pedestrian safety environment has improved since the installation of a 4-way stop at this intersection [**Bloomington Ave and Diagonal Blvd**]. However, there are still safety challenges related to driver speed. Consider a roundabout or another safety enhanced intersection, including 'closing off' the small triangle on the SW corner of the intersection."*

INTERACTIVE ONLINE MAP SUMMARY

"66th St needs to have the speed limit lowered by at least 5 mph and speed limit better enforced."

66th St & James Ave is an **important crossing** to Monroe Park used by people of all ages. While a median refuge island exists, the **two lanes** in each direction and **high motorists' speeds** set up a risk of **multiple threat crash**. People shared more crossing support is needed to feel safe, especially for children.

Motorists infrequently stop for pedestrians despite flashing beacons. Connect trails to Lyndale.

No sidewalk along 64th St. People walk in painted bike/walk lane. In winter, lane is minimized because of the snow, forcing pedestrians to walk further in street. **An important route to parks.**

Roundabout can be **challenging for cyclists** due to **on-street bike lane on Portland ending** before roundabout, forcing cyclist to take the lane or ramp tightly onto sidewalk and **high motorist entry/exit speeds**.

66th St between Penn and Xerxes Ave is **missing** improved **sidewalk/bike path**.

Nicollet Ave is **uncomfortable** due to lack of **separation between motorists and active transportation users**. There are many destinations people like to walk to, such as Augsburg Park. People shared:

"Physical separation of bike lane would be nice."

Nicollet sidewalk is terrible for walking with driveways causing dips every few feet and traffic zooming by with no separation."

"Most of the time it is very difficult to cross the street."
"Bike lane is non-existent in the winter and barely there in the summer."

Walking route to parks, schools and City Hall despite no sidewalk.

Portland Ave has **improved.** People shared they feel more comfortable walking and biking. People also shared they would still like to see **improvements at crossings** including at signalized and unsignalized intersections and roundabout. Plus **more trees, greater separation** from traffic and **reduction** in **speed limit**.

76th St & 35W is a **complex intersection** and discourages people walking/rolling. People shared:

"Cars don't stop and wait for green at the 35W off ramp. Both of my kids have been nearly hit going to/from school. A buddy of mine did get hit."

"This is a terrible ped/bike crossing."

"The entire crossing of 35W is very unfriendly to walkers and bikers."

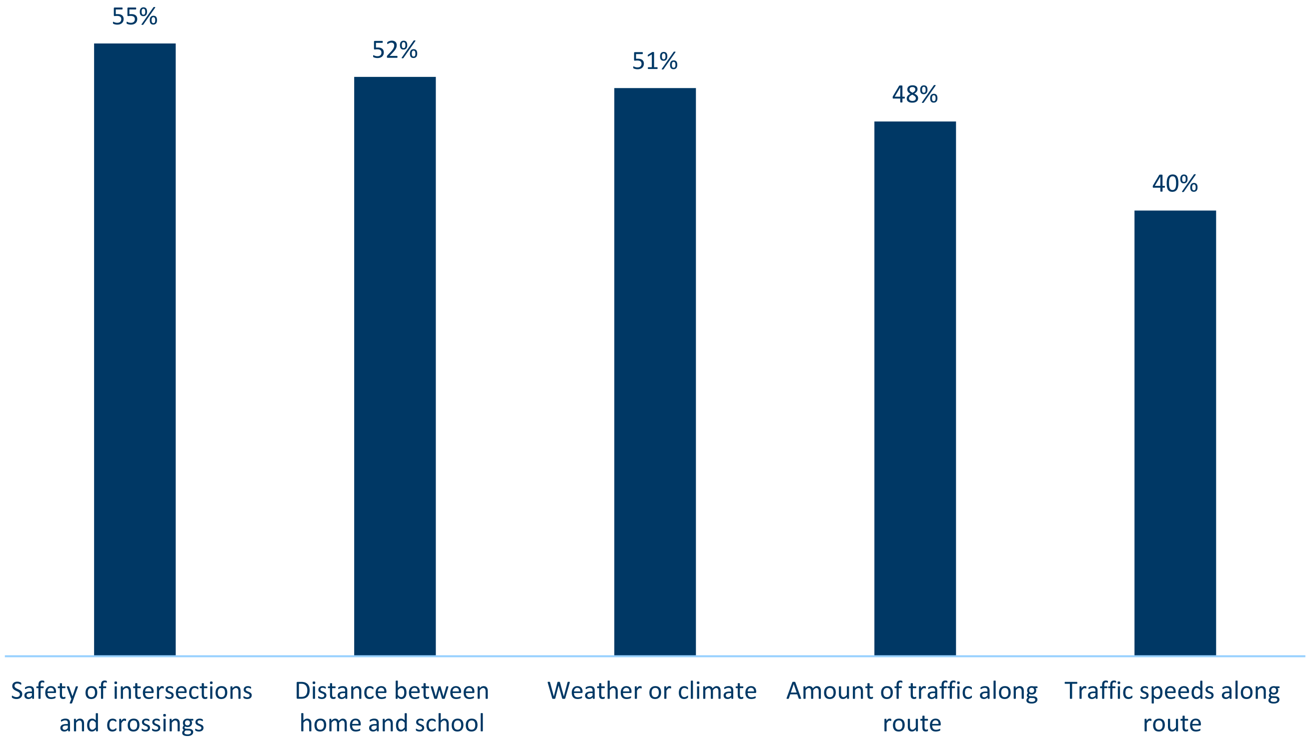
"Dangerous intersection at 76th St and Knox Ave. This makes it difficult to access the new transit tunnel under 494."

"Crossing 77th St to get to Roosevelt Park is scary. A marked crosswalk would be appreciated."

Cedar Ave trail segment is **well loved**. People would like to see **improved connections** to/from trail, **less trash** and extension of **noise barrier** along Hwy 77.

What We Heard, Observed, Learned

What issues affect your decision to allow, or not allow, your child to walk or bike to/from school?

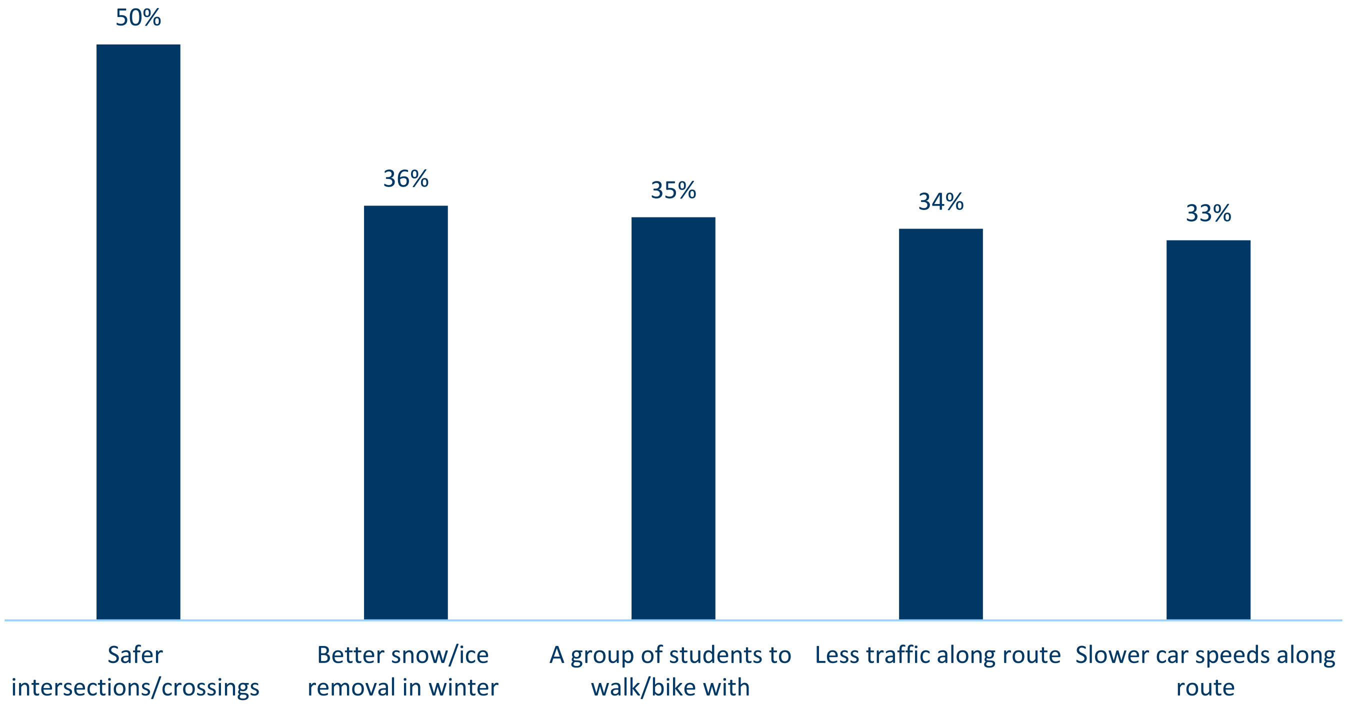


"Richfield is not safe for kids to walk/bike to school. Period. Intersections are a mess and traffic moves too quickly and does not watch for bikers/pedestrians. Even if the school handed out incentives, I would not allow either of my children to walk or bike to school."

-SRTS Survey Respondent

What We Heard, Observed, Learned

Would you probably let your child walk or bike to/from school if this problem were changed or improved?



"Solo los lunes llevo a mi hijo, los demas días usa el bus de la escuela, pero si me gustaría llevar vicicleta un día ala semana y yo iría con el."

("I only take my son on Mondays, the other days he uses the school bus, but I would like to take my bike one day a week and I would go with him.")

-SRTS Survey Respondent

What We Heard, Observed, Learned

High (fast) **motorists' speeds** was a top concern identified by parents/caregivers of school aged children. Other challenges to walking or biking to school included:

- Need to **address crossings** through better marked crosswalks and traffic calming treatments to slow motorists and increase driver stopping/yield rates. Key crossing areas identified:
  - Crossing at 71st and 12th Ave
  - Crosswalks needed on 70th St
  - Crossing at Penn Ave and 60th St
- Need to **address** challenging **intersections**:
  - Thomas Ave and 64th St – drivers run the stop sign
  - 76th St and 35W – right turns are dangerous
  - 66th St and 35W – drivers do not expect bikers and walkers
  - Elliot Ave and 72nd St – lack of intersection control
- Need to **address** challenging **corridors**:
  - 73rd St/Diagonal – high motorists' speeds and lack of sidewalks
  - 66th St – high traffic volumes and speeds
  - 70th St – high traffic volumes and speeds and snow clearing concerns
  - 71st St – Sidewalk needed south of RDLS
  - Portland and Nicollet Ave – drivers running red lights
  - Penn Ave – no bike facilities and sidewalks in poor condition

Summary of Engagement Findings

- **Lower speed limits**!
- **Address crossings** to improve safety and comfort for pedestrians and cyclists and improve motorist yielding rates, especially along higher volume, higher speed streets (e.g. 66th, Penn, Nicollet, Portland, 76th/77th) and near parks.
- **Prioritize** a redesign of **Penn Ave** to better support people walking, biking and rolling and business access.
- **Address highway intersections** and need for **ped/bike/ADA compliant bridge** over 35W.
- Continue to **celebrate** and better **connect routes** to **parks** through street treatments and wayfinding.
- Continue to **prioritize Safe Routes to School**.
- **Traffic calm neighborhood streets**, especially popular walking routes that don't have sidewalks today (e.g. 64th St, 68th St, 69th St, Chicago, Logan).

How Are We Moving Today?

3% Walk

In Richfield, 3.2 percent of commuters walk to work compared to 2.3 percent statewide. ACS, 2021 5- year estimates

2% Bike

In Richfield, 2.1 percent of commuters bike to work compared to 1.5 percent statewide. ACS, 2021 5-year estimates

6% Transit

In Richfield, 6.3 percent of commuters take transit to work compared to 2.7 percent statewide. ACS, 2021 5-year estimates

40% People of Color

Approximately 40 percent of commuters who walk to work are people of color and 20 percent are living in poverty. Richfield Pedestrian Plan, 2018

40% More Walking

Richfield has seen a 40 percent increase in walking where pedestrian improvements have been made (e.g. at crosswalks). Richfield Sweet Streets

33% Without a Car

32.5 percent of people who walk, bike and use transit to get to work do not have access to a car. ACS, 2021 5-year estimates

80 Miles per Day

Richfield ranks the 2nd most in vehicle miles traveled of Twin Cities Inner Ring Suburbs at nearly 80 Miles per household per day. Richfield Climate Action Plan, 2020

30% of Students

30 percent of students live within ½ mile of a school. Richfield SRTS Comprehensive Plan, 2014

700,000 to 1 Million Transit Trips

There are about 700,000 to 1 million people boarding or exiting the bus in Richfield every year. Metropolitan Council, 2019-2022 Transit Stops Boardings and Alightings

How Are We Moving Today?

Pedestrian and Bicyclist Traffic Safety

Source: MnDOT Crash Data (MnCMAT), 2022, 10-year summary

In a ten-year period between 2013-2022:

10% fatal and severe injury crashes

10.6 percent of the 160 crashes involving pedestrians and cyclists were fatal and severe injury crashes, resulting in 2 deaths and 15 severe injuries on Richfield streets.

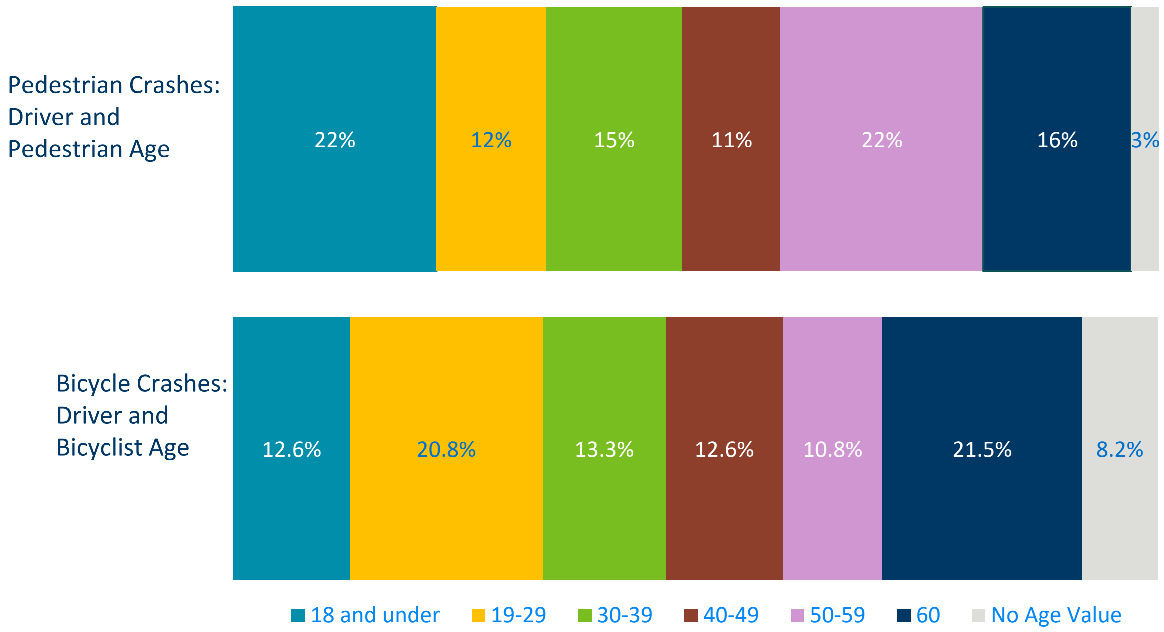
More crashes occur at intersections – Intersections account for 90% of crashes

90.5 percent of crashes involving pedestrians and cyclists occurred at intersections or driveway crossings. This finding supports the need to pursue actions that address intersection safety.

Crashes do not affect all age groups equally

Younger (under 18) and adults over the age of 50 (including drivers' age) are most represented in pedestrian crashes while adults under 29 and over the age of 60 (including drivers' age) are most represented in crashes involving cyclists. This finding supports the need to pursue actions that address safety for younger and older populations.

People Involved in Pedestrian/Bicycle Crashes by Age (2013-2022)



How Does the Built Environment Support Active Trips?

FACILITIES

Facility Type	Existing Mileage
Sidewalks	43.7 mi.
Separated Bike Facilities *(separated bike lanes adjacent to roadways, shared use paths and bollard separated shared use paths)*	12.3 mi.
On-Street Bike Lanes *(painted, unseparated)*	9 mi.
Regional Trails	5.5 mi.
Park Trails	10.2 mi.
Total Street Lane Miles *(not including highway and interstate)*	284 mi.

The existing mileage of sidewalks, trails and bikeways in Richfield. City of Richfield, 2023

LIVABILITY INDEX

Category	Measurement
Avg. percent income spent on housing and transportation costs*	37% (21% housing; 16% transportation)
Avg. number of grocery stores within ½ mile walking distance of neighborhoods**	1.4
AARP Livability Index**	65/100
Walk Score***	58/100
Bike Score***	67/100

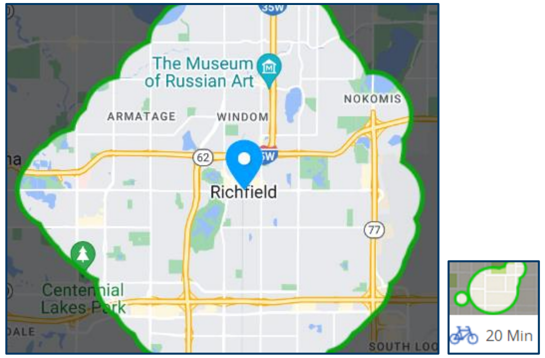
Factors of livability in Richfield.
*H+T Index, Center for Neighborhood Technology (CNT)
**AARP Livability Index (livabilityindex.aarp.org)
***Walkscore.com

TRAVEL TIMES

Distance	Avg. Walk	Avg. Bike
¼ mi	5 min.	1.5 min.
½ mi	10 min.	3 min.
1 mi.	20 min.	6 min.
3 mi.	60 min.	18 min.

The average time it takes to walk or bike places within a ¼ mile to 3 mile distance. *Time based on average walking speed of 3 mph; average biking speed of 10 mph.*

Area accessible within a 20-minute bike from Richfield City Hall. *Walkscore.com*



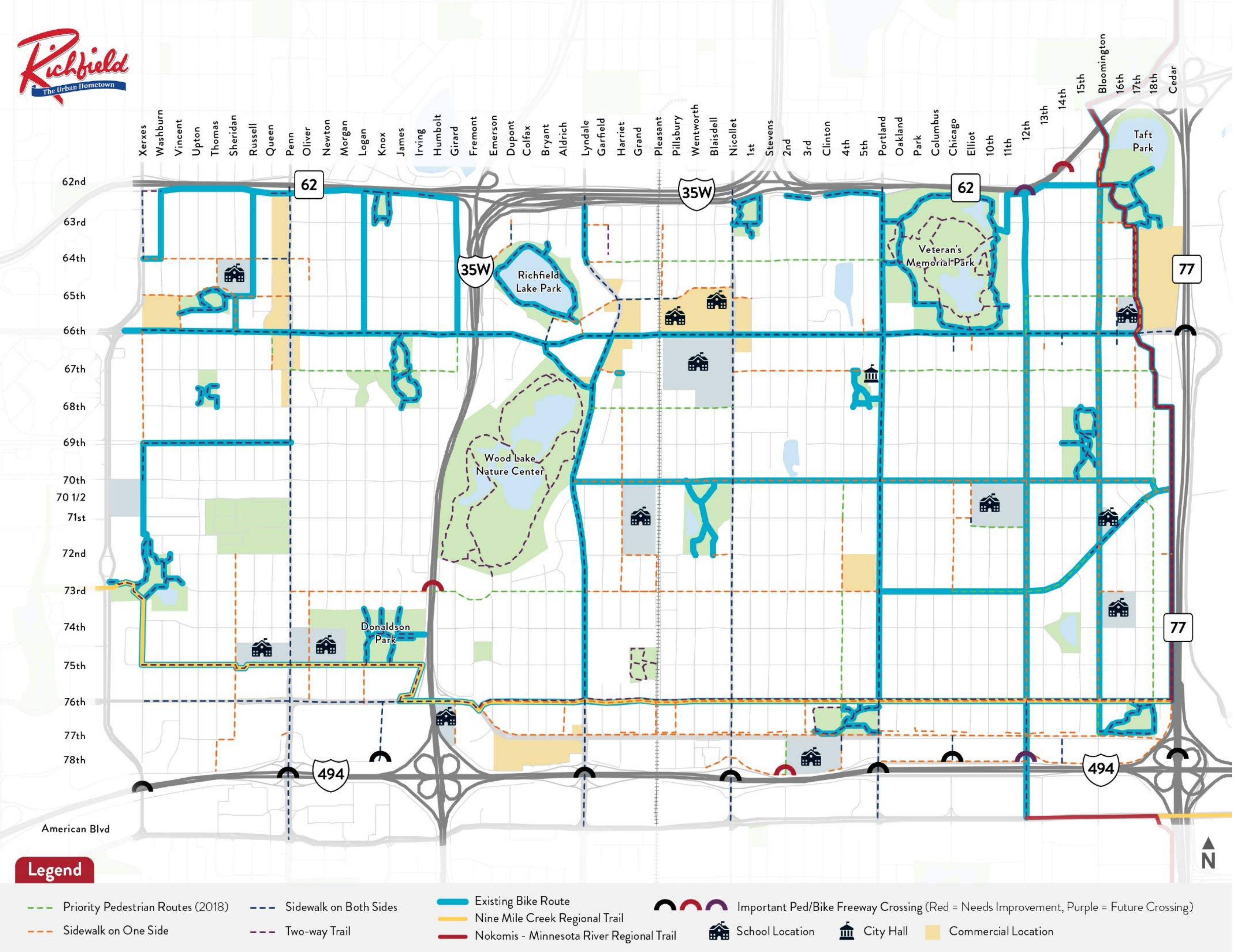
Building the Network

SECTION 4

Photo: Alta Planning

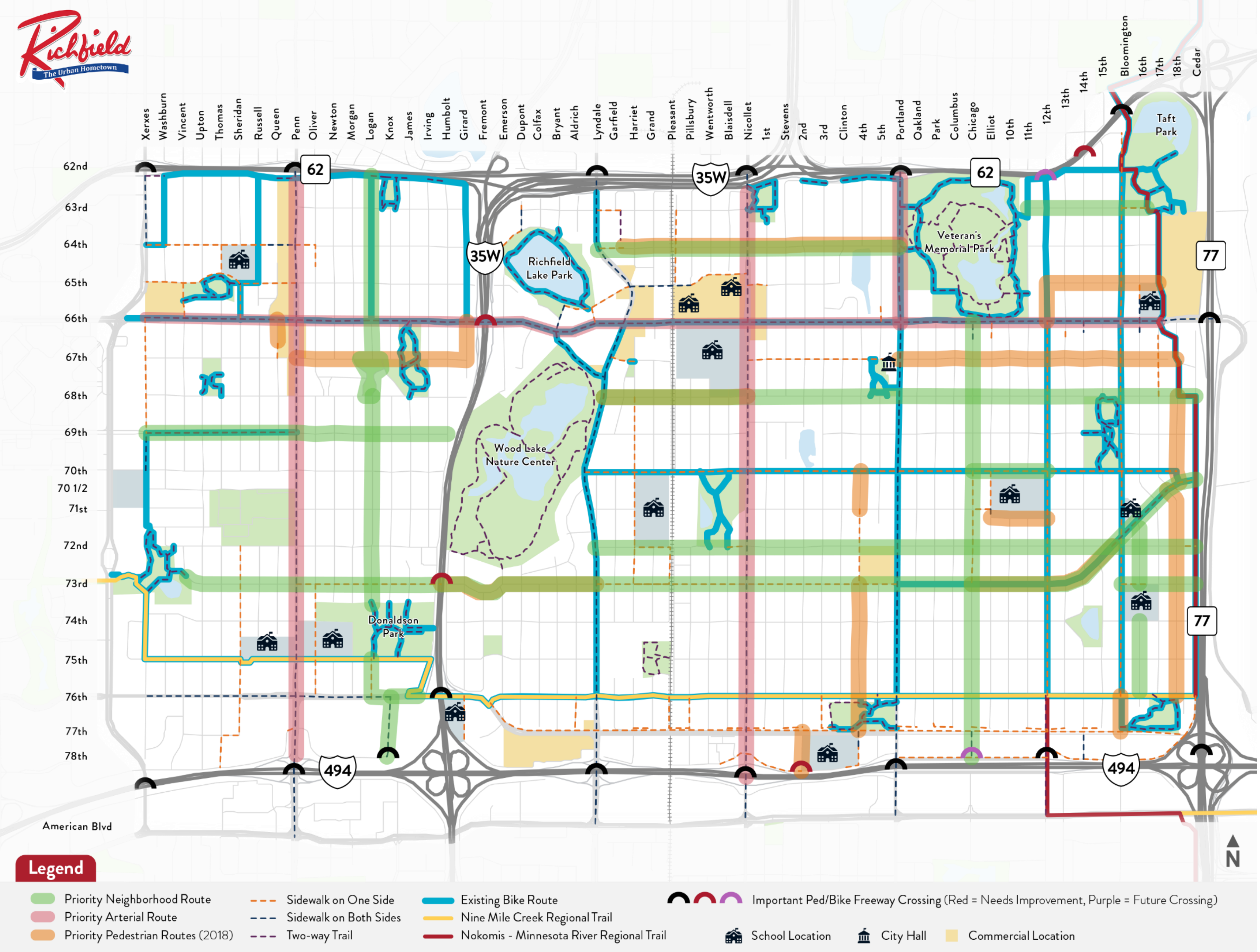
EXISTING NETWORK

Bike and Pedestrian Routes



PRIORITY NETWORK

Bike and Pedestrian Routes



Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline		Type			
		Near Term	Long Term	Policy	Program	Practice	Capital Investment
Prioritize and complete 73rd Street as a key East-West bicycle and walking route.	Apply for relevant local, state and/or federal grant opportunities to fund this project.	✓					✓
	Begin conversations with MnDOT to explore feasibility of changing access at Diagonal Boulevard and new ped/bike bridge over I-35W	✓					✓
	Incorporate ped/bike priority crossing of Nicollet Avenue and 73rd Street in Hennepin County's reconstruction of Nicollet.	✓					✓
	Develop a corridor vision or concept plan to improve pedestrian and bicycle safety conditions along the corridor, focusing on a low-stress, All Ages and Abilities Route.		✓				✓

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline: Near Term	Timeline: Long Term	Type: Policy	Type: Program	Type: Practice	Type: Capital Investment
Define residential streets as "Neighborhood Greenways" (or bicycle boulevards) with traffic calming and management tools.	Develop design guidance to define residential streets as shared streets or "Neighborhood Greenways" that create low stress, East-West and North-South priority walking and biking routes.	✓				✓	
	Identify a demonstration project to test and refine ideas with the neighborhood; consider 63rd Street to further refine and implement 2011 Greenway Concept Plan. Neighborhood Greenway candidates: • 63rd Street between Taft Park and Veterans Memorial Park • 64th Street between Veterans Memorial Park and Richfield Lake Park • 68th Street between Cedar Avenue & Wood Lake Nature Center • 73rd Street between Lyndale Avenue to Adams Park • Logan Avenue between 62nd Street and Donaldson Park • Chicago Avenue between Veterans Memorial Park and [future] 494 pedestrian/bike bridge		✓				✓

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline: Near Term	Timeline: Long Term	Type: Policy	Type: Program	Type: Practice	Type: Capital Investment
Work with Hennepin County to make Portland Avenue an All Ages and Abilities Route, and ensure the City's target speed of 25 mph is achieved.	Identify sidewalk maintenance needs between 62nd and 66th Streets.	✓				✓	✓
	Lower corridor posted speed limit and target speed to 25-30 mph (currently posted at 35 mph).	✓		✓		✓	
	Reconstruct on-street bike lanes to separated bike lanes.		✓			✓	✓
Address concerns with motorists' speeds and bikeway design on 69th Street between Penn and Xerxes.	Refine design and test traffic calming tools, such as neighborhood traffic circles. *This stretch is identified in the 2026-2027 Capital Improvement Plan (CIP).*	✓					✓

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline		Type			
		Near Term	Long Term	Policy	Program	Practice	Capital Investment
Center active transportation users in the Nicollet Avenue redesign, prioritizing people walking, rolling, biking and using transit, followed by other vehicles in design decisions.	Coordinate closely with Hennepin County on all aspects of the project from scoping to construction.	✓					
	Create the next Complete and Green Streets model for the city and county by incorporating national best practices in bikeway, pedestrian, transit and green infrastructure, including separated bike lanes (or multi-use trails) and intersection (roundabout and/or signalized) design.	✓					
	Review and update, as needed, city lighting standards to ensure pedestrian and bicycle scale (human scale) lighting.	✓		✓		✓	
	Center people's lived experience walking, biking and rolling along and across Nicollet in design and engagement process, including corridor walk and rolls, bike audits, front lawn conversations, bus stop interviews and more.	✓					
	Coordinate with City of Minneapolis, Metro Transit and Hennepin County if/when the Minneapolis section of Nicollet is redesigned.		✓				

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline: Near Term	Timeline: Long Term	Type: Policy	Type: Program	Type: Practice	Type: Capital Investment
Address high motorists' speeds, lack of marked crossings and other challenges along Penn Avenue.	Work with Hennepin County to prioritize and seek funding for a full street redesign of Penn Avenue to achieve a design that allows Richfield School District to remove "walk hazard boundary" designation between 62nd and 66th Streets.	✓				✓	✓
	Review 2021 Penn Avenue Corridor Study for low cost, high impact interim projects to evaluate and implement. Potential funding source include: Hennepin County's Cost Share Program and Highway Safety Improvement Program.	✓				✓	✓
	In partnership with Hennepin County, right-size Penn Avenue to ensure people of all ages and abilities walking, biking and rolling are provided safe, comfortable and convenient paths, crossings and connections to businesses.		✓			✓	✓

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline: Near Term	Timeline: Long Term	Type: Policy	Type: Program	Type: Practice	Type: Capital Investment
Support and Sustain Safe Routes to School (SRTS) Program							
Work with Richfield Public School District to fund a permanent SRTS position to ensure the sustainability of the program.	Discuss and identify a collaborative funding approach with SRTS Coordinator, School District and City.	✓			✓		
Develop a “School Street” pilot, to encourage walking and biking to school.	Identify location(s) to pilot School Street(s).	✓			✓		
	In coordination with SRTS Coordinator and School District, pilot a School Street. Consider a one-month demonstration, pairing the event with International Walk to School Month (October) or National Bike Month (May) to support goals to increase participation in walk and bike to school days.	✓			✓		

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline: Near Term	Timeline: Long Term	Type: Policy	Type: Program	Type: Practice	Type: Capital Investment
Support and Sustain Safe Routes to School (SRTS) Program, Continued							
Continue implementing quick-build demonstration projects near schools and along key routes to school.	Identify opportunities, including potential sources of funding, for the City to make quick build projects at and near schools a permeant program and practice.	✓			✓	✓	
Work with the City Transportation Committee and City Council to identify funding approaches.	Continue to serve as a local match for SRTS grants.	✓				✓	✓
	Create a city funding mechanism for SRTS projects.	✓		✓			✓

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline		Type			
		Near Term	Long Term	Policy	Program	Practice	Capital Investment
Plan Documents							
Create a plan document framework aligned with the City's Equity Plan.	Establish a plan framework to dovetail the City's Equity Plan and implementation of the Active Transportation Action Plan, established plans and policies (noted below)	✓				✓	
Update Bicycle Master Plan.	Identify approach to updating the 2012 Bicycle Master Plan.	✓				✓	
Update SRTS Master Plan.	Coordinate with SRTS Coordinator and School District on approach for a Plan update.	✓				✓	
Update Pedestrian Plan.	Identify approach to updating the 2018 Pedestrian Plan.	✓				✓	
Update Complete Streets Policy.	Review and revise Complete Streets Policy to ensure it is up-to-date.	✓				✓	
Review Guiding Principles.	Review Guiding Principles to ensure the document meets needs of community. If revisions are needed, establish a process for the update.	✓				✓	

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline: Near Term	Timeline: Long Term	Type: Policy	Type: Program	Type: Practice	Type: Capital Investment
Improve the Comfort and Safety for People Walking & Bicycling at Intersections and Mid-block Crossings							
Provide regular crossing opportunities on collector and arterial streets, especially at unsignalized crossings or mid-block locations.	Review and update policies and practices, as needed, to establish best practices and a consistent process for reviewing, prioritizing and maintaining pedestrian and bicycle crossings.	✓		✓		✓	
	Identify highest need crossing locations and seek funding to address crossing challenges from safety to maintenance.	✓				✓	✓
Give priority to people walking and biking on collector and arterial streets when crossing driveways and side streets.	Update design guidance to include tools such as raised table crossings to keep sidewalk or bikeway at grade (doesn't dip down) across side streets and driveway crossings. This also creates a gateway and traffic calming effect into the neighborhoods, signifying to people they have entered the "home zone." Consider this approach in Nicollet redesign and take steps needed to address State Aid Rules.	✓				✓	

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline		Type			
		Near Term	Long Term	Policy	Program	Practice	Capital Investment
Improve the Comfort and Safety for People Walking & Bicycling at Intersections and Mid-block Crossings, Continued							
Work with Hennepin County to evaluate and modify traffic signal operation and improve safety and convenience for pedestrians and bicyclists crossings at signalized intersections.	Based on street context, identify signalized intersections that would benefit in signal modification (e.g. 76th Street and Knox to improve pedestrian connections to BRT station) to better support people walking and biking. Evaluate pedestrian signal tools such as: • Automatic recall of pedestrian walk signal. This way pedestrians do not have to press a button except where doing so would provide greater benefit (e.g. longer walk phase). Indicate whether the button needs to be pressed for the walk phase or a longer walk phase with sign modifications. *Note: ADA requires pedestrian push buttons be installed to provide audio and tactile text (Braille) information to pedestrians when activated, but does not preclude pedestrian recall function.* • Adjust and restrict vehicle turns at intersections with measures like "No Turn on Red," leading pedestrian intervals, left turn restrictions and lagging left turns. This includes a policy review.	✓		✓		✓	

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline: Near Term	Timeline: Long Term	Type: Policy	Type: Program	Type: Practice	Type: Capital Investment
Improve the Comfort and Safety for People Walking & Bicycling at Intersections and Mid-block Crossings, Continued							
Continue to prioritize the safety and comfort of people walking and biking in existing and future roundabout designs.	Evaluate entry and exit speeds of motorists at existing roundabouts to identify where additional tools or geometric modifications might be needed to improve motorist yielding behavior. Ensure speeds are no more than 20-23 mph.	✓				✓	
	Apply best practices for roundabouts that create more of a protected intersection for people biking from national and international best practices.		✓			✓	

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline: Near Term	Timeline: Long Term	Type: Policy	Type: Program	Type: Practice	Type: Capital Investment
Improve the Comfort and Safety for People Walking & Bicycling at Intersections and Mid-block Crossings, Continued							
Work with MnDOT to address active transportation barriers created by the highway system.	Advocate for MnDOT to fund and build ADA compliant pedestrian and bike bridges across Highway 62, 35W and 494 as part of the City's legislative agenda.	✓		✓			
	Advocate for and support an update to MnDOT State Aid rules.		✓			✓	
	Continue to identify, coordinate and leverage opportunities to improve the active transportation facilities during highway capital projects with MnDOT and neighboring cities.						
Lower Speed Limits to Support Traffic Safety Goals							
Lower the default posted speed for streets citywide (25 mph or less).	Work with City Council to pass citywide speed limit reductions.	✓		✓			

Near Term = 0-3 years | Long Term = 4-7 years

Strategic Projects to Advance Active Transportation Network

Action	Incremental Steps	Timeline: Near Term	Timeline: Long Term	Type: Policy	Type: Program	Type: Practice	Type: Capital Investment
Lower Speed Limits to Support Traffic Safety Goals, Continued							
Ensure lower speeds on residential streets.	Work with City Council to ensure citywide speed limit reductions reflect the character and slower speed environment of residential streets. *Best practice: Residential streets should achieve a target speed of 15-20 mph.*	✓				✓	
Utilize Traffic Calming Approaches to Ensure Lower Speeds by Design							
Create a Neighborhood Traffic Calming Program.	Begin conversations with Transportation Committee and City Council to find/allocate dedicated funding to pursue traffic calming tools to ensure lower speeds by design.	✓			✓		✓
	Develop a go-to traffic calming design toolbox using the city's typical street sections.	✓				✓	
	Continue to seek funds for demonstration projects to model new traffic calming tools such as neighborhood traffic circles.	✓				✓	✓
	Identify a process for community groups to engage and propose traffic calming and demonstration projects.	✓			✓		

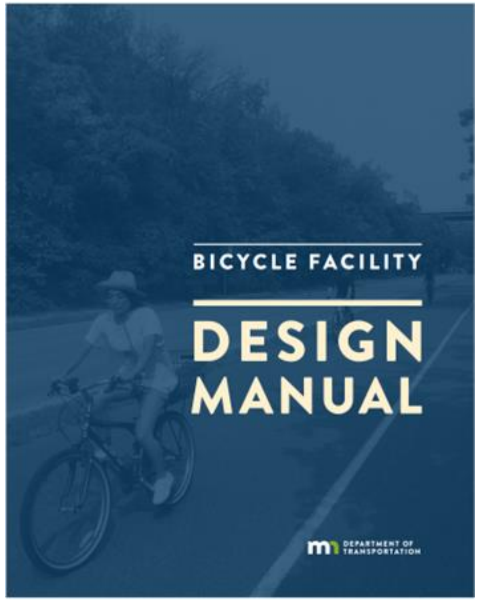
Near Term = 0-3 years | Long Term = 4-7 years

Best Practices

SECTION 5

About Best Practices Section

The recommendations presented in this Plan are based on evidence-based best practices in active transportation design. This section provides a high-level overview on several key concepts that can be further explored and referenced in design guides such as the MnDOT Bicycle Facility Design Manual and Best Practices for Pedestrian and Bicycle Safety and the NACTO Urban Street Design Guide.

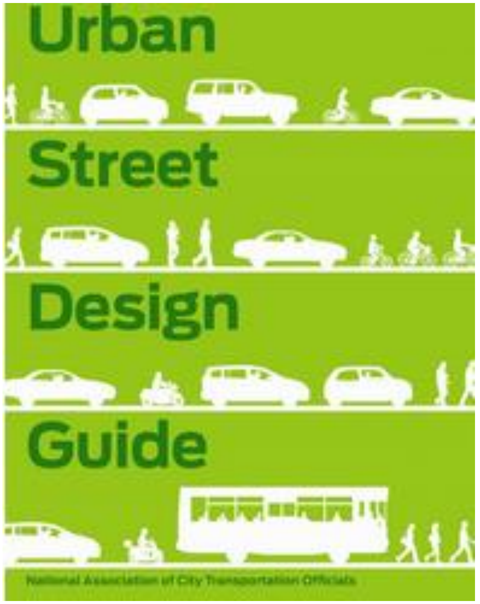


[Bicycle Facility Design Manual]

Minnesota Depart of Transportation (MnDOT), 2020

[Minnesota's Best Practices for Pedestrian and Bicycle Safety]

MnDOT, 2021



[Urban Street Design Guide]

National Association of City Transportation Officials (NACTO)

CORE CONCEPTS

10-Foot Travel Lanes

As Richfield continues to right-size streets to better support active transportation users and achieve slower, safer motorists' speeds (25 mph or less), narrower travel lanes are an important tool to consider.

Narrowing travel lanes can reduce the operating speed of traffic while also providing the additional space needed for bikeways. To support pedestrians and bicyclists streets should maximize buffer space between active transportation users and motorists and work to manage safe speeds by design for all. This often means setting the default lane width to 10-feet, with permission to go up to 11-feet, and using remaining street width to mark buffer space. Wider buffers reduce side-swipe risks or allow large vehicle operating space (e.g. bus, fire truck, snow plow) without increasing design speeds. Ten-feet-wide lanes have a positive impact on a street's safety without impacting traffic operations. (NACTO.org)

Context Sensitive: AASHTO's *A Policy on Geometric Design of Highways and Streets,* commonly referred to as the "Green Book," provides flexibility to use 10-foot-wide travel lanes in a variety of situations depending on operating speeds, volumes, traffic mix, design vehicle, horizontal curvature, use of on-street parking and street context.

Minnesota State Aid Standards (Part 8820.9941) note minimum lane width of 10 feet may be allowed on streets with bike lanes when design speeds are less than 35 mph and when all street factors are taken into account (e.g. bus route, traffic mix, land use, right of way constraints, truck volume). It also notes engineering judgment should be used.

"Ten-foot lanes do not result in an increase in crashes or reduce vehicle capacity on roads with speeds of 45 mph or less. Narrower lane widths can contribute to lower vehicle operating speeds, which can increase safety for all roadway users." (FHWA Bicycle Selection Guide, 2019)

> "Travel lanes could be as narrow as 10 feet. Narrower lanes and narrower street width are associated with fewer crashes."
>
> (MnDOT Technical Memorandum No. 17-12-TS-05 and No. 18-09-TS-06)

CORE CONCEPTS

Modern Roundabouts

A SAFER CHOICE BY DESIGN

Modern roundabouts, including mini-roundabouts, are a Federal Highway Administration (FHWA) "Proven Safety Counter-Measure," creating a safer intersection for all users:

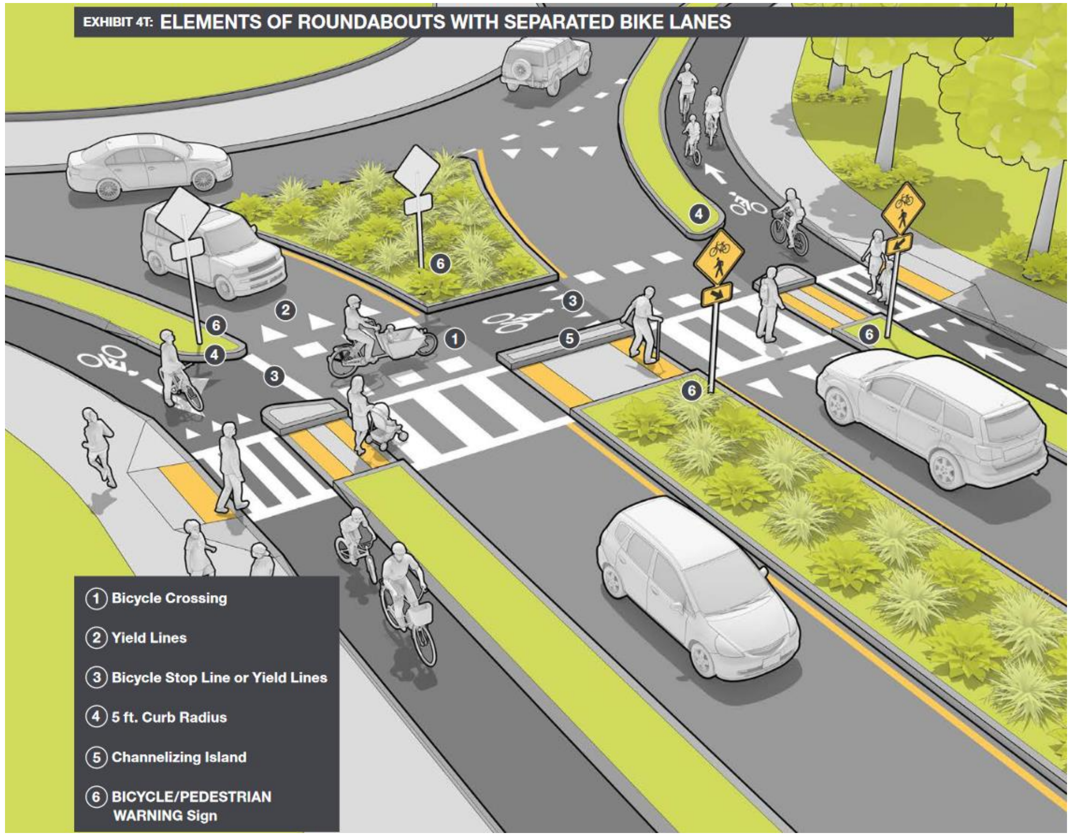
- 90% reduction in fatal crashes
- 75% reduction in injury crashes
- 30-40% reduction in pedestrian crashes
- 10% reduction in bicycle crashes
- 30-50% increase in traffic capacity

A single-lane modern roundabout can handle up to 25,000 vehicles per day (a mini-roundabout slightly less); a double-lane roundabout can handle up to 43,000 vehicles per day. When designed properly, roundabouts ensure motorists speeds of 15-23 mph, which increases drivers' ability to judge and react to other people driving, walking and biking. Roundabouts also create gateway treatments, providing space for local art and signage.

Given the safety benefits, many communities consider roundabouts first during intersection improvements.

Richfield is proving the power of the roundabout for its traffic management, flow and safety capabilities.

Roundabout 2.0: The City should continue to advance roundabout design (new and current) by applying best practices to prioritize pedestrian and bicyclist crossings and better integrate protected bike lanes.



Massachusetts DOT diagram showing guidance for roundabouts with protected (separated) bike lanes and crossings based on best practices from the Netherlands (https://www.mass.gov/doc/chapter-4-intersection-design-0/download).

CORE CONCEPTS

Protected Intersections

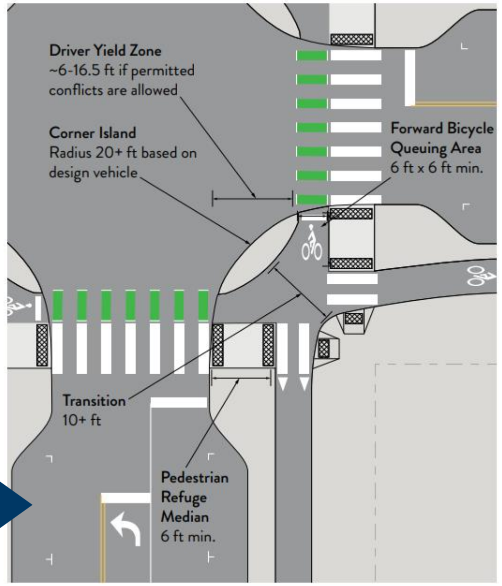
DEDICATED SPACE FOR EACH MODE

Protected intersections provide dedicated space for each mode of travel: walking, biking and driving. They can be implemented at stop-controlled or signalized intersections and are most often used with separated bike lanes, but may be used with conventional bike lanes, paved shoulders, or even shared lanes. A variation on the standard protected intersection can also be designed for two-way bicycle traffic on one side of the road.

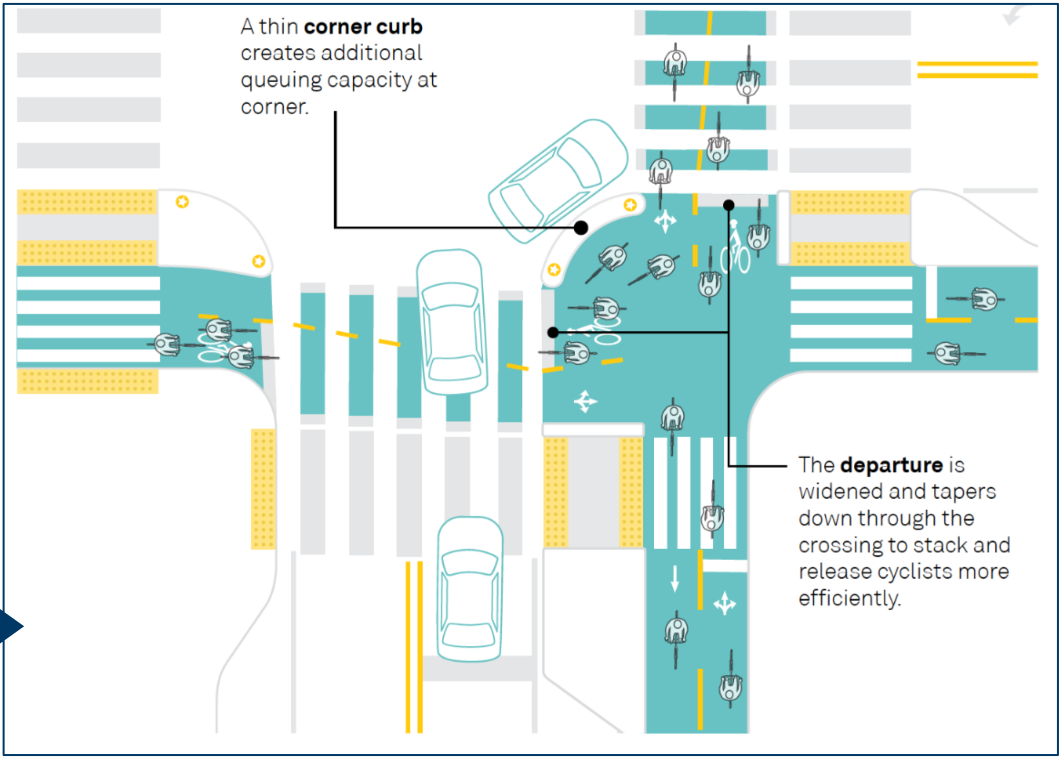
Benefits include:

- Provide clear right-of-way assignment between modes
- Maintain physical separation between bicyclists and motor vehicles through an intersection
- Place queued bicyclists in front of and in clear view of drivers
- Improve visibility of bicyclists for motorists' while turning
- Clearly define pedestrian and bicycle operating spaces
- Reduce pedestrian and bicycle crossing distance
- Reduce motor vehicle turning speed

Source: MnDOT Bicycle Facility Design Manual, 5-37 and 5-38.



Key features include a corner island, forward bicycle queueing area, driver yield zone and pedestrian refuge median.
Source: MnDOT Bicycle Facility Design Manual



Alternative design for two-way bicycle traffic on one side of the road.

Source: NACTO, "Don't Give Up at the Intersection" [Variations | National Association of City Transportation Officials (nacto.org)]

CORE CONCEPTS

Crossings

High visibility marked crossings are needed to help mark potential conflict zones and ensure all users understand how to safely yield and stop for each other. There are different levels of treatments depending on the crossing context and complexity (e.g. motorist speeds, volume of traffic, number of lanes, signal control, geometric characteristics).

Z-crossing median refuges break complex crossings into two simpler crossings as people only need to navigate one direction of traffic at a time. An angle in the median positions people to face oncoming traffic before crossing. It also provides storage space for bikes. *Image credit: Global Designing Cities Initiative*

Where bicyclists need to stop, providing a **lean bar** is a helpful amenity.

Raised table crosswalks work well at side streets or driveways to give people walking or biking priority, reinforce motorist stop location, slow motorist turning speeds and increase motorist yielding behavior.

CORE CONCEPTS

Traffic Calming

Traffic calming adds street treatments such as neighborhood traffic circles, chicanes, pinchpoints and more to improve safety and livability of neighborhood streets by reducing cut-through traffic, motorists' speeds and improve the street environment for people walking (especially when no sidewalks exist), rolling and cycling.

Richfield's neighborhood residential streets are low-volume and provide the opportunity for the City and residents to create a fine-grain, low-stress shared street environment for people to walk, bike, play and get to know their neighbors through the addition of traffic calming measures.

Quick build neighborhood traffic circles. Top image: Richmond, CA Bottom image: Edgerwater, CO

Community created wayfinding in neighborhood traffic circle. Seattle, WA

Neighborhood traffic circle with street tree and mountable curb. Seattle, WA

Chicanes are curb extensions that create a serpentine, horizontal shifting, effect. Minneapolis, MN

Pinchpoints narrow a street to one lane, drivers slow down and yield to other drivers. Seattle WA

TRAFFIC CALMING

LEARNING FROM Seattle, WA

Traffic Calming Program

Seattle's Traffic Calming Program has been in place for more than 50 years. Seattle Department of Transportation (SDOT), in partnership with residents has installed 1,000s of neighborhood traffic circles (also known as mini-circles) and other traffic calming devices.

Program Purpose

Reduce collisions and speeds on neighborhood streets, creating safer and more pleasant neighborhoods.

Strong Support from Residents

- 100 requests for new traffic circles and 400 signatures are received annually
- 80-90% of residents feel traffic circles have been effective and want to keep them permanently

Program Highlights

- 2015 SDOT piloted 20 mph zones in five areas citywide to guide focus of limited traffic calming dollars on streets where speeds are high or high accident intersections and other prioritization factors such as near schools, parks or other pedestrian generators
- Potential projects are identified through community requests or the city's identified high accident or high speed streets
- To maximize annual traffic safety funding, the city uses a ranking criteria
- Residents must submit a petition with signatures representing 60% of households within a one-block radius of proposed traffic circle
- Traffic circles cost $15,000-25,000

LEARNING FROM Minneapolis, MN

Traffic Calming Program

In 2022, Minneapolis approved a new process for neighborhood traffic calming to ensure a more fair, equitable, transparent and efficient process to supporting more effective safety improvements in neighborhoods. The City is committed to adding more traffic calming across the city in support of the changes in citywide speed limits and Vision Zero traffic safety goals, Complete Streets and the Active Transportation Plan.

Program Purpose

Improve access to livable, efficient and pleasant streets.

Program Highlights

- Anyone can apply for neighborhood traffic calming, including residents, property owners, business owners and neighborhood or business organizations
- No funding is required from the applicants and/or the neighborhood. This traffic calming process is annually funded by the Minneapolis Department of Public Works
- Public Works screens and scores traffic calming applications based on a defined set of criteria
- Public Works collects data and produces design recommendations for final scoring and design
- The selected neighborhood stays involved as Public Works implements
- Annual application and implementation process

CORE CONCEPTS

Home Zone

In 2019, Seattle launched a “Home Zone” Program focused on residential streets without curbs and sidewalks (26% of all Seattle streets) to work with residents to design safer, more cost effective walkable streets by using traffic calming measures, low-cost walkway markings and neighborhood street activation, art and beautification. Seattle found that drivers travel 6% faster on neighborhood streets without curbs, parked cars and sidewalks.

The City of Seattle works collaboratively with neighborhoods to create a home zone plan. The entire neighborhood works together to prioritize traffic calming, pedestrian mobility and neighborhood livability improvements.

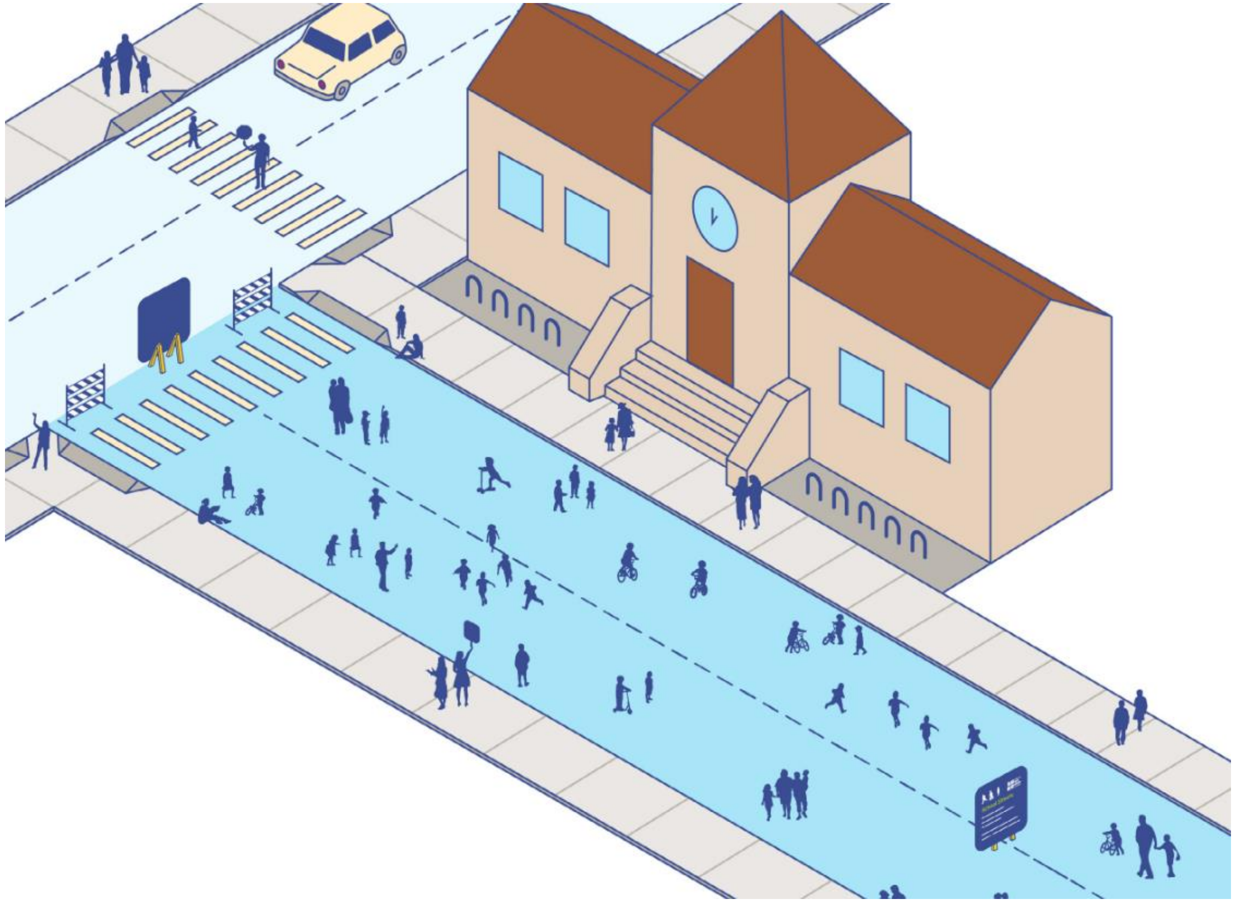
- Create safe and walkable neighborhoods for people of all ages and abilities.
- Create holistic plans that address traffic calming and maintaining local access.
- Improve resident's quality of life and strengthen community.

Resource: Home Zone Toolkit

CORE CONCEPTS

School Streets

School Streets are temporary car-free zones adjacent to or leading up to a school that are strategically closed to vehicle traffic and opened to children walking, biking and rolling. School Streets help manage traffic and improve safety during school arrival and dismissal by eliminating vehicle congestion in front of schools and creating an environment where children can safely walk, bike, roll, play and learn before, during and after school.



Resource: MnDOT School Streets Guide
Child Health Initiative School Streets: Putting Children and the Planet First

CORE CONCEPTS

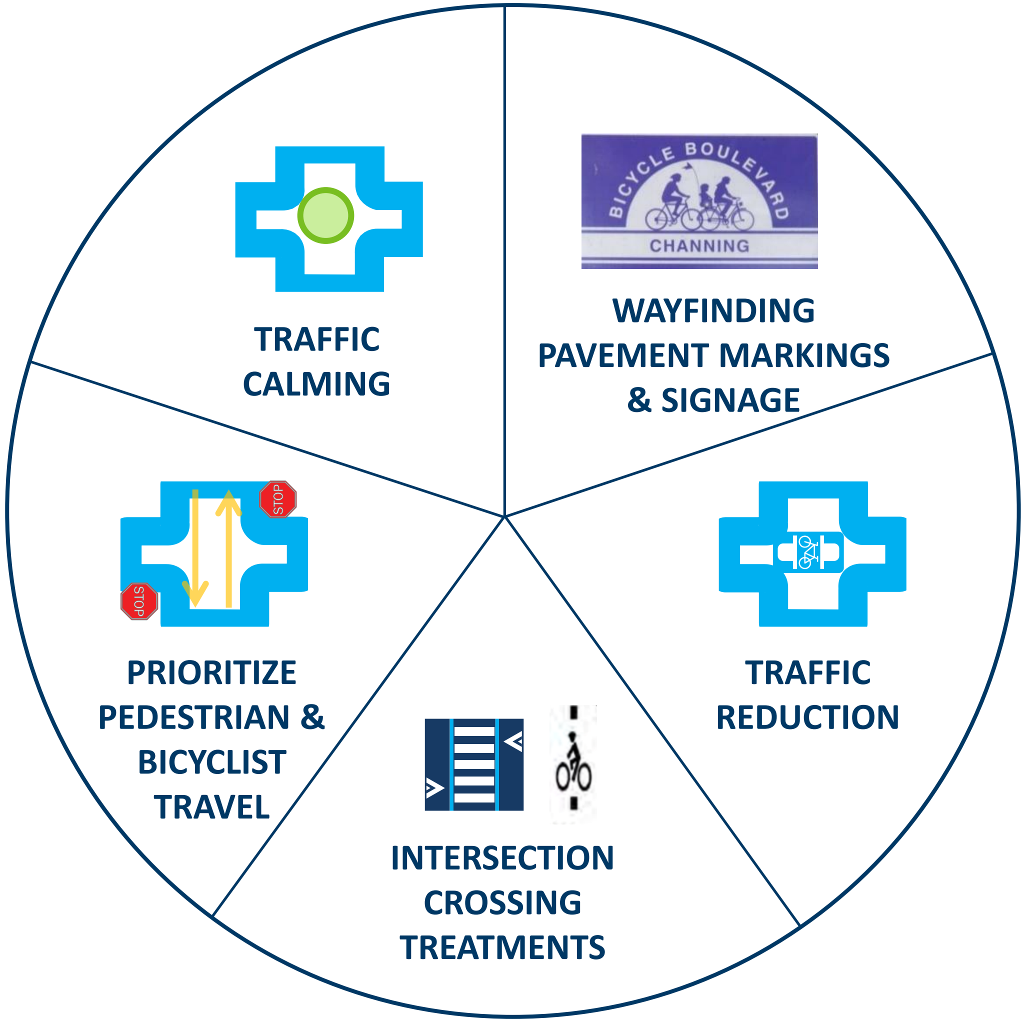
Neighborhood Greenways

Neighborhood Greenways (or bicycle boulevards) are **low-volume** and **low-speed** neighborhood **residential streets** that **prioritize people walking** and **bicycling**, and discourage motor vehicle through traffic. Street design elements are mixed and matched along the corridor to:

- Reduce or maintain low motor vehicle volumes
- Reduce or maintain low motor vehicle speeds
- Create a direct, coherent (logical) and continuous route
- Create access to key community destinations
- Create comfortable and safe intersection crossings
- Give priority to people walking and cycling, reducing delay

Combined, these treatments create an **attractive, convenient and comfortable shared street environment** that is welcoming to people of all ages and abilities walking and bicycling.

A MIX OF DESIGN ELEMENTS



Adapted from Portland Bicycle Boulevard Guide: [PortlandBicycleBoulevardGuidebook.pdf]

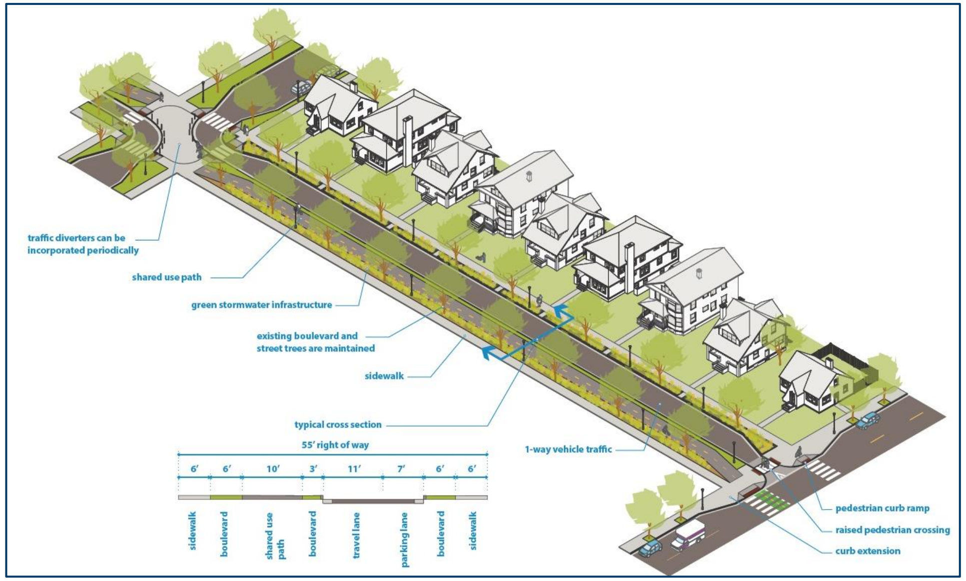
CORE CONCEPTS

Neighborhood Greenways

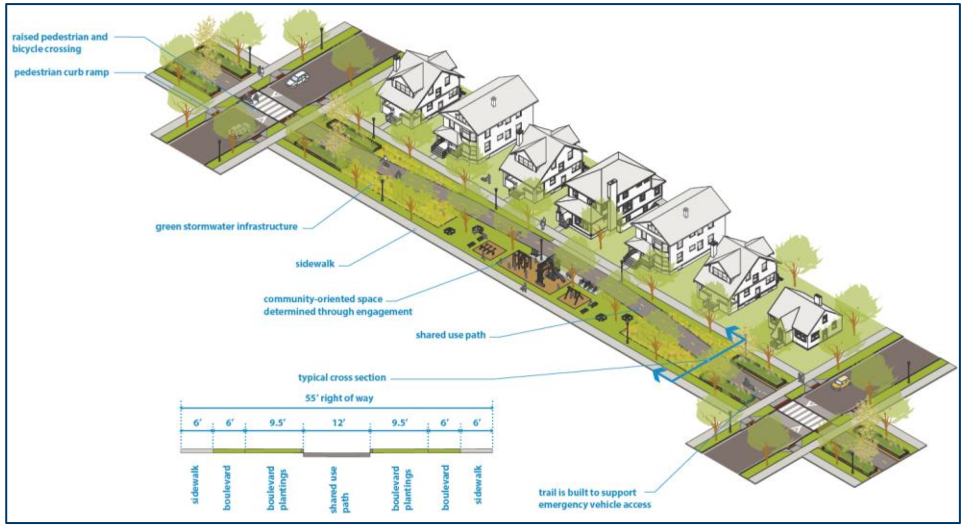
Example of a two-lane neighborhood greenway or bicycle boulevard.

Source: Minneapolis Street Design Guide

Example of a neighborhood greenway with 1-side multi-use trail, 1-way traffic and 1-side parking.



Example of neighborhood greenway with no motor vehicle access for 1-2 blocks.



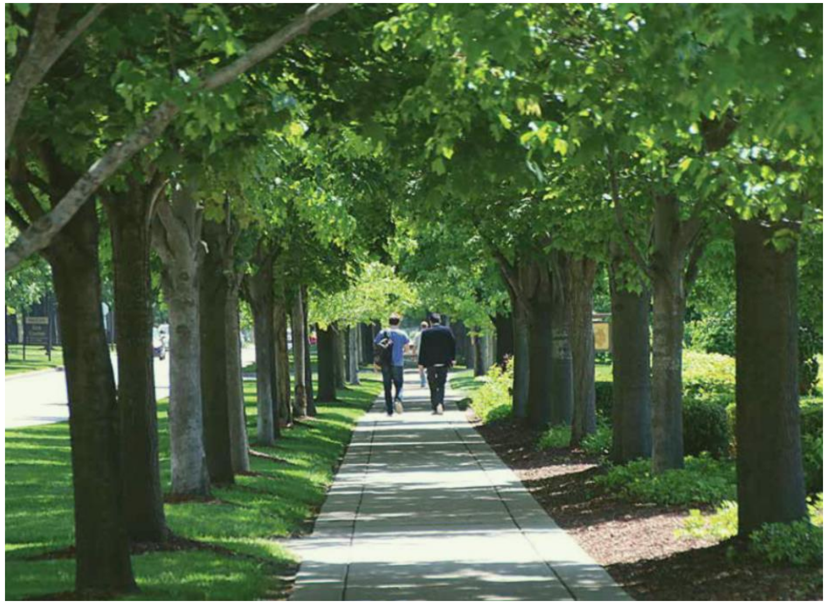
Street Trees

Street trees greatly improve active transportation users level of quality. They also provide traffic calming and environmental benefit:

- **Improve Safety:** A well developed tree canopy can reduce traffic speeds by 5 to 15 mph
- **Reduce storm water runoff:** Trees absorb 30% of precipitation through their leaves and another 30% through their roots
- **Cool Environment:** Pavement can increase temperatures by 3 to 7 degrees, which increases energy costs and urban heat gain. Tree shade can reduce energy bills by up to 35%

Planting street trees requires careful consideration of tree species and placement to ensure benefits, maintenance and long-term health of trees are achieved.

(*Street Trees | A Livability Fact Sheet.* AARP, 2014. https://www.aarp.org/livable-communities/info-2014/street-trees-fact-sheet.html)



Richfield, MN

CORE CONCEPTS

Green Infrastructure

Minneapolis Parks Department has started tree nurseries to meet city climate and street tree planting goals.

The surface of the Jackson Street (St. Paul, MN) two-way grade-separated bikeway (or two-way cycle track) is a porous asphalt that helps with stormwater management, winter maintenance and rideability. The landscaped buffers are bio-filtration basin and tree trench systems to provide filtration of stormwater run-off and snow storage in the winter.

Curb extensions (or bump-outs) provide space for rain gardens, native plants and snow storage while reducing crossing distances for people on foot.

CORE CONCEPTS

Placemaking

ACTIVATING PUBLIC SPACES

Great public spaces are places where people of all ages, abilities, and socio-economic backgrounds not only access and enjoy, but also play a key role in creating. Placemaking is both an overarching idea and a hands-on approach to actively ignite the creativity and leadership of the community. To activate parks, plazas, trails and downtown communities are adding moveable chairs, games and other pop-up events. They are testing wayfinding through low-cost temporary signs and much more. Learn more about placemaking at Project for Public Spaces (pps.org).

CORE CONCEPTS

Bicycle Parking

PROVIDE SAFE, SECURE, CONVENIENT PLACES TO PARK BICYCLES

High-quality, abundant bike parking is an essential element to a bike-friendly city. Continue to ensure there is ample bike parking located right up front (near entrances) to key destinations and businesses and, ideally, protected from the weather (pictured top right). Where people need to park their bikes longer, such as transit stops, provide more secure bike storage options like bike lockers, shelters or cages (pictured bottom right).


Bike parking in Amsterdam. Getty Images


© Jonathan Maus/BikePortland


Portland, OR

RTD, Denver CO


King County, WA

Winter Maintenance

The design and maintenance of streets and pedestrian and bike facilities directly impact people's decision to walk or bike, especially in winter. People biking, walking or using a mobility aid device are susceptible to the negative impacts of delayed maintenance. They are discouraged from venturing outdoors when snow and ice impede their ability to access their destination.

Winter maintenance is a factor for the design of active transportation improvements throughout Richfield. **Richfield should continue to innovate and improve its active transportation infrastructure clearing programs, especially at corners, transit locations and intersections.**

Being a winter city calls for the City to continue to work with other road partners, residents and business owners in creative solutions to addressing winter maintenance challenges.

Resource: Winter Maintenance, Toole Design (2019)

The separated bikeway (pictured) in Edmonton, Canada provides space for snow storage while increasing the sense of comfort for people biking.

Photo source: globalnews.ca

Moving Forward

SECTION 6

Conclusion

This Action Plan is a living guide. It is intended to be used, refined, and adjusted as the City and Public Works team take steps in continuing to implement street projects that center and advance active transportation.

There is much to celebrate in Richfield's Complete Streets and active transportation journey:

- Implementation of road diets or 4-to 3-lane conversions on main arterial roads, which include separated bike lanes and safer intersection treatments like roundabouts
- Multiple quick-build demonstration projects in partnership with Richfield Public Schools
- Dedicated winter maintenance program to clear trails, bikeways and sidewalks citywide after snowfall
- Strong advocacy with MnDOT and other partners to ensure transportation justice as seen with the new pedestrian and bicycle bridge over I-494 (at Chicago Ave)
- And more!

Next Steps

Based on community input from this planning process, there is a need to address concerns around traffic speed and safety. As a first step, the City is working to lower speed limits citywide.

This plan lays out action steps to further achieve safer streets by design to maximize opportunities for people to walk, roll and bike to school, parks, shops and neighboring cities.

Keep the momentum going! Broaden community education and engagement through bike rides, Open Street events, Adult Learn to Ride bike education and other Walk! Bike! Fun! advocacy events in partnership with Bike Walk Richfield, BikeMN and other community organizations.

Leverage these partnerships in the next steps to:

1) **Create a Neighborhood Traffic Calming Program and design toolbox**
2) **Seek funds to pilot Neighborhood Traffic Calming Program and continue quick-build projects aligned with the City's Equity Plan** (forthcoming)
3) **Collaborate with Hennepin County on the Nicollet Avenue project to create the next model Complete and Green Street**
4) **Use this Action Plan as a guide, updating it every 5-years**

Source	Funds	Purpose
FHWA	Safe Streets and Roads for All (SS4A)	Low-cost infrastructure; education; monitoring and evaluation
FHWA Reconnecting Communities Pilot	Reconnecting Communities Pilot (RCP)	Creating connections across highways
MnDOT Active Transportation Program	Infrastructure Grants, Planning Assistance, Quick Build/Demonstration Projects	Support active transportation capacity building and facilities
MnDOT Safe Routes to School	Planning Assistance and Boost grants	Support current SRTS plans and programs
MnDOT Safe Routes to School	Infrastructure Funds	Construct sidewalks; improve crossings
MnDOT (Federal funding)	Transportation Alternatives (TAP)	New pedestrian and bike facilities
MnDOT	State Aid for Local Transportation (SALT)	Highway projects
Metropolitan Council	Regional Solicitation Highway Safety Improvement Program (HSIP)	Multi-modal infrastructure projects that focus on outcomes like moving people more effectively, managing congestion, safer streets for people walking and biking and improving air quality
MN DNR	Regional Trail Grant	Motorized, non-motorized and joint trail usage
MN DNR	Outdoor Recreation Grant Program	Matching grant for the cost of acquisition, development, and/or redevelopment of local parks and recreation area
MN DNR	Local Trail Connections Program	Supports acquisition and development of trail linkages
MN DNR (Federal funding)	Federal Recreational Trail Program	New trails, trail maintenance and trailhead construction
Greater Minnesota Regional Parks and Trails Commission	Parks and Trails Legacy Grant Program	“Regionally Designated” parks and trails can be funded
Legislative-Citizen Commission on Minnesota Resources (LCCMR)	Environment and Natural Resources Trust Fund (ENRTF)	Activities that protect, conserve, preserve and enhances Minnesota's air, water, land, fish, wildlife and other natural resources

State and Federal Funding for Active Transportation

In addition to local Capital Improvement Program funds, local jurisdictions may seek state and federal funding to assist with development of the active transportation network. Most programs involve applying through one of these agencies:

- Federal Highway Administration (FHWA)
- Minnesota Department of Transportation (MnDOT)
- Minnesota Department of Natural Resources (MN DNR)
- Greater Minnesota Regional Parks and Trails Commission (GMRPTC)
- Legislative-Citizen Commission on Minnesota Resources (LCCMR)

Grants are sometimes also available through organizations that support economic development and tourism, public health, and conservation and the natural environment. Private donations are popular for projects that support community recreation and well-being.

A Call to Action

COMMUNITY CHARGE

The City of Richfield is working to be the most walkable, bikeable and livable city in Minnesota. The time is now to take bold action towards a street network that puts people and place first. Car trips will continue to be part of the mix, including how freight is moved, but more walking, biking and transit are critical to making sure we reach climate, equity, community health and safety goals.

The City cannot reach these goals without the support of you, the residents of Richfield. It takes everyone to make streets safe and inviting for our youngest and oldest, and everyone in between. Whether it means driving safer speeds, walking your child to school, rolling to a doctor's appointment or bicycling to pick up your groceries, our streets are public spaces that should be safe, comfortable and inviting for all.