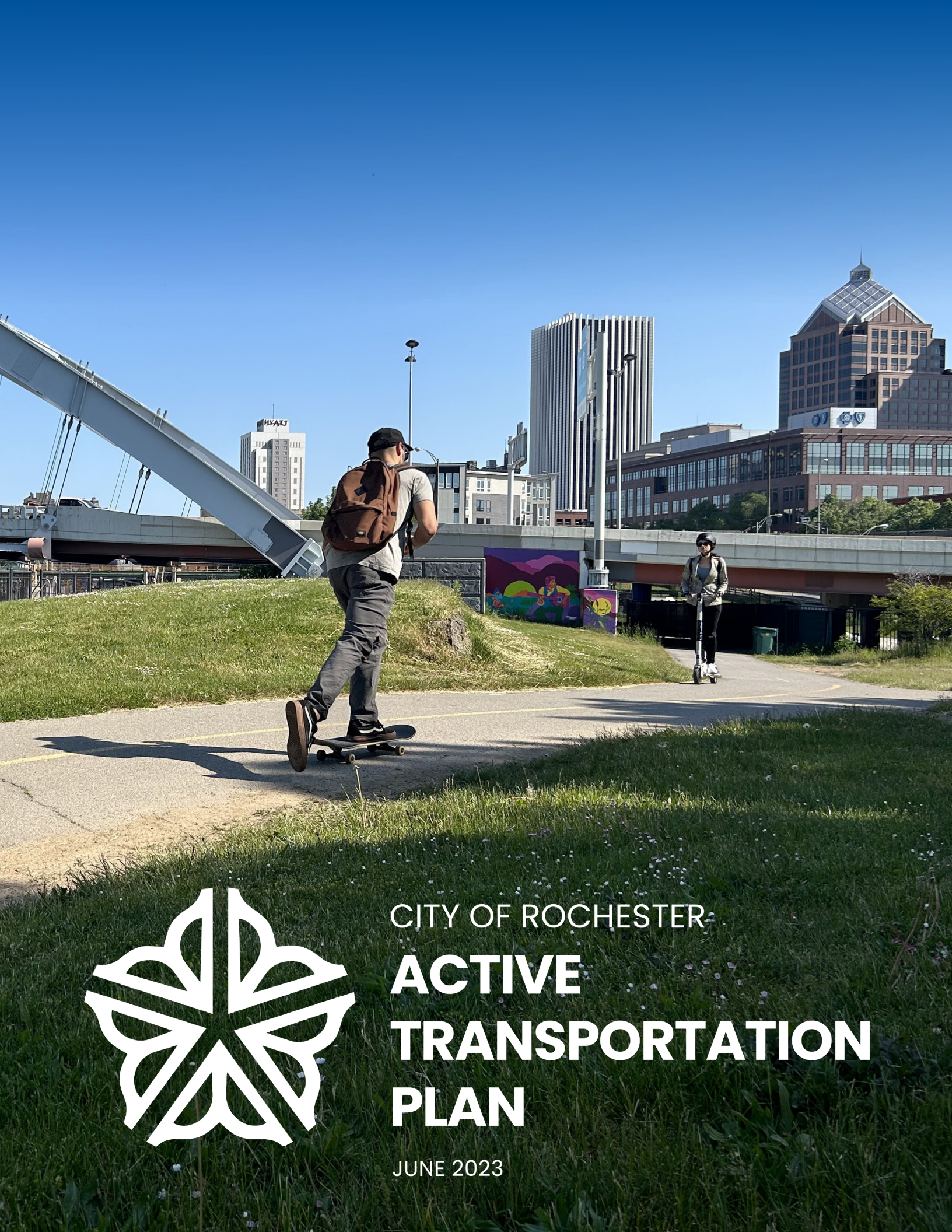

CITY OF ROCHESTER

ACTIVE TRANSPORTATION PLAN

JUNE 2023

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Thank you to the many Project Advisory Committee participants, Neighborhood Consultants, and members of the public in Rochester who generously shared their time and insights to shape the Rochester ATP.

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- **Andrea Walton** - U of R Department of Transportation and Parking Management
- **Anita O'Brien** - Rochester Accessible Adventures
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- Institute for Human Centered Design

Rochester 2034: Moving Forward

This plan is one of many ways that the City of Rochester is implementing the *Rochester 2034* Comprehensive Plan. Many of the guiding principles, goals, and strategies of *Rochester 2034* helped shape this planning process.
Learn more at: www.rochester2034.com

Contents

Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change.


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Introduction & Summary

In Rochester, driving a car is seen by most as the “normal” way to get around. However, one out of every four households in Rochester doesn’t have access to a car and instead relies on walking, biking, friends/family, and the bus for daily travel. In addition, many Rochesterians choose to or desire to get around without driving as much as they can, but improvements need to be made to encourage those choices. Navigating around the city can also be extremely challenging for people who use mobility aids, such as wheelchairs, or have other disabilities. And over 20% of Rochester’s residents are children, most of whom are too young to drive.

The Rochester Active Transportation Plan (Rochester ATP) is an initiative to make our city safer and more accessible for **active transportation**, including people walking and using mobility aids, riding bikes and scooters, rollerblading or skateboarding, and more. Everyone in Rochester deserves access to safe and dependable choices for getting where they need to go. Active transportation offers residents affordable, healthy, and non-polluting ways for people to move around the city.

This plan is a blueprint for making smart investments that will make walking, biking, and public transit a safe, accessible, and preferred option for people in Rochester. Inside, you'll find:

- A **Summary** which provides a concise round-up of the planning process for the Rochester ATP and key outcomes
- An overview of **Existing Conditions** that highlights past work that the Rochester ATP will build from and establishes baseline conditions throughout the City
- An **Action Plan** that charts a course for the City of Rochester to achieve its active transportation goals through integrated and mutually reinforcing policy, program, and process actions and infrastructure projects

Rochester's Goals for Active Transportation

The strategic direction set for this action plan by past plans and studies can be summarized into three main objectives:

Traffic Safety: Move toward zero traffic deaths and serious injuries through proactive planning, monitoring, and street design that slows traffic and prioritizes pedestrians and bicyclists

Accessibility: Achieve a fully accessible environment for pedestrians of all ages and abilities, with a special focus on the needs of people with disabilities

Transportation Options: Invest in pedestrian and bike networks to make active transportation a safer, more dignified, and enjoyable option for people to move around Rochester

The Rochester ATP Planning Approach

The following are key elements of the approach to the Roc ATP, which shaped the planning process and outcomes at every step.

Building on Past Work

This is Rochester's first citywide initiative dedicated to comprehensive active transportation, and the first pedestrian-focused plan in particular, but the City is not starting from scratch. Past plans and studies, including those completed in recent years like the *Rochester 2034* Comprehensive Plan and the *Comprehensive Access and Mobility Plan* (*CAMP*), represent an important starting point for this effort. The Rochester ATP builds on past work by clarifying active transportation goals, deepening citywide analyses, and bringing together previous recommendations and new ones into a comprehensive citywide strategy for active transportation. Where many previous plans and studies have established high-level goals and objectives for active transportation, the Rochester ATP provides the City with a prioritized action plan for achieving those goals. The connections between the Rochester ATP and past planning work are more fully explored in the Existing Conditions chapter and in Appendix A.

A Focus on Transportation Justice

Like all planning initiatives, the Rochester ATP presents an opportunity to work toward rectifying injustices. Within the context of transportation, a wide range of past decisions and investments have resulted in inequitable access to safe, reliable, and affordable transportation options. Highway construction completed decades ago displaced and disconnected predominantly Black and immigrant neighborhoods to facilitate fast connections between white suburbs and jobs in the city. Disinvestment in public transit in favor of car-centric systems led to low-quality service that is seen by many as a last resort for people who cannot afford or are unable to drive a car.[1] And entrenched racism and other biases can make sidewalks, bus stops, and other public spaces unsafe for people to navigate depending on their race, gender identity, immigration status, and more. Beyond transportation and mobility, these same legacies of disinvestment and injustice have left many neighborhoods without places like community amenities or vibrant commercial corridors for people to walk or bike to.

The City of Rochester has begun the important work of acknowledging its role in perpetuating past harms and taking corrective actions. In support of that work, this plan strives to make transparent the active transportation disparities felt across Rochester and prioritize reparative action to create a more just transportation system. This includes using data and community feedback to explore the ways the existing transportation network is experienced by Rochester's most marginalized communities including:[2]

- **People with disabilities**, who navigate physical and social worlds that rarely center their needs. In Rochester, 19% of people have one or more disabilities.
- **Black, Brown, and other people of color**, who are disproportionately affected by past and ongoing discrimination, resulting in less access to transportation resources like safe bike lanes and greater exposure to transportation impacts like air pollution. In Rochester, the population is 64% people of color.
- **People without access to a car**, who rely on walking, biking, and transit for their transportation needs. In Rochester, 24% of households don't have access to a vehicle.
- **Low-income people**, who are less able to afford a car. In Rochester, income disparities are significant and geographically concentrated. In the poorest neighborhoods, the median household income is under $9,000 per year. In the wealthiest neighborhoods, the median household income is over $120,000 per year.

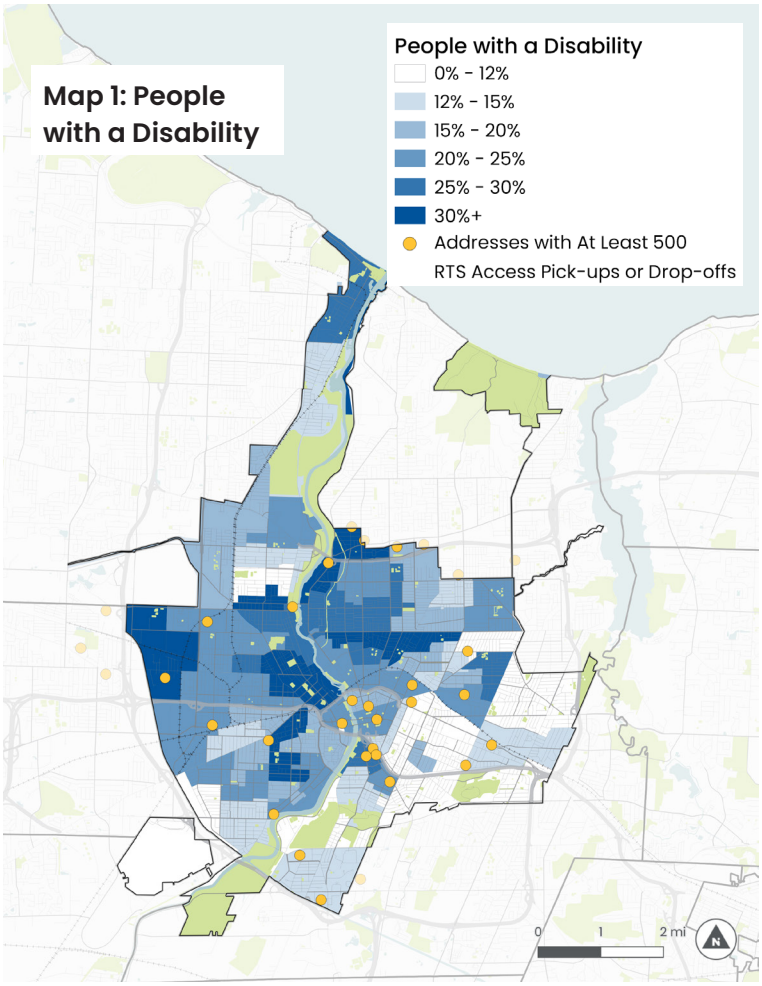
People belonging to Rochester's most marginalized groups make up the "priority populations" for the Rochester ATP. In addition to incorporating analyses that uncover inequities in existing active transportation systems, the engagement process for this project has actively sought out feedback from people belonging to these priority populations.

Map 1 through Map 4 provide an overview of where people from Rochester's priority populations live and form a foundation for understanding geographic disparities in Rochester's active transportation networks. These maps also demonstrate that many of these communities and identities overlap, creating compounding needs and barriers for active transportation.

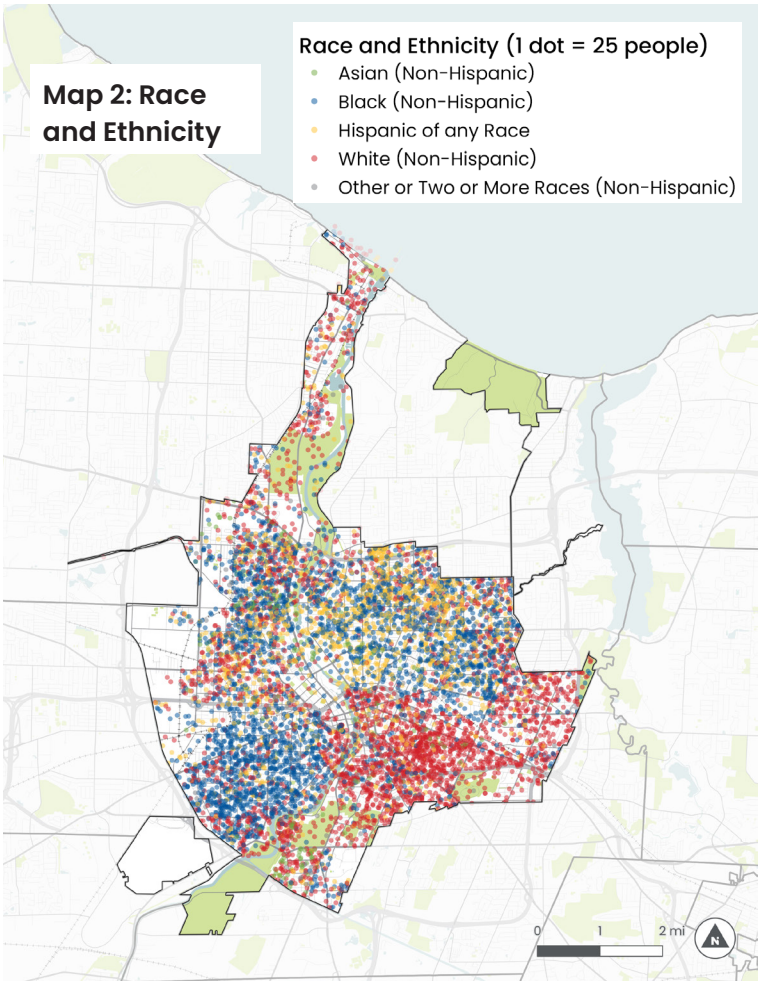
1 According to the "Transportation and Poverty in Monroe County" report, public transit riders in Rochester are much more likely to be living in poverty compared to drivers; 29% of transit riders live in poverty, compared to 10% of drivers.

2 Data from 2015-2019 American Community Survey 5-year Estimates

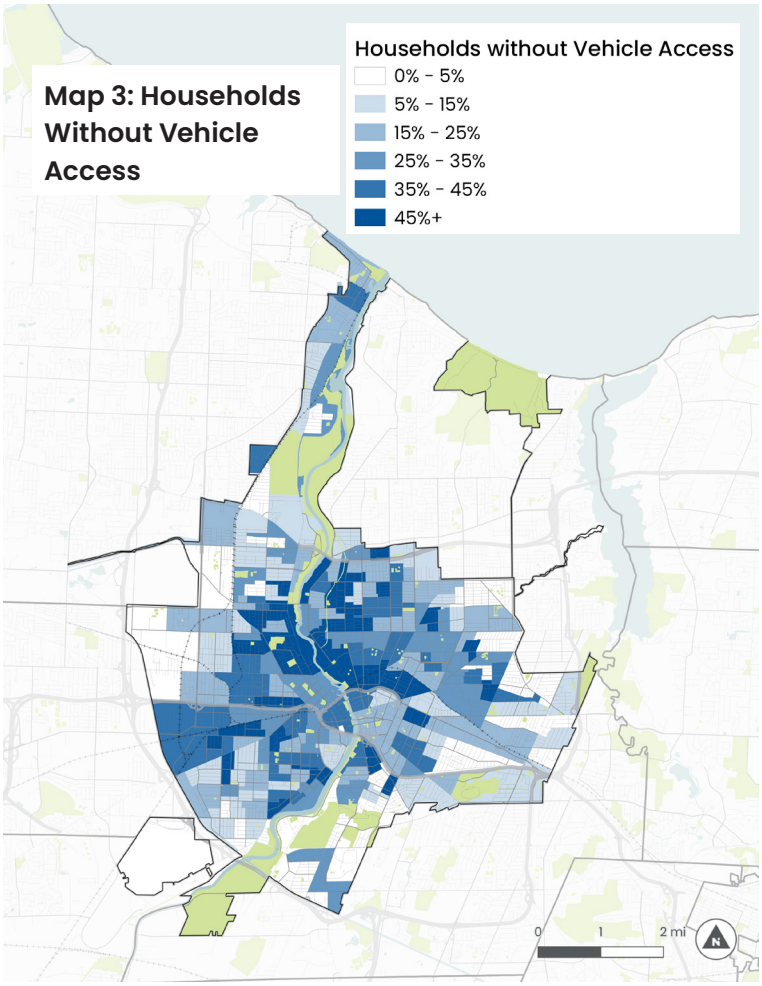
Map 1: People with a Disability



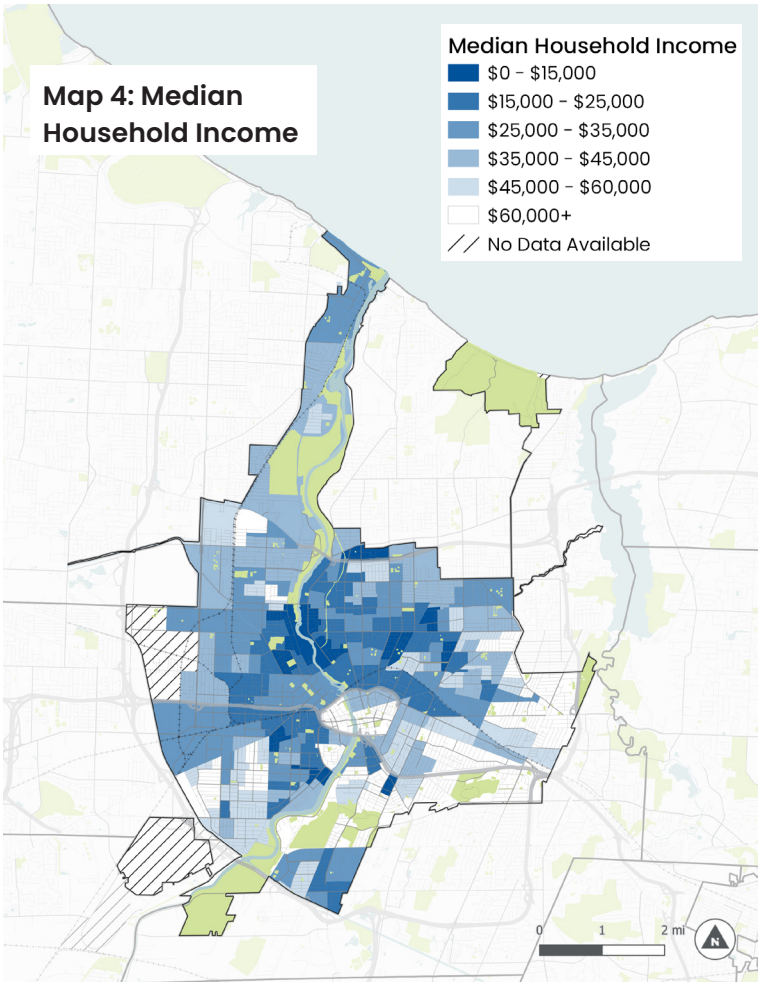
Map 2: Race and Ethnicity



Map 3: Households Without Vehicle Access



Map 4: Median Household Income



Inclusive Design and Accessibility

Accessibility – which refers to a site, facility, environment, service, or program that is easy to approach, enter, operate, participate in, and/or use safely and with dignity by a person with a disability – is often thought of in terms of compliance with standards and regulations. Today, requirements, regulations, and guidance laid out by the ADA (Americans with Disabilities Act), state architectural access boards, and the PROWAG (Public Rights-of-way Accessible Guidelines) help ensure that the needs of people with disabilities are incorporated into street and building design.[3] While these standards and landmark legislative victories are important for ensuring baseline accessibility in the built environment, truly inclusive design encompasses every aspect of how people of all ages and abilities experience their environments – building upon regulatory compliance to anticipate the full range of physical, sensory and brain-based functional limitations common today.

Inclusive design also goes farther in the sense that it aims to make a space, environment, service, etc. welcoming and comfortable for all users in addition to accessible. For example, while an unprotected bike lane next to fast-moving traffic on a major road may be technically accessible to all, it is not inclusive. Children, older adults, and less experienced riders are not likely to feel comfortable using it.

Inclusive design is just as much about the design process as it is the outcome. In the case of the Rochester ATP, this meant incorporating input about challenges, opportunities, and priorities related to walking and biking from all kinds of people who use Rochester's streets in all kinds of ways today. The implementation mechanism for a large share of the pedestrian recommendations also involves deeper engagement youth and older adults in each area, typically the users with the most specific needs.

Acknowledging this context, the Rochester ATP seeks to situate the City to build inclusive design into its transportation networks and respond to unmet accessibility needs on multiple fronts. This includes identifying opportunities for high-impact investments in pedestrian accessibility, charting a course for the City to carry out an ADA transition plan, and integrating inclusive design principles into the background policies and processes that shape Rochester's built environment.

3 PROWAG, which in general outlines higher-quality accessibility standards and requirements for streets and sidewalks than ADA, is currently in draft form. Once adopted by the federal government, local and state governments will be responsible for building to these standards.

Rochester ATP community pop-up event

Community Engagement

Community engagement for the Rochester ATP was built around methods and communication styles intended to center the priority populations described above. Throughout the process, the City used engagement strategies designed to:

- Invite the public to confirm and deepen the project team's analysis, findings, and recommendations, providing direct inputs to the planning process at the existing conditions phase
- Augment public engagement efforts of previous planning processes with a focus on centering the most impacted and marginalized
- Establish culturally competent communication that emphasizes the collective benefits of investing in active transportation and shifting trips away from vehicle travel
- Deepen trust around transportation investments with members of communities that have been negatively impacted by past decision making and disinvestment, including Black and brown people, people with disabilities, and members of the LGBTQIA+ community

These objectives drove the engagement methods, which were focused on meeting people where they are. Rochester ATP engagement activities, which primarily took place during the summer of 2022, included:

- Working with a group of 10 Rochester community leaders who were sought out and paid to help design a citywide survey for the project, produce advertising material for the project, participate in focus group sessions, and spread the word about the project to their communities. An overview of work completed with these community leaders can be found in Appendix D.
- Circulating a citywide multilingual survey focused on active transportation that was promoted through custom videos on social media, through radio ads, and in local publications. Survey respondents were presented with the opportunity to share their email for a chance to win a $25 gift card to a local restaurant. Full survey results can be seen in Appendices B and C.
- Holding over 20 pop-up events at key destinations and events throughout Rochester.
- Hosting four listening sessions focused on key topics including walking and biking culture in Rochester, needs of residents with disabilities, and priorities for the future. A summary of focus group findings can be found in Appendix E.
- Working with a 20+ person steering committee comprised of City officials, partner agencies, and local transportation, health, and youth advocates.

- Mailing promotional postcards to households in City water bills.
- Developing an online landing page for the project to host all project materials (www.cityofrochester.gov/atp).

Around 1,200 community members responded to the community survey, which was open for two months and collected community feedback on existing transportation patterns, concerns, and priorities. While the survey reached a significantly more diverse group of respondents than in similar past efforts, survey respondents were still not fully representative of Rochester's population. In particular, the demographic composition of survey respondents suggests that most priority populations for the Rochester ATP are still underrepresented in these data. Of the people who filled out the survey:

- 25% have a household income below Rochester's median household income, compared to 50% of the city's population
- 19% identify as Black or African American, compared to 39% of the city's population
- 36% identify as people of color, compared to 64% of the city's population
- 8% speak Spanish at home, compared to 14% of the city's population
- 33% have a disability, compared to 19% of the city's population
- 12% do not have access to a vehicle, compared to 24% of the city's population
- 11% identify as transgender/non-binary/genderqueer compared to approximately 1.6% nationwide[4]

4 Brown, Anna. "About 5% of young adults in the U.S. say their gender is different from their sex assigned at birth." Pew Research. June 7, 2022.

Summary of Recommendations

Recommendations to help Rochester achieve its active transportation goals are broadly organized into two primary categories.

Policies, Programs, & Processes:

Recommend actions that move forward through policy change, new or updated City programs, and changes to internal City processes

Achieving Rochester's active transportation goals will require creating sustained change in how the City approaches safety, accessibility, and multimodal transportation projects from almost every angle. Changes to policies, programs, and processes can both support and reinforce infrastructure changes. These recommendations focus on both strengthening the City's ability to implement projects that are consistent with its goals and moving forward active transportation through avenues beyond physical street design. Synthesizing and deepening recommendations from past planning efforts and responding to needs documented in the Existing Conditions chapter, this plan proposes that the City pursue policy, program, and process actions in the following areas:

- **Develop capacity within City Hall** to oversee implementation of the Rochester Active Transportation Plan
- **Engage Rochester residents** in the City's implementation of the Active Transportation Plan
- **Establish a traffic safety and education program** to comprehensively and equitably advance the City's goal of eliminating serious and fatal crashes
- Align design standards, routine processes, and operations with **active transportation goals**
- Develop additional pathways for identification and implementation of **pedestrian and accessibility projects**
- Forge stronger connections between **active transportation and land use**

Specific actions for fully realizing these recommendations are explored in more detail in the Action Plan chapter and in Appendix J.

Projects:

Recommend specific kinds of safety and accessibility enhancements for streets and intersections across the City

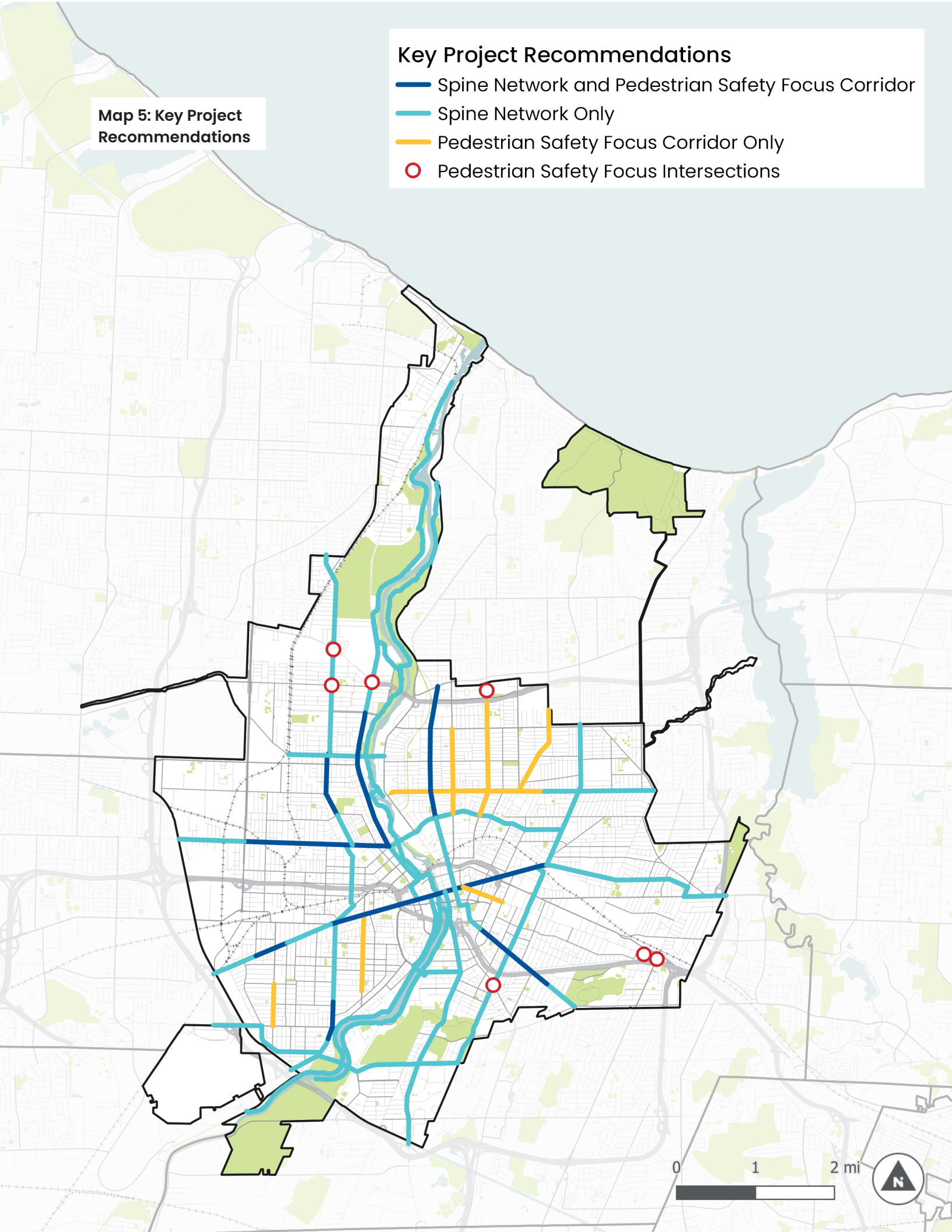
The Rochester ATP identifies project-level recommendations to help the City jumpstart critical pedestrian safety and accessibility work and implement a priority network of high-quality bike routes that connect residents seamlessly across the entire City. These recommendations are structured to guide the City in advancing its goals on multiple tracks at once and are prioritized to ensure that the greatest needs are addressed first. The purpose, structure, locations, and prioritization for the project recommendations are elaborated upon in the Action Plan chapter and in Appendix K.

Key Pedestrian and Accessibility Projects

- 29 projects
- 19 miles of safety-focused pedestrian improvements
- A quarter of City streets covered in priority areas for additional safety and accessibility planning

Key Bike Network Projects

- 63 miles of Spine Network projects providing comfortable, predictable connections
  - 44 miles of new project corridors
  - 19 miles of existing infrastructure


Map 5: Key Project Recommendations
Key Project Recommendations
Spine Network and Pedestrian Safety Focus Corridor
Spine Network Only
Pedestrian Safety Focus Corridor Only
Pedestrian Safety Focus Intersections
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Credit: Reconnect Rochester

Existing Conditions

This chapter evaluates existing active transportation conditions across Rochester. It explores where Rochester has made great progress and where attention should be focused in the future. Analyzing safety trends and existing networks for walking and biking creates a strong foundation for a targeted action plan and helps establish a baseline against which future investments in active transportation in Rochester can be measured.

Understanding Existing Conditions

The takeaways in this chapter represent a blend of data-driven analyses and community voices that have been interpreted together to paint a vivid and nuanced picture of the state of active transportation infrastructure and conditions in Rochester and how it affects people's daily lives and experiences.

Previous Plans

Previous plans and studies were reviewed to identify areas where deeper analysis and community engagement were needed. In particular, a need for stronger safety, accessibility, network quality, and equity analyses were identified. All of these themes are explored more fully in this chapter. A brief overview of some of the City's most relevant and recent initiatives from which the goals above were derived is provided in Table 1 below. A more complete accounting can be found in Appendix A.

Table 1: High-Level Summary of Key Documents and Relevant Goals

Plan	Summary	Relevant Goals and Metrics
***Rochester 2034* (2019)**	This citywide comprehensive plan sets the strategic direction for the City, acknowledging the importance of active transportation for the health and prosperity of the City.	• Improve quality, connectivity, accessibility, and safety in order to achieve a fully accessible network for pedestrians of all ages and people with disabilities • Develop a "minimum grid" dedicated bicycle network and work to increase bicycle mode share • Achieve safe, multimodal streets and eliminate traffic injuries and deaths through strategic traffic calming, community outreach and education, and enforcement
***Comprehensive Access and Mobility Study* (*CAMP*, 2018)**	Establishes high-level recommendations for Rochester's full transportation network, including walking, biking, transit, freight, and emergency services.	• Create a City of 10-minute neighborhoods • Strive for 100% of residents to be connected to green space • Provide nearly all (95%) with residents with access to transit within a safe 10-minute walk • Increase choice, reliability, and efficiency by achieving a 40% non-drive alone to work mode share
***CAMP Walkable City Report* (2018)**	Deepens *CAMP* goals, metrics, and analysis for the pedestrian network.	• Create connected and complete communities • Make the experience safe • Build comfortable walkable places for all • Prioritize implementation
***CAMP Bikeable City Report* (2018)**	Deepens *CAMP* goals, metrics, and analysis for the bike network.	• Make cycling more attractive to a wider demographic • Reduce greenhouse gas footprint by inviting more multimodal trips • Expand the low-stress bike network

Data Sources

Data analysis is a key pillar of the existing conditions findings. Especially at the city scale, spatial data is helpful for identifying general patterns and issues that are common across Rochester and for pinpointing specific areas that need special attention in the future. The existing conditions evaluations in this chapter make use of various kinds of publicly available data, including:

- Demographic data that show where people with different characteristics live[1]
- Historic crash data that show where crashes have occurred in the past[2]
- Street data that describe different characteristics of Rochester's streets[3]
- Public transit data that show where service is available and which bus stops people use[4]

These data were used in a wide range of analyses, the methodologies for which can be seen in the appendices referenced throughout this chapter.

Public Engagement

All data has limitations. Though data can reveal many important findings, public engagement is a critical tool for interpreting and providing context to what is learned through data. Feedback from the community can help confirm findings, challenge them, and supplement them with information that data analysis can't capture on its own. Statistics, quotes, and common themes from engagement conducted throughout the summer of 2022 are threaded throughout this chapter. Around 1,200 community members responded to the community survey, which was open for two months and collected community feedback on existing transportation patterns, concerns, and priorities.

> Our roads are designed for people who don't live here to use them to cut through our neighborhoods on their commutes through the highways... It's dangerous and unsafe so I have no choice but to drive my car.
> - Survey Respondent

Interviews

Finally, in addition to data and engagement with the Rochester community, internal interviews with key stakeholders within the City of Rochester were used to inform the content of this chapter. Planning, building, and maintaining active transportation networks requires more than just physical infrastructure. The capacity, structure, and direction of City departments and other stakeholders play a vital role in moving Rochester toward its active transportation goals. The Rochester ATP team conducted interviews with City staff to better understand what is working well and what issues present barriers to meeting Rochester's active transportation goals. Listening sessions were held with representatives from the Department of Environmental Services Bureau of Architecture and Engineering and Bureau of Operations, the Department of Neighborhood and Business Development, and the Office of City Planning. Key findings from these discussions are included throughout this chapter to contextualize existing conditions findings and set the stage for recommendations that are responsive to City needs.

1 Data from 2015-2019 American Community Survey 5-year Estimates

2 Genesee Transportation Council (GTC) Crash Data, 2017-2021

3 OpenStreetMap (OSM), 2022

4 RGRTA Bus Stop and Route Data, 2021 (post-Reimagine RTS network launch)

Safety

Data reveal that roadway safety is an urgent issue in Rochester. Between 2017 and 2021, 47,000 crashes were reported in Rochester, and 91 people died in traffic crashes. Over 1,100 more were seriously injured.

Compared to other mid-sized cities in New York, Rochester has the highest overall crash rate per capita and the highest rate of fatal crashes per 100,000 residents, as shown in Table 2. For crashes involving people walking and biking, these figures are likely undercounted.[5] Traffic injuries and deaths are often predictable and preventable, and the Rochester ATP identifies actions to make streets safer for all travelers.

Serious and fatal crashes have serious and long-lasting impacts on the health, financial stability, and quality of life of families in Rochester. Even beyond these effects, addressing safety issues is a prerequisite to making walking and biking a realistic option for more Rochester residents. If streets were safer and more accessible, **over half** of Rochester ATP survey respondents who currently drive indicated they would be interested in walking and biking for different kinds of daily trips (Figure 3). In particular, Rochester residents are interested in converting their existing driving trips to pedestrian and cycling trips for neighborhood-oriented trips such as to schools and libraries, parks and rec centers, and restaurants and shops.

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5 Bloomberg CityLab. "The Car Crashes that Go Undetected," by Laura Bliss July 15, 2021.

Table 2: Comparison of Traffic Crashes Among Mid-Sized Cities in New York State

		Average Crashes per Year, 2017-2021 [1]			Average Annual Crashes per 100,000 people, 2017-2021		
	Population 2021 [2]	Injury	Fatal	All Crashes	Injury	Fatal	All Crashes
Rochester	210,606	1,704	17	9,430	809	8	4,477
Buffalo	276,807	2,367	14	7,225	855	5	2,610
Syracuse	146,103	1,034	9	5,991	708	6	4,101
Albany	98,617	762	5	4,725	773	5	4,791
Yonkers	209,530	1,096	6	3,053	523	3	1,457

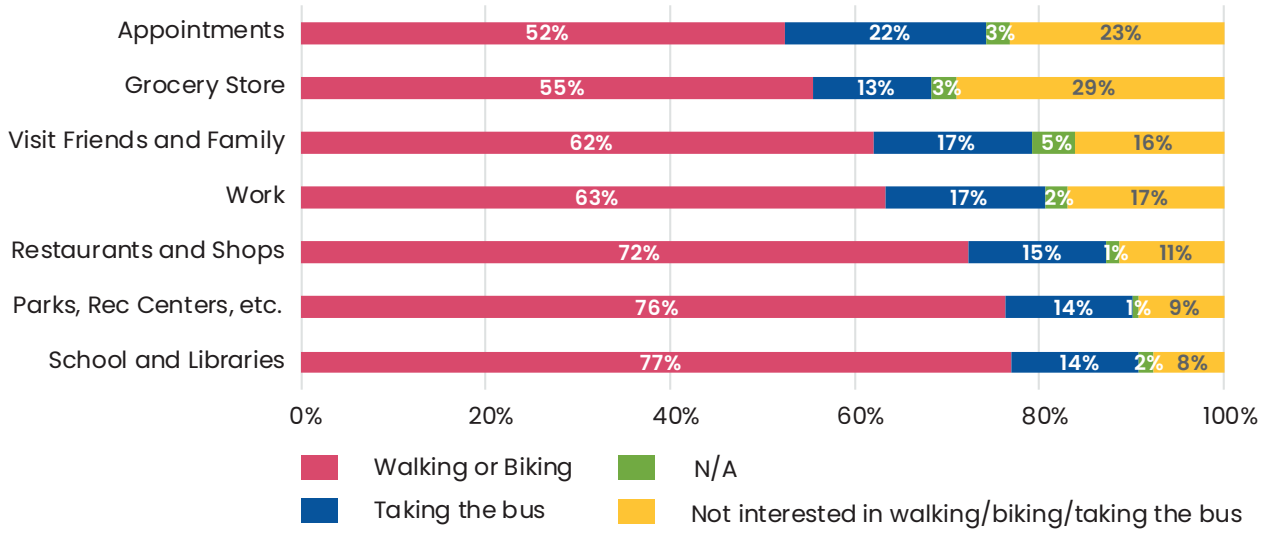
1 Crash data retrieved from NYSDOT CLEAR Database, 05-17-2023

2 Population count data retrieved from Quick Facts on census.gov, 10-26-2022

Today, staff capacity for addressing safety issues that prevent people from making daily pedestrian and cycling trips is limited. The City of Rochester does not have a traffic or transportation department. Instead, in an arrangement described during internal interviews with City staff, the City partners with the Monroe County Department of Transportation (MCDOT) to monitor crashes on City streets. When a fatal crash occurs, MCDOT performs an analysis of the crash and may propose recommendations for changes to address safety issues; however, the City does not have any staff dedicated to traffic safety at the City level to ensure that City priorities are advanced.

The design of our streets directly influences user behavior in predictable ways, and streets can be designed to encourage driving at slower speeds, yielding to pedestrians in crosswalks, and other behaviors that reduce the risk of crashes. Even when individuals do make mistakes on the road, intentional street design can help reduce the risk of severe crashes resulting in serious injuries or deaths. In this context, the Rochester ATP has an important role to play in focusing internal capacity and infrastructure investments to support roadway safety in Rochester.

Figure 3: Interest in Active Transportation for Daily Trips Among Survey Respondents Who Currently Drive

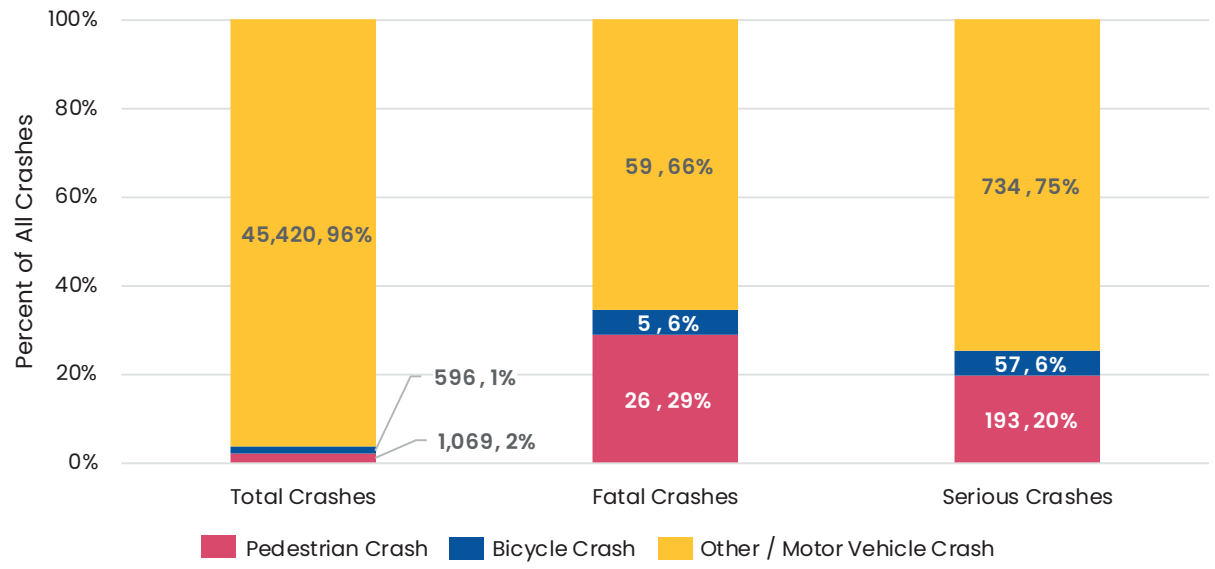


The Disproportionate Impact of Crashes

The vast majority of crashes that take place within Rochester are between two or more motor vehicles that result in property damage alone. Though crashes between motor vehicles and people walking and biking are far less common, these collisions are much more likely to result in a serious injury or death, as shown in Figure 4.[6] Between 2017 and 2021, crashes that involved people walking and biking made up just 2% and 1% of all crashes respectively, but accounted for 29% and 6% of all fatal crashes. Put another way, while 2% of crashes that involved only motor vehicles resulted in death or serious injury, 20% of crashes with pedestrians and 10% of crashes with bicyclists resulted in death or serious injury.

In addition, crash severity trends in Rochester are worsening. Over the past five years, 2021 was the worst for crashes causing fatalities or serious injuries for all modes. This trend is consistent with national statistics; as of 2021, pedestrian fatalities nationally had increased 62% since 2009.[7] These trends have emerged concurrently with a general increase in the size and popularity of trucks and SUVs, increased distracted driving as a result of widespread smartphone use and sophisticated onboard car technology, and street designs that facilitate or encourage fast driving.[8][9]

Figure 4: Crash Severity by Mode in Rochester, 2017 - 2021

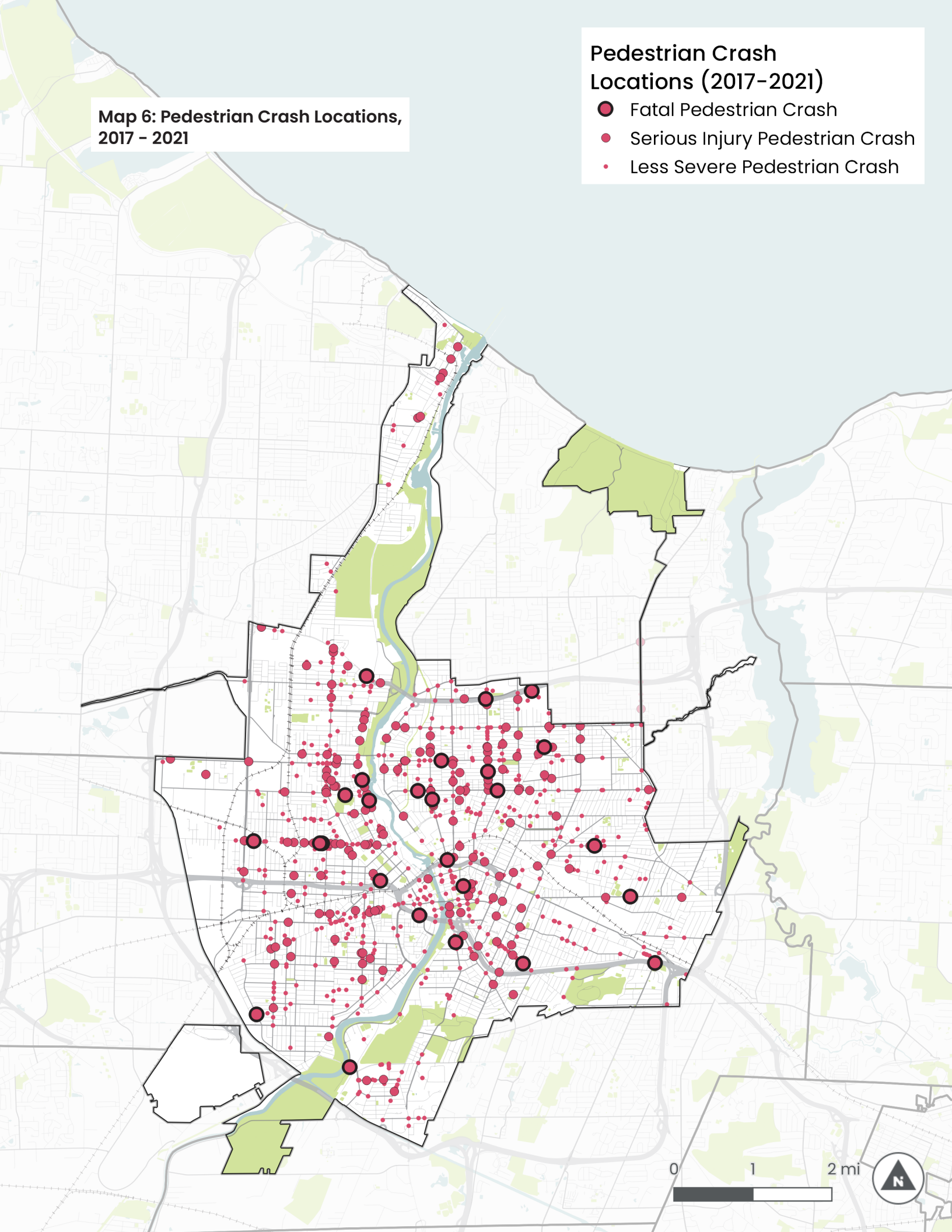


6 In accordance with the National Highway Transportation Safety Administration (NHTSA), a serious injury is defined any injury other than a fatal injury that results in one or more of the following: severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood; broken or distorted extremity (arm or leg); crush injuries; suspected skull, chest, or abdominal injury other than bruises or minor lacerations; significant burns (second and third degree burns over 10% or more of the body); unconsciousness when taken from the crash scene; or paralysis. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813251

7 Smart Growth America and the National Complete Streets Coalition "2022 Dangerous by Design Report," p. 4.

8 Justin Tyndall, Economics of Transportation. "Pedestrian Deaths and Large Vehicles." 2021.

9 Selective Insurance Advocates for Highway & Auto Safety. "Distracted Driving in America." March 2022


Map 6: Pedestrian Crash Locations, 2017 - 2021
Pedestrian Crash Locations (2017-2021)
Fatal Pedestrian Crash
Serious Injury Pedestrian Crash
Less Severe Pedestrian Crash
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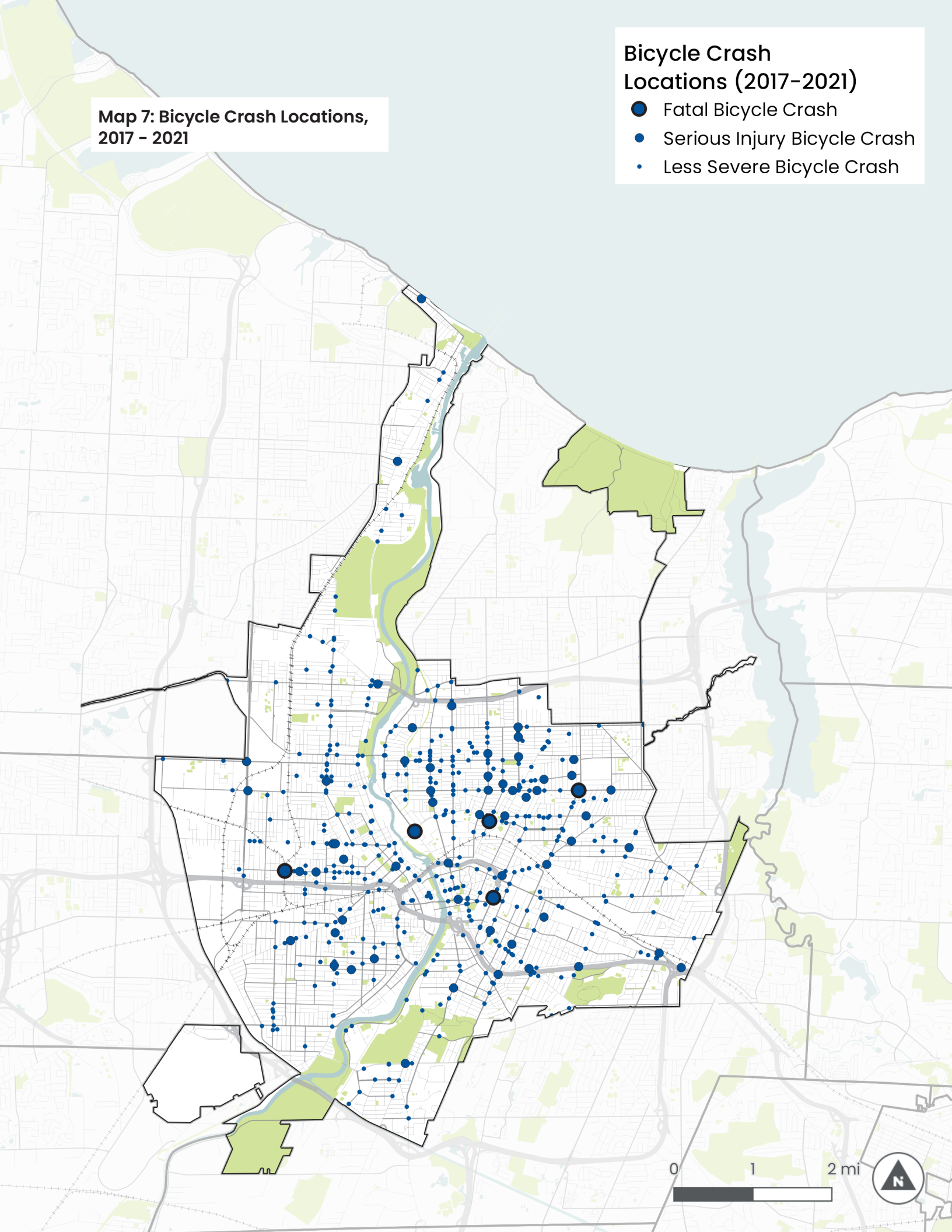
Map 7: Bicycle Crash Locations, 2017 - 2021
Bicycle Crash Locations (2017-2021)
Fatal Bicycle Crash
Serious Injury Bicycle Crash
Less Severe Bicycle Crash
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People walking and biking are especially vulnerable when involved in crashes because they are unprotected by the shell and systems of a car, creating a stronger imperative to design with their vulnerabilities in mind. High vehicle speeds are particularly dangerous for people walking and biking, as shown in Figure 5. As speeds go up, so does the rate of death and serious injury. In the event of a crash with a car traveling 20 mph, a person walking has a 13% chance of being seriously injured or killed. In a crash with a car traveling 30 mph, a pedestrian has a 40% chance of being killed or seriously injured, and at 40 mph, the chance increases to nearly 75%. These risks demonstrate the importance of designing for slow speeds throughout the city.

Figure 5: Impact of Vehicle Speed and Pedestrian Risk [1]

1 Tefft, Brian C. Impact speed and a pedestrian's risk of severe injury or death. Accident Analysis & Prevention. 50. 2013.

Though street design the best tool for controlling vehicle speeds, speed limits can also help encourage slower driving behavior. The default speed limit in Rochester is 30 mph unless posted otherwise. Comments from the public about speeding demonstrate that speeding is a pervasive traffic safety issue and community concern in Rochester. Though state law previously restricted the ability of cities and towns to lower speed limits below 30 mph, a law recently passed by the State of New York allows for default speed limits to be lowered to 25 mph.[10]

10 New York State Senate. Assembly Bill A1007A. Authorizes cities, villages, and towns to reduce the speed limit to twenty-five miles per hour. 2021-2022 Legislative Session

Figure 6: All Fatal & Serious Injury Crashes

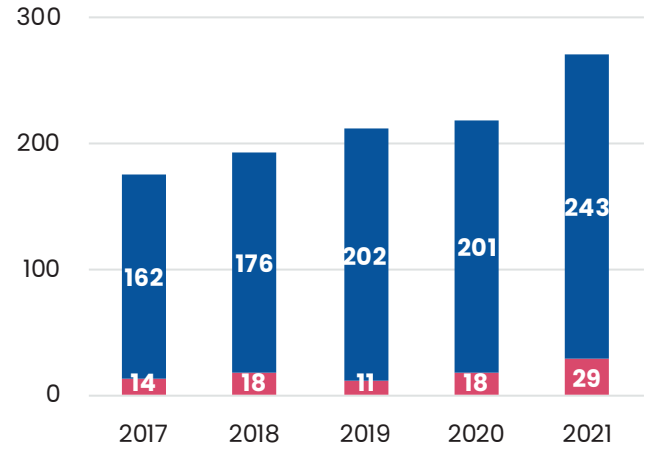


Figure 7: Pedestrian Fatal & Serious Injury Crashes

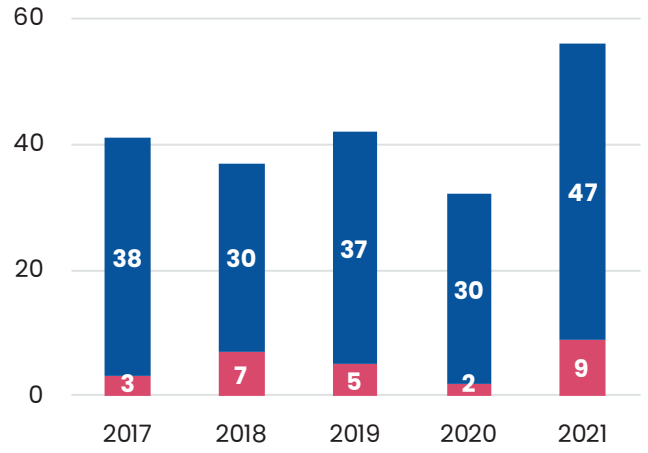
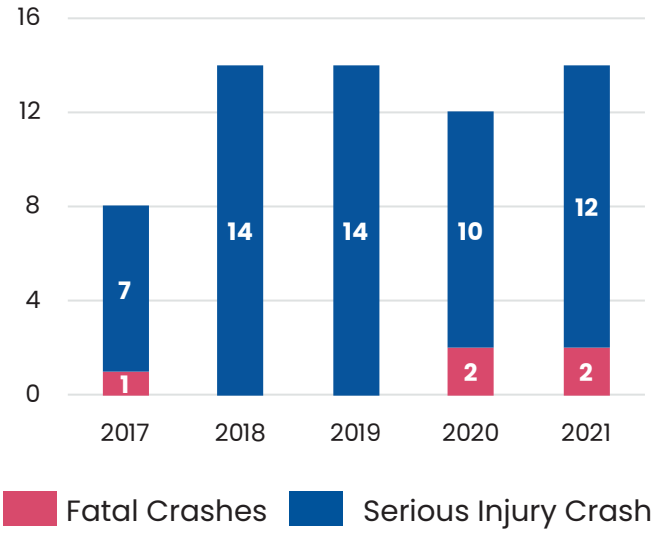


Figure 8: Bicycle Fatal & Serious Injury Crashes



Rochester's Most Critical Streets

Though roadway crashes occur throughout Rochester, severe crashes are not evenly distributed across the city. Because Rochester's traffic safety issues cannot all be addressed at once, understanding where severe crashes happen at a greater rate is important for targeting safety interventions where they can have the greatest impact.

Rochester's high injury network identifies the streets in the city with the highest rates of severe crashes for people walking and biking as shown in Map 8 and Map 9. The ten worst half-mile segments for pedestrian, bicycle, and motor vehicle/other crashes are also identified. These street segments have had the highest concentration of serious injury and fatal crashes between 2017 and 2021 and help clarify where near-term action can have the greatest impact on safety. For a full report on Rochester's high injury network, see Appendix F.

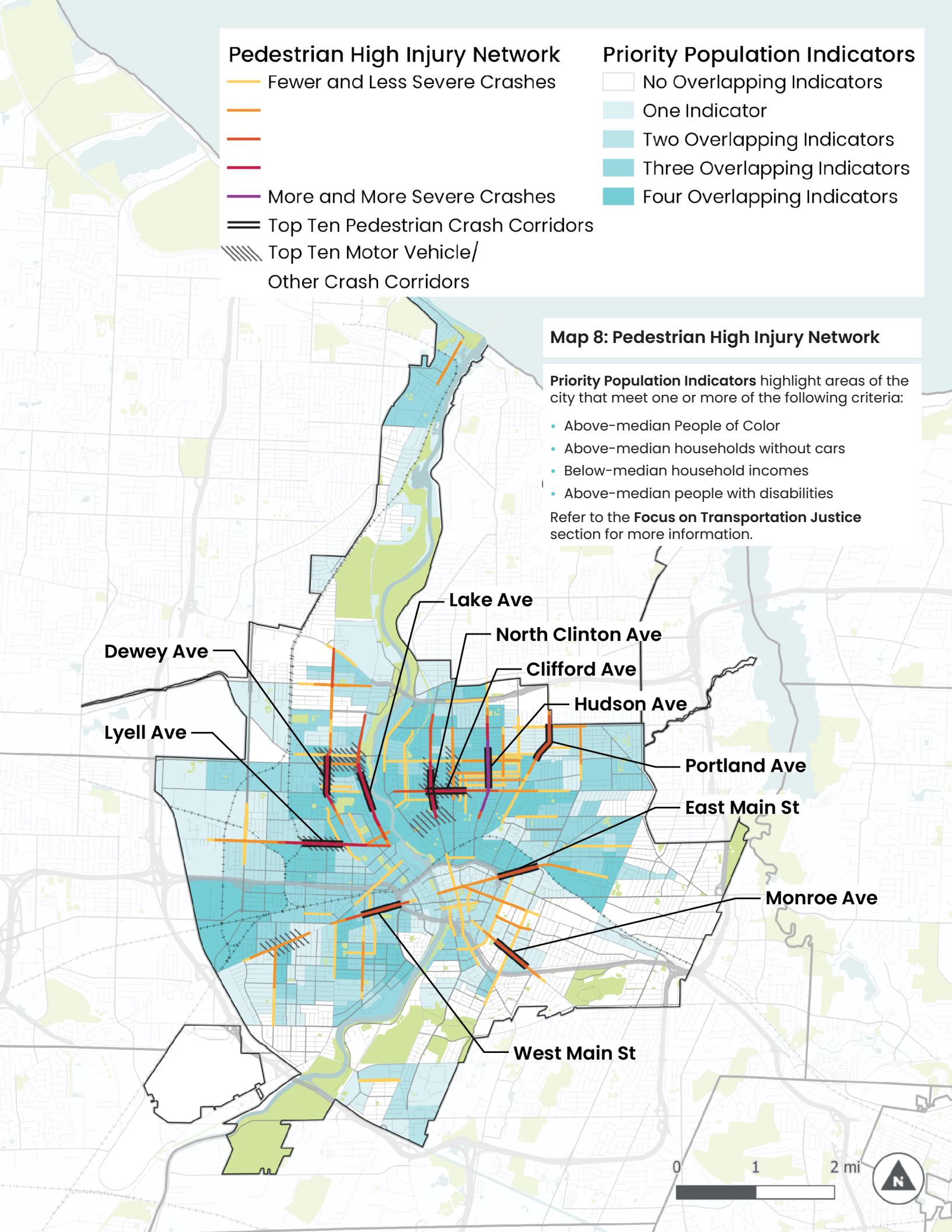
Out of over 600 miles of streets in Rochester, the top 10 half-mile crash segments for pedestrians and bicyclists accounted for:

16% of all pedestrian crashes, including:

- 25% of pedestrian crashes that caused serious injuries
- 31% of pedestrian crashes that caused a fatality

12% of all bike crashes, including:

- 20% of bike crashes that caused serious injuries
- 32% of bike crashes that caused a fatality

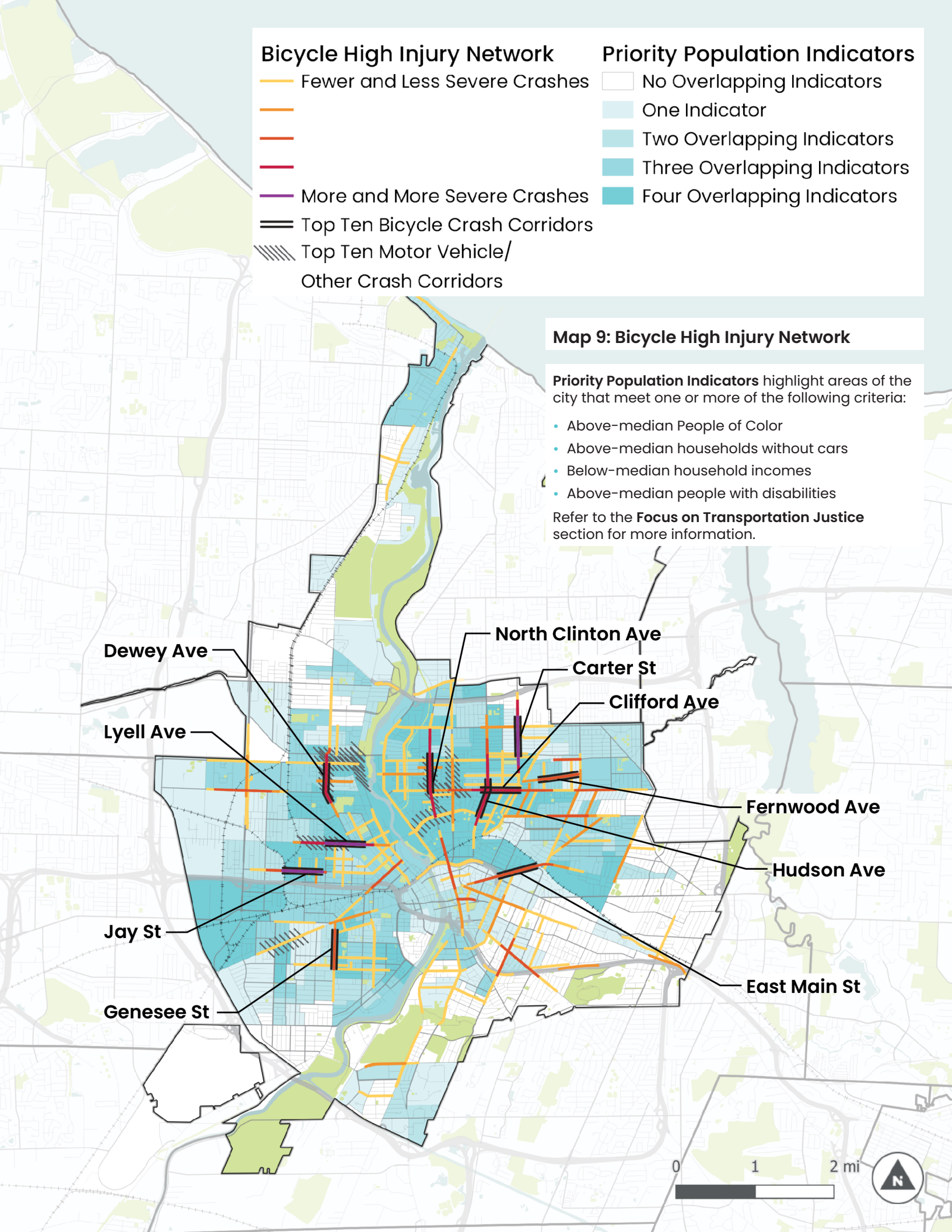


Map 8: Pedestrian High Injury Network

Priority Population Indicators highlight areas of the city that meet one or more of the following criteria:

- Above-median People of Color
- Above-median households without cars
- Below-median household incomes
- Above-median people with disabilities

Refer to the **Focus on Transportation Justice** section for more information.


Bicycle High Injury Network
Fewer and Less Severe Crashes
More and More Severe Crashes
Top Ten Bicycle Crash Corridors
Top Ten Motor Vehicle/
Other Crash Corridors
Priority Population Indicators
No Overlapping Indicators
One Indicator
Two Overlapping Indicators
Three Overlapping Indicators
Four Overlapping Indicators
Map 9: Bicycle High Injury Network
Priority Population Indicators highlight areas of the city that meet one or more of the following criteria:
Above-median People of Color
Above-median households without cars
Below-median household incomes
Above-median people with disabilities
Refer to the Focus on Transportation Justice section for more information.
Dewey Ave
Lyell Ave
Jay St
Genesee St
North Clinton Ave
Carter St
Clifford Ave
Fernwood Ave
Hudson Ave
East Main St
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N

Section of West Main Street that is a top 10 pedestrian high injury network segment

The top 10 segments in the high injury network for both walking and biking are clustered in the northern quadrants of the city, where many of Rochester's priority populations are also concentrated. For both walking and biking, all top 10 crash segments within the city are within areas where at least one priority population is concentrated. And the top 10 high injury network segments for motor vehicle/other crashes are concentrated in these areas to an even greater degree. Dewey Avenue, Lyell Avenue, Clifford Avenue, and North Clinton Avenue appear in the top 10 high injury network segments for all three modes, indicating that they are disproportionately dangerous for street users of all kinds. A number of other segments are in the top 10 for two modes.

Many of the streets on Rochester's high injury network have common characteristics. Take the segments identified in the section above as most dangerous for pedestrians: At least three of these streets have 12 or 13-foot lanes, which encourage high speeds and are more typically found on interstate highways.[11] In addition, most of the streets in question do not provide frequent opportunities to cross the street. For example, along the segment of Hudson Avenue in question, most blocks range from about 150 to 350 feet in length, but intersections with crosswalks are only available every 1,300 feet on average. All of these street characteristics add up to an environment that facilitates fast vehicle through-travel, exposes people crossing the street to vehicle traffic for long periods, and forces pedestrians to choose between making long detours or crossing at unmarked locations.[12]

> I've driven past stretches [of Lake Avenue] where kids are playing and running down the sidewalk, and the cars are going by at 45 or 50 miles an hour. It scares me.
> - Survey Respondent

In addition to having common design characteristics, the streets with the highest concentrations of injuries and fatalities are also streets where destinations and resources create substantial activity. Nine out of ten of the top segments in the pedestrian high injury network are along bus routes, including six high-frequency routes.[13] Half of the top ten segments in the biking high injury network have unprotected bike facilities along them, and an additional four segments connect directly to streets with bike facilities. This pattern is predictable in Rochester and communities across the country; where the places people need to go overlap with streets designed to prioritize car travel, severe crashes occur regularly.[14]

11 Lane Width, NACTO Urban Street Design Guide

12 While these characteristics are correlated with high rates of crashes causing injuries and fatalities in Rochester, a deeper crash analysis at the implementation phase will inform design.

13 High frequency routes as identified in Reimagine RTS

14 What the high injury network likely fails to capture is the existence of streets in Rochester that feel so unwelcoming and dangerous for walking and biking that people using those modes avoid them altogether. Without comprehensive and reliable data on the rates at which people walk and bike across the city to put crash data in context, the high injury network only shows us where dangerous conditions and activity centers collide.

Rochester's Active Transportation Networks

In many ways, Rochester has all the makings of a great walking and biking city. Though conditions vary, sidewalks exist on virtually every street and create the bones of walkable neighborhoods. The city is also relatively compact, putting many destinations within biking distance of people's homes. And the Genesee River provides a continuous edge running north to south through the city, creating natural opportunities for continuous pathways.

That said, targeted active transportation investments are needed before these building blocks form useful, safe, and connected networks for walking and biking. Beyond just having sidewalks, a true pedestrian network must include conveniently spaced and safe places to cross the street, accessible walking and rolling surfaces, seamless transitions between the sidewalk and the street, and connections to the transit network. Similarly, for individual bike lanes to add up to a network, they must be connected to one another, offer direct routes between destinations, and carry people safely across barriers like major intersections and highways. Finally, routine maintenance of the City's walking and biking infrastructure is essential to ensure people can reliably and safely use active transportation networks.

> If there aren't many people biking or walking, it's because it doesn't feel safe, not because people aren't interested. Build the infrastructure to make it safe and people will use it.
> - Survey Respondent

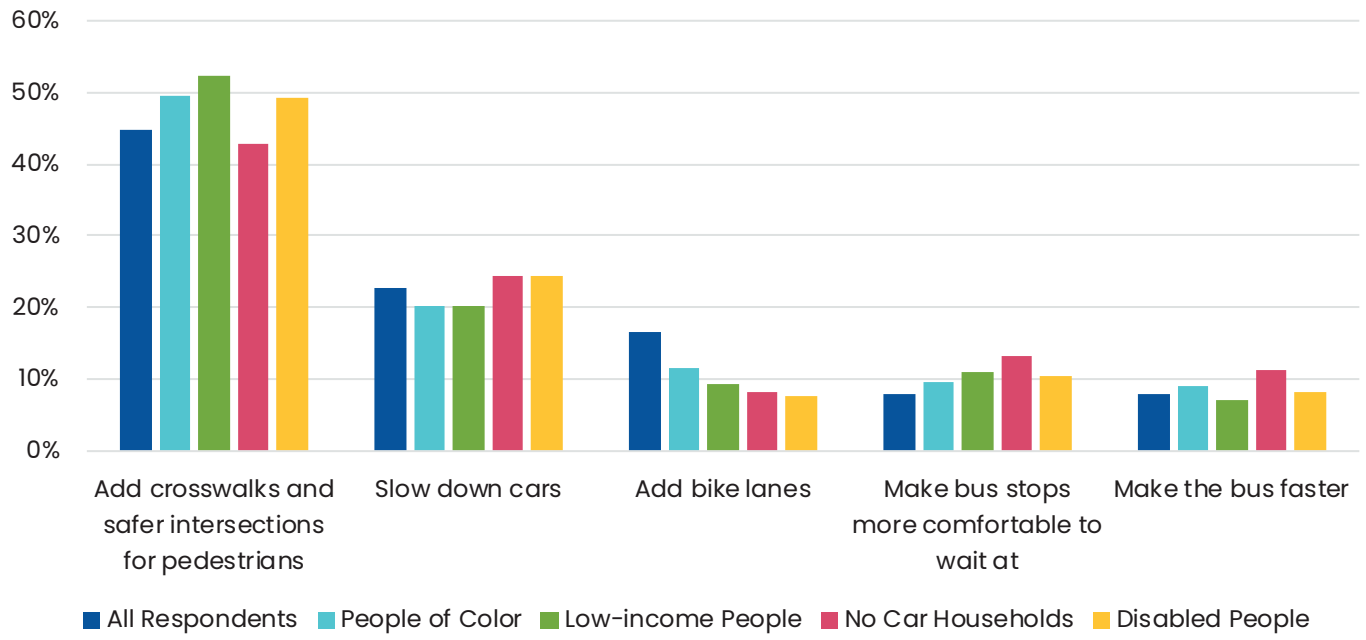
A gap in a walking or biking network – like a long stretch of a major street with no places to cross or a bike lane that abruptly ends – has a strong influence on whether people will feel safe walking or biking. A circuitous detour to avoid unwelcoming or unsafe conditions can have the same effect, especially since people expend their own energy to walk or bike. This means that a strong network can't have weak links.

The following section explores Rochester's existing walking and biking networks in the context of these principles, with a special focus on accessibility for people with disabilities and on how well access to these networks is distributed among priority populations. Ultimately, the City aims to have walking and biking networks that support easy and safe mobility for people of all ages and abilities – because networks that meet the unique needs of children, older adults, and people with disabilities can work for anyone.

Walking and Accessibility

With approximately 1,200 miles of sidewalks along Rochester's streets, it may be easy to think of Rochester's walking network as complete. While it's true that the vast majority of streets have sidewalks connecting people from place to place, the quality of those sidewalks varies widely and crossings of major streets and other barriers (like highways, train tracks, and the Genesee River) strongly influence how feasible it feels to walk in the city. In addition, responses to the Rochester ATP community survey revealed that safer crossings and intersections is the overwhelming top priority for Rochester residents, especially among this plan's priority populations (Figure 9).

Figure 9: Most Important Project Type Reported through Rochester ATP Community Survey

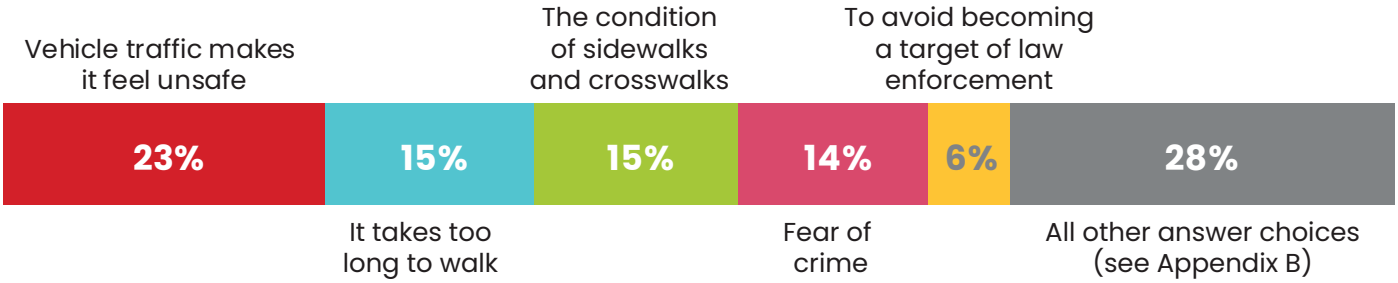


This is the City of Rochester's first plan focused on walking and accessibility, and there is a virtually endless number of worthwhile investments that could be identified to make walking better. Part of having a high-quality pedestrian network is prioritizing ongoing maintenance, which is largely a question of policies and dedicated funding sources. To help focus investments on specific pedestrian and accessibility projects, this existing conditions analysis seeks to identify places where the need for larger-scale pedestrian network improvements – like forging new connections where none exist and reconfiguring major intersections - is most pronounced based on equity and safety needs.

The Rochester ATP community survey revealed additional vulnerabilities pedestrians face. When asked to select the top reason for not walking more in Rochester, only around 40% cited an infrastructure issue like vehicle traffic or sidewalk conditions (Figure 10). Fifteen percent of respondents noted that the main reason they do not walk is distance; the places people need to go are simply too far away to walk, making plain the relationship between land use and transportation. In addition, fear about crime and being a target of law enforcement together made up 20% of respondents' top reasons for not walking more.

Among Black respondents, these two concerns represent even larger barriers; 35% of Black respondents selected either fear of crime or being a target of law enforcement as their top reason for not walking. Concerns about public safety were also a dominant topic in the focus groups held with older people and people with disabilities in Rochester. The Rochester ATP will ultimately focus on recommendations for infrastructure projects, policies, and programs that address pedestrian safety, access, and comfort needs. However, results of engagement clearly illustrate how a broad range of citywide policies impact Rochester's pedestrian environment.

Figure 10: Top Reason People are Less Likely to Walk Around Rochester Today (Rochester ATP Community Survey)

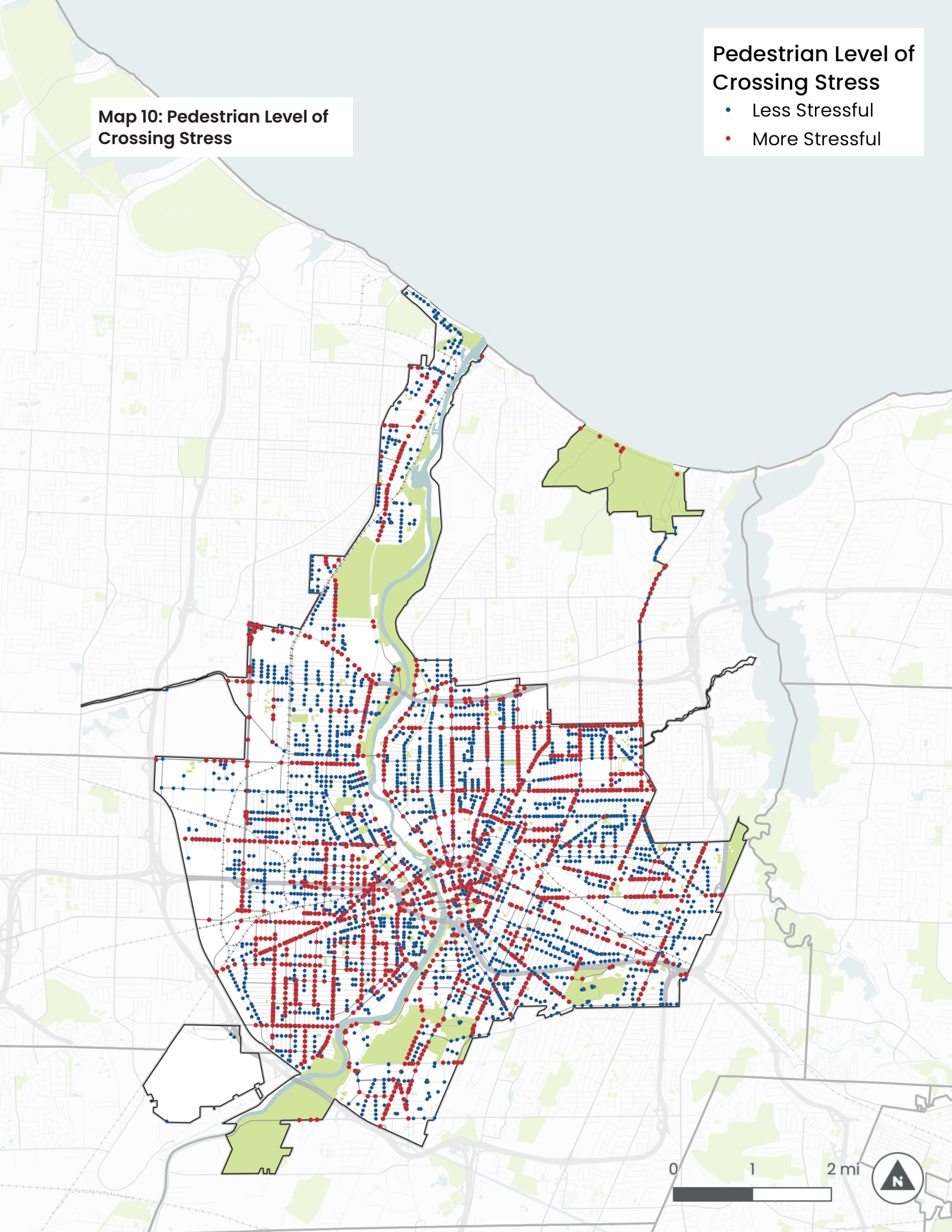


Walking Network Barriers

In addition to some of the more noted barriers described above like rivers and highways, every street that a person must cross represents a potential conflict point. A wide range of design factors, including how wide a street is, how much vehicle traffic is on the street, vehicle speeds, and whether a WALK signal is provided affect how safe and comfortable it feels to cross the street. A citywide evaluation of all intersections based on available data shows that 44% of crossings in Rochester have characteristics that may make crossing them uncomfortable or increase the risk of future crashes, as shown in Map 10 (see Appendix G for detailed analysis criteria).[15]

15 This analysis is based on available data and has not been confirmed by comprehensive field work to confirm conditions.

Map 10: Pedestrian Level of Crossing Stress



Common Accessibility Challenges in Rochester

The common accessibility challenges identified in this section represent conclusions drawn from observations, measurements, and analysis completed on a selection of Rochester's streets and focus group discussions held with people with disabilities and older adults in Rochester (see Appendices I and E, respectively). This accounting of common accessibility challenges is intended to help target infrastructure, policy, and other recommendations that can have the greatest impact on improving accessibility and inclusive design in Rochester. This analysis, however, is not comprehensive. Understanding the full scope of accessibility needs in Rochester will require additional data collection, auditing, and analysis that builds from this work.

> I use a wheelchair. Sidewalks and streets are not consistently conducive to wheelchair travel.
> - Survey Respondent

Crosswalks and Pedestrian Signals

Where pedestrians cross the street, conditions become far more complex for both safety and accessibility. People with disabilities can take longer to cross the street, exposing them to vehicle traffic for a longer period of time and heightening the need for safety enhancements. In addition, people with disabilities need equal access to pedestrian signal buttons, which sometimes need to be pushed in order to trigger a walk signal phase. The following common issues exist at street crossings in Rochester:

- The infrequency of crossings on many urban corridors in Rochester is especially a problem for people who cannot travel as far due to mobility disabilities.

Pedestrian signal button located on an inaccessible surface on North Clinton Avenue

- The amount of time pedestrians are given to cross the street at intersections with signals is insufficient for people with disabilities to get fully across the street.
- Pedestrians often have to wait a long time at crossings before the walk signal is displayed.
- Crosswalks tend to be faded, eroding the sense of pedestrian priority, and are installed in a wide range of styles, not all of which are consistent with best practices for maximizing driver yielding.
- Some pedestrian signal buttons require a high level of effort to operate, and therefore are inaccessible for people with a wide range of disabilities. Many lack audible communication systems for people who need audible cues for when to cross, and do not comply with current federal standards.
- Some pedestrian signal buttons aren't situated next to a clear, stable, and level sidewalk space. As a result, users are forced to navigate an inaccessible surface in order to press the button.

Sidewalks

As mentioned above, Rochester's sidewalk network has excellent coverage, with sidewalks provided on virtually all streets within the city. With this fundamental foundation of Rochester's pedestrian network in place, expansion of the sidewalk network is not a significant need. However,

the quality and maintenance of existing sidewalks is essential to the usefulness and inclusiveness of the pedestrian network, as is the availability of places to sit that can extend the walking range of people with mobility disabilities. In particular, Rochester's sidewalk network suffers from the following shortcomings that impact accessibility:

- Deterioration of sidewalks has led to uneven surfaces and tripping hazards that are challenging for people with disabilities to navigate, particularly people with disabilities affecting their mobility, vision, or balance.
- In some areas, sidewalks are too narrow. While wider sidewalks will always make it easier for people to pass each other or allow people to travel side-by-side, some sidewalks in Rochester do not consistently meet basic clear accessible width requirements.

Uneven sidewalk on North Union Street

Obstructed sidewalk along Lake Avenue

> Between the condition of sidewalks, roads, crosswalks (and drivers ignoring them), and our weather, people with disabilities cannot easily (or safely) access Rochester's transportation network.
> - Survey Respondent

- Many existing sidewalks have excessive cross slopes, which means they tilt to either side of the sidewalk too sharply and create an uneven and unbalanced environment, making it especially difficult for people using wheelchairs and other mobility aids to negotiate turns.
- Some sidewalks have plantings or tree foliage that protrude into and obstruct the sidewalk, further reducing the usable width of the sidewalk.
- There are not enough benches or places to sit and rest throughout the sidewalk network.

Curb Ramps and Transitions

Curb ramps facilitate transitions between the level of the sidewalk and the street at crossings. They are essential for people who use wheeled mobility aids like wheelchairs and are also important for people pushing strollers or carts. For people with impaired vision, fully accessible curb ramps are required by law to provide a tactile indication that they are entering the street, usually a plastic strip in a contrasting color with raised elements that are detectable by a cane. The following common issues exist with curb ramps in Rochester:

- Many curb ramps are not flush with the street, meaning that water and ice can accumulate where they transition from sidewalk to street.

Water accumulation at the base of a curb ramp on Lake Avenue

Detectable warning strip on Lake Avenue that does not provide sufficient color contrast

- Some curb ramps have excessively steep slopes, and/or tilt to either side, making them difficult to use for people who use wheeled mobility aids.
- Some curb ramps lack detectable warning surfaces, and others have detectable warning surfaces in a color that doesn't contrast enough with the sidewalk or the street, making them difficult to see for people with vision disabilities.
- Some curb ramps are not connected or aligned with street crossings, meaning that they require people using them to enter the intersection then navigate to the crosswalk in order to cross. This includes diagonal curb ramps, which are common and Rochester and are technically compliant but create safety risks for users.

Diagonal curb ramp on North Clinton Avenue

- Public trash bins, which are typically situated on street corners, often obstruct the sidewalk and/or curb ramp in a way that makes it more difficult for people using wheeled mobility aids to access and utilize the ramp.

Public Transit

Access to transit is a critical part of transportation for people with disabilities, who may be unable to drive a car. RTS buses are equipped with ramps that can be deployed onto the sidewalk at bus stops in order for people with disabilities to board, though the connecting sidewalks and crossings need to provide an accessible path of travel to the bus stop boarding area. People with disabilities also may need to rest more often while on the move, so benches and shelters at bus stops are especially important. The following common issues exist at bus stops in Rochester:

- Some areas around existing bus stops have not been well maintained and have deteriorated, resulting in uneven and inaccessible surfaces at bus boarding areas.
- Sidewalk conditions can be unreliable around bus stops and shelters, rendering shelters inaccessible to some riders.
- At some bus stops, a grass buffer between the sidewalk and the street creates a barrier to boarding for people who rely on smooth, level surfaces for mobility.

- Bus shelters are infrequent throughout the city, and some are in poor condition.
- Though frequencies have increased on some routes (and there are plans to increase frequencies on others), bus headways can be long. This often requires people to wait for long periods for the bus without a bench or comfortable waiting area.
- There is a desire among older people and people with disabilities for enhanced and accessible wayfinding signage and service information at bus stops, especially following the Reimagine RTS service changes.

Snow Removal

Snow and ice can create slipping hazards and impassable conditions for all pedestrians and pose a persistent safety and quality of life issue for people with disabilities in particular. People with disabilities that affect their mobility rely on predictable and level surfaces to move around and may not be able to navigate sidewalks with accumulated snow at all. The City of Rochester sees about 100 inches of snow each winter on average and takes a more involved approach to snow removal on sidewalks than just about any city in the U.S., clearing 878 miles of sidewalks when at least 4 inches of snow have fallen.[16] Even still, snow is a major impediment to day-to-day mobility for people with disabilities in

16 City of Rochester Sidewalk Snow Removal webpage

Deteriorating bus boarding area on North Clinton Avenue

> I love walking when I have the time, but it's scary to walk much in the winter because there's so much ice. I worry about people with more mobility issues than I have.
> - Survey Respondent

Rochester during the winter. Some common accessibility issues related to snow removal in Rochester include:

- People who use mobility aids, as well as people with strollers or rolling carts, often need to travel in the roadway because sidewalks aren't clear or do not provide enough clear width, and/or curb ramps are blocked by snow.
- People with sight and mobility limitations feel at risk in the winter because of unpredictable surface conditions.
- Bus stops are not always cleared of snow, and/or end up blocked by snow cleared from the street, making boarding inaccessible and posing a visual obstruction that can prevent bus drivers from seeing people waiting at stops.

Bus shelter on North Clinton Avenue

Getting to the bus

Though taking the bus itself may not be considered active transportation, nearly 90% of transit trips in Rochester start and end with a walk to the bus stop and highlight the importance of high-quality pedestrian environments around bus stops.[17] Within the city, there are 1,090 bus stops. However, not all bus stops in Rochester are used equally. Just 5% of bus stops account for 21% of ridership within the city (Map 11). Of these high-use bus stops, most are located near:

- Grocery and big-box stores like Wegmans and Walmart
- Institutions like Strong Hospital
- Center City
- Other important transfer points for both fixed-route lines and RTS on-demand mobility services

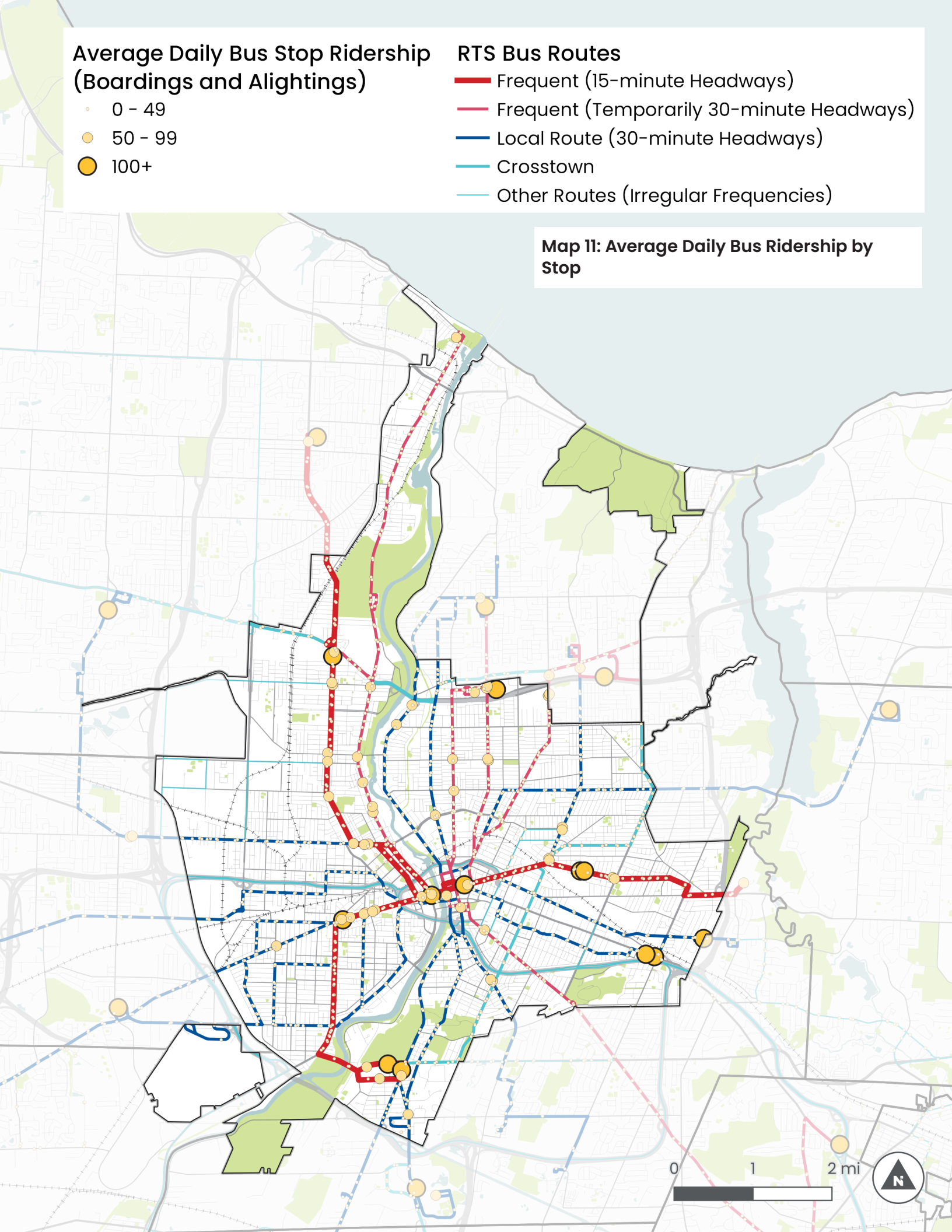
Bus stop data, coupled with pedestrian safety and network quality findings shared above, offer a strong starting point for identifying where there are high levels of pedestrian activity and where pedestrian investments will have the greatest impact. As discussed above, high-quality access to transit is especially important for people with disabilities. Among respondents to the Rochester ATP community survey, people with disabilities were significantly less likely to drive for daily trips, including 9% less likely to drive to work and 16% less likely to drive to the grocery store, largely taking these trips instead by walking or transit. Older people and people with disabilities also rated making bus stops more comfortable as a higher priority compared to all survey respondents as a whole.

One major barrier to getting to the bus, for all riders and especially for riders with disabilities, is snow removal at bus stops. Survey respondents and focus group participants shared that bus stops are not reliably cleared after storms, forcing riders to wait for the bus in the street and step up to board or deterring them from taking transit altogether. Even when bus stop boarding areas themselves are cleared, snow stored in between the vehicle travel lanes and the curb can still pose challenges for riders trying to board. And with sidewalks also not reliably cleared, transit riders may not have a safe or accessible way of getting to bus stops to begin with. Sidewalk clearing is the responsibility of adjacent property owners, and as noted previously the City of Rochester also provides supplemental service when at least 4 inches of snow have fallen per the City's sidewalk clearing policy.

During Winter 2022-2023, the City and RTS also piloted a bus stop snow removal partnership between RTS, the Center for Employment Opportunities (CEO), and the Mayor's Office of Violence Prevention.[18] Through this program, 85 priority bus stop and shelter locations in the City were cleared after snow events. Stops were prioritized based on ridership and number of potential riders with disabilities.

17 The Reimagine RTS Origin/Destination Study, completed ahead of the redesign of the RTS bus network, found that 88% of bus riders access transit by walking, 3% by biking, 4% by getting dropped off, 4% by driving and parking, and 1% by other means.

18 City, RTS, and CEO Announce Collaboration During Snow Season



Map 11: Average Daily Bus Ridership by Stop

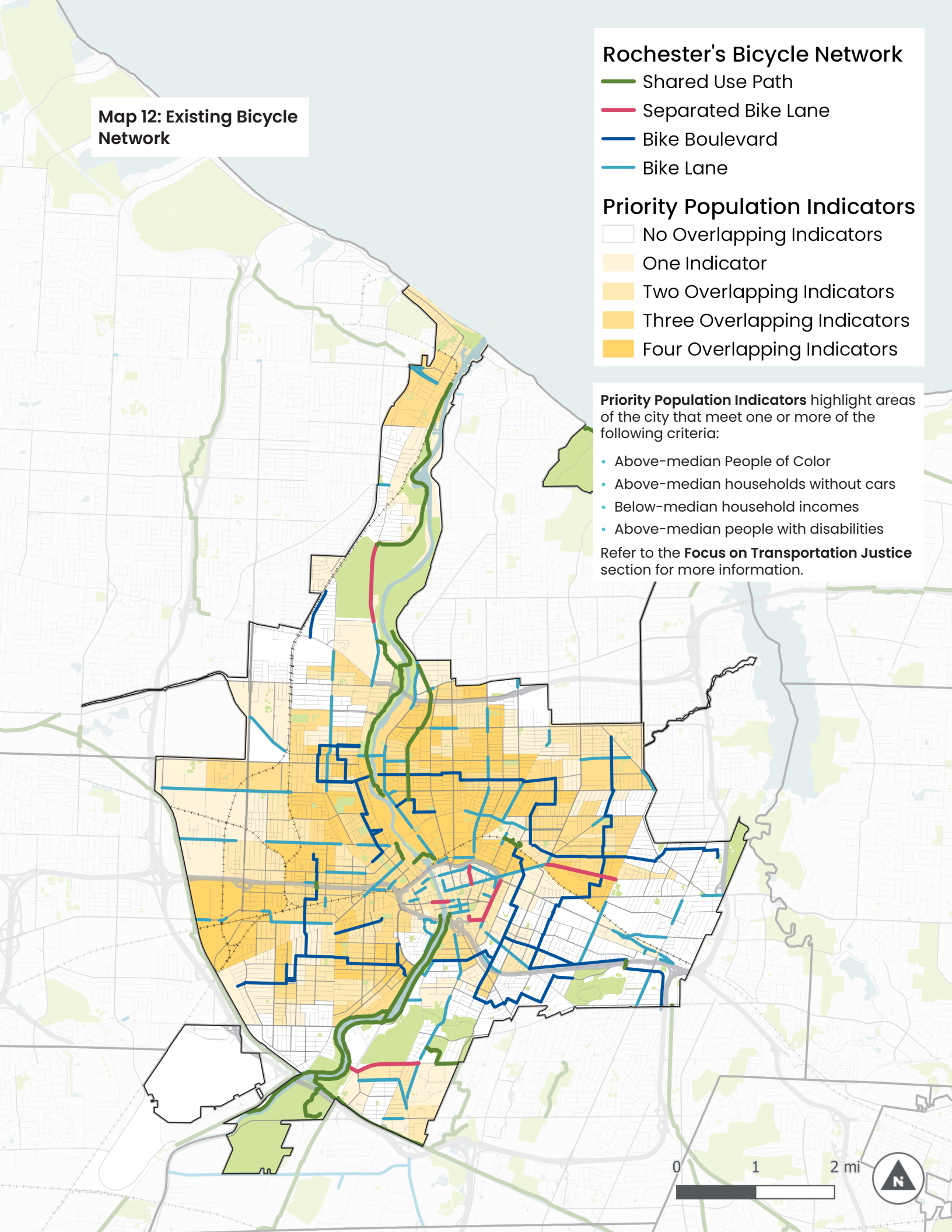
Biking

Rochester has made progress in recent years on developing its bike network. The City's existing bike network includes a mix of on- and off-street bikeways including 22 miles of shared use paths, 4 miles of separated bike lanes, 29 miles of bike boulevards, and 32 miles of painted bike lanes[19]. There are several separated bike lanes concentrated around Center City, with a separated bike lane also serving the University of Rochester and Strong Hospital. The City's off-street paths are concentrated around the Genesee River and form the beginning of a north-south bikeway spine through the city, though connections to the path system are limited.

The current bikeway network is shown in Map 12. Rochester has begun establishing on-street connections around the city, especially through residential neighborhoods and in downtown. The City has established a consistent process for implementing painted bike lanes as part of routine resurfacing projects, described in internal interviews with City staff. Each time a street is scheduled to be resurfaced or reconstructed, the Street Design Department considers whether bike lanes can be incorporated alongside existing travel and parking lanes based on existing traffic and parking utilization, and if so they are installed with the project. The result has been consistent growth in Rochester's on-street painted bike lanes. To date, separated bike lanes have generally only been installed alongside larger reconstruction and signature projects.

Implementation of bike boulevards has been especially strong. The City's 2015 Bike Boulevard Master Plan outlined a network of comfortable bikeways primarily along residential streets where car speeds and volumes are low. The network includes 50 miles of bike boulevards across the city, including 20 miles of priority routes. The vast majority of the priority route network has been installed as of 2022. With traffic calming features like speed bumps installed

19 Facilities were measured using their length at the centerline of the street or path.


Map 12: Existing Bicycle Network
Rochester's Bicycle Network
Shared Use Path
Separated Bike Lane
Bike Boulevard
Bike Lane
Priority Population Indicators
No Overlapping Indicators
One Indicator
Two Overlapping Indicators
Three Overlapping Indicators
Four Overlapping Indicators
Priority Population Indicators highlight areas of the city that meet one or more of the following criteria:
Above-median People of Color
Above-median households without cars
Below-median household incomes
Above-median people with disabilities
Refer to the Focus on Transportation Justice section for more information.
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Comfort Typology of Bicyclists				
Design User Profile	**Non-Bicyclist**	**Interested but Concerned**	**Somewhat Confident**	**Highly Confident**
Bicycling Preferences	Uncomfortable bicycling in any condition, have no interest in bicycling, or are physically unable to bicycle.	Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separate bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.	Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.	Comfortable riding with traffic, will use roads without bike lanes.
% of General Public	**31-37%**	**51-56%**	**5-9%**	**4-7%**

Figure 11: Illustration of the "types of cyclists"

on many bike boulevards, these bikeways create comfortable connections within neighborhoods across the city. Many of Rochester's bike boulevards also provide excellent shade from tree canopies in residential areas, shielding riders from the sun on hot days. The benefits of shade will continue to grow throughout the bike boulevard network as the City works towards its goal of planting 70,000 additional trees by 2026, with a focus on neighborhoods that lack trees today.

However, where bike boulevards meet major street crossings, conditions vary widely. Some bike boulevard crossings lack features that prioritize bike movements through the intersection. As a result, high vehicle speeds and poor driver yielding at many major street crossings limit the ability for bike boulevards to connect people between different neighborhoods. In addition, the bike boulevard system isn't well marked with wayfinding in all locations, making the routes difficult to follow. Some survey respondents shared that more bike lanes are needed on major streets where destinations are concentrated, as opposed to bike boulevards which largely direct people away from activity centers.

While Rochester's bike network has grown, it has not grown to equitably serve Rochester's priority populations. Compared to the city as a whole, few bike boulevards and separated bike lanes are located in areas with a median household income below the city median. Unequal access to shared-use paths is also an issue across priority populations. Low-income areas, places with high concentrations of people of color, and places with greater populations of people with disabilities all have disproportionately low access to Rochester's off-street path network.

And, even where the bike network is accessible, it may not be inclusive of all users. Not all bike lanes in Rochester offer people the same level of protection or comfort and research shows the vast majority of people are unwilling to bike in mixed traffic conditions. Nationwide research emphasizes the importance of investing in the quality of the bikeway network, in addition to providing coverage across the city.[20]

20 Dill, J. McNeil, N. "Revisiting the Four Types of Cyclists: Findings from a National Survey" Transportation Research Board 95th Annual Meeting, 2016. Note that children and older adults have not been surveyed as a separate category but are understood to have a very low tolerance of roadway stress.

> I would love to bike more but our main roads have fast cars and since most roads do not have protected lanes, it feels unsafe.
> - Survey Respondent

Community feedback direct from Rochester residents supports this research; almost half of survey respondents identified vehicle traffic or intersection safety as the number one reason they are less likely to bike in Rochester today (Figure 12). In survey comments, people also expressed that they are uncomfortable with bike lane designs that put bicyclists at risk of being "doored," force cyclists to merge in and out of motor vehicle traffic, or disappear at major intersections. These issues represent network gaps for most people. Some respondents added that implementing higher-quality bike lanes should be prioritized over implementing a greater quantity, if needed.

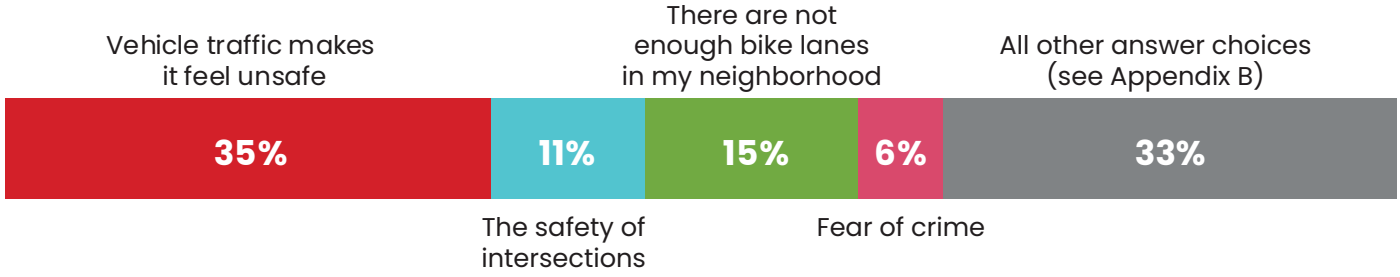
A wide range of design factors affect how safe and comfortable it feels to bike along a street, including: whether and what kind of bikeway is provided; vehicle volumes and speeds; the number of vehicle lanes; presence of on-street parking; and more. A citywide evaluation of all streets in Rochester based on available data showed that one-third of Rochester's streets have a combination of characteristics that may make the street uncomfortable to bike along (see Figure 13, and Appendix H for analysis criteria).[21] The vast majority of streets within Rochester that are lower-stress are smaller neighborhood streets that are primarily residential. On Rochester's larger cross-town streets and commercial corridors, conditions are almost universally higher stress for biking. Among Rochester's higher-stress streets are nearly 80% of the streets in the city with existing painted bike lanes.

Bike lane in downtown Rochester

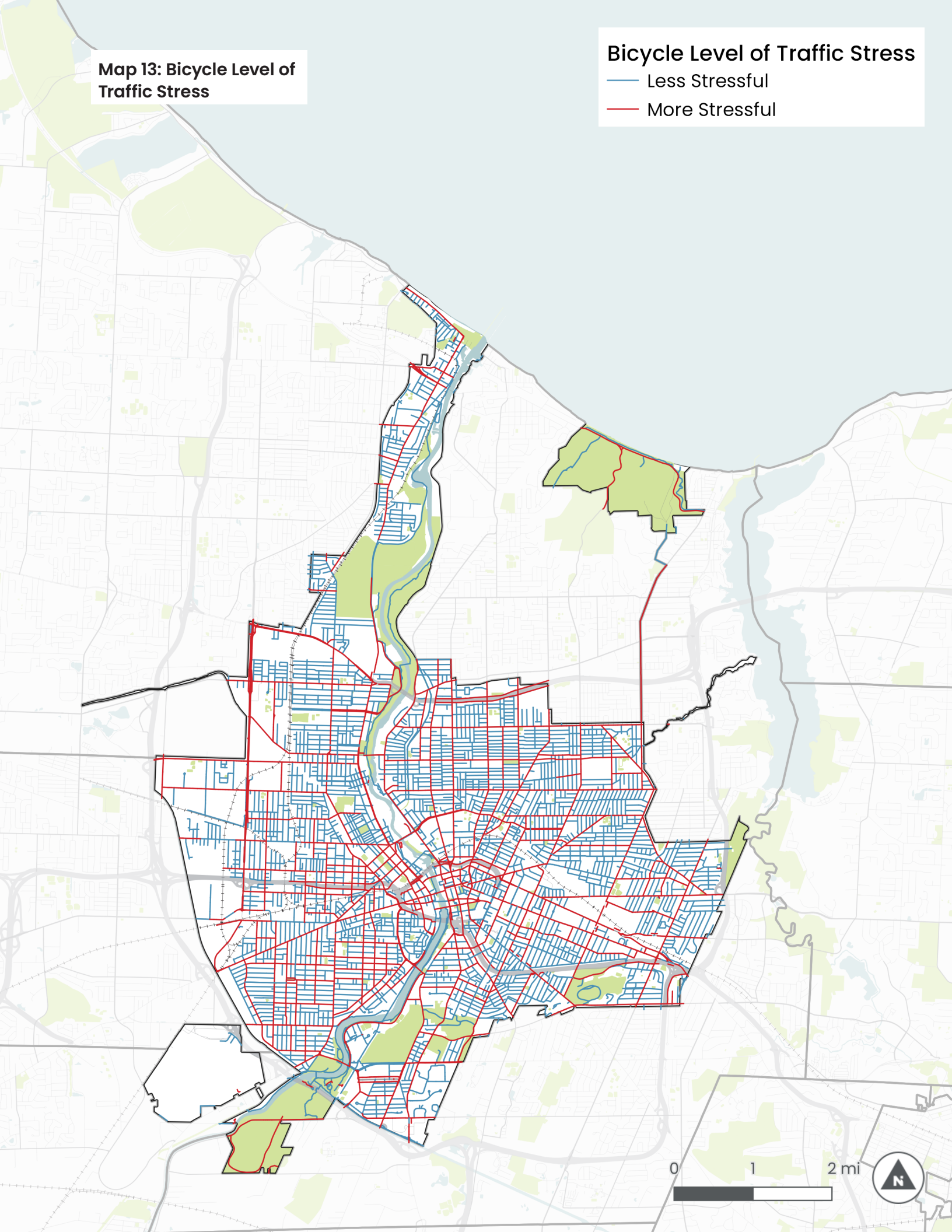
Person riding a bike on W Main Street in Rochester

21 This analysis is based on available data and has not been confirmed by comprehensive field work to confirm conditions.

Figure 12: Top Reason People are Less Likely to Bike Around Rochester Today (Rochester ATP Community Survey)



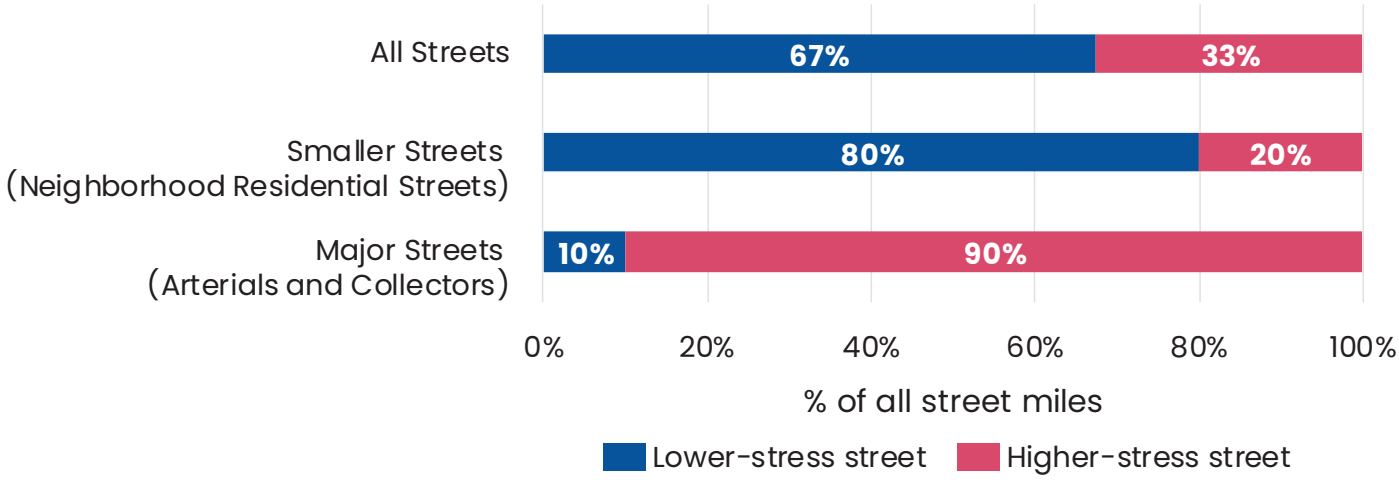
Map 13: Bicycle Level of Traffic Stress



> If there were bike lanes separated from road traffic I would be more likely to bike places with my kids.
> - Survey Respondent

Person biking on the sidewalk with a trailer

Figure 13: Distribution of Higher-Stress and Lower-Stress Streets for Bicycling in Rochester

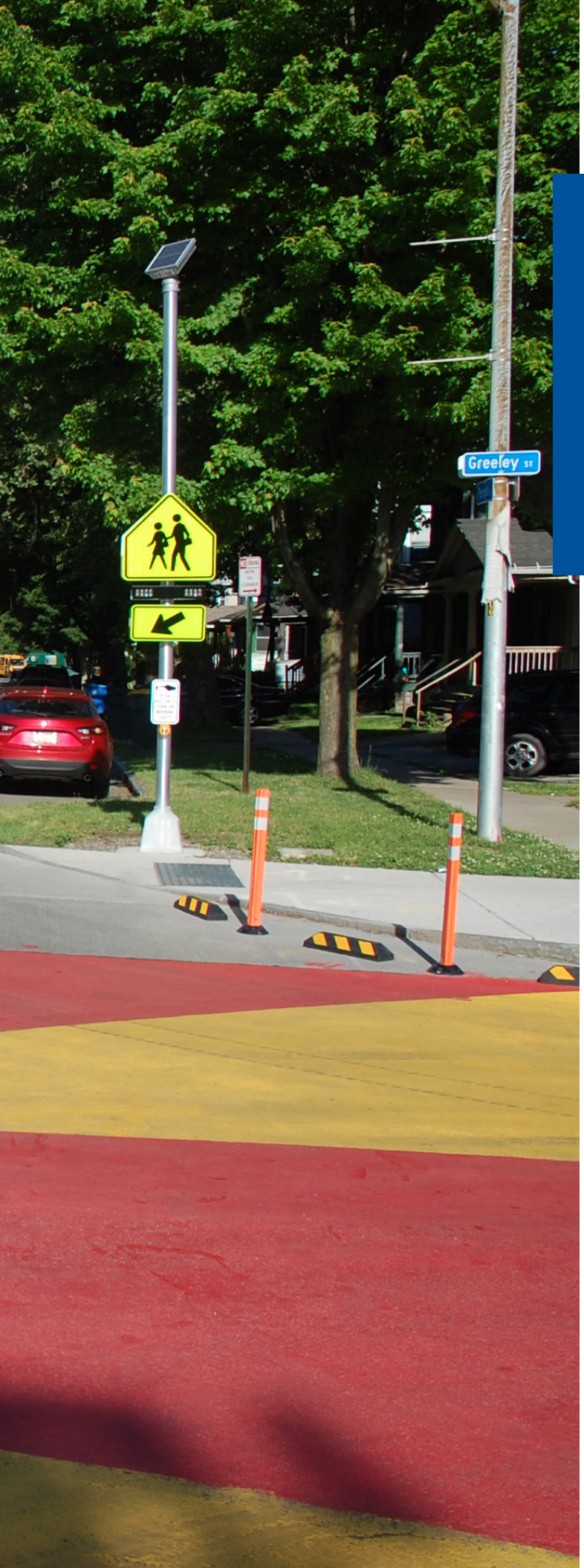


Some of these issues are downstream from the way in which the majority of bike lanes are implemented in Rochester. Painted bike lanes installed as part of resurfacing projects typically stop at major intersections and/or don't include changes to intersections that promote safety and comfort for people biking through. Up to now, the City has not routinely incorporated separated bike lanes as part of resurfacing projects, even if the characteristics of the street suggest a need for higher separation from vehicles in order to establish a comfortable biking connection. Though separated bike lanes do introduce additional complexity into street design and maintenance, cities around the country have begun expanding their separated bike lane networks using low-cost materials as part of routine resurfacing projects[22]. Because all traffic signals within the City of Rochester are owned and operated by Monroe County[23], intersection changes at major intersections with traffic signals are subject to an additional layer of coordination and complexity.

22 "From Paint to Concrete: The Complete Toolkit for Building Innovative Projects," NACTO Designing Cities 2018

23 NYSDOT also controls some signals within the City, primarily at highway ramps.


CURBSIDE
MARKET
THURSDAY
3-4



Action Plan

The recommendations in this Action Plan are a roadmap for meeting Rochester's active transportation goals, as well as other goals set forth in the *Rochester 2034* Comprehensive Plan that intersect with transportation. With 182 recommendations for infrastructure projects and 33 recommendations for supportive policies, programs, and processes, this Action Plan is intended to guide the City of Rochester in fully integrating walking, biking, and accessibility into everyday decision making and long-term investment planning.

Rochester's Framework for Action

The Rochester ATP Action Plan is a blueprint for the City of Rochester to help plan and implement strategic investments in walking, biking, and accessibility. This section describes how the Action Plan recommendations are structured and how the City will measure its progress over time.

Recommendations

The Project Recommendations in this Action Plan will situate the City to tackle serious traffic safety issues, jumpstart deeper pedestrian and accessibility planning, and build out a connected and high-comfort bike network. Each of the 182 projects on the list is intended to lead to a specific type of physical infrastructure change to enhance walking, biking, and accessibility. The recommendations have been strategically selected and prioritized to address urgent needs first and build momentum for the City to meet its active transportation goals.

However, much of what goes into making active transportation successful happens behind the scenes. The Policy, Program, and Process Recommendations developed as part of this plan can be understood as the "underbelly" that makes infrastructure change possible by setting up the City to deliver on implementation at the pace and with the level of ambition that Rochester's goals call for. These recommendations also touch on complementary actions that are not directly related to infrastructure but reinforce planned physical changes to Rochester's streets.

Performance Measures

The following performance measures, tied to each of the three Rochester ATP goals, are intended to aid the City and advocates in tracking progress towards Plan implementation and desired outcomes.

Traffic Safety: Move toward zero traffic deaths and serious injuries through proactive planning, monitoring, and street design that slows traffic and prioritizes pedestrians and bicyclists

- Share of crashes that result in a serious injury or fatality for all modes
- Share of crashes that result in a serious injury or fatality among crashes involving people walking and biking
- Share of serious injury or fatality-causing crashes occurring in places with one or more priority population indicator(s)
- Number of upgraded crosswalks on High Injury Network corridors

Accessibility: Achieve a fully accessible environment for pedestrians of all ages and abilities, with a special focus on the needs of people with disabilities

- Number of bus stops evaluated/upgraded
- Number of bus stops evaluated/upgraded in places with overlapping priority populations
- Number of pedestrian/accessibility focus areas addressed

Transportation Options: Invest in pedestrian and bike networks to make active transportation a safer, more dignified, and enjoyable option for people to move around Rochester

- Mode share, as measured by bus ridership, school/employer travel surveys, user counts on key streets and trails, and/or big data platforms
- Bike network connectivity as measured by the PeopleForBikes Bicycle Network Analysis score for the City of Rochester
- Miles of high-comfort bike facilities built

Policy, Program, and Process Recommendations

Recommendations for policy, program, and process changes are organized into six overarching topic areas. These actions are elaborated upon in greater detail in Appendix J.

Capacity

Develop capacity within City Hall to oversee implementation of the Rochester Active Transportation Plan.

Through the *Rochester 2034* Comprehensive Plan, the *CAMP*, and now the *Rochester ATP*, the City has set ambitious active transportation goals that will take a significant amount of work to achieve. Today, the responsibility for moving forward pedestrian safety, accessibility, and bike network development in the City is split between multiple departments with no one department, team, or staff member dedicated to championing active transportation in Rochester. Building capacity within City Hall and creating ownership over this plan will be critical for ensuring that these recommendations are carried forward at every level and across all of the relevant departments.

Table 3: Capacity Recommendations

Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
1.1 Evaluate dedicated staff positions, subject to available resources, focused on active transportation planning, programs, monitoring, and project implementation. As an immediate action item to jumpstart implementation of the Roc ATP, additional capacity within the City is needed. Starting with an individual (director-level) or a small group of practitioners within DES, these staff will focus on critical functions that are foundational to the City's goals. This includes developing a citywide traffic safety program, coordinating the implementation of active transportation projects, writing grants, and developing funding pathways. Dedicating staff to active transportation and safety work is also a critical step for Rochester to advance to a Silver-level Bike Friendly Community as designated by the League of American Bicyclists, as well as to become recognized as a Walk Friendly Community.	DES	TRN-1k, TRN-2e, TRN-3e	• NACTO Structured for Success Guide

Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
1.2 Consider membership as a NACTO (National Association of City Transportation Officials) Affiliate Member city. NACTO offers support to cities around the country in transforming their transportation networks to address traffic safety and accessibility issues and encourage walking, biking, and transit use. As a NACTO Affiliate Member, City staff would have access to a network of practitioners from peer cities exploring solutions to the same problems, as well as trainings and forums for exchanging best practices. Participation in the NACTO network and programming would assist the City with building internal capacity and sustaining momentum to implement the Rochester ATP recommendations.	DES	TRN-1	• NACTO Membership
1.3 Strengthen existing data programs within the City to include new, relevant data as well as consistent and timely updates to existing data within a centralized location. An enhanced data program is a critical prerequisite to implementing and monitoring numerous actions within the Active Transportation Plan. New data to collect and maintain include data on pedestrian infrastructure. Existing data to routinely collect, organize, and update include bike network data, crash data, vehicle speed data, and shared-use path and bike lane user counts. In particular, crash data should be collected and comprehensively evaluated annually. Many of these data will also support the preparation of a future ADA Self Evaluation and Transition Plan.	DES, GTC	TRN-1i, TRN-1j, TRN-2a	

Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
1.4 Prepare a concise public-facing report annually to communicate key safety and active transportation trends and accomplishments within the City. The report should offer the City's decision-makers and residents a way to quickly absorb key updates, including updates on recent safety and active transportation accomplishments. The annual report will highlight crash statistics by mode (total crashes, total injury crashes, total fatal crashes), crash trends over time, and distribution of crashes and crash severity across the City's priority populations, and identify the specific corridors where severe crashes occur with greater frequency (such as through a high-injury network analysis). In addition, key accomplishments from the year should be highlighted, like progress on Rochester ATP performance measures, the launch of a new program or policy, or the implementation of a pedestrian safety or bike network project.	DES	TRN-1i	
1.5 Establish a permanent Transportation and Mobility Department to oversee transportation functions citywide, including planning, design, operations, and comprehensive transportation demand management. In the long-term, a reorganized department dedicated to transportation (including active transportation) will bring transportation functions across the city under a single, coordinated body. This department will need to consider how to best integrate MCDOT traffic engineering functions with City Functions.	DES	TRN-1k	• NACTO Structured for Success Guide

Engagement

Engage Rochester residents in the City's implementation of the Active Transportation Plan.

Transportation is more complex than just building sidewalks and bike lanes. These sidewalks and bike lanes are experienced by people in the broader context of their community's health, wealth, and holistic well-being. These complexities, and what they mean for making active transportation a desirable option in Rochester, were raised repeatedly throughout the community engagement process and are important to acknowledge. A combined 20% of respondents to the Rochester ATP Community Survey shared that the top reason they are less likely to walk around Rochester today is fear of crime or fear of being a target of law enforcement. Among Black respondents, these two concerns were even larger barriers, comprising 35% of responses. It is clear that people's experiences with active transportation intersect with other issues in ways that can't be addressed through infrastructure investments and transportation policy alone.

However, in implementing this plan there is an opportunity to redefine how these investments can strengthen Rochester's communities – investing in walking, biking, and accessibility is investing in affordable and dignified options for getting around, in equitable access to jobs, in safe and healthy recreation, in a comprehensive definition of public safety, and more. Engaging residents in the implementation of this plan will enable the City to center the ways active transportation investments are most relevant to people's lives, building a broad coalition behind traffic safety, walking and biking, and accessibility such that they can be advanced with co-benefits for other overlapping public priorities. Making this shift will require an inclusive approach to the implementation of this plan that centers community priorities and honors the value of contributions from members of the public. Earning community support for this plan and generating excitement about these kinds of investments in Rochester's neighborhoods will be key to ensure that implementation is equitable and builds momentum for sustained change.

Participant in Rochester ATP community pop-up

Reconnect Rochester group bike ride event (Credit: Reconnect Rochester)

Table 4: Engagement Recommendations

Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
2.1 Implement a culturally sensitive communications campaign to grow community awareness of traffic safety and active transportation options. Develop standard language regarding traffic safety for use by City leadership when interacting with the public and other agencies. Overall messaging, mediums, and implementation will be coordinated with the City of Rochester communications team and a wide range of creative community partners. All messaging must be accessible to people with disabilities. Traffic safety language will convey the message that traffic deaths and serious injuries are preventable, unacceptable, and not the responsibility of any single individual, but a collective approach to design and safety that is systemic in nature.	Com-munica-tions	TRN-5a, TRN-5f, TRN-5g	
2.2 Establish a citywide complete streets and accessibility committee to serve in an advisory role on street design projects, policies, and funding priorities. Representing a mix of residents, city councilors, and advocates, the complete streets and accessibility committee would provide consistent guidance and accountability on transportation projects and strategic direction.	Adminis-tration	TRN-5	• Providence Green and Complete Streets Advisory Council
2.3 Create an engagement strategy to involve the public in safety initiatives. A coordinated strategy will ensure consistency in messaging, outreach partners, outreach methods, etc. when conducting engagement around infrastructure safety improvements.	DES	TRN-1k	

Safety

Establish a traffic safety program to comprehensively and equitably advance the City's goal of eliminating serious and fatal crashes.

Traffic safety is an increasingly salient community quality-of-life concern in the City of Rochester. As documented in the Existing Conditions chapter, Rochester has the highest overall crash rate and the highest fatal crash rate among peer cities in New York, and local crash rates are climbing in line with national trends. Many of Rochester's most critical streets, where the most fatal and injury-causing crashes occur today, are located in communities with a high density of priority populations. And the Rochester ATP Community Survey demonstrated that concerns about traffic safety are a major deterrent to walking and especially biking in Rochester.

Now is the moment for the City of Rochester to adopt an evidence-based approach to crash prevention. Crashes and the toll they inflict on people's lives are not an inevitability, and there are concrete actions the City can take to manage the frequency and severity of crashes on its streets. The City of Rochester should ultimately have a coordinated playbook for responding to serious crashes, documenting and addressing systemic safety issues, communicating with the public about traffic safety issues, and pursuing enforcement in a way that is responsive to community concerns about policing.

Table 5: Safety Recommendations

	Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
3.1	**Create a "rapid response" program to evaluate near term solutions to the right of way where serious and fatal crashes happen.** In the aftermath of a serious or fatal crash, the City of Rochester will evaluate crash locations and identify and implement design solutions that slow speeds and minimize risk.	MCDOT, DES	TRN-5a	
3.2	**Coordinate with NYSDOT and MCDOT to lower the default Citywide speed limit to 25 mph and revisit the limits for streets with posted speed limits of 30 mph and above.** Lower vehicle speeds across the City will help reduce instances of serious and fatal crashes on Rochester's streets. Even without engineering or enforcement changes, lower speed limits have been shown to lower speeding overall and reduce instances of high-end speeding, which carry a far greater risk for leading to severe and fatal crashes. Speed limits on NYSDOT owned roads will be determined based on NYSDOT speed limit criteria.	Adminis-tration	TRN-5a	• NACTO City Limits

	Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
3.3	**Create a checklist to help ensure proven safety countermeasures are incorporated into all projects on streets within Rochester's High Injury Pedestrian and Bicycle networks.** The design of streets is the best tool available to slow speeds and improve safety outcomes. Along Rochester's High Injury Network (or highest-crash corridors identified through a similar analysis), every project represents an opportunity to incorporate proven safety countermeasures into locations where serious and fatal crashes have been most concentrated in the past. The creation of a checklist will help street design engineers ensure that their projects have considered proven safety countermeasures. Rochester *CAMP* Street Design Guide and the Traffic Calming Toolbox can provide guidance on building checklists.	DES	TRN-2b, TRN-5a	
3.4	**Develop standard procedures for conducting safety evaluations after installation of projects that have included proven safety countermeasures.** Safety evaluations are an important process for measuring progress toward safety goals and understanding when it might be necessary to correct course. A standard policy and procedure for conducting safety evaluations should outline: • Which projects must be evaluated (for example, based on crash history or project scale) • What metrics must be studied (for example vehicle speeds, driver yielding rates at crosswalks, community perceptions via intercept surveys, before/after pedestrian and bike volumes, and crash rates after adequate time has passed) • How metrics should be measured (to ensure consistency across projects) • How evaluations should be communicated (for example, with a standard reporting sheet, blog post, or in a specific location on the City website)	MCDOT, DES	TRN-1i, TRN-5a	• San Francisco Safe Streets Evaluation Handbook

Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
3.5 Assess opportunities to institute automated traffic enforcement in a manner that ensures associated technology and implementation are deployed in an equitable manner for safety-related improvements. Acknowledging that speed is a primary predictor of crash severity, controlling and enforcing speeds while minimizing police interactions can provide a path toward safer streets while being responsive to community concerns around policing. Coordination with the Rochester Traffic Violations Agency can help ensure that fines do not have a disproportionate impact on lower income drivers.	Admin-istration, DES	TRN-5a	

Sign displaying Rochester's citywide speed limit of 30mph

Pedestrians waiting to cross Park Avenue

Design Standards and Processes

Align design standards, routine processes, and operations with active transportation goals.

In Rochester and in cities across the nation, decades of vehicle-oriented street planning, design, and maintenance have entrenched a certain way of doing things. From decisions about which projects are implemented first, to design details like whether a bike lane continues through major intersections, to whether critical sidewalk links are cleared of snow, unseen processes affect the City's efforts to build and maintain usable active transportation networks. By proactively redefining official and unofficial design standards, internal processes, and routine operations to align them with active transportation goals, the City can clear the way for the implementation of its ambitious vision for walking, biking, and accessibility in Rochester.

Table 6: Design Standards and Processes Recommendations

	Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
4.1	**Improve application of design guidance and complete streets policy through use of detailed checklists and clear instructions.** Both the Rochester Street Design Guide and the existing Complete Streets Policy set a foundation for carrying forward street designs and priorities that align with active transportation goals. However, a more formal process for applying these tools - for example a complete streets checklist and complete streets policy exemption report - will help increase the impact of these existing tools. New processes should be applied to a wide range of projects, including private developments undergoing site review, repaving projects, and full reconstruction projects. City departments with a role in implementing the Complete Streets Policy should work together to define their respective compliance responsibilities.	DES	TRN-1c, TRN-1e	

Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
4.2 Collaborate with Monroe County DOT on the development of policies for traffic analysis and interpretation that align with the needs of the City of Rochester's transportation goals. The City of Rochester does not own or maintain its signal system and collaborates closely with Monroe County DOT on virtually all projects for traffic analysis and crosswalk studies. Recognizing the strong role vehicle operation analysis currently plays in decision making about street designs, the assumptions and thresholds built into these analyses must align with City goals. Given the contextual differences across Monroe County, City-specific policies to guide collaboration with Monroe County DOT will help ensure the City's safety and multimodal transportation priorities are reflected in the analysis of signalized operations. In particular, City-specific policies should be developed for: • Preferred traffic analysis methods (for example, elimination of annual growth rates, preference for non-peak hour analysis, preferred V/C ranges at or above 0.85 at peak, etc) • Pedestrian-priority signal timing policies (for example, clear and consistent thresholds for application of NTORs, pedestrian phasing schemes, APS, and LPIs) • Bike-supportive signal practices (for example, bike detection systems at signals, signal separation/protected turns, bike signals and signal phases, leading bike intervals, etc.) • Marked crosswalk policy (for example, establishing desired ranges for distances between marked crossing opportunities on collectors and arterials, requiring crosswalks on all legs of signalized intersections, etc.) • Multi-lane conversion/road diet policy	MCDOT, DES	TRN-1h	• NACTO Urban Street Design Guide • (Performance Measures, Design Year, Traffic Signals)

	Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
4.3	**Formalize project selection criteria, including safety, for prioritizing projects for capital funding.** Today, the City informally considers pavement quality and general safety concerns when programming projects for capital funding. A clearly defined set of project selection criteria can help City staff incorporate planning outcomes into the decision-making process and guide funding allocation to better meet City goals. The data analyses produced as part of this plan can be a starting point for project selection criteria and an important tool in the process. In addition to pavement quality, incorporate consideration of the Rochester ATP recommendations, crash history and ongoing crash trends, and concentrations of Rochester's priority populations into the capital funding process.	DES	TRN-1i	
4.4	**Finalize and incorporate elements from the Rochester Traffic Calming Toolbox to guide ongoing traffic calming needs.** The Rochester Traffic Calming Toolbox will guide the City to implement proven measures to manage vehicle speeds and volumes such that local streets, the bike boulevard network, and other critical links are welcoming to pedestrians and cyclists of all ages and abilities.	DES	TRN-1c	
4.5	**Study the recommended Rochester ATP Spine Network to identify the most efficient path to implementation.** The Rochester ATP Spine Network represents 44 miles of future bike safety and connectivity projects. In order to efficiently build out this network, the City will need to use a mix of construction methods and project implementation pathways. Some bikeway projects might be put in place with temporary or modular materials as part of resurfacing projects, while others might be installed through full roadway reconstruction projects, or through dedicated bikeway projects. A follow-up study should include high-level bikeway concepts for each segment of the Spine Network, recommended project implementation pathways, cost estimates, and guidance for ongoing maintenance and operations.	DES	TRN-3a, TRN-3e	

	Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
4.6	**Identify opportunities to expand the sidewalk and bus stop snow removal programs to include standards that can be achieved after all snow events. Create a trail maintenance plan.** While acknowledging that the City already oversees a major snow clearing operation and plows sidewalks after larger snow events, the ability for Rochester residents to rely on walking, biking, and taking the bus is strongly impacted by snow on sidewalks, trails, and bike lanes. Snow presents both a safety and access challenge for residents, and in some cases prevents those with mobility disabilities from being able to navigate and access the City. By focusing resources on the streets that provide the most utility to the City's priority populations - like those around high-use bus stops and along major transit routes - the City can make more active trips possible and dramatically improve the safety and reliability of wintertime travel. The City and RTS created a pilot program for the winter of 2022-2023 to provide snow clearing at 85 priority bus stops which should be evaluated, formalized, and expanded. Trail maintenance needs also go beyond wintertime snow removal to include regular pavement maintenance and seasonal maintenance of surrounding vegetation.	DES	TRN-1n	
4.7	**Identify and implement additional strategic winter maintenance and/or snow and ice accumulation prevention activities to better maintain key walking and biking facilities in locations with no adjacent property owner through the winter months, such as bridges and underpasses.** The fragmentation of Rochester's walking and biking networks is amplified in the winter, when critical links are not always reliably cleared of snow. Key walking and biking connections on bridges and underpasses that cross rivers, train tracks, and highways, and provide access to multimodal transportation facilities, especially where there are no alternative crossings or access points within 1/4 mile, should be prioritized for snow clearance. Additionally, the City should explore procuring more suitable equipment for clearing bike infrastructure and trails, along with bike facility designs that are compatible with the City's snow clearing operations.	DES	TRN-1n	• Toole Design Winter Maintenance Resource Guide

Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
4.8 Create a marked crosswalk location spacing standard to be applied to city streets. The ability to cross the street is a fundamental function of a pedestrian network. However, many of Rochester's major streets lack frequent marked crossing opportunities, even when intersections are frequent. Limited crossing opportunities creates precarious crossing situations and/or long detours, degrading the quality and usability of the City's pedestrian network. Using the *Rochester 2034* character areas and/or street typologies as a contextual reference, spacing standards for marked crosswalks within different contexts will help make Rochester's pedestrian network more complete and accessible. In particular, these standards should focus on defining desired ranges for crosswalk spacing for Rochester's urban mixed use and commercial environments with marked crosswalks provided: • Across all legs of every signalized intersection • At every intersection or at a minimum every 300 to 500 feet • At every bus stop • Across every side street (raised crossings preferred) Acknowledging that marked crosswalks on their own are not always sufficient to create a safe place to cross the street, standards should also include thresholds for ADT, speed, number of lanes, etc. at which crossing safety enhancements are needed.	DES	TRN-1c, TRN-2b, TRN-2e	• NACTO Urban Street Design Guide (Crosswalks and Crossings) • FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations

	Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
4.9	**Implement enhanced pedestrian and accessibility standards to be applied to all future maintenance and reconstruction projects.** Several common accessibility challenges in Rochester can be systematically addressed through the adoption of standard design elements that are incorporated into all projects. In particular, adopting as standards the installation of raised side street crossings at intersections with collectors and arterials, the installation of daylighting (removal of obstructions that reduce sightlines) within at least 20 feet of all intersection approaches, and the maintenance of sidewalk grades across all driveways can dramatically reduce the number of ramps that people with disabilities, strollers, etc must navigate and communicate much stronger pedestrian priority. At major intersections, the use of directional curb ramps that are perpendicular to the street and aligned with crosswalks instead of apex curb ramps should be standardized.	DES	TRN-2c, TRN-2e	
4.10	**Perform a comprehensive review of design details and update to match active transportation and accessibility best practices, including the U.S. Access Board's Public Rights-of-Way Accessibility Guidance (PROWAG).** The City has numerous ongoing programs and projects that continually make upgrades to streets and sidewalks. When general maintenance projects occur, standard design elements are constructed or reconstructed in accordance with City specifications. Understanding that every project presents an opportunity to improve the built environment for people walking, biking, and accessing the bus, a comprehensive review of standard specifications used in City projects will allow for standards to be updated to align with current priorities and for new standards to be prepared to account for new facility types and street elements that may not be common around Rochester today. In addition, a comprehensive review of standards will allow design guidance from PROWAG to be implemented proactively.	DES	TRN-2c, TRN-2e	

Pedestrian and Accessibility Project Pathways

Develop additional pathways for identification and implementation of projects that advance pedestrian safety and inclusive design for people with disabilities.

Pedestrian network planning is distinct from bike network planning in that it does not deal with just a subset of streets; Rochester's pedestrian network comprises all of the City's streets. With nearly unlimited places to start, the Rochester ATP has an important role to play in focusing attention on how and where the City's future efforts to enhance walking and accessibility can have the greatest impact. These recommendations are intended to give the City a clear path forward for identifying and implementing pedestrian and accessibility projects, by collecting better data to drive decision making and creating a queue of well-defined pedestrian and accessibility projects.

Table 7: Pedestrian and Accessibility Project Pathways Recommendations

Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
5.1 Build on existing citywide assessments of sidewalk and curb ramp conditions and update yearly. These data will be used to program equitable investments in sidewalk condition across the City and inform prioritization decisions for capital funding. This assessment should focus on key accessibility issues uncovered through recent fieldwork including excessive sidewalk slopes (>5% running slope and >2% cross slope), narrow sidewalk widths (under 48"), and non-compliant curb ramp design.	DES	TRN-1j, TRN-2a	

	Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
5.2	**Develop a Pedestrian Focus Area planning and design program. Priority projects are listed in the project level recommendations.** To help focus pedestrian investments, this plan has identified pedestrian priority areas where a comprehensive evaluation of intersections and sidewalks is needed to identify discrete pedestrian and accessibility recommendations. Focused on youth, older adults, and transit access, these areas have been prioritized and represent locations within the City with pronounced pedestrian demand. Utilizing a community-based approach to planning and design, each of these projects will progress by first completing walking audits (and biking audits, if desired) with local stakeholders and community leaders to identify key issues, developing infrastructure plans, programming funding, and finally implementing the project. By moving a number of priority areas into the first step of the process each year, the City will establish a continuous pipeline of pedestrian and accessibility projects focused on high demand areas and strongly informed by community needs. This program may also be a useful for growing interest in and momentum for Safe Routes to School, Safe Routes for Seniors, and other programming that is often co-led by city departments and host schools or community organizations. *Some of the priority projects are on NYSDOT owned roads. Any projects on these roads will require coordination with NYSDOT.	DES	TRN-1o, TRN-1q, TRN-2b, TRN-2c, TRN-5c, TRN-5i	
5.3	**Evaluate all bus stops within the City to ensure they are accessible and provide basic amenities. Upgrade all bus stops with basic landing pads on street maintenance, rehabilitation, and reconstruction projects. Implement additional amenities per the guidance of the *CAMP Transit Ready Report*.** Bus stops are categorized as 'Basic Stops,' 'Enhanced Stop,' and 'Transfer Point' in the Rochester *CAMP Transit Ready Report*. Bus stops should be provided with amenities per the recommendations of the Transit Ready Report.	DES, RTS	TRN-2c	• Rochester *CAMP* webpage

Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
5.4 Take critical steps to prepare for a citywide ADA Self Evaluation and Transition Plan to comprehensively address active transportation needs. While ADA Self Evaluation and Transition Plans extend beyond Active Transportation to assess all programs, services, and practices, there are critical steps the City can take in the implementation of this Active Transportation Plan to prepare for those processes. Each of the policy, program, and practice recommendations in this plan notes whether the action is a key ADA Transition Plan action that will make the process of completing a Self Evaluation and Transition Plan smoother and more effective. While these key actions represent prerequisites to those legal processes, many other recommendations proactively address known accessibility issues and will have the effect of shortening the list of compliance issues that may emerge from the ADA Self Evaluation and Transition Plan processes.	DES	TRN-2c	

Land Use Connections

Forge stronger connections between active transportation and land use.

Creating good walking, biking, and transit options for people to get around Rochester is only one half of the equation for shifting driving trips to other modes of transportation. Today, Rochester's dispersed development patterns encourage and facilitate driving trips, especially as critical services, jobs, and shopping centers have moved from the city to the suburbs. The results from the Rochester ATP Community Survey confirm that land use is a serious deterrent to using active transportation today; 15% cited "it takes too long to walk" as the top reason they are less likely to walk around Rochester today. As the City aims to spur development, economic revitalization, and densification in the urban core, coordinating efforts to advance active transportation with land use policy will strengthen both.

Table 8: Land Use Connections Recommendations

	Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
6.1	**Incorporate stronger bike parking minimums and standards into the zoning code.** Incorporate minimums for all land uses as or more intensive than multifamily residential. Bike parking requirements should be decoupled from vehicle parking requirements. In addition, the City should clarify approved rack types, provisions for e-bikes, cargo bikes, and adaptive bikes, and spacing requirements to be incorporated through the site plan and review process.	NBD, Planning	TRN-1c	
6.2	**Introduce favorable zoning policy for key community resources and destination types in areas where populations are concentrated but few community destinations exist.** Analysis and outreach revealed that a key barrier to walking in many neighborhoods is a lack of nearby destinations. Recognizing that active transportation predicated on people living within reasonable walking and biking distance of their homes, the City should explore opportunities to introduce zoning policies that favor small-scale commercial uses in areas where many residents live and where core destinations are missing. This tactic may be especially effective along corridors with frequent bus service.	NBD, Planning	TRN-1f, TRN-4b	

	Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
6.3	**Increase the percent of units that are required to be ADA-accessible for new developments in mixed-use areas.** People with disabilities face compounding mobility challenges. In addition to difficulties navigating Rochester's streets and sidewalks, people with disabilities may only be able to walk or wheel limited distances, or may be unable to drive a car. Creating more ADA-accessible housing units in mixed-use areas will allow more people with disabilities to live close to a richness of different destinations, reducing the need to travel beyond their immediate neighborhood for daily trips.	NBD, Planning		• City of Boston Disability Housing Task Force Report
6.4	**Develop and implement Transportation Demand Management (TDM) requirements for new development projects and major renovations.** Projects that move through the site plan review process represent a natural moment for TDM to be explored. Understanding that not all sites or organizations have the same capacity or produce the same impact, TDM guidelines and thresholds should be established to help guide effective and context-specific strategies to be required as part of the development process. These strategies should focus on methods to reduce physical, financial, and operational barriers to walking, biking, and taking the bus and should emphasize implementing a smaller number of high-impact strategies instead of a larger number of low-impact strategies.	NBD, Planning	TRN-6c	
6.5	**Evaluate employee commuter policies, practices, and benefits among large employers and institutions to ensure active transportation are equally as supported as driving.** Starting with the City itself, an evaluation of commuter policies, practices, and benefits should uncover built-in incentives that affect mode choice. Similar evaluations should be required of the City's large employers and institutions (for example, those who employ 100 or more people). Information gained through evaluations should be used to identify existing best practices among Rochester institutions, areas for targeted improvement, and may help set the stage for future citywide TDM programming.	DHRM	TRN-6b, TRN-6d	

	Recommendation	Imp. Lead(s)	*Roc 2034* actions	Resources & Precedents
6.6	**Install bike parking at all publicly-accessible, City-owned buildings.** Bike parking should be provided within 50 feet of the main entrance and should comply with bike parking best practices outlined by APBP.	DES	TRN-1c	• APBP Essentials of Bike Parking

Projects

Project recommendations are organized by mode and purpose, into Pedestrian and Accessibility Projects and Bike Network Projects. The full list of projects is included in Appendix K.

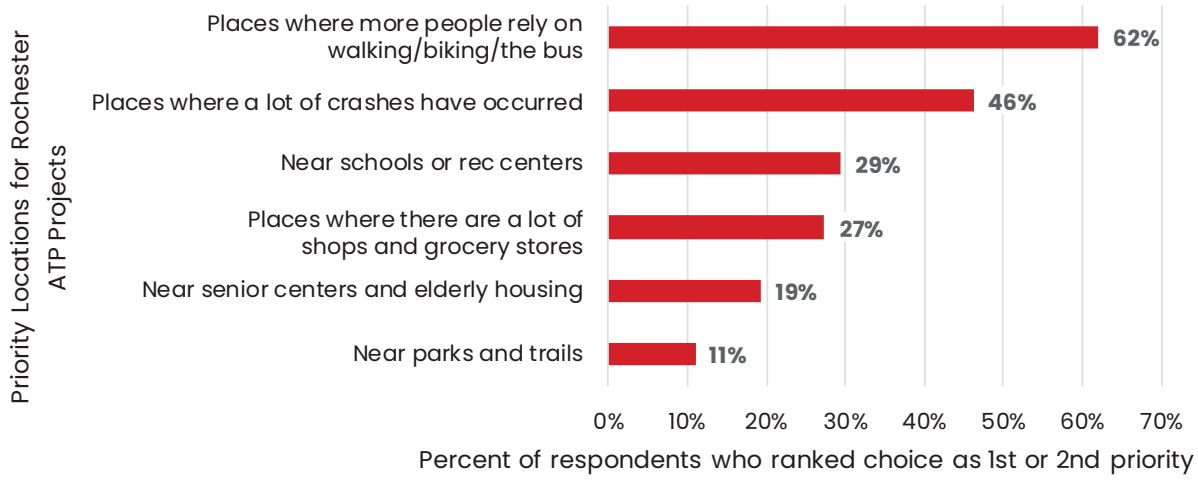


Figure 16: Priorities Among Survey Respondents

Project Prioritization

All of the recommendations set forth in this Action Plan will take time and resources. Recognizing the funding and capacity constraints that exist, all projects in this Action Plan were prioritized relative to one another through a data-based process shaped by input from the public. Each project was given a score for each of the criteria listed to the right, which was used to rank projects relative to one another in a loose order of priority. This process is described in greater detail in Appendix L.

Public priorities for active transportation projects came through clearly in the Rochester ATP Community Survey and were built into the project prioritization framework. Over half of survey respondents ranked "Places where more people rely on walking/biking/the bus" as their first or second priority for where projects should be implemented, and close to half of respondents ranked "Places where a lot of crashes have occurred" as their first or second priority (Figure 16).

In response, projects across categories and types were scored primarily on Priority Populations and Safety.

Table 9: Project Recommendation Prioritization Criteria

Prioritization Criterion	Description
Safety	**Prioritizing safety needs** based on where fatal and injury-causing crashes involving people walking and biking have occurred in the past
Priority Populations	**Prioritizing equity and investments in disadvantaged communities** based on the share of people living near a given project who are recognized as belonging to Rochester's priority populations
Density	**Prioritizing investments in places with greater activity** based on the population density and density of jobs around a given project
Connectivity	**Prioritizing investments that bridge network gaps** based on whether a given project connects to existing high-quality infrastructure and/or crosses a river, highway, or rail corridor
Transit	**Prioritizing connections to transit** based on bus service frequency and ridership near a given project
Co-Benefits	**Prioritizing projects that deliver benefits for both people walking and biking** based on where pedestrian safety and bike network recommendations overlap

Pedestrian and Accessibility Projects

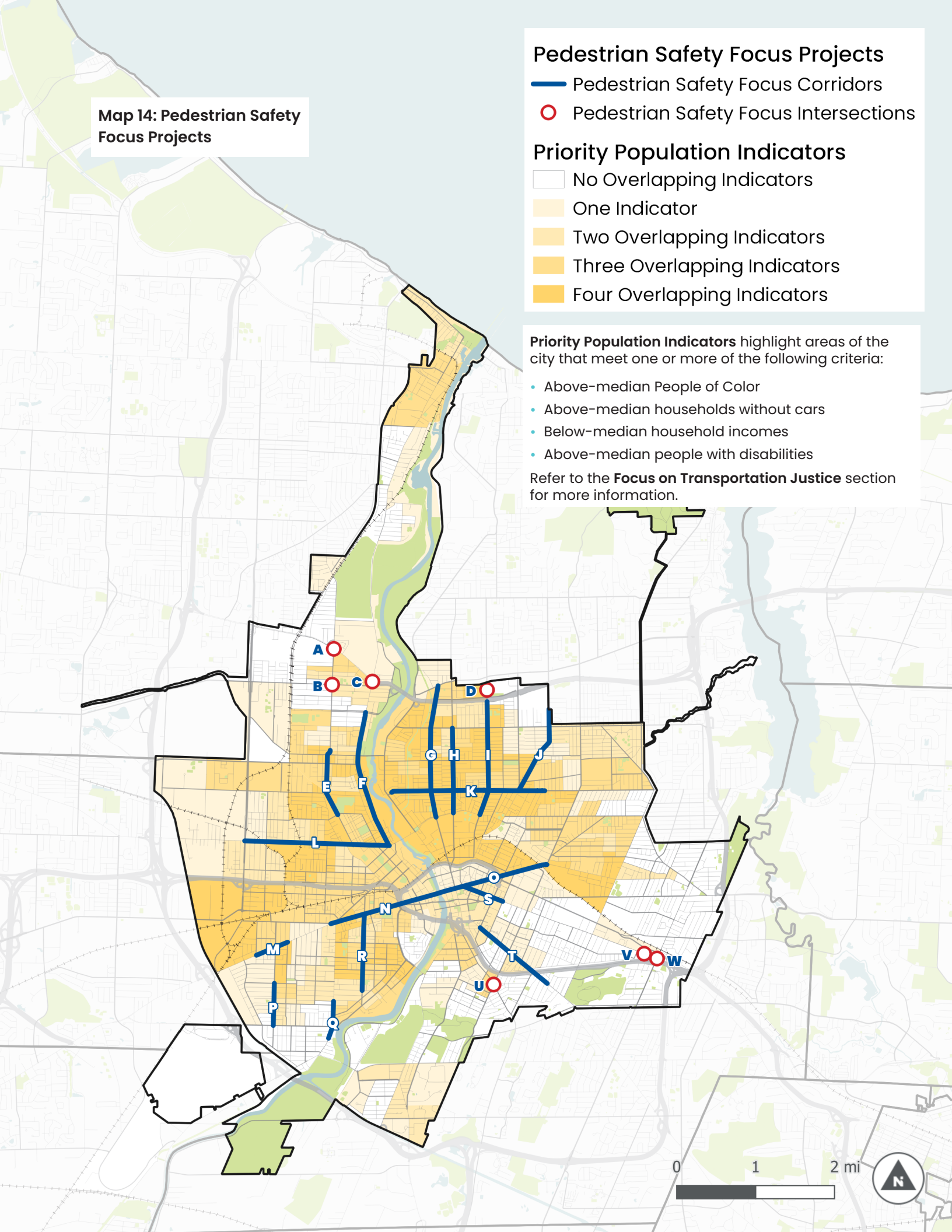
As described in the Policy, Program, and Process Recommendations, there is a virtually unlimited number of worthwhile investments the City could make in pedestrian and accessibility projects. The project-level recommendations that follow give the City a solid starting point based on where potential investments in street design changes and deeper pedestrian planning can have the greatest impact in the short term. Ultimately though, having an accessible pedestrian network requires an ongoing commitment to cyclical monitoring, maintaining, and upgrading of pedestrian infrastructure that is built into routine processes. Also, it is important to note that education is an important factor that will need to be included as part of this effort, as it will enhance safety throughout the City of Rochester.

Pedestrian Safety Focus Corridors and Intersections

Traffic safety came through in the Rochester ATP Community Survey as the clearest and loudest public priority related to active transportation. Traffic crashes where people walking have been injured or killed are not distributed equally throughout the city, and data analysis documented in the Existing Conditions chapter points clearly to where the greatest safety needs exist. Just five miles of the City's 600-mile street network accounted for 16% of all pedestrian crashes between 2017 and 2021, including 25% of pedestrian crashes that caused serious injuries and 31% of pedestrian crashes that caused a fatality. This high injury network is mostly clustered in areas with higher concentrations of Rochester's priority populations, as identified in this Plan.

Table 10: Pedestrian Safety Focus Projects

ID	Project
A	Dewey Avenue and West Ridge Road
B	Dewey Avenue and Ridgeway Avenue
C	Lake Avenue and West Ridge Road
D	Hudson Avenue and Seneca Manor Drive
E	Dewey Avenue
F	Lake Avenue
G	North Clinton Avenue
H	Joseph Avenue
I	Hudson Avenue
J	Portland Avenue
K	Clifford Avenue
L	Lyell Avenue
M	Chili Avenue
N	West Main Street
O	East Main Street
P	Thurston Road
Q	Genesee Street
R	Jefferson Avenue
S	East Avenue
T	Monroe Avenue
U	South Clinton Avenue and South Goodman Street
V	East Avenue and Probert Street
W	East Avenue and Winton Road


Map 14: Pedestrian Safety Focus Projects
Pedestrian Safety Focus Projects
Pedestrian Safety Focus Corridors
Pedestrian Safety Focus Intersections
Priority Population Indicators
No Overlapping Indicators
One Indicator
Two Overlapping Indicators
Three Overlapping Indicators
Four Overlapping Indicators
Priority Population Indicators highlight areas of the city that meet one or more of the following criteria:
Above-median People of Color
Above-median households without cars
Below-median household incomes
Above-median people with disabilities
Refer to the Focus on Transportation Justice section for more information.
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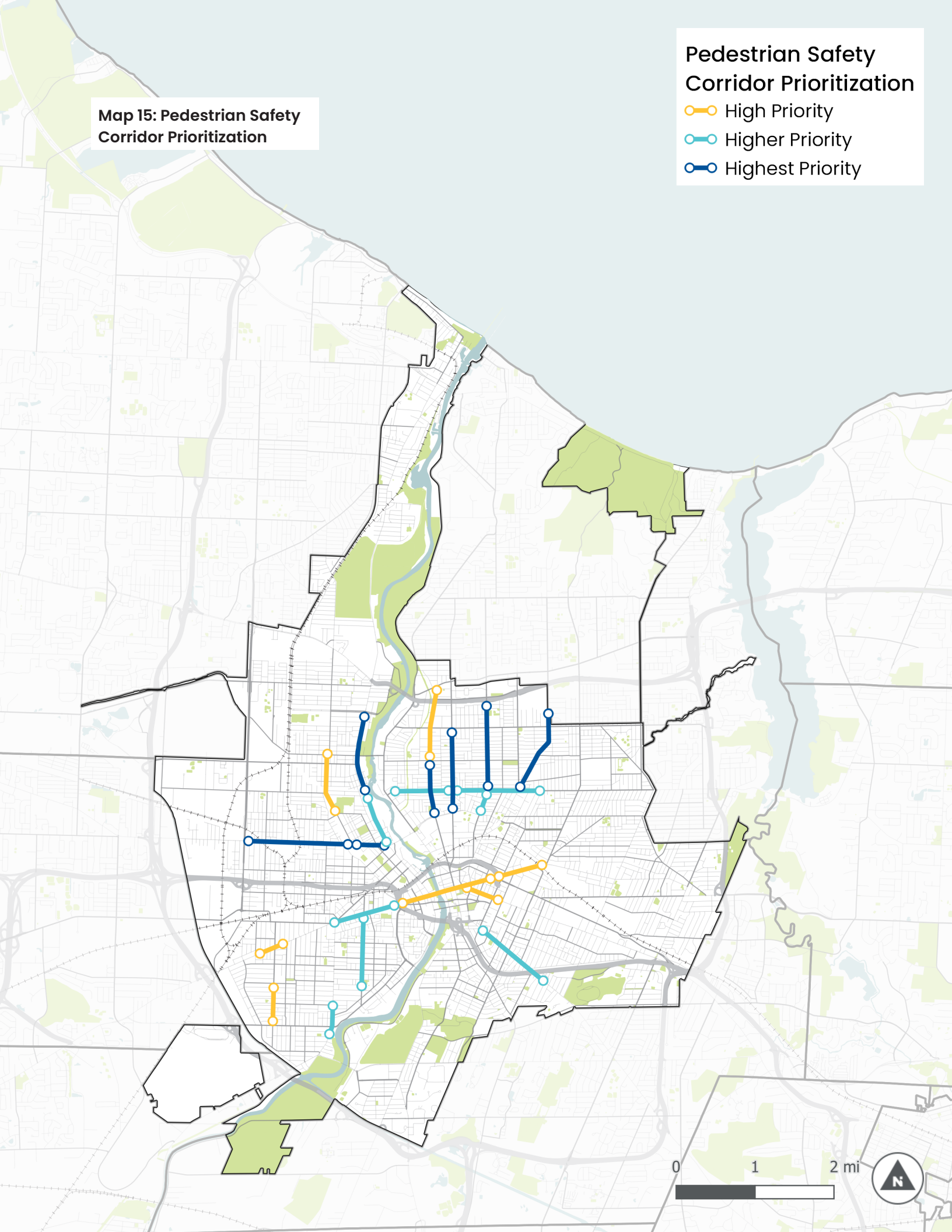
Map 15: Pedestrian Safety Corridor Prioritization
Pedestrian Safety Corridor Prioritization
High Priority
Higher Priority
Highest Priority
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Crosswalk in front of a Rochester school with a curb extension, shortening crossing length and improving pedestrian visibility

Raised mid-block crossing Somerville, MA featuring flashing beacons (RRFBs) and a pedestrian crossing island, slowing traffic and facilitating bus stop access

These streets demand the most urgent action and make up the core of the Pedestrian Safety Focus Corridor projects. Other streets with pedestrian-scale commercial activity in neighborhoods with higher concentrations of priority populations are also included. While all streets in the city should be safe for people walking, prioritizing these 21 streets will target resources to where they will have the strongest impacts.

Similarly, some individual intersections outside of the high injury network have more pedestrian crashes than others. Seven Pedestrian Safety Intersection projects are also identified here to prioritize upgrades for people to walk through safely and comfortably on their way to their destinations.

Pedestrian Safety Focus Corridors and Intersections are prioritized relative to one another within each type to understand where early action might have the greatest impact. In response to community feedback and in keeping with the purpose of these projects, both groups of projects are prioritized primarily based on how many crashes have occurred along them in the past, the priority populations living nearby, and the surrounding transit frequency and ridership. Some of these projects include NYSDOT-owned facilities, and implementation will require coordination with NYSDOT.

Raised crosswalk along a major road in Cambridge, MA, slowing vehicle turns and improving pedestrian visibility

Lake Avenue crosswalk with a pedestrian crossing island

Pedestrian Focus Areas

Sidewalks are present on nearly all of Rochester's streets and form the backbone of the pedestrian network. However, as explored in the Existing Conditions chapter, this network is not universally safe, accessible, or comfortable for people walking to use to get around. This plan identifies twenty-four Pedestrian Focus Areas across the city, representing roughly a quarter of all streets, to jumpstart the needed pedestrian safety and accessibility work in Rochester.

The Pedestrian Focus Areas were drawn with youth, older adults, and transit users in mind, with the intention of prioritizing the allocation of pedestrian planning resources on destinations frequented by these groups. Creating a seamless and welcoming pedestrian environment for youth and older adults is important because they are more likely to rely on walking, biking, or public transit to get around and have unique mobility needs. Children are smaller and less visible than adults and have less ability to identify risks and navigate through conflicts, and need a safe environment for walking and biking to get around independently. Older adults are more likely to have disabilities that affect their mobility and are less likely to be able or willing to drive[1]. And, since most transit riders start and/or end their trips as pedestrians, focusing resources on key links in the public transit network will have an outsized impact on safety and accessibility.

These projects are intended for implementation through a program described in greater detail in Policy, Program, and Process recommendation #5.2, which will create a queue of individual Pedestrian Focus Area evaluation and design initiatives. Each Pedestrian Focus Area is tied to specific key destinations described in Table 11, leading naturally into a community-based approach wherein stakeholders and community leaders have a role in identifying key safety and accessibility issues.

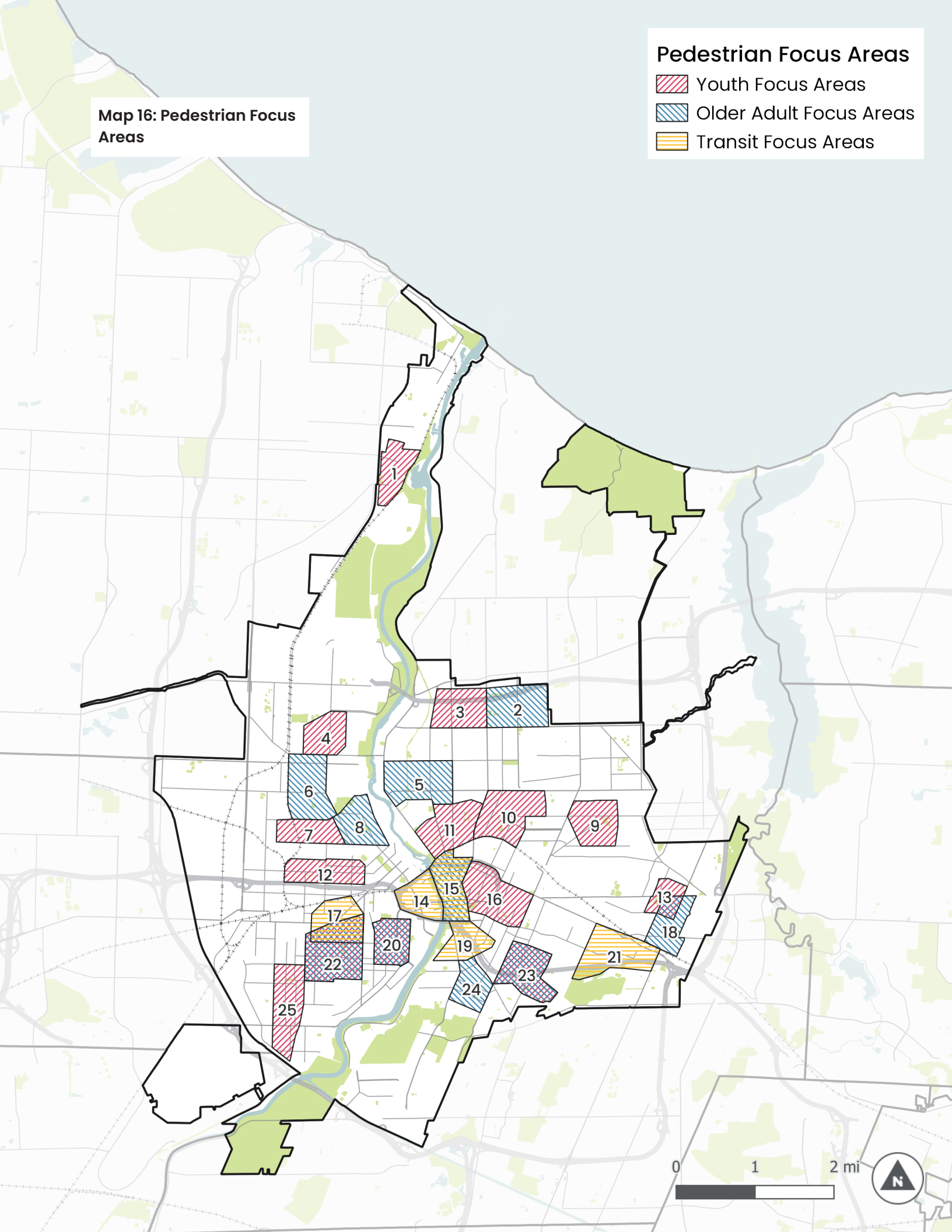
Pedestrian Focus Areas are based on the parts of the city near destinations most important for youth, older adults, and transit users to access on foot. The areas within a quarter mile – an easy walking distance for many people – of multiple key destinations were combined, put into the context of logical boundaries like major streets, and formed into these Pedestrian Focus Areas. More details on the Pedestrian Focus Areas and how they were identified, as well as a full numbered list of areas corresponding with Map 16, can be found in appendices K and M.

1 "Why Older Adults Stop Driving" by Andrew Schouten and Evelyn Blumenberg

Table 11: Pedestrian Focus Area Destinations

Focus Area Category	Key Destination
Youth Priority Areas	• Elementary Schools • Recreation Centers • Libraries
Older Adult Priority Areas	• Older Adult Housing • Medical Facilities and Pharmacies • Grocery Stores • Libraries
Transit Priority Areas	• High-Use Bus Stops • High Demand RTS Access Locations

Map 16: Pedestrian Focus Areas



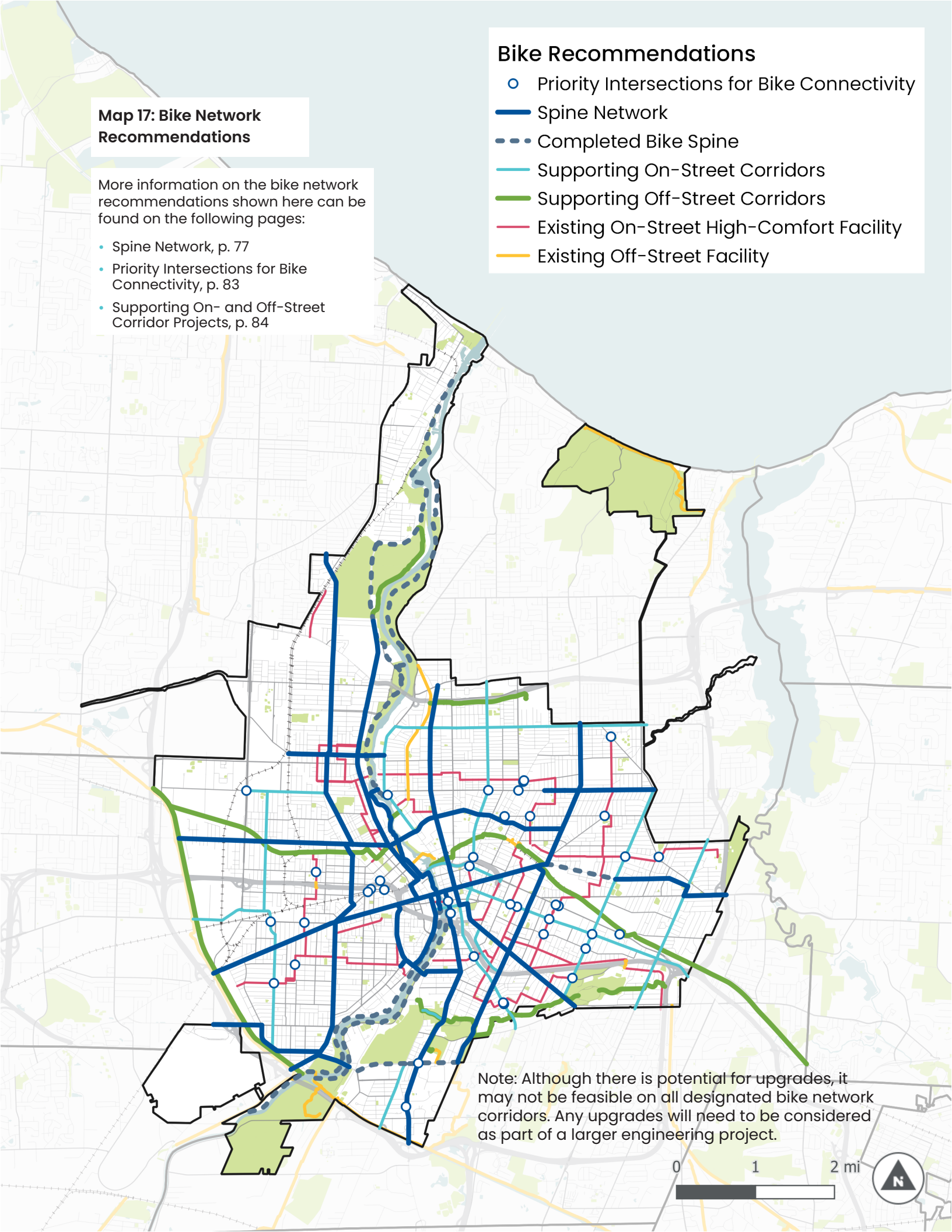
Bike Network Projects

The City of Rochester has been steadily installing bike infrastructure in recent years. But, as explored in the Existing Conditions chapter, these additions have not yet amounted to a cohesive network that is comfortable or connected enough for most people to use for everyday trips around the city. The Bike Network Project recommendations in this Action Plan represent a new approach for the City, one that is anchored in two main Network Principles:

> **Connectivity:** The bike network should be direct and predictable, connecting people with the places they want to go with straightforward, continuous routes
>
> **Inclusivity:** The bike network should be comfortable for people of all ages, abilities, and levels of experience with active transportation, minimizing exposure to and conflicts with vehicle traffic

Connectivity is the driving force behind the Bike Network Projects. The recommended network identifies 63 miles of Spine Corridors which will provide continuous north/south and east/west routes across the entire city. This network was developed in response to a key theme shared by respondents to the Rochester ATP Community Survey – Rochester's bike network today is too disjointed and unpredictable, with bike facility types changing from block to block.

Additionally, committing to a smaller network of high-comfort Spine streets will enable the City to focus political will and resources on


Bike Recommendations
Priority Intersections for Bike Connectivity
Spine Network
Completed Bike Spine
Supporting On-Street Corridors
Supporting Off-Street Corridors
Existing On-Street High-Comfort Facility
Existing Off-Street Facility
Map 17: Bike Network Recommendations
More information on the bike network recommendations shown here can be found on the following pages:
• Spine Network, p. 77
• Priority Intersections for Bike Connectivity, p. 83
• Supporting On- and Off-Street Corridor Projects, p. 84
Note: Although there is potential for upgrades, it may not be feasible on all designated bike network corridors. Any upgrades will need to be considered as part of a larger engineering project.
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critical connections. Introducing safe and comfortable bike lanes can involve trade-offs for space with other uses like vehicle travel lanes and on-street parking. The public right-of-way needs to be carefully allocated among these uses throughout the street network in a way that advances City goals. The Spine Network highlights the corridors where prioritizing bike connectivity will deliver the greatest benefits.

Spine Corridor routes were selected with an emphasis on directness and on bridging barriers like highways, train tracks, and the Genesee River. The Genesee Riverway Trail is included in the Spine network to recognize its place as a critical active transportation asset and to amplify the importance of ongoing efforts to complete the trail through downtown via the ROC the Riverway initiative. Where possible, the Spine Corridors also align with bikeways planned beyond city borders as part of the *Monroe County Active Transportation Plan*, delivering benefits for regional connectivity and access to jobs, destinations, and resources in Rochester's suburbs. And, understanding that bike infrastructure projects are an opportunity to reconfigure streets to be safer for all road users, where possible Spine Network projects were selected to align with the pedestrian, bicycle, and motor vehicle crash High Injury Networks.

These Spine Corridor recommendations are built upon by Supporting Corridor Projects, which over time will create additional network density and bring more people and destinations into reach of the high-comfort bike network. Finally, to support the ongoing use of Rochester's existing infrastructure, the Priority Intersections for Bike Connectivity highlight intersections throughout Rochester's network of bike lanes and bike boulevards where bike-specific design treatments could enhance the usefulness of the existing facilities.

For these recommendations to have their intended effect, their implementation must be guided by inclusivity. Not all bike lanes in Rochester are comfortable for the average user. Designing bike lanes around children, families, older adults, and other potential riders with specific needs ensures that they are welcoming to all. For a bike route to be truly safe and comfortable for all, it should provide a level of separation from vehicle traffic that is appropriate given the traffic volumes and speeds present. This is why on residential streets that don't carry very much traffic, traffic calming to slow drivers, safe crossings at major roads, and wayfinding signage are enough to create a high-comfort bike boulevard. Meanwhile, on high-speed streets that carry a lot of traffic like East Main Street, it is essential that bike lanes be separated from traffic in order to provide the same level of comfort.

Truly inclusive bike facility design also includes additional details that can make Rochester's bike network more welcoming to people with disabilities. Particularly as e-bikes and adaptive cycles become common and more widely available, biking can provide enhanced mobility to a wider range of people with disabilities. Riders with disabilities may not be able to dismount and walk their bikes or lift their bikes over obstacles like curbs and stairs. Wider lanes and accessible entry and exit points for bike lanes and trails can make Rochester's bike network inclusive to these users. These design features also serve to broaden access to people riding cargo bikes and make bike facilities more welcoming and comfortable for all.

Rochester's bike network will only achieve the City's stated goals if inclusivity is integrated into the implementation of this plan, and all Bike Network Projects are designed and constructed for users of all ages and abilities.

Spine Corridors

The Spine Corridors comprise a total of 63 route miles and will create more equitable access to Rochester's high-comfort bike network.

Consistent with the overall approach to project prioritization driven by public engagement, the projects comprising the Spine Corridors are prioritized for implementation based in large part on their proximity to priority populations. However, the safety benefits that bike network projects will deliver can only be partly understood based on crash history alone. People biking often completely avoid using the streets that feel most unsafe. This means that streets with serious safety issues can be hidden in an analysis that only looks at places where bike crashes have occurred in the past.

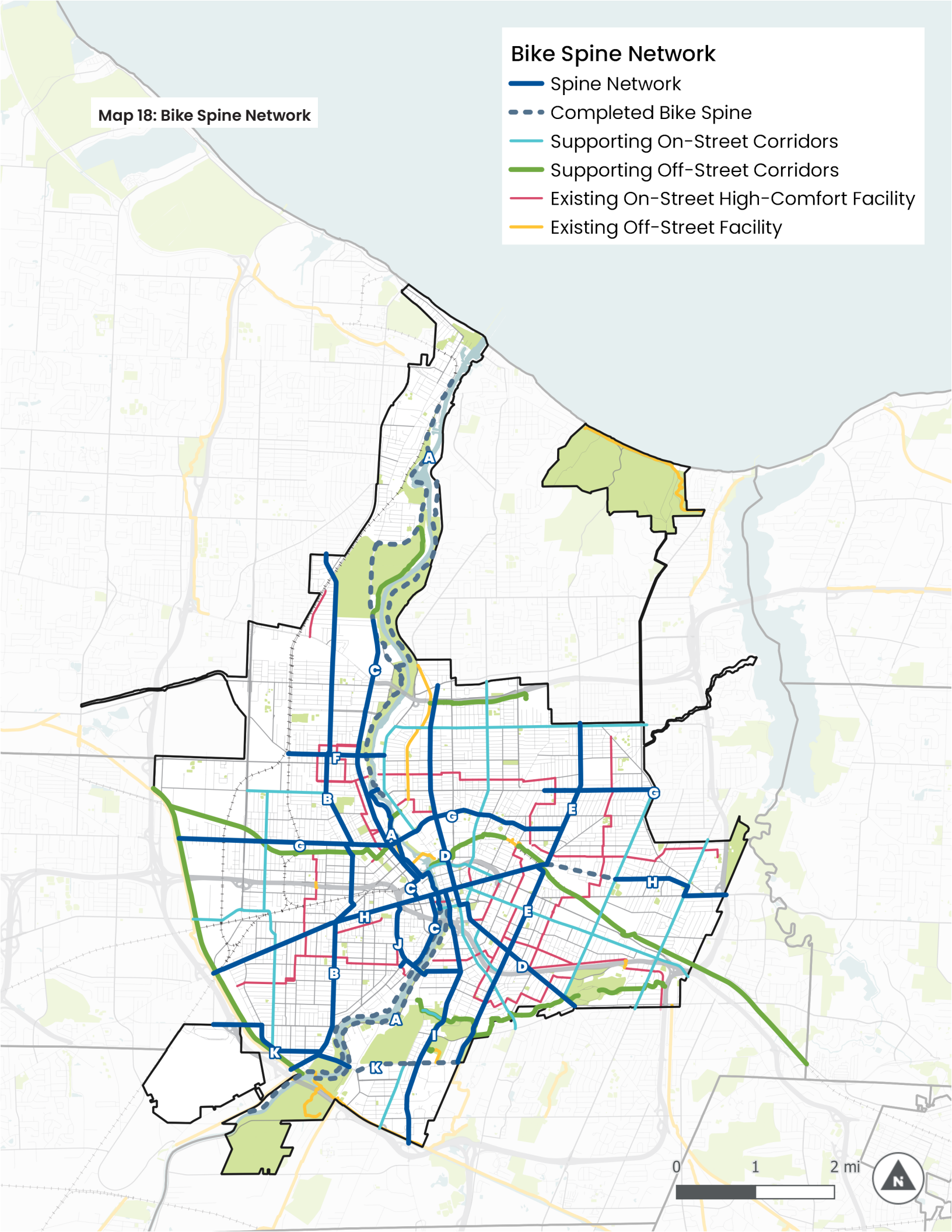
So, in keeping with the Network Principles and the role of these projects in Rochester's overall approach to bike network development, the Spine Corridor projects are prioritized with greater weight on their benefits for bike network connectivity. Projects with links to the existing high-comfort network or that will provide a comfortable crossing across a major barrier like a highway, rail corridor, or river are prioritized for earlier implementation. Spine Corridor project phasing and prioritization methods are elaborated upon in more detail in Appendix K and Appendix L.

Table 12 contains a brief overview of each of the Spine Corridors and its role in Rochester's overall bike network. Some of these projects include NYSDOT-owned facilities, and implementation wil require coordination with NYSDOT.

Table 12: Bike Spine Network Corridors

ID	Project	Length	Description
A	**Genesee Riverway Trail**	2 mi new, 15.7 mi existing	The Genesee Riverway Trail is an important north-south connection along the Genesee River. Currently most of the trail from Ontario Beach Park to the Greece border is complete on at least one side of the river. One section in the city core between Lower Falls Park and Court Street has yet to be built. Most of the route follows rights-of-way along the river itself. Some trail sections will run alongside Falls Street, Mill Street between Smith Street and the Inner Loop. The City is conducting a trail study to identify feasible options for completing the Genesee Riverway Trail on both sides of the river between downtown and the lake.
B	**Dewey Avenue and Genesee Street**	7 mi	The longest spine corridor west of the Genesee River provides people with connections from the city border with Greece in the north all the way to Chili in the south. It follows Dewey Avenue from the border with Greece to Lyell Ave where it takes Broad Street and Saxton Street to cross I-490 and the train tracks. The bikeway then joins Brown Street to connect to Genesee Street to Scottsville Road where it continues to the border with Chili.
C	**Lake Avenue and State Street and Allen Street and N Plymouth Avenue and Exchange Boulevard**	4.8 mi new, 1 mi existing	This spine corridor utilizes Lake Avenue, State Street, Allen Street, N Plymouth Avenue, and Exchange Boulevard to connect from the Genesee Riverway Trail in the north to the spine corridor Ford Street. State Street, Allen Street, and N Plymouth Avenue facilitate connections between Lake Avenue and W Main Street, where a short jog on the Main Street spine corridor connects the route to Exchange Boulevard. This section takes users under I-490 where it connects to the spine network at Ford Street.

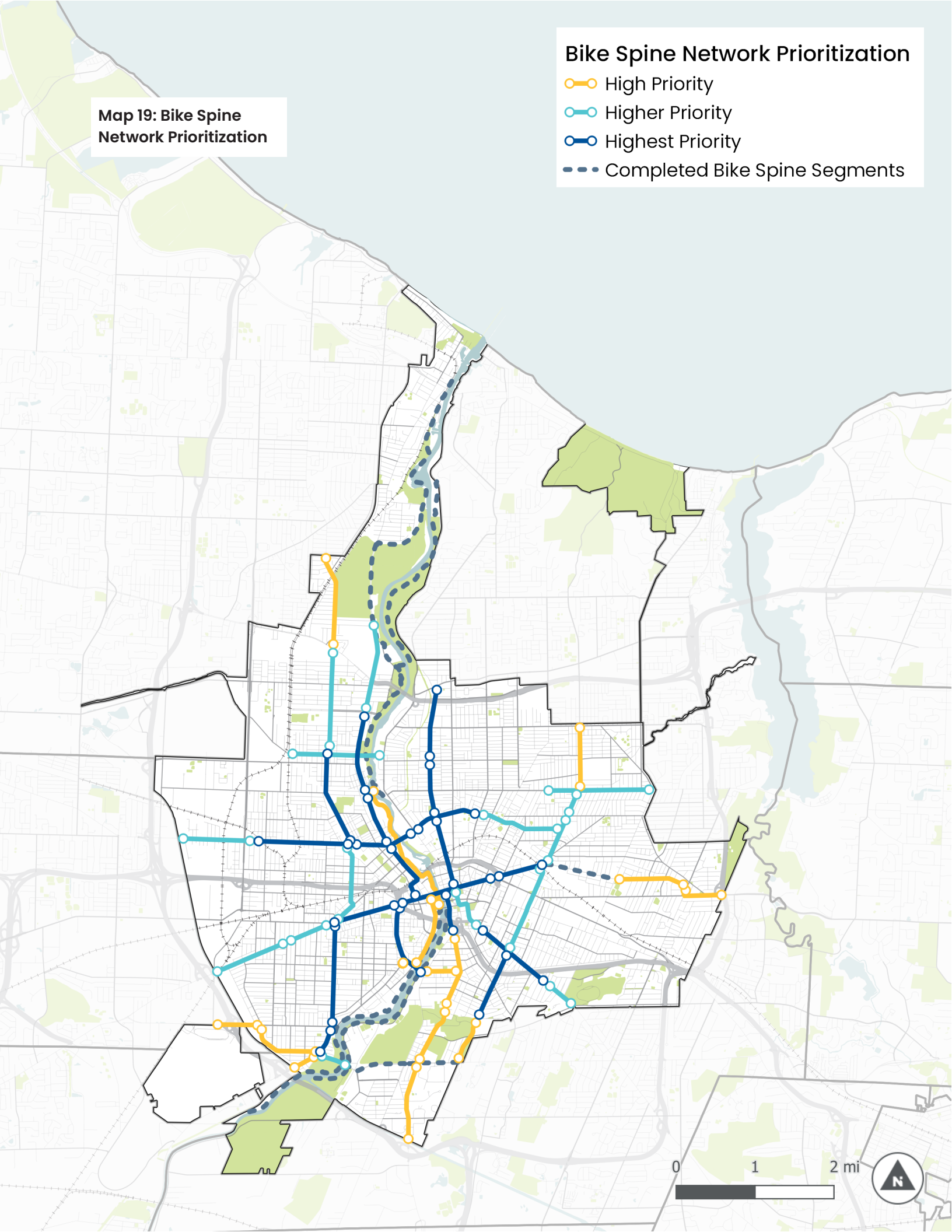
Map 18: Bike Spine Network



ID	Project	Length	Description
D	**Clinton Avenue and Monroe Avenue**	4.9mi	This spine corridor follows North Clinton Avenue from Ridge Road and across the Inner Loop North through the Northeast Quadrant to Downtown, where it zig zags to the Union Street bike lane and Monroe Avenue. Monroe Avenue will carry the bikeway across I-490 to the Brighton border, where the Monroe County ATP recommends the bikeway continue. When complete, this spine corridor will provide a continuous north/south connection bridging two highways and connecting people to bustling commercial areas along North Clinton and Monroe.
E	**Goodman Street**	4.6 mi	North and South Goodman Streets form this spine corridor from the Irondequoit border in the north to the street's southern terminus at Elmwood Avenue where it meets up with the Highland Crossing Trail. Goodman Street connects three other spine corridors to the network and provides a route over the train tracks and I-490.
F	**Driving Park Avenue**	1.2 mi	The shortest route on the spine network follows Driving Park Ave between the freight train tracks in the west to St Paul Street in the east. It facilitates connections over the Genesee River, connecting two other spine corridors and neighborhoods on the west of the river to the existing bike network. Just to the west of the river, it connects to the Genesee Riverway Trail, and on the east bike lanes and neighborhood streets connect to the bike boulevard network and El Camino Trail.
G	**Lyell Avenue and Upper Falls Boulevard and Central Park and Clifford Avenue**	6.4 mi	This spine corridor connects through the city between Gates in the west and Irondequoit in the east. From the city border in the west, it follows Lyell Avenue its entire length until crossing the Genesee River at the Bausch Memorial Bridge. East of the river, it follows Upper Falls Boulevard, Draper Street, and Central Park to N Goodman Street. To the north of Central Park, the spine corridor picks up at Clifford Avenue which continues the bikeway east towards Irondequoit and west towards the bike boulevard on 6th Street and Ferncliffe Drive.

Providence, RI

ID	Project	Length	Description
H	**Main Street and Chili Avenue**	6 mi new, 0.9 mi existing	East and West Main Streets and Chili Avenue connect people on this bikeway from the city's western border at Chili to its eastern border at Brighton. Chili Avenue connects from the city border near the Empire State Trail along the Erie Canal to its intersection at W Main St, near where the Dewey Avenue and Genesee Street spine corridor crosses. The route then follows West Main Street across I-490 and the Genesee River where it meets up with East Main Street. East Main Street connects from downtown to its terminus at Winton Road, including the segment of the road with existing separated bike lanes. The bikeway then jogs onto Winton Road then Browncroft Boulevard to finish the connection to the city's eastern border at NY State Route 590.
I	**South Avenue and E Henrietta Road**	3.4 mi	This spine corridor connects from the heart of downtown south via South Avenue and E Henrietta Road and into Brighton near the I-390 interchange. It connects users to existing off-street trails at the Empire State Trail near the southern terminus and to other spine corridors at Gregory Street and Elmwood Avenue.
J	**Ford Street and Gregory Street**	1.6 mi	This spine corridor connects between two other spine corridors, from W Main Street along Ford Street to South Avenue along Gregory Street. The corridor follows a short section of Mt. Hope Avenue to connect between Ford and Gregory Streets, and also includes a short segment of S Plymouth Avenue to connect to the existing bicycle network on Bartlett Street.
K	**Brooks Avenue and Genesee Park Boulevard and Elmwood Avenue**	2 mi new, 1.4 mi existing	The southernmost east-west spine corridor connects from the airport in the west towards the border with Brighton in the southeast. It travels from the airport along Brooks Avenue and Gensee Park Boulevard, crossing the spine corridor on Gensee Street to continue along Elmwood Avenue and over the Genesee Riverway paths to its terminus at the Brighton border where it connects to the spine corridor along S Goodman Street. This spine corridor includes existing separated bike lanes on Elmwood Avenue between the Genesee River and Mt Hope Avenue.


Map 19: Bike Spine Network Prioritization
Bike Spine Network Prioritization
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Higher Priority
Highest Priority
Completed Bike Spine Segments
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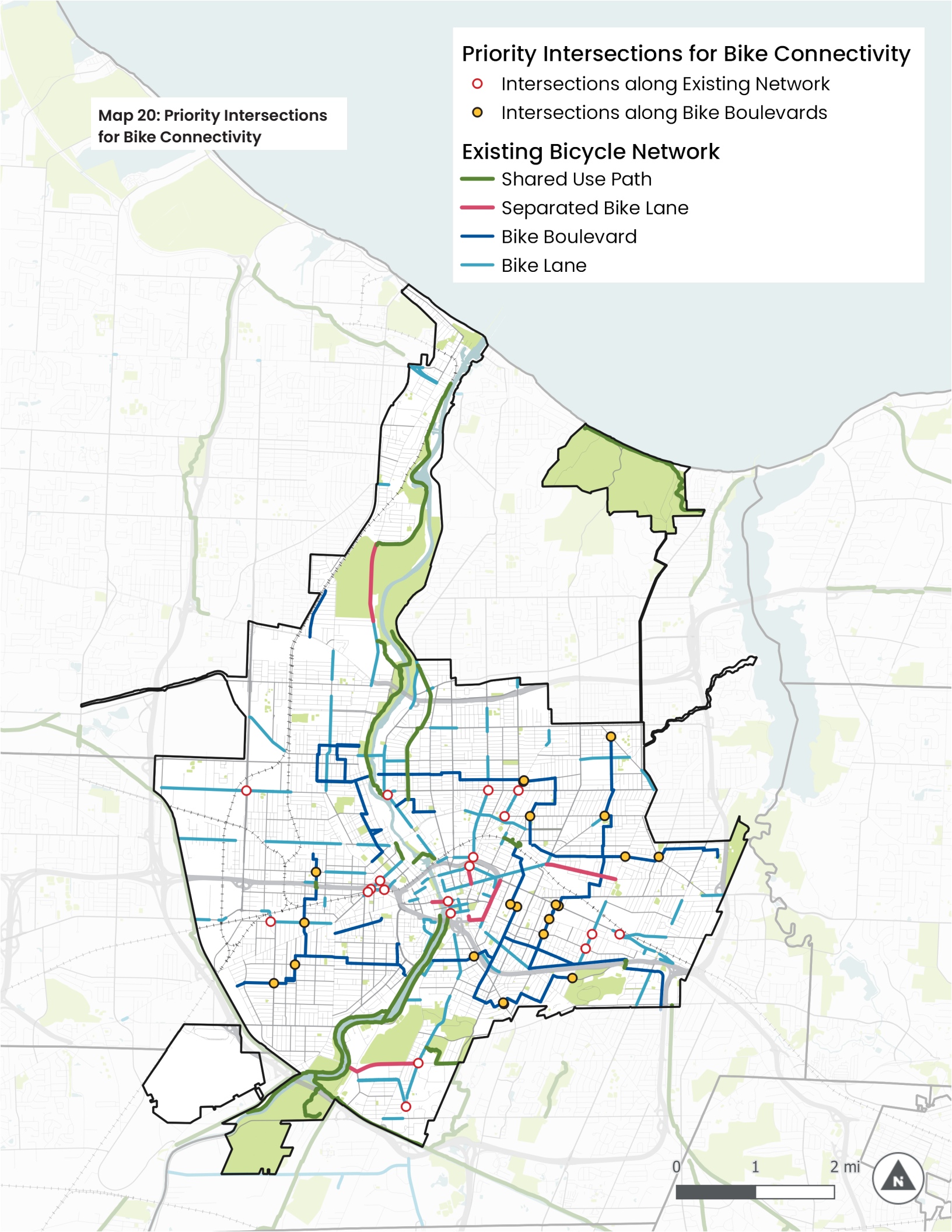
Map 20: Priority Intersections for Bike Connectivity
Priority Intersections for Bike Connectivity
Intersections along Existing Network
Intersections along Bike Boulevards
Existing Bicycle Network
Shared Use Path
Separated Bike Lane
Bike Boulevard
Bike Lane
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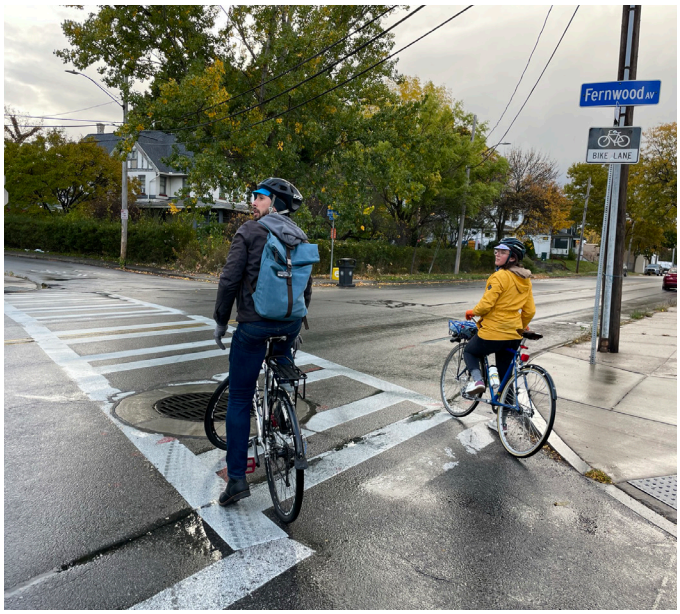
Bicycle Boulevard wayfinding in Rochester



Rochester bike boulevard crossing at a major road

Priority Intersections for Bike Connectivity

Rochester's existing on-street bike network provides useful connections, especially within neighborhoods. However, bike lanes and bike boulevards often lack the design treatments needed to guide people safely through major intersections and across major roads. The prevalence of these weak links was cited by many respondents to the Rochester ATP Community Survey and keep Rochester's existing bike network from meeting its full potential. The Priority Intersections for Bike Connectivity, when upgraded to include bike-specific design treatments, will enhance the usefulness of Rochester's on-street bike lanes and bike boulevards.

The City's bike boulevards, which otherwise provide a tremendous asset for biking within the city, are significantly hampered by a lack of crossing treatments at major roads. The *City of Rochester Bicycle Boulevards Plan* includes a design toolkit that should guide the design and implementation of these projects, as well as the forthcoming *Rochester Traffic Calming Toolbox*.


Bike lane crossing, with temporary curb extensions to slow vehicle turns, in Denver, CO


Bike boulevard crossing, including a traffic diverter, at a major road in Seattle, WA

Supporting Corridor Projects

The Supporting Corridor Projects strengthen the connections within neighborhoods already created by Rochester's bike boulevard network and extend the reach of the Spine Corridors. These projects were identified with an ideal network density of between a half and a quarter of a mile in mind – which would bring every part of Rochester within about a 7–10-minute walk or a quick bike ride of the City's high-comfort bike network.

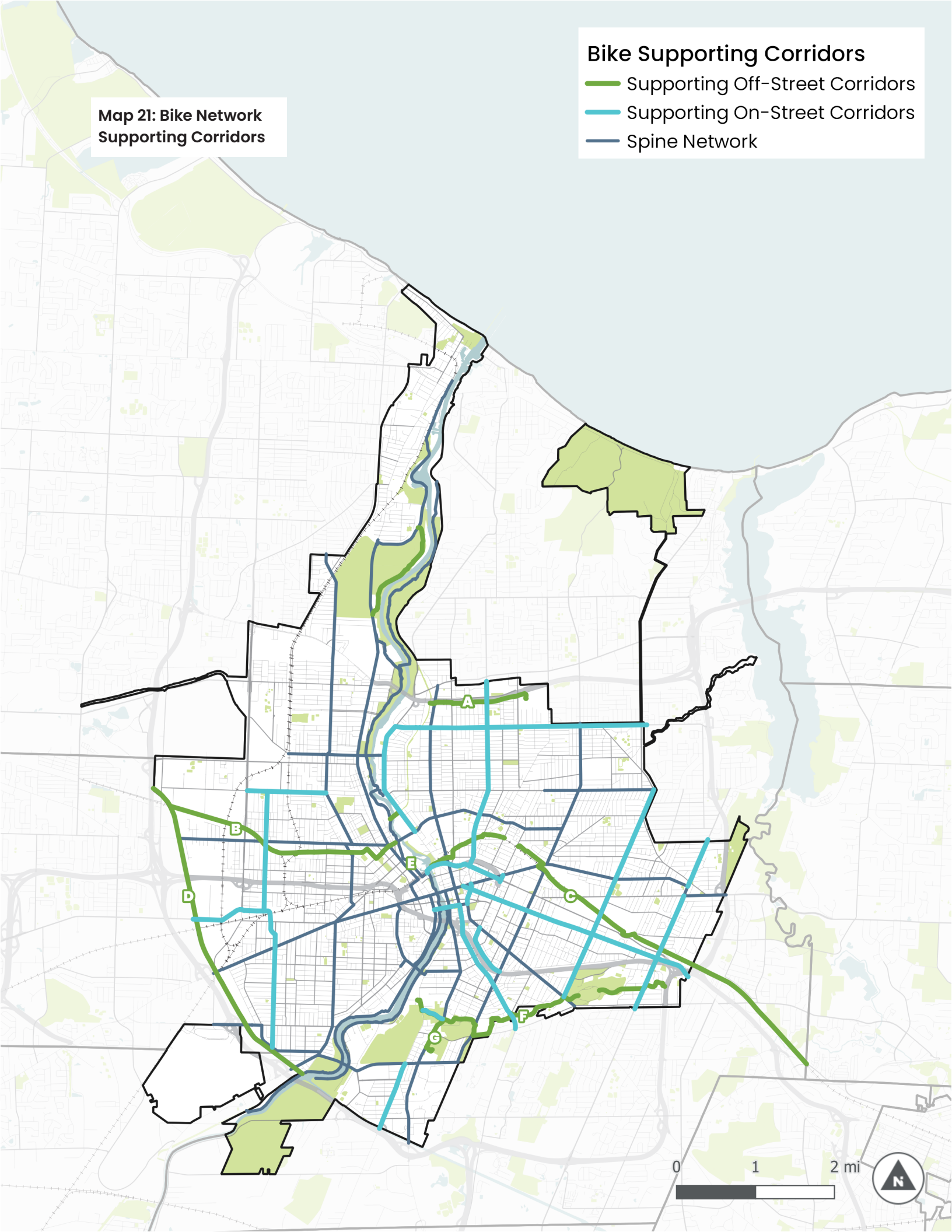
Several opportunities for trail projects are included in this Action Plan as Supporting Corridor Projects as well. A more extensive accounting of potential trail projects in Rochester is available in the *Rochester 2034 Placemaking Plan*. The proposed trails in Table 13 were selected as Supporting Corridor Projects for the connectivity benefits they would provide as part of Rochester's bike network.

Table 13: Proposed trails included as Supporting Corridor Projects

ID	Trail Project	Status
A	**Keeler Trail**	Planning study needed
B	**NY Central Falls Road Branch Trail**	Planning study needed
C	**East Side Commuter Rail with Trail**	Planning study needed
D	**Erie Canalway Trail – East Bank**	Planning study needed, in collaboration with the Canalway Authority
E	**Genesee River Trail Extension**	Segment between downtown and the lake is the subject of an upcoming planning study
F	**Southern Hills Trail**	Planning study needed
G	**Highland Crossing Trail**	Almost finished, pending completion of South Avenue project

Contraflow bike lane in Rochester, creating a two-way bike connection on a one-way street

Genesee River Trail north of Turning Point Park


Map 21: Bike Network Supporting Corridors
Bike Supporting Corridors
Supporting Off-Street Corridors
Supporting On-Street Corridors
Spine Network
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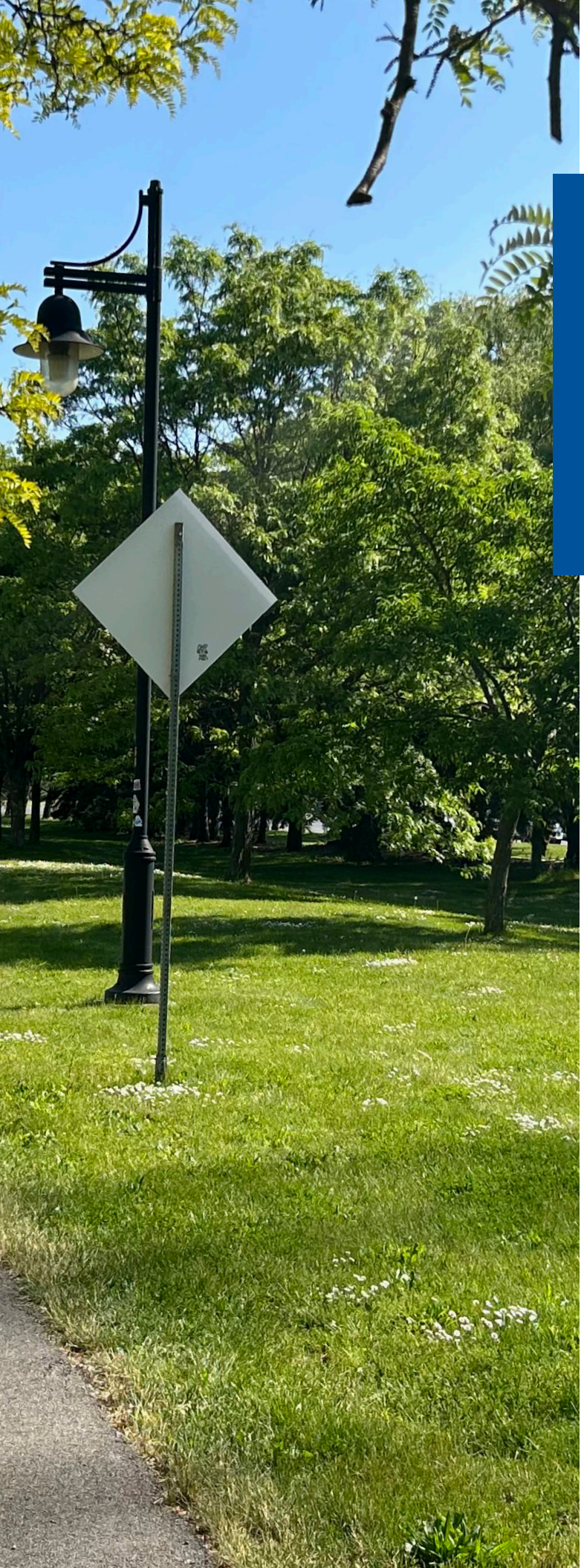

Conclusion

The Rochester ATP process highlighted a strong desire for change in the city's transportation network among Rochester communities. Rochester residents want to get where they're going safely and reliably, regardless of how they're traveling. Mobility is essential to quality of life, access to opportunity, and community health. Connecting all Rochester residents – nearly a quarter of whom do not have access to a car - with safe and equitable mobility options is a small but vital piece of the change needed to realize the vision set forth in Rochester 2034: Rochester as a beautiful, progressive, lively, healthy, and welcoming city.

The Rochester ATP is only the beginning. Implementing the projects, policies, programs, and processes in this plan will take years of sustained action, strong collaboration, and ongoing funding. Together, the City, partner agencies, and community members can lead Rochester forward.