



2024

FOND DU LAC
METROPOLITAN PLANNING ORGANIZATION

BICYCLE & PEDESTRIAN PLAN

FOND DU LAC MPO BICYCLE AND PEDESTRIAN PLAN

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FOND DU LAC MPO BICYCLE AND PEDESTRIAN PLAN

ABSTRACT

TITLE: Fond du Lac Metropolitan Planning Organization Bicycle and Pedestrian Plan

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SUBJECT: Bicycle and Pedestrian Plan

This document provides a comprehensive framework for bicycle and pedestrian planning, infrastructure, and policy and program recommendations for the Fond du Lac Metropolitan Planning Organization.

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FOND DU LAC MPO BICYCLE AND PEDESTRIAN PLAN

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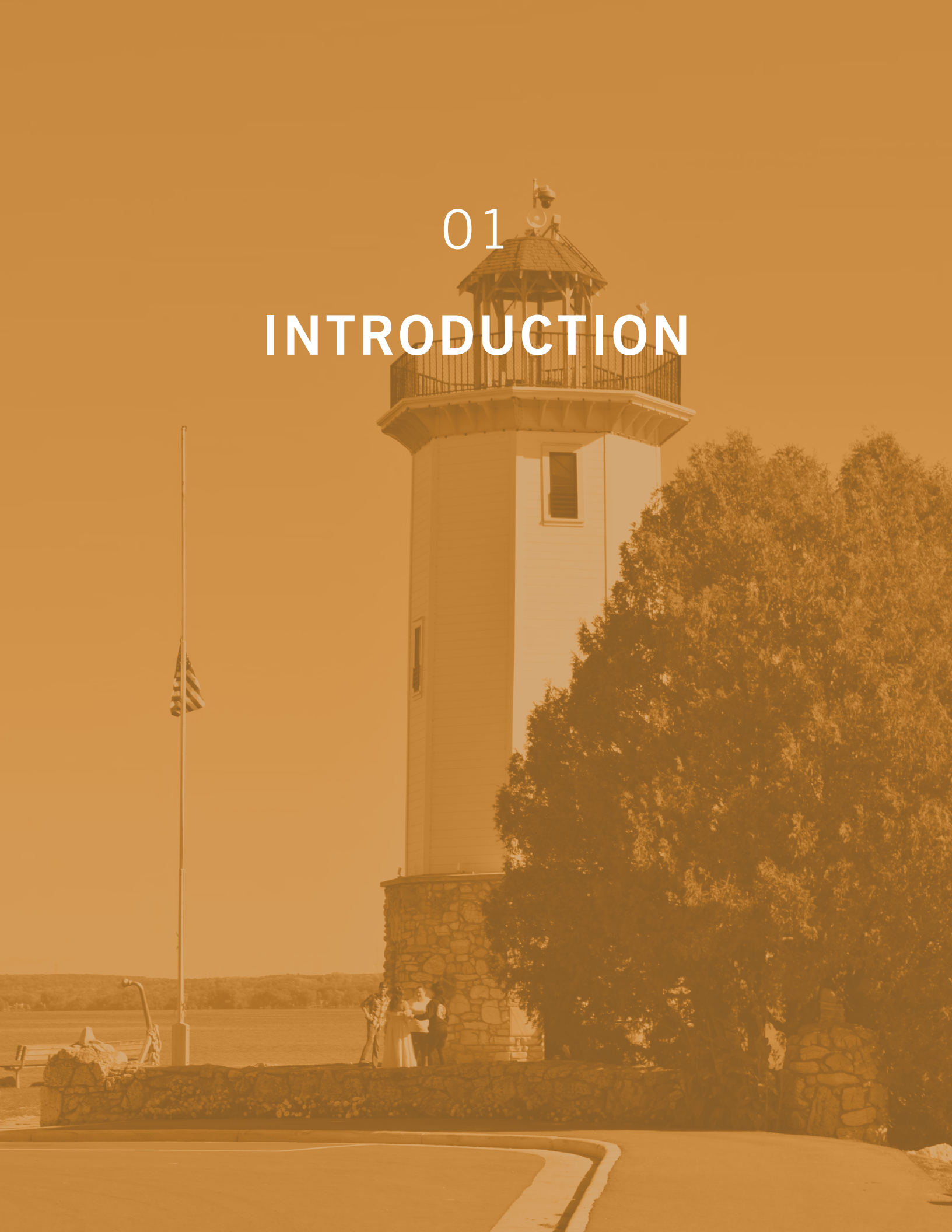
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01

INTRODUCTION



INTRODUCTION

In an age where new transportation technologies have us ascending to dizzying heights and allow rapid movement across continents, sometimes we forget the potential and joy in the human forms of transportation: walking, bicycling, and wheeling through our communities.

The Fond du Lac Metropolitan Planning Organization (MPO) has active lifestyle opportunities just outside the front door, with access to six trail systems and a growing network of routes and destinations. This plan continues the development of infrastructure facilities and activities for walkers, bicyclists, and all users of active transportation modes in the Fond du Lac MPO, better connecting them to each other and their community.

aspects and actions, intended to direct future decision-making regarding bicycling and walking infrastructure and activities. See Figure 1-1.

The Fond du Lac Bicycle and Pedestrian Plan's vision, goals, and guiding principles were developed and refined through collaboration with the advisory committee. The vision, goals, and principles guide the development and implementation of the plan, define clear priorities, aid in coordination of projects, and allow flexible adaptations if necessary as situations change.

Recommendations and implementation strategies are also directly informed by the stated vision and goals. This plan will serve as a reference for staff when planning the future of the transportation network.

PLAN VISION AND GOALS

GUIDING PRINCIPLES

This plan and its goals were developed in accordance with three guiding principles, each one an over-arching theme through all

FIGURE 1-1. BICYCLE AND PEDESTRIAN PLAN GUIDING PRINCIPLES



EQUITY

Ensure residents of all ages, abilities, and communities have access to safe, comfortable, and convenient walking and bicycling opportunities.



HEALTH

Create facilities that encourage physical activity and promote healthy lifestyle habits.



SUSTAINABILITY

Maintain the integrity of the environment through promotion of active modes and sustainable implementation methods.



GOALS

1

CONNECTIVITY

Improve and expand the bicycle and pedestrian network to connect people of all ages, abilities, and neighborhoods to other transportation modes, neighboring communities, and everyday destinations.

2

SAFETY

Implement projects and evaluation measures that go beyond a focus on vehicles to prioritize walking, bicycling, and riding transit.

3

ACCESSIBILITY

Create and maintain a safe and convenient bicycle and pedestrian experience that supports the needs of all users.

Enhance vibrant and inviting places to cycle and walk to include street furniture, wayfinding, lighting, and placemaking elements.

4

EDUCATION AND ENCOURAGEMENT

Engage the public in bicycle and pedestrian efforts and opportunities to support healthy and active lifestyles, increase transportation equity, and enrich quality of life.

5

ECONOMIC VITALITY

Prioritize the development of bicycle and pedestrian facilities and improve existing infrastructure to help support economic growth, tourism, and create vibrant communities throughout the planning area.



VISION STATEMENT

The Fond du Lac MPO envisions an environment that supports walking and bicycling as safe, convenient, and accessible transportation options, connecting residents and visitors of all ages and abilities to jobs, schools, recreation, and other daily needs.

PURPOSE OF THIS PLAN

This plan intends to increase transportation choices and improve the safety and convenience of bicycling and walking by planning for and guiding the development of bicycle and pedestrian facilities. The ability to travel through and around the MPO via any mode of transportation is vital to the health, well-being, and sustainability of the community. A well-connected network where residents have access to trails, sidewalks, and bicycle facilities requires intentional planning. The City of Fond du Lac completed its first Bicycle and Pedestrian Plan in 2013 and it was updated in 2018. However, this plan only applies to the City of Fond du Lac. With close proximity to other municipalities, the City of Fond du Lac, as the MPO for Fond du Lac, expressed interest in having an MPO-level plan to look at intracommunity connectivity.

THE 6 E'S FRAMEWORK

Building a community that embraces and supports walking and bicycling requires more than just creating infrastructure projects. The 6 E's work in conjunction to frame the methods for a comprehensive, integrated approach to planning for walking and bicycling, originally conceptualized by the League of American Bicyclists. The emphasis is community; pedestrian and bicycle projects succeed by including each of the 6 E's to create well-rounded projects where multiple stakeholders are included and all users are considered. Underneath the Guiding Principles, Vision, and Goals, the 6 E's provide specific areas of focus for actions and projects and are integrated into all aspects of this plan. See Figure 1-2, below.

FIGURE 1-2. THE 6 E'S



ELEMENTS OF THIS PLAN

DATA COLLECTION AND EXISTING CONDITIONS ASSESSMENT

The data collection phase involved the collection of data from Fond du Lac County, the City of Fond du Lac, and surrounding areas. The data was compiled to conduct spatial analysis of existing conditions of the Fond du Lac MPO. Data collected and analyzed included existing demographics, transportation infrastructure, community amenities, land use, roadway crash data, and bicycle and pedestrian counts. Additionally, local bicycle and pedestrian plans, comprehensive plans, and open space recreation plans were reviewed during this planning process. Data and information provided were used to update mapping, create activities, and develop recommendations.



PROGRAM AND POLICY RECOMMENDATIONS

Program and policy recommendations were formulated based on input received from the Advisory Committee and feedback gathered from the communitywide survey. Fond du Lac's Comprehensive Outdoor Recreation Plan, Comprehensive Plan, and other planning resources were referenced to ensure continuity and consistency in recommendations.

NETWORK RECOMMENDATIONS

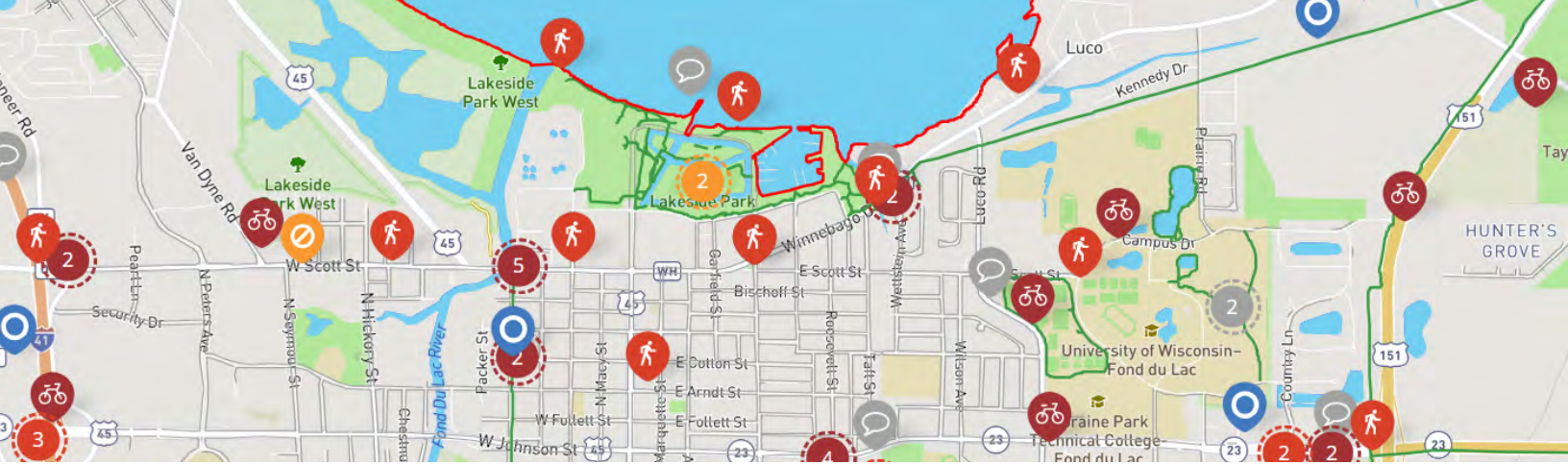
This plan includes a comprehensive set of network recommendations specifically designed to help the Fond du lac MPO improve as a bicycle-friendly and walking-friendly community. Network recommendations focus on building an interconnected system of on-street and off-street facilities that support safe, comfortable, and convenient travel for all users.

IMPLEMENTATION AND FUNDING STRATEGIES

Full implementation of the bicycle and pedestrian plan will take many years. For cost-effectiveness, implementation should be addressed on an “as road projects arise” basis when roadways are considered for reconstruction, expansion, or repair. In addition to the facilities recommended in this plan, each roadway project should consider whether it would be appropriate to include bicycle and/or pedestrian accommodations. Other activities in this plan that do not involve roadway projects may be completed through funding and financing of a bicycle and pedestrian infrastructure project - depending on the individual project - or if it coincides with a roadway's reconstruction project. It is recommended that the MPO funds bicycle and pedestrian facilities at the time of roadway reconstruction projects and builds the cost of those facilities into their capital improvement program.

PLAN ADOPTION

After review by the Advisory Committee, the plan was approved by the Fond du Lac MPO Policy Board on March 6, 2024.



PUBLIC ENGAGEMENT

Development of this Plan relied heavily on input from the Fond du Lac community, gathered through a variety of events and strategies described below.

ADVISORY COMMITTEE

To kick off the engagement process, East Central Wisconsin Regional Planning Commission (onwards - ECWRPC) worked with the City of Fond du Lac to create a bicycle and pedestrian advisory committee. The Advisory Committee provided guidance to ECWRPC staff and reviewed drafts at key milestones during development of this plan. Broad input on this committee was important to ensure a variety of voices were heard and that there was fair representation of the community. The committee included representatives from the greater Fond du Lac planning area and included people from the field of planning, business community, non-profit organizations, community groups, governmental organizations, and residents. Meetings were held June 7, 2023; August 29, 2023; October 31, 2023; and January 30, 2024.

ONLINE PLATFORM AND DASHBOARD

An online platform was created to solicit feedback from the public for the development of this plan. A survey and interactive map generated comprehensive, meaningful engagement and feedback.

The interactive map allowed community members to place markers on the map in specific locations and provide more information through comments. Other community members could also view and comment on the placed markers on the map, creating community discussion. There were five options for engagement with the map: bicycle safety concern, pedestrian safety concern, walking and bicycling destinations, barriers or gaps, and ideas or suggestions. A total of 220 comments were received.

A public survey was also utilized to engage the public and provide another avenue for feedback from the community. A total of 556 responses were received. Project staff distributed handouts with the survey link during outreach events to encourage people to respond. Members of the Advisory Committee also shared a public link to the online platform on social media sites, websites, and at community events.

EVENT TABLES AND COMMUNITY MEETINGS

Project staff shared information and gathered feedback from attendees at community events, including the Fond du Lac Night Market held on the Main Street Plaza and Sheboygan Street. One-on-one community meetings were held with the Village of North Fond du Lac and the Fond du Lac Area Transit, and a virtual presentation was given to ParkWatch Fond du Lac.

KEY DEFINITIONS

The terms walking, pedestrian, bicycle/ bicyclist, and active transportation will be found throughout this plan. Pedestrian or bicyclist are all-encompassing terms rather than used in a literal or singular meaning. For the purposes of this Plan:

- ▶ **Walking** refers to any walking, jogging, running, or use of mobility-assist device. Skateboarding, rollerblading, and scooters are also included in this definition. These user groups are all considered to be pedestrians (subject to local ordinances, rules, and regulations).
- ▶ **Bicycling** refers to any type of self-propelled or electric-assist bicycle, including e-bikes, recumbent bicycles, tricycles, and hand-crank bicycles. These user groups are all considered to be bicyclists.

- ▶ **Active Transportation** is a broad, catch-all term to refer to any human-powered mobility, whether it be walking, bicycling, or some other mode.

As outlined above, while specific modes of transportation and recreation have their nuances, they are used more broadly in the context of this Plan. Communities are encouraged to consider all individual users and modes of travel along with the unique planning opportunities each mode presents.



BACKGROUND INFORMATION + DEMOGRAPHICS

The Fond du Lac Area Metropolitan Planning Organization (MPO) was designated in 2002 following the 2000 census. Visualized in Map 1-1, the MPO is situated at the southern terminus of Lake Winnebago, encompassing 85 square miles of Fond du Lac County and a small portion in Winnebago County along Lake Winnebago to the North. The MPO's nine municipalities and six school districts are shown in Figure 1-3. Several major highways pass through the area, allowing quick vehicle access throughout the area to residents and visitors alike.

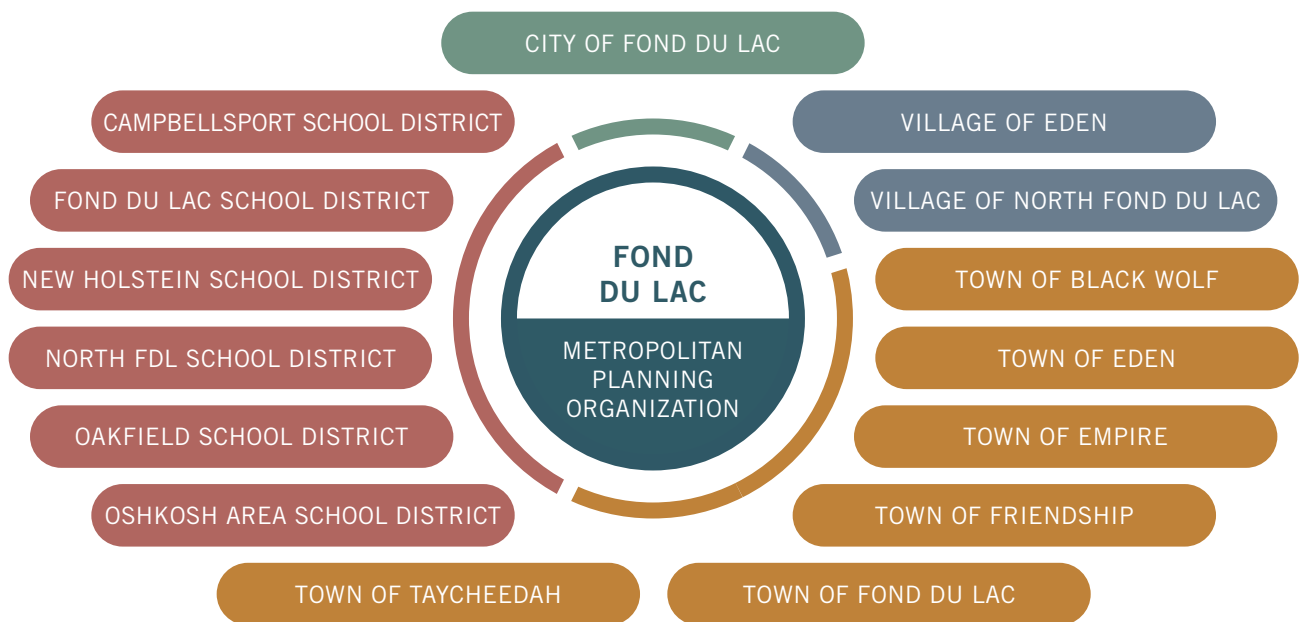
In addition to major roadways, the MPO has connections to six trail systems which provide recreational and transportation options to bicyclists and pedestrians: the Peebles Trail, Prairie Trail, Old Plank Road Trail, Wild Goose State Park Trail, Mascoutin Valley State Park Trail, and the Eisenbahn State Park Trail. Existing bicycle and pedestrian facilities are highlighted in Maps 1-2 and 1-3.

The trail systems form a strong base for active transportation growth and improvements in connectivity, convenience, and use. In addition to the network of trails, community assets and facilities play a large role in both the active transportation network and overall community well-being. Illustrated in Map 1-4 Community Facilities, community assets are shown in relation to the current active transportation trails network. Figure 1-4 summarizes the major statistics of the MPO.

POPULATION

The MPO recorded consistent population growth after the 2000 census, and is currently home to 64,122 residents. The City of Fond du Lac makes up the majority of the population of the MPO at 70.1%. The Wisconsin Department of Administration predicts the population will climb to approximately 72,795.¹

FIGURE 1-3. FOND DU LAC MPO MUNICIPALITIES AND SCHOOL DISTRICTS



AGE

Just over 20% of residents in the Fond du Lac MPO are under the age of 18; it's probable a majority of this demographic is unable to drive, which leaves walking or biking as a likely form of personal mobility. Residents over 65 years of age account for 18% of the total population, another demographic that may be more dependent on alternative modes of transportation.

EDUCATION AND EMPLOYMENT

According to the ESRI Business Analyst 2023, 25.79% of the population has a bachelor's degree or beyond, while 36.65% of the population has a high school degree or less. The unemployment rate in 2023 was 3.4%. The Fond du Lac MPO has a total of 2,520 businesses with 41,120 total employees. In 2021, the leading industries were healthcare and social assistance, manufacturing, and retail. The health care industry accounts the largest share of the local workforce at 14%, with the manufacturing industry just behind at 9.4%.

INCOME

There are an estimated 27,077 households within the MPO planning area, with an average household size of 2.3 persons. The Wisconsin Department of Administration predicts that household growth within the MPO will be modest, adding about 3,000 households from 2020-2040. In total, 2,505 households receive SNAP benefits, 8,102 receive social security income, and approximately 5,914 receive retirement income. The median household income is \$64,445, with the largest group (21%) making between \$50,000 - \$74,999 per year.

ACCESS TO AN AUTOMOBILE

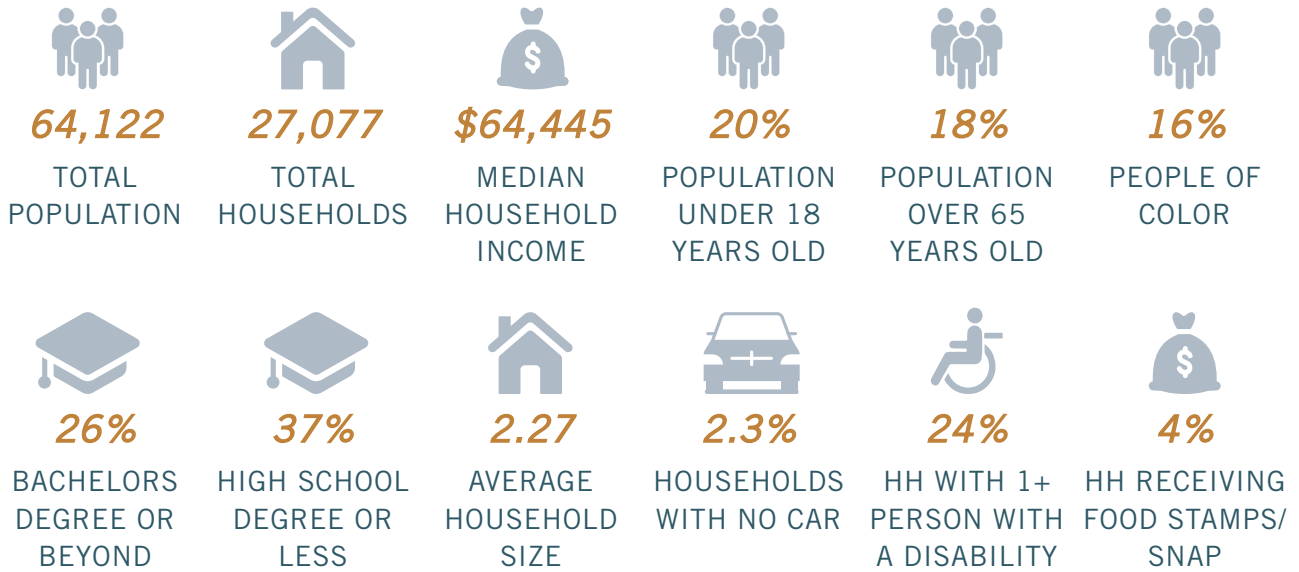
In the Fond du Lac MPO, 96.4% of households have access to at least one motor vehicle. This leaves the 3.6% of households without any access relying on other modes of transportation for their daily travel needs, whether for work, recreation, or personal reasons. A National Household Travel Survey (NHTS) conducted in 2017 by the Federal Highway Administration (FHWA) discovered an inverse relationship between car ownership and walking.² Residents walked less when there were more cars in the household. The relationship between vehicle ownership and cycling is less clear; rates of Americans cycling from 2001 - 2017 increased the most among the employed, high income, highly educated, white men between 16 - 44 years old.

COMMUTE MODE SHARE

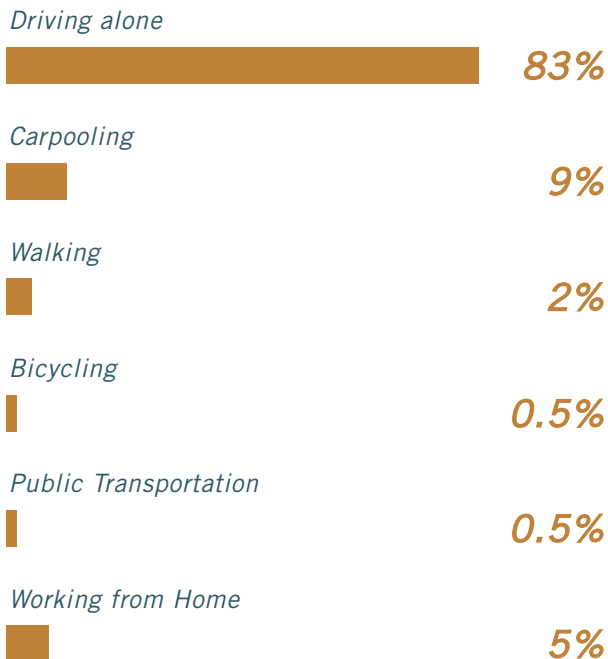
Commute mode share provides information on how those 16 years of age and older travel to and from work. Within the MPO, the majority of workers 16 years and over drive to work, with approximately 83% of residents driving alone and 8.6% carpooling. Less than 1 percent of residents are using public transportation. According to the American Community Survey (ACS), approximately 2.5% of people commuted to work by walking or bicycling. About 24% of commuters within the Fond du Lac MPO travel 10-14 minutes to work, 20% travel 5-9 minutes, and 4% travel less than five minutes to work. These trips represent an opportunity to shift toward active modes for work commutes, as many of these are likely distances that people are able to walk or bicycle. It should be noted that the ACS surveys ask respondents to indicate their most frequently used mode of transportation to work in the past week, so it does not paint a full picture of transportation throughout the year and for other forms of commuting beyond employment.

FIGURE 1-4. FOND DU LAC MPO DATA SUMMARY

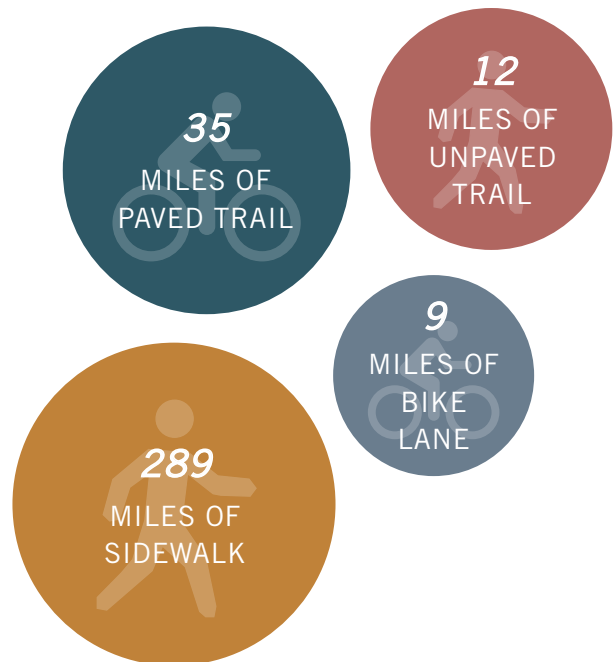
DEMOGRAPHICS



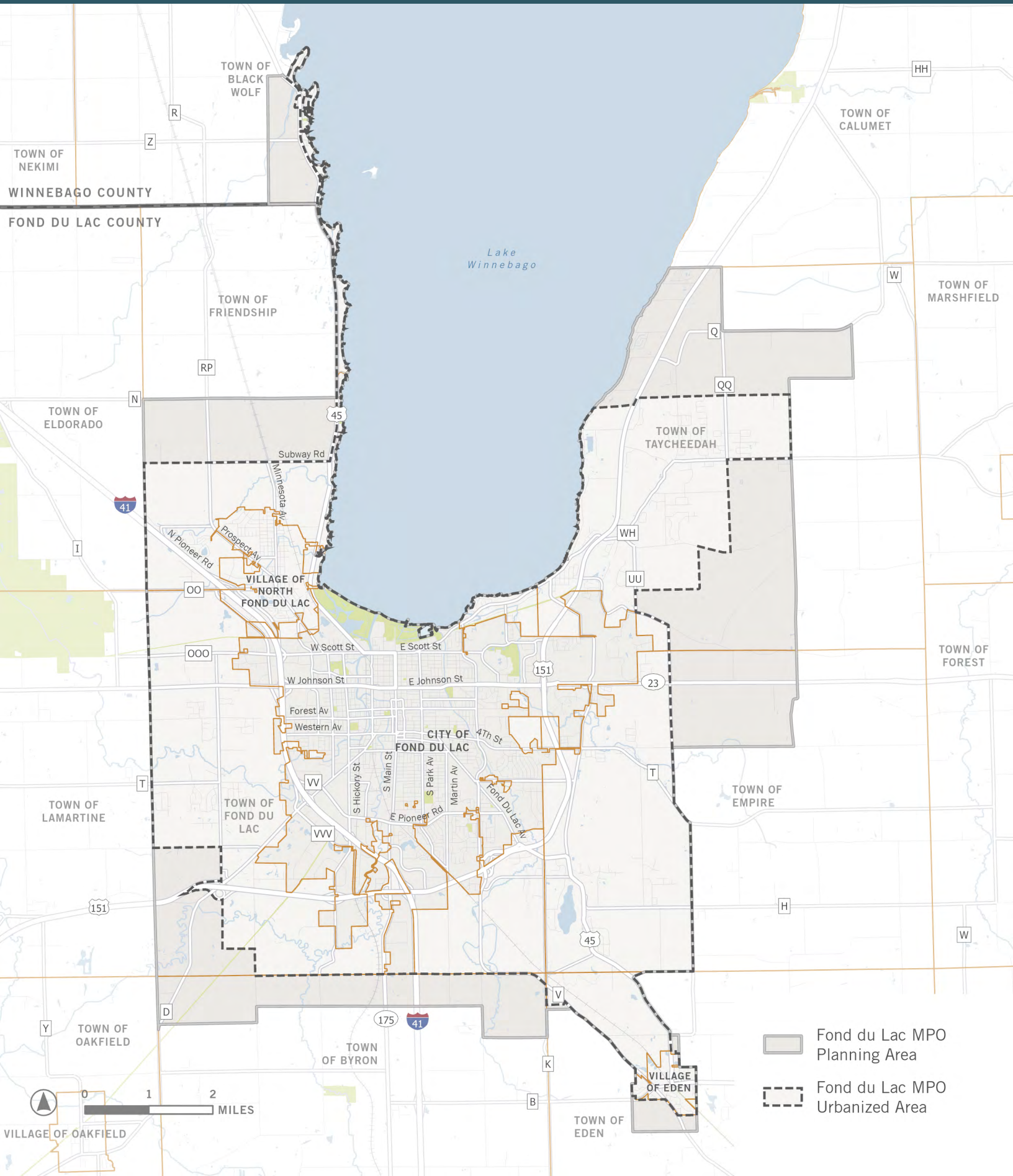
COMMUTE TO WORK



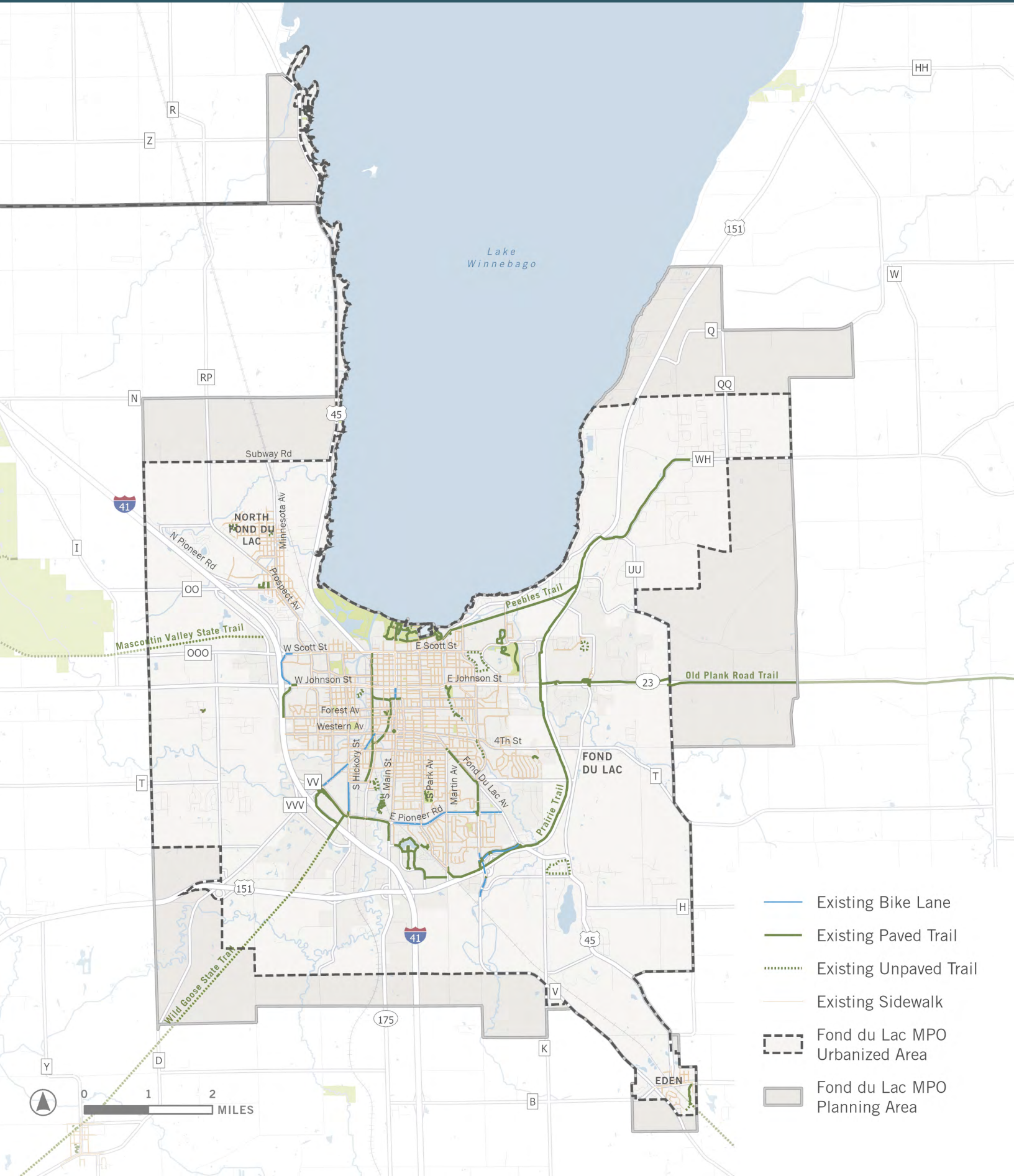
BICYCLE & PEDESTRIAN FACILITIES



MAP 1-1. FOND DU LAC MPO OVERVIEW

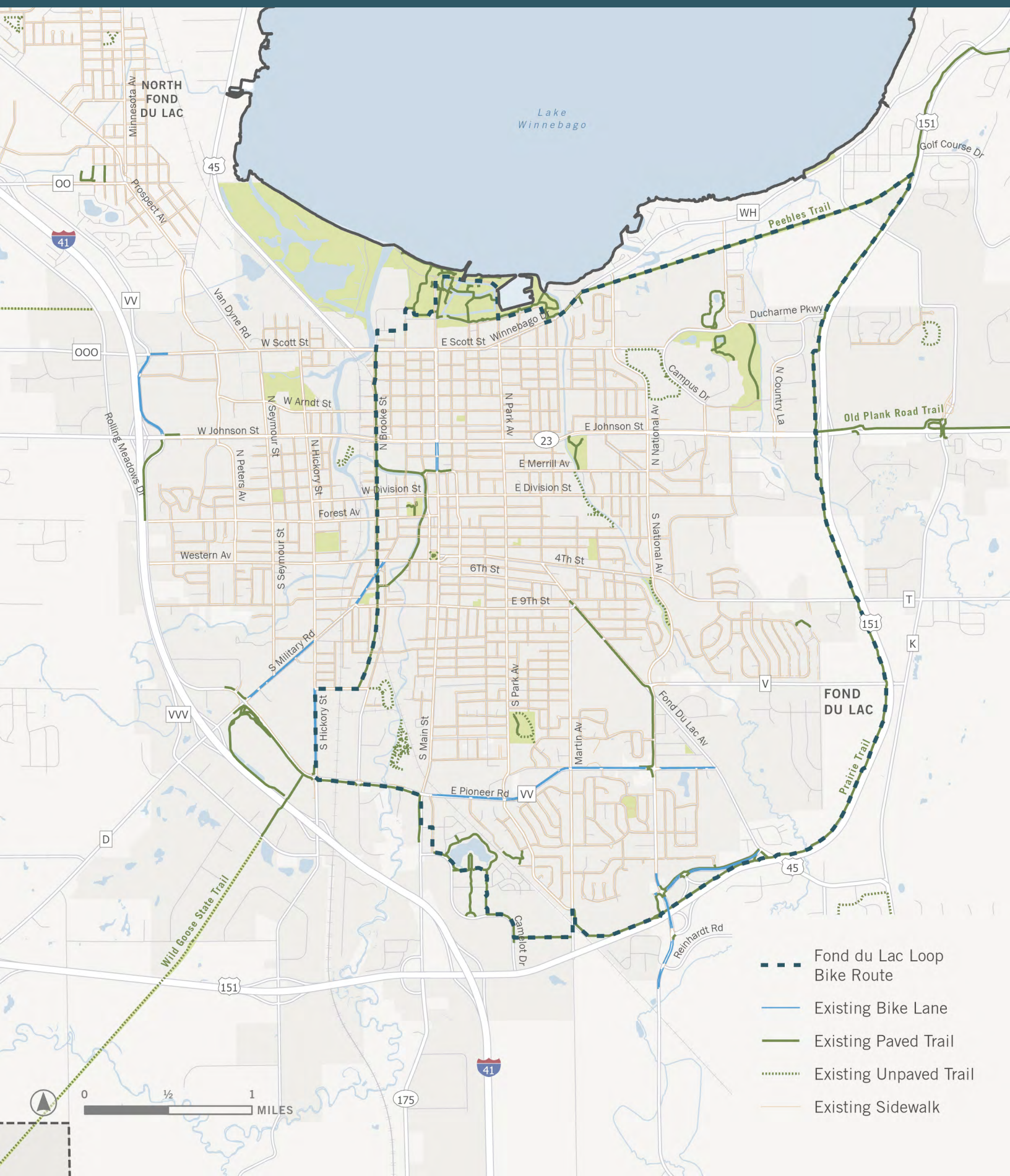


MAP 1-2. EXISTING FACILITIES (MPO AREA)



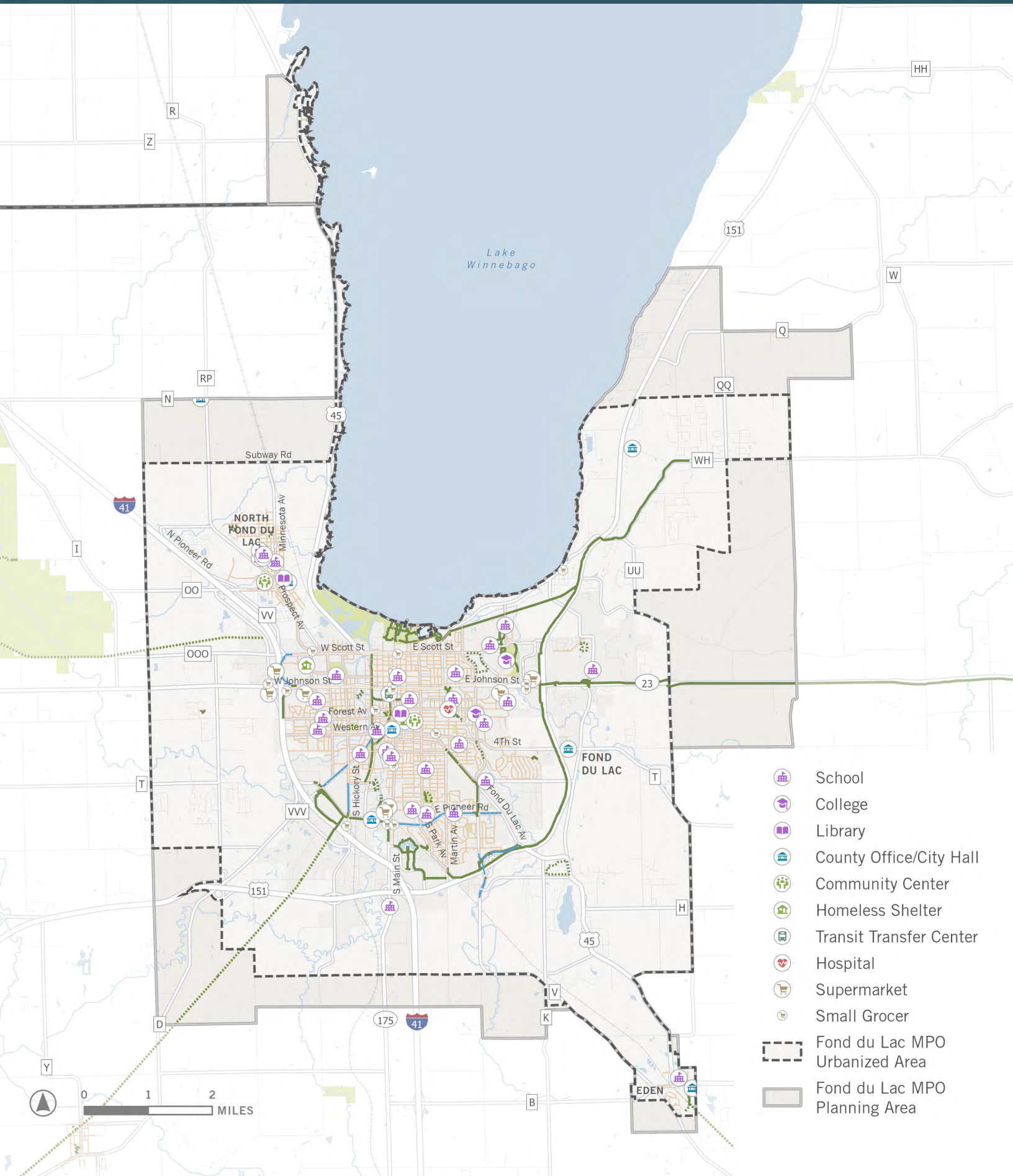
- Existing Bike Lane
- Existing Paved Trail
- - - Existing Unpaved Trail
- Existing Sidewalk
- Fond du Lac MPO Urbanized Area
- Fond du Lac MPO Planning Area













MAP 1-3. EXISTING FACILITIES (CITY OF FOND DU LAC AREA)



- - - Fond du Lac Loop Bike Route
- Existing Bike Lane
- Existing Paved Trail
- Existing Unpaved Trail
- Existing Sidewalk

MAP 1-4. COMMUNITY FACILITIES



-  School
-  College
-  Library
-  County Office/City Hall
-  Community Center
-  Homeless Shelter
-  Transit Transfer Center
-  Hospital
-  Supermarket
-  Small Grocer
-  Fond du Lac MPO Urbanized Area
-  Fond du Lac MPO Planning Area

CHAPTER SUMMARY

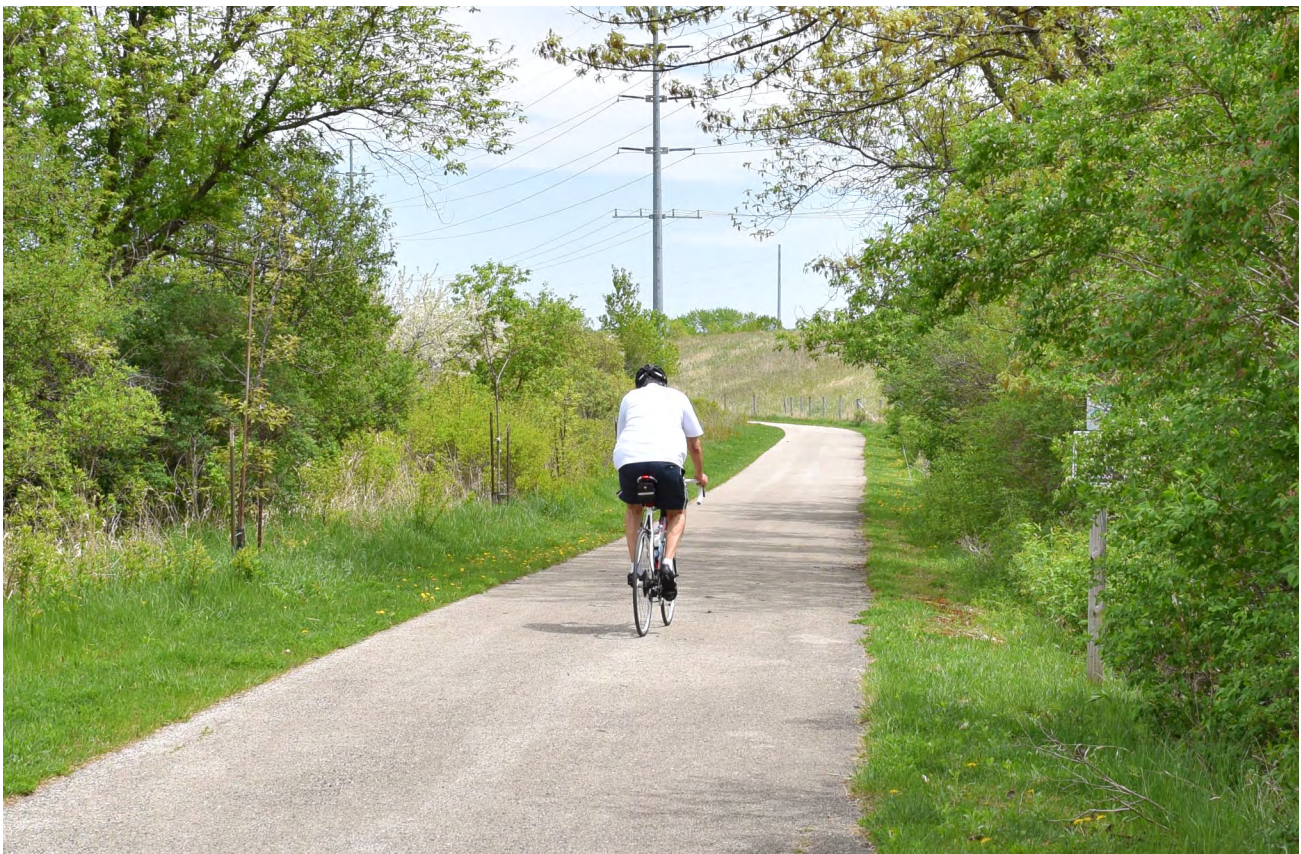
Comprehensively planning for active transportation at a regional level can bolster community connectivity, expand transportation options, create new opportunities for residents, and improve the overall health of communities. This plan explores how to enhance bicycling and walking throughout the communities in the Fond du Lac MPO to meet the outlined vision and goals, directed by the guiding

principles and 6 E's framework. Subsequent chapters will cover why active transportation matters, detail survey results, crash data, and existing conditions, explore planning for all users, outline bicycle and pedestrian facility types, provide recommendations to the current network, and discuss actions to ultimate plan implementation.

ENDNOTES

¹ *2021 State of the System Report - Fond du Lac Metropolitan Planning Organization*. East Central Wisconsin Regional Planning Commission, City of Fond du Lac, 2021, <https://www.ecwrpc.org/wp-content/uploads/2021/04/2021-State-of-the-System-Fond-du-Lac-MPO.pdf>.

² *Summary of Travel Trends 2017 National Household Travel Survey*. US Department of Transportation Federal Highway Administration, 2023, https://nhts.ornl.gov/assets/2017_nhts_summary_travel_trends.pdf.



02

**WHY ACTIVE
TRANSPORTATION
MATTERS**





WHY ACTIVE TRANSPORTATION MATTERS

Just as motorized transportation networks connect destinations with an interconnected system of roadways, active transportation networks use trails, sidewalks, bikeways and low-stress streets to freely and safely allow movement through the community without an automobile. Active transportation not only enhances quality of life, it nurtures a culture of connection and vibrancy within our towns and cities. Proper planning for active transportation focuses on providing maximum convenience and connectivity for all potential users while minimizing exposure to traffic risks. Active transportation infrastructure must be convenient – easy to access and safe to use – and connective – leading to multiple neighborhoods, destinations, transit stops, and other places.

BENEFITS OF BICYCLE AND PEDESTRIAN FACILITIES AND PROGRAMS

Cycling and walking are essential modes of travel that provide additional utility supporting people, places, and the economy. Younger generations are showing increased interest in cycling and walking as their primary means of travel. As interest in active transportation continues to grow, future connectivity needs across all modes will expand simultaneously. Additional benefits stretch from an enhanced quality of life and healthier lifestyle habits to environmental betterment and economic resiliency.

HEALTH AND WELLNESS BENEFITS

Planning for the built environment has implications on overall public health of the communities across the regional planning area. Physical inactivity is widely understood to play a significant role in the most common chronic diseases in the United States, including heart disease, stroke, and Type II diabetes. It's estimated the State of Wisconsin could save \$12 billion in healthcare costs by improving exercise and eating habits.¹

An environment that encourages bicycling and walking with easy, safe access to parks, active recreation opportunities, and daily destinations is a proven strategy to encourage more routine exercise with substantial positive impacts on health gained from relatively small public investment.

COMMUNITY HEALTH IMPACTS

The American Planning Association (APA) Metrics for Planning Healthy Communities report outlines five areas where planners can positively impact health outcomes: Active Living, Healthy Food System, Environmental Exposures, Emergency Preparedness, and Social Cohesion². Active Living is a primary theme this plan; planning policies that advocate for Active Living include:

- ▶ **Active Transportation**
 1. Transportation demand management policies
 2. Legislation prioritizing funding for pedestrian/bike facilities
 3. Complete Streets policies
- ▶ **Recreation**
 1. Policies prioritizing equitable investments in parks and open space
 2. Shared use policies between local governments, school districts, faith-based organizations, etc.
- ▶ **Safety**
 1. Policies to educate and improve cyclist and pedestrian behavior
 2. Complete streets policies and infrastructure improvements

COUNTY HEALTH RANKINGS

The County Health Rankings and Roadmaps program is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. The purpose of the rankings is to help communities focus on factors that affect health. The rankings are sorted into two categories:

- ▶ **Health Outcomes** represent how healthy a county is. Two types of health outcomes are measured: how long people live (length of life) and how healthy people feel while alive (quality of life).
- ▶ **Health Factors** represent what influences the health of a county. There are four types of health factors that are measured: health behaviors, clinical care, social and economic, and physical environment factors. Some of these factors involve physical activity, access to physical activity opportunities, and transportation patterns. Studies have presented evidence that implementing bicycle and pedestrian master plans increases physical activity³.

These two categories comprise the overall County Health Rankings. The percentages in Table 2-1 reflect the county’s overall ranking in comparison to other counties in the state, with 0-25% reflecting the least healthy counties and 75-100% reflecting the most healthy counties. Key County Health Factors are outlined in Table 2-2.

TABLE 2-1. COUNTY HEALTH RANKINGS

	FOND DU LAC COUNTY	WINNEBAGO COUNTY
Overall Ranking: Health Outcomes	Lower-Middle Range in WI 25-50%	Lower-Middle Range in WI 25-50%
Overall Ranking: Health Factors	Higher-Middle Range in WI 50-75%	Top Range in WI 75-100%

Source: County Health Rankings & Roadmaps, 2020

TABLE 2-2. KEY COUNTY HEALTH FACTORS

	WISCONSIN	FOND DU LAC COUNTY	WINNEBAGO COUNTY
Percent of population that is physically inactive	20%	19%	19%
Percent of population with access to exercise opportunities	84%	80%	90%
Percent of population that drives alone to work	78%	82%	81%
Air pollution particulate matter (average daily density in PM2.5)	7.8	8.3	8.6

Source: County Health Rankings & Roadmaps, 2020

SAFETY BENEFITS

Safety for all roadway users is an important health objective for all communities in the region. Traffic collisions are one of the leading causes of preventable death in the U.S., with walkers and cyclists making up 19% of all traffic fatalities annually⁴. Bicycle and pedestrian infrastructure supports everyone in the community, and supports safe active travel to jobs, schools, stores, or services. Planning for safety requires a multi-modal approach, accommodating pedestrians, bicyclists, and motorists as they share space on and along our roadways. Infrastructure safety improvements for walking and biking modes also increase positive safety outcomes for motorists. Worldwide studies have concluded that the risk of injury or death in a collision with motor vehicles declines as more people walk or bicycle⁵.

ENVIRONMENTAL BENEFITS

An accessible active transportation network is an essential facet of an environmentally sustainable community. 2021 data from the U.S. Environmental Protection Agency shows the transportation sector contributes 29% of all greenhouse gas emissions⁶. Replacing motor vehicle trips with pedestrian and bicycle trips has significant, measurable impact on the environment, reducing impacts from pollution and congestion, among other factors. Environmental improvements bring added health benefits from cleaner air, less noise and light pollution, and fewer vehicle crashes; walking and biking play an important role in improving our quality of life.

Active transportation also addresses land use challenges by reducing the amount of paved space needed for parking lots and roads. A typical automobile parking space is large enough to park 20 bicycles.



ECONOMIC BENEFITS

In addition to benefiting community health, safety, and the environment, bicycling and walking supplement thriving economies. With greater connectivity comes greater access to necessary services and employment opportunities, mainly at local businesses. An economic impact study conducted by ECWRPC with Econsult Solutions found that a \$1.3 billion investment to build 1,011 miles of new trails within the Fox Cities, Oshkosh, and Fond du Lac MPO's would contribute approximately \$2.3 billion annually to the local economy, supporting over 12,000 jobs and generating \$85 million in state and local taxes⁷. Additional studies have shown that neighborhoods that invest in trails and bicycle and pedestrian infrastructure have higher property values, creating a cycle of investment and improvement⁸.

On a community scale, pedestrian and bicycle infrastructure projects are typically less expensive than automobile-related infrastructure. Additionally, pedestrian and bicycle-supportive design enables residents to take short trips to local businesses by walking or cycling instead of driving to services farther away in adjacent communities, encouraging residents to shop more often, spend more money in their communities, and reduce vehicle congestion.

WHY EQUITY MATTERS

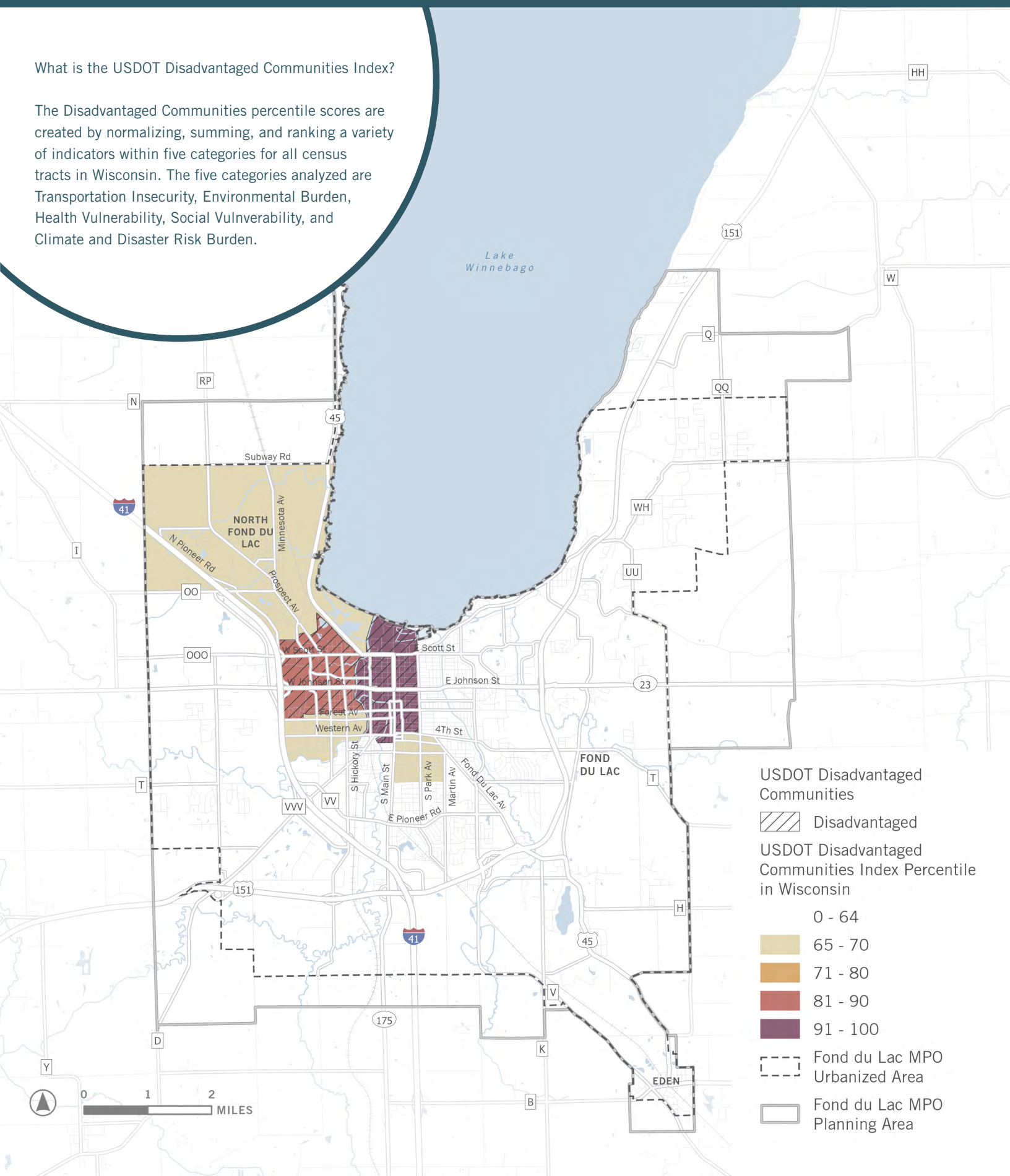
The goal of equity in transportation planning is to provide access to resources for populations whose options are currently limited. Relatively easy access to critical resources such as jobs, education, affordable housing, health care, and other important daily destinations is necessary and important for all. This process for this plan undertook specific measures to address equity issues relating to active transportation. Public involvement efforts encouraged input from underserved neighborhoods, and project identification and prioritization methods include “equity” as a key criterion.

The following maps use two USDOT screening tools to identify disadvantaged communities: The Climate and Economic Justice Screening Tool (CEJST) and the Equitable Transportation Community Explorer (ETC). The two combine to create the Disadvantaged Communities Index.

MAP 2-1. DISADVANTAGED COMMUNITIES

What is the USDOT Disadvantaged Communities Index?

The Disadvantaged Communities percentile scores are created by normalizing, summing, and ranking a variety of indicators within five categories for all census tracts in Wisconsin. The five categories analyzed are Transportation Insecurity, Environmental Burden, Health Vulnerability, Social Vulnerability, and Climate and Disaster Risk Burden.



USDOT Disadvantaged Communities

Disadvantaged

USDOT Disadvantaged Communities Index Percentile in Wisconsin

- 0 - 64
- 65 - 70
- 71 - 80
- 81 - 90
- 91 - 100

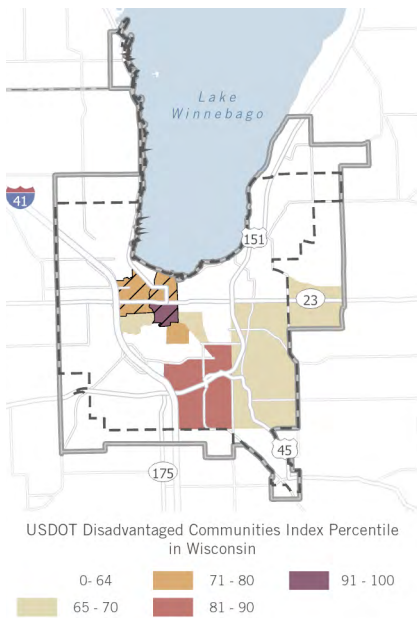
Fond du Lac MPO Urbanized Area

Fond du Lac MPO Planning Area

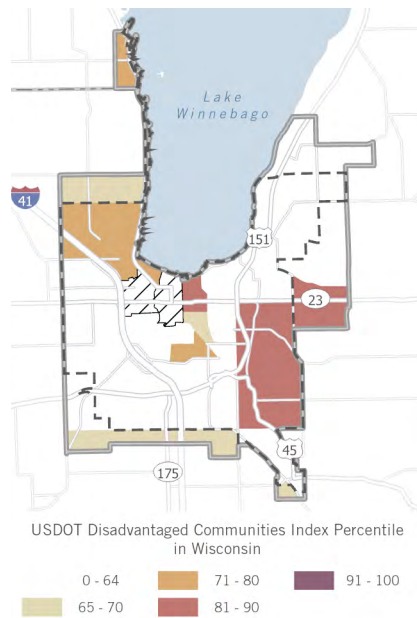


MAP 2-2. KEY POPULATIONS

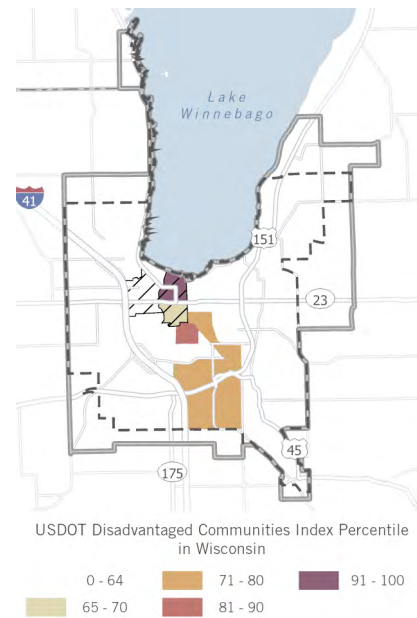
HOUSEHOLDS WITH NO CAR



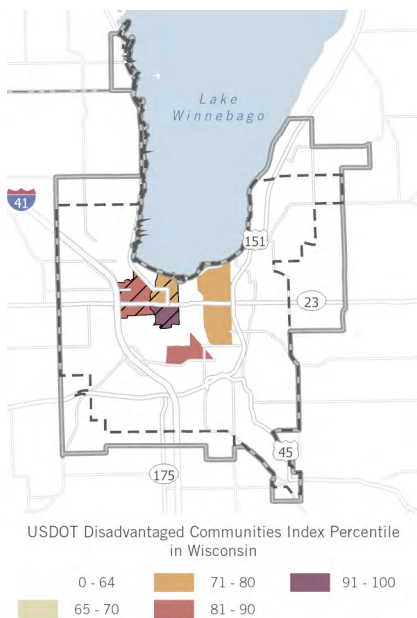
PEOPLE 65 YEARS OR OLDER



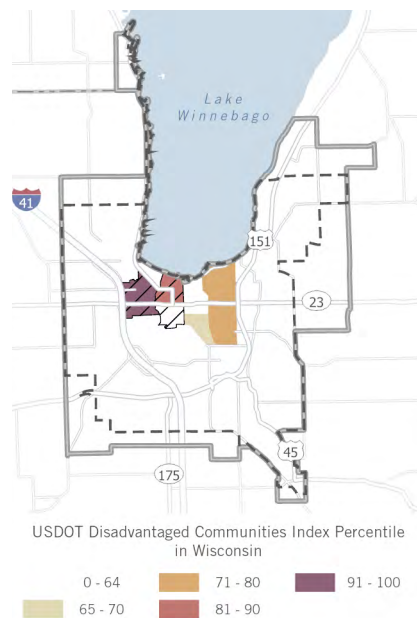
PEOPLE 17 YEARS OR YOUNGER



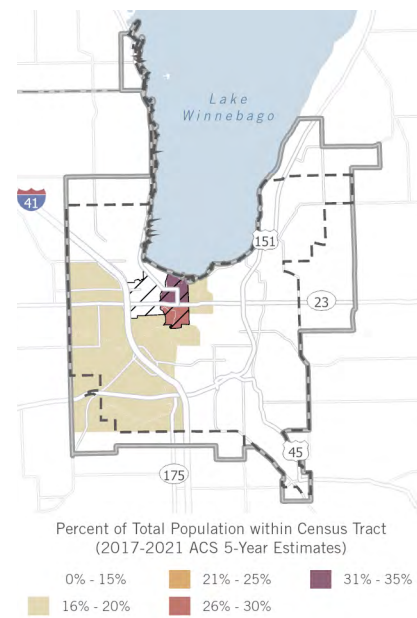
PEOPLE WITH DISABILITIES



PEOPLE WITH LIMITED ENGLISH PROFICIENCY



PEOPLE OF COLOR



THE BUILT ENVIRONMENT

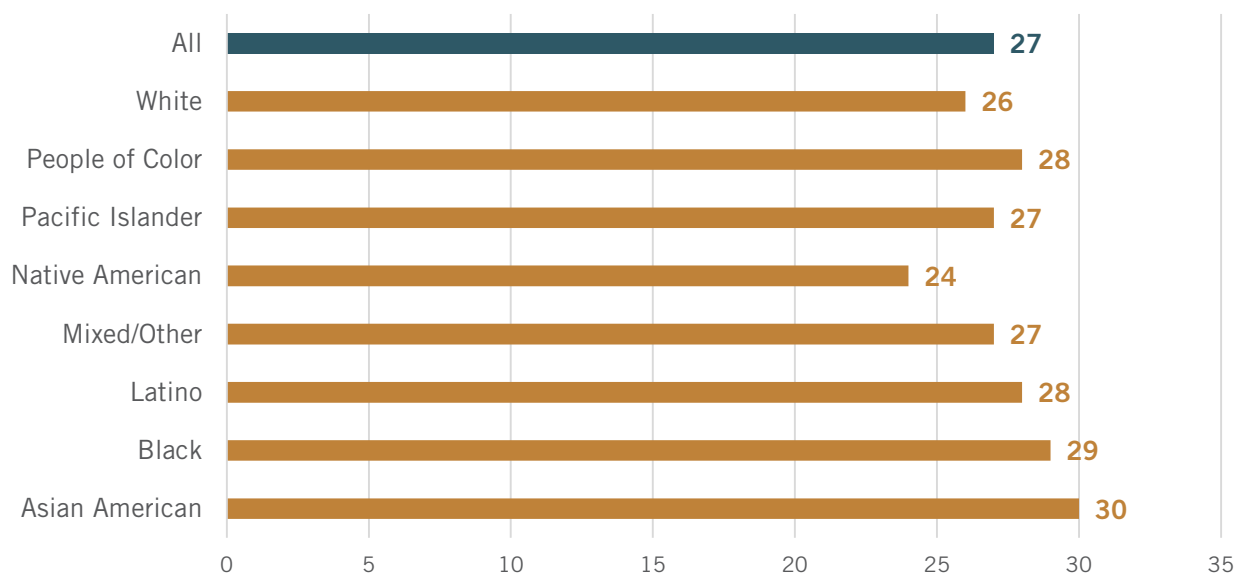
Many factors in the built environment contribute to the inequitable distribution and availability of resources to populations, including lack of accessibility to bicycling and walking facilities, distribution discrepancies in location of affordable housing, and the location of low-income neighborhoods and multi-family housing next to high speed, high volume roads. The consequences of inequitable distribution of resources cascade negative utility for vulnerable populations by increasing travel times (Figure 2-1) and costs, health disparities and health care costs, and decreasing mobility.

Longer commute times for non-white populations matter, illustrated by data from the National Equity Atlas⁹. Long commute times indicate a lack of nearby job opportunities, slow transit options, and/or insufficient bicycling and walking connectivity. This leads to higher transportation costs, job instability, and lower quality of life for workers; employers suffer from higher turnover and less access to the workforce.

Longer commutes by car also contribute to negative environmental utility and health effects.

Active transportation investment in underserved neighborhoods is sensible. Minorities, the elderly, and those living near the poverty line are less likely to have access to a vehicle, making them more reliant on biking, walking, or public transit for their transportation needs. In fact, 3.6% percent of households in the Fond du Lac MPO do not have access to an automobile. Health issues also disproportionately affect these same communities. People living at up to four times the poverty line display obesity levels 7-10% higher than those who earn more¹⁰. Additionally, bicycle and pedestrian safety issues are often exacerbated in underserved areas. For additional information on equity considerations in planning and who we're planning for, refer to Chapter 4.

FIGURE 2-1. NATIONAL AVERAGE TRAVEL TIME TO WORK (MINUTES) FOR ALL MODES BY RACE/ETHNICITY



Source: National Equity Atlas



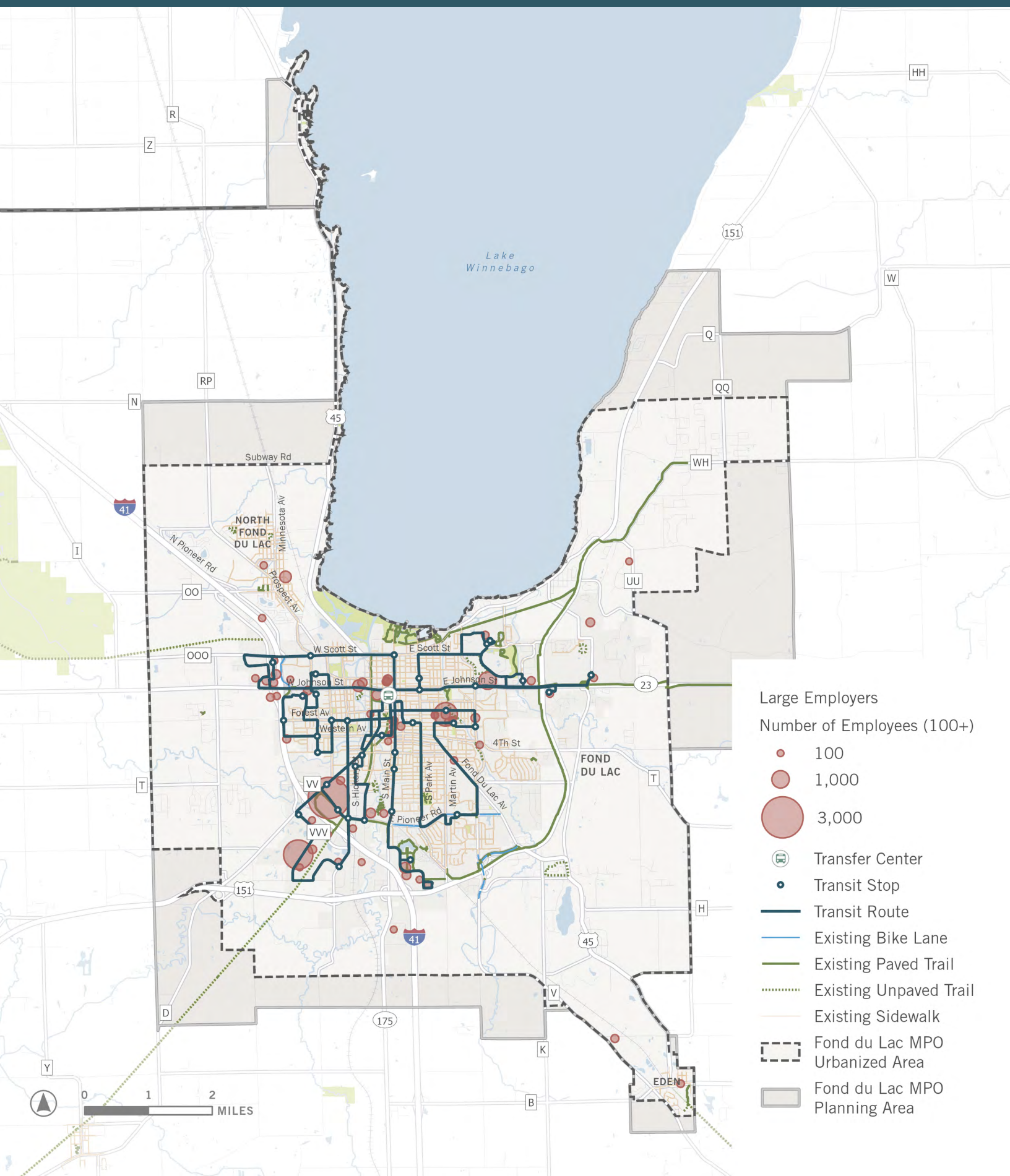
ENHANCING CONNECTIONS TO TRANSIT

An established relationship exists between active transportation and public transit. Transit vehicles stop at designated stations, which are unlikely to be at the exact home location or destination of the rider. Many of those transit trips depend on the “first- and last-mile” connections to get to and from the transit corridor. Thus, every transit trip requires some level of active transportation to connect to transit, and prevalence of active transportation infrastructure has an impact on transit ridership. Ideal active transportation infrastructure follows the two principles of connectivity and convenience to create major positive impacts on the transportation network. The current transit system is visualized in Map 2-3 with added layers of existing bicycle and pedestrian infrastructure and employers.

Fond du Lac Area Transit currently operates seven fixed routes serving the community, connecting downtown Fond du Lac to business nodes and the Village of North Fond du Lac as well as additional school-specific routes and ADA complementary para-transit services. It’s the smallest mass transit system by city population in the United States. The system serves approximately 200,000 passengers every year and operates only on weekdays and school days. 66% of residents live within a half mile of a transit stop¹¹. The Fond du Lac MPO State of the System Report and Transit Development Plan contain more information¹².

As previously noted, the inequitable distribution of resources exacerbates inequalities in the transportation network. Transit ridership in Fond du Lac is influenced by numerous factors; high-density areas, mobility and vehicle-limited households, and lower income demographics are the populations most likely to ride public transit. Many persons in any of those categories, for any reason, rely heavily on transit to travel for work, school, shopping, medical appointments, and other activities.

MAP 2-3. TRANSIT ACCESS TO LARGE EMPLOYERS



- Large Employers**
Number of Employees (100+)
- 100
 - 1,000
 - 3,000
- 🚗 Transfer Center
- Transit Stop
- Transit Route
- Existing Bike Lane
- Existing Paved Trail
- ⋯ Existing Unpaved Trail
- Existing Sidewalk
- Fond du Lac MPO Urbanized Area
- Fond du Lac MPO Planning Area



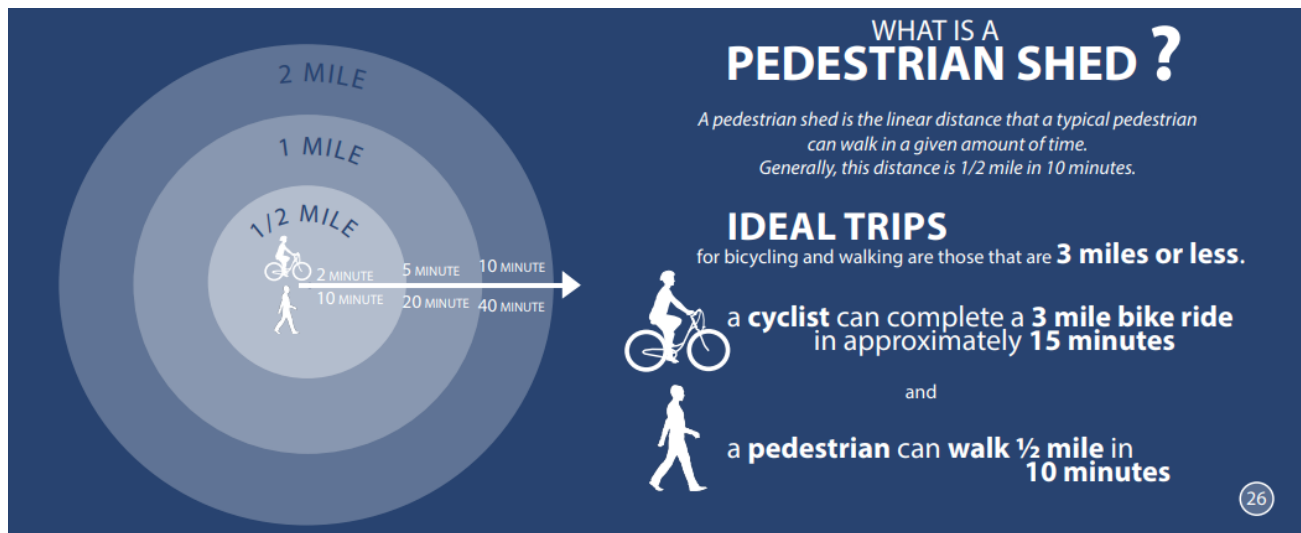
Mirroring development of safe bicycle and pedestrian infrastructure around transit offers a path to impact the greatest number of persons and focus improvements for underserved and highly-vulnerable areas. Connective, convenient active transportation infrastructure improves multi-modal mobility across the entire system, creating positive outcomes ranging from improved travel times and destination access to lowered environmental and health care costs.

A “pedestrian shed” is the area around a transit stop or central destination within easy walking range for the average person (i.e., the distance people are willing to walk before opting to drive). Based on average walking speed, a ten-minute walk would cover approximately a half mile, illustrated in Figure 2-2. For more information on transit and walkability, see pages 14-15 of the State of the System report¹⁰.

CHAPTER SUMMARY

Investment and prioritization of active transportation infrastructure has the proven ability to positively impact communities; improved health and wellness, economic growth, environmental benefits, and safer streets is the result. A lack of accessibility to active transportation infrastructure contributes to inequitable outcomes. Active transportation infrastructure improvements are a critical planning tool to advance equitable outcomes, helping communities that experience socio-economic burdens connect to better opportunities through a welcoming, friendly built environment.

FIGURE 2-2. PEDESTRIAN SHED



Source: Fond du Lac Area Transit

ENDNOTES

¹ *State Could Save \$12 Billion If Residents Slim down, Report Finds.* <http://www.jsonline.com/news/health/state-health-care-costs-could-fall-by-nearly-12-billion-if-residents-drop-weight-report-finds-ik6tfau-170173826.html>.

² Shah, Sagar. “Metrics for Planning Healthy Communities.” APA, <https://planning-org-uploaded-media.s3.amazonaws.com/document/Metrics-Planning-Healthy-Communities.pdf>

³ *2020 County Health Rankings Key Findings Report | County Health Rankings & Roadmaps.* <https://www.countyhealthrankings.org/reports/2020-county-health-rankings-key-findings-report>.

⁴ *Pedestrian & Bicycle Safety | FHWA.* <https://highways.dot.gov/safety/pedestrian-bicyclist>.

⁵ Walljasper, Jay. “How Bicycling Infrastructure Benefits Non-Bicyclists.” AARP, <https://www.aarp.org/livable-communities/getting-around/info-2016/why-bicycling-infrastructure-is-good-for-people-who-dont-ride-bikes.html>.

⁶ US EPA, OAR. *Sources of Greenhouse Gas Emissions.* 29 Dec. 2015, <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>.

⁷ Econsult. “Solutions the Economic, Health, And Environmental Impact of Bicycling and Walking Facilities.” ECWRPC, <https://www.ecwrpc.org/wp-content/uploads/2023/03/ECWRPC-Economic-Impact-Study-Report.pdf>

⁸ Cortright, Joe. “Walking the Walk: How Walkability Raises Home Values in U.S. Cities. NACTO, https://nacto.org/docs/usdg/walking_the_walk_cortright.pdf

⁹ *Commute Time | National Equity Atlas.* https://nationalequityatlas.org/indicators/Commute_time

¹⁰ *State Could Save \$12 Billion If Residents Slim down, Report Finds.* <http://www.jsonline.com/news/health/state-health-care-costs-could-fall-by-nearly-12-billion-if-residents-drop-weight-report-finds-ik6tfau-170173826.html>.

¹¹ SRF. “Fond du Lac Area Transit Development Plan,” Fond du Lac Area Transit, 2023-2027, https://www.fdl.wi.gov/transit/wp-content/uploads/sites/13/2023/03/2022-12-07-Fond-du-Lac-TDP_Final.pdf

¹² *2021 State of the System Report - Fond Du Lac Metropolitan Planning Organization.* East Central Wisconsin Regional Planning Commission, City of Fond du Lac, 2021, <https://www.ecwrpc.org/wp->

03

EXISTING CONDITIONS





EXISTING CONDITIONS

This section evaluates the characteristics of the existing transportation network and built environment, the demand for biking and walking, biking and walking travel behaviors and attitudes, and the safety outcomes of those who bike and walk.

All data, maps, and statistics within a written plan represent a “snapshot in time” when the Plan was put together. To maintain updated information and track progress over time, East Central WI Regional Planning Commission has created the ECWRPC Transportation Hub online repository of regionally relevant reports, statistics, programs, and plans. Links to this and other useful contacts and information can be found online at <https://www.ecwrpc.org/>. In addition to the online hub, demographics of the Fond du Lac MPO can be found in Chapter 1.

USER EXPERIENCE AND PERCEIVED COMFORT

While bicyclists and pedestrians are often considered together as alternative transportation mode users, they are in fact vastly different. Compared to drivers, bicyclists and pedestrians tend to suffer more serious and fatal injuries when crashing with motor vehicles, even though a bicycle is considered a type of vehicle and shares the same roles and responsibilities on all streets and roadways unless prohibited by law (e.g. on sidewalks).

Traffic stress is the perceived sense of danger associated with riding adjacent to vehicle traffic, and one of the greatest deterrents to bicycling. The less stressful, and in turn more comfortable a bicycle facility is, the wider its appeal to a larger portion of the population. A bicycle network will attract a large portion of the population if it successfully reduces stressful conflicts with motor vehicle and offers connectivity around the community.

The built environment and its active transportation infrastructure often dictate participation levels in walking and bicycling modes. When communities have complete streets with an interconnected network of safe and comfortable places for walking and bicycling, more people choose these forms of transportation to travel around the community. Complete Streets is an approach to street planning and design that considers the requirements of all modes, balancing the needs of people of all ages and abilities who walk, bicycle, and drive.

CRASH DATA

While crashes are an unfortunate reality associated with all modes of transportation, bicyclists and pedestrians are especially vulnerable. Pedestrians and bicyclists involved in crashes with motor vehicles are far more likely to be seriously injured or killed than drivers or passengers in the motor vehicle. Nationally in 2021, over 19% of traffic fatalities were pedestrians and bicyclists.¹ Another 60,000 pedestrians and 41,000 bicyclists are injured in roadway crashes annually. Knowing and examining crash trends in a given area can provide information on safety improvements to reduce or eliminate bicycle and pedestrian crashes.

Bicyclists and pedestrians are disproportionately injured or killed in crashes on roadways in the United States compared to those who use motor vehicles. In crashes between 2017 and 2020, bicyclists and pedestrians were only 5% of the injuries but 19% of the fatalities.² The Fond du Lac MPO mirrored national trends, where, although only involved in 2% of total traffic crashes, 10% of those injured in crashes were bicyclists or pedestrians.

Unfortunately, seventeen people lost their lives in traffic crashes in the Fond du Lac MPO, one of whom was a pedestrian.

All roadway crashes, regardless of mode or severity, are distressing, preventable, and unacceptable. An inventory of distribution, frequency, conditions, and severity of bicycle and pedestrian crashes in the Fond du Lac MPO from 2017 to 2021 gives crucial insight on where, why, and how these modes are involved in crashes. Evaluating and understanding these dynamics guides strategies and actions to eliminate bicycle and pedestrian crashes.

The following section provides an inventory of relevant bicycle and pedestrian crash data. Variables regarding crash locations, locational attributes, time, and severity are evaluated to illustrate and analyze the distribution of, and factors contributing to, crashes involving bicyclists and pedestrians. All Fond du Lac MPO crash was collected from the Wisconsin Traffic Operations and Safety Laboratory (TOPS Lab), a database that contains information on all police reported crashes in Wisconsin.



INVENTORY AND LOCATION

There were a total of 178 bicycle or pedestrian involved crashes with motor vehicles in the MPO between 2017 and 2021 (84 bicycle, 94 pedestrian), illustrated in Table 3-1. The City of Fond du Lac recorded 96.1% of MPO bicycle and pedestrian crashes, while the Village of North Fond du Lac, Town of Taycheedah, and Town of Fond du Lac experienced 1.7%, 1.1%, and 1.1% of total crashes, respectively.

The distribution of crashes either at intersections or along corridors (non-intersections) in the MPO differed between the two modes. Bicycle crashes were most common at intersections, with 71% at intersections and only 24% along corridors. Pedestrian crashes were more evenly distributed, with 46% occurring at intersections and 53% along corridors. Intersection and corridor crashes between 2017 and 2021 for both modes are mapped in Map 3-1, highlighting the notable concentration of intersection crashes along several major corridors.

93 of the 178 total crashes (52%) occurred on ten roadway corridors in the MPO, all of which were within the City of Fond du Lac. Johnson Street, Main Street, Division Street, and Peters Avenue recorded a combined total of 58 crashes (33%) between 2017 and 2021.

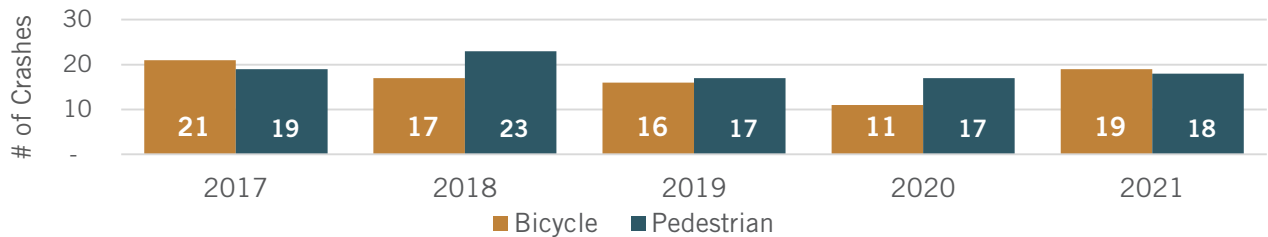
ANNUAL CRASH DATA

On average, seventeen bicycle and nineteen pedestrian involved crashes took place per year. Displayed in Figure 3-1, 2017 and 2018 recorded the most bicycle and pedestrian crashes during the five-year period; total crashes involving both modes decreased in 2019 and again in 2020. However, the declining trend reversed in 2021, as both modes experienced an uptick in crashes. The causes of the trend reversal are unclear, but it's likely the total number of bicyclists and pedestrian trips has a relationship with crash frequency statistics for all years.

TABLE 3-1. BICYCLE AND PEDESTRIAN CRASHES BY MUNICIPALITY (2017-2021)

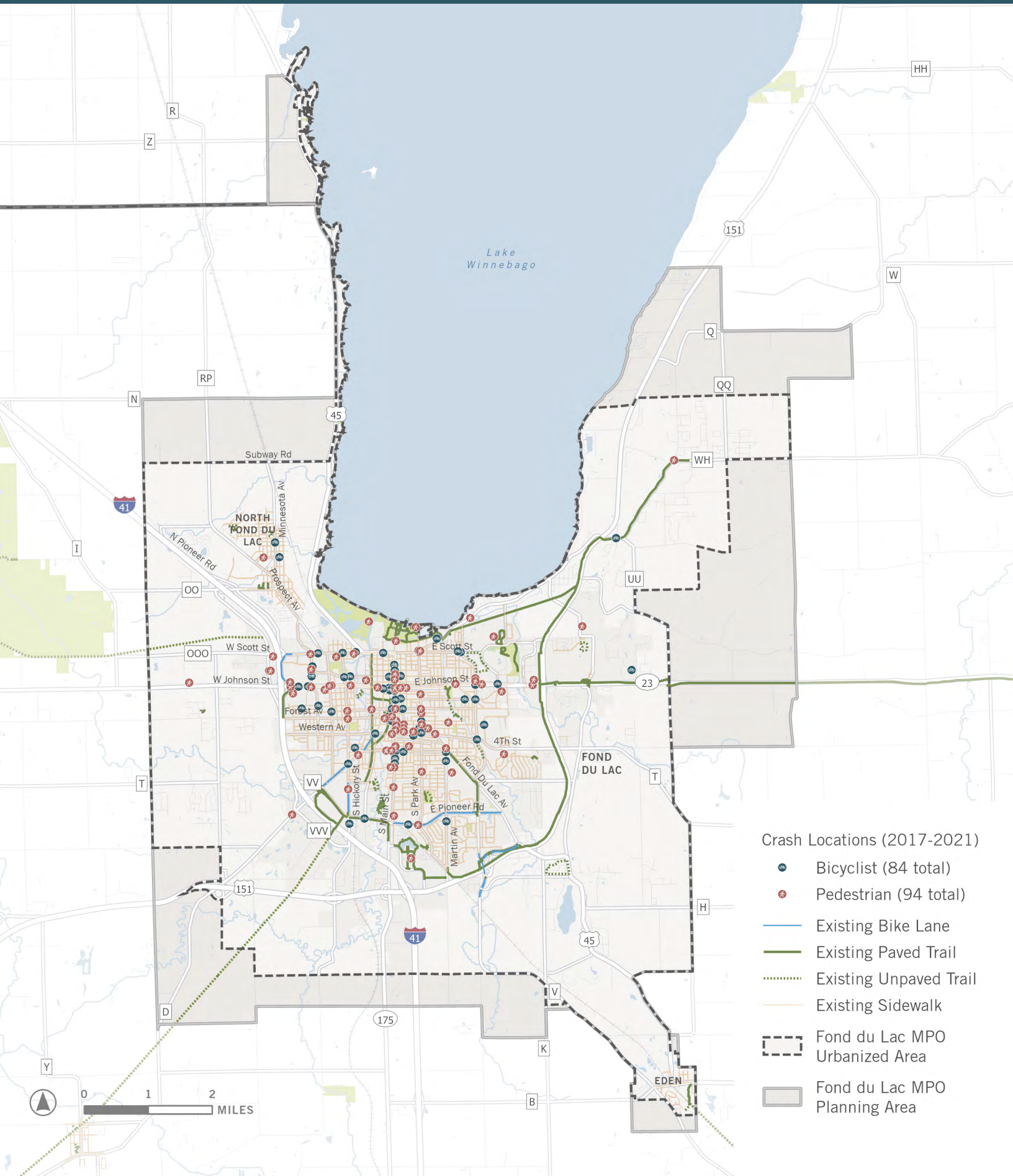
	BICYCLIST		PEDESTRIAN		TOTAL	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
City of Fond du Lac	81	96.4%	90	95.7%	171	96.1%
Town of Fond du Lac	0	0.0%	2	2.1%	2	1.1%
Town of Taycheedah	1	1.2%	1	1.1%	3	1.7%
Village of North Fond du Lac	2	2.4%	1	1.1%	3	1.7%

FIGURE 3-1. BICYCLE AND PEDESTRIAN CRASHES BY YEAR (2017-2021)



Source: WisDOT TOPS Lab

MAP 3-1. BICYCLIST AND PEDESTRIAN CRASHES



- Crash Locations (2017-2021)**
- Bicyclist (84 total)
 - Pedestrian (94 total)
 - Existing Bike Lane
 - Existing Paved Trail
 - ⋯ Existing Unpaved Trail
 - Existing Sidewalk
 - Fond du Lac MPO Urbanized Area
 - Fond du Lac MPO Planning Area

MONTHLY CRASH DATA

During the five-year period, nearly 60% of all bicycle crashes occurred between the months of June and September, with September accounting for 20% of total crashes. Pedestrian crash frequency was spread more evenly throughout the months. Overall during this period, bicycle crashes appeared to be more frequent during the summer and early fall, while pedestrian crashes were more common in late summer and fall.

TIME OF DAY AND LIGHT CONDITIONS

The frequency of bicycle and pedestrian crashes throughout the day differed on weekdays and weekends between the two modes. The greatest share of bicycle crashes occurred between 6pm and 9pm on weekdays and 9am and 12pm on weekends. Pedestrian-involved crashes peaked between 6pm and 9pm on both weekdays and weekends. Light conditions may explain the consistent late-afternoon peak time of pedestrian crashes, as almost half occurred either in dusk or dark conditions.

The relationship between bicycle crashes and light conditions is ambiguous, as crashes largely occurred during daylight conditions, with less than a quarter occurring in dark conditions. While the overall decline in total yearly crashes over the five-year period is a welcomed trend, bicyclists and pedestrians are still vulnerable roadway users and face a greater risk of severe injury when compared to those involved in vehicle crashes.

SEVERITY

Active transportation modes are inherently more vulnerable than drivers as they have fewer protections surrounding them. Few bicyclists or pedestrians involved in crashes between 2017 and 2021 managed to avoid injury, with only 8% of bicycle crashes and 7% of pedestrian crashes reporting no apparent injury. Over 70% of both bicycle and pedestrian crashes resulted in a suspected minor or serious injury. Alarming, 20% of pedestrians involved in a crash were suspected to be seriously injured, a traumatic event that affects an individual for life.

164 bicycle and pedestrian crashes resulted in a possible, suspected minor, or suspected serious injury; ten road corridors accounted for nearly 60% of all injury crashes. The Johnson Street and Main Street corridors had the highest rate of crash injuries, with each road totaling fourteen between 2017 and 2021.

The clear differences in size and protection afforded by a vehicle compared to a bicyclist or pedestrian partially explains why bicycle and pedestrian crash outcomes are so severe. Roadway design and speed also influence the occurrence of serious or fatal injuries. Faster vehicle speeds have been proven to dramatically increase the risk of serious or fatal injury outcomes for bicyclists and pedestrians.³ In addition, auto-centric design develops roadways with large lane and road widths, encouraging drivers to speed and making pedestrian crossings unsafe.⁴ Fortunately, roadway design and speed are two key components that can be changed through awareness, new strategies, and a multi-modal approach to roadway design.

Further crash severity details are published in the Fond du Lac MPO State of the System Report.⁵



COUNT DATA

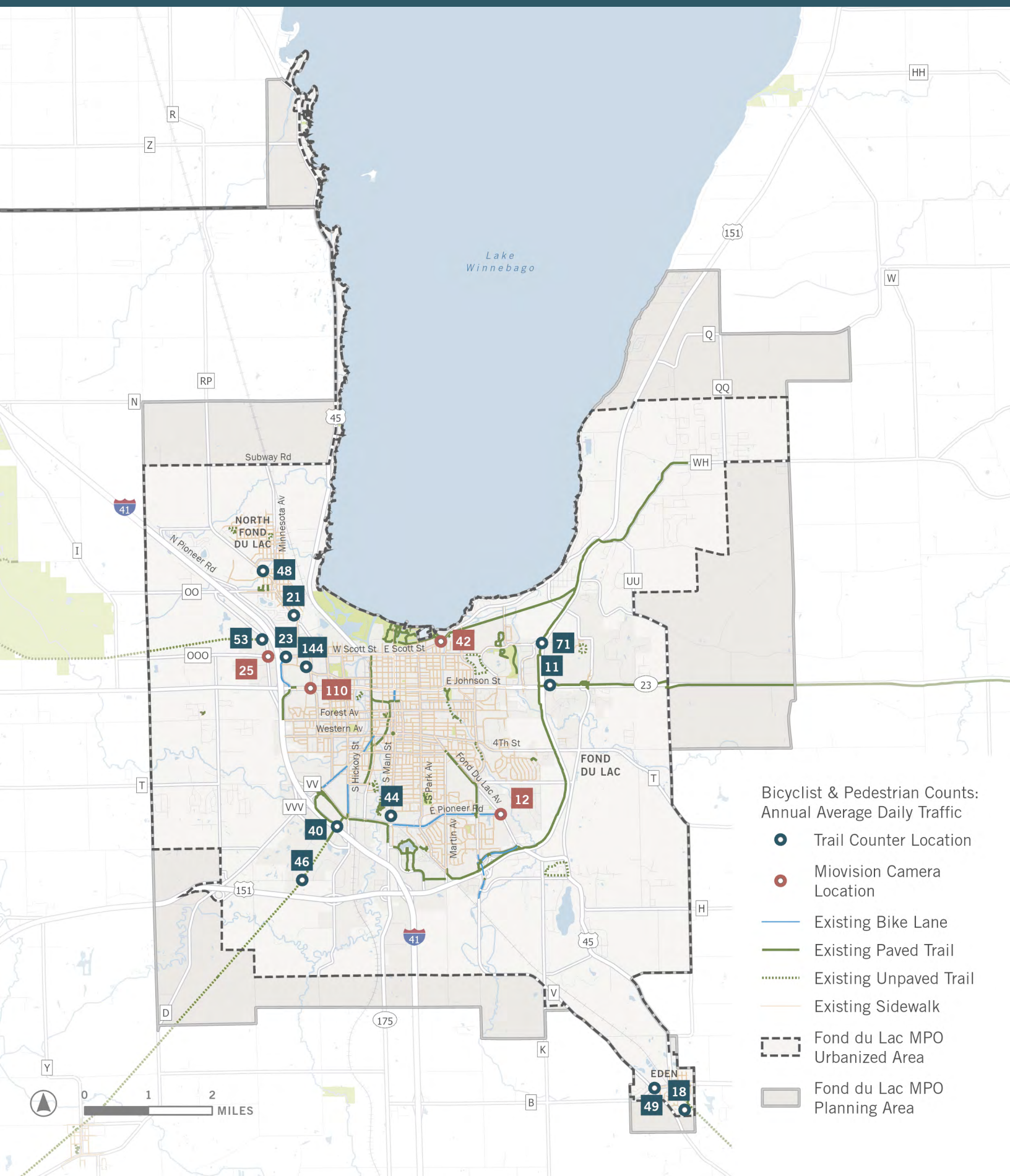
ECWRPC has bicycle and pedestrian counters available for data collection. All of ECWRPC's counters are currently available to communities on a short-term basis, with counters typically being set up for up to a two-week period of time. Counters record the number of people using various facilities, logging valuable information on a facility's use and current trends. Clear and current usage data helps communities make important decisions on bicycle and pedestrian investments. ECWRPC also has Miovision traffic cameras, which provide a bird's-eye view of the study area and can be utilized for a variety of traffic-related studies.

Map 3-2 identifies each location a count was taken, and the device used. The numbers show the Average Annual Daily Traffic (AADT). AADT is an estimation of the average daily number of pedestrians and bicyclists that travel through a given point along a trail, accounting for seasonal variation over the period of one year.

PUBLIC TRANSPORTATION

Transit is closely linked to bicycle and pedestrian facilities, as most people who access transit do so via walking or bicycling. Fond du Lac Area Transit (FDLAT) offers fixed-route service along seven routes. Most routes run Monday-Friday, with Bus Route 120 only running when public schools are in session. FDLAT buses are equipped with on-bus bicycle racks.

MAP 3-2. BICYCLE AND PEDESTRIAN COUNTS



Bicyclist & Pedestrian Counts: Annual Average Daily Traffic

- Trail Counter Location
- Miovision Camera Location
- Existing Bike Lane
- Existing Paved Trail
- ⋯ Existing Unpaved Trail
- Existing Sidewalk
- Fond du Lac MPO Urbanized Area
- Fond du Lac MPO Planning Area

0 1 2 MILES

SURVEY RESULTS

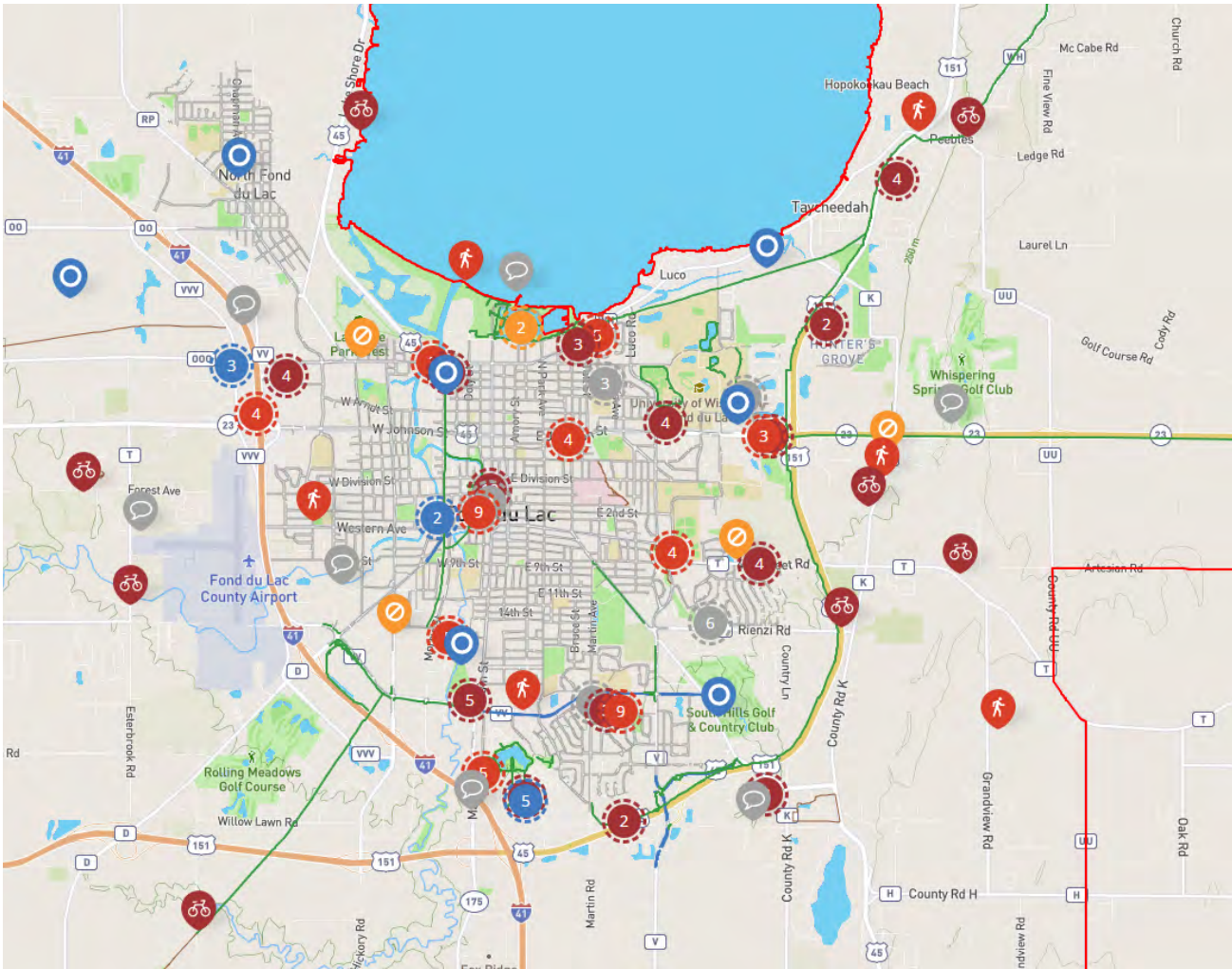
OVERVIEW

Community engagement efforts occurred online and in person to gather personal, impactful insight into the challenges and opportunities present in the current system. Online engagement commenced in July 2023, and this was complemented by in-person community engagement at the Fond du Lac Night Market on Thursday, August 24, 2023.

Online engagement was conducted through Social Pinpoint, which is an interactive online tool. Once in Social Pinpoint, the user was able to interact with an online map and an online survey.

The interactive map provided an opportunity for users to indicate locations of concern, barriers and gaps, destinations, and provide general ideas and suggestions.

In total, 555 people responded to an online survey hosted through Survey Monkey, and the Social Pinpoint interactive map generated 220 total responses. From the survey, over 97% of respondents indicated that they either walk or bicycle in the Fond du Lac area.



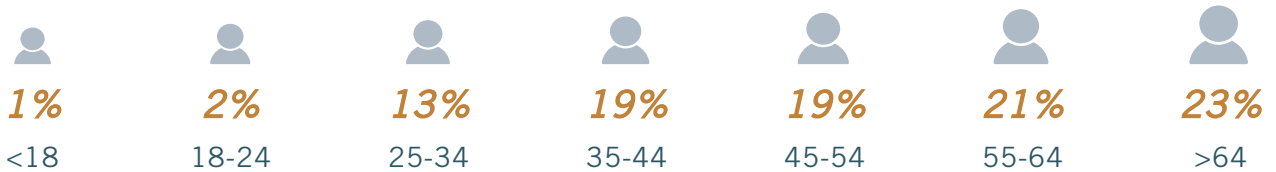
SURVEY RESULTS

DEMOGRAPHICS

A demographic overview of survey respondents is presented in Figure 3-2 below. The survey respondents provided a variety of information about themselves including age, race, and whether they have a disability that impacts their ability to walk or bike. ECWRPC aims to generate feedback from all groups, including those with disabilities, to help plan inclusive infrastructure for all.

FIGURE 3-2. SURVEY RESPONDENT DEMOGRAPHICS

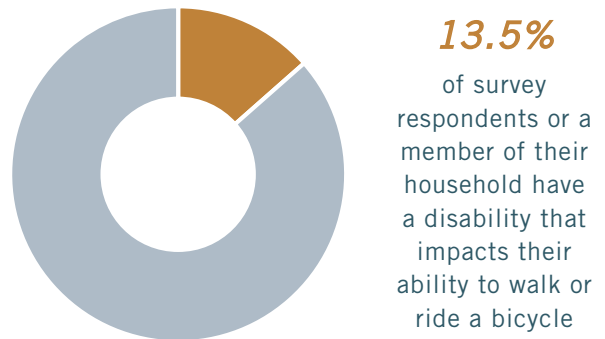
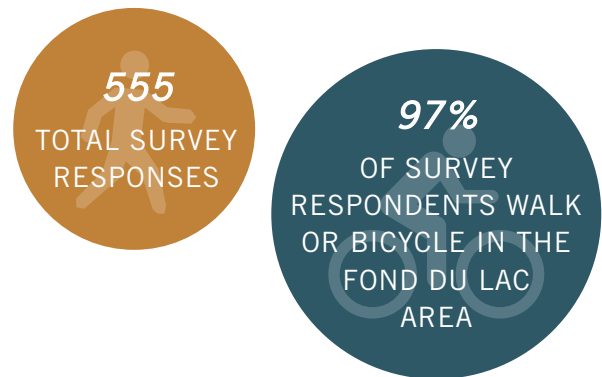
AGE GROUP



RACE



HISPANIC OR LATINO



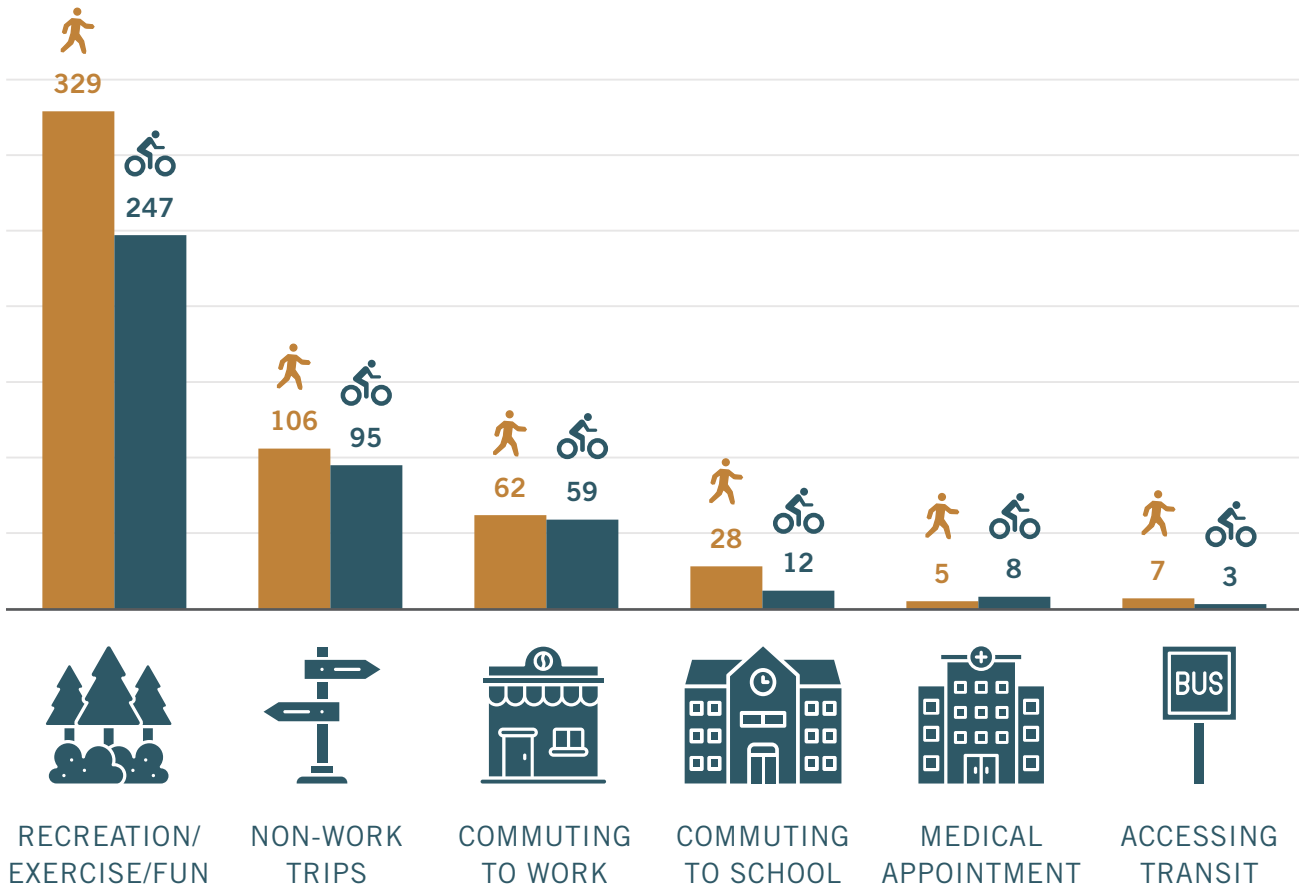
SURVEY RESULTS

FREQUENCY OF USE

Survey respondents were asked how frequently they walk or bike for the listed activities, with the results offering a window into active transportation use. Out of 448 responses, the following number indicated they actively walk for that activity every day or at least a few times per week. The predominant reason people walk or bicycle is for recreation/exercise/fun. Followed by commuting – whether that be to work, school, or errands. Figure 3-3 illustrates the full results.

Respondents were also asked if there are places in the community they - or someone they know - would like to walk or bike to but currently do not because of a lack of sidewalks, bike lanes, trails, or other infrastructure limitations. 408 answers were received, with 44% of respondents indicating they currently cannot access a destination because of a lack of infrastructure. Respondents were prompted to specify the destination; while some destinations were listed, more respondents answered with the barrier to use rather than the specific destination.

FIGURE 3-3. REASONS FOR WALKING AND BICYCLING



SURVEY RESULTS

WALKABILITY

Respondents indicated their most common reason for walking is recreation/exercise/fun, with 33% reporting daily activity. Figure 3-4 combines responses to several questions to illustrate residents' level of comfort and accessibility while walking. Comfort level classifies the physical infrastructure from a safety perspective, while accessibility addresses infrastructure by ease of access.

The spatial distributions of pedestrian concerns are visualized in Map 3-3. The map overlays the areas of concerns with the existing bicycle/pedestrian network; note the relationship between areas of concern and major roads.

FIGURE 3-4. COMFORT LEVEL AND ACCESSIBILITY OF WALKING



28% OF FOND DU LAC MPO PEDESTRIANS ARE **ENTHUSIASTIC WALKERS**

who already walk often but want to walk more. These individuals walk at least once a week or more to or from work or school, or to a neighborhood destination.



53% OF FOND DU LAC MPO PEDESTRIANS ARE **ENTHUSIASTIC NON-WALKERS**

who do not currently walk often but would like to walk more.



16% OF FOND DU LAC MPO PEDESTRIANS ARE **UNENTHUSIASTIC WALKERS**

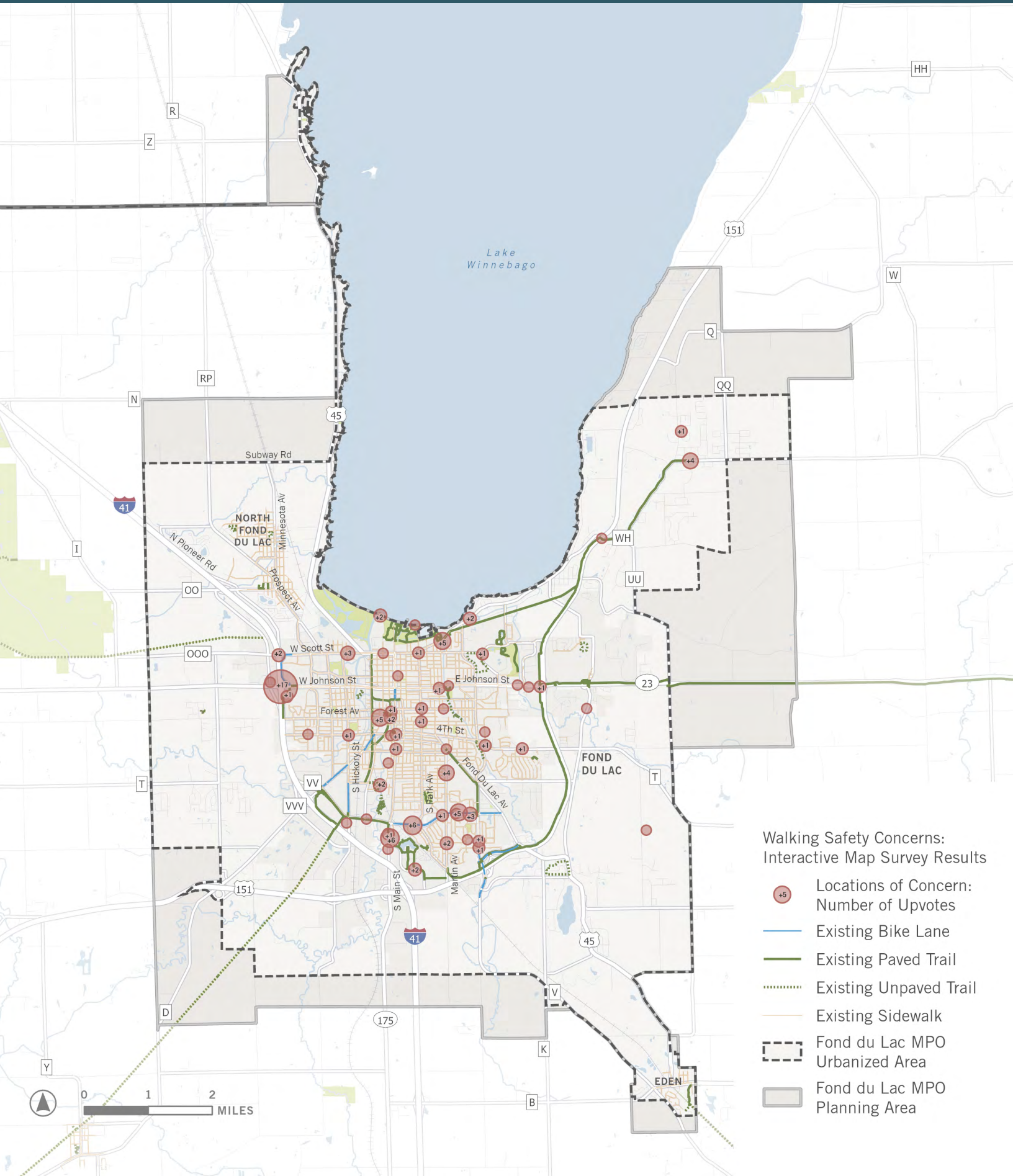
who walk several times a week but are not interested in walking more.



3% OF FOND DU LAC MPO PEDESTRIANS ARE **NO WAY, NO HOW**

who do not walk often and are not interested in walking more.

MAP 3-3. WALKING CONCERNS



Walking Safety Concerns: Interactive Map Survey Results

- +5 Locations of Concern: Number of Upvotes
- Existing Bike Lane
- Existing Paved Trail
- ⋯ Existing Unpaved Trail
- Existing Sidewalk
- Fond du Lac MPO Urbanized Area
- Fond du Lac MPO Planning Area

SURVEY RESULTS

BIKEABILITY

Similar to walking, the most common reason listed for bicycling was recreation/exercise/fun, with over 50% of respondents participating at least a few times a week. Figure 3-5 combines responses to several questions to illustrate residents' level of comfort and accessibility while bicycling. Comfort level classifies the physical infrastructure from a safety perspective, while accessibility addresses infrastructure by ease of access. The survey used the four classifications of cyclists conceptualized by Roger Geller and tested by Jennifer Dill⁶.

The spatial distributions of bicycle concerns are visualized in Map 3-4; note the relationship between areas of concern and roads used to access bicycle infrastructure.

FIGURE 3-5. COMFORT LEVEL AND ACCESSIBILITY OF BICYCLING



15% OF FOND DU LAC MPO BIKERS ARE **STRONG AND FEARLESS**

comfortable bicycling on major roadways and are often willing to ride without any bicycle facilities.



42% OF FOND DU LAC MPO BIKERS ARE **ENTHUSED AND CONFIDENT**

comfortable bicycling in most urban environments – but will seek out bicycle infrastructure and low-stress streets when available.



33% OF FOND DU LAC MPO BIKERS ARE **INTERESTED BUT CONCERNED**

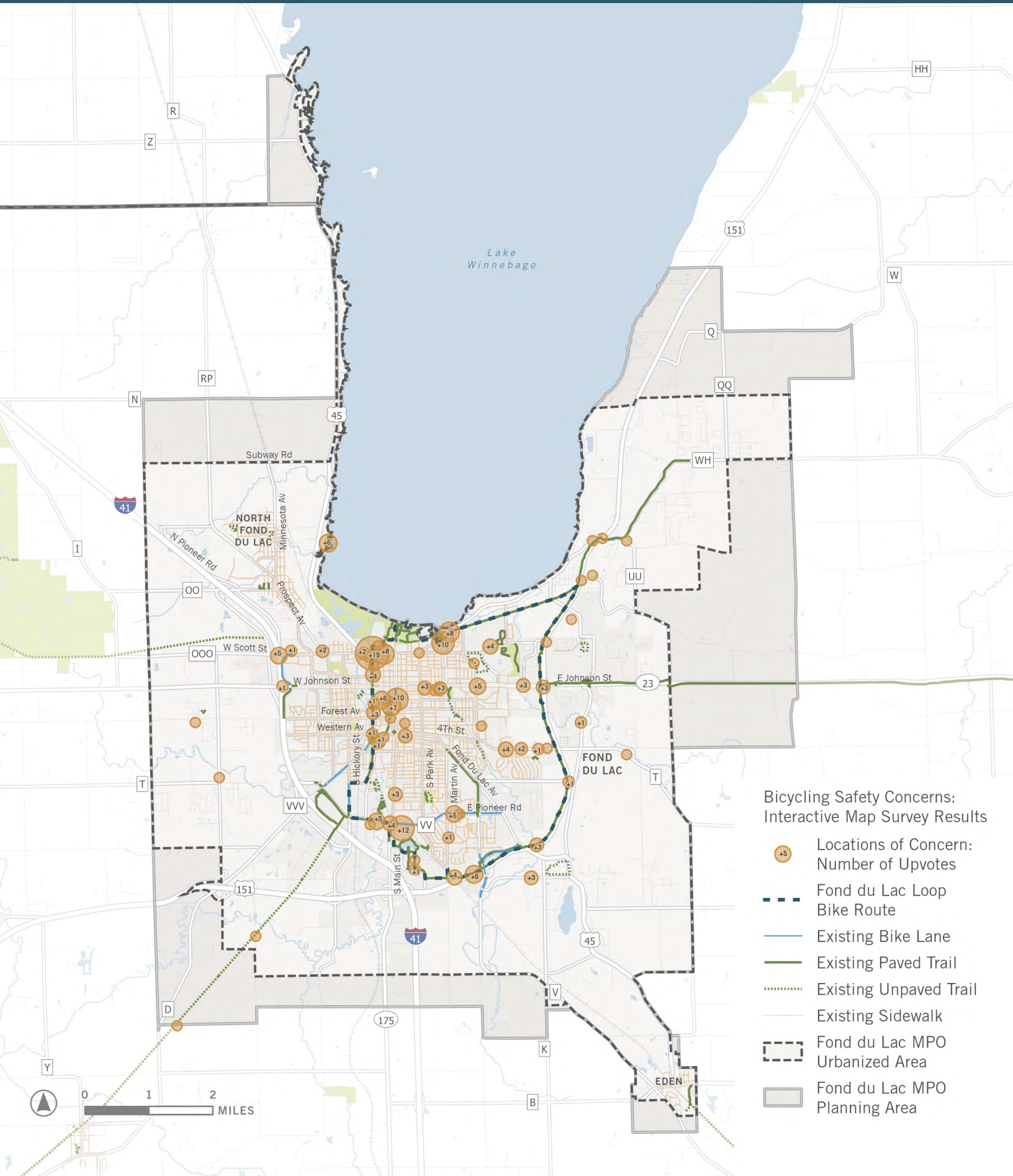
will only bicycle on low-stress streets, having low tolerance for high-stress streets or intersections.



10% OF FOND DU LAC MPO BIKERS ARE **NO WAY, NO HOW**

have no interest in bicycling due to factors such as opinion, age, disability, and/or commute distance.

MAP 3-4. BICYCLING CONCERNS



Bicycling Safety Concerns:
Interactive Map Survey Results

- Locations of Concern:
Number of Upvotes
- Fond du Lac Loop
Bike Route
- Existing Bike Lane
- Existing Paved Trail
- Existing Unpaved Trail
- Existing Sidewalk
- Fond du Lac MPO
Urbanized Area
- Fond du Lac MPO
Planning Area

COMMUNITY VOICE

WALKING AND BICYCLING CONCERNS

Community members voiced their concerns and challenges to walking and bicycling in the Fond du Lac area through the survey and Social Pinpoint. Several themes emerged and were refined into categories, and the personal inputs offered valuable insight into the utility of the current bicycle and pedestrian network. Community members made comments and selected specific problematic locations, visualized in Map 3-3 and Map 3-4.

CONCERNS CROSSING BUSY STREETS



"Crosswalks are a big issue. Many drivers have no respect...to let people across."

"Road intersections are very dangerous for my kids on bikes."

SAFETY



"[Students] walking in the Theisen and Pier area don't always appear to be safe when there is no crossing guard on duty."

"A hole that a car or motorcycle can pass over with ease is a big hazard."

LACK OF SIDEWALKS, TRAILS, AND SAFE PLACES TO WALK OR BICYCLE



"Have to ride on streets and roads in some areas. Need traffic separated options."

"Not enough bike lanes to get to the Loop trail."

SEASONAL AND WEATHER CONDITIONS



"Sidewalks not cleared of debris."

"Enforcing residential snow removal would help tremendously for walking."

HIGH TRAFFIC SPEEDS OR VOLUMES



"Too many vehicles speeding to feel safe biking around town."

"The speed of vehicles on streets makes it very hard to judge a safe crossing."

COMMUNITY VOICE

Walking Improvement Ideas

Community members voiced their ideas to improve the walking experience through prompts and free response. A wide range of preferences and possible future outcomes were collected, and the most popular responses were summarized with added subpoints.

INTERSECTION SAFETY

- ▶ Crossing safety
- ▶ Improved signage for pedestrians and motorists



“More buttons to activate crosswalks!”

IMPROVED MAINTENANCE

- ▶ Shoulder sweeping
- ▶ Vegetation trimming
- ▶ Snow removal



“Clear snow from pedestrian crosswalks.”

LIGHTING AND SIGNAGE

- ▶ Improve lighting on trails, sidewalks, and streets



“No major signage where the... wild goose trail starts near Mercury Marine, and you can take the overpass.”

INFRASTRUCTURE AND CONNECTIVITY

- ▶ Better connected sidewalks
- ▶ More traffic-separated walking paths
- ▶ Wider road shoulders



“I prefer walking paths that are not along busy streets for the opportunity to enjoy the serenity of nature.”

“A path is needed on 4th Street to connect to The Loop.”

SPEED AND ROADWAY SAFETY ENFORCEMENT

- ▶ Lower traffic speeds



“Law enforcement [could be] more vigilant with irresponsible drivers.”

COMMUNITY VOICE

Bicycling Improvement Ideas

Community members voiced their ideas to improve the bicycling experience through prompts and free response. A wide range of preferences and possible future outcomes were collected, and the most popular responses were summarized with added subpoints.

IMPROVED MAINTENANCE

- ▶ Shoulder sweeping
- ▶ Vegetation trimming
- ▶ Snow removal



“Clear snow from The Loop for winter riders.”

LIGHTING AND SIGNAGE

- ▶ Improve lighting on trails, sidewalks, & streets
- ▶ Add wayfinding maps and signs



“Improved warning signs for motorists [regarding] bikers and bike crossings”

INTERSECTION SAFETY

- ▶ Crossing safety
- ▶ Improved signage for pedestrians and motorists



“Improve warning signs for motorists [signaling] bikers at bike crossings.”

INFRASTRUCTURE AND CONNECTIVITY

- ▶ Additional on-street cycle lanes
- ▶ Additional traffic-separated bicycle paths and trails
- ▶ Improve connections through the city
- ▶ Improve access to & extend existing trails



“Bike lanes, again, because that’s literally all I want.”

“Bike lanes on streets that lead to bike paths like Wild Goose trail and Mascoutin trail.”

“Trail extensions on the Northeast side of the lake along Highway 151.”

EXISTING PLANS, PROGRAMS, PARTNERS, POLICIES, AND RECOGNITION

A necessary element of a walk-friendly and bicycle-friendly community is a safe and positive culture of recreation and travel. Positive perceptions of active transportation modes allow users of all abilities to feel included, and ease pressure and expectations for first time participants. Both scenarios boost participation numbers. Programs should focus on education, encouragement, and enforcement to inspire and support healthy life-style and travel choices.

The Fond du Lac MPO already supports many effective programs that encourage and invite people to walk and bicycle more frequently.

In this plan, the program recommendations are organized into three categories:

1. **Maintain existing programs:** These programs currently exist and should be continued.
2. **Enhance existing programs:** These are programs or activities that the communities in the MPO currently does and can expand to enhance their impact.
3. **Create new programs:** These are programs that the MPO currently does not have and could take steps to provide them.





MAINTAIN EXISTING PROGRAMS

SAFE ROUTES TO SCHOOL

ECWRPC's Safe Routes to School staff creates programs to encourage children to walk or bike to school. Schools within the Fond du Lac MPO regularly participate in one-day walking and biking events using toolkits and resources provided by Safe Routes to School staff at ECWRPC.

In 2023, the Safe Routes to School staff worked with the Fond du Lac Area School District and partners to develop a Safe Routes to School Action Plan. Development of this plan included a district-wide survey, bicycling and walking audits, and an analysis of the existing bicycling and pedestrian network near the schools. The Safe Routes team was an integral part of the project team to ensure consistency between recommendations in the Safe Routes to School Action Plan and this plan. It should be noted that recommendations in the SRTS Action Plan may be more at a neighborhood level and therefore at a smaller scale than recommendations in an MPO-level plan; however, there are still complementary recommendations.

WALKING AND BICYCLING EVENTS

The Fond du Lac area is home to a number of running/walking-focused and bicycling-focused events. These events include Race the Lake, the Walleye Run/Walk, the Summer Youth Running Series, group runs, and group bicycle rides. These events promote a healthy lifestyle in the Fond du Lac area.

FOND DU LAC FARMER'S MARKET AND NIGHT MARKET

The Fond du lac Farmer's Market and Night market close off portions of Main St. in downtown Fond du lac in the summertime. Farmer's markets promote walking and biking by creating a social event where participants experience a street without cars. These events promote physical activity as well as opportunities to view the area from a new, car-free perspective. Cyclists and pedestrians have free movement and socialization without safety concerns from motor vehicles. The City and organizers of the farmer's markets have the opportunity to investigate methods to incentivize active transportation to and from the area and boost participation.

ENHANCE EXISTING PROGRAMS

SAFE ROUTES TO SCHOOL

The Safe Routes to School Program (SRTS) focuses on empowering local communities and school districts with resources and knowledge to encourage children to walk to school. The safe Routes to School Program has three goals:

1. Enable and encourage kids in grades K-8 to walk or bicycle to school, including those with disabilities;
2. Make walking and bicycling to school safer and more appealing, and;
3. Facilitate planning, development, and implementation of projects that improve safety, reduce traffic and congestion, fuel consumption, and air pollution near and around schools.

Communities use different approaches relevant to the local neighborhoods and school districts to accomplish these goals. SRTS plans use the six E's as organizing framework, and strives to create livable communities with improved childhood health outcomes and reductions in traffic congestion and pollution.

BIKE RODEOS

Bike Rodeos are an informative introduction to bicycling for first-time participants; Safe Routes to School staff has opportunity to work with additional schools and at community events to provide Bike Rodeos. This bike education program teaches bike maintenance, bike handling skills, and rules of the road. Bike maintenance and handling are hands-on activities; participants actively work on bicycles and ride through obstacle courses and cones. Education is geared towards youth but can easily be adapted for adults. In 2023, the East Central Safe Routes to School staff partnered with the Fond du Lac Police Department to hold a bike rodeo. While this event has only been held one time, it is recommended to continue offering this program to the youth in the Fond du Lac area.

BICYCLE BENEFITS PROGRAM

The Bicycle Benefits program encourages people to ride their bikes to local businesses. Local businesses offer discounts or rewards when a cyclist arrives with a bicycle benefits sticker on their helmet. The benefits can be used at any participating business, even if the business is outside city or state boundaries. The cost to participate is \$5 per sticker, and they never expire ([website](#)). Currently, six businesses in the Fond du Lac area participate.



CREATE NEW PROGRAMS

There are numerous examples of innovative active transportation enhancement programs that have potential to be modified and implemented for the Fond du Lac MPO. Ideas with descriptions have been listed as following:

BIKE AND PEDESTRIAN RESOURCE WEBSITE

A bicycle and pedestrian resource website has greater potential than merely showing routes and locations of bicycle and pedestrian facilities. It can offer guidance about bike etiquette and rules, highlight local destinations, and showcase the area's commitment to active transportation. The website can recommend safe and efficient routes to key local destinations, display bike travel times and distances, and offer basic traffic safety tips.

OPEN STREETS EVENTS

Open streets events are periodic street closures that create a temporary park open to the public for walking, bicycling, dancing, hula hooping, roller-skating, and other family fun. The purpose of these events is to encourage walking and biking by providing a comfortable space free from traffic. Open streets events promote and increase the awareness of bicycling and walking as safe and viable modes of transportation.

BIKE TO WORK COMMUTE CHALLENGE

Commute-based programs and challenges focus on a day, week, month, or any other time period where employees at participating employers are incentivized for biking to work. Rewards can be in the form of a prize drawing for participating or other methods of the employers choosing.

PUBLIC SAFETY EDUCATION AND ENFORCEMENT

When roads change, some road users may not be sure what behavior is expected of them. This can lead to mistakes and stress. The area can make this transition smoother by proactively educating the public about why roads are changing and how to use them safely and successfully. Working with local law enforcement to conduct regular education and enforcement campaigns is often the best option with the greatest impact. Enforcement practices aim to deter unsafe behaviors by drivers, pedestrians, and bicyclists, and encourage all road users to safely share the road.

SAFE ROUTES TO PARKS

Safe Routes to Parks is an initiative of the National Recreation and Park Association to increase access to local parks. Developed in collaboration with the Safe Routes to School National Partnership, the Safe Routes to Parks Action Framework provides local governments with evidence- and practice-based guidance to create safe and equitable access to parks for all individuals. The Fond du Lac MPO is home to more than 20 parks in addition to other recreation spaces, including trails, golf courses, sports complexes, and swimming pools. Using parks and green spaces as destinations can positively impact walking and bicycling participation rates.

EXISTING POLICIES AND GUIDANCE

COMPLETE STREETS POLICIES (CSP)

The concept of Complete Streets encompasses multiple approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient. Complete Street policies are set at the state, regional, and local levels, and are frequently supported by roadway design guidelines. A complete street includes the necessary features for all modes of transportation present: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.

ECWRPC developed a complete streets policy as a cornerstone for communities in the region to follow. The policy includes built-in performance measures to track the implementation and success of the program. Some municipalities in the East Central region have adopted their own complete streets policies in support of bicycle and pedestrian facilities and programs; these communities and policies can serve as references for other communities that want to create their own policies. Communities with Complete Streets policies include the cities of Appleton, Fond du Lac, and Menasha, the Village of Greenville, and the Town of Grand Chute.

WAYFINDING GUIDEBOOK

In 2017, ECWRPC worked with a consultant to create the East Central Trail Wayfinding Guidebook to provide the tools for municipalities to produce wayfinding signs, advising on placement, design, and site location. Wayfinding signs unify the region and promote active transportation. Designing wayfinding signage with a consistent appearance regionwide allows users to better comprehend and react to the signage across a variety of contexts.

COMMUNITY RECOGNITION AND DESIGNATIONS

BICYCLE FRIENDLY COMMUNITIES AND BUSINESSES

The Bicycle Friendly Community Program provides a roadmap to improve conditions for bicycling and the guidance to make a better bikeable community. A community recognized by the League of American Bicyclists as Bicycle Friendly welcomes bicyclists by providing safe accommodations for bicycling and encouraging people to bicycle for transportation and recreation. Communities are recognized by the League of American Bicyclists. The award status lasts for four years. Website: <http://bikeleague.org/content/communities>.

WALK FRIENDLY COMMUNITIES



Walk Friendly Communities is a national recognition program developed to encourage towns and cities across the U.S. to establish or recommit to a high priority for supporting safer walking environments. Walk Friendly Communities uses an application process to filter and select high-performing communities for awards, and established criteria to frame walkability improvements and assist in planning, engineering, enforcement, and education.

CHAPTER SUMMARY

Crash statistics for the Fond du Lac MPO make it clear there are still safety improvements to be made; with 33% of crashes occurring on only four road corridors, these roads must take priority for planned improvements. Addressing safety alleviates concerns from community members and has great potential to help boost participation in active modes.

The survey results illustrated disparities in comfort level and other concerns but offer a positive outlook; it's clear the community cares about the quality and potential of their bicycle and pedestrian network through their participation and constructive solutions to help address issues. Communities in the MPO have the opportunity and responsibility to create an inviting environment, with safe, convenient, and connective infrastructure for residents who choose to or need to travel by active means.

ENDNOTES

^{1,2} *Traffic Safety Facts 2021 Data*. U.S. Department of Transportation National Highway Traffic Safety Administration, June 2023, <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813484>.

³ Tefft, Brian C. *Impact Speed and a Pedestrian's Risk of Severe Injury or Death*. AAA Foundation for Traffic Safety, Sept. 2011, <https://aaaafoundation.org/wp-content/uploads/2018/02/2011PedestrianRiskVsSpeedReport.pdf>.

⁴ Fitzpatrick, Kay, et al. "Evaluating Operational Implications of Reduced Lane and Shoulder Widths on Freeways." *Journal of Transportation Engineering*, vol. 142, no. 11, Nov. 2016, p. 04016052. DOI.org (Crossref), [https://doi.org/10.1061/\(ASCE\)TE.1943-5436.0000884](https://doi.org/10.1061/(ASCE)TE.1943-5436.0000884). <https://ascelibrary.org/doi/10.1061/%28ASCE%29TE.1943-5436.0000884>.

⁵ *2022 State of the System Report - Fond Du Lac Metropolitan Planning Organization*. East Central Wisconsin Regional Planning Commission, City of Fond du Lac, 2022, <https://www.ecwrpc.org/wp-content/uploads/2023/05/Fond-du-Lac-MPO-State-of-the-System-Report-2022.pdf>.

⁶ Dill, Jennifer, and Nathan McNeil. "Revisiting the Four Types of Cyclists: Findings from a National Survey." *Transportation Research Record: Journal of the Transportation Research Board*, vol. 2587, no. 1, Jan. 2016, pp. 90–99. DOI.org (Crossref), <https://doi.org/10.3141/2587-11>.

04

PLANNING FOR ALL USERS



PLANNING FOR ALL USERS

Transportation facilities must ensure fairness in access and comfort, safety, and accessibility to all users. Networks, plans, and recommendations must consider and accommodate people of varying ages and abilities, and the broad circumstances of use. It is imperative that planners work with the stakeholders and individuals most directly impacted by the planning process to ensure the result meets the needs of the community. Proper transportation planning considers all modes and users.

WHO ARE WE PLANNING FOR?

The goal of this chapter is to increase the inclusion of historically underrepresented groups and increase or enhance the infrastructure that will provide the entire community with safe and convenient transportation options. The following list is excerpted from the Urban Bikeway Design Guide developed by the National Association of City Transportation Officials, detailing the various categories of users and ways they interact and are impacted by the transportation system.¹

CHILDREN

School-age children are an essential biking demographic but face unique risks; they are smaller and less visible to drivers and often have limited and undeveloped ability to detect risks or avoid conflicts. Providing bicycle and pedestrian facilities for vulnerable users like our children could significantly change the journey to school. School transportation plays an important role in increasing a child's physical activity levels, but the journey to school has significantly shifted over previous generations with increases in vehicle usage and parent drop-offs. Encouraging active travel modes increases student levels of physical activity and promotes development of healthy lifestyle habits.

SENIORS

People over 65 are the fastest growing population group in the US. With the increasing senior population, an age-friendly transportation system is required to allow seniors to maintain easy mobility. Seniors often see positive impacts from cycling as a low-impact activity, but they are greatly affected by the quality of cycling infrastructure. Seniors may require bicycle facilities designed for riders with slower riding speeds and that have a harder time seeing people, signs, and movement outside of their direct line of sight. Safe and comfortable cycling infrastructure designed for people of all ages and abilities allows community members both young and old to access the services and social networks that are essential for maintaining both physical and mental health.

PEOPLE WITH DIFFERENT ABILITIES

The Wisconsin Department of Transportation (WisDOT) has an Americans with Disabilities Act (ADA) Transition Plan that is updated yearly to ensure all programs, activities, services, etc. are in accordance with the Americans with Disabilities Act of 1990 (ADA). WisDOT keeps an inventory of ADA compliant curb ramps and sidewalks on State Highways, located in a Geographic Information Systems (GIS) map application available for public viewing on their website. Inventory analysis can help with planning future projects in the region.



Regardless of the funding source, pedestrian facilities, including curb ramps, are a federally required to be ADA compliant. Constructing new projects and upgrading existing curb ramps and should be done to full ADA compliance with very few exceptions, where they still must be done to the maximum extent feasible. People with different abilities often use specialized devices, including adaptive bicycles, tricycles, and recumbent handcycles. These often operate at lower speeds, are lower to the ground, and are wider than traditional bicycles. High-comfort bicycling conditions provide mobility, health, and independence, but often require a higher standard of bike infrastructure.

Park trails, bike paths, and greenway trails may not be equally accessible for a variety of reasons, which include:

- ▶ the slope of the natural terrain exceeds 5%;
- ▶ presence of congestion of foot traffic on shared paths;
- ▶ uneven surfacing can make ADA accessibility difficult.

There are several guidelines in Chapter 11 of the WisDOT Facilities Development Manual that address the rules for bicycle and pedestrian accommodations. The American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities provides additional information on trails and how to make them accessible for all users.

These strategies include:

- ▶ guidance on how to choose bikeway type-support for bike lanes and shared use paths where traffic volumes and speeds are higher;
- ▶ affirms lane diets and road diets;
- ▶ offers bike lane guidance;
- ▶ offers signal guidance;
- ▶ explains shared use paths (including paths adjacent to roads); and
- ▶ discusses bike lane widths of 10' - 11'.

PEOPLE WITH LIMITED ACCESS TO VEHICLES

Community members who have limited access to vehicles must find an alternative mode of transportation to get to their places of work, pick up groceries, see health care providers, and travel for any other reason. Affordable and accessible transportation choices for youth, seniors, and others who may not have access to a vehicle can be provided by building safe and comfortable bicycle facilities for all ages and abilities.

Safe, healthy, affordable, and convenient transportation options are not always available to the disadvantaged populations that need them most. People with the greatest need to walk, bike, and take transit are more likely to be living in areas that are less bikeable, walkable, and transit-served.

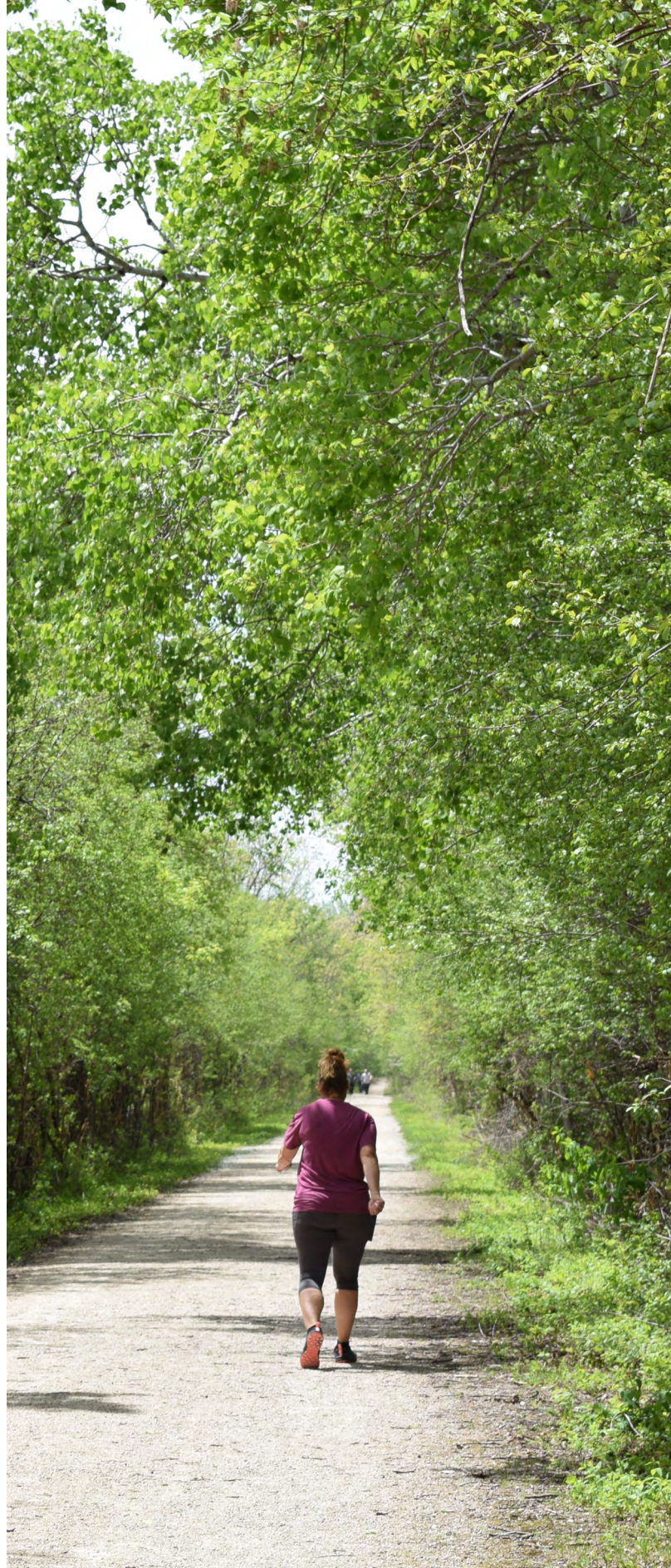
This mismatch between need and the availability of high-quality walking, biking, and transit infrastructure results in long, unhealthy, and/or dangerous travel for some of the region’s most vulnerable populations.

Reliable transportation to work is essential for the individual employee, companies looking to maximize retention, and entire industries that need to reach farther than before to attract workers. Providing bike and pedestrian facilities in these areas allows safe access their place of employment.

PEOPLE WITH VARYING DEGREES OF CONFIDENCE

Studies show that the top reason people do not ride a bicycle for transportation is the fear – or lack of confidence – of being in the roadway with vehicles.² As bicycle and pedestrian facilities were discussed throughout this planning process, these users were kept in mind when developing the bicycle and pedestrian network. By designing the network with the most vulnerable users in mind, the largest percentage of users will find the bicycle and pedestrian facilities comfortable.

It is anticipated that when the bicycle and pedestrian facilities are ADA-compliant and geared toward vulnerable users (i.e. children and older adults), these facilities will also meet the needs of the average user. The intent of this plan is to provide opportunities for people to travel via bicycle and pedestrian facilities accommodating the widest ranges of confidence and abilities.



FACILITY TYPES

PEDESTRIAN FACILITIES

Pedestrian facilities are an integral part of providing the necessary infrastructure for individuals to remain active and thriving residents. Pedestrians use several different types of facilities to travel in the Fond du Lac planning area, primarily sidewalks and shared-use paths. Streets and intersections should be designed for pedestrian safety and comfort, with pedestrian enhancements appropriate to traffic speed, traffic volume, crossing distance, and other relevant factors. Walkers are safer and feel more comfortable on facilities that are separated from the road by either distance or by some sort of barrier. They typically include crosswalk markings and signage, curb ramps and extensions, pedestrian signals, pedestrian refuge islands, sidewalks, and shared use paths.

BICYCLE FACILITIES

Bicycle facilities can be either on-street or off-street. Bicyclists are much more affected by facility design, construction, and maintenance practices than motor vehicle drivers because of their exposure level. They lack the protection from roadway hazards provided by a vehicle's safety features. When planning bicycle facilities, consideration needs to be given to the fact that people who bicycle vary in their physical abilities, experience levels, and the types of bicycles that they ride. There are a variety of bicycle facilities and amenities that can be included in a community's transportation network, including bicycle lanes, shared-use paths, sharrows, and wide paved shoulders.



FACILITY TYPES

PEDESTRIAN FACILITIES



SIDEWALK

Sidewalks are a space for pedestrian travel within the public right-of-way that is separated from roadway vehicles. The terrace provides a buffer zone between users and vehicles. Sidewalks should be designed to accommodate pedestrians of all ages and abilities and free of encroachments or impediments. Although the FHWA cannot require states and municipalities to build sidewalks, it does provide basic standards for sidewalks. See also “Shared-Use Paths” in Bicycle Facilities.



SHARED USE PATH

A shared use path is an off-road facility that is strictly designed for both bicyclists and pedestrians. Trails are separate from the high traffic speeds/volumes of the road network, but are integrated into the overall transit system to connect neighborhoods to schools, places of employment, and retail districts. Typically, widths of these facilities range from 10-14 feet.



CROSSWALK

Pedestrian roadway facilities should clearly indicate to pedestrians where and when they should cross the street. It is equally important crosswalks are clearly visible to motorists entering a pedestrian area. Tools to enhance pedestrian safety at street crossings include crosswalk markings and signage, curb ramps and extensions, pedestrian signals, and refuge islands.



CURB RAMP CUT

Curb ramps cut through a curb (or are built up to it) to provide an accessible route that people can use to enter a crosswalk, cross the street, or access a bus stop (where walkways meet at a curb). Curb ramps must have detectable warning fields to alert visually impaired users that they are leaving the sidewalk and entering onto a street.



LANDSCAPING AND STREET FURNITURE

Landscaping along the street provides separation between motorists and pedestrians, reduces the visual width of the roadways, and beautifies the street. Landscaping, street trees, and street furniture can have a profound effect on improving the pedestrian feel of a walkway.

FACILITY TYPES

PEDESTRIAN FACILITIES



LIGHTING

Street lighting is often designed primarily for the safety and comfort of motorists except at intersections, where crosswalks are typically illuminated. The illumination of sidewalks and other walkways is often a separate consideration. Pedestrian lighting typically includes shorter lights directly above walkways. Pedestrian lighting increases drivers' visibility of pedestrians, promotes perceived personal security, illuminates potential hazards, and creates vibrant and inviting streetscapes.



PEDESTRIAN REFUGE ISLAND

Pedestrian refuge islands are spaces that separate the two main directions of motorist movement in the street. They provide a waiting area for those who are unable to completely cross the street during a signal crossing phase.



PEDESTRIAN COUNTDOWN TIMERS AND LEADING PEDESTRIAN INTERVALS

Pedestrian countdown timers improve safety by providing information to assist pedestrians with crossing decisions. Pushbuttons with confirmation lights are also sometimes used so that people can see whether the signal has been activated. A leading pedestrian interval gives pedestrians an opportunity to enter the crosswalk at an intersection several seconds before the light changes to green for motorists.



RAPID FLASHING BEACON

The Rapid Flashing Beacon is a device used in combination with pedestrian warning signs to provide a high-visibility strobe-like warning to drivers when pedestrians use a crosswalk.

FACILITY TYPES

BICYCLE FACILITIES



BIKE LANE

A bike lane is “a portion of the roadway which has been designated by striping, signing and pavement marking for the preferential or exclusive use by bicyclists.”¹ Bicycle lanes are the appropriate and preferred bicycle facility for thoroughfares in both urban and suburban areas. Bicycle lanes are used to facilitate more predictable movements by bicyclists and motorists and encourage them to ride in a position where they are more likely to be seen by motorists.



PROTECTED BIKE LANE

A protected bike lane is an on-street bike lane separated from motor vehicle traffic by curb, median, planters, bollards, parking, or other physical barriers. Protected bike lanes offer the greatest protection for people riding bikes as they are a clearly delineated space on the road for bikes and prevent cars from infringing on that space and avoid conflicts with pedestrians.



SHARED-USE PATH

A shared use path is an off-road facility that is strictly designed for both bicyclists and pedestrians. Trails are separate from the high traffic speeds/volumes of the road network, but are integrated into the overall transit system to connect neighborhoods to schools, places of employment, and retail districts. Typically, widths of these facilities range from 10-14 feet.



FACILITY TYPES

BICYCLE FACILITIES



SIGNED SHARED ROADWAYS

Signed shared roadway (bike route) is simply a street/road that has been identified as a preferred bicycle route. Bicycles and motorists share the road and there is no permanent designated space for bicycles. Bike routes are often found in residential areas because they have low traffic volumes.



PAVED SHOULDERS

A paved shoulder is a accommodates bicyclists alongside travel lanes. Width varies according to the adjacent travel lane and whether or not a rumble strip is present. Unlike bike lanes, paved shoulders are not travel lanes, so they may be utilized to temporarily store disabled vehicles or for parking, unless otherwise prohibited.



SHARED LANE MARKINGS

An alternative to the bike lane designation is the sharrow, or lane designation that informs bicyclists and motorists to share the road. Since there is an inadequate paved shoulder width, it is not considered a bike accommodation, however, they may be appropriate under certain conditions. Sharrows uses markings and signage to notify all transportation users that bicyclists are welcome on the road and have the same rights as motorists.

CHAPTER SUMMARY

Every community member, employee, and visitor should feel safe, and have convenient, and equitable access to all modes of transportation. Transportation inequities exist, however, and lead to stark disparities in crash rates and fatalities. To adequately plan for bicycle and pedestrian facilities, it is important to explore where facilities currently exist and who they serve. It should be noted that while they provide valuable information, maps and demographics should not be substituted for community engagement.

When planning to repair or construct facilities, municipalities should involve those who will be impacted by those facilities throughout the entire planning process. Understanding the needs and safety concerns of residents is vital in advancing transportation equity. Meetings should be held at easy-to-access locations at convenient times to ensure participation from those the meeting is intended to serve. Comprehensive planning of bicycle and pedestrian infrastructure and including a diverse mix of community members ensures a variety of voices and perspectives are represented and gives people the opportunity to be a part of planning for their community.

ENDNOTES

¹ "Urban Bikeway Design Guide." National Association of City Transportation Officials, 27 June 2012, <https://nacto.org/publication/urban-bikeway-design-guide/>.

² Dill, Jennifer, and Nathan McNeil. "Revisiting the Four Types of Cyclists: Findings from a National Survey." *Transportation Research Record: Journal of the Transportation Research Board*, vol. 2587, no. 1, Jan. 2016, pp. 90–99. DOI.org, <https://doi.org/10.3141/2587-11>.



FACILITY DESIGN GUIDANCE

More information and resources for pedestrian & bicycle facility design can be found here.

PEDESTRIAN

The Wisconsin Department of Transportation's Guide to Pedestrian Best Practices (2010)
<http://www.dot.wisconsin.gov/projects/state/ped-guide.htm>

Wisconsin Department of Transportation Facilities Development Manual, Chapter 11: Design (2014)
<http://roadwaystandards.dot.wi.gov/standards/fdm/>

The National Association of City Transportation Officials (NACTO) Urban Street Design Guide (2013)
<http://nacto.org/usdg/>

The Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (2009)
<http://mutcd.fhwa.dot.gov/>

The American Association of State Highway and Transportation Officials (AASHTO) Guide for the Planning, Design, and Operation of Pedestrian Facilities (2004)
https://bookstore.transportation.org/item_details.aspx?id=119

The Wisconsin Department of Transportation's Wisconsin Pedestrian Policy Plan (2020)
<https://wisconsindot.gov/Documents/projects/multimodal/ped/guide-chap5.pdf>

BICYCLE

The Wisconsin Department of Transportation's Wisconsin's Bicycle Facility Design Handbook (2004 with minor Updates in 2006, 2009, and 2018)
<http://www.dot.wisconsin.gov/projects/state/docs/bike-facility.pdf>

The National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide (2012)
<http://nacto.org/cities-for-cycling/design-guide/>

Wisconsin Department of Transportation Facilities Development Manual, Chapter 11: Design (2021)
<https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnsltrsrces/rdwy/fdm.aspx>

The Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices for Streets and Highways (2009)
<http://mutcd.fhwa.dot.gov/>

The Federal Highway Administration's (FHWA) Small Town and Rural Multimodal Networks (2016).
https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/

The American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities, 4th Edition (2012)
https://bookstore.transportation.org/item_details.aspx?id=1943

05

FACILITIES RECOMMENDATIONS





FACILITIES RECOMMENDATIONS

Consistent roadway and trail designs allow all road users to be prepared for the types of facilities they will encounter and allow cyclists, pedestrians, and motorists to operate predictably with each other. Consistency and predictability are essential tenets of safety and efficiency in a multi-modal transportation system. One of the primary goals of this plan is to create a seamless and robust network of bicycle and pedestrian facilities in the Fond du Lac MPO.

Definitions and facility descriptions within this chapter are intended to provide an overview of the most commonly utilized facilities. A more detailed guide on bicycle and pedestrian facilities can be found on ECWRPC's [website](#). This resource provides useful technical information about bicycle and pedestrian facilities to create consistent descriptive design standards.

BICYCLE AND PEDESTRIAN USERS

As discussed in Chapter 3, Complete Streets are roadways that are designed and operated to enable safe, convenient, and comfortable access and travel for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy for users to cross the street, walk to retail locations, and bicycle to work, improving the efficiency and capacity of existing roads by moving people in the same amount of space.

ECWRPC has two Complete Streets policies: one for the region and one specifically for the Appleton (Fox Cities) and Oshkosh MPOs.

Additionally, the City of Fond du Lac has a Complete Streets policy that mirrors the policy of the region.

Some facilities can accommodate both bicyclists and pedestrians, while others are specific to one user group. Shared-use paths, for example, are often built with both bicyclists and pedestrians in mind, but other personal devices including skateboards, scooters, and e-bikes and e-scooters often use the same facilities to avoid conflicts with vehicles. There are many factors that a community takes into consideration when selecting and building infrastructure for bicyclists and pedestrians. Table 5-1 describes the key qualities that contribute to great places to walk and bicycle.

A mix of facility types make up a bicycle and pedestrian network. Each facility has a particular application, so proper guidance should be sought and considered when weighing the best facility type for a corridor or roadway. Recommendations in this Plan do not generally specify a particular facility type, with the exception of off-road trails, as it is best for local communities to determine the appropriate facility at the time a project is under consideration.

TABLE 5-1 KEY QUALITIES OF BICYCLE AND PEDESTRIAN FACILITIES

WALKWAYS	BIKEWAYS	TRAILS	PLACES AND PUBLIC SPACES	SUPPORT INFRASTRUCTURE
Increase the connectivity of the walking network	Increase the connectivity of the bicycling network	Increase the connectivity of local and regional trail system	Sociability	Increases convenience of walking and biking
Provide a direct route between destinations, including frequent and convenient crossings	Provide convenient access to destinations	Safety, security, and universal access	Designed for the intended user	Increases the attractiveness of walking and biking
Design details promote safety and comfort: adequate width, protection from vehicles, landscaped buffers, and highly visible crossing treatments	Minimize the potential for crashes: smooth and stable surface, adequate space, visibility at intersections	Wayfinding and navigation	Access and linkages	
Universal Access: smooth, stable, barrier free surface with ADA compliant curb ramps	Intuitive, context appropriate designs promote comfort and predictability of all roadway users	Seamless transition to local networks and regional trails	Comfort and image	
Include social spaces for sitting, standing, and visiting	Accommodate the unexpected user type.	Adequate width	Sense of place	

GENERAL RECOMENDATIONS

The Fond du Lac MPO has a network of bike lanes, sidewalks and shared-use paths that provide a framework to support walking and biking for recreation and transportation, but significant gaps still exist. Gaps need to be addressed to more conveniently and comfortably connect residents, visitors, and workers to daily destinations.

BICYCLE AND PEDESTRIAN NETWORK

Active transportation has immediate and immense power to transform communities. By building interconnected infrastructure accessible to all levels of rider experience and people of all abilities, physical wellness, social connectedness, and emotional health of all community members can be improved. Identifying signature trails and greenways, bicycle routes, and accessible walkways and wheelchair paths demonstrates to all users of the facilities that the community cares about them. Seamlessly blending different types of facilities throughout the municipality—and beyond—creates a connected network of on-street and off-street options for transportation and recreation.

High vehicle traffic counts along arterial and main roads discourage and prevent healthy, active choices. The addition of bicycle lanes, trails, and sidewalks, along with the creation of clear and safe access for bicyclists and pedestrians, break up barriers and generate greater comfort in user experience. Utilizing updated design/construction philosophies and techniques refutes automobile-centric limitations and opens transportation routes friendly to all users.

When planning for bicycle and pedestrian facilities, the following concepts should be considered:

► Enhance ease and clarity of transition

Develop effective land use patterns to connect residential areas to retail and commercial centers/schools/parks; link multiple types of infrastructure to establish a network that expands the coverage and ridership of each mode.

► Build for all types of road users

Providing an array of interconnected facilities that cater to the strengths and needs of all potential users regardless of age, gender, income level, cognitive ability or physical fitness.

In and throughout communities, it is essential to provide each user an opportunity to bike and walk more safely to various destinations (e.g. to and from work, retail areas, schools, etc.). Considering these routes informs the selection of the appropriate infrastructure. Additionally, end-of-trip and mid-trip facilities, such as bicycle parking, lockers, benches, and water fountains, create an environment that reflects the community's view towards bicyclists and other active transportation users. Combined with frequent and diligent maintenance programs, the community's attitude toward the long-term success of these types of infrastructure investments becomes clear.

WAYFINDING, SIGNAGE, AND TRIP PLANNING

Wayfinding signage for bicycle and pedestrian facilities is intended to make the user experience more comfortable and predictable by notifying the users of upcoming destinations, distances to reach destinations, and confirming their route. Signed bicycle routes are typically found along lightly traveled roadways, indicated by signs that may include route names or numbers. Bicycle routes play into a larger concept of wayfinding signage; recreational cycling, walking, jogging, and other forms exercise are an integral part of creating and maintaining a culture that supports alternative forms of transportation. When these users are valued, and their healthy transportation options are embraced, bicyclists become cost-effective guests, customers, and neighbors who no longer require space to park a vehicle. East Central Wisconsin Regional Planning Commission has the [East Central Wisconsin Trail Wayfinding Guidebook](#) that can be referenced in creating wayfinding signage.

OVERCOMING GAPS AND BARRIERS

Clearly designing and marking bicycling and pedestrian accommodations within all appropriate roadways is an essential step for municipalities to promote the idea of bicycles as vehicles, and active transportation as an intentional choice for essential travel. These accommodations often include the addition of bike lanes and sharrows on designated roadways and secure bicycle parking facilities.

Shared-use paths are noteworthy and practical alternatives when an existing roadway is lacking or incapable of upgrades between destinations. Trails overlaid on abandoned rail corridors or paths running along a major roadway that provide a direct connection between communities are two examples of intentional active transportation choices.





MPO NETWORK FACILITY RECOMMENDATIONS

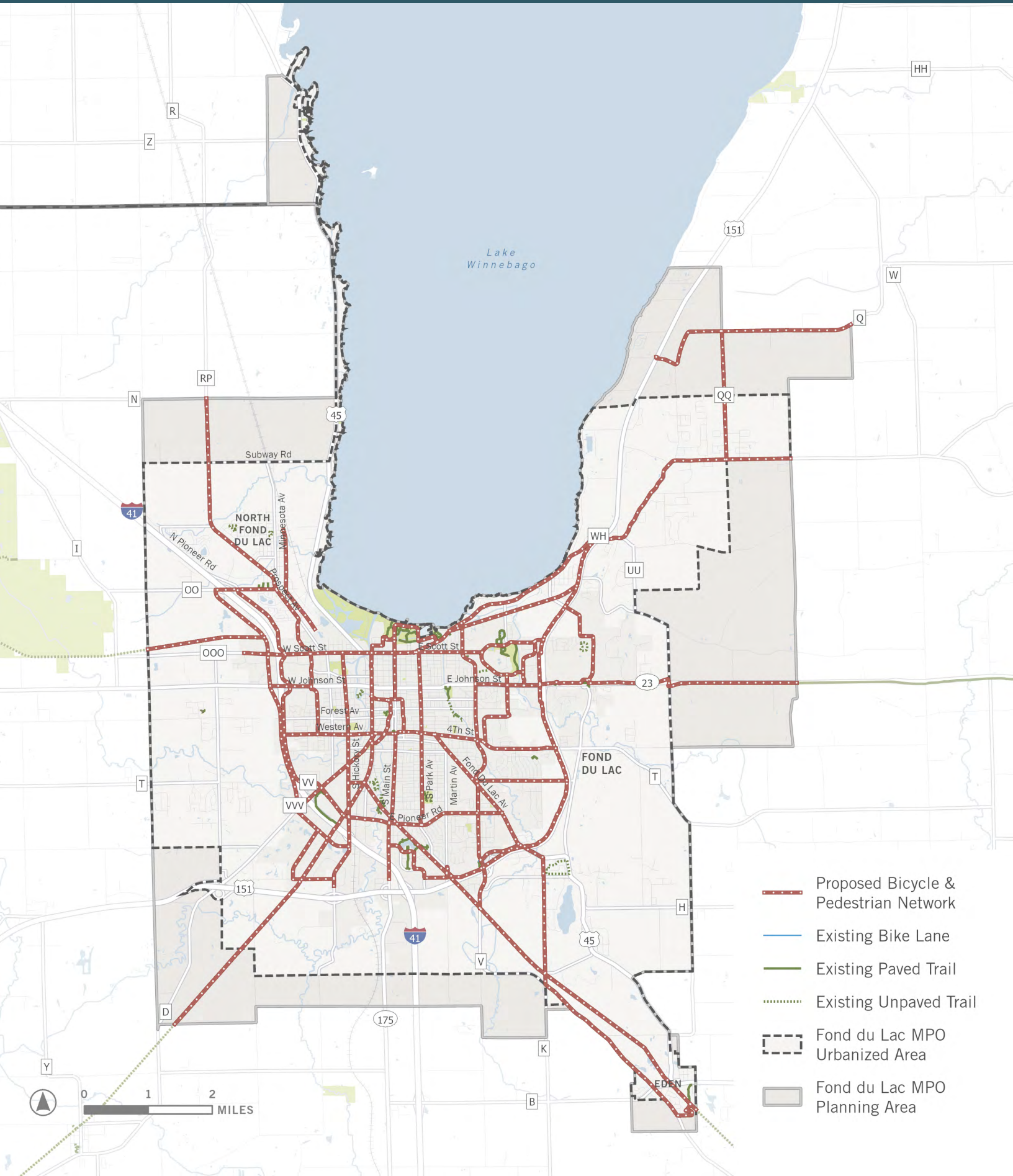
The overall network recommendations look at both east-to-west and north-to-south corridors that connect to a variety of destinations throughout and beyond the MPO. Some areas of the existing bicycle and pedestrian network are significantly complete; other areas have considerable gaps. The recommendations will guide development of future bicycle and pedestrian facilities to complete incomplete areas, creating seamless, safe, and convenient travel through the region for all.

Map 5-1 proposes facility connections to complete the bicycle and pedestrian network, providing better access to community facilities and services for all residents and visitors. The map also details high-impact intersections with potential for improvements. This map does not provide recommendations on the specific types of facilities, as those are best considered at the time of project design. However, shared-use paths may require additional planning and consideration as there is often no dedicated space for these facilities currently in place. Map 5-2 combines the proposed connections with existing trails, merging graphics for a clear view of the potential active transportation network.

Key definitions of terms for Maps 5-1 and 5-2 are outlined below.

- ▶ **Existing Facilities** are pre-existing shared-use paths and bike lanes.
- ▶ **Proposed Bicycle and Pedestrian Facilities** are built environment pieces identified as key connections, as identified through the planning process.

MAP 5-2 PROPOSED BICYCLE AND PEDESTRIAN NETWORK



- - - Proposed Bicycle & Pedestrian Network
- Existing Bike Lane
- Existing Paved Trail
- · · Existing Unpaved Trail
- Fond du Lac MPO Urbanized Area
- Fond du Lac MPO Planning Area

0 1 2 MILES





SIDEWALKS

Pedestrians and bicyclists are considered priority users on local residential streets, with a 25 mph speed limit mandated by the state on these roadways. While it is recommended that all streets in an urban area have sidewalks on both sides of the street, placement of sidewalks or similar separated facilities (e.g. shared-use paths) should be prioritized on urban collector streets and urban arterials, and in critical gaps in the local roadway network, such as routes to schools and parks.

SHARED-USE PATHS

Shared-use paths are a treasured amenity in the MPO; the Fond du Lac Loop is a 16-mile route with a variety of terrain and sights connecting throughout the community. The Loop also connects to other regional trails, creating a recreational amenity network that provides a comfortable place to walk, bike, connect with nature, and socialize. For some, shared-use paths provide important transportation connections between destinations. While communities in the MPO are generally well supported by its current shared-use paths and trails, recommendations in this Plan include improving access to and connections between these trails.

ON-STREET BIKE LANES

On-streets bicycle facilities are intended to close bike facility gaps along major roads and create a more comfortable and convenient bike network throughout the MPO. The goal is to help residents, employees and visitors be able to reach more destinations comfortably and conveniently using a low stress, high-quality bike network. A network out of neighborhoods connects people to parks, schools, jobs, shopping and other daily destinations. Similar to walkways, some streets can function well with no dedicated space, especially those streets with low speed limits and low volumes of traffic. These streets can be enhanced with pavement markings, traffic calming treatments, and wayfinding signage.

TRAFFIC CALMING AND LANE RECONFIGURATIONS

Traffic calming measures can be implemented along roadways to slow traffic; provide room for pedestrians crossing the streets; and improve safety for bicyclists, pedestrians, and motorists. One approach to traffic calming are lane reconfigurations, also known as road diets. Lane reconfigurations typically involve a reduction in the number of vehicular travel lanes and repurpose that space for bicycle lanes or urban shoulders, sidewalks, two-way left turn lanes (TWLTL), and/or pedestrian islands. Lane reconfigurations are recommended on roadways with moderate traffic volume; however, some communities have had success on roadways with volumes exceeding 20,000 vehicles per day.

NON-INFRASTRUCTURE RECOMMENDATIONS

Non-infrastructure recommendations are essential to developing a bikeable and walkable community and complement the previous infrastructure recommendations. Human behavior can be unpredictable; changes in infrastructure are intended to mitigate driver behavior, but it may not necessarily change behavior. The six E's stress the importance of changing not only built environment but also people's habits, attitudes, and perceptions about bicycling and walking.

Communities that value and embrace biking and walking know that it takes more than just bike lanes and trails to get people out on bikes. The subsequent recommendations follow the goal categories laid out in Chapter 1 and may double-up and appear again as actions in the Action Plan tables in Chapter 6. Recommendations should be prioritized, implemented, and updated annually.



1 CONNECTIVITY GOAL RECOMMENDATIONS

Improve and expand the bicycle and pedestrian network to connect people of all ages, abilities, and neighborhoods to other transportation modes, neighboring communities, and everyday destinations.

- ▶ Identify possibilities to enhance connectivity between bicycling, walking, transit, and other modes.
- ▶ Make bicycle and pedestrian infrastructure improvements that better connect users to key destinations and attractions.
- ▶ Identify opportunities to expand and enhance the trails network and the connections.
- ▶ Invest in infrastructure in traditionally underserved communities.
- ▶ Integrate transportation and land use policies to encourage development patterns that support walking & biking for transportation and recreation.
- ▶ Update bicycle and pedestrian network maps and online applications for public use.
- ▶ Design a consistent, comprehensible wayfinding system for all active transportation infrastructure.
- ▶ Implement currently-scheduled projects, including the Pioneer Road Surface Transportation Block Grant - Urban project and the Main Street crosswalk and curb ramp improvement project from 6th to Merrill St.

2 SAFETY GOAL RECOMMENDATIONS

Implement projects and evaluation measures that go beyond a focus on vehicles to prioritize walking, bicycling, and riding transit.

- ▶ Use best practices in network planning, design, project development, and maintenance so facilities are safe, accessible, and functional.
- ▶ Analyze crash reports and trends; engage with partners to identify safety problems.
- ▶ Work with partners to ensure outreach efforts educate community members on safe walking, bicycling, and driving behaviors.
- ▶ Use the City of Fond du Lac's Complete Streets Policy and ECWRPC's Regional Complete Streets Policy as a framework for the MPO to adopt and implement a Complete Streets Policy.
- ▶ Increase visibility for high crash intersections, roadways, and neighborhoods.
- ▶ Add and improve lighting where needed.
- ▶ Collaborate with law enforcement agencies to monitor traffic at critical locations.

3 ACCESSIBILITY GOAL RECOMMENDATIONS

Create and maintain a safe and convenient bicycle and pedestrian experience that supports the needs of all users.

Enhance vibrant and inviting places to cycle and walk to include street furniture, wayfinding, lighting, and placemaking elements.

- ▶ Identify opportunities to expand and enhance the trails network and connections.
- ▶ Invest in bicycle and pedestrian infrastructure in traditionally underserved communities.
- ▶ Create facilities that support non-motorized transportation, such as bicycle parking/storage.
- ▶ Collaborate with transit providers to increase bicycle access and spaces on transit vehicles, provide racks/facilities at bus stops.
- ▶ Prioritize projects that connect community destinations, recreation resources, schools and downtown local businesses.
- ▶ Provide facilities to disadvantaged neighborhoods and users with varied level of abilities.
- ▶ Ensure all facilities are compliant with ADA guidelines and access to facilities is not limited.
- ▶ Maintain infrastructure year-round to ensure ease of use and access.
- ▶ Provide facilities that are attractive and maximize access to and views of scenic and natural areas
- ▶ Provide landscaping amenities and support facilities; e.g. public art signage, lighting, shade, street furniture, drinking fountains, restrooms.

4 EDUCATION & ENCOURAGEMENT GOAL RECOMMENDATIONS

Engage the public in bicycle and pedestrian efforts and opportunities to support healthy and active lifestyles, increase transportation equity, and enrich quality of life.

- ▶ Support education programs that teach safe bike/ped participation methods to children and adults of varying experience levels.
- ▶ Support education programs that teach safety practices to drivers and motor vehicle users.
- ▶ Promote awareness of the opportunities and benefits of the MPO's bicycle and pedestrian network through public information, education, awareness, and outreach efforts.
- ▶ Continue to encourage and promote provision of bike racks or space for bicycles on buses and at bus stops.
- ▶ Educate and invite local elected officials on a bicycling and walking experience.
- ▶ Work with SRTS and partner organizations for one-day walking and bicycling events.
- ▶ Support activities that promote active living through events including open streets, bike tours, and slow rolls.
- ▶ Conduct regular community reviews to measure participation in active transportation and related mode-share in transit, cycling, and driving.

5 ECONOMIC VITALITY GOAL RECOMMENDATIONS

Prioritize the development of bicycle and pedestrian facilities and improve existing infrastructure to help support economic growth, tourism, and create vibrant communities throughout the planning area.

- ▶ Create and market active transportation facilities with a sense of place to enhance tourism and improve quality of life.
- ▶ Design bicycle and pedestrian facilities to support mixed use development and small businesses.
- ▶ Promote the findings of the ECWRPC economic impact study report as strategies and support for active transportation investments.
- ▶ Explore partnerships with downtown businesses.
- ▶ Explore innovative funding alternatives for pedestrian and bicycle transportation.

CHAPTER SUMMARY

A robust multimodal network enables all users to access destinations and remain physically active. Current and functional facilities are a necessity to gain maximal utility out of the system. The goals and recommendations presented provide ideas and concepts to advance regional bicycle and pedestrian network to a better future, where all modes work in harmony to form a safe, connective, and convenient active transportation system.



06

FINANCING AND IMPLEMENTATION





FINANCING AND IMPLEMENTATION

The recommendations proposed in this plan will occur incrementally and over time. This chapter lays out funding strategies to aid in the investment of the infrastructure, and it also lays out a timeline of activities and programs.

FINANCING

Funding and financing of a bicycle and pedestrian infrastructure projects depends on the individual project. At the local level, it's more efficient to build the cost of bicycle and pedestrian accommodations into a reconstruction or resurfacing project rather than retrofitting through a separate project. While state and federal programs can help finance bicycle and pedestrian accommodations, the administration of these grants may increase the cost of the entire project; therefore, it is recommended that local municipalities work with WisDOT or ECWRPC staff to ensure that the state or federal grants are appropriate for the project.

It is recommended that local municipalities fund bicycle and pedestrian facilities through their local capital improvement program and, when applicable, incorporate the addition or repair of facilities during roadway construction or reconstruction projects. However, it is important to note that some bicycle and pedestrian projects may involve special assessments to homeowners, which may result in undue financial burdens.

As bicycle and pedestrian facilities benefit the entire community, the City may consider specialized taxes to cover the cost of those facilities.

Through federal formula funding, the Fond du Lac MPO receives funding allocations for the Surface Transportation Block Grant Program - Urban, and Carbon Reduction Program every two years. Included with those programs on the list below are other potential funding opportunities for bicycle and pedestrian infrastructure. Note that while this list is extensive, it is certainly not an exhaustive list.

LOCAL CAPITAL IMPROVEMENT PROGRAMS (CIPS)

As roadways are scheduled for reconstruction or resurfacing, bicycle and pedestrian infrastructure accommodations should be considered, as it is much more cost effective to include these facilities as part of the project. These costs can be included in the CIP as part of the overall roadway project's cost.

SURFACE TRANSPORTATION BLOCK GRANT

The Surface Transportation Block Grant program (STBG) provides funding that may be used by states and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.

<https://www.fhwa.dot.gov/specialfunding/stp/>

CARBON REDUCTION PROGRAM

Established by the Bipartisan Infrastructure Law, the Carbon Reduction Program (CRP) is a Federal program that provides funds for projects designed to reduce transportation emissions, defined as Carbon Dioxide emissions from on-road highway sources.

https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp_fact_sheet.cfm

TRANSPORTATION ALTERNATIVE SET-ASIDE PROGRAM

The Transportation Alternatives Set Aside Program is a federal program for projects that meet eligibility criteria for bicycle- and pedestrian-related projects used for transportation purposes.

<https://wisconsindot.gov/Pages/doing-bus/local-gov/astnce-pgms/aid/tap.aspx>

HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

The Highway Safety Improvement Program (HSIP) is intended to develop and implement, on a continuing basis, stand-alone safety projects designed to reduce the number and severity of crashes on all streets and highways (both state and local). The federal funding ratio for the HSIP funds is 90% federal funds and a 10% match of state and/or local funds. The HSIP Program prioritizes sites that have experienced a high crash history with an emphasis on low-cost options that can be implemented quickly.

<https://safety.fhwa.dot.gov/hsip/>

RECREATIONAL TRAIL PROGRAM (RTA)

The Recreation Trails Program provides funds to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Project sponsors may be reimbursed for up to 81 percent of eligible project costs.

<https://dnr.wi.gov/Aid/RTP.html>

WISCONSIN DEPARTMENT OF NATURAL RESOURCES KNOWLES-NELSON STEWARDSHIP FUNDS

The Knowles-Nelson Stewardship Funds help fund land acquisition and recreational facility development.

<https://dnr.wi.gov/topic/stewardship/>

THE ROBERT WOOD JOHNSON FOUNDATION

The Robert Wood Johnson Foundation seeks to improve the health and health care of all Americans. One of the primary goals of the Foundation is to “promote healthy communities and lifestyles.” Specifically, the Foundation has ongoing “Active Living by Design” grant programs that promote the principals of active living including non-motorized transportation. Other related calls for grant proposals are issued as developed, and multiple communities nationwide have received grants related to the promotion of trails and other non-motorized facilities.

<https://www.rwjf.org/en/how-we-work/grants-explorer.html>

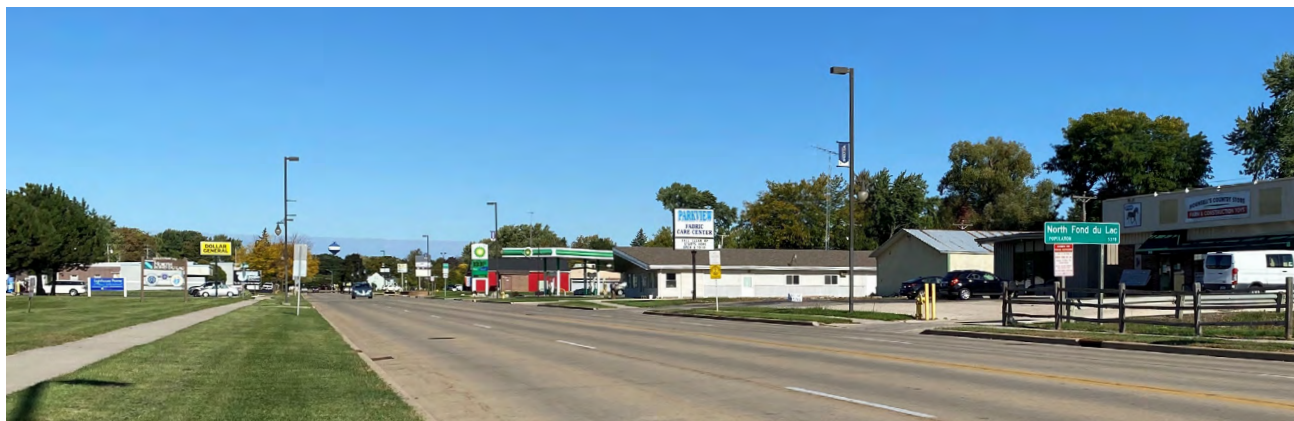
LOCAL HOSPITALS AND HEALTHCARE ORGANIZATIONS

A majority of hospitals and health care organizations within the United States currently operate as nonprofit organizations and are exempt from most federal, state, and local taxes as a result of this status. To maintain this status, hospitals and health care organizations need to complete a number of requirements, including developing a Community Health Needs Assessment (CHNA) and supporting community initiatives that are consistent with their CHNA.

PUBLIC PRIVATE PARTNERSHIPS

As federal and state funds become more competitive for local communities, it is recommended that local municipalities work with the private sector to help secure funds for various types of bicycle and pedestrian projects. The private sector could help to provide the local match for state and federal grant program, making the local grant application more competitive for funding.

Additionally, local businesses have a vested interest in bicycle and pedestrian accommodations, as healthy active employees help reduce the business’ health insurance costs and the employees are also more productive. Local health insurance companies are interested in having healthy employees, as it reduces their health insurance claims related to chronic diseases.





IMPLEMENTATION - MEASURING PROGRESS

The recommendations presented in this plan will provide the tools needed to develop an effective bicycle and pedestrian network. After a plan is complete (or updated) and approved, it is important to measure the progress of implementation by updating baseline data on an annual basis. Three main categories are used for analysis: mileage of existing bicycle and pedestrian facilities, crash data, and bicycle and pedestrian counts.

ACTION PLAN TABLES

The following tables mirror the categories and goals laid out in Chapter 1 and used for the recommendations in Chapter 5; the actions in these tables reflect both infrastructure and non-infrastructure recommendations. All actions have been developed with the six E's approach and are envisioned to occur with equity considerations in mind. The actions range from short-term to long-term and should be re-evaluated on an annual basis; the best-practice in implementation is to establish an annual action plan based on the goals and actions below. This action plan lays out a five-year timeline, but some activities may last longer than five years. Others may be added on an annual basis or revisited for a subsequent plan update to guide the continual, comprehensive, and integrated development and implementation of this plan. It is additionally recommended that the Fond du Lac MPO form a set bicycle/pedestrian or active transportation committee to implement, revise, and review this action plan every year.

ACTION PLAN

CONNECTIVITY GOAL

Improve and expand the bicycle and pedestrian network to connect people of all ages, abilities, and neighborhoods to other transportation modes, neighboring communities, and everyday destinations.

TABLE 6-1. **CONNECTIVITY**

ACTION	MEASURES	SIX E'S	TIMELINE	PARTNERS
Identify possibilities to enhance connectivity between bicycling, walking, transit, and other modes.	Rates of use, trip times, number of accessible destinations	Engagement Engineering Equity	1-3 years	Community partners, Community organizations
Make bike/ped infrastructure improvements that better connect users to key destinations and attractions.	Miles added	Engineering Equity Evaluation	Ongoing	Municipality/ County
Identify opportunities to expand and enhance the trails network and connections.	Number of opportunities identified	Engagement Engineering Equity	1-3 years	Municipality/ County, Community partners
Invest in infrastructure in traditionally underserved communities.	Number of projects added	Engineering Equity Evaluation	Ongoing	Municipality/ County
Integrate transportation and land use policies to encourage development patterns that support walking and biking for transportation and recreation.	Miles added	Engagement Engineering Equity Evaluation	3-5 years	Municipality/ County
Update bike/ped network maps and online applications for public use.	Publication of maps, number of users	Education Engagement Encouragement Equity Evaluation	1-3 years	Municipality/ County
Design a consistent, easily understood wayfinding system for all active transportation infrastructure.	Number of signs added	Education Engagement Encouragement Equity Evaluation	Ongoing	Municipality/ County
Implement currently-scheduled projects, including the Pioneer Road STGB-Urban project and the Main Street crosswalk and curb ramp improvement project from 6th to Merrill St.	Miles added, Number of improvements made	Engineering	1-3 years	Municipality/ County

ACTION PLAN

SAFETY GOAL

Implement projects and evaluation measures that go beyond a focus on vehicles to prioritize walking, bicycling, and riding transit.

TABLE 6-2. SAFETY

ACTION	MEASURES	SIX E'S	TIMELINE	PARTNERS
Use best practices in network planning, design, project development, and maintenance so facilities are safe, accessible, and functional.	Safety statistics, rates of use	Engagement Encouragement Engineering Equity Evaluation	Ongoing	Municipality/ County
Analyze crash reports and trends; engage with partners to identify safety problems.	Safety statistics	Education Engagement Engineering Equity Evaluation	1-3 years	Safety coalitions, law enforcement, general public
Work with partners to ensure outreach efforts educate community members on safe walking, bicycling, and driving behaviors.	Number of programs added	Education Engagement Equity Evaluation	1-3 years	Community partners
Use the City of FDL's Complete Streets Policy and ECWRPC's Regional Complete Streets Policy as a framework for the MPO to adopt and implement a Complete Streets Policy.	Completion and adoption of policy	Education Engagement Engineering Equity Evaluation	1-3 years	FDL MPO Committee and Board
Increase visibility for high crash intersections, roadways, and neighborhoods.	Number of traffic incidents	Education Engagement Evaluation	3-5 years	Municipality/ County, law enforcement
Add and improve lighting where needed.	Number of lights added	Engagement Encouragement Engineering Equity Evaluation	Ongoing	Municipality/ County
Collaborate with law enforcement agencies to monitor and enforce traffic at critical locations.	Number of traffic incidents	Education Engagement Encouragement Equity Evaluation	1-3 years	Law enforcement

ACTION PLAN

ACCESSIBILITY GOALS

Create and maintain a safe and convenient bicycle and pedestrian experience that supports the needs of all users.

Enhance vibrant and inviting places to cycle and walk to include street furniture, wayfinding, lighting, and placemaking elements.

TABLE 6-3. ACCESSIBILITY

ACTION	MEASURES	SIX E'S	TIMELINE	PARTNERS
Identify opportunities to expand and enhance the trails network and connections.	Number of added projects	Engagement Engineering Evaluation	1-3 years	Municipality/ County
Provide facilities that are attractive and maximize access to and views of scenic and natural areas.	Number of improvements made	Encouragement Engineering Equity	3-5 years	Municipality/ County
Invest in bike/ped infrastructure in traditionally underserved communities.	Miles of added infrastructure	Engineering Equity	3-5 years	Municipality/ County
Provide landscaping amenities and support facilities; e.g. public art signage, lighting, shade, street furniture, drinking fountains, restrooms.	Number of facilities added	Encouragement Engineering Equity Evaluation	5+ years	Municipality/ County, Community partners
Create facilities that support non-motorized transportation, such as bicycle parking/storage.	Number of facilities added	Engagement Engineering Equity	3-5 years	Municipality/ County
Collaborate with transit providers to increase bicycle access and spaces on transit vehicles, provide racks/facilities at bus stops.	Number of transit vehicles/stops with bike facilities	Engagement Encouragement Equity Evaluation	3-5 years	Transit providers, Municipality/ County
Prioritize projects that connect community destinations, recreation resources, schools and local businesses.	Evaluate the connectivity of projects	Engagement Engineering Evaluation	1-3 years	Community partners, Municipality/ County, school districts
Provide facilities to disadvantaged neighborhoods and users with varied level of abilities.	Number of facilities added	Encouragement Engineering Equity	3-5 years	Municipality/ County
Ensure all facilities are compliant with ADA guidelines and access to facilities is not limited.	Number of compliant facilities	Engineering Evaluation	Ongoing	Municipality/ County
Maintain infrastructure year-round to ensure ease of use and access.	Miles maintained	Encouragement Engineering Equity	Ongoing	Municipality/ County

ACTION PLAN

EDUCATION AND ENCOURAGEMENT GOAL

Engage the public in bicycle and pedestrian efforts and opportunities to support healthy and active lifestyles, increase transportation equity, and enrich quality of life.

TABLE 6-4. EDUCATION AND ENCOURAGEMENT

ACTION	MEASURES	SIX E'S	TIMELINE	PARTNERS
Support education programs that teach safe bike/ped participation methods to children and adults of varying experience levels.	Program participation numbers	Education Engagement Encouragement	1-3 years	Community partners, Municipality/ County, school districts
Support education programs that teach safety practices to drivers and motor vehicle users.	Program participation numbers	Education Engagement Encouragement	1-3 years	Schools, Community partners
Promote awareness of the opportunities and benefits of the MPO's pedestrian and bicycle network through public information, education, awareness, and outreach efforts.	Number of events, Website views	Education Engagement Encouragement	1-3 years	Municipality/ County
Continue to encourage and promote provision of bike racks or space for bicycles on buses and at bus stops.	Number of facilities	Education Engagement Engineering	3-5 years	Municipality/ County
Educate and invite local elected officials on a bicycling and walking experience.	Events added	Education Engagement Equity Evaluation	1-3 years	Municipality/ County
Partner with SRTS for one-day walking & bicycling events.	Events added, Participation numbers	Education Engagement Encouragement Equity Evaluation	Ongoing	Community partners
Support activities that promote active living through events including open streets, bike tours, and slow rolls.	Events added	Education Engagement Encouragement Evaluation	1-3 years	Municipality/ County, Community partners
Conduct regular community reviews to measure participation in active transportation and related mode-share in transit, cycling, and driving.	Participation numbers	Education Engagement Encouragement Equity Evaluation	3-5 years	Municipality/ County, Community partners

ACTION PLAN

ECONOMIC VITALITY GOAL

Prioritize the development of bicycle and pedestrian facilities and improve existing infrastructure to help support economic growth, tourism, and create vibrant communities throughout the planning area.

TABLE 6-5. ECONOMIC VITALITY

ACTION	MEASURES	SIX E'S	TIMELINE	PARTNERS
Create and market active transportation facilities with a sense of place to enhance tourism and improve quality of life.	Number of facilities added/ Miles of facilities added	Engagement Encouragement Engineering Equity	3-5 years	Municipality/ County, School districts
Design bicycle and pedestrian facilities to support mixed use development and small businesses.	Number of facilities added/ Miles of facilities added	Engagement Encouragement Engineering Equity	5+ years	Businesses, Community organizations
Promote the findings of the ECWRPC economic impact study report as strategies and support for active transportation investments.	Number of outreach posts or events	Education Engagement Encouragement	1-3 years	Municipality/ County, Community partners
Explore partnerships with downtown businesses.	Number of partner businesses	Engagement Equity Evaluation	1-3 years	Businesses, Community organizations
Explore innovative funding alternatives for pedestrian and bicycle transportation.	Funding dollars added	Engagement Equity	3-5 years	Municipality/ County, Community partners

CHAPTER SUMMARY

Through an established vision and clear, attainable goals, the Fond du Lac MPO, Bicycle and Pedestrian Advisory Committee, and all partners have a framework to guide the next five years and beyond. A framework is not a foundation, but an outline that offers flexibility; a key to successful plans is the ability to be nimble and responsive to current conditions. ECWRPC recognizes that the landscape and conditions this Plan was built on may change.

As a result, this Plan should be revisited on at least an annual basis or when key conditions change. The Bicycle and Pedestrian Advisory Committee is obligated to review the action table and select, prioritize, and action activities to undertake for each next year. The annual action plan may include activities beyond the table outline in the Plan as new opportunities arise.



APPENDIX A

PLAN ADOPTION



RESOLUTION NO. 01-24

ADOPTING THE 2024 BICYCLE AND PEDESTRIAN PLAN FOR THE FOND DU LAC METROPOLITAN PLANNING ORGANIZATION

WHEREAS, the City of Fond du Lac is the designated Metropolitan Planning Organization (MPO) for the Fond du Lac Urbanized Area, and charged with conducting cooperative, comprehensive and continuing urban transportation planning as prescribed by federal and state law, and;

WHEREAS, the 2024 Fond du Lac Metropolitan Planning Organization Bicycle and Pedestrian Plan provides a mechanism for guiding, coordinating, and implementing the efforts of local organizations concerned with bicycle and pedestrian accommodations, and;

WHEREAS, community, stakeholder, and local government feedback was sought throughout the planning process, and;

WHEREAS, ECWRPC staff has worked with and will continue to work with municipality representatives, the Fond du Lac MPO Bicycle and Pedestrian Advisory Committee, and a variety of bicycle and pedestrian stakeholders.

NOW THEREFORE, BE IT RESOLVED BY THE FOND DU LAC MPO

Section 1: That the Fond du Lac MPO Policy Board adopt the 2024 Fond du Lac Metropolitan Planning Organization Bicycle and Pedestrian Plan.

Effective Date: March 6, 2024
Submitted For: Fond du Lac MPO Policy Board
Prepared By: Brenna Root Whitby, Associate Planner

Dyann Benson
Dyann Benson, Chair, Policy Board
Fond du Lac Metropolitan Planning Organization

Melissa A. Kraemer Badtke
Attest: Melissa Kraemer Badtke—Executive Director
East Central WI Regional Planning Commission

06/03/2024
Approval Date

06/03/2024



