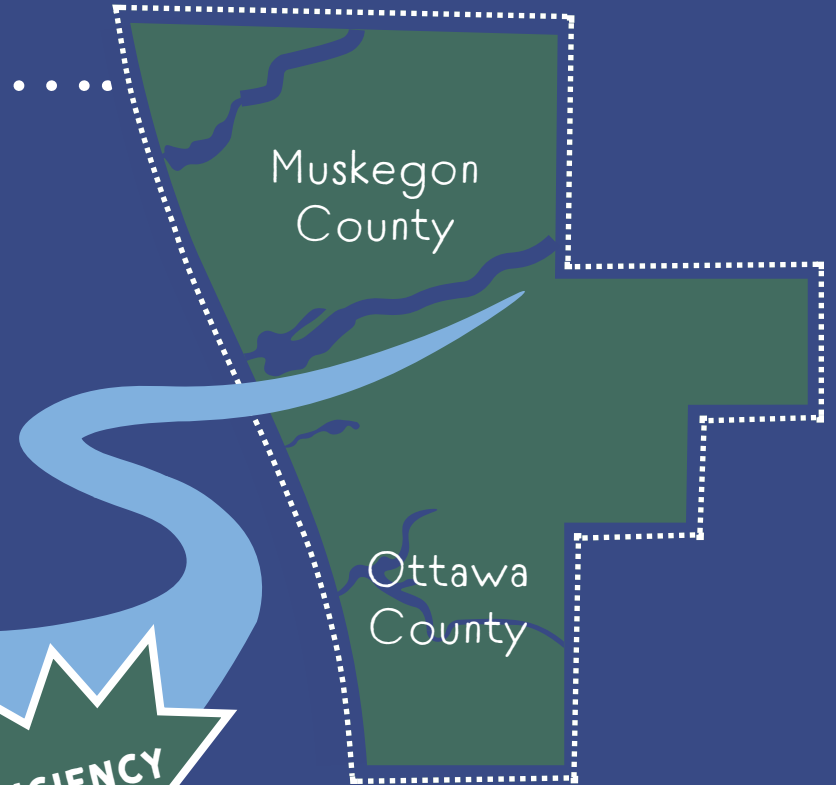


# Shoreline Trails and Greenways Plan

SUMMER 2025



MONTAGUE

WHITEHALL

NORTH  
MUSKEGON

MUSKEGON

MUSKEGON HEIGHTS

ROOSEVELT  
PARK

NORTON SHORES

FERRYSBURG

SPRING LAKE

GRAND  
HAVEN

*Lake Michigan*



PROGRESSIVE  
COMPANIES

# Now is an exciting time...

...to reside in the Greater Muskegon and West Michigan Shoreline area! Between downtown storefronts being filled, park improvements and expansions, and new businesses coming to the area, there is reason to be confident in the region's future. These improvements reflect both the region's optimism and sense of pride in what exists today, as well as what is anticipated for tomorrow. Amidst this positive inertia, however, is recognition that not all residents have shared in these improvements, as many neighborhoods and communities lack access to water features and the greater non-motorized network.

Reflecting the region's momentum and acknowledging that much work remains, the West Michigan Shoreline Regional Development Commission (WMSRDC), the City of Muskegon, Muskegon County, and the Muskegon County Bicycling Coalition came together to develop this Shoreline Trails and Greenways Plan (STAG).

## Acknowledgements

Progressive Companies would like to extend our sincere gratitude to the members of the Steering Committee, whose foresight, dedication, and passion guided this plan and made it come to fruition. Their commitment and dedication to the community as a whole ensured that this plan serves the communities of the entire WestPlan region. Members of the Steering Committee are:

### West Michigan Shoreline Regional Development Commission (WMSRDC)

Joel Fitzpatrick  
Brian Mulnix

Lauryn Blake  
Jack Grice

### City of Muskegon

Mayor Ken Johnson  
Kyle Karczewski  
Jamie Pesch

### Muskegon County Bicycling Coalition

Aaron Bodbyl-Mast  
Rob Taylor  
Rory Thibault

### Michigan Department of Transportation (MDOT)

Blake Wright  
Tyler Kent

### Muskegon County

Bob Lukens

### Laketon Township

Bob Lukens

### Muskegon Heights

Reverend Khi Guy

### Ottawa County

Andrew Rozkowski

We want to thank the City of Muskegon, WestPlan MPO PL funds through MDOT, Muskegon County, and the Muskegon County Bicycle Coalition for financing this Plan. We also thank the many residents, stakeholders, and partner organizations who contributed their time, perspectives, and ideas throughout the planning process. Your voices helped shape a vision and strategy that will guide our community toward a stronger, more vibrant future.

Together, this plan represents a collective effort built by and for the community.

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# 1

## Plan Overview



### ENGAGEMENT PROCESS

The process of creating this plan began by assembling a Steering Committee to ensure representation for all areas of the WestPlan WMSRDC Metropolitan Planning Organization (MPO). The Steering Committee consisted of representatives identified in the Acknowledgements Section. A variety of engagement methods were used to collect feedback from as many people invested in the Shoreline Trails and Greenways community as possible, including focus groups, pop-ups, an experimental game, community meetings, and a survey. In all, more than 700 people participated in the process of creating the STAG Plan!

### VISION

Engagement led to the creation of a vision statement and a series of five (5) guiding principles:

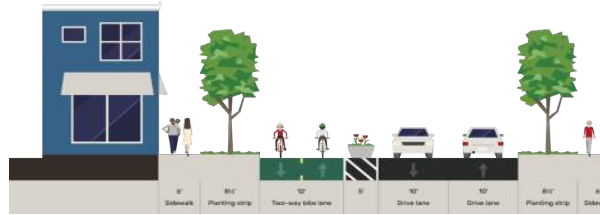
- 1.) Network Connectivity
- 2.) Efficiency
- 3.) Safety
- 4.) Accessibility
- 5.) Equity to serve the community

The Vision for the STAG Plan was identified below.

### EXISTING CONDITIONS

If this Plan is to have a real effect on the everyday lives of residents, we must know who we are planning for. Connecting marginalized populations to daily amenities and employment opportunities will inevitably improve the quality of life for all along the West Michigan shoreline. An Equity Analysis was undertaken to identify vulnerable populations that would greatly benefit from an improved non-motorized network. This information was then combined with community assets to identify the location of scenic places (waterways, parks, greenways), job centers, grocery stores, and schools. Existing routes were identified as well to assist in understanding network gaps and opportunities.

**VISION STATEMENT:** “The Shoreline Region (Muskegon and Northwest Ottawa County) will be linked together by a robust network of trails and greenways that connect communities, enrich the health and livelihood of residents who call this place home, and provide abundant access to everyday destinations and natural areas alike.”



## THE NETWORK

A menu of facilities was prepared, and key routes in the region were identified using existing regional plans and feedback from the Steering Committee. Proposed segments were then identified based on community feedback and Steering Committee recommendations. A prioritization matrix was developed to assist in guiding build-out decisions. The Network section of this plan details where new trail and greenway segments should be added, and what type of facilities should be constructed.

Recommendations are grouped by geographic location: Northern Muskegon County, Eastern Muskegon County, Central Muskegon County, and Northwest Ottawa County. Illustrative examples are provided to make the vision come to life.

## STANDARDS

Ensuring that the Greater Muskegon and West Michigan shoreline area has “best-in-class” facilities requires an understanding of national best practices, design standards, and how to apply good engineering judgment. This section provides a primer to provide context for who the intended users are of each facility type, design considerations, recommended dimensions, and suggested cross-sections.

## FUNDING AND IMPLEMENTATION

Knowing **where** and **what** we want to build is only part of the equation. The critical question becomes **how** to make it come to life. Estimated costs and potential funding sources are provided to assist with future implementation of the plan. Guidance on timeline and measures of success is included, as well as a suggested method to avoid green gentrification.

## Integration With Other Plans

The STAG Plan builds on previous non-motorized planning work, including alignment with previous plans such as:

**2013** – *Muskegon/Northern Ottawa Non-Motorized Plan. WMSRDC*

**2017** – *Grand Region Regional Non-Motorized Plan. MDOT*

**2017** – *Imagine Muskegon Lake: A Plan for Our Waterfront. City of Muskegon & WMSRDC*

**2023** – *City of Muskegon Master Land Use Plan*

**2024** – *West Michigan Regional Trails Master Plan. West Michigan Trails & Greenways Coalition*

In addition to these plans, various local governments’ non-motorized and parks and recreation plans were reviewed to ensure consistency and relevancy of this Plan’s recommendations. While many of this Plan’s recommendations are new, many of these segments have been identified in other plans and are presented here to coordinate the ongoing non-motorized improvements across the greater region.

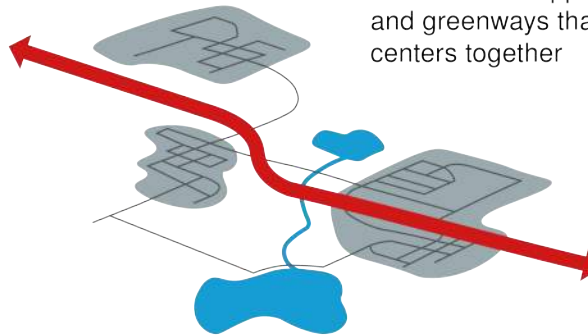
## ASPIRATIONAL PLAN

This plan is intended to be aspirational in representing the ultimate goals of the communities. Prior to acquiring funding or beginning design, all right-of-way owners (MDOT, County Road Commissions, Municipalities) and applicable stakeholders should be convened to begin the actual planning of the trail. The convened group will ensure that all applicable regulations and guidance are met during the design phase and that appropriate right-of-way space exists or easements can be obtained. This plan does not imply any obligation of funds by any organization, including but not limited to organizations represented by members of the Steering Committee, right-of-way owners or municipalities where the trails are located.

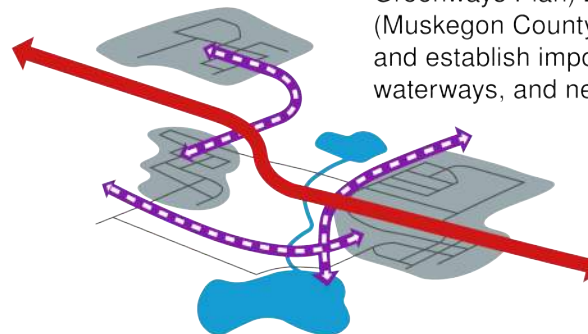
## LOCAL UNIT CONTRIBUTION TO THE SYSTEM

It should be noted that this Trails and Greenways Plan is regional in nature; it is nested beneath the West Michigan Trails and Greenways Plan (2024) and the MDOT Grand Region Non-Motorized Plan (2017) while sitting above local government non-motorized plans. Working together, these plans result in a comprehensive non-motorized network. Large regional plans establish connections to distant population centers, focused regional plans establish connections to adjacent communities, waterways, and other key destinations, and local plans establish connections linking streets and neighborhoods within their jurisdiction to this broader network.

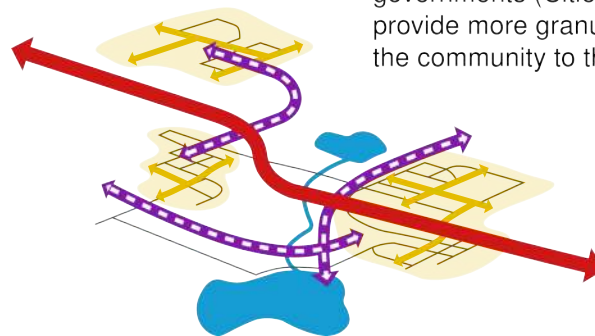
**Large-Scale Regional Plans** (2017 MDOT Grand Region Non-Motorized Plan + 2024 West Michigan Trails & Greenways Plan) take a multi-county “zoomed out” approach, establishing the key trails and greenways that connect distant population centers together



**Focused Regional Plans** (2025 Shoreline Trails & Greenways Plan) zoom in to a focused region (Muskegon County + Northwest Ottawa County area) and establish important connections to parks, waterways, and neighboring communities



**Local Non-Motorized Plans** are created by local governments (Cities, Townships, and Villages) and provide more granular routes linking locations within the community to the larger regional trails.



**Above:** Graphic representing how regional non-motorized plans work with local non-motorized plans.



# 2

## Community Engagement

### THE PROCESS

Community engagement during the planning phase for the West Michigan STAG project was an integral part of the Plan's development. An intentional, inclusive, and robust community engagement program was designed to gather community input on the current state of the regional trail system, identify opportunities and challenges, and capture a shared vision for the future that centers community voice and priorities.

A combination of in-person and online activities was used to listen to and learn from residents, business owners, community stakeholders, employees, and visitors. Activities included focus groups, pop-ups at popular community events, and a widely disseminated community survey. This variety was offered to ensure that everyone in the region had the opportunity to participate in shaping the vision for the region's trails, greenways, and waterways.

The goal was to meet people where they are, creating a space where participants felt empowered to share their ideas for improving connections and perceptions of safety (or lack thereof) while naming key challenges with existing trails and greenways. These meaningful conversations assisted in directly informing trail connection locations.



*Above: Pop-up engagement event at Hackley Park, June 6, 2025.*

## STEERING COMMITTEE

Committee members were convened by WMSRDC based on their knowledge and passion for trails in the region. The Committee guided community engagement, informed the Progressive Companies team of previous work done for regional trails, identified initial trail connections, and provided valuable insights on needed improvements.

Additionally, throughout the planning process, Committee members identified pop-up engagement opportunities where project updates and additional feedback could be gathered. These combined engagement efforts helped refine the project vision and ensured that future trail and shoreline improvements align with the community's needs and desires.



*Above: Muskegon Lake Watershed Partnership Presentation, June 3, 2025.*

## FOCUS GROUPS

Community Engagement included seven focus groups to address specific target groups representing the Muskegon Urbanized Area (areas that would benefit most from connections to Muskegon Lake) and the region as a whole. These included meetings with:

- Muskegon leaders at the Us Café in Muskegon Heights
- Muskegon Lake Watershed Partnership and affiliated stakeholders at the WMSRDC offices
- Greater Muskegon Economic Development (GMED), business affiliates, local entrepreneurs, and community stakeholders at the Muskegon Chamber of Commerce
- Regional biking and outdoor recreation enthusiasts at Unruly Brewing in Downtown Muskegon
- Business leaders at the White Lake Chamber of Commerce
- Invited regional leaders to Pioneer Park
- Warm Meals Wednesday Event participants at Corinthians Baptist Church in Muskegon Heights

Focus group input was used to inform the information presented at, and collected from, the public Community Engagement events.

## COMMUNITY ENGAGEMENT POP-UPS

The second round of engagement involved a series of pop-up interactive stations at community events held at three (3) different locations in the region. These events garnered input from more than 100 individuals at:

- Parties in the Park at Hackley Park in Muskegon
- Downtown Grand Haven, at the Lynne Sherwood Waterfront Stadium
- Montague's Artisans' Market located at the Farmer's Market.

Residents were asked to provide feedback on regional maps indicating places they visit often, places where they do not feel safe walking or riding a bike, and places where they desire improved water access. In total, 184 data points were collected, indicating how residents perceive the places they live and visit and the overall state of the existing network.

## CITY OF MUSKEGON LEADERSHIP WORKSHOP

One of the Community Engagement events was replaced by a workshop with representatives from the following:

- City Manager
- City Commission
- City Planning Commission

Staff leadership from the following departments:

- Development Services
- Finance & Administration
- Public Works

7

The workshop was a combination of both the Focus Group activities and the feedback maps from the Community Pop-Ups.

## EVENT ACTIVITIES

To make the events engaging and interactive, various stations were created where participants could share their ideas, make comments, and share feedback.

**Survey Station:** This station allowed attendees to provide feedback online using a QR code or fill out a paper version on-site.

**Vision Drawing Station:** Neighbors were invited to draw what they would like the shoreline and trails to look like in five years, highlighting key features, amenities, and connections they wanted to see.

**SWOC Activity:** The activity encouraged attendees to document and discuss what works, what doesn't, and what they want to see in the future for activation and connectedness.

**Shoreline 3000 Board Game Activity:** A fun, hands-on way for community members to show us what's most important to them on the trails and greenways was provided.



**Above:** City of Muskegon Leadership Workshop, June 26, 2025.

## FINDINGS

Community feedback from conversations with stakeholders in focus groups provided valuable insights, including:

### **S** STRENGTHS + WHAT'S WORKING WELL

#### **Existing Regional Trail Network**

*Muskegon and Ottawa County feature regional trails that are generally well-known and used regularly. (Lakeshore Trail, Fred Meijer Baerry Junction Trail, Muskaetawa Trail)*

#### **Sense of Excitement and Community Support**

*The community is informed and excited about changes within the region and is actively showing strong support for recreational improvements*

#### **Regional Abundance of Natural Amenities**

*Muskegon and Northwest Ottawa Counties both feature a rich abundance of natural amenities that make this area a top-of-mind destination for locals and visitors*

### **O** OPPORTUNITIES FOR THE FUTURE

#### **Emphasize Connectivity and Access**

*People saw connections to regional multi-user trails, natural areas, and waterways as a key goal for future improvements to improve access for all*

#### **Improve Navigation and Usability**

*People saw improving wayfinding signage and providing direction and distance to key locations as desirable for the network's future*

### **W** WEAKNESSES + WHAT NEEDS IMPROVEMENT

#### **Incomplete and Disconnected Trail Network**

*People mentioned limited connections to existing trails and key commercial areas as major issues*

#### **Perceptions of Danger**

*People mentioned the perception of danger on area trails, noting busy roadway crossings, high-speed traffic, lack of shade, and minimal public facilities along trails*

### **C** CHALLENGES TO CONSIDER

#### **Equity In Access**

*People noted that certain areas in the region lack access to trails or regional amenities, with Muskegon Heights often cited as a prominent example*

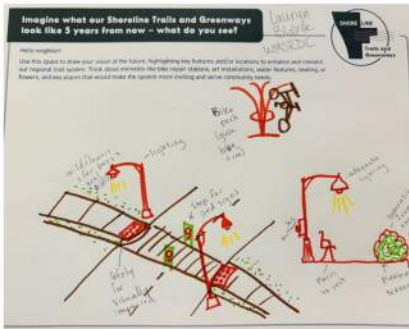
#### **Sustainable Funding Sources**

*Trail Funding was another concern, as people noted that long-term funding would need to be secured to implement any improvements to the regional trails and greenways network*

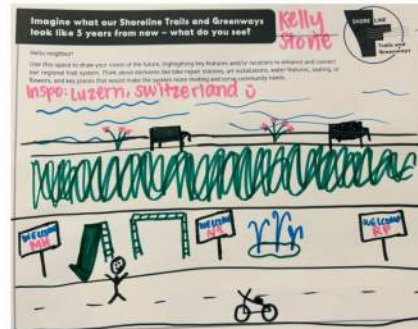
#### **Education and Engagement**

*Some trail users do not follow existing laws, and better safety, trail, and cycling education can inform people how to share the trails safely.*

# YOUR VISION FOR THE FUTURE!



*“Access from northern Ottawa County to Muskegon County and the northern lakeshore would be phenomenal!”*

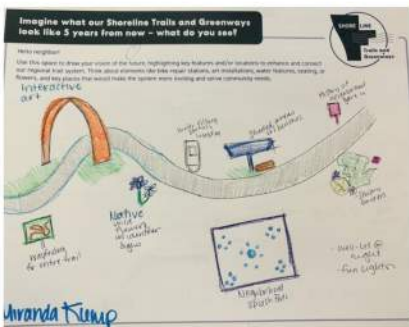


love lake river signagenatural areas people  
great trail bike nice or  
trails work kayak ottawa  
muskegon county parks access  
connecting community

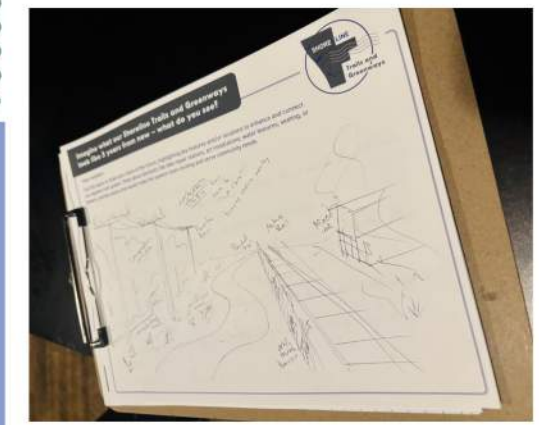


marquette trails downtown grand connection  
trail or lake north spring path  
muskegon  
area road park bike state norton  
parks lakeshore hoffmaster haven harbor county shores

*“Better interconnection between trail segments and into towns and retail areas.”*

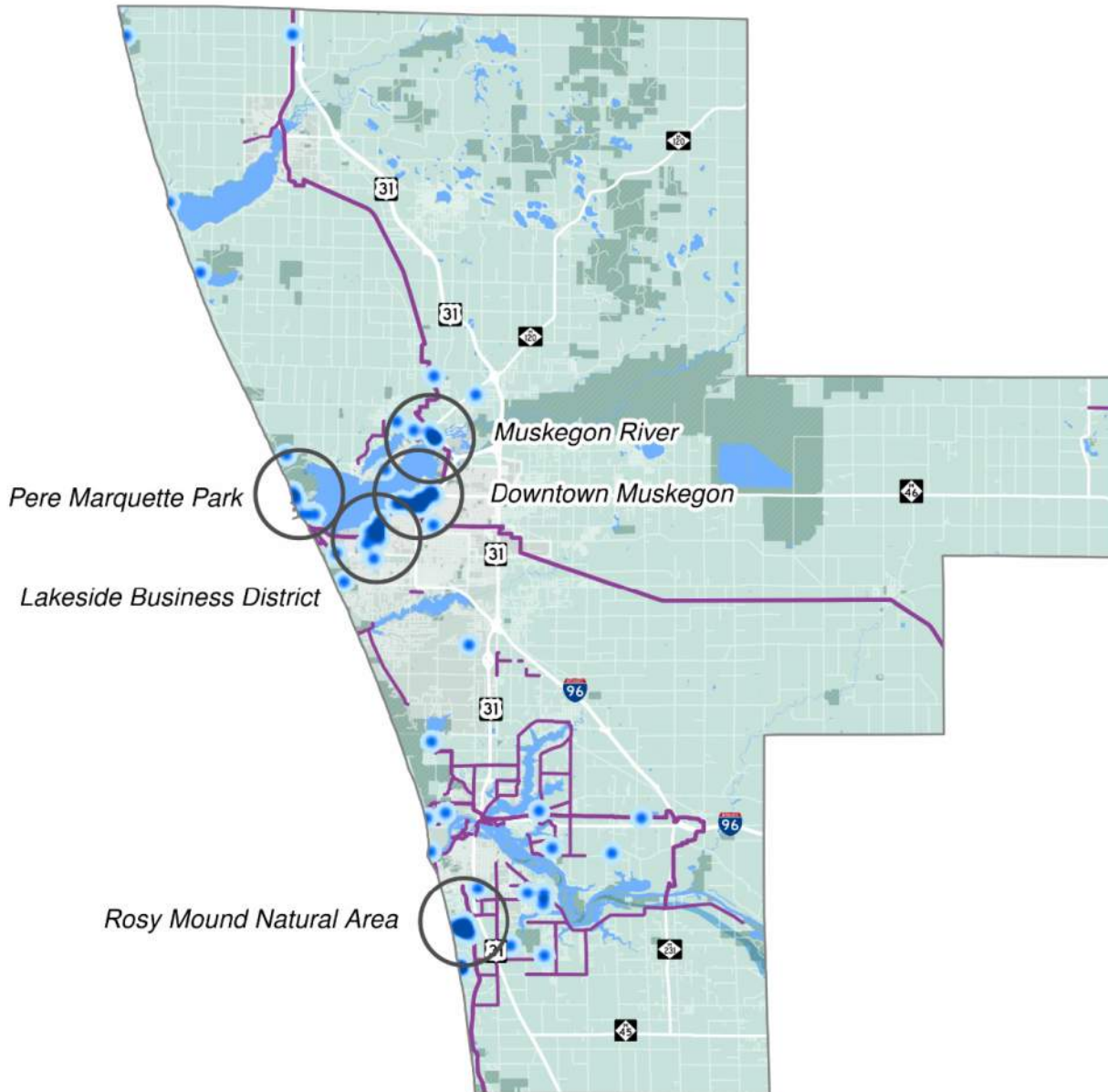


*“We already have beautiful trails... connections can help!”*



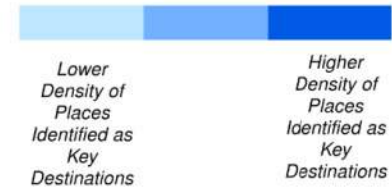
**Above:** “Your Vision for the Future” interactive drawing activity.

# MAP #1: KEY DESTINATIONS IDENTIFIED FROM COMMUNITY ENGAGEMENT EVENTS



## Key Destinations

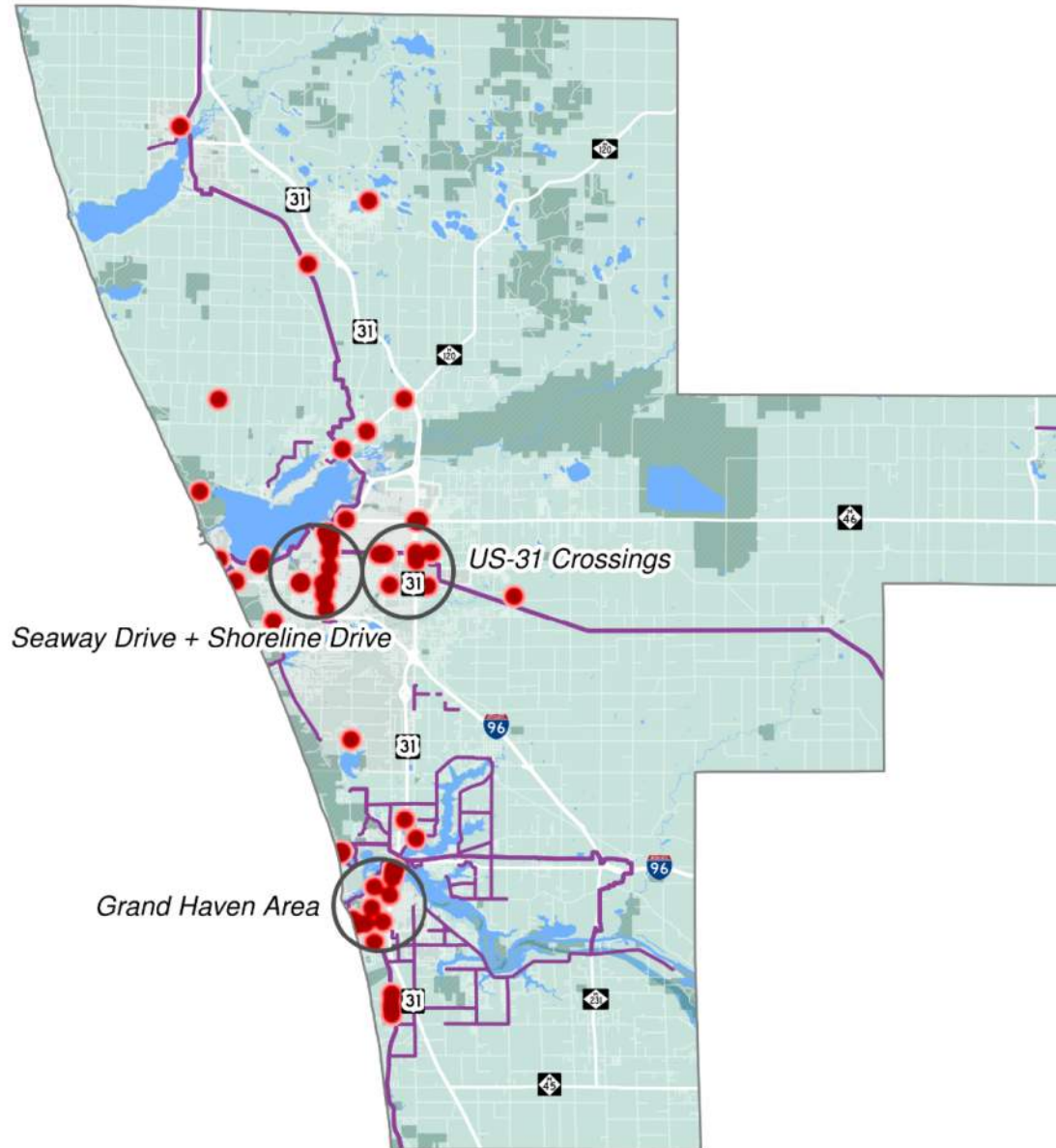
West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

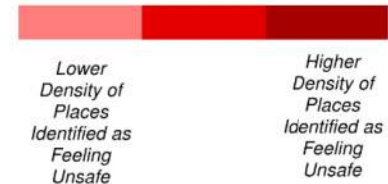


## MAP #2: PLACES PEOPLE FEEL UNSAFE IDENTIFIED FROM COMMUNITY ENGAGEMENT EVENTS



### Places People Feel Unsafe

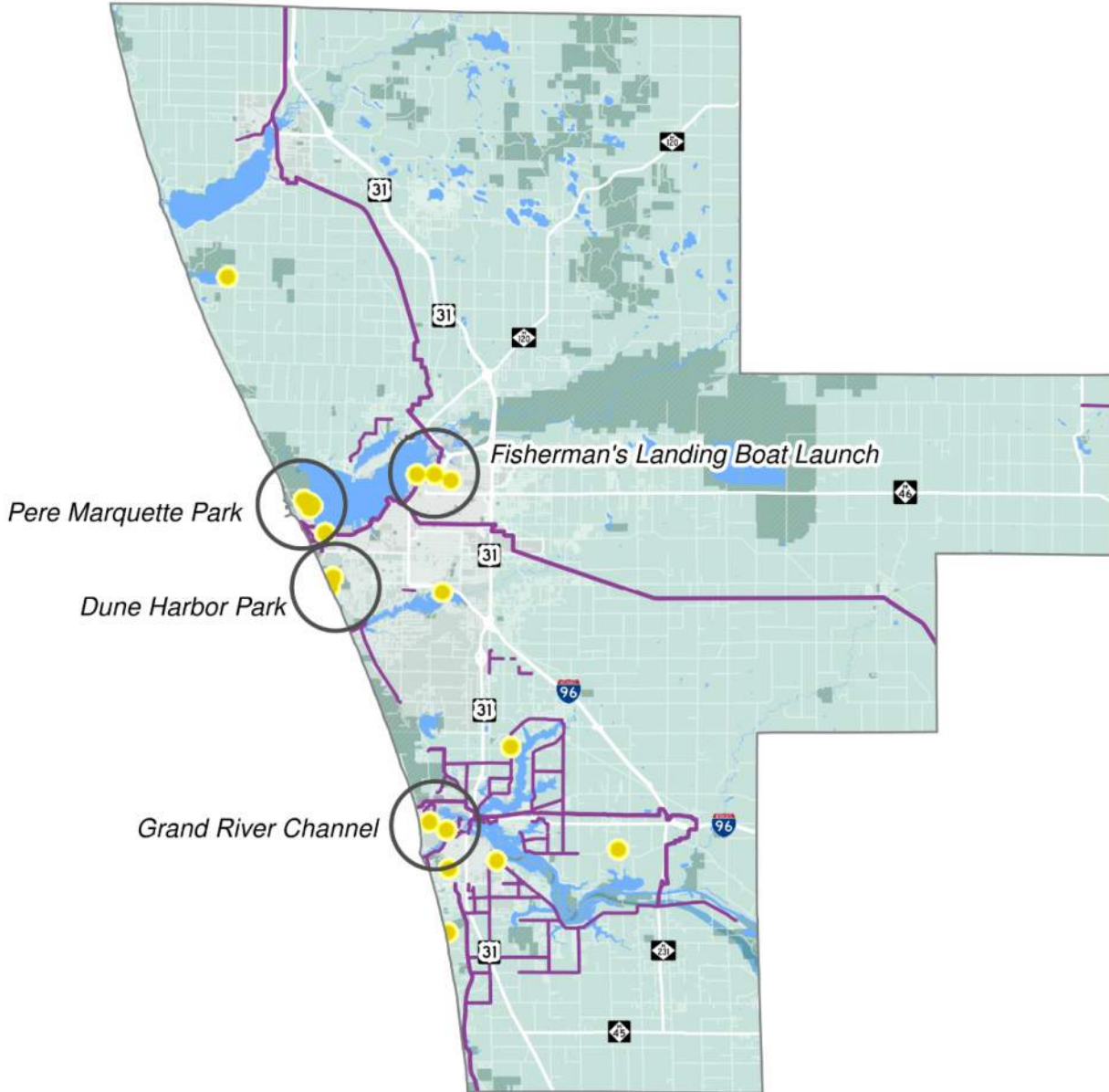
West Michigan Metropolitan Transportation Planning Program  
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Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

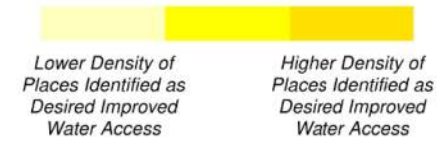


# MAP #3: PLACES PEOPLE DESIRE IMPROVED WATER ACCESS FROM COMMUNITY ENGAGEMENT



## Places People Desire Improved Water Access

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.



## RESULTS

As a result of the focus groups and community events, the following information guided the plan:

- Locations where people wanted connections. Many of these were connections to parks and waterways, and regional trails.
- Areas of trails where people felt unsafe and potential solutions.
- Selection of priorities for the proposed trail segments.

## SURVEY

A community survey was available online and in hard copies, which were distributed at events. The survey questions asked what community the respondents lived in, whether they used trails and how often, the names of locations or areas they desired non-motorized access to, what water-based recreation activities they were involved in, and what safety issues they associated with walking or riding on trails in the region.

A total of 565 surveys were received. A breakdown of the communities represented is:

**44%** ●●●● Live in Muskegon County, but outside the City of Muskegon

**34%** ●●●● Live in the City of Muskegon

**17%** ●●●● Live in Ottawa County

**5%** ●●●● Work, play, or worship in the region

Information gained from the survey questions was used to guide this Plan in terms of where people want to see access and connections, and areas where they currently feel unsafe using a trail. Quotes obtained from the survey are presented throughout the Network section of this plan.

The surveys, pop-ups, focus groups, and open houses revealed the hopes, fears, aspirations, and preferences of community stakeholders. This input, blended with an analysis of the West Michigan Shoreline's existing conditions and the Steering Committee's Project Principles, informed the vision for trail connections and future improvements over the next ten years.

**SURVEY RESPONSE:** *"Grateful that West Michigan makes trails, water access, and greenways a priority and important for our communities. It's a natural part of our being here and for our physical and mental health."*

**SURVEY RESPONSE:** *"A lot of the roads outside of the City of Muskegon, Whitehall, Montague, and Norton Shores area have high speed limits with only bike lanes. I'm an experienced biker, and I am sometimes stressed when on these roads. I wish there were more designated bike paths through the county."*

**SURVEY RESPONSE:** *"Having alternative ways to get places besides cars is so important. So many people do not drive or cannot."*

**SURVEY RESPONSE:** *"I believe beyond just biking, more greenways would make Muskegon County, North Muskegon, Muskegon, and Muskegon Heights way more pedestrian-friendly, as the bike paths can also be useful for walkers, joggers, skaters."*

**SURVEY RESPONSE:** *"Trails connecting to local beaches and various parks from suburban neighborhoods so bikers can avoid having to endanger themselves sharing the local roads with cars."*



# 3 Important Terms

There are several key terms that are used throughout the Shoreline Trails & Greenways Plan that shape this document. Common terms were developed based on the variety of facilities cited in other regional and local planning documents. For the purposes of this plan, the following terms and definitions apply:



## TRAILS

Sidepaths, greenways, protected bicycle lanes, and natural surface hiking paths linking neighborhoods to schools, shopping centers, parks, and other destinations make walking and cycling a safe and enjoyable experience for people of all ages and ability levels.

## SIDEPATHS

A sidepath is a separated and paved path that is set back from the roadway and intended for shared utilization by both pedestrians and bicyclists. Sidepaths are typically accommodated within existing roadway right-of-way (ROW) and cross streets at signalized or stop-controlled intersections.



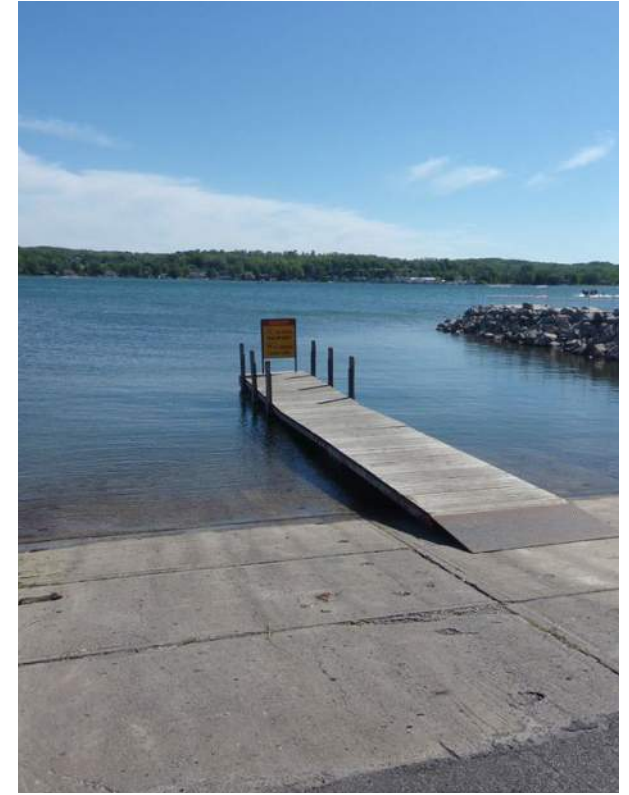
## PROTECTED BIKE LANES

Protected bicycle lanes are physically separated from vehicle travel lanes by a horizontal buffer and vertical element, such as a median, rubber curb, or flexible delineator. Protected bicycle lanes may provide uni- or bidirectional travel for people on bicycles. Protected bicycle lanes are generally provided within the curb-to-curb width of an existing roadway. Protected, or separated, bicycle lanes provide a low-stress facility for people of all ages and abilities on all types of streets or roads.



## GREENWAYS

Linear parks that connect people to places, provide nature and respite, and act as habitat corridors for wildlife, these “greenways” are pockets of West Michigan’s natural beauty. Facilities are typically shared use and occupy a separate alignment from roadways, although sidepaths could include significant green space. Greenways can be located within power line easements or even former rail lines converted to trails.



## WATERWAYS

Whether kayaking or wakeboarding, tubing or fly fishing – the region’s abundance of waterways provides countless opportunities for freshwater recreation.

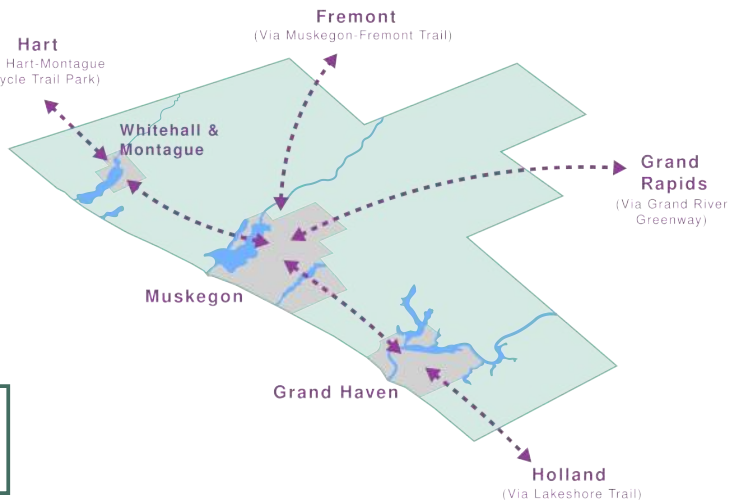
# 4 Shoreline Trails and Greenways Vision

The STAG Plan's vision speaks to the aspirations we've heard from the region's residents and of those tasked with implementing the Plan; it describes the desired "future state" of the region's trail network and provides a long-term target to strive towards.

**VISION STATEMENT:** "The Shoreline Region (Muskegon and Northwest Ottawa County) will be linked together by a robust network of trails and greenways that connect communities, enrich the health and livelihood of residents who call this place home, and provide abundant access to everyday destinations and natural areas alike."

We want a network that is...

## Connected to Communities



We want a network that...

## Provides Access to Nature



We want a network that...

## Enriches Health and Livelihood of Residents



## GUIDING PRINCIPLES

Through Steering Committee meetings and interactions with the Focus Groups, five (5) guiding principles were identified to measure each proposed improvement's alignment with the Plan's vision. These were confirmed during the Community Events.

### 1 NETWORK CONNECTIVITY

*"Does a proposed trail and/or greenway connect to the existing trails network?"*

Trail investments are costly, often complex, and can require years to finalize. New investments in the non-motorized transportation network must expand and fill the gaps in the existing network, rather than creating new gaps that require more investment in the future.

### 2 EFFICIENCY

*"Does a proposed trail and/or greenway maximize use of existing infrastructure and resources?"*

Land acquisition and securing easements are large hurdles in trail and greenway development. Existing public ROW streamlines this planning process, saving both time and money. Large roadways requiring reconstruction also present opportunities for "right-sizing" and using excess lane capacity for non-motorized facilities where appropriate.

### 3 SAFETY

*"Does a proposed trail and/or greenway improve safety by providing an alternative route to traveling on a high-stress roadway?"*

The perception of danger is a major barrier to people walking, cycling, or recreating on the region's existing trail network. Viewing the network from the perspective of the most vulnerable trail users (families, inexperienced riders, persons with mobility or sight challenges, etc.) will ensure that the facilities in the Shoreline region will be designed for people of all ages and abilities.

### 4 ACCESSIBILITY

*"Does a proposed trail and/or greenway connect to key destinations within the region?"*

A successful trails and greenways network connects people to places, whether that's children riding bikes to school, people traveling to work, or families going for a summer evening stroll. A key focus for trails and greenways planning is to create non-motorized connections to destinations that make driving a car an option instead of a daily necessity.

### 5 EQUITY

*"Does a proposed trail and/or greenway connect low-income populations to daily amenities and employment opportunities?"*

The West Michigan region has vast discrepancies in residents' quality of life and access to opportunities. The trails and greenways network will be constructed with vulnerable residents in mind, ensuring they have access to employment, health care, education, recreation opportunities, and the cultural amenities of the entire region.

# 5

## Existing Conditions

### PEOPLE

#### **Map #4: Population Change, 2010 - 2023**

Muskegon County and Ottawa County are among the most populous counties in western Michigan. Ottawa County has regularly been one of the fastest-growing counties in the state, gaining over 40,000 residents since 2010. During the same period, Muskegon County grew by only 3,000 residents. A closer look at these counties shows growth focused on the Tri-Cities (Grand Haven, Ferrysburg, Spring Lake) and outlying townships, suburban Muskegon, and the twin cities of Whitehall and Montague. Population has declined in the City of Muskegon and Muskegon Township, Muskegon Heights, and the townships bordering Oceana County to the north.

#### **Map #5: Population Per Square Mile**

Unsurprisingly, the highest concentration of residents in the area is within the City of Muskegon and the City of Grand Haven. Much of the two-county region features low population densities and is largely rural farmland or forested areas.

#### **Map #6: Percent Residents Between 5 -17 Years Old**

The age of residents has broad implications for trails and greenway planning, as both school-age children and elderly residents are the most likely to have mobility impediments. High populations of school-age children are located in Robinson Township, the City of Muskegon, Muskegon Heights, southern Dalton Township, and the greater Montague and Whitehall area.

#### **Map #7: Percent Residents Over 65 Years Old**

Senior residents are largely concentrated in lakeshore communities such as Spring Lake Township, Norton Shores, and the Wabaningo area of Fruitland Township.

#### **Map #8: Percent Unemployed Residents**

The census blocks with the highest percentages of unemployed residents are concentrated in the City of Muskegon, Muskegon Heights, as well as some more rural townships.

## Map #6: Percent Households in Poverty

Household poverty is a mobility determinant, as the cost of owning and operating a vehicle can present a barrier to access. Ottawa County, in general, has lower percentages of households living in poverty compared to Muskegon. Both Muskegon Heights and areas within the City of Muskegon feature the highest percentages of households living in poverty.

Mobility-related costs are a significant household expense in the Muskegon area. The Center for Neighborhood Technology estimates that transportation costs for an average household are upwards of \$16,000 per year – almost twenty-five percent (25%) of annual income. For Muskegon and Ottawa County households living in poverty (making less than \$40,000 per year), this expense is an even larger share of income, with households in Muskegon Heights spending approximately thirty-five percent (35%) of their income on transportation-related costs. When considered in conjunction with housing costs, Muskegon Heights households spend approximately sixty percent (60%) of their income on housing and transportation – significantly higher than the thirty-five percent (35%) threshold at which households are considered cost-burdened. Improving transit or non-motorized opportunities for those who have the ability to use them can significantly impact affordability and cost-of-living for households with the greatest cost burdens.

**BIG IDEA:** *What would a region where households felt comfortable replacing their second or third car with a bike look like? How much more prosperous would households be if their buying power and savings increased simply by forgoing a second vehicle? Creating an interconnected non-motorized network brings this dream closer to reality.*

The average household in Ottawa County and Muskegon County is roughly **2.5 people**



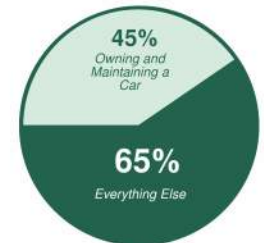
The median household income in Muskegon County and Ottawa County is around **\$70,000**

These households often have at least **two vehicles**



Each vehicle costs an average of **\$16,000** to fuel, insure, and maintain every year

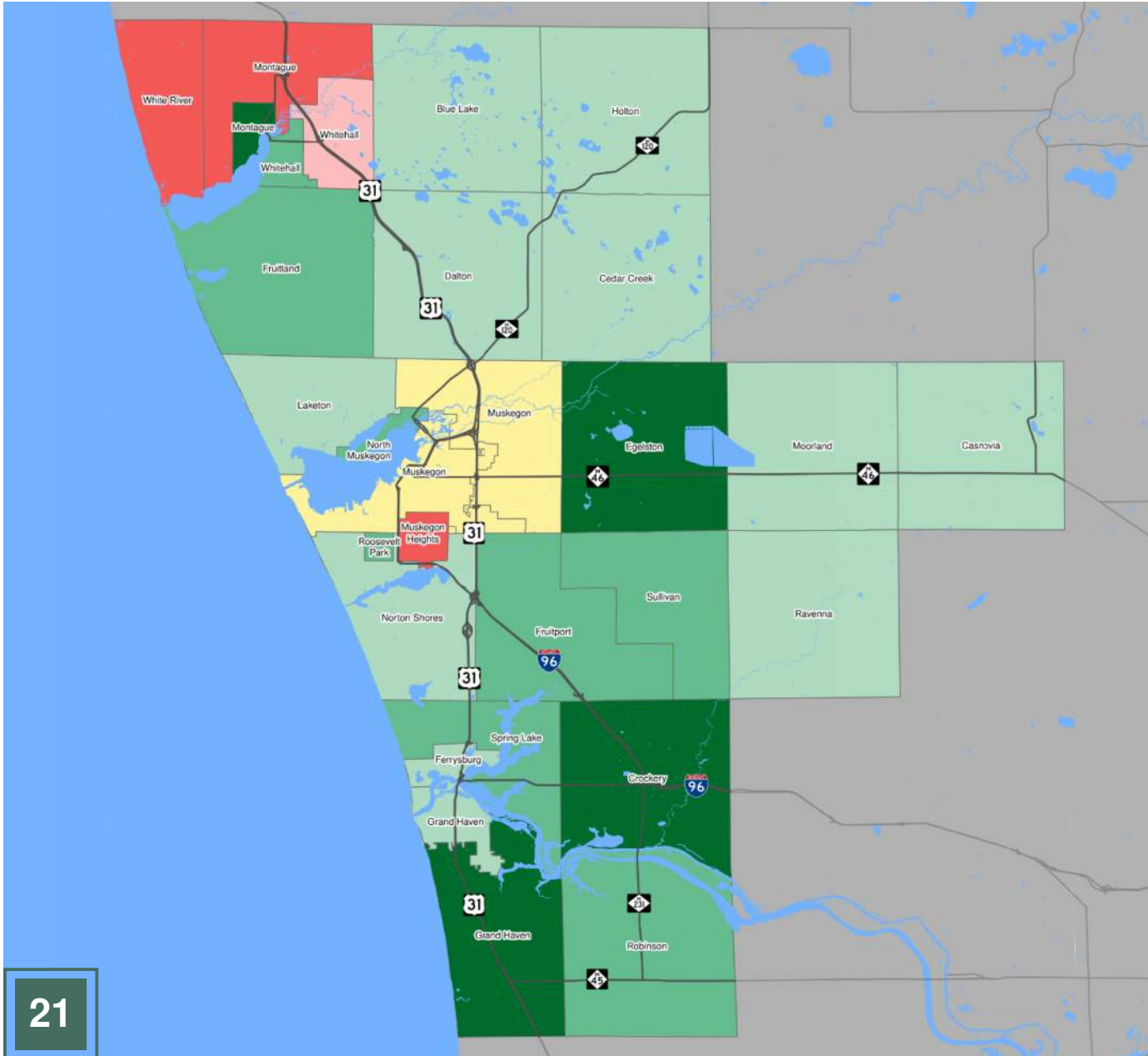
This means that the average household with two cars is paying between **35% - 50%** of their income on fueling, insuring, and maintaining their vehicles every year!



## Map #7: Percent Households Without Vehicle Access

The percentage of households lacking access to a vehicle resembles the percentage of households living in poverty, with the highest population of households lacking vehicle access concentrated in Muskegon Heights and the City of Muskegon. This further speaks to the precarious nature of mobility and how it relates to a household's ability to access and hold steady employment based on their access to a vehicle.

# MAP #4: POPULATION CHANGE, 2010 - 2023



## Population Change 2010 - 2023

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

### LEGEND

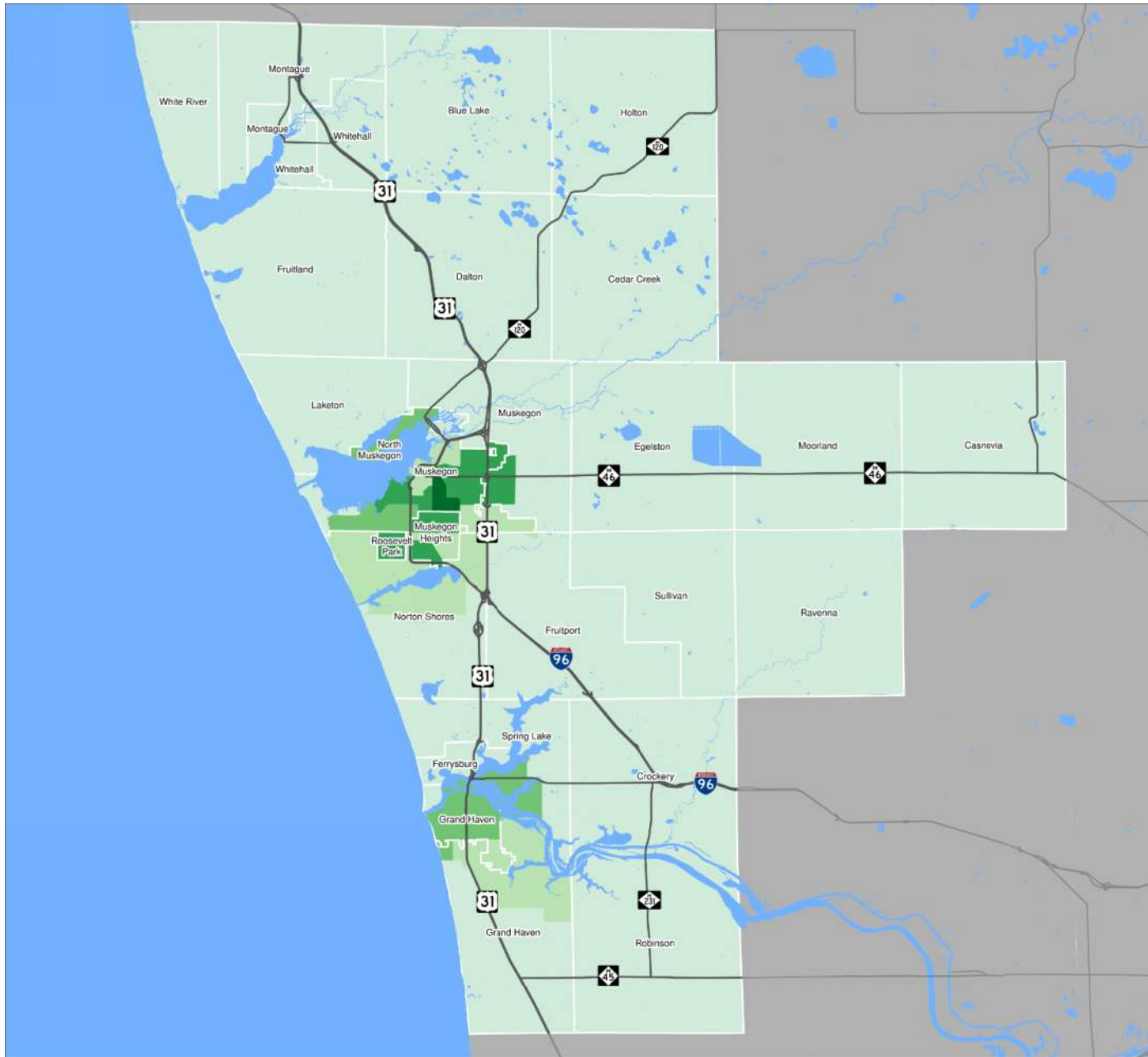
- Greater Than 10% Population Decrease
- Between 5% - 10% Population Decrease
- Between 5% - 0% Population Decrease
- Between 0% - 5% Population Increase
- Between 5% - 10% Population Increase
- Greater Than 10% Population Increase



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Community Insights Census Tract Data, 2025. Progressive Companies, 2025.



# MAP #5: POPULATION PER SQUARE MILE

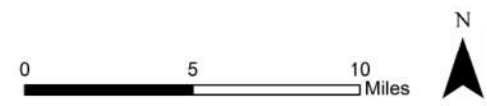


## Population Per Square Mile

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

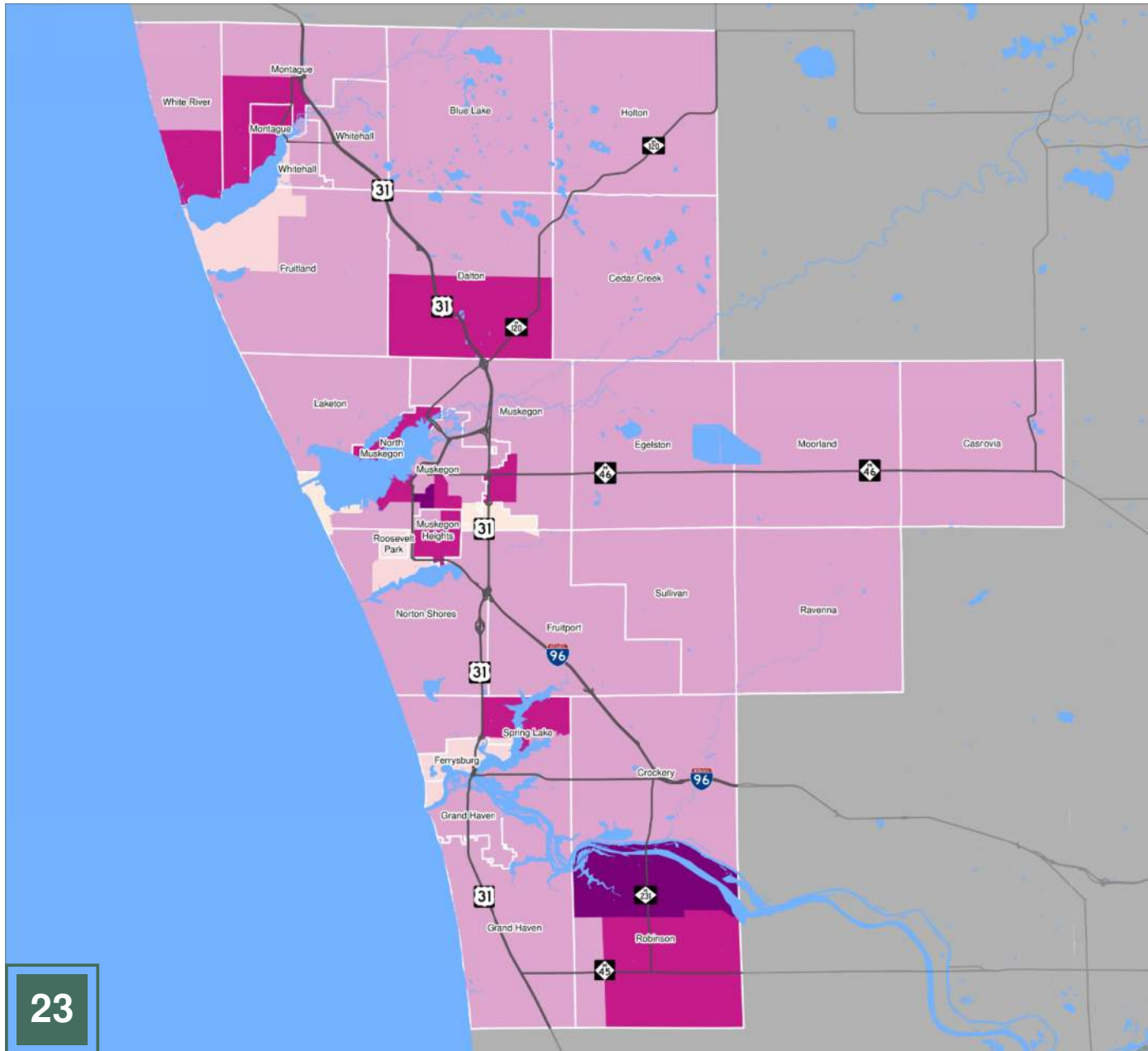
### LEGEND

- Less Than 1,000 Residents Per Square Mile
- 1,000 - 2,000 Residents Per Square Mile
- 2,000 - 3,000 Residents Per Square Mile
- 3,000 - 5,000 Residents Per Square Mile
- Over 5,000 Residents Per Square Mile



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Community Insights Census Tract Data, 2025. Progressive Companies, 2025.

## MAP #6: POPULATION PER SQUARE MILE



## Percent Residents Between 5 - 17 Years Old

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

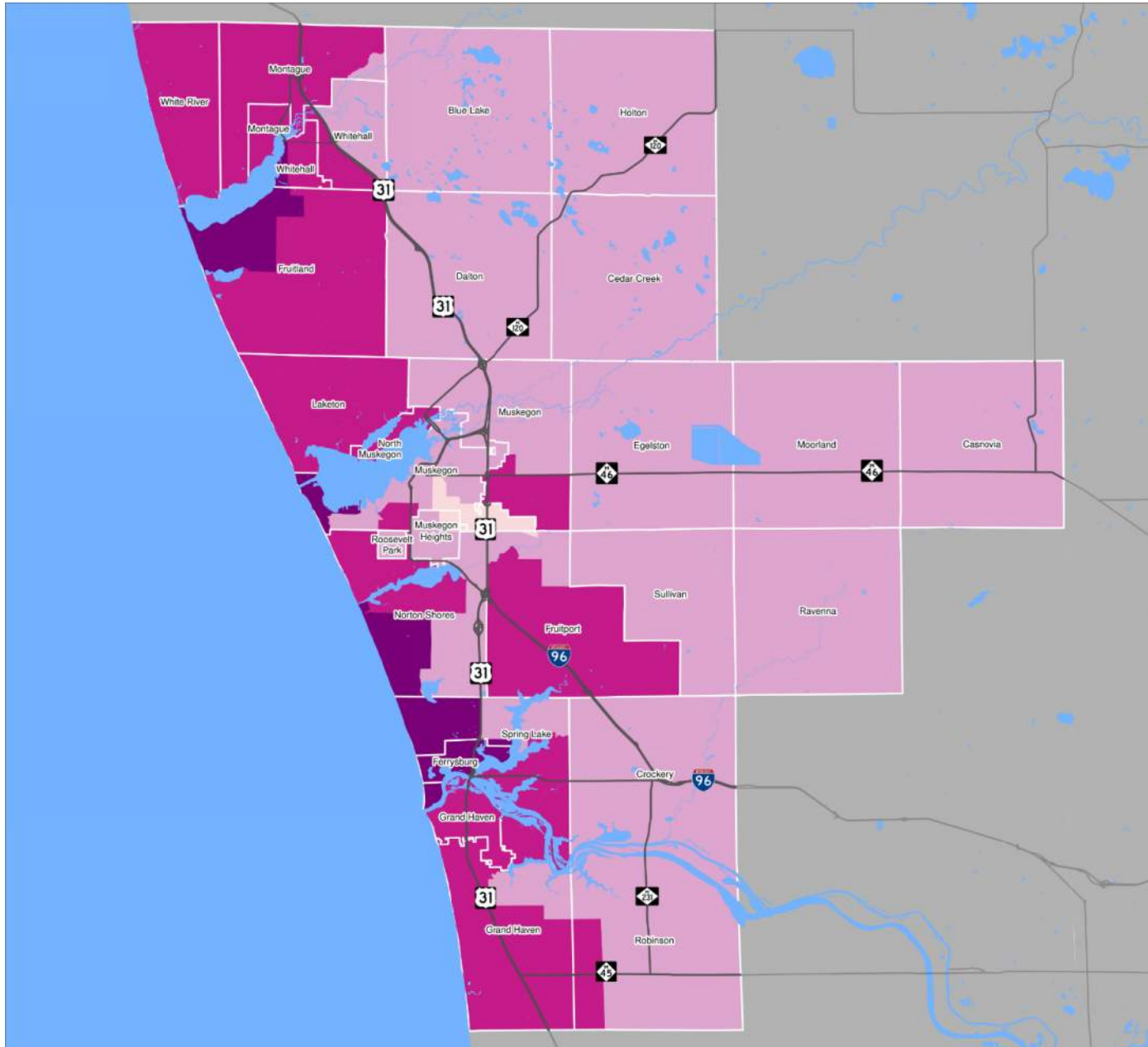
### LEGEND

- Less Than 5% Residents Between 5 - 17 Years Old
- 5% - 10% Residents Between 5 - 17 Years Old
- 10% - 20% Residents Between 5 - 17 Years Old
- 20% - 30% Residents Between 5 - 17 Years Old
- More Than 30% Residents Between 5 - 17 Years Old



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Community Insights Census Tract Data, 2025. Progressive Companies, 2025.

# MAP #7: PERCENT POPULATION OVER 65 YEARS OLD

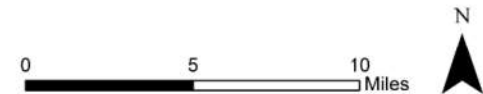


## Percent Residents Over 65 Years Old

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

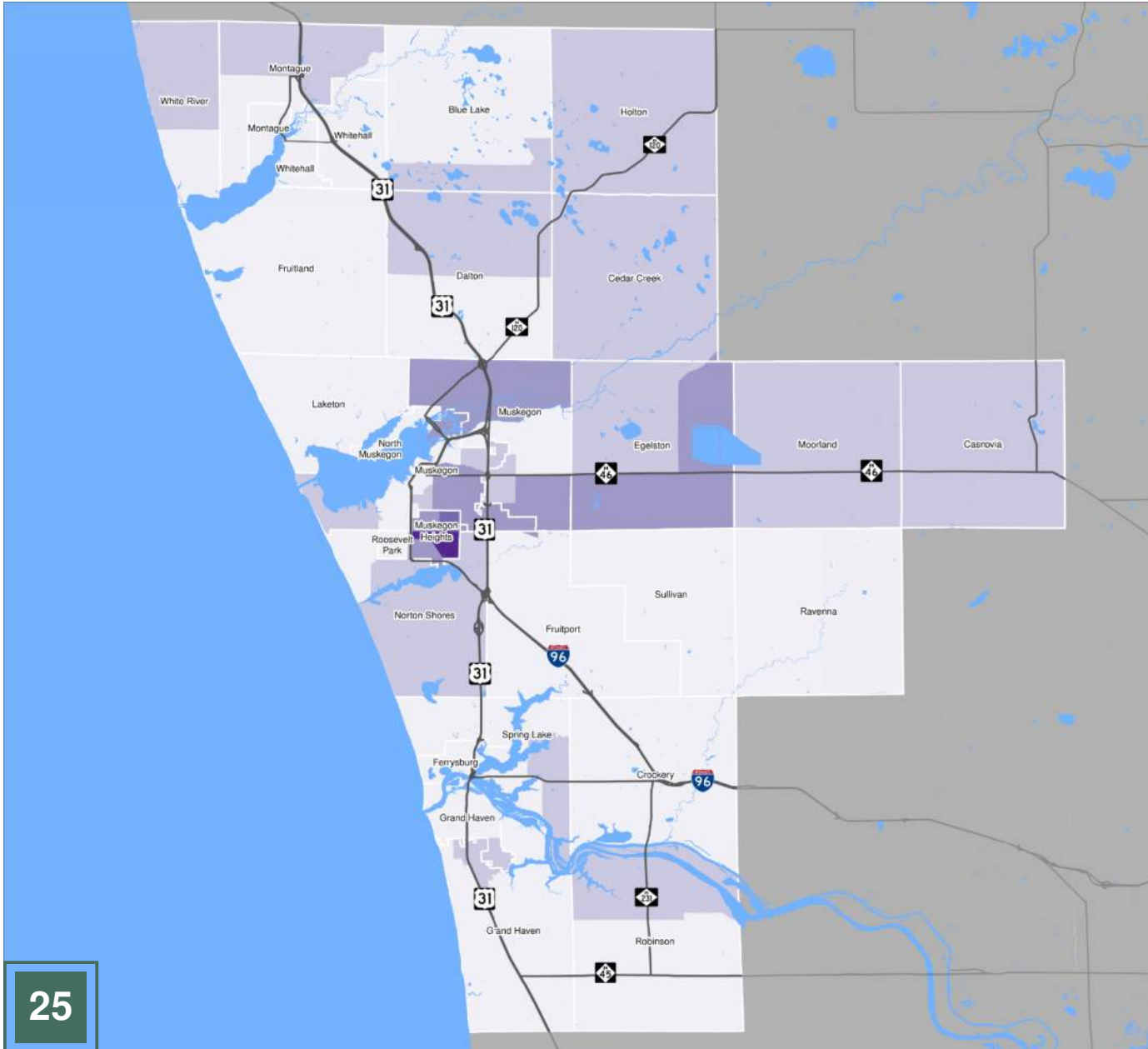
### LEGEND

- Less Than 5% Residents Over 65 Years Old
- 5% - 10% Residents Over 65 Years Old
- 10% - 20% Residents Over 65 Years Old
- 20% - 30% Residents Over 65 Years Old
- More Than 30% Residents Over 65 Years Old



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Community Insights Census Tract Data, 2025. Progressive Companies, 2025.

# MAP #8: PERCENT RESIDENTS UNEMPLOYED



## Percent Residents Unemployed

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

### LEGEND

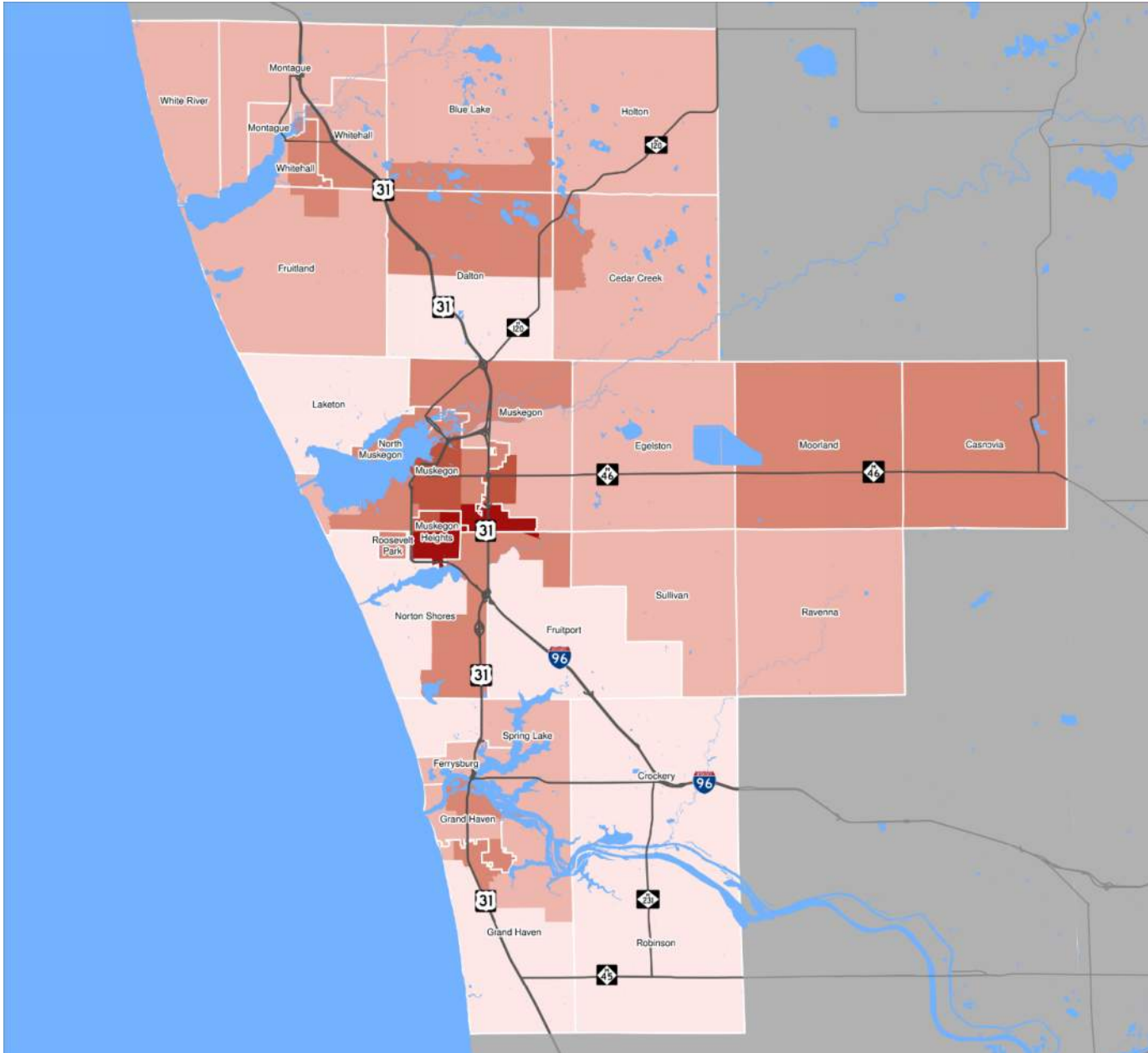
- Less Than 5% Residents Unemployed
- 5% - 10% Residents Unemployed
- 10% - 20% Residents Unemployed
- 20% - 25% Residents Unemployed
- More Than 25% Residents Unemployed



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Community Insights Census Tract Data, 2025. Progressive Companies, 2025.



# MAP #9: PERCENT HOUSEHOLDS IN POVERTY



## Percent Households in Poverty

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

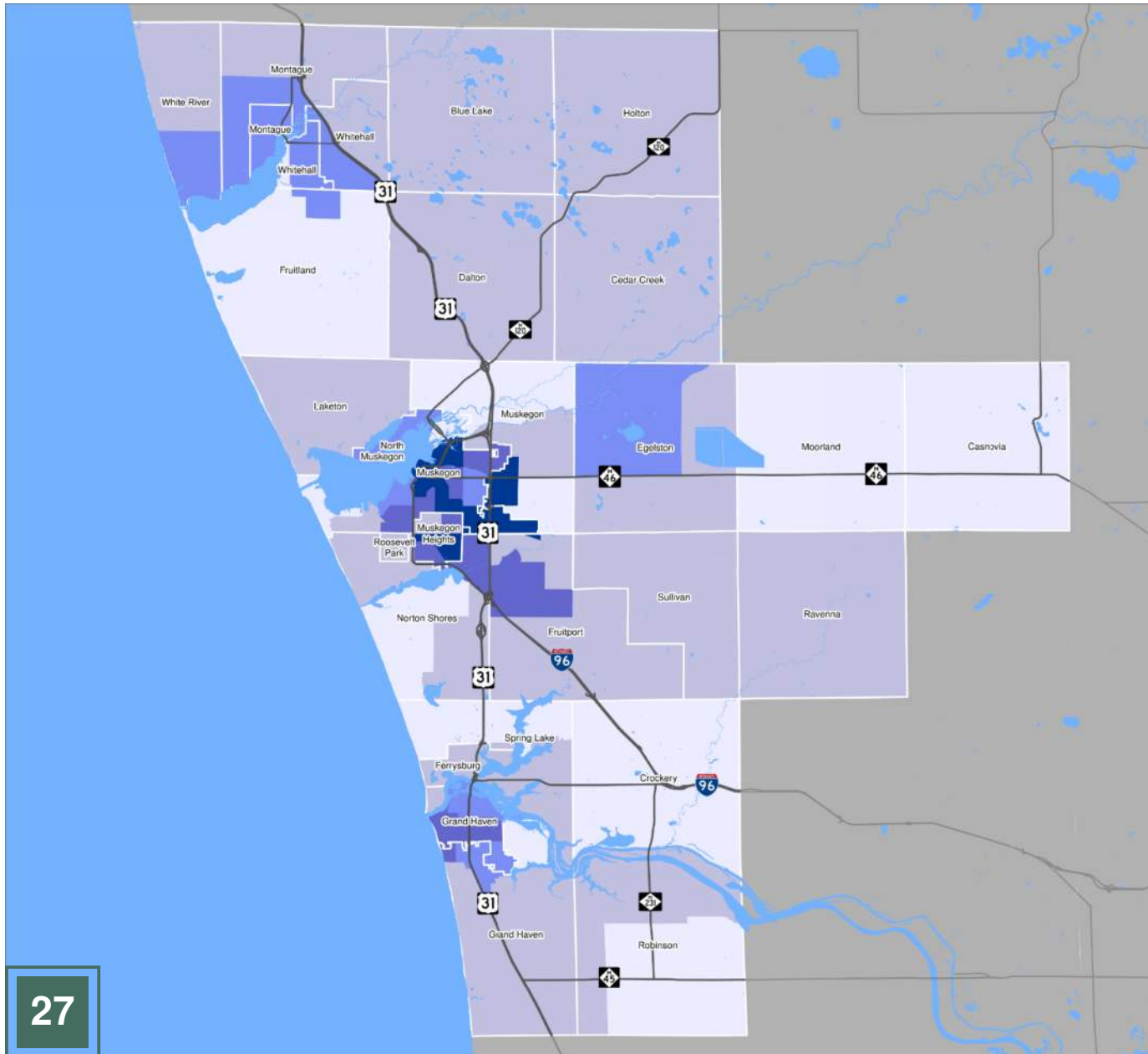
### LEGEND

- Less Than 5% Households Living in Poverty
- 5% - 10% Households Living in Poverty
- 10% - 20% Households Living in Poverty
- 20% - 40% Households Living in Poverty
- More Than 40% Households Living in Poverty



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Community Insights Census Tract Data, 2025. Progressive Companies, 2025.

# MAP #10: PERCENT HOUSEHOLDS WITHOUT VEHICLE ACCESS



## Percent Households Without Vehicle Access

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

### LEGEND

- Less Than 2% Households Without Vehicle Access
- 2% - 5% Households Without Vehicle Access
- 5% - 10% Households Without Vehicle Access
- 10% - 20% Households Without Vehicle Access
- More Than 20% Households Without Vehicle Access



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Community Insights Census Tract Data, 2025. Progressive Companies, 2025.



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## COMPREHENSIVE EQUITY AREAS

### Map #11: Comprehensive Equity Map

Combining many of these previous datasets identifies census tracts where trail, greenway, and connections to waterway improvements can significantly improve the lives of populations with the greatest needs. The Comprehensive Equity Map was developed by aggregating population density data, population age data, and household poverty data to demonstrate census tracts with high numbers of residents who would benefit from improvements to a low-stress non-motorized network.



.....

## LOCAL AMENITIES

### Map #12: Local Amenities Map

In addition to identifying census tracts with higher rates of vulnerable residents in Muskegon County and Northwest Ottawa County, we desire a trails and greenways network that connects to important destinations, whether those are grocery stores, public schools, hospitals, or even senior living facilities – the location of these amenities helped inform development of the proposed network.



**HOSPITAL FACILITIES**



**SENIOR CARE LIVING FACILITIES**



**GROCERY STORES**



**PUBLIC SCHOOLS**



## AVOIDING GREEN GENTRIFICATION

Green gentrification is the process by which vulnerable communities are displaced when green improvements are made in a vulnerable community, causing property values to increase. This attracts wealthier residents and displaces the vulnerable community members. Green improvements consist of projects including additional green space or parks, green infrastructure, and greenways. A large priority for this plan is to provide enhanced non-motorized connections for vulnerable populations to provide them increased access to opportunities and community assets without needing a car. That work would be futile if these improvements allowed for green gentrification and ultimately displaced those populations that the plan is most trying to serve.

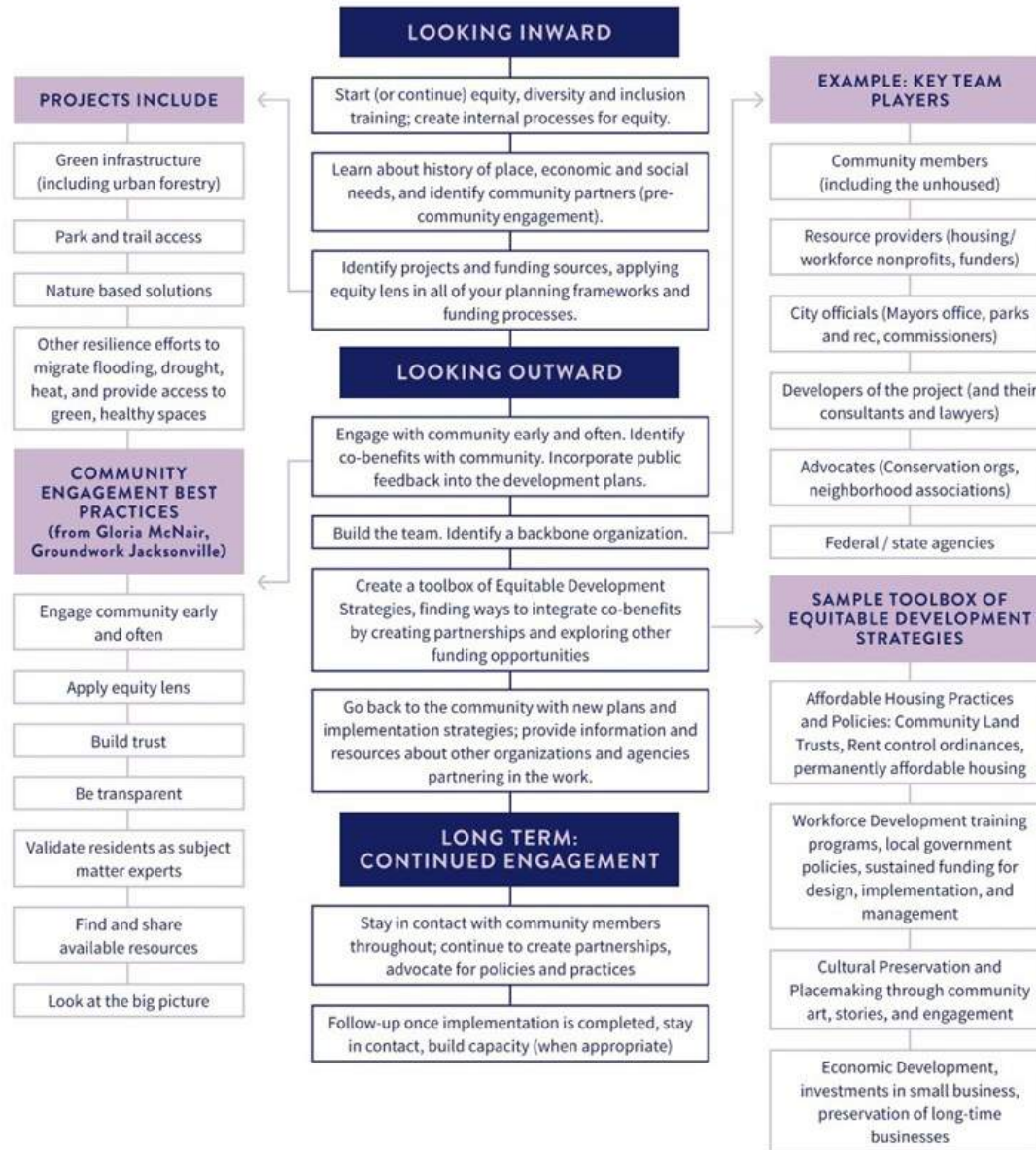
River Network is a non-profit organization known for protecting waters in the United States and encouraging diversity in the environmental movement. They assist local communities in taking a stand for their waters. Since 2019, they have been looking into the gentrification and displacement that can occur in conjunction with community revitalization. In an attempt to avoid this displacement, River Network has created an Equitable Development Toolkit: Community Centered Solutions for Green Gentrification and Displacement. The greatest key to preventing this is communication between community members, community officials, resource providers, and project owners. An outline of this process from the toolkit is below.



**Above Top:** *Urban Garden in Detroit, MI.*

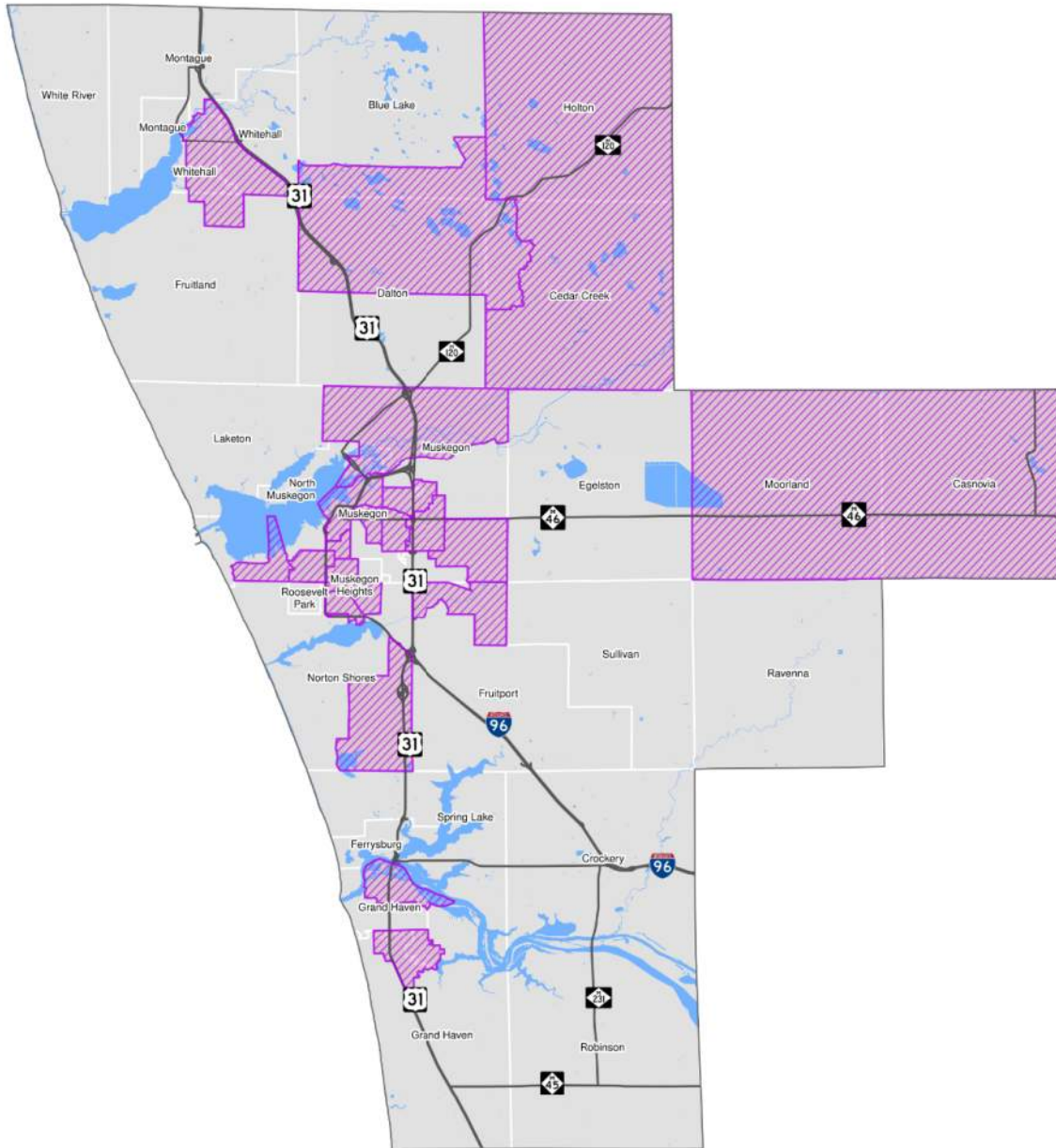
**Above:** *Bioswale Garden, Cleveland, OH.*

**PROCESSES AND PRACTICES FOR EQUITABLE DEVELOPMENT**



Above: Processes and Practices for Equitable Development, River Network.

# MAP #11: COMPREHENSIVE EQUITY MAP



## Comprehensive Equity Map

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

### LEGEND

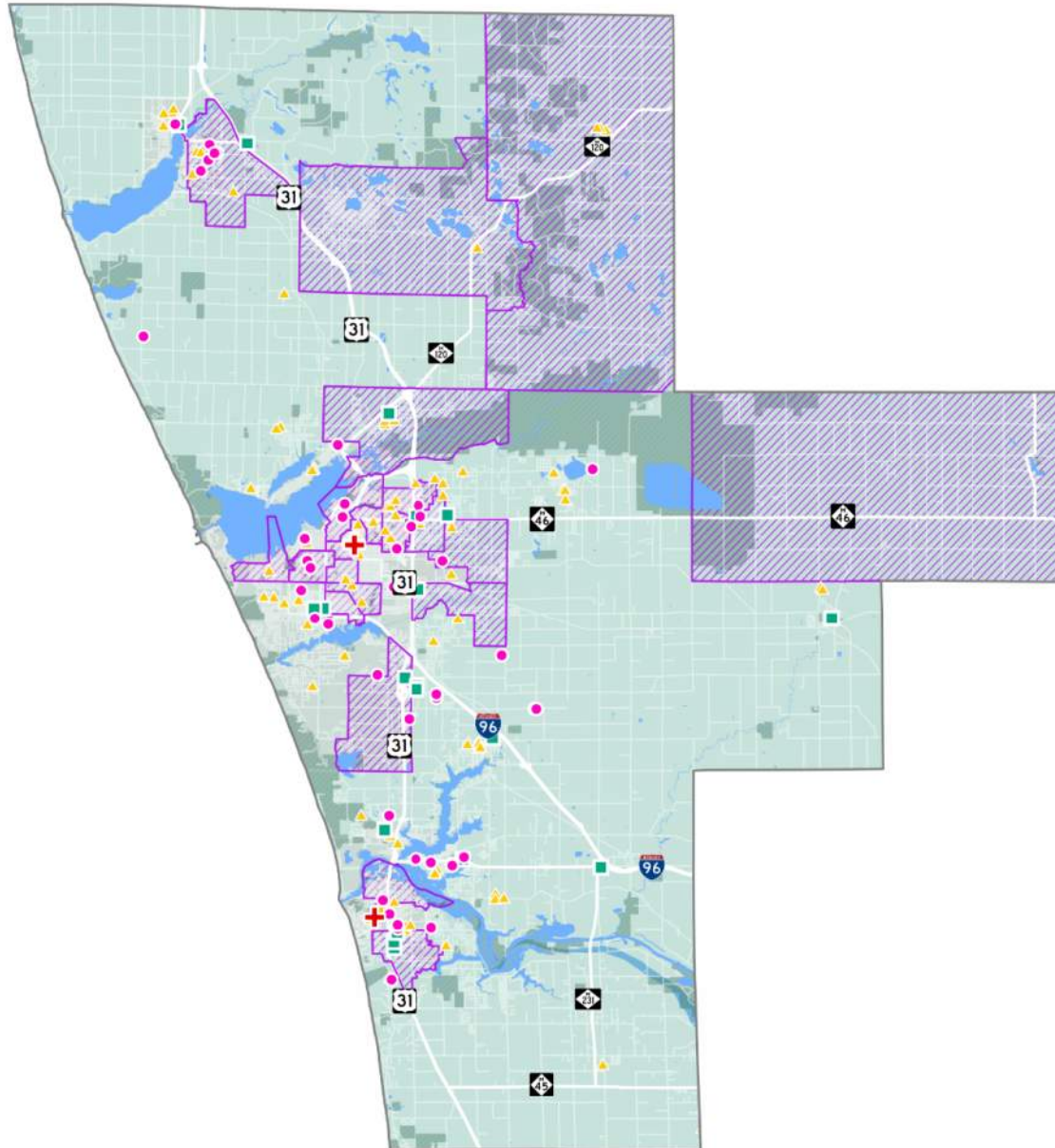
 Comprehensive Equity Area Census Tract



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Community Insights Census Tract Data, 2025. Progressive Companies, 2025.



# MAP #12: LOCAL AMENITIES MAP



## Local Amenities Map

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

### LEGEND

- Hospital Facility
- Senior Care Living Facility
- Grocery Stores
- Public Schools
- Comprehensive Equity Area Census Tract



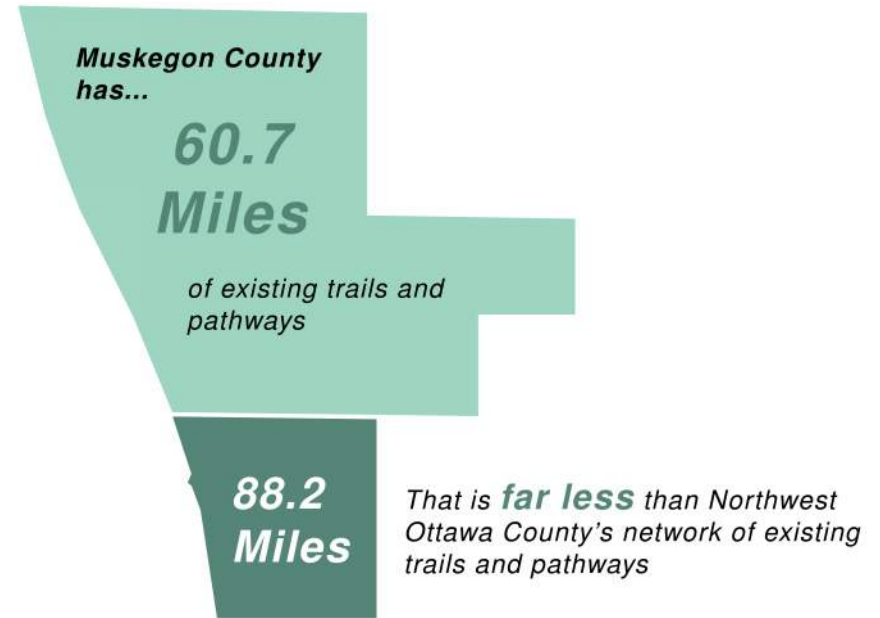
Data Source: Michigan Geographic Data Library, 2025. Urban  
Footprint Community Insights Census Tract Data, 2025.  
Progressive Companies, 2025.

## EXISTING TRAIL NETWORK

Early in the planning process, the Steering Committee identified existing regional trails (shared-use pathways, sidepaths) within Muskegon and Ottawa Counties. This is a difficult undertaking at a regional level since these non-motorized improvements are constructed by different local and county governments in phases spanning multiple years. Although the WMSRDC maintains a regional trails database, this relies on local governments regularly providing data to WMSRDC. Between the region's two counties and 29 local units of government, there are trail projects that are in various stages of planning, construction, and completion that are likely not communicated to WMSRDC on an annual basis.

Compiled from WMSRDC and the West Michigan Trails Plan process in 2024, a map was created to illustrate the existing trail network. The Steering Committee verified its accuracy. The resulting map represents the region's roughly 149 miles of existing trail and sidepath network.

The region's existing paved trail network features high connectivity in Ottawa County, as shared use paths and sidepaths connect major roads throughout the Tri-Cities region. This can be attributed to the long-standing pathway millages approved in Spring Lake Township, Ferrysburg, and Grand Haven Township that have funded trail construction and maintenance over the previous decades. Two regional trails, including the Lakeshore Trail (connecting to Holland) and the North Bank Trail (connecting to the eventual Grand River Greenway via the Spoonville Trail), provide greater connectivity into the rest of Ottawa County.

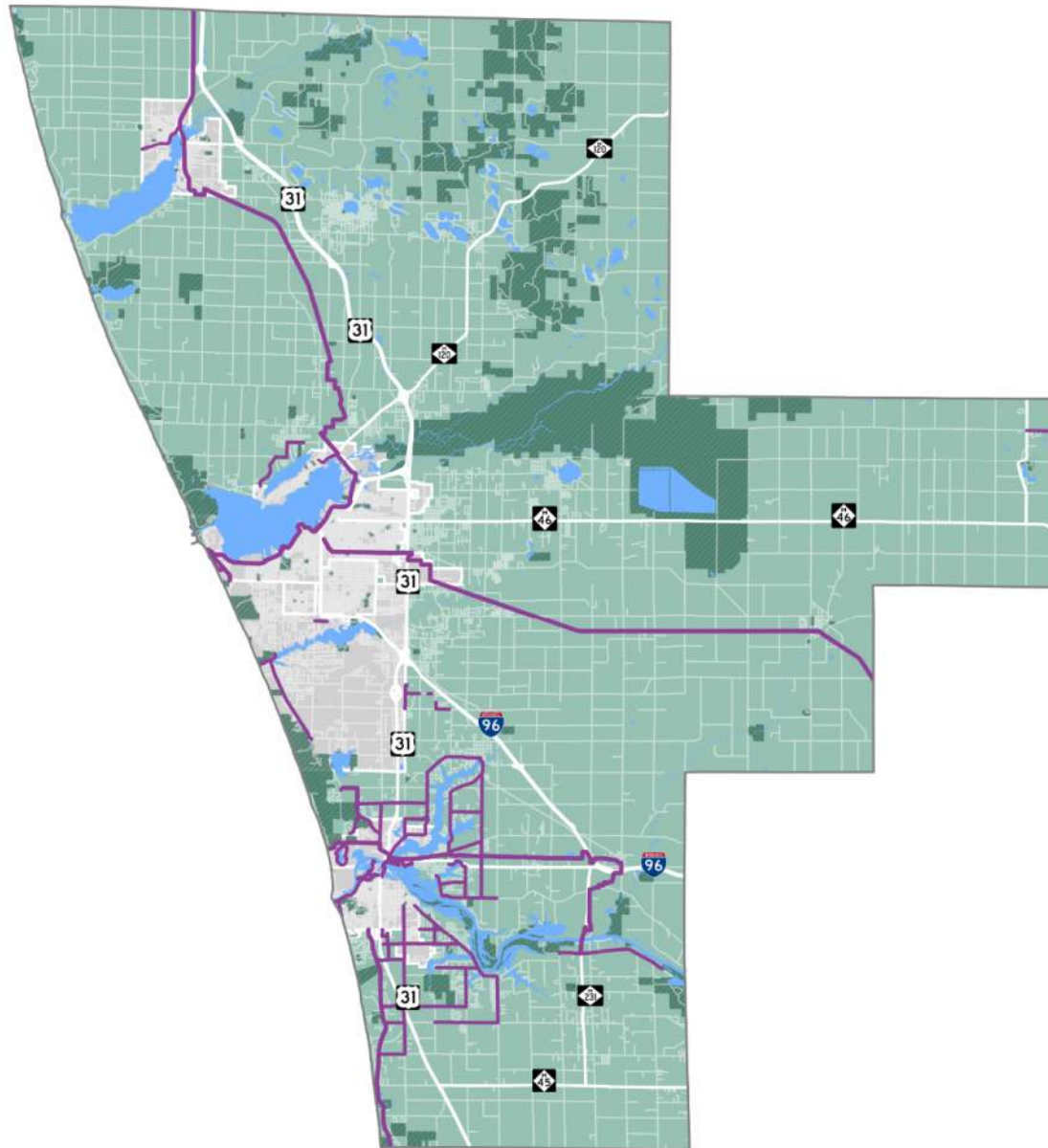


**Above:** Graphic representing the discrepancy in existing trails between Muskegon County and Northwest Ottawa County.

The “Grand Loop” is another pathway system that will be linked as the Grand River Greenway is completed. This is roughly 224-miles long and completed the loop that follows the North Bank Trail through Spring Lake and Crockery Township to Nunica, where it proceeds south along the Spoonville Trail, where it crosses the Grand River on the M-231 bridge and connecting to the Grand River Greenway. This provides a circular loop system around the western section of the Grand River between Grand Haven and Nunica.

Existing trails in Muskegon County are sparser than Ottawa County, with most being in the form of regional trails such as the Musketawa Trail (connecting to Marne and Grand Rapids), the Laketon and Lakeshore Trails (connecting different parts of Muskegon) and the Berry Junction and Hart-Montague Trails that link the Muskegon area to the Village of Hart in Oceana County.

# MAP #13: EXISTING TRAIL NETWORK



## Existing Trail Network

Muskegon County  
Northwest Ottawa County

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

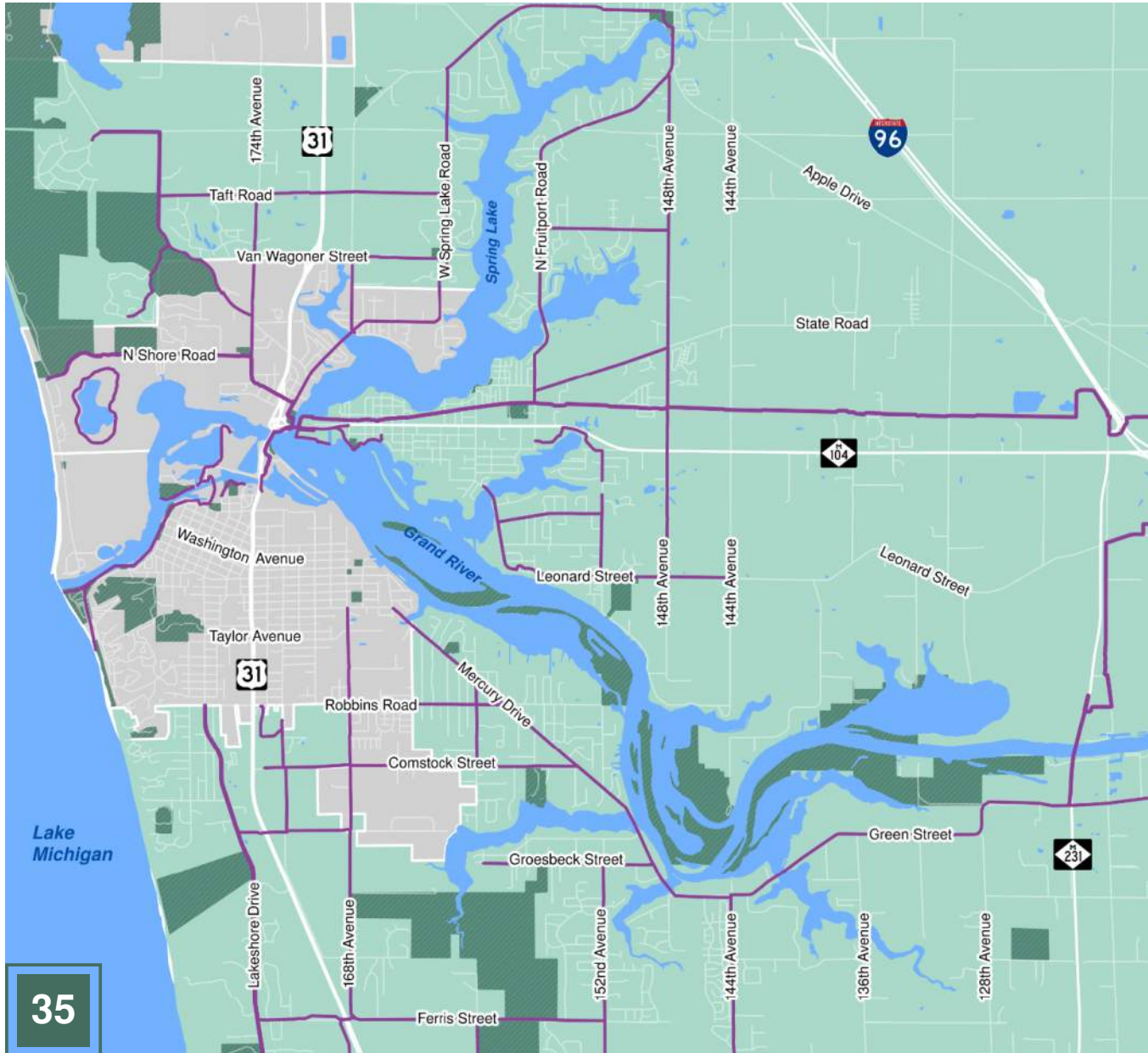
### LEGEND

— Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Community Insights Census Tract Data, 2025. Progressive Companies, 2025.

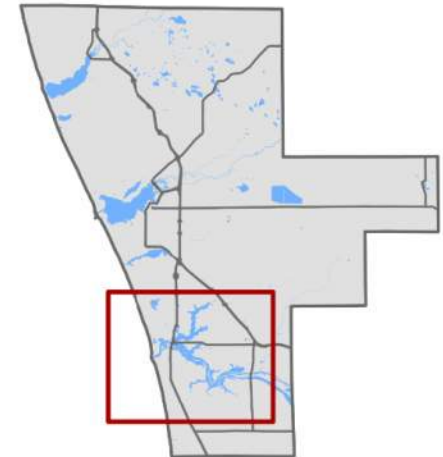
# MAP #14: EXISTING TRAIL NETWORK - NORTHWEST OTTAWA COUNTY



## Existing Trail Network Northwest Ottawa County

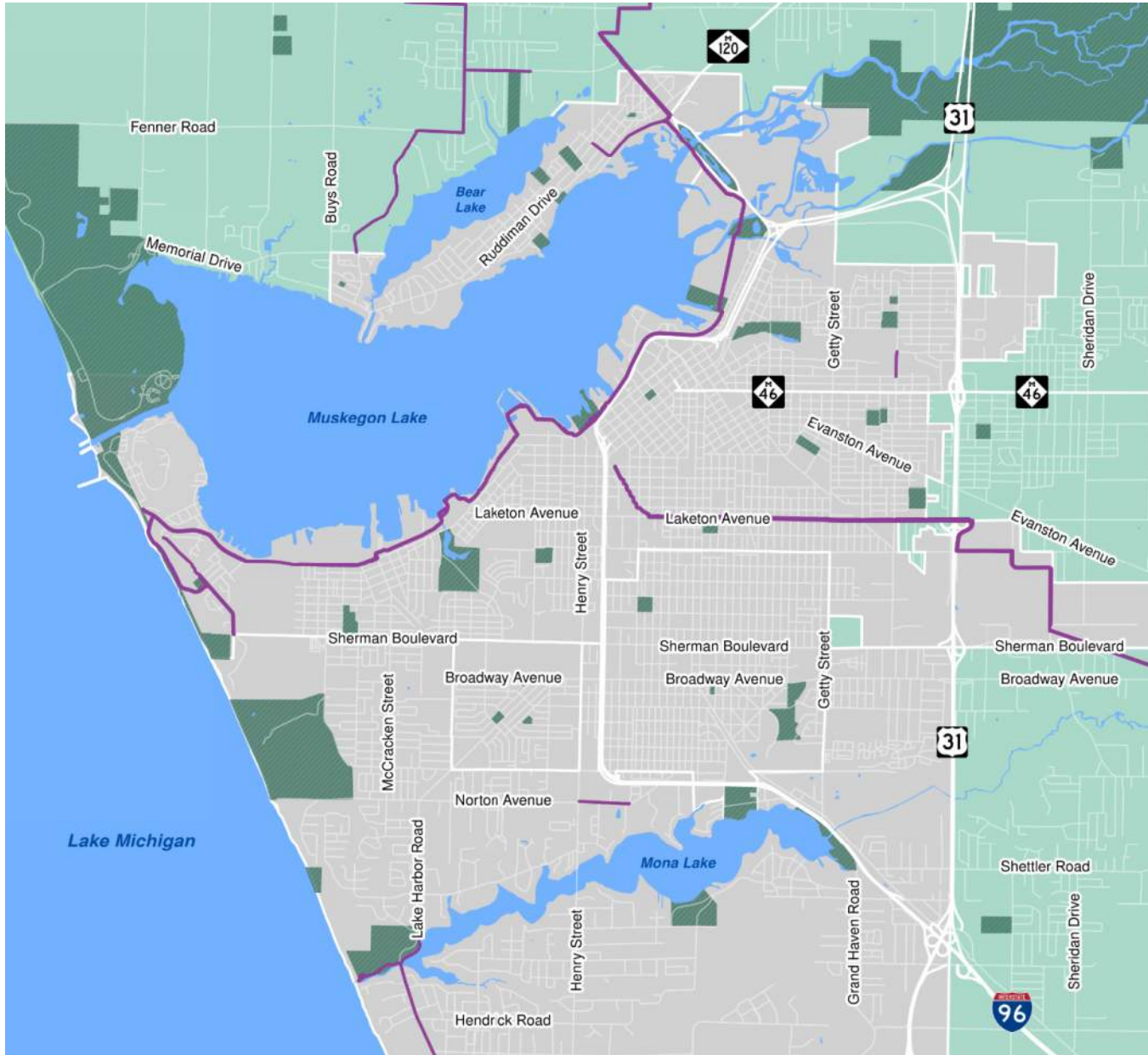
### LEGEND

— Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

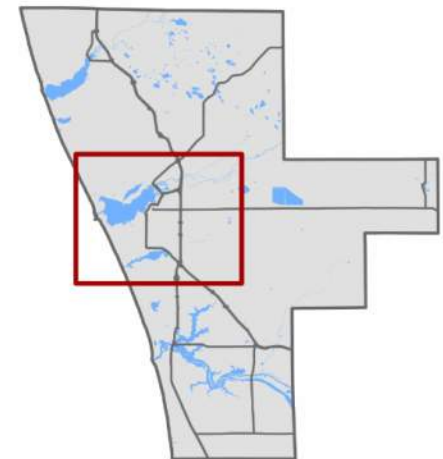
# MAP #15: EXISTING TRAIL NETWORK – MUSKEGON AREA



## Existing Trail Network Muskegon Area

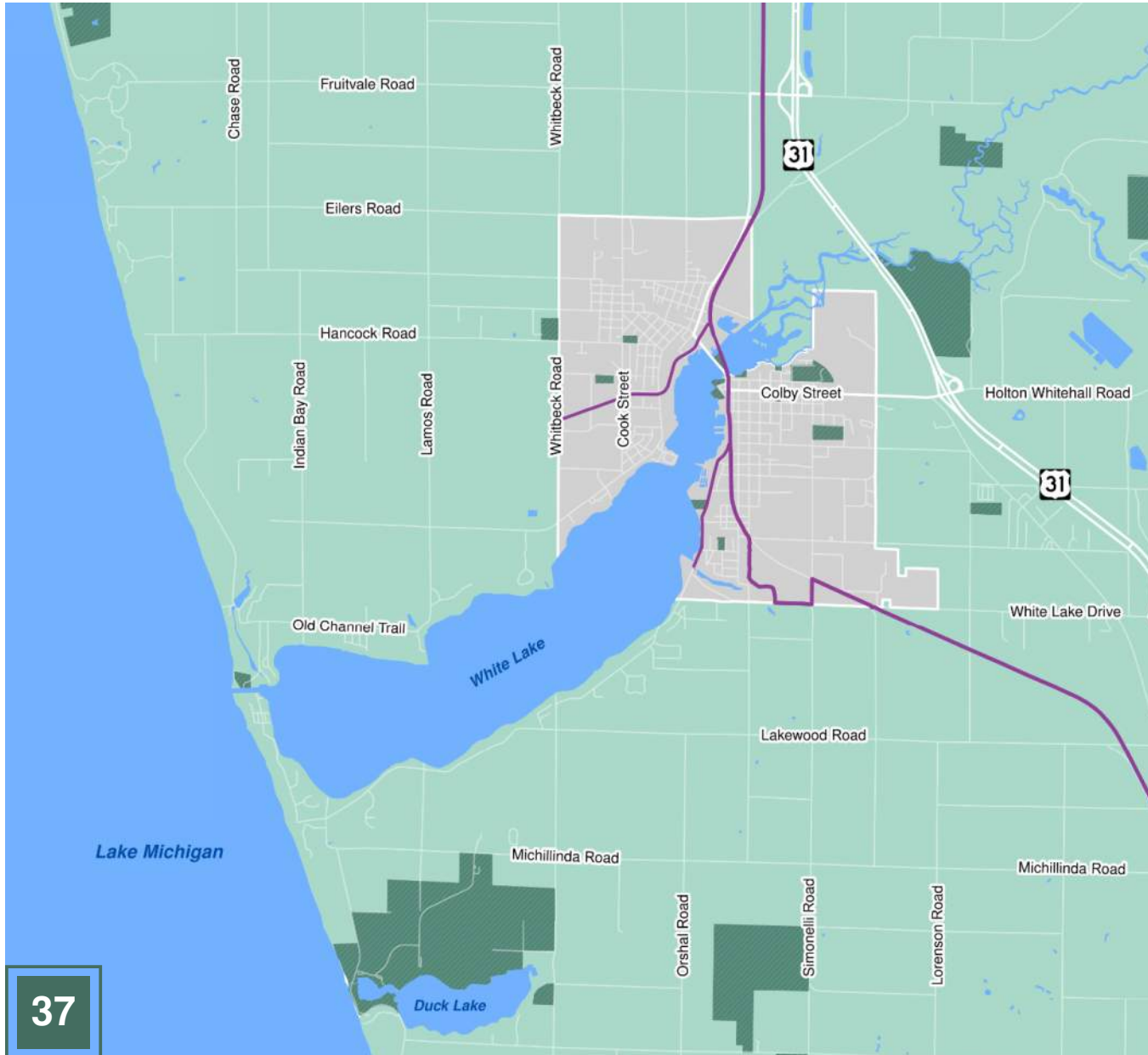
### LEGEND

— Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

# MAP #16: EXISTING TRAIL NETWORK - WHITEHALL & MONTAGUE AREA

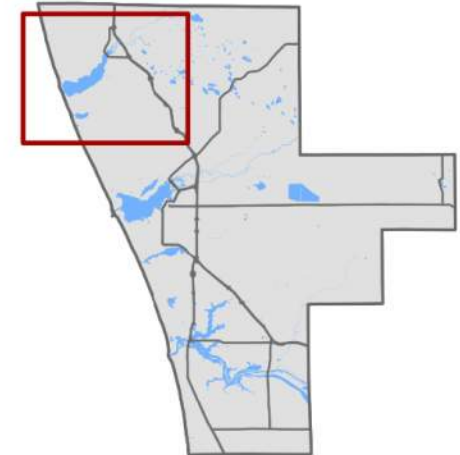


37

## Existing Trail Network *Whitehall & Montague Area*

### LEGEND

— Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.



## US BICYCLE ROUTE 35

U.S. Bicycle Route 35 (US BR-35) is a segment of the United States Bicycle Route System - a network of signed roadways that are designated as interstate touring bicycle routes. US BR-35 runs from the Canadian border in Sault Ste. Marie south where it follows state and county roadways parallel to the Lake Michigan shoreline.

US BR-35 follows the Hart-Montague Trail alignment starting in Oceana County through the Whitehall & Montague area in northern Muskegon County. The route then follows the Lakeshore Trail in Muskegon south of Muskegon Lake before proceeding south along McCracken Street. From McCracken Street, the route follows Lake Harbor Road south to Black Lake Road, 180th Avenue, and Dogwood Drive in Spring Lake Township. US BR-35 then passes through Ferrysburg before crossing the bascule bridge pathway over the Grand River, then passing through downtown Grand Haven and proceeding south to the Lakeshore Avenue Trail via Sheldon Road.

Although US BR-35 largely follows on-street state and county highways in other parts of the state, the route through Muskegon and Northwest Ottawa County follows alignment of many of the region's existing trails and greenways such as the Hart-Montague Trail, the Berry Junction Trail, the Muskegon Lakeshore Trail, then existing sidepaths through Spring Lake Township and Ferrysburg. Proposed segments such as the Greenwood Street Trail (CM #2), Lake Harbor Road Trail (CM #7), Pontaluna Road Trail (CM #37) Black Lake Road Trail (CM #38) and the Sheldon Road Trail in Grand Haven (NWO #2) will result in US BR-35 existing entirely on off-street trails and greenways through Muskegon and Ottawa County. These segments are discussed later in Chapter 8: Shoreline Trails and Greenways Network Map.



## EXISTING WATER ACCESS

Understanding the location of water access sites is a crucial component in creating interconnected trails, greenways, and waterways networks. Besides Lake Michigan, there are numerous waterbodies that currently feature access to boaters, kayakers, and other water recreation users via boat ramps and small craft launches. It is important to acknowledge that some watercraft are more mobile and can use all forms of water access sites (kayaks, canoes, or paddleboards, for example) while larger watercraft (such as jet skis, pontoons, or other motorboats) require paved boat ramps.



**Swimming Areas** include beaches, lakefront water access points, and other locations where swimming is allowed and encouraged



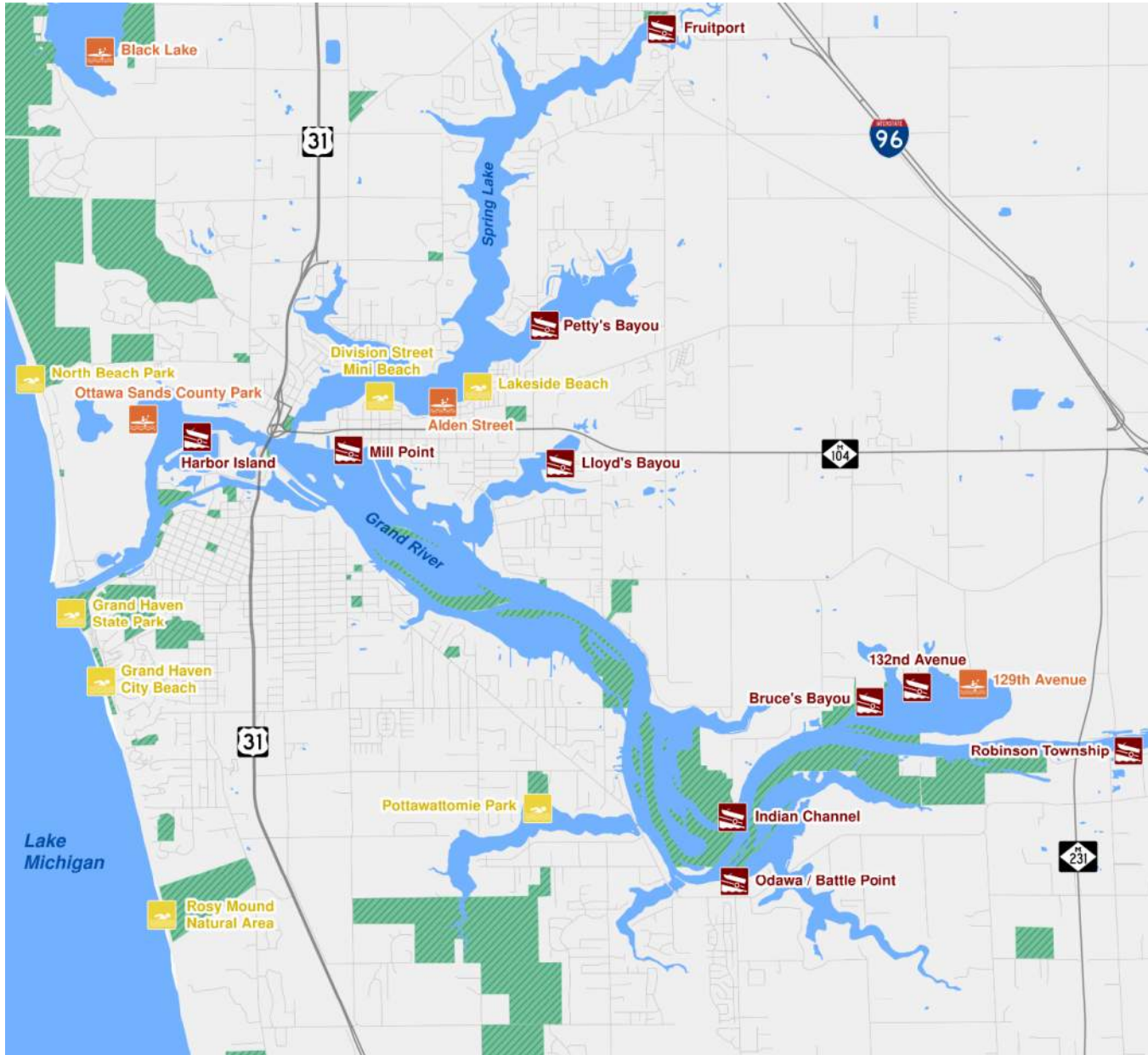
**Kayak and Small Watercraft Launch Sites** include water access and convenient parking nearby that accommodates small watercraft such as kayaks, canoes, paddleboards, and others



**Motorized Boat Launch Ramps** include paved boat ramps and docks for loading motorized watercraft on trailers



# MAP #17: EXISTING WATER ACCESS POINTS – NORTHWEST OTTAWA COUNTY

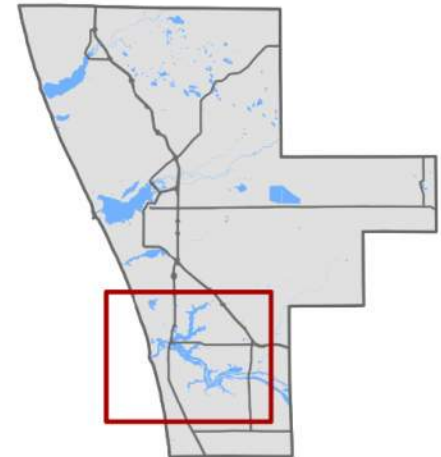


## Existing Water Access Points

Northwest Ottawa County

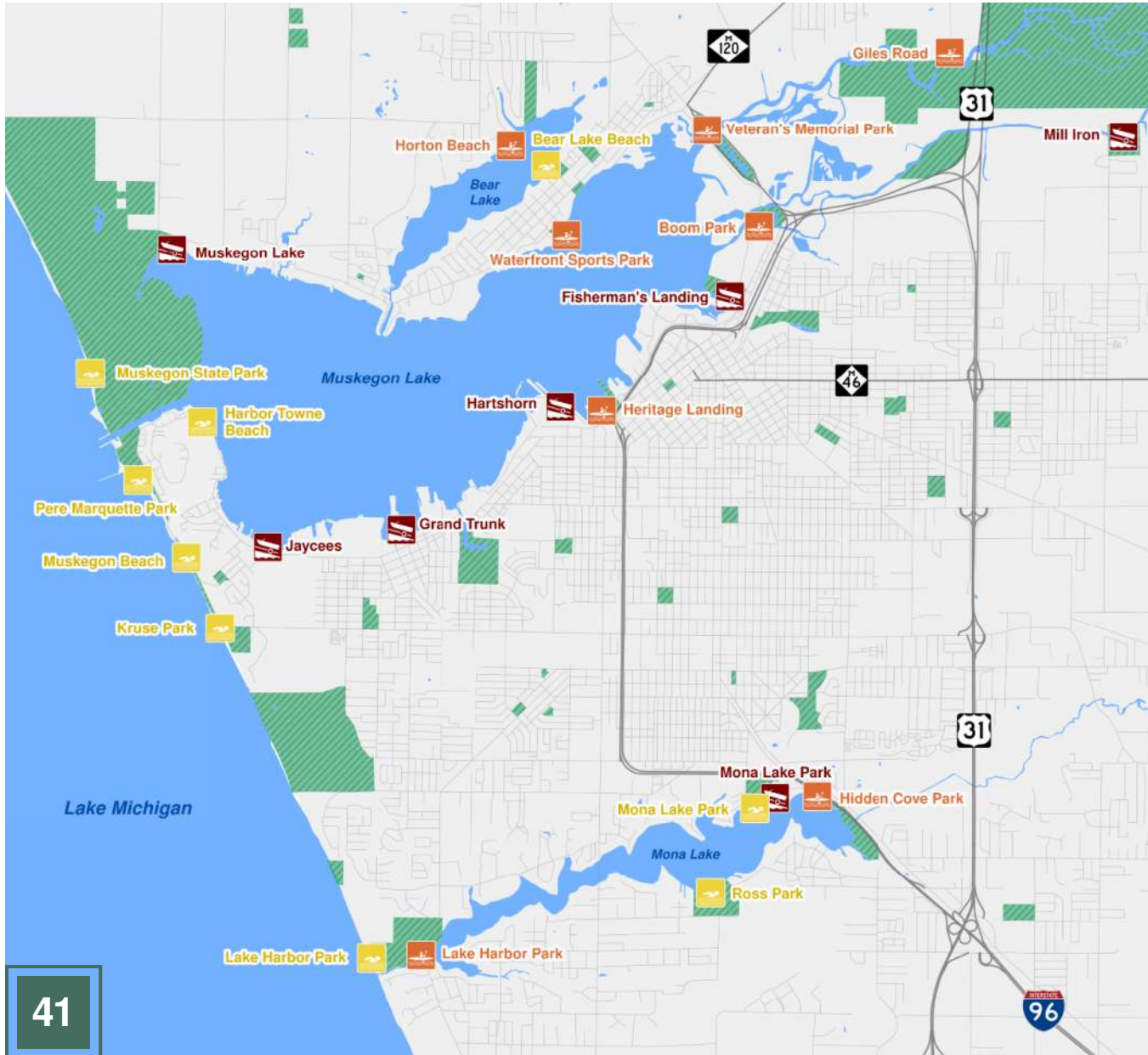
### LEGEND

-  Swimming Area
-  Kayak & Small Watercraft Launch
-  Motorized Boat Launch Ramp



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

# MAP #18: EXISTING WATER ACCESS POINTS – MUSKEGON AREA



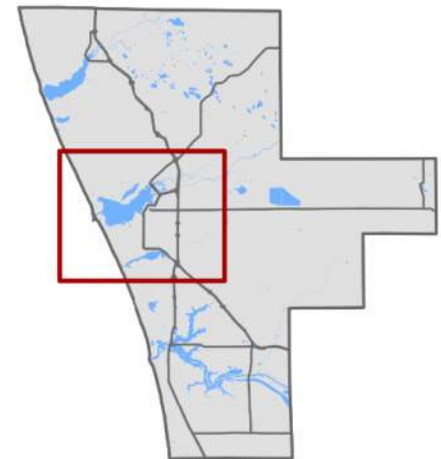
41

## Existing Water Access Points

### Muskegon Area

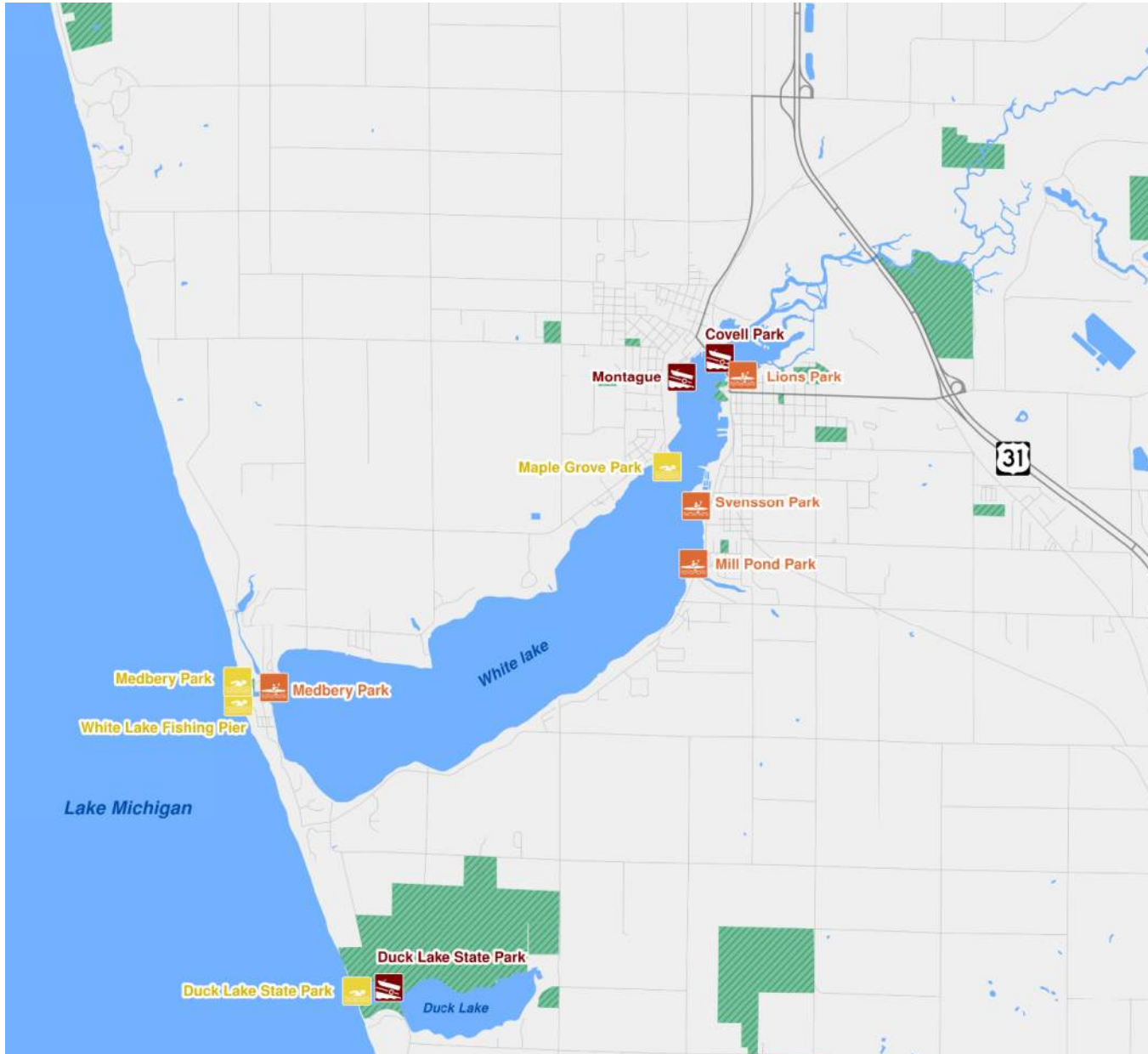
#### LEGEND

-  Swimming Area
-  Kayak & Small Watercraft Launch
-  Motorized Boat Launch Ramp



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

# MAP #19: EXISTING WATER ACCESS POINTS - WHITEHALL & MONTAGUE AREA



## Existing Water Access Points Whitehall & Montague Area

### LEGEND

- Kayak & Small Watercraft Launch
- Motorized Boat Launch Ramp
- Swimming Area



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

# 6

## Shoreline Trails and Greenways Network

### MENU OF FACILITY IMPROVEMENTS

The intent of the STAG Plan is not to prescribe the on-street bicycle networks of all 29 local units of government within the region; it's instead designed to identify and plan for trails, greenways, and waterway access improvements of regional significance with the vision of "a robust network of trails and greenways that connect communities." With an emphasis on facilities for "all ages and abilities", there are a few types of non-motorized improvements the Plan is focused on. These include:

#### TRAILS

Non-motorized pathways linking neighborhoods to schools, shopping centers, parks, and other destinations make walking and cycling a safe and enjoyable experience for all people. Facility types include:

Sidepaths, protected bike lanes, on-street bicycle routes

**Right:** Airway Sidepath, Plainfield Township, MI.

**Middle Right:** Laketon Trail, Muskegon, MI.

**Far Right:** Turner Avenue Cycle Track, Grand Rapids, MI.



## GREENWAYS

Linear parks that connect people to places, provide nature and respite, and act as habitat corridors for wildlife, these “greenways” are pockets of West Michigan’s natural beauty. Facility types include:

Regional shared use paths in park settings, “rails to trails” pathways, regional protected bike facilities in park settings



**Far Left:** White Pine Trail, Plainfield Township, MI.

**Middle Left:** Midland Valley Trail, Tulsa, OK.

**Near Left:** Southwest Greenway, Detroit, MI.

## ACCESS TO WATERWAYS

Whether kayaking or wakeboarding, whether tubing or fly fishing – the region’s abundance of waterways provides countless opportunities for freshwater recreation. Facility types include:

Motorized boat ramp, small watercraft launch, water access site



**Far Left:** ADA-Accessible Kayak Launch.

**Middle Left:** Motorized Boat Launch.

**Near Left:** Water Access Fishing Pier.

## CASE STUDY: DETROIT'S TRAILS AND GREENWAYS NETWORK

Michigan's largest city is becoming a national case study in how a post-industrial city can repurpose rail corridors, underutilized roadways, and low-volume surface streets to create a comprehensive trails and greenways system. Like many urban waterfronts, the Detroit riverfront was once dotted with blighted factory sites and vacant lots that featured little connectivity to adjacent neighborhoods.

Beginning in the mid-2000s, plans to convert the Detroit Riverfront into a natural asset gained traction, resulting in miles of trails along the city's waterfront. The city also began developing greenways that connected neighborhoods to the waterfront, with the nationally acclaimed Dequindre Cut being constructed on a former railroad track in 2009. Both the Southwest Greenway and Dennis Archer Greenway were completed in recent years and connect other neighborhoods to Detroit's riverfront.

**BOARD OF POLICE COMMISSIONERS  
BICYCLE LANES AND POLICY REVIEW**

"THE CITY OF DETROIT WILL BE THE MOST CYCLE FRIENDLY CITY IN AMERICA, A PLACE WHERE ALL DETROITERS WILL FEEL SAFE USING BICYCLES AS A MODE OF TRANSPORTATION." – Maurice Cox



## CASE STUDY: DETROIT'S TRAILS AND GREENWAYS NETWORK

These off-street trail improvements coincide with on-street mobility improvements, as many of the city's overbuilt roadways are being reconstructed to include protected bike lanes and cycle tracks. These protected bicycle facilities connect to greenways that connect to the riverfront, creating a system that connects Detroiters to their waterfront. These facilities also connect Detroiters to important amenities such as job centers, grocery stores, schools, and other daily locations. The region is also completing the Joe Louis Greenway, a 26-mile trail network that connects Detroit, Highland Park, Dearborn, and Hamtramck. This ambitious project represents the bold mobility vision of the region and is an example of how purposeful long-range planning is resulting in Detroit's increasing status as a premier cycling city.



**Above Top:** Dequindre Cut Before Greenway Trail.

**Above:** Dequindre Cut after Construction of Greenway Trail.



### Greenways

- 1 Southwest Greenway
- 2 Detroit Riverfront
- 3 Dequindre Cut
- 4 Dennis Archer Greenway

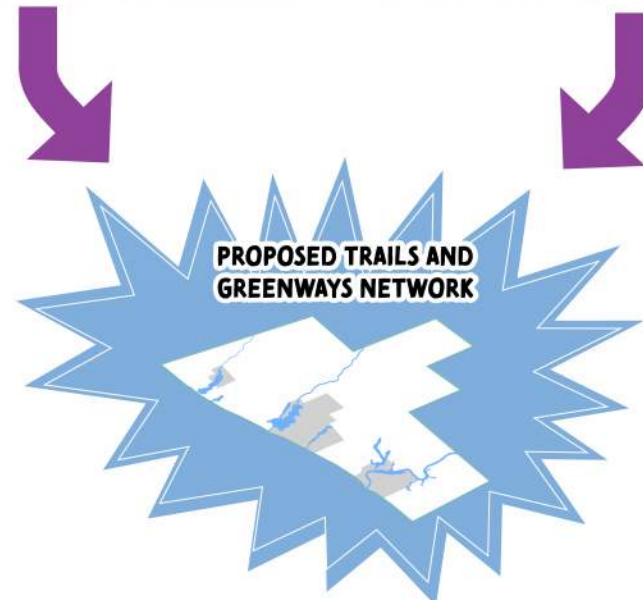
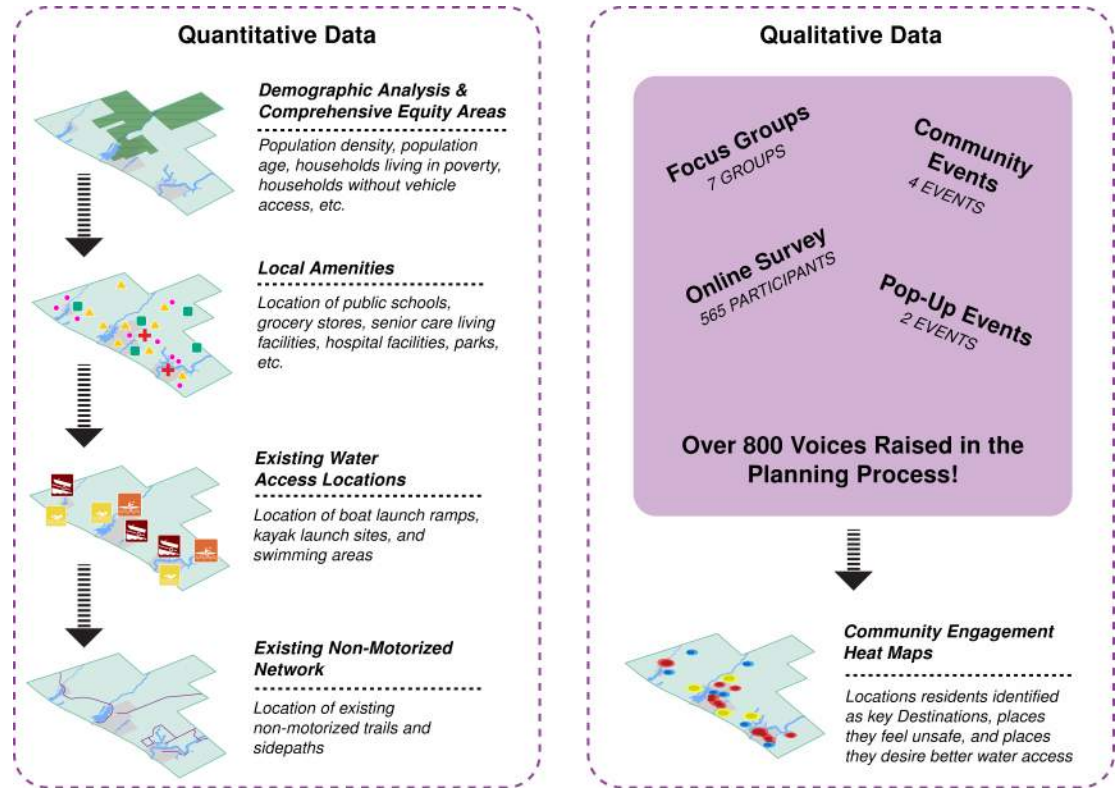
### Protected Bike Lanes

- 5 Grand River Protected Bike Lanes
- 6 Cass Avenue Protected Bike Lanes
- 7 Jefferson Avenue Protected Bike Lanes
- 8 Kercheval Avenue Cycle Track

# 7 Project Prioritization Matrix

## HOW PROPOSED TRAIL AND GREENWAY SEGMENTS WERE IDENTIFIED

The proposed trails and greenways network was informed by the gathering of quantitative data (demographics, amenities, existing conditions and water access sites, etc.) and qualitative data (feedback from residents, survey responses). Combined, both of these identified the important trail connections to be included in the proposed network.



## HOW PROPOSED TRAIL AND GREENWAY SEGMENTS WERE PRIORITIZED

With five (5) guiding principles identified, the following Project Prioritization Matrix was designed to objectively score and rank proposed trail and greenway segment priority based on these principles.

**NETWORK CONNECTIVITY:** Does a proposed trail and/or greenway connect to the existing trails network?

**EFFICIENCY:** Does a proposed trail and/or greenway maximize use of existing infrastructure and resources?

**SAFETY:** Does a proposed trail and/or greenway improve safety by providing an alternative route to traveling on a high-stress roadway?

**ACCESSIBILITY:** Does a proposed trail and/or greenway connect to key destinations within the region?

- Natural spaces
- Water access
- Bus stop or transit facility
- Employment center
- School or higher education institution
- Grocery store or shopping center that includes food services

**EQUITY:** Is the segment within a Comprehensive Equity Area?



*The prioritization matrix is a way to objectively score trail segments based on project priorities and identify which routes are most impactful to the regional network*

# PROJECT PRIORITIZATION MATRIX

Guiding Principle	Measure	Potential Scoring Options	Total Points Available	Total Segment Score
<b>Network Connectivity</b>				
	Does the segment connect a gap in the existing network?	If "Yes" give <b>20 points</b> for double-ended connection and <b>10 points</b> for single-ended connection	20	-
	Does the segment connect to a regional trail segment?*	If "Yes" give <b>20 points</b>	20	-
<b>Total Network Connectivity Score</b>				-
<b>Efficiency</b>				
	Can the segment be constructed within the existing ROW?*	If "Yes" give <b>10 Points</b>	10	-
	Can excess roadway capacity be repurposed for a non-motorized segment?	If "Yes" give <b>10 Points</b>	10	-
	Is the segment identified in a local unit of government's Master Plan, Parks & Recreation Plan, or other planning document?	Is "Yes" give <b>10 Points</b>	10	-
<b>Total Efficiency Score</b>				-
<b>Safety</b>				
	Does the segment provide an alternative to a high-stress roadway?*	If "Yes" give <b>10 Points</b>	10	-
<b>Total Safety Score</b>				-
<b>Accessibility</b>				
	Does the segment connect to a park or publicly-accessible natural space?	If "Yes" give <b>10 Points</b>	10	-
	Does the segment connect to a waterbody or water access location?	If "Yes" give <b>10 Points</b>	10	-
	Does the segment connect to an existing bus stop or transit facility?	If "Yes" give <b>10 Points</b>	10	-
	Does the segment connect to a major regional employment center?*	If "Yes" give <b>10 Points</b>	10	-
	Does the segment connect to a school or higher education institution?	If "Yes" give <b>10 Points</b>	10	-
	Does the segment connect to a grocery store or shopping center that includes food services?	If "Yes" give <b>10 Points</b>	10	-
<b>Total Accessibility Score</b>				-
<b>Equity</b>				
	Is the segment within a Comprehensive Equity Area?*	If "Yes" give <b>30 points</b>	30	-
<b>Total Equity Score</b>				-
<b>TOTAL SEGMENT PRIORITY SCORE</b>				

**\*Network Connectivity:** "Regional Trail Segments" are those identified in the West Michigan Trails and Greenways Plan


**\*Efficiency:** Existing ROW includes rail easements, power line easements, or easement through public property


**\*Safety:** "High-Stress Roadways" are roadways with more than 2 lanes, AADT > 10,000 vehicles, and speeds > 35 MPH


**\*Accessibility:** "Major Regional Employment Center" can be defined as a location with an estimated 100 employees or more

With existing resources being less than what's needed to implement the entire proposed network at once, the matrix identifies which trail segments will yield the greatest immediate benefits and should be considered for funding priority. Priority rankings for each segment are described below:

### **SEGMENT PRIORITY RATINGS (AS SEEN IN SEGMENT PRIORITIZATION MAPS)**

 **LOWER PRIORITY IMPROVEMENTS (0 TO 49)** – Non-motorized segments that provide important alternative routes and connections between other proposed segments.

 **MEDIUM PRIORITY IMPROVEMENTS (50 TO 79)** – Non-motorized segments that are locally important, connecting neighborhoods and smaller population centers to key destinations. When constructed, these segments represent the “filling out” of the network that is crucial in providing access to parks, waterways, and other daily amenities to the entire region.

 **HIGHER PRIORITY IMPROVEMENTS (80 AND ABOVE)** – Non-motorized segments that are transformational in nature, immediately connecting population centers to key destinations and knitting communities within the Shoreline Region closer together.

Each segment's priority ranking directly relates to its relation to the five guiding principles described earlier. This is not to say that lower priority segments should be neglected; however, segments scoring lower priorities are still important components of the overall network, and opportunities to construct any of these segments should be seized as opportunities arise.

Finding alignment with a community's Capital Improvement Plan can provide “opportunistic” moments. A single-course resurfacing project may be a great time to narrow existing travel lanes, restripe from four to three lanes, and provide sufficient space for on-street bicycle facilities. Tracking development projects can also provide the chance to leverage Brownfield Redevelopment monies to make investments in public infrastructure.

# 8

## Shoreline Trails and Greenways Network Map

Building and maintaining the ambitious network outlined in this Plan will take many years and require the committed support of local governments, regional agencies, nonprofit organizations, and residents of the entire Shoreline Region. The intent of the plan is an interconnected network of trails and greenways providing access to the region's lakes, rivers, streams, and other natural areas.

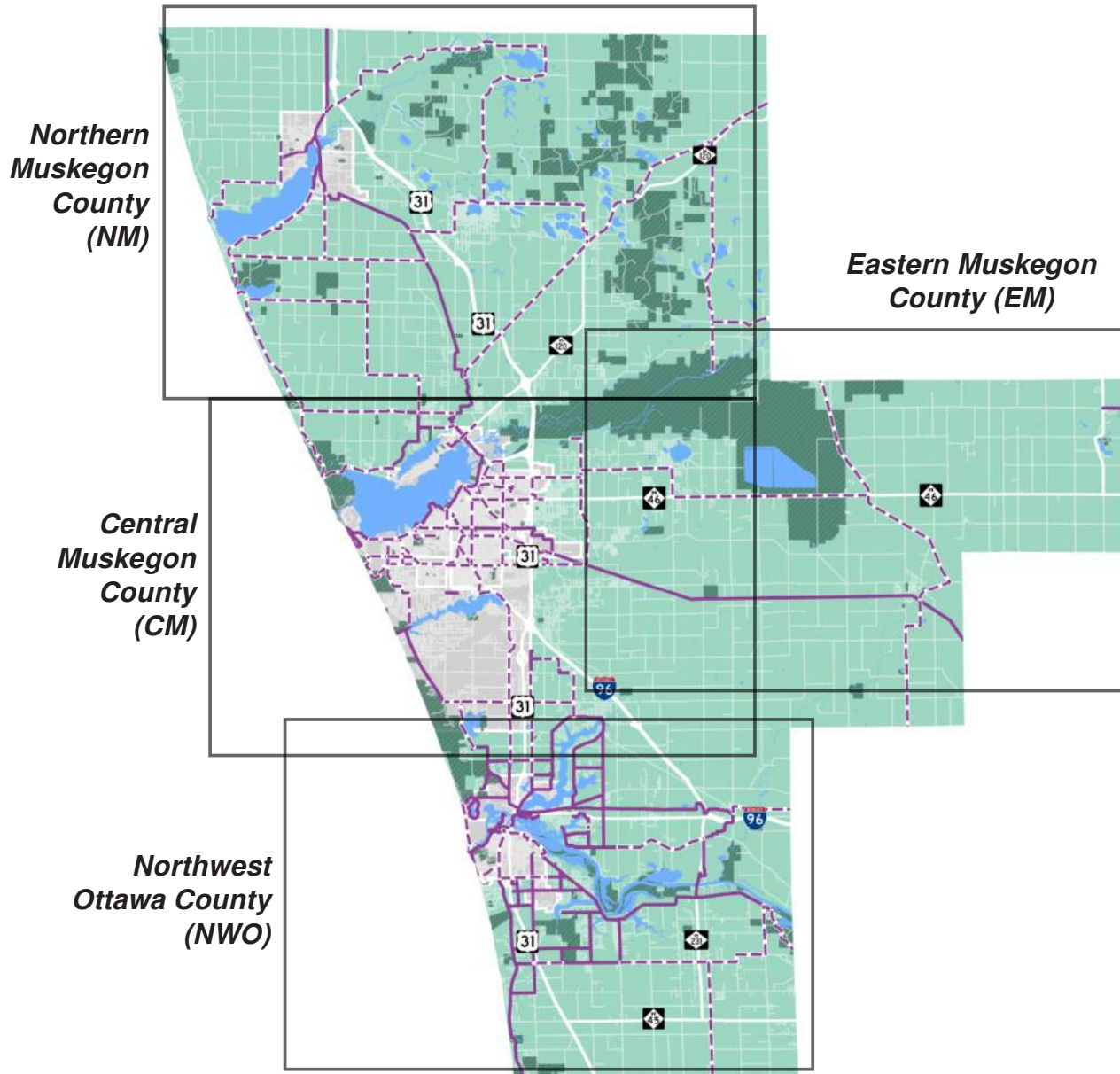
### Northern Muskegon County

Located north of Muskegon Lake and Bear Lake, this part of the Shoreline Region is centered around the twin cities of Whitehall and Montague and features the southernmost extent of the Manistee National Forest as well as Duck Lake State Park and Muskegon State Park. The proposed network in this area emphasizes connecting lakefront parks while providing greater connectivity to the existing Hart-Montague Trail as well as linking the communities of Lakewood Club, Twin Lake, and Holton to the greater non-motorized network.

While connections to Lake Michigan were prioritized throughout the plan, a sample of specific natural area highlights to connect to in Northern Muskegon County includes:

- Blue Lake's Unpaved Trail System
- Duck Lake State Park and Natural Area
- Muskegon State Park
- Pioneer Park
- White Lake
- White River

# MAP #20: PROPOSED TRAILS AND GREENWAYS NETWORK MAP



## Proposed Trails and Greenways Network

Muskegon County  
Northwest Ottawa County

West Michigan Metropolitan Transportation Planning Program  
Service Region, Muskegon and Ottawa Counties, Michigan

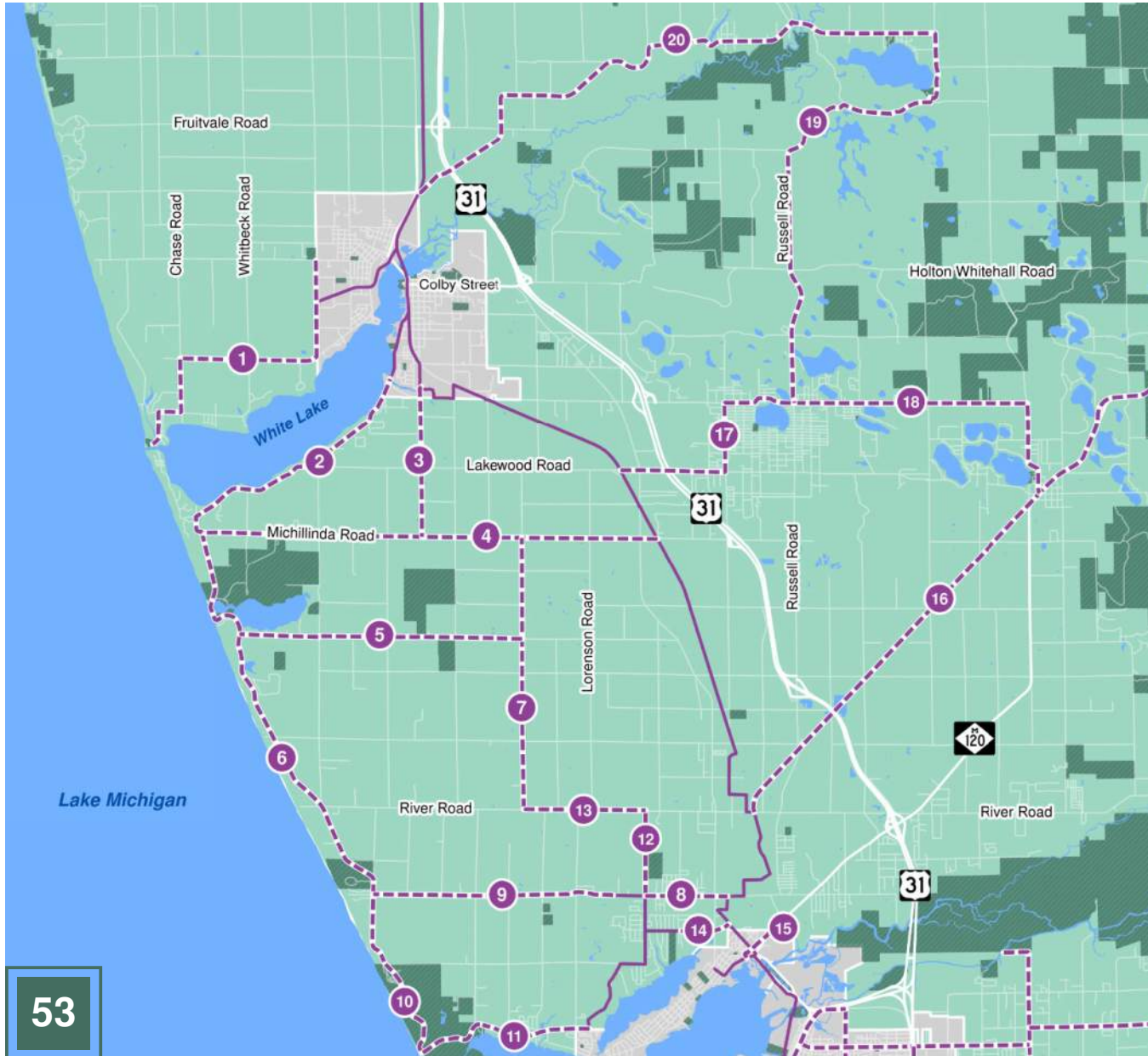
### LEGEND

- Existing Trail Network
- - - Proposed Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Community Insights Census Tract Data, 2025. Progressive Companies, 2025.

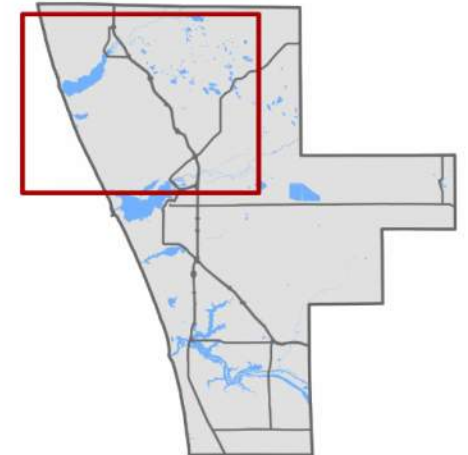
# MAP #21: NORTHERN MUSKEGON COUNTY PROPOSED TRAILS AND GREENWAYS NETWORK



## Proposed Trail Network Northern Muskegon County

### LEGEND

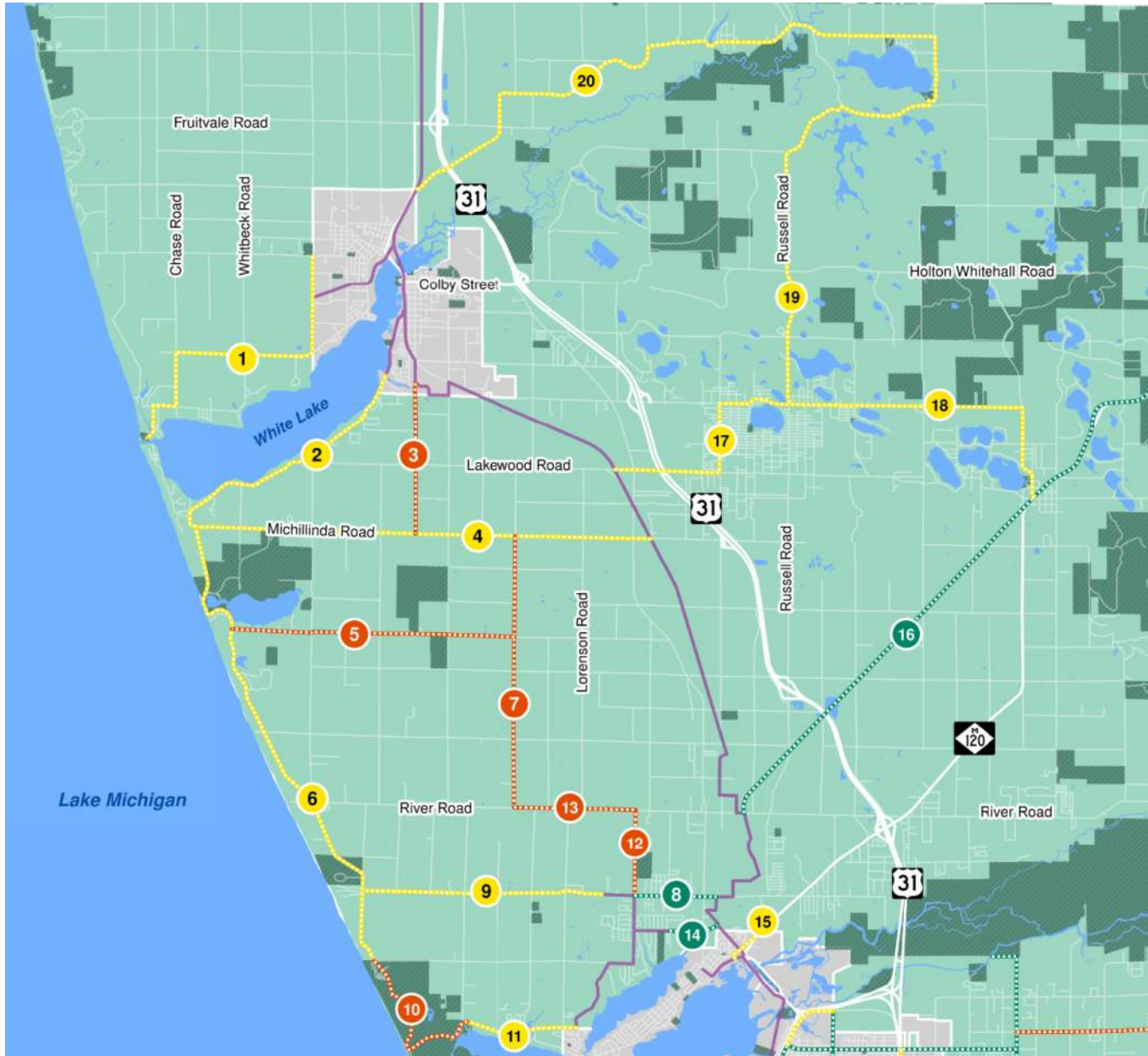
- Proposed Trails and Greenways Network
- Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.



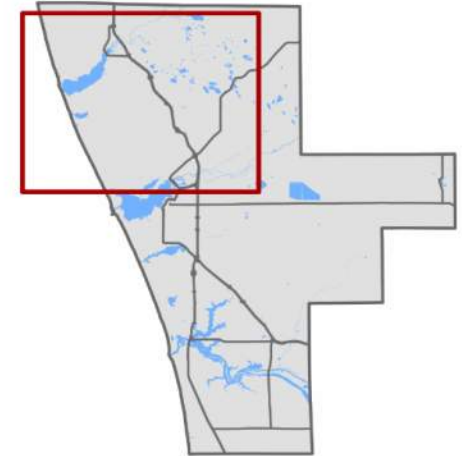
# MAP #22: NORTHERN MUSKEGON COUNTY PROPOSED SEGMENT PRIORITIZATION



## Segment Prioritization Northern Muskegon County

### LEGEND

- - - Lower Priority Improvements
- - - Medium Priority Improvements
- - - Higher Priority Improvements
- Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

## 1.) MEDBERY PARK TRAIL

**Estimated Length:** 5.1 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 50

**Proposed Facility Type:** Sidepath

Included in the Montague Master Plan (2023), planning work for this trail was completed in 2013 and would connect the Hart-Montague Trail, the City of Montague, Montague Township, and White River Township to Lake Michigan via Old Channel Trail.

## 2.) SOUTH SHORE DRIVE TRAIL

**Estimated Length:** 4.2 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 50

**Proposed Facility Type:** Sidepath

Connecting to the Scenic Drive Pathway near the White Lake Golf Club, this pathway runs south along Whitehall Lake connecting to water access points such as Mill Pond Park, Svensson Park, and the Whitehall Marina.

## 3.) ZELLAR ROAD TRAIL

**Estimated Length:** 2.2 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 30

**Proposed Facility Type:** Sidepath

Providing north-south connectivity between Fruitland Township and the City of Whitehall, this pathway would link the Hart-Montague Trail near Howmet Park to Michillinda Road to the south.

## 4.) MICHILLINDA ROAD TRAIL

**Estimated Length:** 6.7 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Sidepath

Located in Fruitland Township, this pathway would provide an east-west corridor connecting Scenic Drive south of the White Lake Golf Club to Weber Road.

**SURVEY RESPONSE:** *“As a resident of White River Township, I am particularly interested in extensions of existing trails (EX, Hart/Montague and/or Medbery) westward, ideally that might form a loop - or at least multiple out & back spurs.”*

**SURVEY RESPONSE:** *“We’d like to be able to get to the Lake Michigan lakeshore from the Hart-Montague Trail. Especially from the Montague-Whitehall area.”*

**SURVEY RESPONSE:** *“Wish to travel west from Montague area to the shoreline.”*

## 5.) DUCK LAKE ROAD TRAIL

**Estimated Length:** 4.2 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 10

**Proposed Facility Type:** Sidepath

Running south of Duck Lake State Park, this pathway would connect Scenic Drive to Duck Creek Natural Area before connecting to Weber Road.

## 6.) SCENIC DRIVE TRAIL

**Estimated Length:** 7.5 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 50

**Proposed Facility Type:** Sidepath

Included in both the Laketon Township Master Plan (2022) and the Fruitland Township Master Plan (2021), this pathway would connect Duck Lake State Park to Muskegon State Park while also providing a connection to Pioneer Park. Planning and design work was completed in 2023 and proposes an eight-foot-wide shared use pathway on the east side of Scenic Drive. Funding requests have been submitted, and this pathway remains a priority for both townships.

- **SURVEY RESPONSE:** “[Want connections to] Scenic Drive to Muskegon State Park & Duck Lake State Park.”
- **SURVEY RESPONSE:** “Scenic Drive sidewalk connecting Pioneer Park with the state park or block house, possibly the channel.”
- **SURVEY RESPONSE:** “[Want connections to] Whitehall to North Muskegon, by way of Scenic Drive.”

## 7.) WEBER ROAD TRAIL

**Estimated Length:** 4.0 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 0

**Proposed Facility Type:** Sidepath

Connecting Fruitland Township and Laketon Township, this pathway would provide an additional north-south corridor three miles west of the Hart-Montague Trail and four miles east of the proposed Scenic Drive pathway.



**Above:** The Scenic Drive Trail would connect Muskegon State Park (**Top**) with other parks and natural areas such as Pioneer Park and Duck Lake State Park (**Bottom**).

## 8.) GILES ROAD TRAIL (EAST OF HORTON ROAD)

**Estimated Length:** 1.2 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 90

**Proposed Facility Type:** Sidepath

## 9.) GILES ROAD TRAIL (WEST OF HORTON ROAD)

**Estimated Length:** 3.6 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 60

**Proposed Facility Type:** Sidepath

Included in the Laketon Township Master Plan (2022), these pathways would provide a connection to the Hart-Montague Trail in the east while providing access to Central Elementary School, Reeths-Puffer Middle School, Laketon Township Hall, and eventually Pioneer Park on Lake Michigan.

**SURVEY RESPONSE:** *“A trail/bike path the length of Giles Road from the Reeths-Puffer High School to the lakeshore.”*

**SURVEY RESPONSE:** *“It would be great to have more trails through Laketon Township. I bike to work and to the State parks, and I often have to bike on Giles Road. I feel that it is dangerous because cars normally go over the 55-mph limit, and there is only a bike lane for separation. If there were more bike trails through the area, it would improve access and safety.”*

**SURVEY RESPONSE:** *“[Want connections to] North Muskegon the full length of Giles to schools and the shopping district on Holton Road.”*

## 10.) SCENIC DRIVE TRAIL (MUSKEGON STATE PARK)

**Estimated Length:** 2.7 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 30

**Proposed Facility Type:** Sidepath

Included in the Laketon Township Master Plan (2022) and a continuation of the Scenic Drive pathway connecting Laketon Township and Fruitland Township, this pathway segment would be constructed entirely within Muskegon State Park and would fall under the purview of the Michigan Department of Natural Resources (MDNR) as a park improvement project, linking the winter sports park near Fenner Road to the eastern park entrance on Memorial Drive.

**SURVEY RESPONSE:** *“Snug Harbor to parking lot of Lake Michigan beach.”*

**SURVEY RESPONSE:** *“[Want connection to] Snug Harbor day use/boat launch area in Muskegon State Park.”*

**SURVEY RESPONSE:** *“Bike path along Scenic Drive between Muskegon State Park and Whitehall.”*



**Above:** Block House, Muskegon State Park.

### 11.) MEMORIAL DRIVE TRAIL

**Estimated Length:** 1.7 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 50

**Proposed Facility Type:** Sidepath

Included in the Laketon Township Master Plan (2022), this pathway provides a connection to the existing pathway along Buys Road in North Muskegon and would connect to the entrance of Muskegon State Park. This pathway would require crossing Green Creek, which features a constrained bridge crossing.

**SURVEY RESPONSE:** *“North Muskegon connecting where Ruddiman Drive turns into Memorial Drive. A dedicated bike lane/trail all the way down Memorial drive on your way to Muskegon State Park.”*

**SURVEY RESPONSE:** *“Would be nice to be able to bike from the City of North Muskegon down Memorial to Lake Michigan without having to bike directly on the road. A bike lane or wide shoulder would be great!”*

### 12.) HORTON ROAD TRAIL

**Estimated Length:** 1.3 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 30

**Proposed Facility Type:** Sidepath

Included in the Laketon Township Master Plan (2022), this pathway connects to the existing Horton Road pathway south of Dykstra Road and would link to Mullally Park.

### 13.) RIVER ROAD TRAIL

**Estimated Length:** 1.8 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 0

**Proposed Facility Type:** Sidepath

This pathway runs parallel to River Road in Laketon Township between Horton Road in the east to Weber Road.

### 14.) DYKSTRA ROAD TRAIL

**Estimated Length:** 0.7 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 80

**Proposed Facility Type:** Sidepath

Included in the Laketon Township Master Plan (2022), this pathway would link the existing Dykstra Road pathway with the Hart-Montague Trail, filling the gap between these two existing trails.

**SURVEY RESPONSE:** *“Continue the bike trail along Dykstra Road and up Witham Drive to complete the loop around Bear Lake!”*

**SURVEY RESPONSE:** *“Dykstra Road NEEDS to have bike path connected from Andree Road to Whitehall Road! People are always walking and biking on the street!”*

## 15.) RIVERVIEW AVENUE TRAIL

**Estimated Length:** 0.8 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Sidepath

Included in the City of North Muskegon Master Plan (2024), this segment is proposed to be constructed on an elevated non-motorized bridge on the above-grade alignment of Riverview Avenue, passing over Whitehall Road, and would connect to the community's sports park.

## 16.) FREMONT GREENWAY

**Estimated Length:** 14.8 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 110

**Proposed Facility Type:** Greenway

Identified in the West Michigan Trails and Greenway Plan (2024) as a key priority for the organization, this greenway would be a regional "rails to trails" project, connecting the Hart-Montague Trail in Laketon Township to Twin Lake before eventually connecting to Fremont in Newaygo County.

**SURVEY RESPONSE:** *"I live at the south limits of Twin Lake and it would be nice to have a better connection along Holton Road to US-31 and down to the Muskegon Lakeshore Trail. There are areas with wide shoulders but with the level of distracted drivers out there I would not feel safe taking my kids on Holton Road to get to the trail."*



"Rails to Trails" projects are often the origin for some of the most beloved trail sections in the state, such as the White Pine Trail through Comstock Park (Top). The Fremont Greenway can connect Twin Lake (Above) to the greater non-motorized network.

## 17.) LAKEWOOD CLUB CONNECTOR TRAIL

**Estimated Length:** 2.6 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 60

**Proposed Facility Type:** Sidepath

A roughly 3-mile segment of this pathway would connect the Hart-Montague Trail to the Village of Lakewood Club east of Whitehall. This also increases regional non-motorized access to the recently completed Blue Lake Township Park, which features hiking and mountain biking trails. An additional nine-mile segment following White Lake Road would create a link to the proposed Fremont Greenway Trail in Twin Lake, linking much of northern Muskegon County together.

**SURVEY RESPONSE:** “[Want connections to] The Lakewood Club and Twin Lake Area.”

**SURVEY RESPONSE:** “Connecting the Lakewood Club, Twin Lake area would be a great thing. I am not the only one that rides through there and some are doing it strictly for transportation.”

## 18.) WHITE LAKE ROAD TRAIL

**Estimated Length:** 5.9 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Sidepath

This segment follows White Lake Road and would create a link from the Lakewood Club to the proposed Fremont Greenway Trail in Twin Lake, linking much of northern Muskegon County together.

## 19.) RUSSELL ROAD TRAIL

**Estimated Length:** 7.4 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 50

**Proposed Facility Type:** Sidepath

Connecting Big Blue Lake to Lakewood Club, this pathway runs parallel to Russell Road along much of the Owasippe Scout Camp property.

*Below: Blue Lake County Park.*



## 20.) FRUITVALE ROAD TRAIL

**Estimated Length:** 9.2 Miles

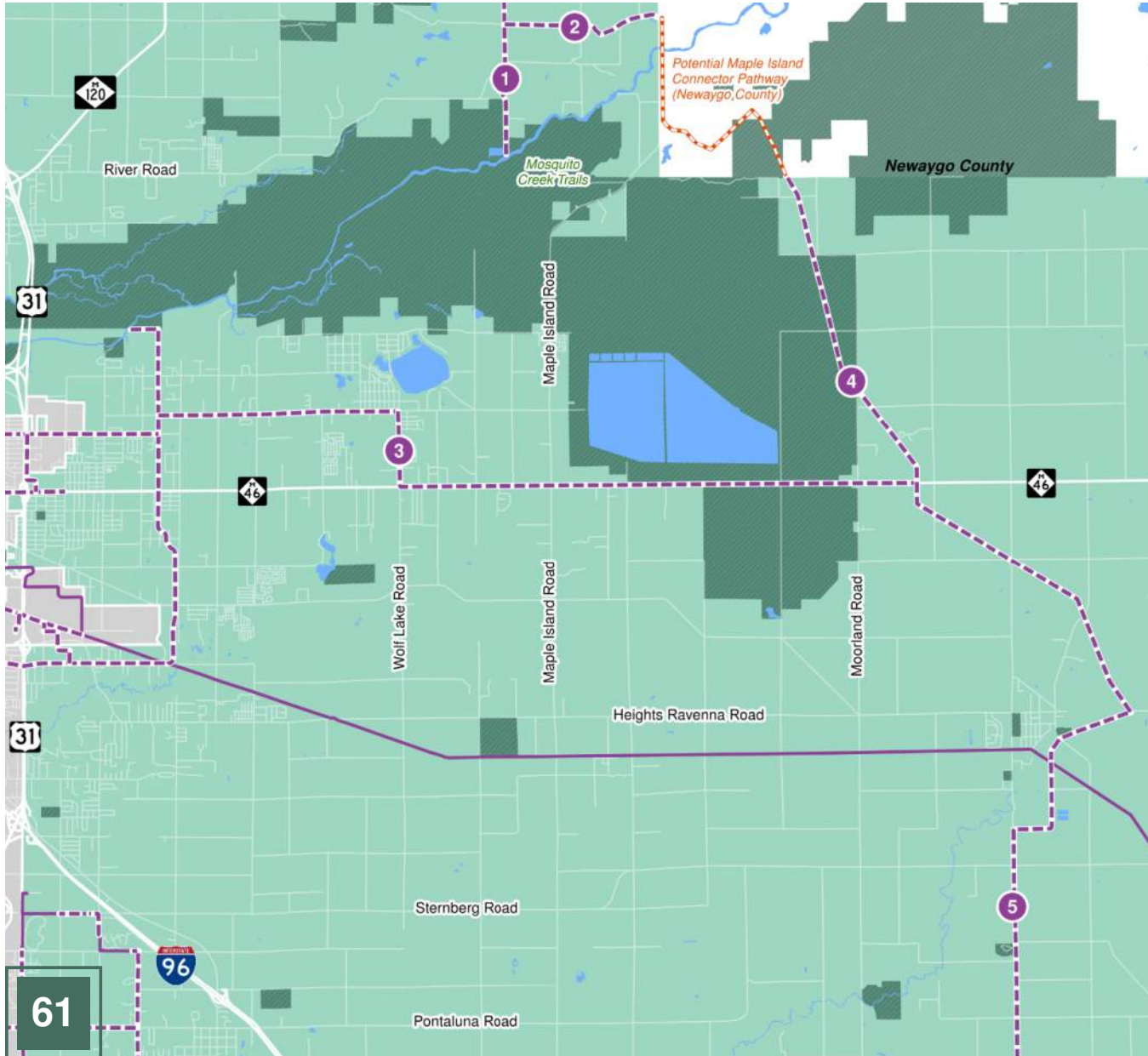
**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 50

**Proposed Facility Type:** Sidepath

Connecting The City of Montague to Big Blue Lake via Walsh Road and Fruitvale Road, this pathway passes behind the Clear Springs Nature Preserve, White River RV Park & Campground (which features access to the White River), and the Deremo Access Boat Launch on Big Blue Lake.

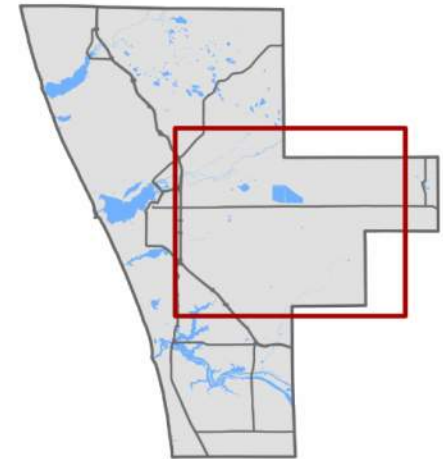
# MAP #23: EASTERN MUSKEGON COUNTY PROPOSED TRAILS AND GREENWAYS NETWORK



## Proposed Trail Network Eastern Muskegon County

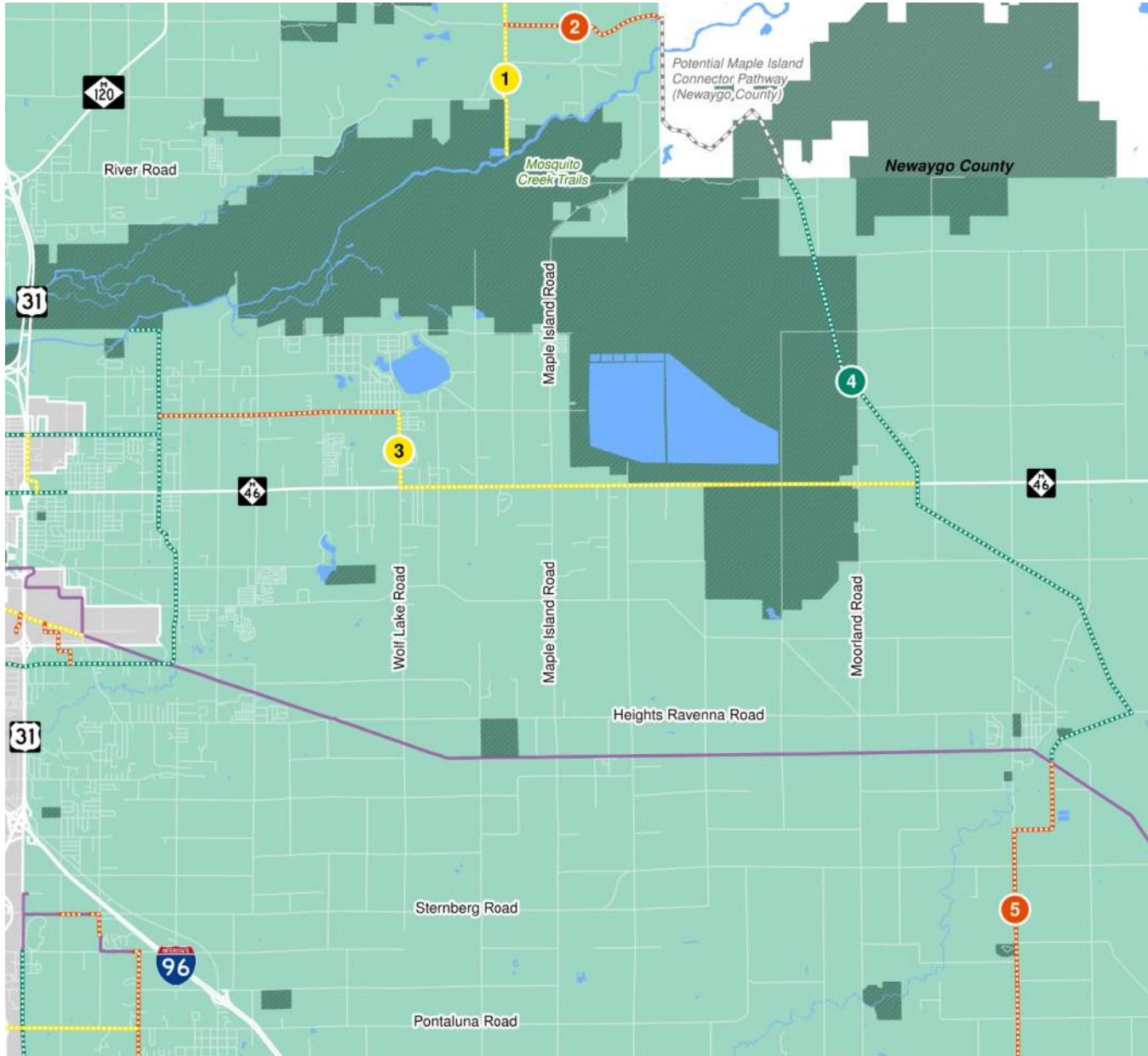
### LEGEND

- Proposed Trails and Greenways Network
- Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

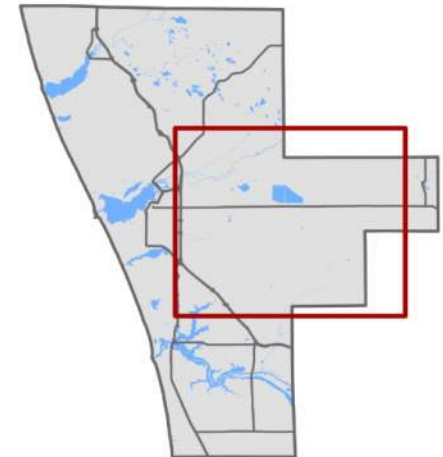
# MAP #24: EASTERN MUSKEGON COUNTY PROPOSED SEGMENT PRIORITIZATION



## Segment Prioritization Eastern Muskegon County

### LEGEND

- ⋯ Lower Priority Improvements
- - - Medium Priority Improvements
- ⋯ Higher Priority Improvements
- Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

# Eastern Muskegon County

While the interior of Muskegon County features the lowest population of the Shoreline Region, opportunities to connect trails to small population centers such as Ravenna and Wolf Lake create a truly regional network while passing through the area’s scenic farmland and forest landscapes.

Highlighted natural connections in Eastern Muskegon County include:

- Mosquito Creek Trails
- Muskegon River
- Muskegon County’s Water Resources Center’s Natural Areas
- Patterson Park
- Sheridan Park



## 1.) HOLTON - DUCK LAKE ROAD TRAIL

**Estimated Length:** 8.2 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 50

**Proposed Facility Type:** Sidepath

Running south along Holton – Duck Lake Road and passing by the Cedar Creek Township Hall Community Park, this pathway would connect Holton and the proposed Fremont Greenway to the Muskegon River Boat Launch at the end of Holton – Duck Lake Road.

## 2.) SWEETER ROAD - MAPLE ISLAND CONNECTOR TRAIL

**Estimated Length:** 2.1 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 0

**Proposed Facility Type:** Sidepath

This pathway would connect to Maple Island Road in Newaygo County near the Maple Island Boat Launch, which is a popular tubing, kayaking, and boat access site. This pathway would also provide more convenient regional access to Mosquito Creek Trails to the southeast, an extensive off-road mountain biking park.

### 3.) WOLF LAKE - APPLE AVENUE TRAIL

**Estimated Length:** 7.8 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 60

**Proposed Facility Type:** Sidepath

This pathway connects to Apple Avenue west of the Muskegon County Resource Recovery Center, running parallel and eventually connecting to a proposed pathway running along a power line easement near Moorland Avenue.

### 4.) RAVENNA CONSUMERS ENERGY EASEMENT TRAIL

**Estimated Length:** 10.2 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 80

**Proposed Facility Type:** Greenway

Connecting the Village of Ravenna to Apple Avenue and Maple Island Road in Newaygo County, this pathway provides a north-south non-motorized link in Ravenna, Ravenna Township, and Moorland Township. This pathway would also better connect to Mosquito Creek Trails.

### 5.) RAVENNA - COOPERSVILLE CONNECTOR TRAIL

**Estimated Length:** 4.8 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 40

**Proposed Facility Type:** Sidepath

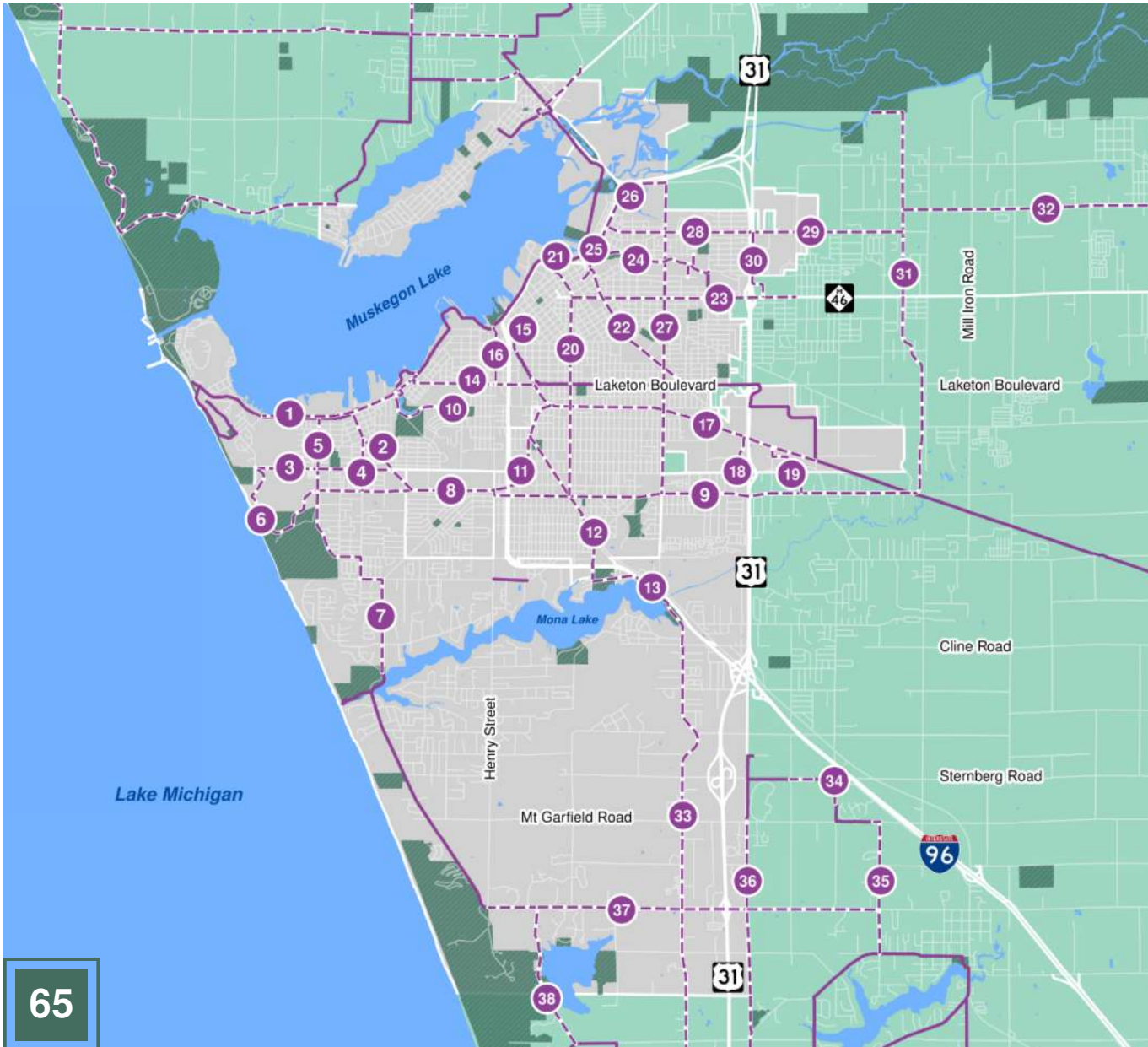
Running south from Ravenna and passing by Patterson Park, this pathway terminates at the Ottawa County line, where it can be continued along 64th Avenue, where it would pass by Polkton Township's Sheridan Park and eventually connect to the City of Coopersville.



*Above Top: Mosquito Creek Trails*

*Above: Wolf Creek Park*

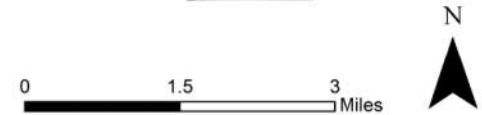
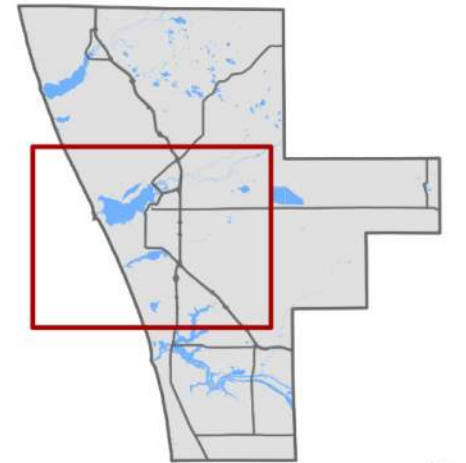
# MAP #25: CENTRAL MUSKEGON COUNTY PROPOSED TRAILS AND GREENWAYS NETWORK



## Proposed Trail Network Central Muskegon County

### LEGEND

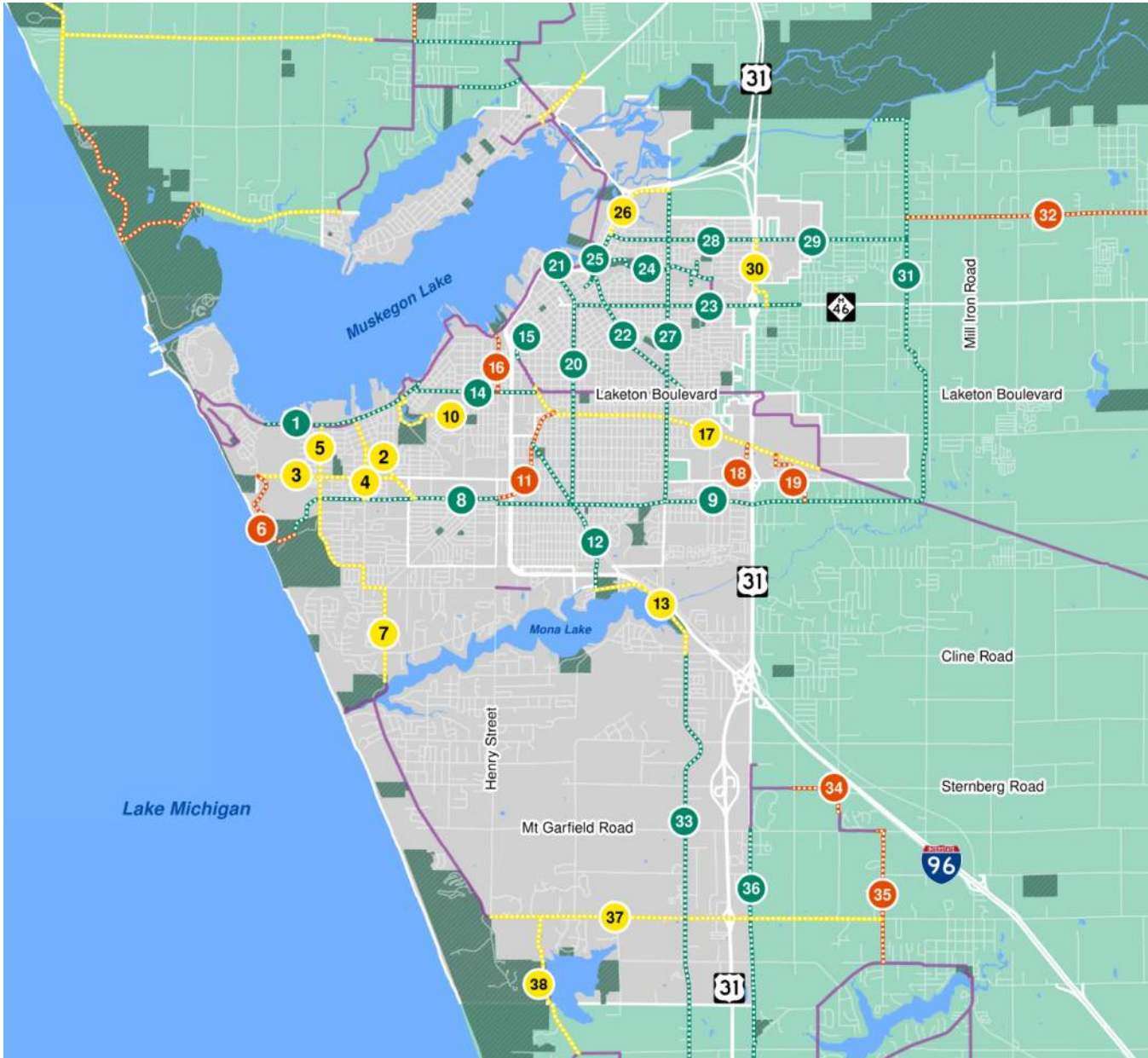
- - - Proposed Trails and Greenways Network
- Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.



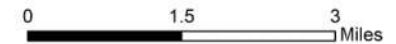
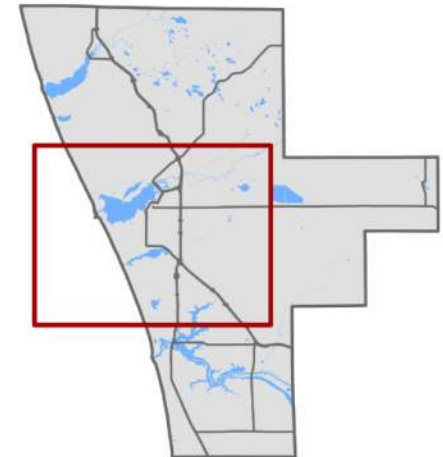
# MAP #26: CENTRAL MUSKEGON COUNTY PROPOSED SEGMENT PRIORITIZATION



## Segment Prioritization Central Muskegon County

### LEGEND

- - - Lower Priority Improvements
- - - Medium Priority Improvements
- - - Higher Priority Improvements
- Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

# Central Muskegon County

The largest city on the eastern shore of Lake Michigan, Muskegon is truly the “Shoreline City,” with access to some of Michigan’s greatest natural resources. Surrounded by Lake Michigan, Muskegon Lake, Mona Lake, the Muskegon River, and minor tributaries such as Ruddiman Creek, Ryerson Creek, and Black Creek, the greater Muskegon area has an opportunity to embrace its proximity to these features, leveraging them to fulfill this Plan’s vision of “providing abundant access to lakes and streams and enriching the health and livelihood of residents.”

Imagine a Muskegon region where neighborhoods are connected to the surrounding nature via an urban greenway system. A region where children can safely ride their bikes to the lakeshore on hot summer days, where families are mere minutes from numerous kayak and boat launches. Imagine a region where winter recreation is celebrated and where natural greenspaces and hiking trails exist even within the city. This Plan proposes a Muskegon region that leans into its status as a four-season water winter wonderland and has something for everyone who calls it home.

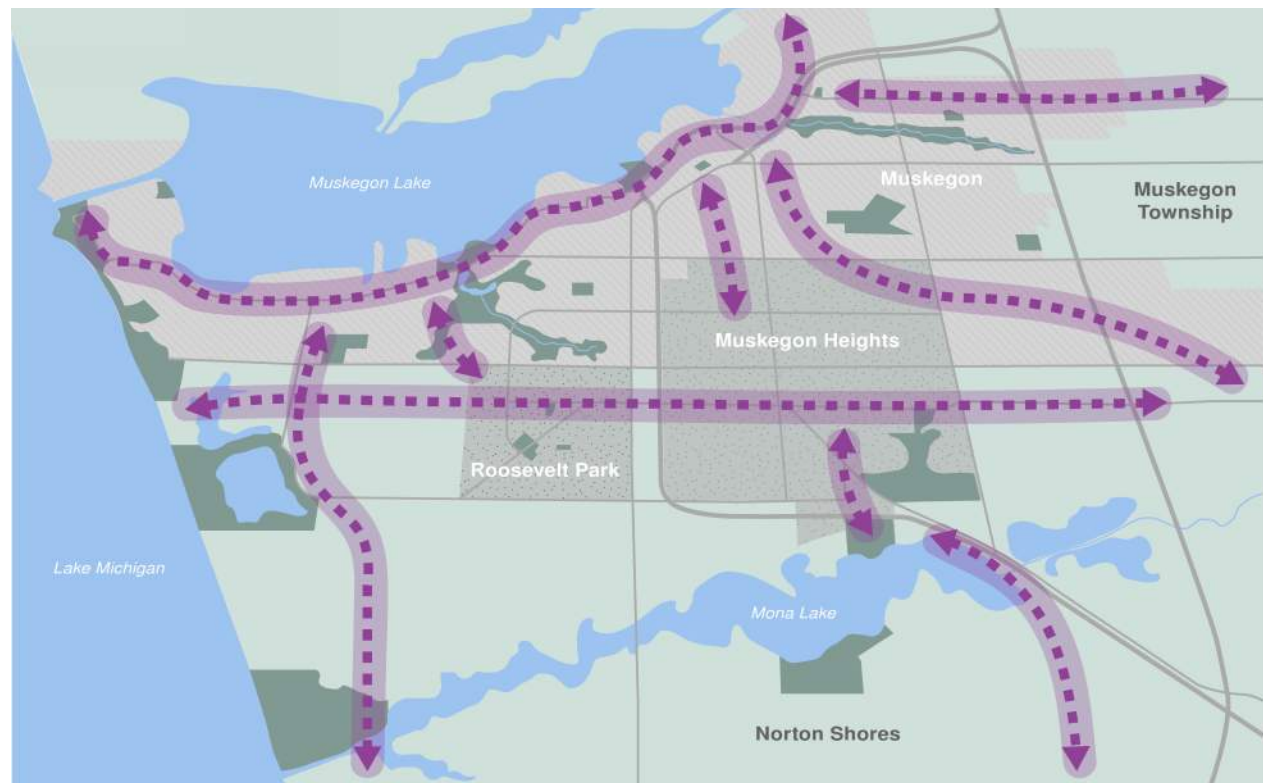
Highlighted natural connections in Eastern Muskegon County include:

- Dune Harbor Park
- Hoffmaster State Park
- Mona Lake
- Muskegon Lake
- Muskegon River
- Muskegon State Park
- Ryerson Creek

## IMAGINE A MUSKEGON REGION...

*“...where neighborhoods are connected to the surrounding nature via an urban greenway system.”*

*“...where residents can access daily amenities simply by walking or riding a bike.”*



**Above:** Conceptual map illustrating proposed connections between the Muskegon region’s communities and natural features.

## 1.) MUSKEGON LAKESHORE TRAIL

**Estimated Length:** 1.9 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 110

**Proposed Facility Type:** Greenway

Representing Muskegon's premier waterfront greenway, the Muskegon Lakeshore Trail currently connects to North Muskegon near the Muskegon River channel and connects to key water access points such as Veteran's Memorial Park, Richards Park, Fisherman's Landing, Heritage Landing, Hartshorn Boat Launch, Grand Trunk Boat Launch, and the Jaycees Boat Launch before ultimately terminating in the nationally acclaimed Pere Marquette Park on the Lake Michigan shoreline.

This trail was an important component of the Imagine Muskegon Lake Plan (2017) and remains one of the heaviest-traveled trails within the City of Muskegon. Some segments of the trail have been subject to criticism, as the connection through Adelaide Pointe has been noted as being confusing and difficult to navigate. As development continues at Adelaide Pointe, it is recommended that this routing be reassessed to make connecting to the rest of the lakeshore more convenient for non-motorized traffic.

**SURVEY RESPONSE:** "I want a trail from McCracken to Frosty Cove."

The on-street segment of the trail west of the Lakeside business district has been noted as feeling unsafe. To alleviate this and improve the trail's status as the city's primary waterfront connection, linking the parks and water access points, this segment can be constructed along the former railroad easement from the terminus of McCracken Street through the Lakeside business district, west to the Greater Muskegon Jaycee's Launch Ramp to connect to the existing sidepath leading to Pere Marquette Park at the intersection of Cottage Grove and Lakeshore Drive.

Here, too, it will be very important that as development occurs on the former paper mill site, currently known as Windward Pointe, priority is given to the non-motorized pathway through the project. Curb cuts and vehicular crossings should be limited as much as possible to prevent vehicular conflicts with trail users. While no changes are proposed to the existing greenway, the current facility is 10' wide (the minimum recommended width for such a facility). Due to the trail's extensive use, a 12' wide path is recommended where feasible for new and rehabilitated segments.

**Below:** Muskegon Lakeshore Trail, Image from Michigan Trails.



## 2.) GREENWOOD STREET TRAIL

**Estimated Length:** 1.1 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 60

**Proposed Facility Type:** Greenway (south of Greenwood Street); Protected Bike Lane (Greenwood Street to McCracken Street)

This segment connects the proposed Broadway Avenue Greenway with the existing Muskegon Lakeshore Trail via Greenwood Street and McCracken Street. This would provide an important connecting trail through the center of the Lakeside neighborhood.

## 3.) SHERMAN STREET TRAIL

**Estimated Length:** 0.9 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Sidepath

This segment would provide connections to the Greenwood Street Trail, McCracken Street Trail, and the Lincoln Street Trail, and Lake Harbor Drive Trail along Sherman Street. This segment would also provide connections to the Seyferth Playground.

## 4.) MCCRACKEN STREET TRAIL

**Estimated Length:** 0.6 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 60

**Proposed Facility Type:** Protected Bike Lane



This segment follows McCracken Street south of its connection to Greenwood Street and connects to the proposed Broadway Avenue Greenway to the south.

## 5.) LINCOLN STREET TRAIL

**Estimated Length:** 0.6 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Protected Bike Lane

This segment runs along Lincoln Street and connects the Lakeshore Trail to the proposed Sherman Street Trail to the south.

## 6.) DUNE HARBOR PARK TRAILS

**Estimated Length:** 1.6 Miles

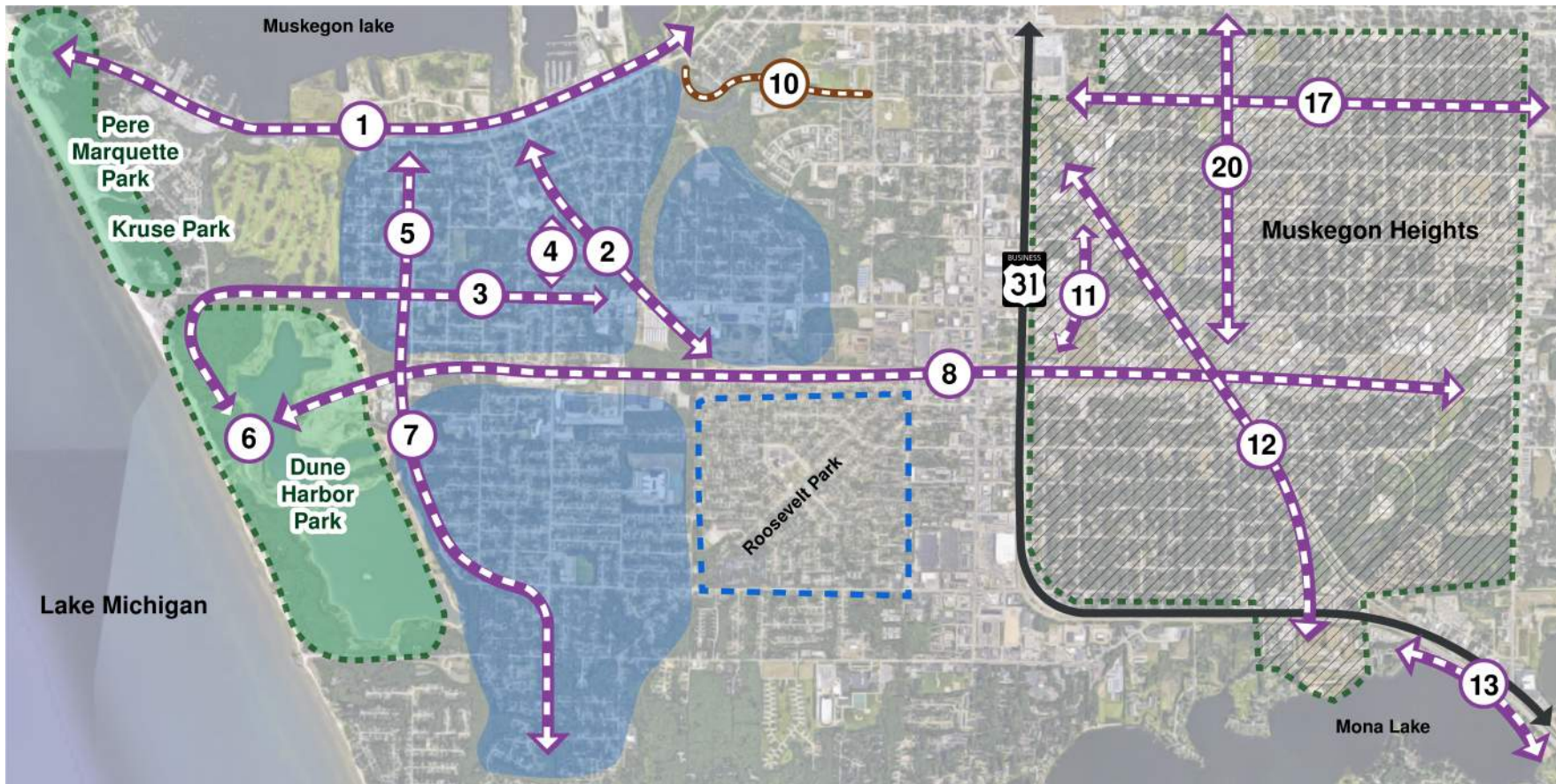
**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 20

**Proposed Facility Type:** Greenway

With the continual development of Dune Harbor Park, the park's trail network can connect to the Shoreline Region's non-motorized network, providing convenient access to Lake Michigan. This trail system would exist within Dune Harbor Park and be similar in nature to those existing at Ottawa Sands County Park.

**SURVEY RESPONSE:** "[Want connections to] better trails at Dune Harbor Park."



*Above: How trails and greenways connect neighborhoods to waterways and other key destinations.*

## 7.) LAKE HARBOR ROAD TRAIL

**Estimated Length:** 3.7 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Sidepath

With the recent completion of a pathway along Lake Harbor Road through Norton Shores, P.J. Hoffmaster State Park is now connected to Lake Harbor Park. This segment would continue this pathway north, connecting to Dune Harbor Park while connecting to existing pathways leading to Pere Marquette Park.

**SURVEY RESPONSE:** "Off-road connection from the Lakeshore Trail to the new Lake Harbor Trail."

**SURVEY RESPONSE:** "[Want connection to] Lake Harbor Road area from Forrest Park Road!"

**SURVEY RESPONSE:** "Connection from Muskegon Beach to Lake Harbor Park."

## 8.) BROADWAY AVENUE GREENWAY (EAST OF SANFORD STREET)

**Estimated Length:** 3.9 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 110

**Proposed Facility Type:** Sidepath (Musketawa Trail to Getty Street); Protected Bike Lane (Getty Street to Henry Street)

## 9.) BROADWAY AVENUE GREENWAY (WEST OF SANFORD STREET)

**Estimated Length:** 3.5 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 100

**Proposed Facility Type:** Greenway (Henry Street to Dune Harbor Park)

One of the most aspirational trails within the entire region, the Broadway Avenue Greenway would connect the communities of Muskegon Township, Muskegon Heights, Roosevelt Park, and the Cities of Muskegon and Norton Shores, linking all of these communities to Dune Harbor Park on Lake Michigan. This segment would also connect to the existing Musketawa Trail in the east and build upon existing trail segments and intersection improvements being constructed in Roosevelt Park.

*Below: Broadway Avenue Greenway connecting the Musketawa Trail Greenway, Muskegon Heights, Roosevelt Park, Norton Shores, and Muskegon to Lake Michigan via Dune Harbor Park.*



The Broadway Avenue Greenway would connect to historically disconnected Muskegon Heights and could act as a key catalyst in the community's downtown resurgence, placing the downtown district a mere four miles from the Lake Michigan shoreline. This greenway can be constructed in phases and would act as a linear park for the communities it passes through.

- **SURVEY RESPONSE:** “[Want connections to] different Muskegon areas, Roosevelt Park, Muskegon Heights to downtown.”
- **SURVEY RESPONSE:** “[Want connections to] Broadway & Sixth to the lakeshore and also to the Musketawa Trail. Downtown Roosevelt Park to the lakeshore.”
- **SURVEY RESPONSE:** “I think a connected path from Roosevelt Park area to the old sand station would be a great asset to our local area.”
- **SURVEY RESPONSE:** “[Want connections to] length of Broadway from Glenside in Roosevelt Park to Muskegon Trail Head.”
- **SURVEY RESPONSE:** “Roosevelt Park, Muskegon Heights, and the northwest area of Norton Shores could benefit from a trail connecting their respective areas to the beach.”

**Below:** There is precedent for trails running parallel to rail lines. An example is the Seward Avenue Bikeway (**Bottom**) in Grand Rapids, MI.



**BELOW: EXISTING CONDITIONS ALONG GLENSIDE BOULEVARD**



**BELOW: CONCEPTUAL RENDERING OF THE BROADWAY AVENUE GREENWAY AT GLENSIDE BOULEVARD**





### **13.) MONA LAKE TRAIL**

**Estimated Length:** 1.3 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Sidepath (Airport Road to Mona Lake Park); Protected Bike Lane (Lake Shore Drive to Hoyt Street)

Located along Seaway Drive in Hidden Cove Park, this trail would connect Mona Lake Park to the north to the proposed Grand Haven Road pathway to the south. Limited space between Seaway Drive and Mona Lake requires additional study and may require extensive seawall or boardwalk construction to be feasible.

### **14.) LAKETON TRAIL EXTENSION**

**Estimated Length:** 1.4 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 80

**Proposed Facility Type:** Sidepath

This pathway connects the current ending of the Laketon Trail (near Park Street east of Seaway Drive) across Seaway Drive to the existing Lakeshore Trail along Lakeshore Drive.

### **15.) LAKETON TRAIL (NELSON ELEMENTARY SCHOOL)**

**Estimated Length:** 0.2 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 80

**Proposed Facility Type:** Sidepath

With potential redevelopment of the Nelson Elementary School, this pathway represents an opportunity to better connect the Laketon Trail closer to downtown Muskegon on portions of the existing school site.

### **16.) HENRY STREET GREENWAY**

**Estimated Length:** 0.7 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 40

**Proposed Facility Type:** Greenway

This pathway follows a one-way street alignment that currently runs parallel to an abandoned railroad line. This segment would connect the NIMS neighborhood to Laketon Avenue and the Lakeshore Trail.

### **17.) MUSKETAWA TRAIL GREENWAY EXTENSION**

**Estimated Length:** 3.5 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Greenway

Connecting to the existing Musketawa Trail, this greenway would follow the former railroad easement, crossing US-31 at the former railroad bridge near the Trinity Health medical campus and then follow the transmission line easement along Keating Avenue along the border between the cities of Muskegon and Muskegon Heights. This would provide a more direct connection to the Musketawa Trail, connecting the interior of the Muskegon urbanized region to the Grand Rapids metropolitan area.

## 18.) MERCY HEALTH CONNECTOR TRAIL

**Estimated Length:** 0.3 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 10

**Proposed Facility Type:** Sidepath

As one of the largest employers within the Muskegon region, this pathway would connect this large medical campus to the region's non-motorized network, linking it to the Musketawa Trail Greenway Extension.

## 19.) WESTSHORE PLAZA TRAIL

**Estimated Length:** 0.3 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 30

**Proposed Facility Type:** Sidepath

This segment connects the Musketawa Trail Greenway Extension to the Broadway Avenue Greenway, passing through the Westshore Plaza area and providing access to many of these regional businesses.



## 20.) SANFORD STREET TRAIL

**Estimated Length:** 0.3 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 90

**Proposed Facility Type:** Protected Bike Lane

Running south from Apple Avenue, this segment passes next to Hackley Stadium and links the pathway along Terrace Street to the Laketon Trail while continuing into Muskegon Heights where it passes Muskegon Heights High School and ultimately connects to the Broadway Avenue Greenway near downtown Muskegon Heights.

*Below Left: Protected Cycle Track, Turner Avenue in Grand Rapids, MI.*

*Below Right: Protected Cycle Track in Austin, TX.*



## 21.) TERRACE STREET TRAIL + DOWNTOWN WATERFRONT CONNECTOR

Estimated Length: 0.5 Miles

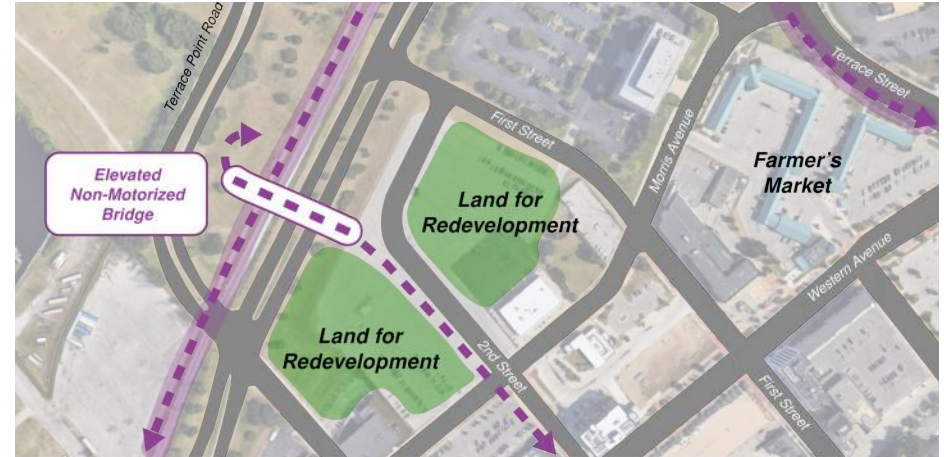
Segment Priority: Higher Priority Improvement

Prioritization Rating: 110

**Proposed Facility Type:** Sidepath; elevated non-motorized bridge (Shoreline Drive)

Following a lane reconfiguration (or lane reallocation) in 2022, Terrace Street features a wide green space that can accommodate a non-motorized pathway along with park-type amenities. This pathway would provide a link to the Farmer's Market, Apple Avenue and the proposed Sanford Street pathway further south.

Slightly further west, a grade elevation above Shoreline Drive can be taken advantage of with the construction of an elevated pedestrian bridge near 2nd Street. Likely an extremely expensive crossing option due to the long expanse required to clear Shoreline Drive, this would be an entry feature into the community and would provide a connection to the Muskegon Lakefront from downtown. This location would also be a useful trailhead for this reason.



**SURVEY RESPONSE:** *“Crossing business 31 from Downtown Muskegon to bike path/Heritage Landing is doable but it would be great to have a pedestrian bridge over the road at one spot.”*

**Above Right:** Location of potential non-motorized pedestrian bridge.

**Bottom Right:** Non-Motorized pedestrian bridge crossing 28th Street in Wyoming, MI.

**BELOW: EXISTING CONDITIONS ALONG SHORELINE DRIVE**



**BELOW: CONCEPTUAL RENDERING OF A PEDESTRIAN BRIDGE CROSSING SHORELINE DRIVE**



## 22.) AMBROSIA CUT GREENWAY

**Estimated Length:** 1.8 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 80

**Proposed Facility Type:** Greenway

A section of this proposed greenway follows a below-grade railway easement that connects Yuba Street, crosses Amity Avenue and Apple Avenue, parallels Ambrosia Street, passes the Restlawn Cemetery, and follows a wide easement adjacent to Nims Street and Grace Avenue before connecting to the Laketon Avenue Trail. This segment north of Apple Avenue could resemble other below-grade greenways in other cities, such as the Dequindre Cut Greenway in Detroit or the Midtown Greenway in Minneapolis. This greenway segment would connect eastern neighborhoods in Muskegon to downtown and eventually lead to waterfront access points along the Muskegon lakefront.



**SURVEY RESPONSE:** “[Want connection to] Ambrosia connection to Fisherman’s Landing.”



**Above:** Midtown Greenway, Minneapolis, MN.

**Above:** Dequindre Cut Greenway, Detroit, MI.

## 23.) APPLE AVENUE TRAIL

**Estimated Length:** 2.6 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 100

**Proposed Facility Type:** Protected Bike Lane

MDOT is in the process of transferring ownership of M-46 (Apple Ave) to the City of Muskegon as part as part of the road's reconstruction and lane reconfiguration. The roadway is slated to incorporate protected cycling infrastructure between West Webster Avenue and US-31, providing an east-west corridor connecting adjacent neighborhoods to downtown.

## 24.) RYERSON CREEK GREENWAY

**Estimated Length:** 1.5 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 80

**Proposed Facility Type:** Unpaved Hiking Trail

Ryerson Creek flows between the Marquette neighborhood from and along Apple Avenue to the south. The Ryerson Creek Trail is proposed to follow the creek, offering a natural hiking area that connects these neighborhoods and provides a natural area that eventually leads to the Muskegon Lake area. This trail segment also connects to an existing pathway crossing the creek near Roberts Street.



**Above:** Greenways don't need to be paved pathways to be useful. Austin, TX features a greenbelt system comprised of unimproved trails, connecting adjacent neighborhoods to these valuable natural areas. In the same way, the Ryerson Creek Greenway can be a natural place of respite within the city.

**SURVEY RESPONSE:** “[Want connections to] Ryerson Creek!! So much possibility in the undeveloped area, and potentially with the back of Smith-Ryerson Park. Better connection to get to Fisherman’s Landing Area. Difficult to cross Moses Jones Parkway.”

**BELOW: EXISTING CONDITIONS ALONG AMBROSIA CUT AREA**



**BELOW: CONCEPTUAL RENDERING OF THE AMBROSIA CUT GREENWAY**



## 25.) MOSES JONES GREENWAY (SOUTH OF MARQUETTE)

Estimated Length: 0.7 Miles

Segment Priority: Medium Priority Improvement

Prioritization Rating: 90

Proposed Facility Type: Greenway

## 26.) MOSES JONES GREENWAY (NORTH OF MARQUETTE)

Estimated Length: 1.0 Miles

Segment Priority: Medium Priority Improvement

Prioritization Rating: 60

Proposed Facility Type: Greenway

Moses J. Jones Parkway is an example of a roadway that can be reduced in size due to limited traffic volumes. Redesigning the Moses J. Jones Parkway can result in an expansive linear greenspace that can include a non-motorized greenway through the area, connecting the Ambrosia Cut Greenway, Ryerson Creek Greenway, and Marquette Avenue Pathway. Although additional design work will be required for the roadway's extensive interchanges, this presents an opportunity to create a better northern gateway into the region. In the interim, crossing improvements at Marquette Avenue can better connect the Marquette Avenue Trail to the Lakeshore Trail, creating an additional lower-stress crossing to Muskegon Lake.

There is additional study required of this area in general; the graphic (**above right**) shows how the proposed network is connected through this area and ultimately connects these segments to Ruddiman Creek and to Muskegon Lake.



**Above:** Map of Moses J. Jones Parkway area and how segments connect to this area. Hatched overlay denotes roadway requires additional study.

## 27.) GETTY STREET TRAIL

**Estimated Length:** 3.6 Miles

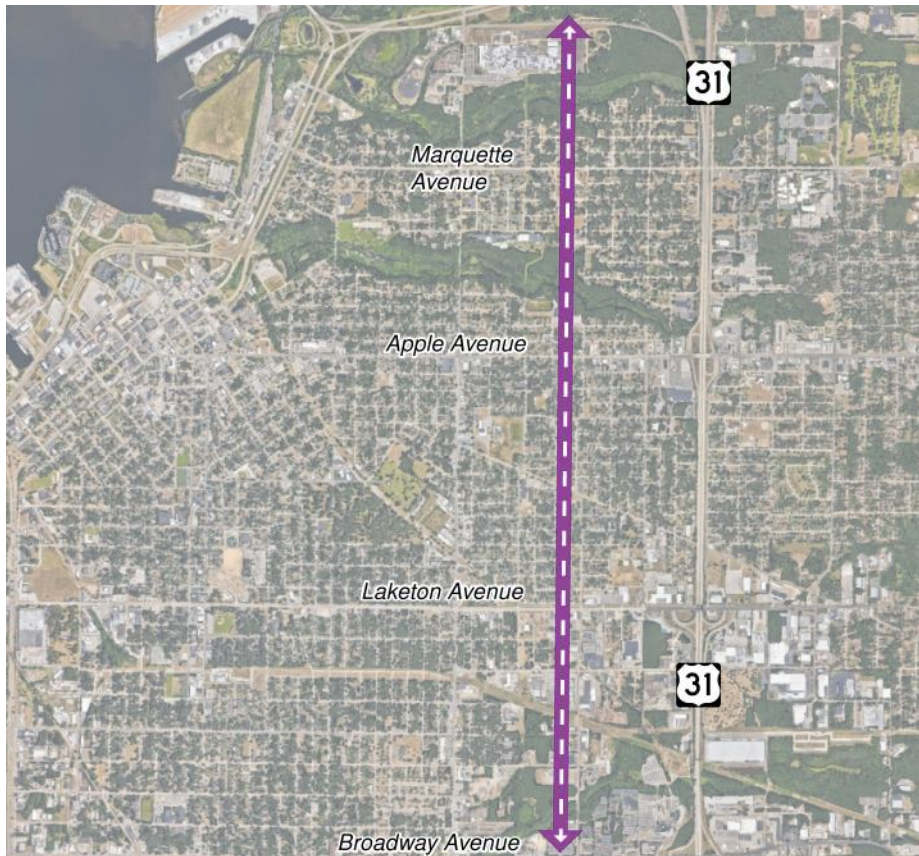
**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 110

**Proposed Facility Type:** Protected Bike Lane

An important regional roadway, a traffic analysis of Getty Street identified that it can be reconstructed to incorporate a dedicated non-motorized facility. This would provide a key north-south connector through the Cities of Muskegon, Muskegon Heights and Norton Shores and Muskegon Township.

*Below: Getty Street is an important north-south corridor through the region.*



*Above: Google Maps Streetview images of Getty Street in City of Muskegon near Evanston Avenue (**top**) and City of Muskegon Heights near Hackley Avenue (**bottom**).*

**BELOW: EXISTING CONDITIONS ALONG MOSES JONES PARKWAY**



**BELOW: CONCEPTUAL RENDERING OF MOSES JONES GREENWAY**



## 28.) MARQUETTE AVENUE TRAIL (WEST OF US-31)

Estimated Length: 1.6 Miles

Segment Priority: Higher Priority Improvement

Prioritization Rating: 110

Proposed Facility Type: Protected Bike Lane

## 29.) MARQUETTE AVENUE TRAIL (EAST OF US-31)

Estimated Length: 1.8 Miles

Segment Priority: Higher Priority Improvement

Prioritization Rating: 100

Proposed Facility Type: Sidepath

Marquette Avenue is a central roadway that can incorporate a dedicated cycling facility and pathway, providing east-west connectivity between the City of Muskegon and Muskegon Township. This pathway would connect the Marquette neighborhood to important destinations east of US-31, such as Baker College, Cardinal Elementary, and Wesley Avenue Park, and would intersect with the proposed Consumers Energy Easement pathway further east. This segment aligns with the roadway redesign noted in the 2024 WMSRDC Safety Action Plan.



**SURVEY RESPONSE:** “[Want connections to] grocery stores, Muskegon Community College.”

**SURVEY RESPONSE:** “East side of Muskegon (Marquette/Apple) - should have trail to MCC and MTech.”

**SURVEY RESPONSE:** “Want a connector trail from Muskegon Township to North Muskegon/Whitehall Trail.”

**SURVEY RESPONSE:** “[Want connections from] Marquette Road to Lakeshore Trail.”

**Below Left:** Cycle Track in Ann Arbor, MI.

**Below Right:** Jefferson Avenue Protected Bike Lanes, Detroit, MI.



### **30.) HARVEY STREET TRAIL (CITY OF MUSKEGON & MUSKEGON TOWNSHIP)**

**Estimated Length:** 0.9 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Sidepath

This segment connects the proposed pathway along Marquette Avenue to the north with the proposed Apple Avenue pathway to the south. This segment connects numerous senior centers and apartment complexes with the greater regional network.

### **31.) CONSUMERS ENERGY EASEMENT TRAIL**

**Estimated Length:** 4.9 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 80

**Proposed Facility Type:** Greenway

Located in Muskegon Township, this pathway follows a north-south transmission line easement from MacArthur Road near Orchard View School in the north to the Musketawa Trail in the south.

### **32.) HALL ROAD TRAIL**

**Estimated Length:** 3.2 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 20

**Proposed Facility Type:** Sidepath

Located in Egelston Township, this pathway connects the broader network to Wolf Lake, providing convenient access to the water amenities of the lakeside community.



Powerline easements often make feasible routes for trails and greenways. **Above Top:** Walnut Creek Trail, Austin, TX. **Above:** Portage Bikeway, Portage, MI.

### 33.) GRAND HAVEN ROAD TRAIL

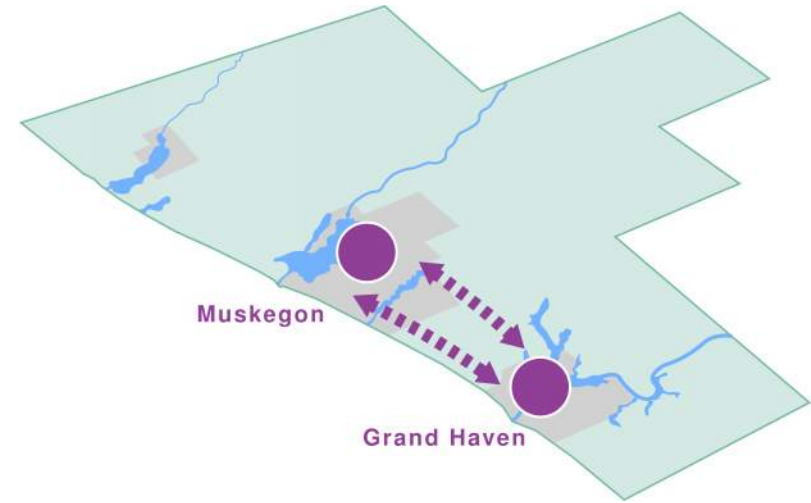
**Estimated Length:** 5.2 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 100

**Proposed Facility Type:** Sidepath

Following Grand Haven Road, this pathway would connect to the Mona Lake Trail in Norton Shores and Ferrysburg further south, providing an additional connection between Muskegon County and Ottawa County. This pathway provides an eastern alternative to the pathway along Lake Harbor Road and is a more direct route for those traveling between the Grand Haven region and Muskegon region.



**SURVEY RESPONSE:** “[Want connections to] Old Grand Haven Road area.”

**SURVEY RESPONSE:** “Would love a trail from Ferrysburg to Pontaluna Road.”

**BIG IDEA:** Creating non-motorized connections between Muskegon and Grand Haven were highlighted as very important community desires.

### 34.) STERNBERG ROAD TRAIL

**Estimated Length:** 0.7 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 30

**Proposed Facility Type:** Sidepath

Located east of The Lakes Mall, this pathway would connect the existing pathway near Quarterline Road to existing pathways along Sheridan Drive.

### 35.) WALKER ROAD TRAIL

**Estimated Length:** 1.6 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 20

**Proposed Facility Type:** Sidepath

This segment connects to the existing Lakeside Trail around Spring Lake and runs north along Walker Road, passing the proposed Pontaluna Road Pathway and eventually connecting to Mt. Garfield Road through a road extension. This pathway connects to existing pathway segments near The Lakes Mall area and creates non-motorized access to this regional shopping center.

### 36.) HARVEY STREET TRAIL

**Estimated Length:** 3.5 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 90

**Proposed Facility Type:** Sidepath

This segment connects to existing pathway segments near The Lakes Mall, connecting this shopping center with areas to the south. The Harvey Street Pathway would link much of northwestern Ottawa County to this regional shopping center, making accessing this area more convenient for those living in Spring Lake Township in particular.

### 37.) PONTALUNA ROAD TRAIL

**Estimated Length:** 3.9 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 50

**Proposed Facility Type:** Sidepath

This east-west pathway would provide an important connection to P.J. Hoffmaster State Park and Fruitport to the east while also connecting to the proposed Grand Haven Road Pathway and Black Lake Road Pathway.

### 38.) BLACK LAKE ROAD TRAIL

**Estimated Length:** 2.3 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Sidepath

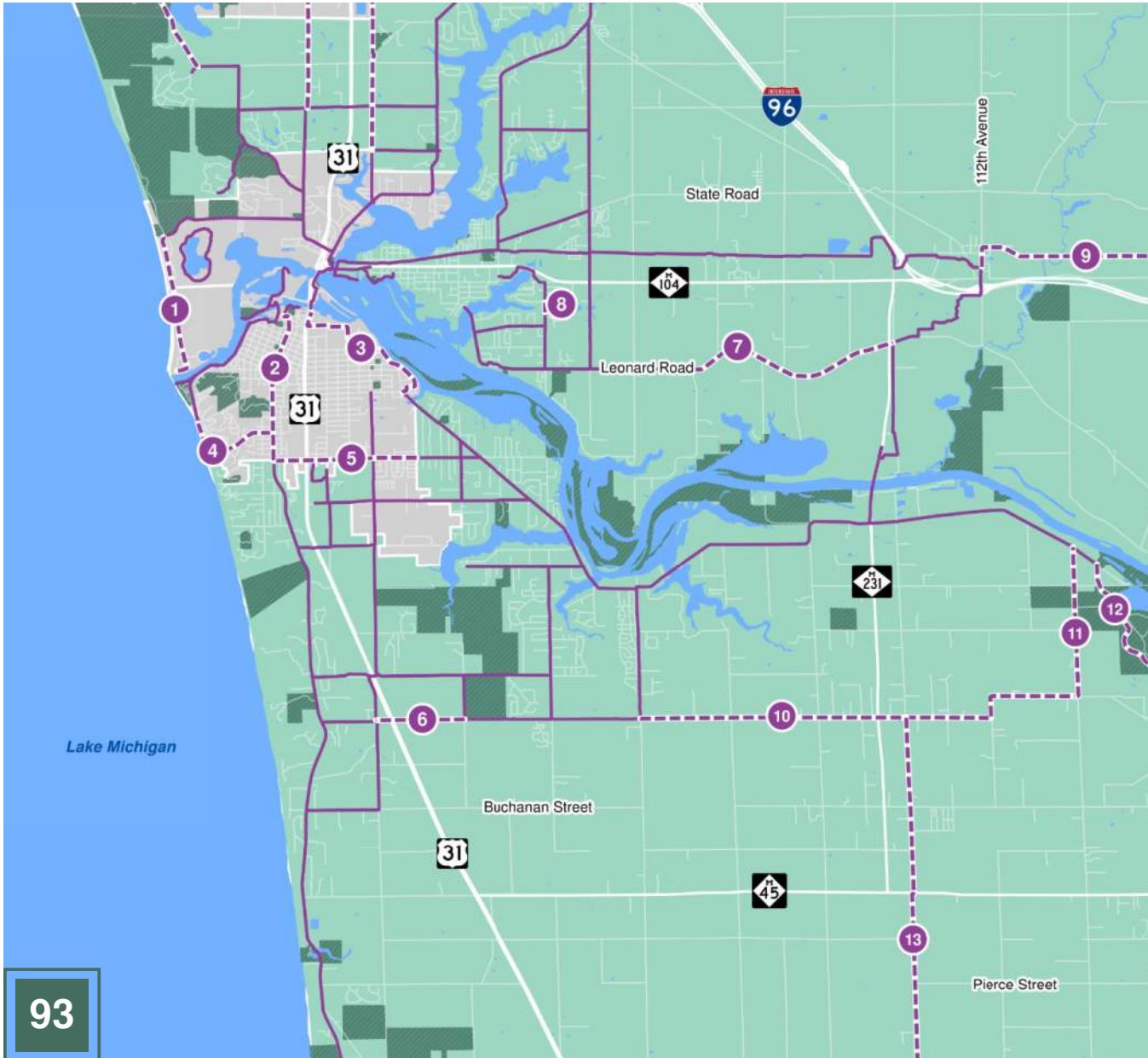
An important segment linking the recently completed Lake Harbor Drive Pathway to the existing pathway along Hickory Street, this pathway passes along the western shore of Black Lake and connects to the proposed Pontaluna Road Pathway near the Oak Ridge Golf Club near P.J. Hoffmaster State Park.

**SURVEY RESPONSE:** *“Bike path from Hickory (North Holiday Hills area) to Hoffmaster State Park along Little Black Lake Road would be nice.”*

**SURVEY RESPONSE:** *“I would like to see better connection between North Ottawa and Muskegon via bike path and/or bike lanes.”*

**SURVEY RESPONSE:** *“[Want better connections] “between where the paths end at Hickory and Palm in Spring Lake to Hoffmaster State Park.”*

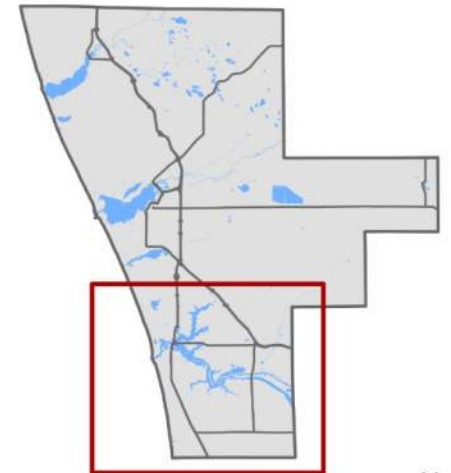
# MAP #27: NORTHWEST OTTAWA COUNTY PROPOSED TRAILS AND GREENWAYS NETWORK



## Proposed Trail Network Northwest Ottawa County

### LEGEND

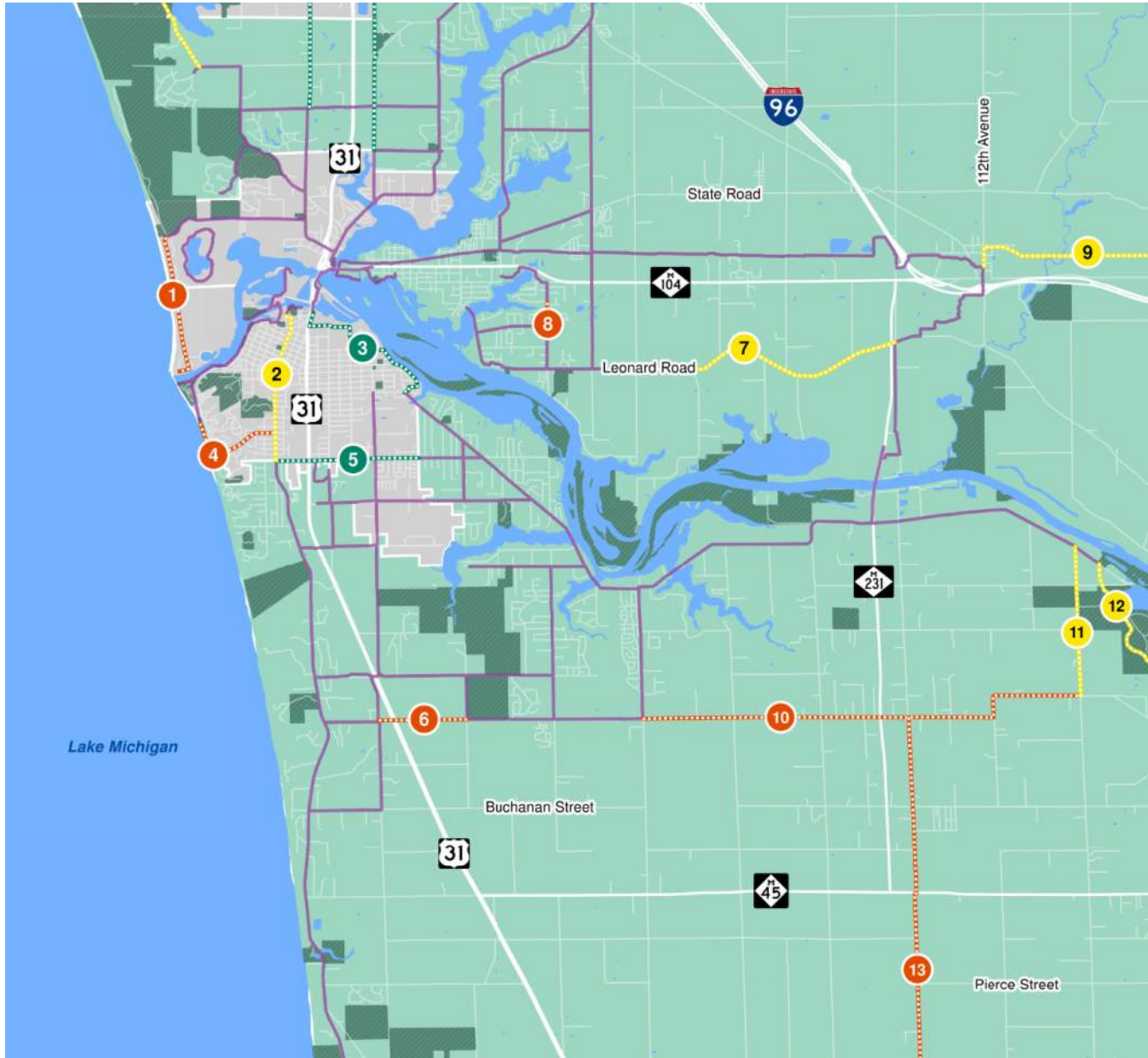
- Proposed Trails and Greenways Network
- Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.



# MAP #28: NORTHWEST OTTAWA COUNTY PROPOSED SEGMENT PRIORITIZATION

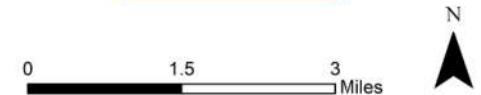
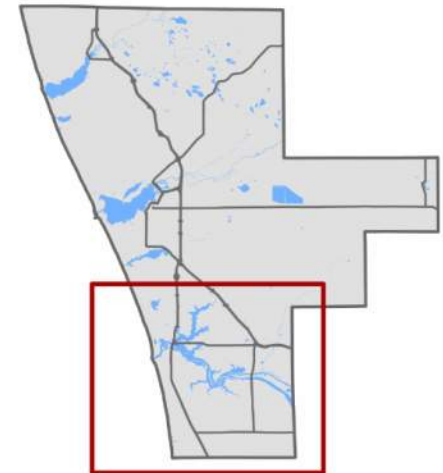


## Segment Prioritization

### Northwest Ottawa County

#### LEGEND

- Lower Priority Improvements
- Medium Priority Improvements
- Higher Priority Improvements
- Existing Trail Network



Data Source: Michigan Geographic Data Library, 2025. Urban Footprint Centers for Disease Control (CDC) Population Health Estimates, 2024. Progressive Companies, 2025.

# Northwest Ottawa County

The Tri-Cities region of Ottawa County, Grand Haven, represents the terminus of the Grand River Greenway as well as the Lakeshore Avenue trail running south towards Holland. The North Bank Trail connects Spring Lake to Nunica and the regionally significant Spoonville Trail that forms the easternmost segment of the 22-mile “Grand Crossings Loop.” Due to a legacy of funding commitments towards non-motorized improvements, this area already features a connected sidepath network; continued maintenance while filling in missing segments and signage improvements can be coupled with extensions to Bass River State Recreation Area and other points of interest within the region.

Highlighted natural areas of importance in Northwest Ottawa County include:

- Bass River State Recreation Area
- Grand River
- Hoffma Park
- Ottawa Sands County Park
- Pigeon Creek Park
- Rosy Mound Natural Area
- Spring Lake

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## 1.) NORTH SHORE DRIVE TRAIL

**Estimated Length:** 1.7 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 30

**Proposed Facility Type:** Sidepath

This proposed pathway runs from North Shore Road near Ottawa Sands County Park and North Beach Park southward along North Shore Drive, providing access to the North Shore Fisherman’s Lot on the Grand River Channel.

## 2.) SHELDON ROAD TRAIL

**Estimated Length:** 1.8 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 70

**Proposed Facility Type:** Protected Bike Lane

A continuation of the regional Lakeshore Avenue Trail throughout Ottawa County, this segment connects this pathway to downtown Grand Haven as well as the waterfront trail south of the Grand River Channel near Harbor Island. This non-motorized improvement would pair with proposed streetscape improvements to 7th Street identified in the 2024 WMSRDC Safety Action Plan.

### 3.) GRAND RIVER GREENWAY (GRAND HAVEN)

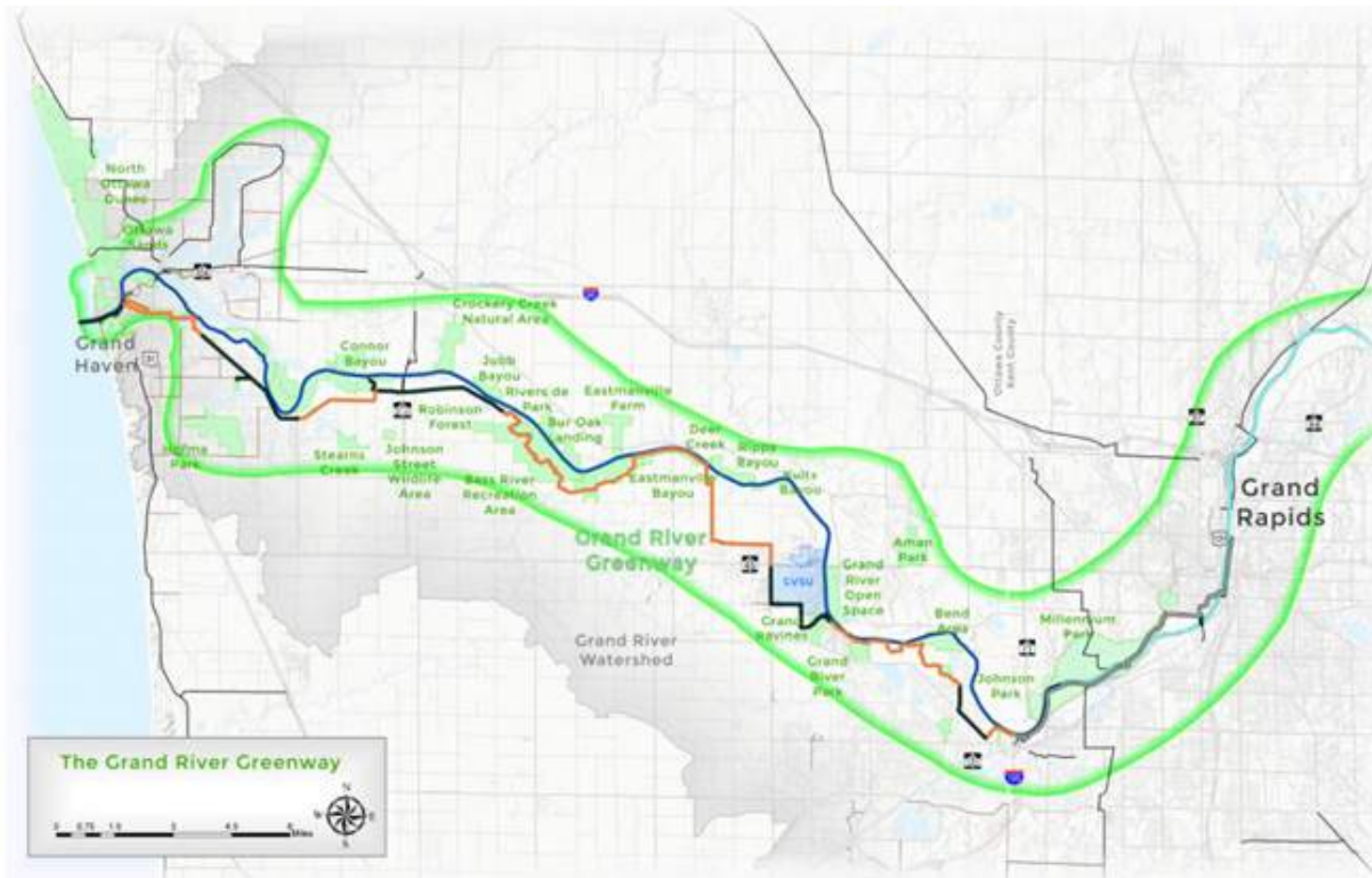
**Estimated Length:** 2.1 Miles

**Segment Priority:** Higher Priority Improvement

**Prioritization Rating:** 100

**Proposed Facility Type:** Protected Bike Lane

This segment of the Grand River Greenway connects to the existing pathway along Mercury Drive near Waverly Avenue, passes through East Grand River Park, and eventually connects to the Bascule Bridge pathway east of Beacon Boulevard north of Jackson Street. This represents the westernmost segments of the Grand River Greenway connecting Grand Haven to Grand Rapids throughout Ottawa County.



**Above:** Proposed Grand River Greenway connecting Grand Haven to Grand Rapids. Credit Grand River Greenway & Ottawa County Parks and Recreation.



## 9.) NORTH BANK TRAIL EXTENSION

**Estimated Length:** 2.3 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 60

**Proposed Facility Type:** Greenway

This trail continues the North Bank Trail further east from Nunica, following an abandoned railroad easement.

## 10.) LINCOLN STREET TRAIL (EAST OF 144TH AVENUE)

**Estimated Length:** 5.3 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 20

**Proposed Facility Type:** Sidepath

This proposed pathway extends the existing pathways along Lincoln Street further east into Robinson Township, eventually providing access across M-231 and providing better access to the Bass River State Recreation Area.

## 11.) 104TH AVENUE TRAIL

**Estimated Length:** 1.7 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 50

**Proposed Facility Type:** Sidepath

This proposed pathway would connect to the Grand River Greenway, as well as providing access to Bass River State Recreation Area and Robinson Forest just south of Sleeper Street.

## 12.) GRAND RIVER GREENWAY

### (BASS RIVER STATE RECREATION AREA)

**Estimated Length:** 1.8 Miles

**Segment Priority:** Medium Priority Improvement

**Prioritization Rating:** 60

**Proposed Facility Type:** Greenway

This segment of the Grand River Greenway is identified in the Ottawa County Parks & Recreation Plan (2021) and would be constructed through the Bass River State Recreation Area, eventually linking the existing segment near 104th Avenue with existing segments closer to Eastmanville in Allendale Township, further to the east.

## 13.) 120TH AVENUE TRAIL

**Estimated Length:** 4.3 Miles

**Segment Priority:** Lower Priority Improvement

**Prioritization Rating:** 10

**Proposed Facility Type:** Sidepath

This proposed pathway connects to the proposed Lincoln Street pathway and would provide greater non-motorized access to areas south of Lake Michigan Drive, particularly the Ottawa County Fillmore Complex, as well as the Pigeon Creek Park nearby.

**SURVEY RESPONSE:** “[Want connection to] West Olive area. Stanton to Pigeon Creek Park.”

## LIST OF SEGMENTS RANKED BY PRIORITIZATION

HIGHER PRIORITY IMPROVEMENTS			
NAME	LENGTH (MILES)	LOCAL UNITS OF GOVERNMENT	PRIORITY RATING
Fremont Greenway (NM #16)	14.8	Dalton Township, Cedar Creek Township, Holton Township	110
Terrace Street Trail + Downtown Waterfront Connector Trail (CM #21)	0.5	City of Muskegon	110
Broadway Avenue Greenway (West) (CM #8)	3.5	City of Norton Shores, City of Roosevelt Park, City of Muskegon Heights	110
Getty Street Trail (CM #27)	3.6	City of Muskegon	110
Marquette Avenue Trail (West of US-31) (CM #28)	1.6	City of Muskegon	110
Muskegon Lakeshore Trail (CM #1)	1.9	City of Muskegon	110
Apple Avenue Trail (CM #23)	2.6	City of Muskegon	100
Broadway Avenue Greenway (East) (CM #9)	3.9	City of Muskegon Heights, City of Norton Shores, Fruitport Township	100
Grand Haven Road Trail (CM #33)	5.2	City of Norton Shores, Spring Lake Township	100
Grand River Greenway (Grand Haven) (NWO #3)	2.1	City of Grand Haven	100
Robbins Road Trail (NWO #5)	1.6	City of Grand Haven	100
Airline Highway Trail (CM #12)	2.0	City of Muskegon, City of Muskegon Heights	90
Harvey Street Trail (CM #36)	3.5	City of Norton Shores, Fruitport Township	90
Moses Jones Greenway (South of Marquette) (CM #25)	0.7	City of Muskegon	90
Marquette Avenue Trail (East of US-31) (CM #29)	1.8	City of Muskegon, Muskegon Township	90
Sanford Street Trail (CM #20)	2.3	City of Muskegon, City of Muskegon Heights	90
Giles Road Trail (East) (NM #8)	1.2	Laketon Township, Muskegon Township	90
Dykstra Road Trail (NM #14)	0.7	Laketon Township, Muskegon Township	80
Ambrosia Cut Greenway (CM #22)	1.8	City of Muskegon	80
Consumers Energy Easement Trail (CM #31)	4.9	Muskegon Township, Fruitport Township	80
Ravenna Consumers Energy Easement Trail (EM #4)	10.2	Moorland Township, Ravenna Township	80
Laketon Trail Extension (CM #14)	1.4	City of Muskegon	80
Laketon Trail (Nelson Elementary School) (CM #15)	0.2	City of Muskegon	80
Ryerson Creek Greenway (CM #24)	1.6	City of Muskegon	80

## LIST OF SEGMENTS RANKED BY PRIORITIZATION

MEDIUM PRIORITY IMPROVEMENTS			
NAME	LENGTH (MILES)	LOCAL UNITS OF GOVERNMENT	PRIORITY RATING
Michillinda Road Trail (NM #4)	6.7	Fruitland Township	70
White Lake Road Trail (NM #18)	5.9	Blue Lake Township, Dalton Township	70
Musketawa Trail Greenway Extension (CM #17)	3.5	City of Muskegon	70
Lake Harbor Drive Trail (CM #7)	3.7	City of Muskegon, City of Norton Shores	70
Black Lake Road Trail (CM #38)	2.3	City of Norton Shores, Spring Lake Township	70
Mona Lake Trail (CM #13)	1.3	City of Muskegon Heights, City of Norton Shores	70
Lincoln Street Trail (CM #5)	0.6	City of Muskegon	70
Riverview Avenue Trail (NM #15)	0.8	City of North Muskegon, Muskegon Township	70
Sheldon Road Trail (NWO #2)	1.8	City of Grand Haven	70
Ruddiman Creek Greenway (CM #10)	1.1	City of Muskegon	70
Harvey Street Trail (CM #30)	0.9	City of Muskegon, Muskegon Township	70
Sherman Street Trail (CM #3)	0.8	City of Muskegon, City of Norton Shores	70
Giles Road Trail (West) (NM #9)	3.6	Laketon Township, Muskegon Township	60
Lakewood Club Connector Trail (NM #17)	2.6	Dalton Township, Fruitland Township	60
Greenwood Street Trail (CM #2)	1.1	City of Muskegon, City of Roosevelt Park, City of Norton Shores	60
Grand River Greenway (Bass River Recreation Area) (NWO #12)	1.8	Robinson Township	60
Wolf Lake - Apple Avenue Trail (EM #3)	7.8	Egelston Township, Moorland Township	60
McCracken Street Trail (CM #4)	0.6	City of Muskegon, City of Norton Shores	60
North Bank Trail Extension (NWO #9)	2.3	Crockery Township	60
Moses Jones Greenway (North of Marquette) (CM #26)	0.9	City of Muskegon	60
Medbery Park Trail (NM #1)	5.1	White River Township, Montague Township, City of Montague	50
Scenic Drive Trail (NM #6)	7.5	Fruitland Township, Laketon Township	50

## LIST OF SEGMENTS RANKED BY PRIORITIZATION

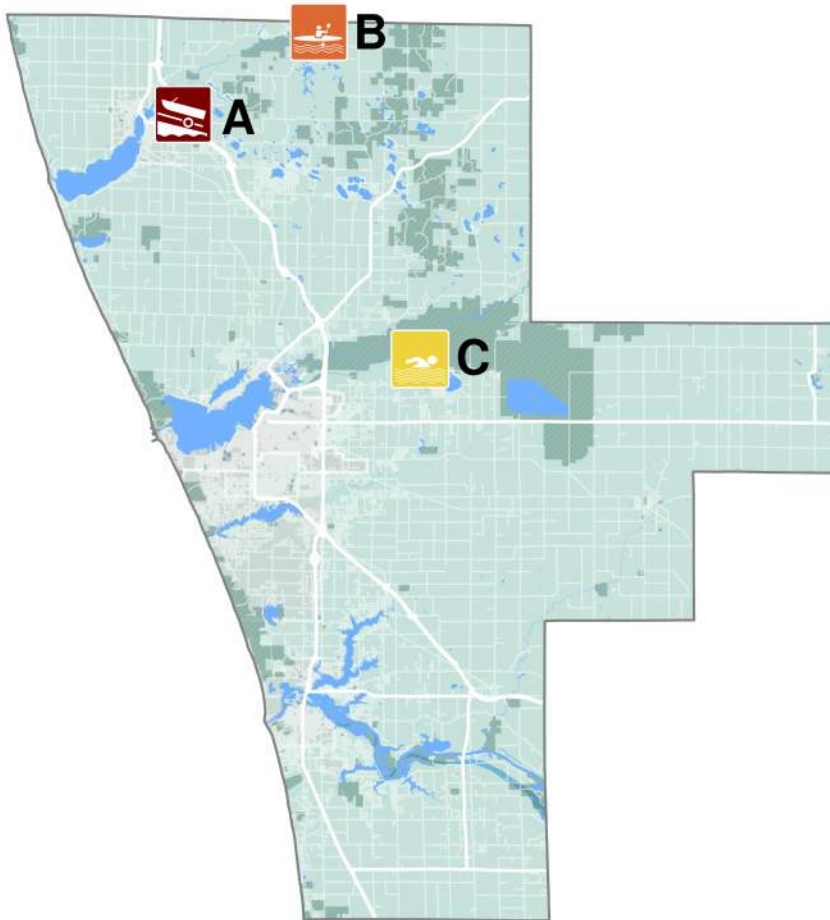
MEDIUM PRIORITY IMPROVEMENTS			
NAME	LENGTH (MILES)	LOCAL UNITS OF GOVERNMENT	PRIORITY RATING
Memorial Drive Trail (NM #11)	1.7	Laketon Township	50
Pontaluna Road Trail (CM #37)	3.9	City of Norton Shores, Fruitport Township	50
104th Avenue Trail (NWO #11)	1.7	Robinson Township	50
Fruitvale Road Trail (NM #20)	9.2	Montague Township, Blue Lake Township	50
Russell Road Trail (NM #19)	7.4	Blue Lake Township	50
South Shore Drive Trail (NM #2)	4.2	Fruitland Township, City of Whitehall	50
Holton - Duck Lake Road Trail (EM #1)	8.2	Holton Township, Cedar Creek Township	50
Leonard Road Trail (NWO #7)	3.2	Crockery Township	50

## LIST OF SEGMENTS RANKED BY PRIORITIZATION

LOWER PRIORITY IMPROVEMENTS			
NAME	LENGTH (MILES)	LOCAL UNITS OF GOVERNMENT	PRIORITY RATING
Roosevelt Park - Muskegon Heights Greenway (CM #11)	1.3	City of Muskegon, City of Muskegon Heights	40
Lincoln Street Trail ((US-31 Crossing) (NWO #6)	1.0	Grand Haven Township	40
Ravenna - Coopersville Connector Trail (EM #5)	4.8	Ravenna Township	40
Henry Street Greenway (CM #16)	0.7	City of Muskegon	40
Zellar Road Trail (NM #3)	2.2	Fruitland Township	30
Scenic Drive Trail (Muskegon State Park) (NM #10)	2.7	Laketon Township	30
Horton Road Trail (NM #12)	1.3	Laketon Township	30
Sternberg Road Trail (CM #34)	0.7	Fruitport Township	30
Grand Avenue Trail (NWO #4)	1.1	City of Grand Haven	30
North Shore Drive Trail (NWO #1)	1.7	City of Grand Haven	30
Westshore Plaza Trail (CM #19)	0.8	City of Muskegon, Fruitport Township	30
Walker Road Trail (CM #35)	1.6	Fruitport Township	20
152nd Avenue Trail (NWO #8)	0.1	Spring Lake Township	20
Lincoln Street Trail (East of 144th Avenue) (NWO #10)	5.3	Robinson Township	20
Dune Harbor Park Trails (CM #6)	1.2	City of Norton Shores	20
Hall Road Trail (CM #32)	3.1	Muskegon Township, Egelston Township	20
Duck Lake Road Trail (NM #5)	4.2	Fruitland Township	10
120th Avenue Trail (NWO #13)	2.0	Robinson Township	10
Mercy Health Connector Trail (CM #18)	0.3	City of Muskegon	10
Weber Road Trail (NM #7)	4.0	Fruitland Township	0
River Road Trail (NM #13)	1.8	Fruitland Township, Laketon Township	0
Sweeter Road - Maple Island Road Connector Trail (EM #2)	2.1	Cedar Creek Township	0

# Water Access Improvement Sites

Along with expanding the trails and greenways network, improving water access sites opens new water recreation opportunities for the entire Shoreline Region. While the main goal of the Plan is to create trail connections to existing water access sites, there are a few select locations where water access infrastructure can be constructed.



**A** White River Boat Ramp (East of Hart-Montague Trail Bridge)



**B** White River Kayak Access (Fruitvale Road)



**C** Muskegon River Water Access (Consumers Energy Power Line Easement)



**A** **WHITE RIVER BOAT RAMP (EAST OF HART-MONTAGUE TRAIL BRIDGE)**

There are few options for anglers seeking to fish the lower reaches of the White River before it empties into White Lake. The Hart-Montague Trail Bridge is heavily used by anglers, but its height limits watercraft from traveling upstream from the existing boat ramp nearby. Because of this, a boat ramp providing access upstream of this bridge would provide greater access to this portion of the White River. Some locations for this improvement include either Lions Park in Whitehall, the area near the White Lake Area Chamber of Commerce just south of Covell Park, or Lasley Street in Montague.



**B** **WHITE RIVER KAYAK ACCESS (FRUITVALE ROAD)**

Due to the complicated terrain around the White River, there are few adequate water access points. One of these potential kayak access spots includes the Fruitvale Road bridge near the existing Happy Mohawk Canoe Livery. A simple kayak access point near this bridge would provide year-round public access to this important stretch of the White River.



**C** **MUSKEGON RIVER WATER ACCESS (CONSUMERS ENERGY POWER LINE EASEMENT)**

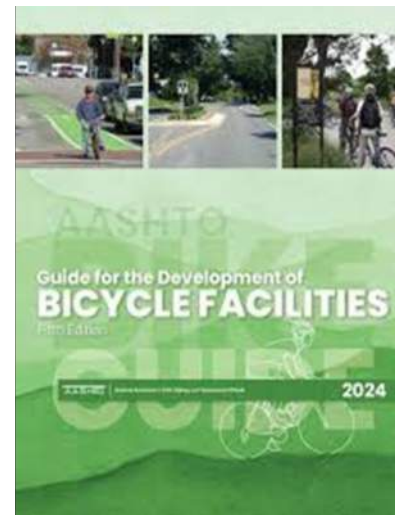
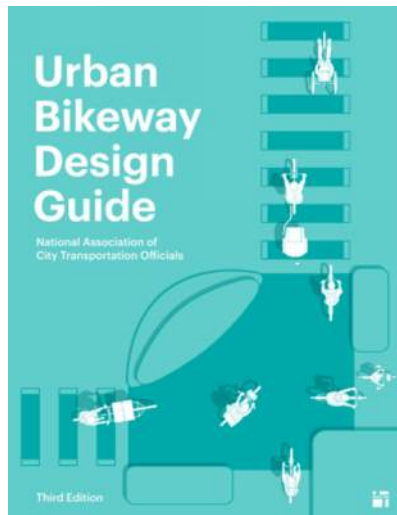
The power line easement crossing the Muskegon River north of the Sheridan Landing Boat Launch can provide an additional fishing or swimming location in Muskegon Township. This would also be the terminus of the proposed Consumers Energy Easement Pathway (Central Muskegon County Segment #31) that would connect this location to the Musketawa Trail at Broadway Avenue roughly five miles to the south.

# 9

## Standards

Standard design approaches for various non-motorized facilities are outlined below. Design approaches outlined herein are based on national best practices, engineering judgment, and resources, including the following:

- National Association of City Transportation Officials (NACTO) *Urban Bikeway Design Guide, Third Edition, 2025*
- American Association of State Highway Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities, 2024*
- Federal Highway Administration (FHWA) *Separated Bicycle Lane Planning and Design Guide, 2015*



Standard dimensions represent the absolute minimum width for non-motorized facilities. Wherever feasible, facility designers should seek to maximize the space provided for non-motorized utilization. Consideration should also be given to separating facility users, such as bicyclists and pedestrians, whenever possible, in order to mitigate speed differentials and potential safety conflicts.

Separating uses is particularly pertinent given the increase in e-bicycle adoption and the speeds at which their users can travel. An overview of the various e-bicycle classes is provided below for reference.

**CLASS 1:** A bicycle that is equipped with an electric motor. The motor only functions while the user is pedaling. Speeds are limited to 20 MPH. Class 1 e-bicycles are generally permitted to travel along standard shared-use paths and bicycle lanes.

**CLASS 2:** A bicycle equipped with an electric motor and throttle. The motor only functions while the user is pedaling, while the throttle may be engaged at any time. Speeds are limited to 20 MPH. Class 2 e-bicycles are generally permitted to travel along standard shared-use paths and bicycle lanes.

**CLASS 3:** A bicycle that is equipped with an electric motor and may include a throttle. The motor only functions while the user is pedaling, while the throttle may be engaged at any time. Speeds are limited to 28 MPH. Class 3 e-bicycles are generally permitted to travel along standard bicycle or vehicle lanes (i.e., within the curbs of a roadway) but are generally not permitted on shared-use paths or greenways.

Additional design elements that may be incorporated into non-motorized facilities that are not explicitly represented in the standards may include, but are not limited to, the following:

- Person-scaled wayfinding signage, designed in accordance with guidelines set forth by the West Michigan Trails and Greenways Coalition, including at trail heads and other access points
- Shared-use path amenities
- Trail or greenway amenities, including trash receptacles, benches, or public restrooms; and
- Landscaping along the non-motorized route, such as trees, shrubs, bushes, or other native plants.

## LANDSCAPING

It is recommended that any landscaping consist of native plants to reduce the need for maintenance and watering. A list of regionally specific native plants prepared by Plaster Creek Stewards, an initiative of Calvin University in Grand Rapids, Michigan, is provided in the Appendix . Plants noted as suitable for the right-of-way are salt-tolerant. It is recommended that plantings meet clear vision requirements (less than 36 inches). Within three feet of the path, plantings should be six inches high or less to enable people to pull off the path as needed for maintenance or rest. In this buffer zone, a no-mow or low-mow grass, fescue, or sedge is recommended.

## PATHWAY AMENITIES MATRIX

	SAFETY					PAVEMENT				
	<i>Signage or Intersection Control</i>	<i>Separate Pedestrian and Bikeways</i>	<i>Painted Buffer</i>	<i>Bollards</i>	<i>Curbed Buffer Strip</i>	<i>Treated Gravel/ Crushed Limestone*</i>	<i>Concrete/ Asphalt</i>	<i>Porous Asphalt/</i>	<i>Porous Paver Accents</i>	<i>Flexi-Pave for playscapes</i>
<b>GREENWAY</b>										
<i>Good</i>	✓					✓				
<i>Better</i>	✓						✓			
<i>Best</i>	✓	✓						✓	✓	✓
<b>SIDEPATH</b>										
<i>Good</i>	✓	✓			✓		✓			
<i>Better</i>	✓	✓			✓		✓			
<i>Best</i>	✓	✓			✓		✓	✓	✓	
<b>PROTECTED BIKE LANES</b>										
<i>Good</i>	✓	✓	✓				✓			
<i>Better</i>	✓	✓		✓			✓			
<i>Best</i>	✓	✓			✓		✓	✓	✓	

*\* Limestone/gravel must be specifically treated to bind together in order to meet ADA compliance. Even with treatment, these paths will likely be ineligible for federal funding.*

**PATHWAY AMENITIES MATRIX**

	AMENITIES						PLANTINGS			
	<i>Pedestrian Scale Lighting</i>	<i>Benches</i>	<i>Water</i>	<i>Pavillion</i>	<i>Exercise Facilities</i>	<i>Playground Equipment</i>	<i>Low-mow Grass</i>	<i>Native Plants</i>	<i>Native Shrubs</i>	<i>Native Trees</i>
<b>GREENWAY</b>										
<i>Good</i>			✓				✓			
<i>Better</i>	✓		✓				✓	✓	✓	
<i>Best</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>SIDEPATH</b>										
<i>Good</i>							✓			
<i>Better</i>								✓	✓	
<i>Best</i>								✓	✓	✓
<b>PROTECTED BIKE LANES</b>										
<i>Good</i>							✓			
<i>Better</i>								✓	✓	
<i>Best</i>								✓	✓	✓

# Wayfinding Standards

Wayfinding along greenways and sidepaths should be designed in accordance with guidelines defined by the West Michigan Trails and Greenways Coalition. All signs should be printed on aluminum panels and mounted on wooden or steel posts. Wayfinding signs may apply to people walking, bicycling, or driving (when mounted at trailheads).

All signs should be made of non-glare materials and placed on the right-hand side of the direction of travel unless otherwise constrained by spatial or clear vision requirements.

Wayfinding signs placed along the trails and greenways system can be classified according to their placement and function, in accordance with the four categories below:

**TRAILHEAD:** Placed at trailheads and major access points. Include maps, routes, amenity icons, emergency contact information, and other relevant information.

**DIRECTIONAL:** Intended to aid people walking or bicycling at route decision points. Include directions and distances to key destinations, such as amenities or other trails. Should not include more than three destinations.

**TURNS:** Intended to inform people walking or bicycling of a change or turn in a route that may not be apparent. Should include the name of the trail or destination with a directional arrow.

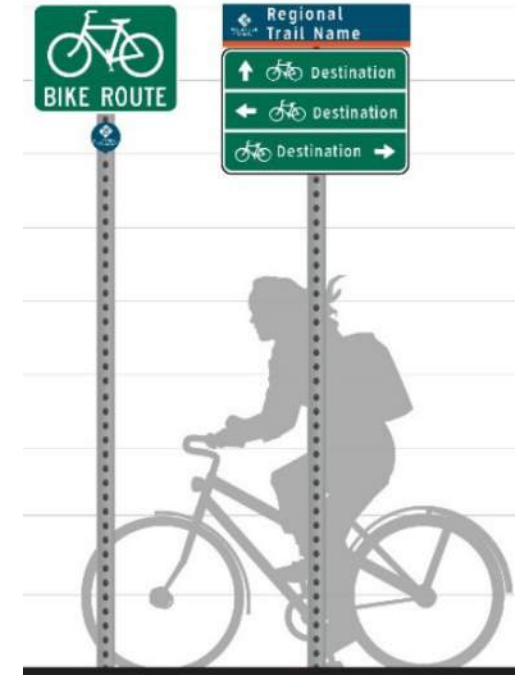
**TRAIL ENDS:** Intended to convey that a trail has ended.

**MILE MARKERS:** Intended to inform people walking or bicycling of their location along a greenway. Should include the greenway name, mile point, and emergency contact information.

Additional signage may be incorporated in conjunction with existing signage, such as the City of Muskegon pedestrian wayfinding system.



Muskegon Pedestrian Sign



Trail Panel on Existing Bike Route Sign

*Above: Wayfinding Signage Examples from West Michigan Trails and Bikeways Wayfinding and Implementation Guide. Credit WMTAG and Toole Design Group.*

Signage will be constructed to meet MMUTCD standards in MDOT rights-of-way and will obtain all applicable permits in accordance with local, state, and federal regulations.



**Above:** Wayfinding Signage Examples from other communities. **Top Left:** South Omaha Trail, Omaha, NE. **Bottom Left:** Minneapolis Wayfinding Signage, Minneapolis, MN. **Center:** Clear Creek Trail, Pearland, TX. **Top Right:** TART In-Town Trail, Traverse City, MI. **Bottom Right:** Provincetown Wayfinding Signage, Provincetown, MA.

# Greenway

A greenway is a separated and paved path that is set back from the roadway and intended for utilization by both pedestrians and bicyclists. Greenways are typically located on a different alignment from adjacent streets or roads and may be accommodated within roadway ROW and other ROW, such as a former rail line.

## INTENDED USERS

- People using user-powered (“analog” bicycles)
- People using Class 1 or Class 2 e-bicycles
- People using other mobility devices, such as skateboards, scooters, or roller skates
- People walking, if a separate sidewalk is not provided

## DESIGN CONSIDERATIONS

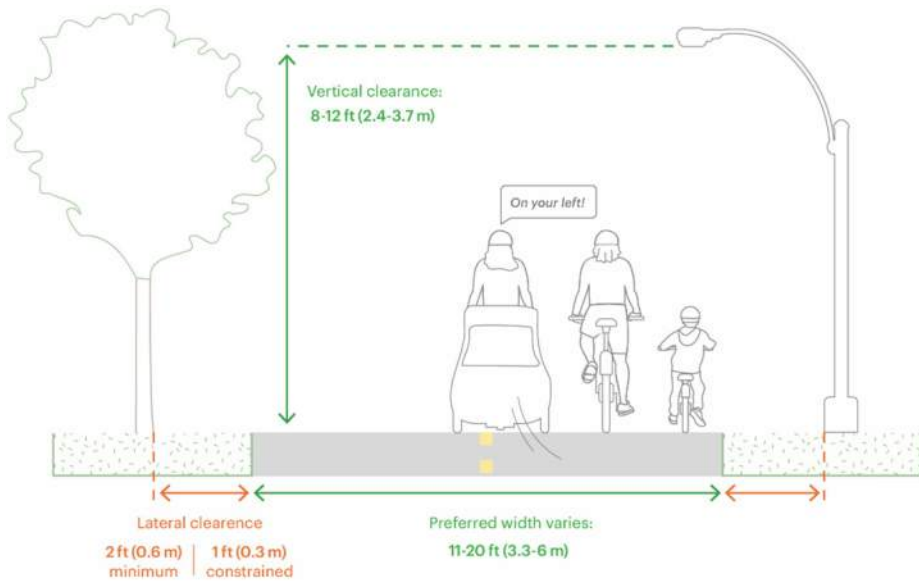
- 11-foot minimum width with two-foot clear zones provided on each side of the path (12 feet or more is preferred in locations with higher levels of non-motorized activity)
- Typically cross streets or roads at mid-block locations and operate independently from signalized or stop-controlled intersections
- Slopes of five percent (5%) or less should be provided
- Turning radii should be between 30 and 70 feet
- Must be well-lit

When space is available, separated facilities for pedestrians and bicyclists may be provided. In urbanized areas, separation is generally preferred, as it provides the highest level of user experience while also mitigating conflicts between users and decreasing the possibility of crash occurrences. However, it is also recognized that facility separation requires greater levels of capital investment. Therefore, it is recommended that separate facilities be provided if one or more of the following conditions are satisfied:

- Pedestrians comprise or will likely comprise at least thirty percent (30%) of the total number of users
- The path connects a network gap or destinations for people on bicycles
- People with disabilities will use the path for transportation or recreation
- A significant number of older adults or children are likely to use the path

In locations with minimal current and expected pedestrian and bicyclist volumes, greenways can be introduced to simultaneously improve the user experience for both road users.

The width of a greenway should vary based on the anticipated volume of people riding bicycles along the route, as shown in Table 1. Additional guidance for lateral and vertical clearance is shown in Figure 2.



**Above:** Greenway Cross-Section.

**Table 1:** Greenway Widths.

BICYCLE VOLUME	MINIMUM WIDTH	PREFERRED WIDTH
<b>LOW:</b> 50 bicyclists or less in the peak hour	8'	11'
<b>MEDIUM:</b> 51 to 400 bicyclists in the peak hour	11'	15'
<b>HIGH:</b> More than 400 bicyclists in the peak hour	15'	20'

Proposed examples of greenways within the region include the Fremont Greenway and the Broadway Avenue Greenway



**Above:** Mid-Block Path Crossing with Refuge Island.

## INTERSECTION AND CROSSING TREATMENTS

In general, greenways function on a separate alignment from the roadway network and therefore cross streets and roads at mid-block locations between traditional intersections. At mid-block locations, pavement markings and signage must be provided in accordance with the Guide for the Development of Bicycle Facilities. Warning signs must be provided along the street or roadway to inform drivers of the crossing location. Where volumes of people walking or bicycling is high, additional measures, such as flashing beacons, may be introduced to regulate vehicular flow. Center medians may be introduced where space permits to serve as a refuge island. On streets or roads with lower vehicular volumes and speeds, speed humps or tables can be introduced to reduce driver speed across a crossing and provide a level surface for people walking or bicycling. Curvature, rumble strips, or signage may also be introduced along the greenway to warn people walking or bicycling of an upcoming crossing. Greenway users should not be expected to dismount at crossings.

# Sidepath

A sidepath is a separated and paved path that is set back from the roadway and intended for utilization by both pedestrians and bicyclists. Sidepaths are typically accommodated within existing roadway ROW and cross streets at signalized or stop-controlled intersections.

## INTENDED USERS

- People using user-powered (“analog” bicycles)
- People using Class 1 or Class 2 e-bicycles
- People using other mobility devices, such as skateboards, scooters, or roller skates
- People walking, if a separate sidewalk is not provided

## DESIGN CONSIDERATIONS

- 11-foot minimum width with two-foot clear zones provided on each side of the path (12 feet or more is preferred in locations with higher levels of non-motorized activity)
- Typically operate in tandem with adjacent streets or roads at signalized or stop-controlled intersections
- Slopes of five percent (5%) or less should be provided
- Turning radii should be between 30 and 70 feet
- Must be well-lit

Guidelines for the provision of separate facilities for people walking for shared-use paths are also applicable to sidepaths.

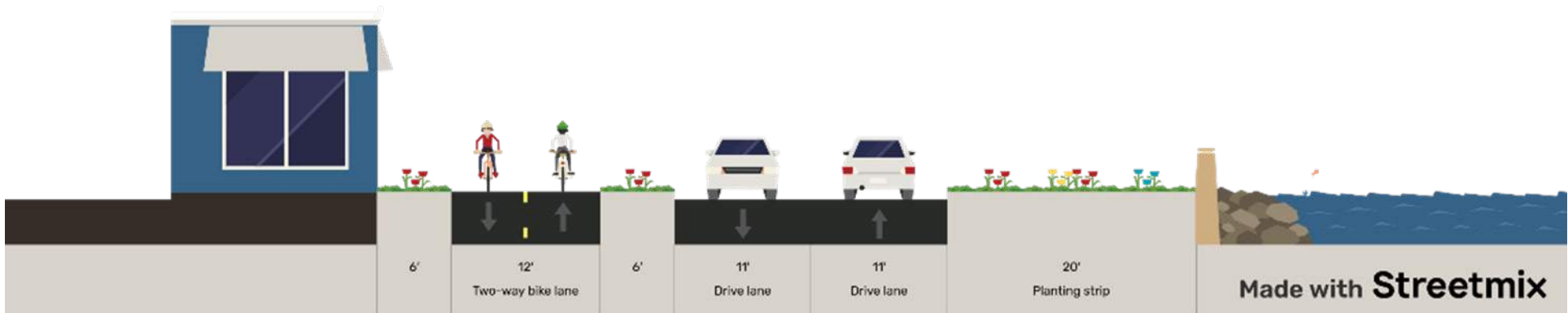
## DESIGN DIMENSIONS

Sidepath widths should be designed in accordance with the guidelines defined for greenways.

Setbacks for sidepaths are generally less than those for greenways. Sidepaths typically follow the same alignment as an adjacent street or road and operate in conjunction with vehicle movements at intersections.

Sidepaths operate in conjunction with vehicle movements at unsignalized and signalized intersections. Every effort should be made to prioritize the safety of people bicycling along a sidepath over operational efficiency for drivers. Geometric or operational interventions may be made at intersections to prioritize safety, including the following:

- Maintaining a dedicated bicycle facility up to and through the intersection, as opposed to a mixing zone
- Ensuring vehicular turning movements – particularly left-turning movements – do not conflict with bicycle operations through an intersection through the use of exclusive signal phasing
- Providing a fully protected (Dutch style) intersection at locations with high bicycle and vehicular traffic
- Reducing signal cycle lengths to improve compliance by all users



**Above:** Sidepath Cross-Section.

**Below:** Examples of Sidepaths.



# Protected Bicycle Lanes

Protected, or separated, bicycle lanes provide a low-stress facility for people of all ages and abilities on all types of streets or roads. Protected bicycle lanes are physically separated from vehicle travel lanes by a horizontal buffer and vertical element, such as a median, rubber curb, or flexible delineator. Protected bicycle lanes may provide uni- or bidirectional travel for people on bicycles. Protected bicycle lanes are generally provided within the curb-to-curb width of an existing roadway.

## INTENDED USERS

- People using analog bicycles
- People using Class 1 or Class 2 e-bicycles
- People using other mobility devices, such as skateboards, scooters, or roller skates

## DESIGN CONSIDERATIONS

- Operate in conjunction with adjacent vehicle movements at signalized or stop-controlled intersections
- Must be well-lit
- Buffer width should be at least 3 feet when placed next to a parking lane to minimize the risk of ‘dooring’ crashes
- If vehicle lanes need to be narrowed to accommodate a protected bicycle lane, consider permitting emergency vehicles to travel within bidirectional protected facilities
- Vertical separation should be designed to dissuade most drivers while still being traversable for emergency vehicles

## DESIGN DIMENSIONS

The width of a protected bicycle lane may vary according to context-specific constraints, but must always include both a travel lane for people riding bicycles as well as a buffer between the bicycle lane and the vehicle lane or parking lane. Minimum and preferred design dimensions for unidirectional and bidirectional protected bicycle lanes are indicated in Table 2. Rideable width includes spaces that are traversable but not intended for travel, such as a gutter pan.

## INTERSECTION AND CROSSING TREATMENTS

Intersection treatments for protected bicycle lanes at signalized and unsignalized intersections should be designed following the guidelines for side paths.

*Proposed examples of protected bicycle lanes within the region include the Marquette Avenue Trail and the Getty Street Trail.*

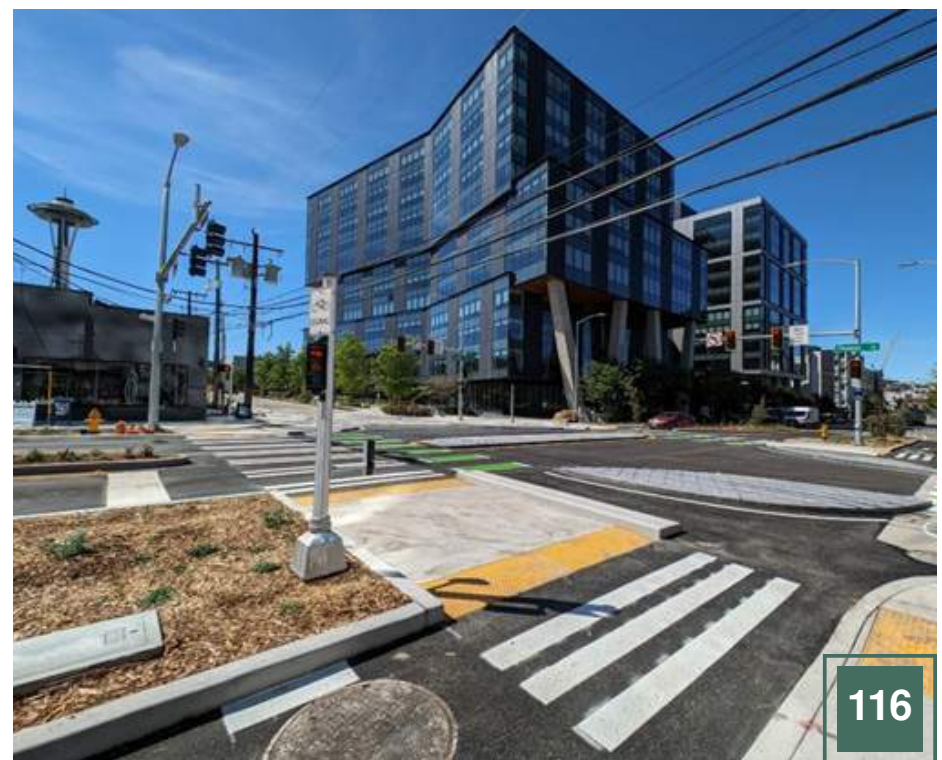
	UNIDIRECTIONAL		BIDIRECTIONAL	
	MINIMUM WIDTH	PREFERRED WIDTH	MINIMUM WIDTH	PREFERRED WIDTH
<b>RIDEABLE WIDTH</b>	6.5' – 7'	8' – 12.5'	9'	15'
<b>BICYCLE LANE</b>	5'	6' – 9'	8'	13' – 20'
<b>BUFFER</b>	2'	2' – 5'	2'	2' – 5'
<b>BUFFER (PARKING-ADJACENT)</b>	3'	3' – 5'	3'	3' – 5'

*Table 2: Protected Bicycle Lane Widths.*

*Below: Examples of Protected Bicycle Lane, Austin TX.*



*Below: Examples of Protected Intersection Treatment, Seattle, WA.*



# 10

## Funding and Implementation

Trails, greenways, and waterways require a clear commitment to, and vision for, their role in the regional network. This plan is intended to communicate that vision and articulate the regional commitment to creating a connected non-motorized network that is safe and comfortable for “all ages and abilities.” Implementation of the network is not the responsibility of any one entity – it will take the will of the entire region to build a robust system to serve all people in our rural and urban places, neighborhoods, and small downtowns. Oftentimes, “MacGyvering” solutions will be necessary – pulling from a variety of different partners and funding sources to make projects happen.

This plan does not imply any obligation of funds by any organization, including but not limited to organizations represented by members of the Steering Committee, right-of-way owners or municipalities where the trails are located.

### Preliminary Costs

Approximate cost information for various non-motorized facilities is provided on a per-mile basis. These estimated costs are intended to help develop high-level cost estimates for the project recommendations identified in this plan. Estimated costs are based on current (2025) year information and standard costs incorporated into various facilities. However, project and context-specific factors will likely influence the actual cost of each recommendation, and should be thoroughly evaluated during the project planning phase.

#### GREENWAYS AND SIDEPATHS

12-foot greenway or sidepath, constructed within 16-feet of available ROW: **\$1.0 MILLION TO \$1.5 MILLION PER MILE**

- Includes alignment clearing, minor grading, pavement, markings, signage, lighting, and drainage
- Does not include the cost of ROW acquisition, bridges necessary to accommodate a preferred alignment, or wetland mitigation

## PROTECTED BICYCLE LANES

13-foot bidirectional bicycle lane, constructed within available ROW and curb-to-curb width: **\$600,000 TO \$800,000 PER MILE**

- Includes installation of concrete curbs and necessary drainage structure adjustment
- Does not include ancillary treatments, such as ADA compliance or dedicated bicycle signals at intersections

## BRIDGE OVER SHORELINE DRIVE

A 250-foot bridge over Shoreline Drive, including landscaping and lighting, is estimated to be between **\$9,000,000 AND \$10,000,000**

May vary based on necessary utility adjustments or particular bridge and landscaping treatments

Addition of elevators would increase the estimated cost to **\$14,000,000**

## NATURAL SURFACE TRAILS

Unpaved dirt or crushed gravel surfaces is estimated at: **\$35,000 TO \$55,000 PER MILE**

- Likely ineligible for federal funding due to cohesive material requirements in compliance with the Americans with Disabilities Act (ADA)



*Above Top: Trenton Road Connector Sidepath, Raleigh, NC.*

*Above: Protected Bicycle Lane, Philadelphia, PA.*

# Funding Sources

Commitment can be leveraged during the pursuit of funding from multiple sources, including federal, state, and local funding mechanisms as well as grants, partnerships, and other privately sourced opportunities. Non-motorized facilities identified in this plan may also be incorporated into programmed street or road construction projects, which minimizes ancillary costs associated with trail design or construction mobilization. Street or road construction projects can generally be associated with two categories, as defined below:

## #1: MILL AND OVERLAY (REHABILITATION) PROJECTS

The rehabilitation (or resurfacing) process is a construction project in which the existing roadway surface is removed and replaced with new pavement or asphalt. During these projects, pavement markings are removed, which provides an opportunity for cross-section reconfigurations that may incorporate an on-street bicycle facility. These facilities may include protected or buffered bicycle lanes. Rehabilitation projects may offer the opportunity to implement a planned bicycle facility in conjunction with a broader project, although these facilities are constrained to within the existing curb lines.

## #2: STREET RECONSTRUCTION

Complete reconstruction of a corridor represents the most cost-efficient opportunity to implement planned bicycle facilities, including separate sidepaths. During a full reconstruction project, the entire transportation facility – inclusive of curbing, drainage structures, pavement markings, sidewalks, driveway aprons, and street lighting- is removed and replaced. The cost to incorporate a separate non-motorized facility is often relatively minimal, since existing structures can be removed and replaced more easily.

**EXAMPLE OF TRAILS AND GREENWAY IMPROVEMENTS AS PART OF STREET RECONSTRUCTION:** *In 2026, MDOT is planning to reconstruct Apple Avenue between US-31 and Webster Avenue in downtown Muskegon. The city engaged with MDOT early in the planning process to identify the potential for the conversion of some space currently used for vehicle travel into space for people walking and bicycling. Following a robust operational analysis, continued coordination with the state, and ongoing engagement with local community members, the corridor will be reconstructed to remove some vehicle travel lanes, move the existing curb lines, and add a dedicated sidepath on one side of the street.*

In some cases, funding can be combined with funding programmed for a corridor rehabilitation or reconstruction project. In other cases, funding can be used to implement a planned non-motorized segment outside of programmed construction projects. In all cases, funding can – and often must – be sourced from a variety of federal, state, local, or private programs, and should include costs associated with the network’s entire lifecycle, from design and construction to ongoing maintenance and eventual replacement.

<b>FEDERAL FUNDING SOURCES (SOME PROGRAMS ADMINISTERED AT STATE LEVEL)</b>				
<b>GRANT PROGRAM</b>	<b>ELIGIBLE PROJECT TYPES</b>	<b>COST-SHARE STRUCTURE</b>	<b>LIKELIHOOD OF SECURING FUNDING</b>	<b>MAXIMUM GRANT AWARD</b>
<b>Better Utilizing Investments to Leverage Development (BUILD)</b>	Surface transportation projects with significant local or regional impacts	80% federal / 20% local if the project is not located within an Area of Persistent Poverty, otherwise up to 100% federal	Low	\$25,000,000
<b>Congestion Mitigation and Air Quality Improvement Program (CMAQ)</b>	Projects, including bicycle and pedestrian projects, that improve air quality. Projects must be located in a nonattainment area.	80% federal / 20% local	Medium	N/A
<b>Highway Safety Improvement Program (HSIP)</b>	Projects that improve transportation safety. 15% of federal aid in Michigan must be spent on projects that improve safety for pedestrians or bicyclists.	90% federal / 10% local	Medium	\$2,000,000
<b>Active Transportation Infrastructure Investment Program</b>	Projects that provide safe and connected active transportation facilities.	80% federal / 20% local if the project is not located within an Area of Persistent Poverty as defined by USDOT, otherwise 100% federal	Low	\$15,000,000 (Construction)
<b>Surface Transportation Block Grant Program (STBG)</b>	Projects that preserve or improve the condition of existing facilities, including pedestrian or bicycle facilities. Funding is formula-based, not discretionary.	80% federal / 20% local	Low	N/A
<b>Recreational Trails Program (RTP)</b>	Trail maintenance or construction projects.	N/A	Low	N/A
<b>Safe Routes to School (SRTS)</b>	Projects that improve non-motorized accessibility to educational centers.	N/A	Medium	\$15,000 (Mini Grant)

## STATE FUNDING SOURCES

GRANT PROGRAM	ELIGIBLE PROJECT TYPES	COST-SHARE STRUCTURE	LIKELIHOOD OF SECURING FUNDING	MAXIMUM GRANT AWARD
<b>Michigan Natural Resources Trust Fund (MNRTF)</b>	Projects that provide outdoor recreation. Project area must be within an area covered by a DNR-approved 5-year recreation plan.	N/A	Medium	\$400,000
<b>MDNR Land and Water Conservation Fund (LWCF)</b>	Projects that provide outdoor recreation. Project area must be within an area covered by a DNR-approved 5-year recreation plan.	N/A	Medium	\$500,000

## LOCAL FUNDING SOURCES

GRANT PROGRAM	ELIGIBLE PROJECT TYPES	COST-SHARE STRUCTURE	LIKELIHOOD OF SECURING FUNDING	MAXIMUM GRANT AWARD
<b>Community Development Block Grants (CDBG)</b>	Construction of sidewalks or other public non-motorized facilities.	N/A	High for low- to moderate-income areas	\$1,500,000
<b>Transportation Alternatives Set-Aside Program (TA)</b>	Projects that enhance the intermodal transportation network and provide safe alternative transportation options. Distributed at the MPO level.	80% federal / 20% local	High	N/A
<b>Downtown Development Authority (DDA) and Corridor Improvement Authority (CIA)</b>	Tax increment captured in a downtown or neighborhood business district can be used for infrastructure investment inside the Authority's designated "Development Area".	N/A	Medium	N/A
<b>Brownfield Redevelopment Program</b>	Private development projects are allowed to use part of their tax capture towards public infrastructure in areas abutting a project.	N/A	Low	N/A

## PRIVATE FUNDING SOURCES

GRANT PROGRAM	ELIGIBLE PROJECT TYPES	COST-SHARE STRUCTURE	LIKELIHOOD OF SECURING FUNDING	MAXIMUM GRANT AWARD
<b>Michigan Trails Fund</b>	Projects that provide regional non-motorized facilities.	N/A	Medium	N/A
<b>Grand Haven Area Community Foundation</b>	Projects that support cooperation across municipalities in the area of transportation.	N/A	Medium	N/A
<b>Trails Capacity Program</b>	Trail maintenance or user education programs.	N/A	High	\$10,000
<b>Michigan Health Endowment Fund</b>	Projects that promote active lifestyles through the construction or maintenance of non-motorized facilities.	N/A	Medium	\$500,000

**Below:** Trail Reconstruction, Spring Lake Township. Credit Prein & Newhof.



**Below:** Greenway Trail, Fayetteville, AR.



## CAPITAL IMPROVEMENT PLAN (CIP) ALIGNMENT

Capital improvement plans (CIPs) were studied for jurisdictions having authority over transportation facilities to determine potential alignment between programmed construction projects and proposed non-motorized segments. CIPs for the following communities and entities were reviewed: City of Muskegon, Muskegon County Road Commission, Ottawa County Road Commission, the City of Grand Haven, the City of Norton Shores, the City of Muskegon Heights, and the City of Roosevelt Park. Three proposed non-motorized segments are located adjacent to streets or roads programmed for rehabilitation or reconstruction between 2026 and 2029:

- **M-46 (APPLE AVENUE) IN MUSKEGON:** In 2026, MDOT and the City of Muskegon will reconstruct Apple Avenue between US-31 and Webster Avenue. As part of this reconstruction, a sidepath will be installed along the southern edge of Apple Avenue.
- **LEONARD ROAD PATHWAY IN CROCKERY TOWNSHIP:** In 2026, the Ottawa County Road Commission (OCRC) will resurface (or rehabilitate) Leonard Road between 148th Avenue and the Spring Lake village boundary. The Leonard Road pathway is proposed east of this area; however, the limited scope of the rehabilitation project does not include the addition of a separated sidepath, and additional funding would be required for its inclusion.
- **120TH AVENUE PATHWAY:** In 2026, OCRC will resurface (or rehabilitate) 120th Avenue between M-45 (Lake Michigan Drive) and Taylor Street. The 120th Avenue pathway is proposed within these project limits; however, the limited scope of the rehabilitation project does not include the addition of a separated sidepath, and additional funding would be required for its inclusion.

While the specific non-motorized investment may not be planned as part of rehabilitation work, the investment being made by a local road authority is still notable and may serve as matching funds towards a grant request. Leveraging monies as they are being invested in road maintenance can be an opportunity to redefine the “project” more broadly to include non-motorized facility enhancements. For example, monies dedicated by MDOT for the resurfacing of Plainfield Avenue (M-44) in Plainfield Charter Township in Kent County were used to leverage Township and CDBG dollars to install landscaping, medians, pedestrian signals, and a pedestrian refuge island.



# 11

## Timeline and Measures of Success

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Timeline

# Measures of Success

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## **REDUCTION IN CYCLIST-INVOLVED CRASHES**

Crash statistics for cyclist-involved crashes in the WestPlan MPO should be pulled annually, using 2025 accounts as a baseline. Report as percent change in crashes resulting in serious injury or death.

## **INCREASE IN BIKE USERS**

Establish baseline bike user counts at select intersections and/or trails throughout the region. Monitor these intersections annually to determine increases in bike users. Report both separately and as a ratio compared to the increase in mileage of trails.

## **MILES OF TRAILS CONSTRUCTED**

Using 2025 as a baseline, report the number of higher, medium, and lower priority trails installed in the MPO annually.

## **EQUITABLE PATH INSTALLATION**

The higher priority paths are all located in Comprehensive Equity Areas. By focusing on the installation of higher priority paths, the disconnected areas will be served. Tracking the installation of these will measure the equitable execution of the plan.

## **DISPLACEMENT**

Track housing data accessed from Urban Footprint or census tract census data in the Comprehensive Equity Areas annually. Compare that data to the increase in trails installed in the area to ensure that displacement through green gentrification is not occurring.

## **HEALTH INDICATORS**

Using the Center for Disease Control's (CDC's) PLACES: Local Data for Better Health, annually track health data in the MPO. The tool can be used to track chronic diseases (obesity, diabetes and hypertension, and asthma) and mental health indicators. That data can be compared to the miles of trails installed and the increase in trail users to determine if the installations are having a positive effect on the community's health.

# 12 Conclusion

The process began with baseline data from the Steering Committee, made up of representatives from the MPO, governments within the MPO, and the local bicycling coalition. They provided guidance on the goals of the plan and the communities to engage. A variety of engagement methods were used to collect feedback from as many people in the WestPlan MPO as possible. This included not only residents but also business owners, employees, neighborhood stakeholders, and visitors. A combination of in-person and online activities was used, including pop-ups at popular community events such as Muskegon's Parties in the Park, Grand Haven's Music on the Grand, the Montague Artisan's Market, and Focus Groups at The Us Cafe, Muskegon City Hall, Unruly Brewing Company, and Pioneer Park. Meeting people where they are was a critical component of the engagement approach.

The surveys, pop-ups, focus groups, and open houses revealed the hopes, fears, aspirations, and preferences of community stakeholders. This input, blended with an analysis of the West Michigan Shoreline's existing conditions and the Steering Committee's Project Principles, informed the vision for trail connections and future improvements over the next ten years.

We listened to concerns across communities and addressed those involving Safety, Accessibility, Efficiency, Equity, and Network Connectivity. Our engagement process helped us understand the importance of the Trail, Greenway, and Waterway infrastructural improvements across the region from the community's perspective. Our analysis along with the stories we've heard from residents show that improving existing trails and adding additional connections in the built environment provide desirable alternatives to the high-stress roadways across the region.



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We know that the work can be done by repurposing existing infrastructure, followed by additional improvements like separate greenways. We also understand through active listening that such improvements can connect marginalized populations to daily amenities and employment opportunities , which will inevitably improve the quality of life for all along the West Michigan Shoreline. This project and the recommendations presented above map ways to connect existing regional paths and also provide more local access options to get to both scenic places (waterways, parks, greenways) and everyday places (stores, banks, work ).

Finally, place-making, belonging, and a sense of interconnectedness are vital for the future of these communities. Therefore, improving important multi-user trail connections to the greater trail and greenway network in the region will have a positive impact on the lived experiences of all people who live, work, and play in the region. Given that, the project partners are committed to making sure that these principles are guideposts in the development of this new and improved shoreline trails and greenways connections system.

“The Shoreline Region (Muskegon and Northwest Ottawa County) will be linked together by a robust network of trails and greenways that connect communities, enrich the health and livelihood of residents who call this place home, and provide abundant access to everyday destinations and natural areas alike.”

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