



Southwest Michigan **Non-Motorized Transportation Plan**

2011

**Connecting Communities: A Regional Vision for
Non-Motorized Transportation in Southwest
Michigan**

*(Allegan, Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo,
St. Joseph and Van Buren Counties)*

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EXECUTIVE SUMMARY

With facilities designed primarily for pedestrians and bicyclists (paved shoulders, bike lanes, and shared use paths), non-motorized transportation is a critical element of an integrated transportation system. A connected regional system of non-motorized facilities will help to increase mobility choices, relieve traffic congestion, reduce air pollution and fuel consumption, promote physical activity and healthy lifestyles, and improve quality of life.

Many communities in southwest Michigan aspire to provide non-motorized facilities for their residents and visitors; however, until recently there has not been much emphasis on a connected regional system. This plan provides a non-motorized transportation system vision for the Michigan Department of Transportation's southwest region which includes Allegan, Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, and Van Buren counties. This regional plan does not replace any local or county plans; in fact, it builds and depends upon local plans and initiatives. This plan strives to:

- 🚲 Provide a region-wide vision for a connected system of off-road shared use paths and on-road facilities (paved shoulders/bike lanes);
- 🚲 Encourage dialogue and more coordinated planning among state, county, and local entities; and
- 🚲 Enhance partnerships and increase communication among state, county, and local agencies regarding the implementation and operation (construction, maintenance, marketing, etc.) of non-motorized facilities.

In southwest Michigan, there are over 800 miles of on-road non-motorized facilities (paved shoulders and bike lanes), 154 miles of off-road improved facilities and 36 miles of off-road unimproved facilities. Kalamazoo County is a leader with over 140 miles of on-road and over 50 miles of off-road improved facilities. Both the City of Kalamazoo and Portage (Kalamazoo County) have been leaders in creating networks of on-road and off-road facilities. With over 170 miles, Allegan and Barry Counties are leaders in the region for total miles of paved shoulders and bike lanes.

This plan highlights the major gaps in southwest Michigan to achieve a connected region-wide system. With extensive public participation, desired and planned non-motorized facilities were solicited and mapped. Regional priority corridors were identified along with local priority routes for each of the counties. There are five north-south and four west-east priority regional corridors and many of the local/county priority routes correspond to the regional corridors. The regional corridors and local priority routes will help guide the Michigan Department of Transportation's (MDOT) investment in the region's non-motorized transportation system.

For facility planning and implementation efforts, communities should collaborate and coordinate development with neighboring communities, regional planning commissions, local road commissions, MDOT, and other interested stakeholders. Non-motorized projects that are a part of or connect with a regional network are often looked upon in a favorable light by private and government funding agencies. This plan is meant to be a living document that represents the current and desired non-motorized transportation needs in the southwest region. It will need to be updated periodically as facilities are built, other potential connections are found, or the needs within a community changes.

SECTION 1-INTRODUCTION

Project Overview

With increased interest in bicycling and walking, momentum is building throughout the southwest region to develop more non-motorized facilities. Many municipalities have developed their own non-motorized transportation plans. However, there is no current region wide plan or vision for creating a non-motorized system connecting urban, suburban, and rural communities throughout southwest Michigan.

While governmental coordination has improved greatly throughout southwest Michigan, there still is a communication and planning disconnect among communities, nonprofit groups, and private groups when planning for non-motorized facilities, especially those which go beyond jurisdictional boundaries. While the interest in non-motorized transportation has steadily grown, funding for development of new facilities has become increasingly constrained. For example, each year, the Michigan Department of Transportation (MDOT) receives more applications for non-motorized transportation facility development than its grant programs can fund.

It is the intent of this comprehensive plan to identify projects and help guide MDOT's investment in the region's non-motorized transportation system. The plan also provides information to local road agencies and communities which will aide them when making local investment decisions about expanding or developing new non-motorized transportation facilities.

This plan strives to:

- 🚲 Provide a region wide vision for a connected non-motorized system of off-road shared use paths and on-road facilities (paved shoulders/bike lanes);
- 🚲 Encourage dialogue and more coordinated planning among state, county, and local entities; and
- 🚲 Enhance partnerships and increase communication among state, county, and local agencies regarding the implementation (construction, maintenance, marketing, etc) of non-motorized facilities.

Non-motorized transportation includes facilities designed primarily for the use by pedestrians and bicyclists, such as paved shoulders and shared use paths. These facilities can provide both transportation (they provide access to goods, services, and activities) and recreation (they are an end in themselves). Users may consider a particular trip to serve both objectives.

Non-motorized transportation planning is important to help increase mobility choices, relieve traffic congestion, reduce air pollution and fuel consumption, promote physical activity, and healthy lifestyles, and improve quality of life.

Background

The Michigan Department of Transportation (MDOT) has been supporting local and state-wide non-motorized planning and implementation in southwest Michigan for more than a decade. In 2001, MDOT funded the development of a Southwest Michigan Non-Motorized Investment Plan for the nine counties in the MDOT southwest region (Allegan, Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, and Van Buren counties). This plan was intended to guide MDOT's investment in non-motorized facilities in the southwest region for five years.

Since the early 1970s, the Southwest Michigan Planning Commission (SWMPC) has been involved in transportation planning for Berrien, Cass, and Van Buren Counties. SWMPC has been involved in non-motorized planning and promotion for MDOT's Southwest Region since 2002, with the formation and facilitation of the Southwest Michigan Alliance for Recreational Trails (SMART). In 2006, SWMPC with funding from MDOT, developed a bicycle travel map for the MDOT Southwest Region. This map included on-road and off-road non-motorized facilities along with traffic count information and points of interest. Then in 2009, MDOT provided SWMPC with funding to update the 2006 map and to develop a regional non-motorized plan for southwest Michigan.



MDOT Southwest Region encompasses the nine counties of Allegan, Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, and Van Buren.

Non-Motorized Transportation Planning in Michigan

To ensure a connected non-motorized transportation network there needs to be coordination and support from all levels of government. Over the last few years, there has been growing support for the development of a connected statewide shared use path system. The coordinating agency that handles transportation planning for the State of Michigan is MDOT. Their mission is to provide the highest quality integrated transportation services for economic benefit and improved quality of life. MDOT has made non-motorized transportation planning a priority. MDOT is enhancing non-motorized transportation planning and implementation by funding regional non-motorized transportation plans and maps for the entire state.

- 🚲 Michigan State Transportation Law-“Michigan’s state transportation law requires a minimum of one percent of state transportation funds be spent for non-motorized transportation. Section 10k of Public Act 51 of 1951, as amended, allows for non-motorized plans, services, and improvements to a road, street, or highway, which facilitates non-motorized transportation by the widening of lanes, striping of lanes to designate bike lanes, or any other appropriate measure considered a qualified non-motorized facility for the purpose of this section. State law allows bicycles to ride on all public roads except where restricted or on limited access highways. Therefore, bicyclists are found in travel lanes on streets, roads shoulders, bike lanes, and shared use paths across the state”. *Source Michigan Department of Transportation State Long-Range Transportation Plan 2005-2030 Non-Motorized Technical Report, 2007.*

🚲 Michigan Department of Transportation (MDOT)-“The Michigan Department of Transportation is demonstrating its commitment to an integrated system through the inclusion of non-motorized projects in MDOT’s standard operating procedures. The Fiscal Year (FY) 2011 Integrated Call for Projects encourages project managers to integrate non-motorized solutions with roadwork when appropriate”. *Source Michigan Department of Transportation State Long-Range Transportation Plan 2005-2030 Non-Motorized Technical Report, 2007.*

Two important publications have been developed regarding a statewide connected system of shared use paths for recreation and non-motorized transportation.

🚲 Connecting Michigan: A Statewide Trails Vision and Action Plan, 2006. This publication was developed with leadership from Michigan Trails and Greenways Alliance (MTGA), a non-profit organization that fosters and facilitates the creation of an interconnected statewide system of shared use paths and greenways for environmental/cultural preservation purposes. MTGA works at both the state and local levels by assisting public and private interests in shared use path and greenway planning, funding, development, and maintenance. MTGA builds public support for trails and greenway development through events, membership, education, information, and advocacy activities.

🚲 Michigan Trails at the Crossroads: A Vision for Connecting Michigan, 2007. This document was produced by the Michigan Department of Natural Resources and the Michigan Department of Transportation. This document seeks to foster a connected shared use path system in Michigan by building new facilities and upgrading existing facilities throughout the state. The document also promotes the creation of an interconnected statewide system of shared use paths called “Discover Michigan Trails.” This system would connect natural, tourist, and urban destinations. Modeled after the Michigan Trailways Act, a designation of the initial set of shared use paths would be established and then an appointed Council of diverse interests would be charged to create a strategy and action plan to achieve the vision for the “Discover Michigan Trails” network, including developing guiding principles for public trail investments and a dedicated funding source for multi-use shared use paths.

Non-Motorized Transportation Planning in Southwest Michigan

At the regional level, Metropolitan Planning Organizations (MPOs) along with the Federal Highway Administration (FHWA), MDOT, and county and local municipalities, develop short and long range transportation plans which address local non-motorized transportation needs. There are five MPOs in MDOT's Southwest Michigan region:

- 🚲 Battle Creek Area Transportation Study (BCATS),
- 🚲 Kalamazoo Area Transportation study (KATS),
- 🚲 Macatawa Area Coordinating Council (MACC) covering Holland,
- 🚲 Niles-Cass-Buchanan Transportation Study (NATS), and
- 🚲 Twin Cities Area Transportation Study (TwinCATS) covering Benton Harbor and St. Joseph.

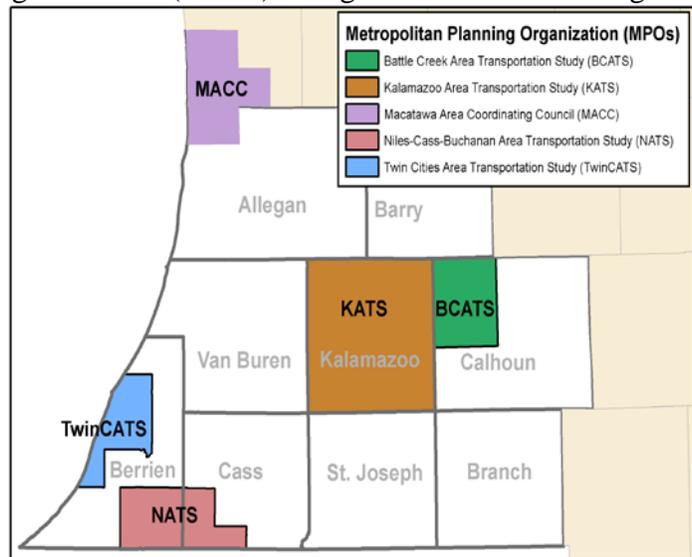


Figure 1. Metropolitan Planning Organizations (MPOs), Southwest Michigan

The MDOT Southwest Region encompasses all or part of three planning regions and abuts two others in Michigan and three in Indiana. These regions non-motorized planning documents should be reviewed in the development of facilities adjacent to these regions.

Michigan

- 🚲 Region 2 Planning Commission serves the counties of Hillsdale, Jackson, and Lenawee. Community planning documents can be found for the region by visiting their website. www.region2planning.com
- 🚲 Southcentral Michigan Planning Council serves the counties of Barry, Branch, Calhoun, Kalamazoo, and St. Joseph counties.
- 🚲 Southwest Michigan Planning Commission (SWMPC) serves the counties of Berrien, Cass, and Van Buren Counties. The SWMPC has developed the non-motorized transportation plan for the MDOT southwest region. The southern portion of the service area borders Indiana, specifically Northwestern Indiana Regional Planning Commission and Michiana Area Council of Governments. www.swmpc.org
- 🚲 Tri-County Regional Planning Commission covers the counties of Clinton, Eaton, and Ingham Counties. Their long range transportation plan, including the details about the development of their non-motorized facilities can be found by visiting their website. <http://tri-co.org/>
- 🚲 West Michigan Regional Planning Commission serves the counties of Allegan, Ionia, Kent, Mecosta, Montcalm, Osceola, and Ottawa Counties. <http://wmrpc.org/>

Indiana

- 🚲 Region III-A provides technical assistance to member counties which include: Huntington County, LaGrange County, Noble County, Steuben County, Wabash County, and Whitley County. This region borders the southern portion of Branch County. <http://regioniiiia.org/>
- 🚲 Michiana Area Council of Governments (MACOG) shares a border with Berrien, Cass, and St. Joseph counties in northern Indiana. MACOG provides planning oversights in St. Joseph, Marshall, and Elkhart counties. In 2001, they released their Regional Bicycle Facilities Map which outlines all off and on-road bike routes in the MACOG region. Routes which were planned to remain unsigned were also identified. This plan serves as an excellent resource for those looking to connect to points surrounding the region and to southwest Michigan. www.macog.com/
- 🚲 Northwestern Indiana Regional Planning Commission (NIRPC) shares a border with Berrien County. NIRPC is a regional council of local governments serving the citizens of Lake, Porter, and LaPorte counties in northwest Indiana. In 2010, NIRPC released their pedestrian and bicycle transportation plan. This plan serves as a vital connection for the communities in the southern part of the southwest Michigan region. www.nirpc.org/transportation/nonmotorized.htm

There are two major regional coalitions working to advance shared use paths and a connected non-motorized transportation network throughout southwest Michigan.

- 🚲 West Michigan Trails and Greenways Coalition (WMTGC) - The West Michigan Trails and Greenways Coalition covers the area of Manistee, Wexford, Mason, Lake, Osceola, Oceana, Newaygo, Mecosta, Muskegon, Montcalm, Gratiot, Ottawa, Kent, Ionia, Allegan, and Barry Counties. WMTGC was formed in May of 2000 and is a non-profit group of like-minded donors, organizations and volunteers who are dedicated to developing non-motorized shared use paths and greenways into a linked system that connects wilderness areas, parks, historic landmarks, and cultural sites throughout west Michigan. www.wmtrails.org



Cycling can provide social and physical interaction of residents and visitors

- 🚲 Southwest Michigan Alliance for Recreational Trails (SMART) - SMART is a coalition covering Allegan, Barry, Berrien, Branch, Cass, Calhoun, Kalamazoo, St. Joseph, and Van Buren counties. The mission of SMART is to partner, promote and connect a planned non-motorized system in Southwest Michigan and adjoining areas to enhance the quality of life for all. A task force with representation from each of the nine counties guides SMART activities. SMART's membership is diverse including representatives from county parks departments, county road commissions, local parks and public works staff, township and city engineers, city managers, economic and community development

organizations, friends groups, biking groups, Resource Conservation and Development Councils, Metropolitan Planning Organizations, land conservancies, MDNR, MDOT, and Michigan Trails and Greenways Alliance. See Appendix A for the SMART task force membership list. www.swmpc.org/smart.asp

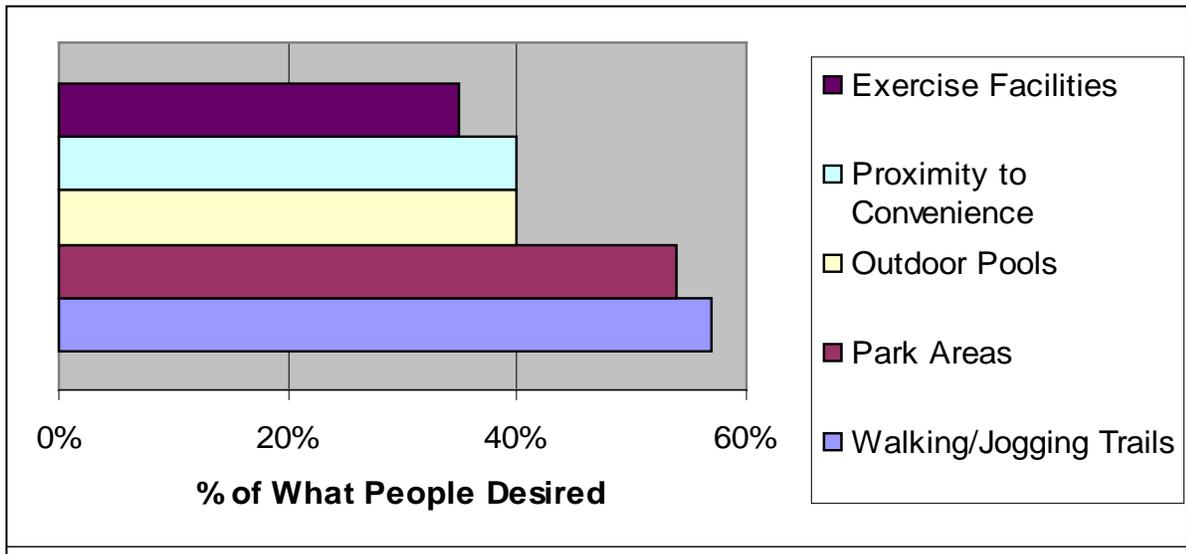
Many communities and counties in southwest Michigan have also developed non-motorized plans. There are also several local initiatives in the region that are planning, constructing, maintaining, promoting, and marketing regional shared use path systems in southwest Michigan. These topics are discussed in more detail in Section 3 Existing Conditions of this plan. This regional plan does not replace these local plans; in fact, it builds on and is dependent upon these local plans and initiatives.

Economic Benefits of Non-Motorized Facilities

- Increases real estate values
- Increases tax revenue
- Retains and attracts businesses
- Retains and attracts residents
- Attracts tourism spending

Benefits of Non-Motorized Transportation

Non-motorized transportation has become increasingly important because many people are beginning to understand the numerous benefits that these facilities bring to a community. The benefits are very diverse and include advantages in economic, social, environmental, health, and overall quality of life.



In 2000, the National Association of Homebuilders surveyed 2,800 people nationwide and asked them what they would like to see in a new community.

Figure 2. Survey by National Association of Homebuilders

The economic vitality of a community can be greatly affected by an environment that is supportive of non-motorized travel. Non-motorized facilities such as shared use paths **provide a means of interacting with nature, neighbors, and businesses** within a community. Many studies have shown the **economic benefits** of shared use paths to local businesses. In Michigan studies show that out of town shared use path users spend anywhere from \$949 to \$1,269 on lodging, restaurant, groceries, gas,

and equipment per trip. Further, shared use paths can positively impact property values. For example, realtors indicated that homes along the Paint Creek Trail in Michigan were selling for about 10% more than comparable homes not located along the path.

Non-motorized facilities **provide an alternative form of transportation** to the automobile. This can help reduce the amount of congestion on our roadways and reduces the amount of air pollution from vehicles. Poor air quality can contribute to respiratory problems and overall health issues in the population. Non-motorized facilities can also **provide transportation options** for the elderly, mobility challenged and those who cannot afford or chose not to have an automobile. Non-motorized transportation options can also help people connect to public transit options such as train and bus stops.

Further, a connected non-motorized network will **offer numerous health and safety benefits** for the residents of southwest Michigan. As the nation's obesity epidemic is quickly becoming one of the largest health problems facing Americans today, these facilities can provide a place for community members to easily and inexpensively engage in physical activity. Non-motorized facilities can also **provide a safer route for students** to walk or bike to school.

<p style="text-align: center;">Health and Quality of Life Benefits of Non-Motorized Facilities</p> <ul style="list-style-type: none">-Reduces air pollution-Encourages physical fitness-Helps prevent obesity related chronic diseases-Creates safer neighborhoods-Provides safe alternative transportation options-Helps connect people, neighborhoods and communities with each other and the outdoors
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SECTION 2-PROJECT METHODOLOGY

Planning Process Overview

The planning process was intended to build consensus for a connected non-motorized network within the region and with neighboring regions in Michigan and Indiana. The planning process for this project was conducted from 2008 to 2011. The process included collecting data, creating a map, and building an understanding of existing non-motorized transportation facilities in the region. The process also included soliciting extensive public input to understand, prioritize, and build consensus for desired non-motorized facilities throughout the region. Public input was solicited in one-on-one meetings, public meetings, and also through a project website and other social media. The SMART Task Force was a critical constituent in the public input process and served as a liaison between SWMPC and local stakeholders.

It is expected that this plan will be utilized by MDOT, local officials, and advocacy groups to guide non-motorized investments in the region. Further the plan provides a vision for a non-motorized transportation network that can be used when applying for private and governmental funding to implement non-motorized projects.

This project utilized data and maps developed by the SWMPC for the MDOT funded Southwest Michigan Bicycle Mapping Project (2005-2006) along with plans, data, and input from the State and many local partners.



Kalamazoo River Valley Trail
(Kalamazoo County)

The following objectives were set for the planning process:

- 🚲 **Objective 1** - Identify existing non-motorized facilities in southwest Michigan.
- 🚲 **Objective 2** - Identify planned and desired non-motorized facilities in southwest Michigan.
- 🚲 **Objective 3** - Prioritize regional and local non-motorized routes and projects.
- 🚲 **Objective 4** - Involve the public to strengthen local and regional support for non-motorized facility development and connectivity.

Project Scope

The nine counties of the southwest Michigan region encompass 5,468 square miles of rolling hills, agricultural fields, orchards, rivers, lakes, and 89 miles of Lake Michigan shoreline which is a popular attraction for residents and visitors alike. The southwest region also contains several urban centers such as Kalamazoo/Portage, Battle Creek, St. Joseph/Benton Harbor, and Holland. There are also many small towns and villages throughout the region. The 2010 U.S. Census data shows a total population of the region at 948,673. Table 1 gives a breakdown of each county's total population along with their major population centers. These population centers help us better understand where the main hubs of

non-motorized travel center around. Therefore, connecting these areas with a combination of on-road and off-road facilities is important for the connectivity of the region.

Table 1. Population, Southwest Michigan

County	County Population	Population Centers
Allegan	111,408	Allegan – 4,998 Holland – 33,051 Plainwell – 3,804 Wayland – 4,079
Barry	59,179	Hastings – 7,350
Berrien	156,813	Niles – 11,600 Buchanan – 4,456 Benton Harbor/St. Joseph – 18,403
Branch	45,248	Coldwater – 10,945
Calhoun	136,146	Albion – 8,616 Battle Creek – 52,347 Marshall – 7,088
Cass	52,293	Dowagiac – 5,879
Kalamazoo	250,033	Kalamazoo/Portage – 120,554
St. Joseph	61,295	Sturgis – 10,994 Three Rivers – 7,811
Van Buren	76,258	South Haven – 4,403 Paw Paw – 3,534
Total Population	948,673	

Source: 2010 US Census

Facility Types

On-Road Facilities

On-road facilities are part of the roadway design and transportation network. For this project, on-road facilities include paved shoulders and bicycle lanes. Minimum widths are based on the American Association of State Highway and Transportation Officials (AASHTO) 1999 standards.

🚲 Paved shoulders should be at least 4 feet or greater on each side of the roadway.

🚲 Bicycle lanes should be at least 5 feet or greater on each side of the roadway.

There are many shared roadways, designated bike routes or back-road bikeways in southwest Michigan. This plan does not specifically deal with these types of routes which do not have a paved shoulder or bike lane meeting AASHTO standards. These are generally very low volume roads with limited traffic data if any. The development of these facilities can be appropriate; especially in rural areas where traffic volumes are typically low. These types of facilities are often great for attracting tourists especially if they are well-marketed.

Off-Road Facilities

For this project, off-road facilities include shared use paths which accommodate multiple non-motorized users (mainly pedestrians and bicyclists) and minimum 10 foot width (based on AASHTO standards). Shared-use paths frequently follow green spaces, abandoned rail beds, or might be adjacent to natural features like rivers. Due to their separation from vehicular traffic, they provide a popular alternative means of travel for many types of users. Often, unpaved/unimproved paths are more popular with hikers, mountain bikers, and equestrians and are more often used for recreation and not as much for transportation. *Source: Michigan Department of Transportation State Long-Range Transportation Plan 2005-2030 Non-Motorized Technical Report, 2007.*

🚲 Shared use paths must be at least 10 feet wide.

🚲 Surface types are either improved (paved or crushed stone) or unimproved.

Mapping Existing and Planned/Desired Facilities

To begin the mapping of existing facilities, new data was added to the MDOT-funded 2005-2006 southwest Michigan bicycle travel map. SWMPC collected updates and additional data by conducting technical input meetings in each county with key stakeholders such as county road commissions and parks department staff. Further, SWMPC contacted city staff, MPOs, planning and engineering consultants, and trail groups to solicit information on existing and planned/desired facilities. Because of the extensive publicity the project received from the media, many stakeholders contacted SWMPC to ensure their local existing and planned/desired facilities were included. Surrounding counties that bordered the southwest region were also contacted to understand the potential for connectivity with these neighboring regions. After the technical input meetings were held in each of the nine counties, the next phase of project was to reach out to the general public.

Public Input

A central component of this project was to actively engage the public throughout the plan development process. SWMPC staff relied heavily on the SMART Task Force to contact stakeholders and to coordinate and publicize the public meetings. First, a highly publicized project kickoff meeting was held in Kalamazoo. This was followed up by public input meetings in each of the nine counties. Along with postcard mailings and press releases to publicize meetings, e-mail lists, the SWMPC website, and SMART's Facebook page were utilized. Further, draft maps and plans were available on the website for comment. Throughout the process, updates were sent to the email contact list and were also posted on the SMART Facebook page. Below is a general description of the public meetings with specific agendas in Appendix C.



Attendees at the June 25, 2009
kickoff meeting



Project Kickoff Meeting - Southwest Michigan Trails Summit - June 25, 2009 - Kalamazoo, MI

This event was used to kickoff the project for the region. Kalamazoo was selected as the location due to its centrality within the region. All city, village, and township clerks in the nine county region received notification by mail. Additionally, SWMPC sent over 350 e-mails to the SMART coalition contacts. SWMPC also distributed press releases and conducted radio interviews about the event.

Over 100 people attended the kickoff event. The event began with presentations by MDOT and SWMPC. The keynote speaker, Mr. Mark Nettleton from Mike Meyers Beckett & Jones, PLC discussed the “Legal Options to Establishing and Maintaining Community Trails”. After the short presentations, the attendees were separated into groups by county of interest. At each table, participants were asked to update existing non-motorized facilities and points of interest for the county. After this was done, a Mylar (clear) map was placed on the map showing existing facilities so that the attendees could share their thoughts on where new non-motorized facilities should be located. SWMPC informed the attendees that individual county input meetings would be held to further engage the public in the process.



Public support was strong throughout the entire project

County Public Input Meetings - September 2009 - February 2010

Individual county input meetings were scheduled throughout the region to increase public participation. All of the meetings were conducted using the same agenda and a 2 hour time frame (6:30-8:30 p.m.). A brief presentation of the overall project was given, followed by a mapping exercise to solicit information on existing facilities and ideas for planned or desired non-motorized facilities. Information collected at the input meetings was used by the SWMPC staff to update existing and planned non-motorized facility maps for each county.

The attendees were also asked to review and provide comments on a prioritization template which could be used to rank non-motorized projects. Since SWMPC was also updating the nine county non-motorized map, a scenario exercise was conducted to solicit comments about the usability of the current map and to initiate a discussion on potential improvements.

The dates of the county input meetings were:

1. Allegan County - January 21, 2010
2. Barry County - October 8, 2009
3. Berrien County - February 4, 2010
4. Branch County - January 14, 2010
5. Calhoun County - November 12, 2009
6. Cass County - October 22, 2009
7. Kalamazoo County - September 2, 2009
8. St. Joseph County - January 28, 2010
9. Van Buren County - October 12, 2009



Mapping updates from citizens

Final Input Meeting - July 15, 2010 - Kalamazoo, MI

This input meeting was utilized to seek any further comments regarding the existing and planned non-motorized facilities for the region and to solicit feedback on priority corridors and routes. All city, village, and townships were invited to attend the meeting through a postcard invitation. Additionally press releases were sent to all media outlets that covered the region. E-mail messages were sent to the SMART contact e-mail list which now included those that had signed in at the county input meetings throughout the past year, totaling around 650 e-mail contacts.

At this meeting a Regional Priority Map was introduced to gain consensus on priority regional and local non-motorized corridors. Before the meeting, a regional priority map was developed by SWMPC staff and the SMART Task Force and was based on input from the county input meetings. The comments received on the regional priority map at the final input meeting were positive. At this meeting, local priority projects were also solicited for each county. The meeting participants utilized the prioritization template which had been refined at the county input meetings over the last nine months. Routes were classified as having High, Medium or Low Priority. (For additional information on the prioritization template and process see below.)

Plan Review

A draft plan, after review by the SMART Task Force and MDOT, was made available on the SWMPC website for review and comment. After the comment period, comments were addressed and the plan was finalized and submitted to MDOT.



Battle Creek Linear Park
(Calhoun County)

Route/Project Prioritization

The Prioritization Template that follows was developed to provide an objective method to prioritize non-motorized routes in the region. At each of the county public input meetings, attendees had a chance to comment and make suggestions on the template. The last set of criteria on the template was developed based on individual county situations and is optional. Additional local criteria could be added to this section. Further, the scores could be weighted depending on their importance to the community.

The template provided guidance for SWMPC staff and the SMART task force to prioritize regional corridors. The public reviewed the regional priority corridors at the Final Input meeting in July 2010 and the maps were also available for comment on the SWMPC website. The overall consensus was in agreement with the regional priorities selected by SWMPC staff and the SMART task force. The template also offered guidance for the selection of local priority routes/projects for each county at the Final Input Meeting in July, 2010.

It should be noted that the scoring portion of the template was not utilized in prioritizing routes, as it proved to be too difficult to do at the regional and county scale. However, the scoring portion of the template may prove to be a very useful tool for a community trying to prioritize local projects (defined as being within a community or between two communities).

Scoring	
0	Does not meet
1	Meets in some way
2	Meets completely

	Score	Weight
1. Connectivity	Section Total:	
Provides access to major destinations: shopping/business centers, major employers, residential developments, schools, homes, social services, recreation/entertainment		
Provides access to special groups such as the youth, elderly, low-income residents or residents with disabilities.		
Project facilitates convenient connections and transfers between travel modes (transit, carpool lots, rail).		
Connects to regional network/provides essential link in regional network.		
Closes gaps in or improves existing facilities.		
2. Safety	Section Total:	
Improves safety for special groups such as youth, elderly, low-income, or residents with disabilities, and Amish		
Improves an existing or known safety issue		
Proximity to schools (within 1 mile)		
Improves routes with high vehicular traffic or provides alternate routes		
Alleviates congestion and dangerous intersections		
3. Ease of Implementation	Section Total:	
Project is listed in a master plan, recreation plan or non-motorized plan		
Project can be implemented at a reasonable cost without extensive right-of-way acquisition or intensive design features		
Project funding has been acquired/identified		
No environmental challenges exist-such as passing through a sensitive dune, wetland, floodplain		
Project has strong local support (community and/or political) for the project.		
4. Local Criteria for (X) County (optional)	Section Total:	
Off-road shared use paths are adjacent to rivers to provide barrier from development encroachment.		
Provides scenic alternatives to major thoroughfares by connecting farms and farm markets		
Connects lakes and villages		
Total Points:		

Figure 3. Prioritization Template

SECTION 3-EXISTING CONDITIONS

The following section discusses the current on-road and off-road existing non-motorized facilities throughout southwest Michigan. Next, non-motorized planning and development initiatives in the region are highlighted. Lastly, a brief analysis of the non-motorized facility gaps that still exist within the region is presented. It will be necessary to utilize a combination of on-road and off-road facilities to develop a completely connected non-motorized system in southwest Michigan.

On-Road Facilities

For this plan, on-road facilities are defined as paved shoulders with a minimum width of four feet and bike lanes with a minimum width of five feet. There are just over 800 miles of roads with non-motorized facilities (paved shoulders and bicycle lanes) in southwest Michigan. Often on-road facilities are easier to construct than off-road facilities because the road agency usually has all or most of the required right-of-way and would not need to purchase property, which can be a major expense.

One road agency that has made expanding paved shoulders on their roadways a priority is the Allegan County Road Commission. When a road is to be rebuilt, they have made it a priority to add the extra feet of pavement to include the 4 foot paved shoulder. Table 2 shows that Allegan County is a leader in the region for the total miles of paved shoulders and bicycle lanes with 170 miles. Barry County also has over 170 miles of paved shoulders, but the majority of these are on state highways.

The City of Portage has been a leader in connecting their network of on-road facilities. Portage (Kalamazoo County) has 38.5 miles of on-road facilities. Another significant on-road non-motorized facility in the region is Blue Star Highway and M-63 which follows Lake Michigan in Allegan, Berrien, and Van Buren counties. There is an on-road 4-foot paved shoulder along this route and it also connects to the Kal-Haven and Van Buren Trails in South Haven. As Blue Star Highway travels south into Berrien County, it becomes M-63 (a state highway) which also has paved shoulders, except for a short portion from the Berrien County line to Hagar Shore Road. In Calhoun County, Helmer Road (in Springfield at the intersection of Helmer and Beckley Roads) now has a paved shoulder and connects to the Battle Creek Linear Park (BCLP) system. This project was significant for those who need a safe non-motorized route to travel south of the City of Battle Creek.

Many of the roads in southwest Michigan, where traffic is low (less than 2,500 average daily traffic count) and where sight distances are not problematic, offer important connections, especially in rural areas. In the nine-county region of southwest Michigan, there are over 2,858 miles of paved roads with average daily traffic (ADT) counts of fewer than 2,500 vehicles per day. This figure does not include many roads for which traffic counts are not available, so the number of miles is quite higher than reflected, especially in rural areas. These roads provide experienced bicyclists with many miles of biking opportunities in a shared-use configuration.



On-road non-motorized facilities provide options other than automobiles

Table 2. Miles of On-Road Non-Motorized Facilities in Southwest Michigan

County	On-Road Facilities	State Roads	Other Roads
	Paved Shoulder/ Bicycle Lane (miles)	Average Daily Traffic Less than 2,500	Average Daily Traffic Less than 2,500
Allegan	170	0	337
Barry	177	0	259
Berrien	100	11	347
Branch	22	12	363
Calhoun	98	2	436
Cass	38	4	257
Kalamazoo	144	0	202
St. Joseph	41	0.8	326
Van Buren	13	0	301
Total Mileage	803	30	2,828

There are also several on-road signed or mapped bike routes in the nine-county area, but these were not included in this plan unless an actual paved shoulder or bike lane existed. An example, are the back-road bikeways in and around Three Oaks, Berrien County, and those publicized by River Country Tourism Bureau in St. Joseph County. (For more information please visit their websites at <http://www.visitharborcountry.org/attractions-three-oaks-backroads-cycle-routes-bikeways.php> and <http://www.rivercountry.com/biking.htm>)

Off-Road Facilities

There are 154 miles of off-road improved and 36 miles of unimproved non-motorized facilities in region. Kalamazoo County is the leader in the region with over 50 miles of off-road improved facilities. (See Table 3.) The City of Portage (Kalamazoo County) has 17.5 miles of off-road facilities and Kalamazoo County continues to lead the charge with one of the greatest developments in the past five years, that being the development of the Kalamazoo River Valley Trail (KVRT). The KVRT connects to the Kal-Haven Trail at 10th Street in Kalamazoo and continues along Ravine Road. Currently there is an on-road connection where the shared use path goes into downtown Kalamazoo along Westnedge Avenue. The facility then heads north on Westnedge Avenue, to the Kalamazoo Nature Center. From Westnedge Avenue one could also travel to Richland on a combination of on-road and off-road systems, or travel to Galesburg on Michigan Avenue (M-96) to connect to the Battle Creek Linear Park. This can all be accomplished through a combination of on-road and off-road systems. In Berrien County, the City of Niles just completed a two-mile shared use path which follows the St. Joseph River and the communities between Niles and Mishawaka, Indiana have been working to connect these shared use path systems; when completed this will be a 34-mile connected system.

Table 3. Miles of Off-Road Non-Motorized Facilities in Southwest Michigan

County	Off-Road Facilities Improved (miles)	Off-Road Facilities Unimproved (miles)	Total Off-Road Facilities
Allegan	21	0	21
Barry	4	14	18
Berrien	9	3	12
Branch	2	2	4
Calhoun	35	0	35
Cass	0	0.14	0.14
Kalamazoo	56	2	58
St. Joseph	0	0	0
Van Buren	27	15	42
Total Mileage	154	36	190

There are several well-known off-road non-motorized facilities that demonstrate the power of community coordination and planning in the region. These include:

1. Great Lake to Lake Trail Route #1 network consists of:
 - Kal-Haven Trail (Van Buren County and Kalamazoo County)
 - Kalamazoo River Valley Trail (Kalamazoo County)
 - Battle Creek Linear Park (Calhoun County)
2. Holland Zeeland Bike Path Network (Allegan and Ottawa County)
3. Paul Henry Thornapple Trail (Barry County)
4. Portage Bicentennial Linear Park (Kalamazoo County)
5. Van Buren Trail (Van Buren County)

Great Lake to Lake Trail Route #1 - Formerly known as the Airline Trail, this trail system will cover 200 miles and go through 55 jurisdictions as it traverses the state from South Haven to Port Huron. Three existing trails in the southwest Michigan region are a part of this system, the Kal-Haven Trail, Kalamazoo River Valley Trail, and the Battle Creek Linear Park.



Portage Bicentennial Linear Park
(Kalamazoo County)

Kal-Haven Trail - This is a 34-mile crushed limestone/slag path connecting South Haven and Kalamazoo built on an abandoned railroad corridor. The shared use path meanders through wooded areas, past farmlands, and over rivers and streams. The path is ideal for bicycling and hiking. Portions of the path are open for equestrian and snowmobile use. www.vbco.org

Kalamazoo River Valley Trail (KVRT) - The KVRT connects the Kal-Haven Trail, the Battle Creek Linear Park, and the Portage Bicentennial Linear Park. Currently, there are 14 miles complete of this non-motorized, paved-asphalt shared use path. <http://www.kalcounty.com/parks/krvt/krvtmaps.htm>

Battle Creek Linear Park - This shared use path has over 22 miles of paved pathway winding through wooded areas, open fields, parks, and commercial areas. Historical, cultural, and point of interest signs are found along the way. www.bcparks.org/jsps/linear_park.jsp

Holland Zeeland Bike Path Network - This local bike path network contains several miles of shared use paths separated from the roads and also the Lakeshore Connector Path which runs along Lakeshore Drive between Holland and Grand Haven. Some of these off-road facilities in this network do not meet current standards of 10 foot width, but were built to a previous standard of 8 feet. http://holland.org/assets/0000/1181/Bike_06.pdf



Kal-Haven Trail
(Van Buren County)

Paul Henry Thornapple Trail - When complete this will be a 42-mile shared use path, from Grand Rapids to Vermontville. The path is being constructed on or near a former railroad corridor. Several sections of the path are completed, some are in development, and some are in the conceptual stage. The scenic highlight is its close proximity to the Thornapple River. This shared use path is enjoyed by bikers, joggers, rollerbladers, cross-country skiers, wheelchair travelers, hikers, and, nature lovers. <http://www.thornappletrail.com/>

Portage Bicentennial Linear Park – According to the City of Portage, there are currently 17.5 miles of off-road trail and 38.5 miles of bicycle lanes. Several miles of this system is kept plowed and open during the snow season. <http://www.portagemi.gov/Departments/ParksRecreation/PortageBikeway.aspx>

Van Buren Trail- This is a 14-mile dirt/gravel shared use path that runs between Hartford and South Haven. Birders, equestrians, and hikers all enjoy this facility. www.vbco.org

Local Initiatives

There are several stakeholders in the region that are planning, constructing, maintaining, promoting and marketing regional shared use path systems in southwest Michigan.

🚲 **Indiana-Michigan River Valley Trail** - In 2009, a coalition of individuals that represent Federal, State, county, and local municipalities have come together to link the City of Niles and Niles Charter Township, in Michigan, to their neighbors to the south in South Bend and Mishawaka, Indiana. A full description of the project can be found at <http://www.swmpc.org/inmitrail.asp>



City of Niles
(Berrien County)

🚲 **Harbor Country Hike and Bike Plan** - In 2008, a group of individuals representing interests in the New Buffalo area came together to form a vision for connected on-road and off-road facilities for Chikaming Township, City of New Buffalo, New Buffalo Township, Three Oaks Township, Grand Beach, and the Village of Three Oaks. The plan can be found at http://www.lapinc.net/hchbplan/vision_plan.pdf.

🚲 **Blue Star Trail** - In 2009, a group of stakeholders from Allegan and Van Buren counties came together to discuss the possibility of creating a non-motorized connection from South Haven to Saugatuck. The group included municipal representatives from the City of South Haven, South Haven Charter Township, City of Saugatuck, Village of Douglas, Ganges Township, Casco Township, and Saugatuck Township. The group has recently formed a Friends group and has established themselves as a non-profit organization. The Friends group is now seeking contributions for their project and is working with the Allegan County Road Commission in developing their vision of a non-motorized off-road shared use path along the roadway known as Blue Star Highway. Information can be found by visiting their website at <http://www.fotbst.org/>



Non-motorized transportation provides a means for people of all ages to access community assets

🚲 **Friends of McCoy Creek Trail, Buchanan** - Friends of McCoy's Creek Trail was established by Resolution of the City of Buchanan in April 2004 as a subcommittee of the Buchanan Area Recreation Board. They have developed pathways through E. B. Clark Woods on the south side of McCoy's Creek and have continued the shared use path to downtown Buchanan along McCoy Creek and are now working to connect to Niles and New Buffalo.



Paul Henry Thornapple Trail
(Barry County)

🚲 **Calhoun County Trailway Alliance** - Calhoun County is currently (2011) pursuing funding from MDOT to build 5.3 miles of shared use paths. The facility is expected to be built in 2012. The facility will begin at the corner of Emmett Road and Raymond Road on east side of Battle Creek and then moves in a southerly direction until it ends at Historic Bridge Park. Historic Bridge Park is where the Kalamazoo River crosses Interstate 94.

🚲 **United States Bicycle Route (USBR) 35** - Adventure Cycling Association has teamed up with AASHTO (American Association of State Highway Transportation Officials) to develop a U.S. Bicycle Route System that will traverse the country. In 2010, an effort was started in Michigan to create a north-south long distance cycling route connecting Sault Ste. Marie in the Upper Peninsula to New Buffalo along the Lake Michigan shoreline. This route would create a long distance cycling route that combines on-road and off-road facilities. For more information about this proposed route please visit <http://www.swmpc.org/usbr35.asp>

🚲 **North Country National Scenic Trail** - Chief Noonday, the local chapter of the North Country Trail Association (NCTA), maintains a portion of this hiking trail in the counties of Barry, Calhoun, and, Kalamazoo. The NCTA is the nationwide nonprofit organization that works in partnership with the National Park Service to build, maintain, and promote the North Country National Scenic Trail. The Chief Noonday Chapter sponsors approximately 60 miles of the trail starting just southeast of Grand Rapids and goes through the Middleville State Game Area, along the Paul Henry-Thornapple Trail, through the Yankee Springs Recreation Area, the Barry State Game Area, the northeast corner of Kalamazoo County, the Kellogg Experimental Forest, Kellogg Biological Station, and Ft. Custer National Cemetery. The trail then passes through Battle Creek, Marshall, and Homer. Since the primary purpose of this trail is hiking, many sections cannot accommodate bicycles. Consult the NCTA for details on which sections are appropriate for bicycles. <http://www.northcountrytrail.org/cnd/index.htm>



Hiking along the North Country Trail

🚲 **Cass County** - In an effort to create connectivity in Cass County, the Cass County Parks and Recreation Department has started to investigate the potential of a separated non-motorized facility from the Village of Cassopolis heading east connecting the bicycle routes surrounding Diamond Lake, the Cass County Council of Aging walking track (on M-60) to Dr. T.K. Lawless Park outside of the Village of Vandalia. The proposed project would utilize land along the M-60 corridor heading east, and would also potentially include private lands and an abandoned railroad corridor known as the Airline Railroad.

🚲 **Barry County** – Local trail enthusiasts and municipalities are working to complete the Paul Henry Thornapple Trail. Recently, land in the Village of Middleville was purchased to extend the path. Sections of the path for now will be on-road until land becomes available for purchase. Further, the City of Hastings has a grant and will be completing portions of the Paul Henry Thornapple Trail in spring of 2011.

🚲 **City of Allegan** – The City has made non-motorized transportation a priority and has developed a plan and adopted a complete streets policy in December 2010. The City of Allegan is working to enhance a non-motorized system between Allegan and Otsego

along M-89. The City has proposed facility improvements from M-89 (Fifth Street), Bond Street which turns into Hooker Road and ends at the city limits. This route will direct non-motorized traffic away from M-89 and route them through historical neighborhoods to downtown Allegan. Further, the city plans to improve the non-motorized system between Allegan and Holland along M-222 in downtown Allegan and along M-89/ M-40. Additionally, improvements are being planned to enhance non-motorized facilities from M-89/M-40 (Grove to Sherman) to connect downtown destinations such as the library, grocery and retail stores, historical neighborhoods, the Hillside Learning and Development Center, and the Allegan Middle and High Schools.

 **Twin Cities Area Transportation Study Walk and Roll** – The Twin Cities Area Transportation Study established the Non-Motorized Transportation (Walk and Roll) Subcommittee in September 2009. This covers the Cities of: Benton Harbor, St. Joseph, and Bridgman; the Villages of Shoreham, and Stevensville, and the Townships of Benton Charter, Lake, Lincoln Charter, Royalton, Sodus, St. Joseph Charter; and also include the two satellite communities of Grand Beach and Michiana. The subcommittee's mission is to identify and build a system or network for local and regional connectivity for safe transportation for all users including pedestrians, individuals with disabilities, novice cyclists, serious cyclists, and transit riders; and through the use of sidewalks, bike lanes, shared lanes, paved shoulders, and off-road shared use paths. Planning efforts are underway to create a plan and mapping document that highlight the existing and planned non-motorized efforts in the TwinCATS study area.

<http://www.swmpc.org/walkbiketwincats.asp>

Gap Analysis

During the public input process, SWMPC staff asked meeting participants about gaps in the network and where new facilities would be desired. The discussion that follows is a summary of the gaps that still exist in the on-road and off-road network within the region. See Figure 4 for a map of planned and desired non-motorized facilities in southwest Michigan. Following Figure 4 there is a narrative discussion of the major on-road and off-road gaps by county.

Existing and Planned Non-Motorized Map

June 24, 2011

TRANSPORTATION NETWORK

Primary Roads with Traffic Volume* (Vehicles per day)

Light - Under 2,500	Unpaved	Paved
Medium - 2,500 to 10,000	Unpaved	Paved
Heavy - Above 10,000	Unpaved	Paved
	No volume information	

Minor Roads\$

Limited Access Highways

Active Rail Line

Non-motorized Trails

- Improved Multi-Use (Paved or Gravel) Trail
- Unimproved Multi-Use (Dirt or Gravel) Trail
- North Country Trail

*Traffic volumes are estimated based on an average 24-hour period. Rush hour (peak period) traffic volume can be much greater than at other times of the day. Traffic volume also varies by season and day of week.

\$Minor roads generally have lower traffic volume but road width and surface type may make them less appropriate as a bike route. Consult local county road commissions for more information. www.michigantrails.org

Scale: 0 2 4 6 8 10 Miles

NON-MOTORIZED PLANS

Type

- Off Road
- On Road
- Undetermined

Southwest Michigan Planning Commission
 185 East Main Street Suite 701
 Benton Harbor, MI 49022
 Website: <http://www.swmpc.org/>

This is a working map used for general reference purposes and may not be complete in content, consistency, and accuracy. Therefore do not use this product for final analyses or as a legal document.

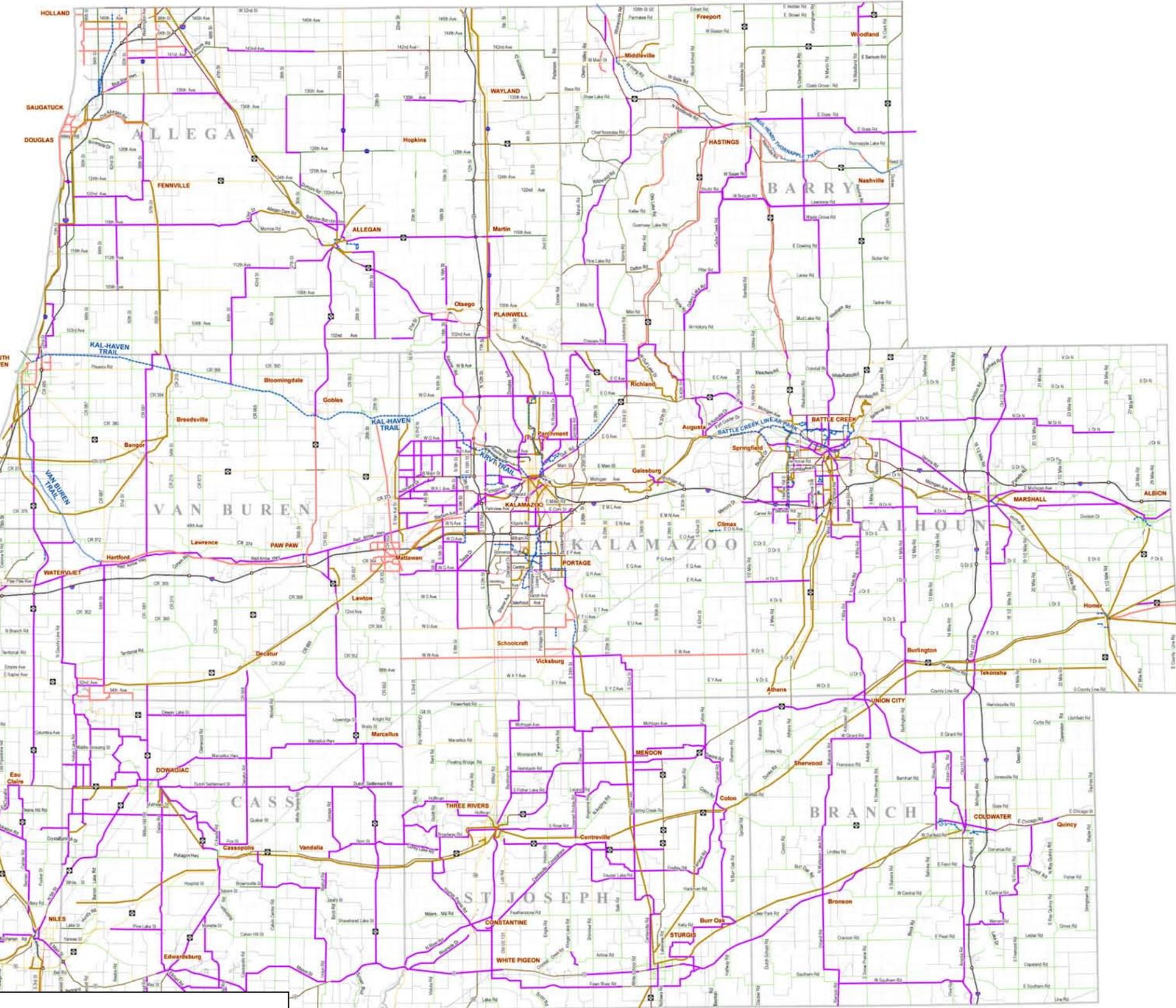


Figure 4. Planned or Desired Non-Motorized Facilities, Southwest Michigan

On-Road Network Gaps

The following is a description of on-road non-motorized network gaps by county. Please refer to Figure 4 for specific locations of these gaps. Figure 4 and the following descriptions could be utilized by MDOT and local communities to see if a non-motorized facility is desired and could be accommodated with a planned road improvement project.

Allegan County

- 🚲 **142nd Avenue**– This is a west-east road in the northern portion of Allegan County which would connect Saugatuck to Middleville in Barry County. Portions of 142nd Avenue have paved shoulders and there is a strong desire to complete this work along the entire length of the road. This improvement is a critical link along the Holland to Nashville regional priority network.
- 🚲 **M-40-from 124th to 128th Street** - This improvement provides a link along the M-40 regional priority network that extends from Allegan county southward through Van Buren and Cass counties.
- 🚲 **Blue Star Highway** - There is one section beginning at the Allegan County line and heading north along Blue Star Highway that would complete this corridor. This corridor is important for the regional shared use path priority known as the Lakeshore Trail, but also important for the USBR 35 project.
- 🚲 **Wayland** - The City of Wayland lacks a facility along county road A45. This link is an important improvement needed for the Wayland to Sturgis regional priority network project.
- 🚲 **Martin to Plainwell** - Connecting the communities of Plainwell to the south and Martin to the north along county road A45 would provide a vital north south connection for the Wayland to Sturgis regional priority network project.

Barry County

- 🚲 **Delton Road** - Delton Road connecting to M-43 would provide a link to a long distance route along M-43.
- 🚲 **Norris Road** - Norris Road connecting to Delton Road would link Pine Lake Road (west to east) to the small connector along Norris Road to Delton Road, which provides a link to M-43.
- 🚲 **Nashville** – A facility is needed on M-66 as it passes through the Village of Nashville. This is part of the larger M-66 regional priority project.
- 🚲 **M-43** - There are two sections in the county that need to have improvements, heading north out of Hastings and in the Village of Woodland. These improvements would simply connect the existing facilities to make a cohesive network along this Michigan highway.

Berrien County

- 🚲 **M-63** - As you enter from the north into the City of St. Joseph the extension of the shoulders disappears. As you go through the city there are no shoulders until you exit the city limits almost to Maiden Lane. This is an important gateway to the county and will also provide an important connector for the USBR 35 route.

- 🚲 **Galien north to Baroda (Cleveland Road)** - Cleveland Road has some existing on-road facilities, but they are not complete. This would provide a north-south connection within the county and to the US-12 regional priority network.
- 🚲 **US-12** - There is a small segment that needs to be completed in Three Oaks and then a longer segment from Galien east to the county line. Again this forms the US-12 regional priority corridor.
- 🚲 **Eau Claire M-62** - This short connector within the Village of Eau Claire provides for a link in the M-60 regional priority project.

Branch County

- 🚲 **Bronson (US-12)** – A facility is needed from the eastern limits of the Village of Bronson along US-12 to connect to Coldwater.

Calhoun County

- 🚲 **M-99** – A facility from Homer to Albion along M-99 is needed.
- 🚲 **M-60** – A gap exists in the Village of Burlington, along M-60.
- 🚲 **M-86** – A facility is needed on M-86 heading north out of Athens, connecting to the existing paved shoulder on M-86.

Cass County

- 🚲 **M-60** - There are two small sections of M-60 without facilities within the Village of Cassopolis and the Village of Vandalia. These would help complete this regional priority project.
- 🚲 **US-12** - East of Edwardsburg and traversing along US-12 to St. Joseph County facilities are desired to complete this regional priority project.

Kalamazoo County

- 🚲 **Schoolcraft to Vicksburg** - Connecting these communities would provide a link to the north-south route known as the Wayland to Sturgis regional priority route.
- 🚲 **Sprinkle Road** - Between East S Avenue and Centre Avenue is a critical link for the Wayland to Sturgis regional priority route.

St. Joseph County

- 🚲 **US-12 north of Fawn River Road** - This is another section along the route that proves to be a critical link along this priority corridor for US-12.
- 🚲 **Sturgis north to M-66/M-86** - From the City of Sturgis heading north along the M-66/M-86 corridor is a needed link for the M-66 regional priority network.

Van Buren County

- 🚲 **M-40 - Lawton to Paw Paw** - Three sections along M-40, in the Village of Lawton and Paw Paw, and heading north out of the Village of Lawton, need a facility.
- 🚲 **Red Arrow Highway** – There has been an interest in a non-motorized facility following Red Arrow Highway in Van Buren and Berrien County for years. This route follows I-94 and would connect several cities and villages.

Off-Road Network Gaps

The following is a description of off-road non-motorized network gaps by county. Please refer to Figure 4 for specific locations of these gaps.

Allegan County

🚲 There are currently no major off-road shared use path systems.

Barry County

🚲 The major shared use path in the county is the Paul Henry Thornapple Shared use path. Along the Paul Henry Thornapple Shared use path there are several gaps that make it difficult for people to navigate the entire shared use path distance. There are five different sections that are missing in order for this shared use path to be complete.

Berrien County

🚲 With the recent completion of the off-road shared use path in the City of Niles, Niles Charter Township is the last segment to connect the City of Niles, Niles Charter Township to the vast shared use path system in South Bend and Mishawaka, Indiana.

🚲 A connector is needed around Lake Shore Drive and Glenlord Road heading northeast to Maiden Lane. This would connect two off-road shared use pathways.

Branch County

🚲 Along Garfield Road, in the City of Coldwater, there are two sections of pathways that lack a connector in the middle.

Calhoun County

🚲 The critical link connecting Battle Creek to the Falling Water Trail in Jackson of 35.1 miles will connect Battle Creek, Marshall, Albion, Homer, Concord, and Jackson. This is part of the Great Lake to Lake Trail Route #1 which is a regional priority corridor.



Figure 5. The Great Lake to Lake Trail Route #1

Cass County

- 🚲 There are currently no major off-road shared use path systems.

Kalamazoo County

- 🚲 The Kalamazoo River Valley Trail has missing segments as it heads east along Michigan Avenue to connect to Galesburg and then to Augusta. As you head east out of Augusta there is a short segment that needs to be developed so that the Kalamazoo River Valley Shared use path and the Battle Creek Linear Park are connected.
- 🚲 The vast City of Portage pathways also have a missing link as they head north along Lovers Lane. Providing for this connection would allow people to use the shared use paths in Portage and their vast on-road network.

St. Joseph County

- 🚲 There are currently no major off-road shared use path systems.

Van Buren County

- 🚲 Within the City of South Haven an off- road connection is needed between the Kal-Haven Trail and the Van Buren Trail. Currently, there is a signed on-road route which accommodates some users, but an off-road connection is preferred.

SECTION 4-NON-MOTORIZED PRIORITIES

Priority Regional Corridors

SWMPC and the SMART Task Force prioritized regional corridors based on several of the criteria listed in the prioritization template (Figure 3), input from public meetings and existing efforts in the region. The prioritized corridors selected by SWMPC and the SMART Task Force were presented to the public at the July 15, 2010 input meeting in Kalamazoo and were also available on SWMPC's website for comment. The prioritized corridors for the region were widely accepted by the public as only positive comments were received.

The prioritization can assist state agencies with guiding investments for regional non-motorized projects to ensure the greatest degree of regional connectivity. This does not mean a local system is not beneficial or worthy of funding. However, whenever possible, there should be an attempt to connect the local facilities to the regional system to advance the efforts of a connected, region-wide system.

To complete a non-motorized system for the proposed corridors, a combination of on-road and off-road facilities will probably be necessary. The corridors are meant to be conceptual and for the most part do not pinpoint exact streets or sections of land. These corridors will serve as connectors for the region and to the surrounding regions as well. The priority corridors were grouped into two categories - north-south and west-east corridors. Below is a description of the priority regional corridors and Figure 6 displays the corridors.

North-South Corridors:

- 🚲 **Lakeshore/USBR 35 (Dark Gray)** - This corridor follows the Lake Michigan shoreline and would also provide a portion of the United States Bicycle Route 35. In southwest Michigan, the route traverses through Saugatuck and Douglas in Allegan County, South Haven in Van Buren County and St. Joseph and New Buffalo in Berrien County.

- 🚲 **M-40 (Pink)** - This corridor would follow the M-40 connecting the communities of Allegan in Allegan County, Gobles and Paw Paw in Van Buren County, and Marcellus in Cass County.

- 🚲 **M-66 (Green)** - This corridor would follow the M-66 connecting the communities of Woodland and Nashville in Barry County, Battle Creek and Athens in Calhoun County, and Mendon and Sturgis in St. Joseph County.

- 🚲 **I-69/Old US-27 (Light Gray)** - This corridor would follow I-69/Old US-27 as it traverses through the communities of Marshall and Tekonsha in Calhoun County and Coldwater in Branch County.

- 🚲 **Wayland/Sturgis (Purple)** - This corridor would begin in Sturgis and connect to Mendon in St. Joseph County then proceeding northwest connecting through Kalamazoo County and through the communities of Parchment and Kalamazoo, and finally heading into Allegan County connecting Plainwell and Wayland.

West-East Corridors:

- 🚲 **Great Lake to Lake Trail Route #1 (Brown)** - This is a statewide priority corridor that would connect the segments of the Kal-Haven Trail beginning in South Haven in Van Buren County to the Kalamazoo River Valley Trail and the City of Kalamazoo in Kalamazoo County, and the Battle Creek Linear Park in Calhoun County as it heads east to connect with Port Huron on Lake Huron.

- 🚲 **US-12 (Blue)** - This corridor would follow the US-12 Heritage Route as it starts in New Buffalo in Berrien County and connects to Edwardsburg in Cass County, White Pigeon in St. Joseph County and shifting slightly northwest past Sturgis in St. Joseph County before heading to Coldwater in Branch County.

- 🚲 **Holland-Nashville (Yellow)** - This corridor would follow 142nd Avenue in Allegan County, just outside of Saugatuck and would head east connecting Middleville, Hastings, and Nashville in Barry County.

- 🚲 **M-60 (Red)** - This corridor would follow the M-60, starting near the lakeshore in St. Joseph in Berrien County. It would head east through Dowagiac and Cassopolis in Cass County, then connect Three Rivers and Mendon in St. Joseph County, and on to Athens and Union City in Branch County. It would pass through Burlington and Homer in Calhoun County before continuing east beyond the southwest Michigan region.

Existing and Planned Non-Motorized Map

June 24, 2011

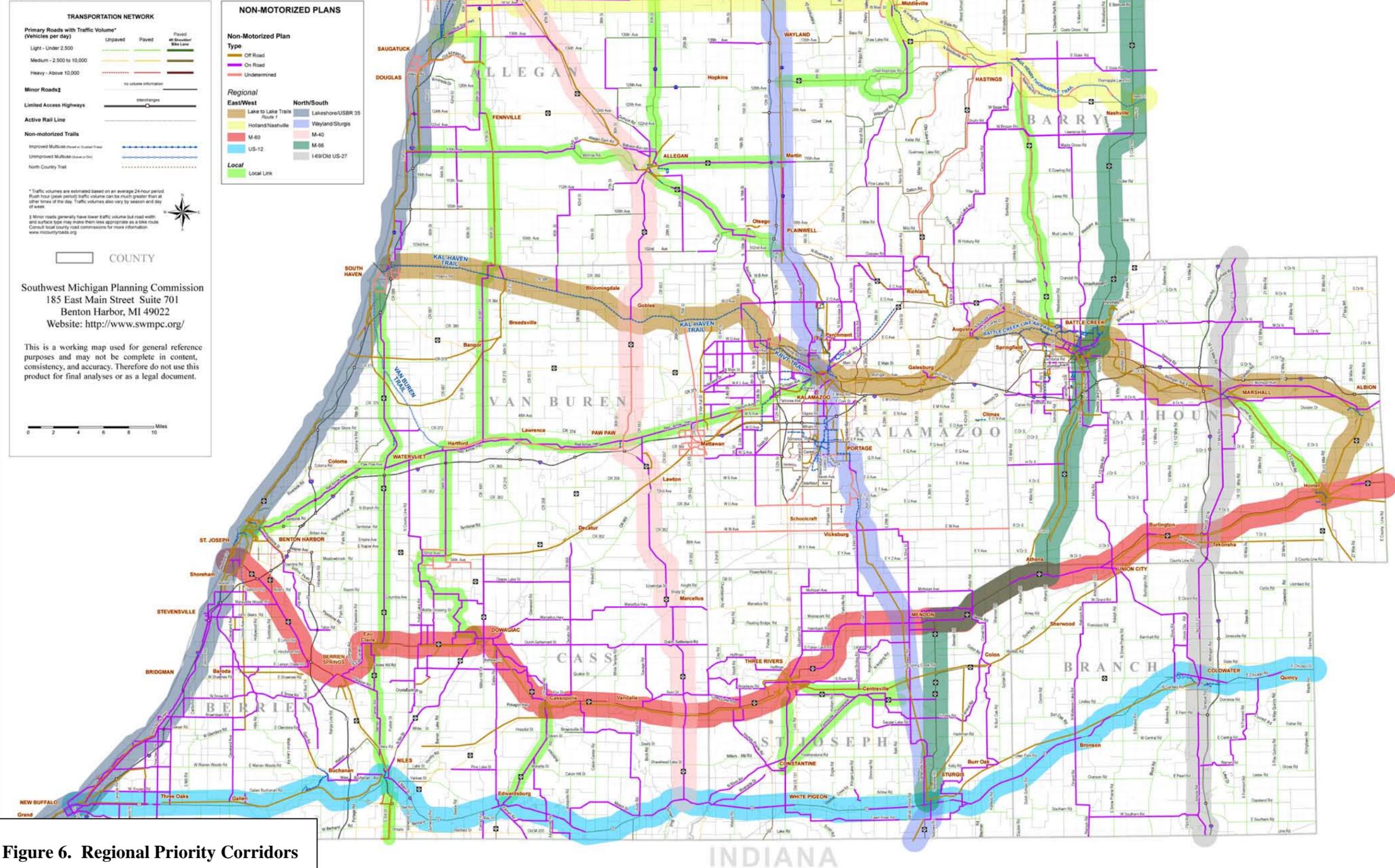


Figure 6. Regional Priority Corridors

Priority Local Routes

Prioritization was also done for the local level. Utilizing the Prioritization Template (presented in Figure3), attendees at the July 15, 2010 Input Meeting were asked to identify High, Medium, and Low priority routes in each county. Many of the local priorities aligned with the priority regional corridors. Table 4 displays these results.

Table 4. Local Priority Routes

County	High	Medium	Low
Allegan	Lakeshore Trail/USBR 35 corridor* Wayland/Sturgis corridor* Holland to Plainwell through Allegan (from Allegan to Plainwell either by M-222/A45 or by M-89)*	Holland through Fennville to Kal-Haven Trail Martin to Westside County Park Allegan to 142 nd along 30 th Gun Lake to Wayland/Sturgis Corridor M-40 north to City of Allegan	Holland-Nashville corridor*
Barry	Holland-Nashville corridor (Paul Henry Thornapple Trail - Stimpson to Middleville)* M-66 corridor* Gun Lake Loop (aka People Path)	Cedar Creek Rd. Connector M-43 corridor*	M-37 corridor*
Berrien	Lakeshore Trail/USBR 35 (priority is off-road and connecting to the Marquette Greenway in IN)* US-12 corridor* St. Joseph to Niles (following M-63 corridor from St. Joseph to Berrien Springs to the state line connecting to IN)*	Hickory Creek corridor (Stevensville to St. Joseph River to Silver Beach in St. Joseph City) Along Ox Creek (Benton Harbor)	None identified
Branch	US 12 corridor* I-69/Old US-27 corridor*	None identified	None identified
Calhoun	Great Lake to Lake Trail Route #1 corridor* I-69/Old US-27 corridor* M-37 corridor (Battle Creek to Hastings connect to the Paul Henry Thornapple Trail in Barry County)*	M-60 corridor (Homer to West Calhoun County)* M-66 corridor(Connect Athens and M-60 to Battle Creek)*	None identified

County	High	Medium	Low
Cass	Along Airline Railroad from Cassopolis to Vandalia to Three Rivers Dowagiac River Water Trail (not shown on map)	None identified	None identified
Kalamazoo	Kalamazoo River Valley Trail to Battle Creek (Great Lake to Lake Trail Route #1)* Kalamazoo River Valley Trail south to Portage (Wayland/Sturgis corridor)*	None identified	None identified
St. Joseph	Sturgis to Coldwater (Abandoned rail, off-road mainly connecting Three River to M-60/US-131)*	Three Rivers to Centreville on railroad Vicksburg to Sturgis on railroad and local roads*	None identified
Van Buren	Kal-Haven Trail connection to Van Buren Trail Lakeshore Trail/USBR 35* Red Arrow Highway	Mattawan to Kal-Haven Trail M-40 corridor*	None identified

*denotes if local project is also identified as a priority regional corridor

Existing and Planned Non-Motorized Map

June 24, 2011

TRANSPORTATION NETWORK

Primary Roads with Traffic Volume* (Vehicles per day)

Light - Under 2,500	Unpaved	Paved	Paved 4x Shoulder/ Bike Lane
Medium - 2,500 to 10,000	Unpaved	Paved	Paved 4x Shoulder/ Bike Lane
Heavy - Above 10,000	Unpaved	Paved	Paved 4x Shoulder/ Bike Lane

Minor Roads‡
no volume information

Limited Access Highways
Interchanges

Active Rail Line

Non-motorized Trails

- Improved Multi-Use (Paved or Gravel) Road
- Unimproved Multi-Use (Gravel or Dirt)
- North Country Trail

*Traffic volumes are estimated based on an average 24-hour period. Rush hour peak period traffic volume can be much greater than at other times of the day. Traffic volumes also vary by season and day of week.

‡Minor roads generally have lower traffic volume but road width and surface type may make them less appropriate as a bike route. Consult local county road commissions for more information. www.michiganroads.org

Scale: 0 2 4 6 8 10 Miles / 0 2 4 6 8 10 Kilometers

Planning Features

Local Planning Priority Status

- High
- Medium
- Low

Non-Motorized Plan Type

- Off Road
- On Road
- Undetermined

Southwest Michigan Planning Commission
185 East Main Street Suite 701
Benton Harbor, MI 49022
Website: <http://www.swmpc.org/>

This is a working map used for general reference purposes and may not be complete in content, consistency, and accuracy. Therefore do not use this product for final analyses or as a legal document.

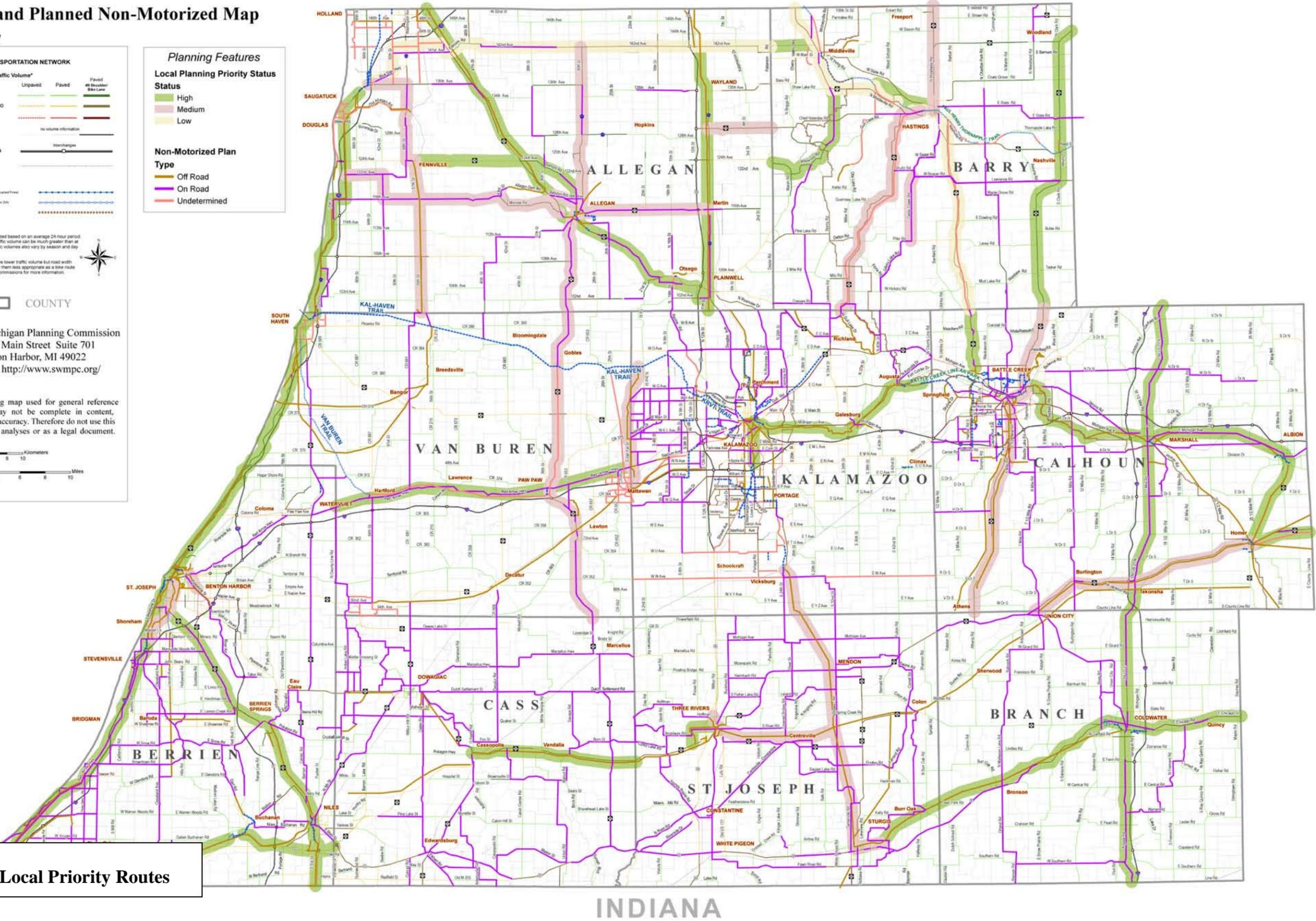


Figure 7. Local Priority Routes

SECTION 5 - IMPLEMENTATION

This plan is a guide for planning and developing non-motorized facilities in the nine-county MDOT Southwest Region. It identifies regional linkages needed to connect non-motorized facilities between counties, cities, townships, and villages. The plan lends support and justification for funding requests by local units of government, collaborative partnerships, and state and local transportation agencies. Non-motorized projects that are a part of or connect with a regional non-motorized network are often looked upon in a favorable light by private and government funding agencies. Municipalities and non-motorized transportation advocates should utilize this plan to seek funding support and other assistance for non-motorized facility development and improvement efforts.

This plan is a living document that represents the current and planned non-motorized transportation needs in southwest Michigan. It will need to be updated periodically as sections of non-motorized facilities are built, other potential non-motorized connections are found or the needs within a community changes. Counties, townships, cities, and villages can use this plan to ensure regional connectivity of local non-motorized projects. The plan requires commitment to the vision and relies upon the efforts of individuals and groups to carry the plan forward. Every effort should be made to collaborate and coordinate non-motorized facility development with neighboring communities, regional commissions, local road commissions, MDOT, and other interested stakeholders.

This section offers communities and stakeholder groups resources and tools for what needs to be considered when planning and developing non-motorized facilities.

Building Partnerships

The development of any on-road or off-road facility will require partnerships. If the facility is on-road, a community must determine who has jurisdiction for the road. For example, the road could be a city or village street, a county road or a Michigan highway. If the facility is off-road, a community must determine who has ownership of the land and work with all landowners involved. This could include municipal-owned property or private property (individuals, businesses, utilities or railroad companies). Further, if the project will impact any wetland, floodplain, or has a stream crossing it will be important to involve the Michigan Department of Natural Resources and Department of Environmental Quality in the design process. A list of key stakeholders to contact for partnerships can be found in Appendix B.

Recreational cyclists and less confident adult riders generally choose non-motorized networks based on traffic volumes and surface conditions of the route. Experienced cyclists may prefer to stay on-road with proper bike lanes or paved shoulders. Family oriented cyclists or less experienced cyclists may prefer off-road routes (separated shared use paths). The vision of a connected regional system incorporates both on-road and off-road facilities.

Making Connections

There is an extensive amount of on-road and off-road non-motorized facilities in the region. The key to connecting the region will most likely be the development of a combination of on-road and off-road facilities. There needs to be emphasis on utilizing on-road facilities (paved shoulders and bike lanes) to

connect population centers to existing regional non-motorized networks like the Kalamazoo River Valley Trail (KRVT). Since opportunities for new off-road regional systems are limited, utilizing the existing road network will be necessary in most instances. There are several examples in the region where on-road connections have been critical to connect regional systems.

🚲 The **Kalamazoo River Valley Trail** utilizes many off-road sections, but also utilizes sections along the roadway, such as when you head east on the shared use path and then have to use a section of Ravine Road to connect to the next section.

<http://www.kalcounty.com/parks/krvt/krvtmaps.htm>

🚲 The **Portage Bicentennial Park Trail** also utilizes a combination of on-road and off-road facilities. For example, if starting at Westfield Park on Milham Road, one could travel east along a paved shoulder bikeway to Oakland Avenue, head south and pick up the shared use path connection. A map can be viewed at

<http://www.portagemi.gov/CMS/Media/Files/PRPCBPmap2010.pdf>

🚲 The **Paul Henry Thornapple Trail** is also a good example of this combination of utilizing on-road and off-road facilities. The map can be viewed at <http://www.thornappletrail.com/>.

Non-Motorized Facility Planning Considerations

When a non-motorized facility is being developed and designed, there are several factors that should be considered.

- 🚲 Skill Level Of Users - identify the skills and preferences of those that will be utilizing the facility
- 🚲 Motor Vehicle Parking – identify turnover and density of on-street parking
- 🚲 Barriers - identify topographic barriers or intersecting roadways
- 🚲 Crash Reduction - facility improvements can lead to crash reductions
- 🚲 Directness - facilities should connect traffic generators and should be located along a direct line of travel that is convenient
- 🚲 Accessibility - for non-motorized users but also consider emergency and service vehicles
- 🚲 Aesthetics - determine the factors for making your path pleasing to those using it
- 🚲 Personal Safety/Security - consider the personal safety of users and ways to improve security for those along the path
- 🚲 Stops - avoid excessive stops for the users
- 🚲 Conflicts - minimize conflict points among the users and those on the roadways and at driveways

The U.S. Department of Transportation (DOT) recognizes that safe and convenient walking and bicycling facilities may look different depending on the context. Appropriate facilities in a rural community may be different from a dense, urban area. However, regardless of regional, climate, and population density differences, it is important that pedestrian and bicycle facilities be integrated into transportation systems.

While the DOT leads the effort to provide safe and convenient accommodations for pedestrians and bicyclists, success will ultimately depend on transportation agencies across the country embracing and implementing this policy.

Secretary of Transportation, Ray LaHood

- 🚲 Maintenance - develop a maintenance program and determine how that will be funded
- 🚲 Pavement Surface Quality - decide which surfaces will be cost feasible for the type of users that are desired and where the facility will be located, on-road or off-road
- 🚲 Truck and Bus Traffic - take notice of stops or heavy use volume roadways that intersect the path
- 🚲 Traffic Volume and Speeds - identify if traffic volume and speed of motorists will discourage on-road use and can a separate facility be developed if this is an issue
- 🚲 Bridges - when encountering bridges in the development of the facility, be sure to consult with the proper agency (MDOT if it is a road bridge and MDEQ if a stream or waterbody is involved).
- 🚲 Intersection Conditions - identify crossing conflicts and the type of site treatments that can be done to improve the intersection, discuss this with the local road agency that manages the roadway
- 🚲 Costs/Funding - have the necessary funding to adequately build and maintain the path
- 🚲 State and Local Laws and Ordinances - check local and state laws to ensure that the promotion of bicycle operation is in a manner that is consistent with these laws and ordinances

Source: American Association of State Highway and Transportation Officials, 1999

Safety Considerations

A number of targeted strategies and programs can reduce crash risk to non-motorized travelers. The following engineering strategies provide safety benefits:

- 🚲 Traffic speed management and traffic calming
- 🚲 Single-lane roundabouts
- 🚲 Sidewalks and/or paved shoulders
- 🚲 Exclusive pedestrian signal phasing
- 🚲 Pedestrian refuge islands in the middle of wide streets and curb extension
- 🚲 Adequate roadway lighting



Pedestrian Refuge Island allows pedestrians to cross only half of the roadway at a time.
Source: Flickr

Construction and Maintenance Costs

One of the key elements to implement a non-motorized project is having the basic understanding of how much the project is going to cost. A community should also consider maintenance costs upfront. The construction cost projections in Table 5 are based upon 2010 material prices, which are subject to change each year.

Table 5. Construction Costs for Non-Motorized Facilities (per mile)

Paved Shoulder (4ft extension of the existing roadway-both sides of the road)		
Trenching	\$100.00 a station/106 stations	\$10,600
8" Aggregate Base	\$5.00 sq yds/4,694 sq yds	\$23,470
4" HMA (Hot Mix Asphalt) base	\$70.00 a ton/1,033 ton	\$72,310
2" HMA Top course	\$70.00 a ton/517 ton	\$36,190
		Total Cost Per Mile=\$142,570
Bike Lane (5 foot extension of the existing roadway)		
Trenching	\$100.00 a station/106 stations	\$10,600
8" Aggregate Base	\$5 sq yds/5,867 sq yds	\$29,335
4" HMA (Hot Mix Asphalt) base	\$70 a ton/1,291 ton	\$90,370
2" HMA Top course	\$70 a ton/646 ton	\$45,220
		Total Cost Per Mile=\$175,525
Non-Motorized Path (10 ft separated path from the roadway)		
Earth Excavation	\$10 cubic yd/1,956 cubic yds	\$19,560
Machine Grading	\$400 a station/53 stations	\$21,200
Subgrade Undercut	\$10 cubic yd/2,347 cubic yds	\$23,470
6" Aggregate Base	\$4 sq yd/5,867 sq yds	\$23,468
2" HMA (Hot Mix Asphalt) base	\$70 a ton/646 ton	\$45,220
2" HMA Top course	\$70 a ton/646 ton	\$45,220
Granual Material (Sand)	\$15 cubic yd/2,347 cubic yds	\$35,205
		Total Cost Per Mile = \$213,343**

*1 mile = 5,280 feet = 53 stations

**\$154,668 Per Mile (without removing any poor soil, utility relocation or acquisition of easements or right-of-way) *Source: Jeff Mitchell, Van Buren County Road Commission*

Maintenance operations should be planned for in advance and considered along with the construction costs of a non-motorized facility. Table 6 presents some maintenance estimates for common improvements. For on-road and off-road facilities, a responsible entity and a continuing funding source should be identified. There are a number of different activities associated with maintenance depending on whether it is an off-road or on-road facility. Some of these activities are:

- 🚲 Sign replacement
- 🚲 Repaint pavement markings
- 🚲 Trim vegetation to maintain sight distance
- 🚲 Remove fallen trees
- 🚲 Patch pavement holes and cracks
- 🚲 Clean drainage systems
- 🚲 Sweep or remove debris (trash, fallen trees)

- 🚲 Mow shoulders or other areas
- 🚲 Pick up trash, empty trash cans
- 🚲 Maintain shared use path furniture and other support facilities
- 🚲 Clean and repair restroom facilities
- 🚲 Remove any graffiti
- 🚲 Structures (bridges or culvert) maintenance

The “Statewide Greenways Maintenance Inventory and Case Studies 2007” report prepared for the Michigan Trails and Greenways Alliance profiled several types of maintenance programs. Categories of **high, medium, and low** maintenance shared use paths were developed for this study. The cost information presented in Table 6 is from the Pere Marquette Trail (Midland County) which is considered a high maintenance facility that tends to “be used by local residents, in addition to being a destination for visitors from around the region or state. Both high- and mid-level maintenance shared use paths attract users for multiple purposes, such as biking, rollerblading, walking, or running”. Maintenance costs for these paths range from as low as \$2,275 to \$4,500 per mile. It should be noted that facility maintenance practices vary by use, location, and user demand and this information is for general use only.

Table 6. Maintenance Costs for Shared Use Path (high maintenance category)

Activity	Cost per mile	Cost
Coating and sealing of asphalt path	\$431	\$9,055
Pothole repair on asphalt path	490	10,292
Snow removal from asphalt path	263	5,516
Surface cleaning of asphalt path	23	485
Grade non-asphalt shared use path	69	1,450
Keep shared use path-side land clear of trash	232	4,872
Mowing	471	8,750
Leaf removal	91	1,920
Tree pruning	71	1,500
Tree removal	71	1,500
Invasive species removal	201	4,225
Planting new vegetation	71	1,500
Application of herbicides or pesticides	71	1,495
Clearing of drainage channels and culverts	62	1,300
Surface maintenance of parking areas	48	1,000
Landscaping/gardening along shared use paths	48	1,000
Empty trash cans along shared use paths	124	2,604
Maintenance of stationary toilets at shared use paths	160	3,360
Maintenance of portable toilets at shared use paths	320	6,720
Empty trash cans along shared use path	173	3,640
Maintenance of stationary toilets along shared use path	157	3,300
Maintenance of informational kiosks	21	500
Maintenance of picnic tables, benches, etc	48	1,000
Updating information in the informational kiosks	10	200

Activity	Cost per mile	Cost
Installation of signs	22	465
Repair/maintenance of signs	48	1,000
Installation of pavement markings	24	500
Maintenance of pavement markings	28	595
Recovery from illegal acts such as dumping and vandalism	48	1,000
Installation of gates, bollards, and fencing	36	750
Maintenance of gates, bollards, and fencing	119	2,500
Bridge, tunnel, underpass, and crossing inspection	14	300
Bridge re-decking	71	1,500
Paint/stain/treat bridge deck or structure	57	1,200
General bridge maintenance	48	1,000
Road grade crossing maintenance	48	1,000
Total	\$4,238	\$88,994

Source: "Pere Marquette Trail Approximate Annual Costs Statewide Greenways Maintenance Inventory and Case Studies" Michigan Trails and Greenways March, 2007

Funding

There are several funding sources available to assist communities in making their non-motorized project a reality. A community should strive to fund at least 25-50% of a project through local funds (general fund, street fund, recreation or transportation millage, etc.). The other 50-75% of the project may be funded by private sources and state and federal grants. There are several funding sources listed in Appendix D. Remember, non-motorized projects that are a part of or connect with a regional non-motorized network are often looked upon favorably by private and government funding agencies. In addition, Act 51 jurisdictions that pass Complete Streets local policies are given additional consideration in funding applications, submitted to the MDOT Transportation Enhancement program.

Shared Use Path Signage and Amenities

Several other factors should be considered when you are developing your non-motorized project. Signs and markers are an important consideration. Adequate signing is essential to alert the different users of potential conflict points, shared use path entrances, and hazards that users may encounter. Signs could include trailhead signs, mile markers, directional signs and warning signs. In general, guidance on signing and marking is provided in the Manual for Uniform Traffic Control Devices Part 9 (<http://mutcd.fhwa.dot.gov/pdfs/2009/part9.pdf>).

Another important consideration is the provision of amenities along shared use pathways. Shared use path users will want to have places that they can access for their various needs. Thinking about the different types of users expected will help determine the type of amenities to consider. Amenities that should be considered in the facility design include development of facilities that are compliant with the Americans with Disabilities Act, food and water stops, restrooms, repair facilities, trash receptacles, distance markings, bicycle parking, lighting, and fencing and/or screening.

Along with automobile parking, informational kiosks, lighting and restrooms, bicycle parking is key to ensure that people have a safe and convenient place to lock up their bicycle. In many communities, the

incorporation of bicycle parking is not only being provided by the local government, but many businesses, schools, and commercial establishments are also providing bicycle parking. In communities across the country, local governments have made bicycle parking requirements, similarly to automobile parking. A sample bicycle parking ordinance adopted in Meridian Township, MI (10 miles east of Michigan's State Capital, Lansing, and is immediately adjacent to Michigan State University) can be found in Appendix E.

Along with parking, is the issue of trail access along shared-use paths to increase the number of access points to the facility. Neighborhoods can be better linked with the installation of connector paths and also allowing for breaks in neighborhood fences to allow convenient access. A community may even want to consider permits and/or zoning policies that require connector paths to meet standards such as American with Disability Act (ADA) requirements. Often these connector paths connecting adjacent property owners and businesses (such as restaurants and hotels) to the non-motorized facility do not meet ADA standards.

Other considerations worth noting are marketing of the facility; this is one of the most important considerations for pathway development. A strong plan on how to market a facility throughout the community, county, region, and state will ensure that your community receives the greatest potential benefits that can come along with your investment in non-motorized facilities and the associated amenities.

Integrated Planning for Non-Motorized Transportation

Timing and coordinating the development of non-motorized transportation with road maintenance and reconstruction projects can be a cost savings mechanism and would potentially lessen disruption to motorists and the public. The intention is to plan for paved shoulders or bike lanes if a road project will be done, especially where priority non-motorized facilities are identified. For example, if a section of a highway is going to be reconstructed and paved shoulders or striping would provide for safer non-motorized usage, the road agency could include these improvements in the plans.

From a planning perspective, there are several best practices for improving non-motorized travel conditions and encouraging non-motorized transportation. These include:

- 🚲 Integrate non-motorized planning into all transportation and land use planning activities.
- 🚲 Educate all transportation and planning professionals in non-motorized transportation planning principles.
- 🚲 Consider walking and cycling needs on all road projects unless these modes are specifically prohibited and suitable alternatives are available.
- 🚲 Use current planning practices and design standards, including universal design.
- 🚲 Include non-motorized travel in transportation surveys and models.
- 🚲 Create pedestrian-oriented commercial centers and neighborhoods.
- 🚲 Perform user surveys to identify problems and barriers to non-motorized travel.
- 🚲 Use traffic calming and other traffic control measures to make street environments safer and more pleasant for non-motorized transport.

Complete Streets

Complete Streets are roadways that are planned and designed to accommodate all transportation modes, including pedestrians and bicyclists. The process of achieving complete streets can involve planning and field surveys to identify where barriers exist to non-motorized travel and addressing those challenges. It often requires new relationships and partnerships between different levels of government to address funding and maintenance agreements between units of government. In a move that will make transportation in Michigan more multi-modal, the House and Senate passed Complete Streets legislation (HB 6151 & HB 6152) in August 2010 that strengthens the lines of communication between road agencies and local units of government regarding transportation projects and takes into consideration the needs of all users.

There are many specific ways to improve non-motorized transportation:

- 🚲 Improve sidewalks, crosswalks, paths, and bike lanes.
- 🚲 Correct specific roadway hazards to non-motorized transport (sometimes called “spot improvement” programs).
- 🚲 Improve non-motorized maintenance.
- 🚲 Utilize universal design concepts when designing facilities (transportation systems that accommodate people with disabilities and other special needs).
- 🚲 Develop pedestrian oriented land use and building design (New Urbanism).
- 🚲 Increase road and shared use path connectivity, with special non-motorized shortcuts, such as shared use paths between cul-de-sac heads and mid-block pedestrian links.
- 🚲 Include amenities such as bicycle parking, streetscape improvements, street furniture (e.g., benches), and Public Bike Sharing Systems (PBS), which are automated bicycle rental systems designed to provide efficient mobility for short, utilitarian urban trips.
- 🚲 Focus on design features (e.g., human-scale street lights).
- 🚲 Increase safety with traffic calming, traffic speed reductions, vehicle restrictions, and road space reallocation.
- 🚲 Provide safety education, law enforcement, and encouragement programs.
- 🚲 Integrate with transit (Bike/Transit Integration and Transit Oriented Development).
- 🚲 Address security concerns of pedestrians and cyclists.
- 🚲 Develop kiosks and multi-modal access guides, which includes maps and other information on how to walk and cycle to a particular destination.

SECTION 6 – CONCLUSIONS

As the demand for non-motorized facilities continues to be a topic that community officials address, the Federal Highway Administration (FHWA) and MDOT have made incorporating non-motorized facilities a priority for transportation planning. According to U.S. Department of Transportation Secretary Ray LaHood, “transportation agencies should plan, fund, and implement improvements to their walking and bicycling networks, including linkages to transit”.

In addition, the Department of Transportation encourages transportation agencies to go beyond the minimum requirements and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate. Transportation programs and facilities should accommodate people of all ages and abilities, including people too young to drive, people who cannot drive, and people who choose not to drive” (<http://www.bikeleague.org/blog/2010/03/lahood-this-is-the-end-of-favoring-motorized-transportation-at-the-expense-of-non-motorized/>).

The establishment of well-connected walking and bicycling networks is an important component for livable communities, and their design should be a part of Federal-aid project developments. Walking and bicycling foster safer, more livable, family-friendly communities; promote physical activity and health; and reduce vehicle emissions and fuel use.

Secretary of Transportation, Ray LaHood

There has been much progress in increasing non-motorized facilities within and between the communities of southwest Michigan; however, many gaps need to be addressed to realize a complete region-wide system. This plan can serve as a guide in that work. Municipalities and organizations planning to develop non-motorized facilities will now be able to consult the Southwest Michigan Non-Motorized Transportation Plan to ensure the greatest degree of connectivity within their community and county while also making connections to and building a region- wide system.

Appendix A: SMART Task Force Members

First Name	Last Name	County Represented	Official Title	Entity Name
Bob	Baetsen	Allegan, Berrien, Cass, and Van Buren	Coordinator	Sauk Shared use paths RC & D Council
Brian	Bailey	Berrien	Director	Berrien County
Marcy	Colclough	Berrien, Cass, and Van Buren	Senior Planner	Southwest Michigan Planning Commission
James	Coury	Calhoun	Director	Calhoun County Conservation District
Geoffrey	Cripe	Allegan, Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, and Van Buren	Land Protection Specialist	Southwest Michigan Land Conservancy
Barry	Culham	State	Event Coordinator	Michigan Shared use paths & Greenways Alliance
Amy	Druskovich	Cass	Executive Director	Cass County
Suzann	Flowers	Berrien, Cass, and Van Buren Counties	Associate Planner	Southwest Michigan Planning Commission
Tom	Garnett	Calhoun	Board Member	North Country Shared use path
Darrell	Harden	State	Transportation Planner	MDOT-Southwest Region
Rob	Hilliard	Allegan	City Manager	Allegan City
Elisa	Hoekwater	Ottawa	Planner	Macatawa Area Coordinating Council
Linn	Kracht	Calhoun	Former Executive Director	Former Parks Director
Nancy	Krupiarz	State	Executive Director	Michigan Shared use paths & Greenways Alliance
Jean	Lamoreaux	Barry	Clerk	Village of Middleville
Cal	Lamoreaux	Barry	Vice President	Paul Henry Thornapple Shared use path Association
Kyle	Lewis	Kalamazoo	Shared use path Program Coordinator	Kalamazoo River Valley Shared use path
Jeff	Mitchell	Van Buren	Special Projects Officer	Van Buren Co. Road Commission

Southwest Michigan Non-Motorized Transportation Plan

First Name	Last Name	County Represented	Official Title	Entity Name
Rick	Moore	Barry	Board Chairman	Barry County Parks
Barbara	Nelson-Jameson	National	Michigan Program Director	National Parks Service
Sharon	Nunnelee	Ottawa	Executive Director	West MI Shared use paths & Greenways Coalition
John	Pence	St. Joseph	Director	St. Joseph Co. MI
Tim	Peterson	St. Joseph	Program Director	St. Joseph Co. MI Conservation District
David	Rachowicz	Kalamazoo	Director	Kalamazoo County
Kevin	Ricco	Allegan	Director	Allegan County
Rory	Robinson	National	Outdoor Recreation Planner	National Parks Service
Ron	Sootsman	Barry	Treasurer	North County Shared use path
Paul	South	State	Manager	MDOT-Coloma Transportation Service Center
Jeffery	Spoelstra	Kalamazoo	Coordinator	Kalamazoo River Watershed Council
Steve	Steppek	Kalamazoo	Senior Transportation Planner	Kalamazoo Area Transportation Study
Phillip	VanNoord	Barry	Treasurer	Paul Henry Thornapple Shared use path
Sarah	Woolcock	State	Development Engineer	MDOT-Coloma Transportation Service Center
Kathy	Worst	Branch	District Administrator	Branch County Conservation District
Scott	Wyman	Cass	Director	Cass County
Debra	Yee	Branch	Executive Director	Branch County Tourism Bureau

Appendix B: Key Stakeholders

Michigan Department of Transportation-Southwest Region Office

Roberta S. Welke, Region Engineer
1501 Kilgore Road, Kalamazoo, MI 49001
Phone (269) 337-3900 Fax (269) 337-4071
<http://www.michigan.gov/mdot/0,1607,7-151-9623-25518--,00.html>

Michigan Department of Transportation-Transportation Service Centers

🚲 Coloma TSC
TSC Manager
3880 Red Arrow Hwy.
Benton Harbor, MI 49022
Phone (269) 849-1165 Fax (269) 849-1227
Toll Free: 877-321-6368

🚲 Kalamazoo TSC
TSC Manager
5372 South 9th Street
Kalamazoo, MI 49009
Phone (269) 375-8900 Fax (269) 544-0080
Toll Free: 877-320-6368

🚲 Marshall TSC
TSC Manager
15300 W. Michigan Ave.
Marshall, MI 49068
Phone (269) 789-0592 Fax (269) 789-0936
Toll Free: 877-324-6368

State Trail and Bicycle Organizations

🚲 Michigan Trails and Greenways Alliance
Nancy Krupiarz, Executive Director
1213 Center St, Lansing MI 48906
Mailing Address PO Box 27187, Lansing MI 48909
Phone (517) 485-6022 Fax (517) 347-8145
www.michigantrails.org

🚲 League of Michigan Bicyclists
Rich Moeller, Executive Director
416 S. Cedar Street - Suite A
Lansing, MI 48912
Phone (517) 334-9100 Fax (517) 334-9111
Toll Free (888) 642-4537
www.lmb.org

Regional Planning Commissions

- ♿ Region 2 Planning Commission
120 West Michigan Avenue
Jackson, MI 49201-1338
Phone (517) 788-4426
<http://www.region2planning.com/website/index.asp>
*Covers Hillsdale, Jackson, and Lenawee Counties

- ♿ Southcentral Michigan Planning Council
576 Romence Rd
Portage, MI 49024
Phone (269) 323-0045
*Covers Barry, Branch, Calhoun, Kalamazoo, and St. Joseph Counties

- ♿ Southwest Michigan Planning Commission
185 E. Main St., Suite 701
Benton Harbor, MI 49022
Phone (269) 925-1137
www.swmpc.org
*Covers Berrien, Cass, and Van Buren Counties

- ♿ Tri-County Regional Planning Commission
913 W Holmes Rd, Suite 201
Lansing, MI 48910
Phone (517) 393-0342
<http://tri-co.org/>
*Covers Clinton, Eaton, and Ingham Counties

- ♿ West Michigan Regional Planning Commission
820 Monroe Ave NW Ste 214
Grand Rapids, MI 49503
Phone (616) 774-8400
<http://wmrpc.org/>
*Covers Allegan, Ionia, Kent, Mecosta, Montcalm, Osceola, and Ottawa Counties

Indiana Regional Planning Commissions

- ♿ Michiana Council of Government
227 West Jefferson Boulevard
1120 County-City Building
South Bend, Indiana 46601
Phone (574) 674-8894
<http://macog.com/>
*Covers St. Joseph, Marshall, and Elkhart Counties in northwest Indiana

- ♿ Northwestern Indiana Regional Planning Commission
6100 Southport Rd

Southwest Michigan Non-Motorized Transportation Plan

Portage, IN 46368
Phone (219) 763-6060
www.nirpc.org

*Covers Lake, Porter, and LaPorte Counties in northwest Indiana

🚲 Region III-A
217 Fairview Blvd.
Kendallville, IN 46755
Phone (260) 347-4714
<http://regioniia.org/>

Metropolitan Planning Organizations

🚲 Battle Creek Area Transportation Study
601 Avenue A
Springfield, MI 49037
Phone (269) 963-1158
<http://www.liaa.org/bcats/>

🚲 Kalamazoo Area Transportation Study
3801 East Kilgore Road
Kalamazoo, MI 49001
Phone (269) 343-0766
<http://www.katsmpo.org/index.html>

🚲 Macatawa Area Coordinating Council (IN)
301 Douglas Ave.
Holland, MI 49424
Phone (616) 395-2688
<http://www.the-macc.org/>

🚲 Michiana Area Council of Government (IN)
227 West Jefferson Boulevard
1120 County-City Building
South Bend, Indiana 46601
Phone (574) 674-8894
<http://macog.com/>
*Covers St. Joseph, Marshall, and Elkhart Counties in northwest Indiana

🚲 Niles-Buchanan-Cass Area Transportation Study
185 E. Main St., Ste 701
Benton Harbor, MI 49022
Phone (269) 925-1137
<http://www.swmpc.org/nats.asp>

🚲 Northwestern Indiana Regional Planning Commission (IN)
6100 Southport Rd

Southwest Michigan Non-Motorized Transportation Plan

Portage, IN 46368

Phone (219) 763-6060

www.nirpc.org

*Covers Lake, Porter, and LaPorte Counties in northwest Indiana

♿ Twin Cities Area Transportation Study

185 E. Main St., Ste 701

Benton Harbor, MI 49022

Phone (269) 925-1137

<http://www.swmpc.org/twincats.asp>

Appendix C: Meeting Agendas – Public Input Process



SOUTHWEST MICHIGAN TRAILS SUMMIT

CONNECTING COMMUNITIES ONE TRAIL AT A TIME

THURSDAY, JUNE 25, 2009, 6:00 - 8:30 PM

KALAMAZOO COUNTY FAIRGROUNDS-EXPO CENTER-ROOM A-2900 LAKE ST., KALAMAZOO, MI 49048

**What would a connected non-motorized network mean to Southwest Michigan?
*Healthy People, Healthy Communities.***

Agenda

6:00-6:10	Welcome and Meeting Goals <i>Darrell Harden-Michigan Department of Transportation</i>
6:10-6:20	A Regional Alliance - SMART's Mission and Goals <i>Suzann Flowers, Southwest Michigan Planning Commission</i>
6:20-6:50	Legal Options to Establish and Maintain Community Trails <i>Mark Nettleton-Mika Meyers Beckett & Jones PLC</i>
6:50 - 7:00	Break
7:00-7:15	Partnering with MDOT on Non-Motorized Planning <i>Darrell Harden-Michigan Department of Transportation</i>
7:15-7:30	What is a Regional Non-Motorized Plan and What Does It Mean to Southwest Michigan? <i>Marcy Colclough-Southwest Michigan Planning Commission</i>
7:30-8:30	Mapping the future of Southwest Michigan - County Mapping Exercise (Break into groups)

Follow the progress of the 9 county planning process at www.swmpc.org/smart_plan.asp.



We would like to thank all of the members of the Southwest Michigan Alliance for Recreational Trails Task Force for their dedication to trail development in the region and for their assistance with this project.

- Brian Bailey, Berrien County Parks (Berrien)
- Carl Christensen, Friends of the Kal-Haven Trail (Van Buren)
- James Coury, Calhoun County Conservation District (Calhoun)
- Amy Druskovich, Cass County Conservation District (Cass)
- Darrell Harden, MDOT (State)
- Linn Kracht, City of Battle Creek (Calhoun)
- Cal Lamoreaux, Thornapple Trail Association (Barry)
- Jean Lamoreaux, Village of Middleville (Barry)
- Kyle Lewis, Kalamazoo County Parks (Kalamazoo)
- Jeff Mitchell, Van Buren County Road Commission (Van Buren)
- John Pence, St. Joseph County Parks
- David Rachowicz, Kalamazoo County Parks (Kalamazoo)
- Steve Stepek, Kalamazoo Area Transportation Study (Kalamazoo)
- Ron Sootsman, Barry County Parks (Barry)
- Kevin Ricco, Allegan County Parks (Allegan)
- Phil VanNoord, Thornapple Trail Association (Barry)
- Scott Wyman, Cass County Parks (Cass)

9-County Non-Motorized Project Description

Develop a comprehensive, regional Non-Motorized Transportation Plan for MDOT's Southwest Region (Allegan, Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph and Van Buren Counties). This plan will be developed with public input and the process will build consensus for a connected non-motorized network within the region and with five neighboring regions in Michigan and Indiana.

The finalized plan will be utilized by MDOT, local officials and advocacy groups to prioritize non-motorized investments in the region and will provide a vision for a non-motorized transportation network that will be used to secure private and governmental funding for implementation. Data will also be collected to update the Non-Motorized Trail Map during the planning process. This project builds off of and utilizes data and maps developed by SWMPC for the MDOT funded Non-Motorized Trail Mapping Project.

For information and updates about the 9-County Non-Motorized Project visit:
www.swmpc.org/smart_plan.asp

RESOURCES

Michigan Department of Transportation
www.michigan.gov/MDOT

Darrell Harden-Southwest Region
Phone: (269) 337-3134
Email: HardenDa@michigan.gov

Josh DeBruyn- Bicycle and Pedestrian Coordinator
Phone: 517-335-2918
Email: debruynj@michigan.gov

Southwest Michigan Planning Commission
www.swmpc.org

Marcy Colclough-Senior Planner
Phone: 269-25-1137 x 25
Email: colcloughm@swmpc.org

Suzann Flowers-Program Assistant
Phone: 269-925-1137 x 17
Email: flowerss@swmpc.org

Southwest Michigan Alliance for Recreational Trails (SMART)
www.swmpc.org/smart.asp

The mission of SMART is to partner, promote and connect a planned trailway system in Southwest Michigan and adjoining areas to enhance the quality of life for all.

Mr. Mark E. Nettleton
www.mmbjlaw.com
Phone: 616-632-8000
Email: mnettleton@mmbjlaw.com

Mark E. Nettleton practices in the areas of public finance, land use, zoning law, municipal law and commercial transactions. In his law practice experience, Mark has assisted Michigan counties, cities, villages and townships with bond issues and financing transactions, ordinance and utility franchise issues, intergovernmental agreements, special assessment proceedings and annexation matters. Additionally, Mark regularly counsels public authorities such as downtown development authorities, local development finance authorities and corridor improvement authorities.

County-Public Input Meetings Agenda 6:30p.m.-8:30p.m.

Introduction of the 9-County Non-Motorized Project

- ~Concentrating tonight on Allegan County
- ~Scale of the map is the 9 County region of Southwest Michigan
- ~Emphasis is on regional connections-No foot shared use paths or shared use paths in parks
- ~Summary of Shared use paths Summit held June 25, 2009

Next steps

- ~Website-www.swmpc.org/smart_plan.asp
- ~Updates to map
- ~Plan development
- ~E-mail updates

Break Out Sessions

Map Review and Comment

Scenario-Using the map to get around

- ~Small groups for scenarios
- ~Select a recorder and spokesperson

Review Criteria for Prioritizing Regional Non-Motorized Projects

- ~Develop local criteria

For more information contact:

Marcy Colclough
colcloughm@swmpc.org
(269) 925-1137 x 25

Suzann Flowers
flowerss@swmpc.org
(269) 925-1137 x 17

www.swmpc.org/smart_plan.asp

Shared use path Terms

- ▶ On-road Facilities
 - Paved Shoulder (4 foot minimum)
 - Bike Lane (5 foot minimum)
- ▶ Off-road Facilities
 - Multi-use Path (10 foot minimum)
 - ▶ improved – paved or crushed fines
 - ▶ Unimproved – gravel or dirt
- ▶ Other Non-Motorized Shared use paths
 - Water shared use paths (blue dashed line)
 - Mountain Bike Shared use paths (bike symbol)
 - Equestrian shared use paths (red star symbol)
- ▶ Undetermined (we don't know if it will be on or off-road, etc)

What Type of Information Are We Looking For

- Existing, planned, and desired non-motorized routes and shared use paths in the 9 county region
- Link non-motorized routes and shared use paths to form a regional non-motorized network - Focus on regional connections
- NOT a hiking/shared use path systems within a park

Marking On The Maps

- **Base Map - Existing**
 - use legend on map as guidance
- **Overlay Map – Planned or Desired**
 - **Black** – on-road facilities - bike lane (5 foot minimum) or paved shoulder (4 foot minimum)
 - **Blue** - off-road facilities– multi-use/shared path (10 foot minimum)
 - **Red** - undetermined
- **Either Map (existing or planned)**
 - Water shared use paths (blue dashed line)
 - Mountain Bike Shared use paths (bike symbol)
 - Equestrian shared use paths (red star)



Connecting Non-Motorized Systems

THURSDAY, JULY 15, 2010, 6:30 - 8:30 PM

KALAMAZOO COUNTY FAIRGROUNDS-EXPO CENTER-ROOM A-2900 LAKE ST., KALAMAZOO, MI 49048

**What would a connected non-motorized network mean to Southwest Michigan?
*Healthy People, Healthy Communities, and a Healthy Economy.***

Agenda

- 6:30-6:40p.m.** Welcome and Meeting Goals
Suzann Flowers, Southwest Michigan Planning Commission
- 6:40-7:00p.m.** Kalamazoo River Valley Trail Survey
Kyle Lewis-Kalamazoo River Valley Trail Program Manager
Dr. Chuck Nelson-Associate Professor-Michigan State University
- 7:00-7:15p.m.** What is a Regional Non-Motorized Plan and What Does It Mean to Southwest Michigan?
Suzann Flowers/Marcy Colclough-Southwest Michigan Planning Commission
- 7:15-7:30p.m.** Regional Non-Motorized Projects
Marcy Colclough-Southwest Michigan Planning Commission
- 7:45-8:30p.m.** Mapping Exercise and Prioritization (Break into groups by county)

Follow the progress of the 9 county planning process at www.swmpc.org/smart_plan.asp



We would like to thank all of the members of the Southwest Michigan Alliance for Recreational Trails Task Force for their dedication to trail development in the region and for their assistance with this project.

- Brian Bailey, Berrien County Parks (Berrien)
- James Coury, Calhoun County Conservation District (Calhoun)
- Amy Druskovich, Cass County Conservation District (Cass)
- Darrell Harden, MDOT (State)
- Rob Hillard, City of Allegan (Allegan)
- Linn Kracht, City of Battle Creek (Calhoun)
- Cal Lamoreaux, Thornapple Trail Association (Barry)
- Jean Lamoreaux, Village of Middleville (Barry)
- Kyle Lewis, Kalamazoo County Parks (Kalamazoo)
- Jeff Mitchell, Van Buren County Road Commission (Van Buren)
- John Pence, St. Joseph County Parks
- David Rachowicz, Kalamazoo County Parks (Kalamazoo)
- Steve Stepek, Kalamazoo Area Transportation Study (Kalamazoo)
- Ron Sootsman, Barry County Parks (Barry)
- Kevin Ricco, Allegan County Parks (Allegan)
- Phil VanNoord, Thornapple Trail Association (Barry)
- Scott Wyman, Cass County Parks (Cass)
- Kathy Worst, Branch County Conservation District (Branch)

9-County Non-Motorized Project Description

Develop a comprehensive, regional Non-Motorized Transportation Plan for MDOT's Southwest Region (Allegan, Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph and Van Buren Counties). This plan will be developed with public input and the process will build consensus for a connected non-motorized network within the region and with five neighboring regions in Michigan and Indiana.

The finalized plan will be utilized by MDOT, local officials and advocacy groups to prioritize non-motorized investments in the region and will provide a vision for a non-motorized transportation network that will be used to secure private and governmental funding for implementation. Data will also be collected to update the Non-Motorized Trail Map during the planning process. This project builds off of and utilizes data and maps developed by SWMPC for the MDOT funded Non-Motorized Trail Mapping Project.

For information and updates about the 9-County Non-Motorized Project visit:

www.swmpc.org/smart_plan.asp

RESOURCES

Michigan Department of Transportation

www.michigan.gov/MDOT

Darrell Harden-Southwest Region
Phone: (269) 337-3134
Email: HardenDa@michigan.gov

Josh DeBruyn- Bicycle and Pedestrian Coordinator
Phone: (517) 335-2918
Email: debruynj@michigan.gov

Southwest Michigan Planning Commission

www.swmpc.org

Marcy Colclough-Senior Planner
Phone: (269) 925-1137 x 25
Email: colcloughm@swmpc.org

Suzann Flowers-Program Assistant
Phone: (269) 925-1137 x 17
Email: flowerss@swmpc.org

Kalamazoo River Valley Trail

<http://www.kalcounty.com/parks/krvt>

Dr. Chuck Nelson-Associate Professor
Phone: (517) 432-0272
Email: nelsonc@msu.edu

Kyle Lewis-Trail Program Coordinator
Phone: (269) 373-0272
Email: KDLEWI@kalcounty.com

Southwest Michigan Alliance for Recreational Trails (SMART)

www.swmpc.org/smart.asp

The mission of SMART is to partner, promote and connect a planned trailway system in Southwest Michigan and adjoining areas to enhance the quality of life for all.

Appendix D: Funding Sources

There are a vast number of funding sources that can be utilized to get a project onto the ground. One of the most comprehensive places to locate information on funding is the Michigan Trails and Greenways Alliance website (www.michigantrails.org). There you will find toolkits on how to look for funds, how to write grants, funding sources, and a multitude of other tremendously helpful resources.

Federal Funding

On August 10, 2005, President Bush signed into law the Safe Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU). The legislation updated Titles 23 and 49 of the United States Code (U.S.C.) and built on the significant changes made to Federal transportation policy and programs by the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) and the 1998 Transportation Equity Act for the 21st Century (TEA-21). The legislation had a number of provisions to improve conditions for bicycling and walking and increase the safety of the two modes. For a thorough explanation of each of the programs listed below, visit <http://www.fhwa.dot.gov/environment/bikeped/bp-guid.htm>.

	<u>NHS</u>	<u>STP</u>	<u>HSIP</u>	<u>SRTS</u>	<u>TEA</u>	<u>CMAQ</u>	<u>RTP</u>	<u>FTA</u>	<u>TE</u>	<u>BRI</u>	<u>402</u>	<u>PLA</u>	<u>TCSP</u>	<u>JOBS</u>	<u>FLH</u>	<u>BYW</u>
Bicycle and pedestrian plan		*				*						*	*			
Bicycle lanes on-roadway	*	*	*	*	*	*		*	*	*					*	*
Paved Shoulders	*	*	*	*	*	*				*					*	*
Signed bike route	*	*		*	*	*									*	*
Trail/shared use path	*	*		*	*	*	*			*					*	*
Single track hike/bike shared use path							*									
Spot improvement program		*	*	*	*	*										
Maps		*		*		*					*					
Bike racks on buses		*			*	*		*	*							
Bicycle parking facilities		*		*	*	*		*	*							*
Shared use path/highway intersection	*	*	*	*	*	*	*								*	*
Bicycle storage/service center		*		*	*	*		*	*				*	*		

Southwest Michigan Non-Motorized Transportation Plan

	NHS	STP	HSIP	SRTS	TEA	CMAQ	RTP	FTA	TE	BRI	402	PLA	TCSP	JOBS	FLH	BYW
Sidewalks, new or retrofit	*	*	*	*	*	*		*	*	*					*	*
Crosswalks, new or retrofit	*	*	*	*	*	*		*	*						*	*
Signal improvements	*	*	*	*	*	*										
Curb cuts and ramps	*	*	*	*	*	*										
Traffic calming		*	*	*									*			
Coordinator position		*		*		*							*			
Safety/education position		*		*		*					*					
Police Patrol		*		*							*					
Helmet Promotion		*		*	*						*					
Safety brochure/book		*		*	*	*	*				*					
Training		*		*	*	*	*				*					

Key to Acronyms

NHS - National Highway System
 STP - Surface Transportation Program
 HSIP - Highway Safety Improvement Program
 SRTS - Safe Routes to School Program

 TEA - Transportation Enhancement Activities
 CMAQ - Congestion Mitigation/Air Quality Program
 FLH - Federal Lands Highway Program
 BYW - Scenic Byways

BRI - Bridge
 402 - State and Community Traffic Safety Program
 PLA - State/Metropolitan Planning Funds
 TCSP - Transportation and Community and System Preservation Pilot Program
 JOBS - Access to Jobs/Reverse Commute Program
 RTP - Recreational Shared use paths Program
 FTA - Federal Transit Capital, Urban & Rural Funds
 TE - Transportation Enhancements

State of Michigan Funding

- Michigan Department of Transportation-Transportation Enhancement (TE) Program**

www.michigan.gov/TEA

This program requires a minimum of matching funds of at least 20% of the project cost. Eligible applicants include county road commissions, cities, villages, transit agencies, MDOT, Native American tribes, the MDNR, and metropolitan planning organizations. The types of project that are competitive for TE funding are non-motorized facilities that:

- 🚲 Connect and develop documented regional or statewide shared use path systems
- 🚲 Are appropriate for the need and user types targeted
- 🚲 Benefit state tourism or economic development initiatives
- 🚲 If locally significant, have strong transportation connection and involved planning efforts or serve as connector to regional shared use paths

- ☞ Are area priority on MDOT, county or regional shared use path plans
- ☞ Address documented safety deficiencies
- ☞ Are part of a broader non-TE funded non-motorized system

- **Michigan Department of Natural Resources - Trust Fund**

http://www.michigan.gov/dnr/0,1607,7-153-10366_37984_37985-125326--,00.html

This program requires that all applicants have a current, five-year community recreation plan that has been locally adopted and approved by the MDNR by the application deadline. Eligible entities that can apply are school districts and local units of government, including cities, villages, township, and counties, or any combination thereof, in which an authority is legally established to provide recreation, and state agencies. Applicants must provide a minimum of 25% match. Projects that are eligible to apply are:

- ☞ Shared use pathways
- ☞ Facilities needed to support outdoor recreation such as restrooms, shared use paths, interpretive centers

- **Michigan Dept of Natural Resources - Land and Water Conservation Fund**

http://www.michigan.gov/dnr/0,1607,7-153-10366_37984_37985-125326--,00.html

The program purpose is intended to create and maintain a nationwide legacy of high quality recreation areas and facilities and to stimulate non-federal investments in the protection and maintenance of recreation resources across the United States. The focus of the program is meeting the priorities of the 2008-2012 State Comprehensive Outdoor Recreation Plan; specifically shared use paths community recreation, green technology, and coordination and communication and universal access. Eligible applicants include state agencies; local unites of government, or any combination thereof in which an authority is legally established to provide publication recreation, Native American tribes, and school districts if they meet the requirements given in Guidelines for Development of Community Park, Recreation, Open Space, and Greenway Plans. All applicants must have a current, five-year community recreation plan that has been locally adopted and approved by the MDNR by the application deadline. Eligible projects include:

- ☞ Variety of development projects for public outdoor recreation facilities
- ☞ Shared use pathways
- ☞ Picnic areas
- ☞ Campgrounds
- ☞ Winter sports areas
- ☞ Facilities needed to support outdoor recreation such as restrooms, interpretive centers are also eligible

- **Michigan Department of Transportation - Safe Routes to School Program**

<http://saferoutesmichigan.org/>

This program purpose is to enable and encourage all children to walk and bike to school, to make bicycling and walking to school safer and more appealing alternative mode of transportation, and to develop projects and encourage activities that will improve student health and safety while reducing traffic, fuel consumption, and air pollution in the vicinity of schools. SR2S is 100 percent federal, no match is required. Projects can be both infrastructure and non-infrastructure projects, however, design and construction

engineering are not eligible. The table below lists the eligible infrastructure and non infrastructure projects.

Safe Routes to School Eligible Projects

Infrastructure Projects	Non Infrastructure Projects
Traffic calming and speed reduction	Activities to encourage walking and bicycling to school
Pedestrian and bicycle crossing improvements	Public awareness campaigns, community outreach
Traffic diversion improvements in the vicinity of schools	Traffic education
On-street and off-street bicycle facilities	Traffic enforcement operations in the vicinity of schools
Off-street pedestrian facilities	Student training sessions (bicycle and pedestrian safety, health, and environment)
Sidewalks	Funding for training volunteers and managers of safe routes to schools programs

Community Foundation Clearinghouses

Websites that shows community foundations throughout the state of Michigan

-  Michigan Community Foundations
<http://www.forgoodforever.org/>
-  Council of Michigan Foundations
http://www.michiganfoundations.org/s_cmf/index.asp

Internet Websites for Funding Information

-  America Bikes
<http://americabikes.org/Documents/AB-Federal-Program-Factsheet.pdf>
-  Michigan Trails and Greenways Alliance
<http://library.michigantrails.org/category/funding/>
-  Bikes Belong
www.bikesbelong.org
-  American Trails
<http://americantrails.org/>
-  DALMAC Fund
<http://www.biketcba.org/dfund/dfund.html>

Appendix E: Sample Bicycle Parking Ordinance

Sec. 86-2. Definitions.

Bicycle Locker means an enclosed device, apparatus, compartment, or storage unit that permits the individualized storage of a bicycle and permits the bicycle to be locked or secured inside of the device, apparatus, compartment, or storage unit.

Bicycle Parking Area means the area designed to accommodate bicycle parking, and specifically includes the bicycle rack(s), bicycle locker(s), or equivalent structure, and the area immediately surrounding the rack(s), locker(s) or equivalent structure(s).

Bicycle Parking Space means the location within a bicycle parking area that allows for the temporary placement of a single bicycle.

Bicycle Rack means a device or apparatus that permits a bicycle to be supported in an upright position, prevents a bicycle from being tipped over, and permits the bicycle to be temporarily secured or locked to the rack.

B. Amendment to Section 86-376(g)(9) of Section 86-376, Multiple-family residential districts: RDD, RD, RC, RCC districts. Section 86-376(g) entitled Minimum Design Standards of the Code of the Charter Township of Meridian, Michigan, is hereby amended to read as follows:

Sec. 86-376. Multiple-family residential districts: RDD, RD, RC, RCC districts.

(g) *Minimum design standards.*

(9) Parking requirements. For motor vehicle and bicycle parking requirements, refer to section 86-366 and article VIII of this chapter. In addition, every multiple-family structure shall provide motor vehicle parking facilities which:

(a) – (h) Remain as written.

C. Amendment to Section 86-402(4) of Section 86-402, Commercial, Retail, and Business Districts C-1, C-2, and C-3. Section 86-402(4) entitled Parking and loading requirements of the Code of the Charter Township of Meridian, Michigan, is hereby amended to read as follows:

Sec. 86-402. Standards applying to all uses.

(4) *Parking and loading requirements.* Motor vehicle parking and loading, and bicycle parking requirements for this district are specified in article VIII of this chapter.

D. Amendment to Section 86-432(d)(6) of Section 86-432, PO district: Professional and office district. Section 86-432(d)(6) entitled Off-street parking and loading requirements of the Code of the Charter Township of Meridian, Michigan, is hereby amended to read as follows:

Sec. 86-432. PO district: Professional and office district.

(d) *Professional / office site development requirements.*

(6) *Off-street parking and loading requirements.* Motor vehicle parking and loading, and bicycle parking requirements for this district are specified in article VIII of this chapter.

E. Amendment to Section 86-433(d)(7) of Section 86-433, CR district: Commercial recreation district. Section 86-433(d)(7) entitled Motor vehicle and bicycle parking requirements of the Code of the Charter Township of Meridian, Michigan, is hereby amended to read as follows:

Sec. 86-433. CR district: Commercial recreation district.

(d) *Site development requirements.*

(7) *Motor vehicle and bicycle parking requirements.* Motor vehicle parking and loading, and bicycle parking requirements for this district are specified in article VIII of this chapter.

F. Amendment to Section 86-434(f)(8) of Section 86-434, RP district: Research and office park district. Section 86-434(f)(8) entitled Off-street parking and loading requirements of the Code of the Charter Township of Meridian, Michigan, is hereby amended to read as follows:

Sec. 86-434. RP district: Research and office park district.

(f) *Site development requirements.*

(8) *Off-street parking and loading requirements.* Except for the following, motor vehicle parking and loading, and bicycle parking requirements for this district are specified in article VIII of this chapter. G. Amendment to Section 86-435(f)(7) of Section 86-435, I district: Industrial district.

Section 86-435(f)(7) entitled Off-street parking and loading requirements of the Code of the Charter Township of Meridian, Michigan, is hereby amended to read as follows:

Sec. 86-435. I district: Industrial district.

(f) *Site development requirements.*

(7) *Off-street parking and loading requirements.* Motor vehicle parking and loading, and bicycle parking requirements for this district are specified in article VIII of this chapter.

H. Amendment to Section 86-439(c)(6)c. of Section 86-439, Planned Unit Development. Section 86-439(c)(6) entitled Off-street parking of the Code of the Charter Township of Meridian, Michigan, is hereby amended to read as follows:

Sec. 86-439. Planned unit development.

(c) *General restrictions and standards.*

(6) *Off-street parking.* Parking shall be provided in accordance with the following standards:

a. - b. Remain as written.

c. Uses other than one and two family residential, such as housing for the elderly, commercial uses, institutional uses, or similar uses, shall meet the motor vehicle parking and loading, and bicycle parking requirements set forth in article VIII of this chapter.

d. - e. Remain as written.

I. Amendment to Section 86-440(d)(3)d. of Section 86-440, Mixed use planned unit development. Section 86-440(d)(3) entitled Parking of the Code of the Charter Township of Meridian, Michigan, is hereby amended to read as follows:

Sec. 86-440. Mixed use planned unit development.

(d) *Design standards.*

(1) - (2) Remain as written.

(3) Parking.

a. - c. Remain as written.

d. Bicycle parking shall generally be in accordance with the provisions of article VIII of this chapter as determined by the Township Board.

J. Amendment to add Section 86-760, Bicycle Parking. Article VIII, Division 2 entitled Off- Street Parking of the Code of the Charter Township of Meridian, Michigan, is hereby amended by adding Section 86-760 entitled Bicycle Parking to read as follows: **Sec. 86-760. Bicycle Parking.**

(a) *Purpose.* The purpose of this section is to provide adequate and safe facilities for the temporary placement and use of bicycles. This section is intended to specify the

required type, number and location of bicycle parking spaces on a site. The regulations and requirements are designed to promote and encourage the safety and general welfare of the community by:

- (1) Promoting an alternative and energy efficient mode of transportation.
- (2) Encouraging a healthy lifestyle by promoting and accommodating the use of bicycles.
- (3) Providing adequate and safe facilities for the temporary placement of bicycles.

(b) *Applicability.*

(1) Bicycle parking shall be provided for any new building constructed after the effective date of this ordinance. After the effective date of this ordinance, bicycle parking shall also be provided on all sites when an addition to an existing building is constructed that results in the need for additional motor vehicle parking spaces or for any change in the use of a building that results in the need for additional motor vehicle parking spaces.

(2) This section does not prohibit the voluntary installation of bicycle parking that conforms to the requirements set forth in this section.

(3) Except as otherwise required, a bicycle parking area shall be treated in a similar manner as a required motor vehicle parking area.

(c) *Exemptions.* Bicycle parking shall be required for all uses, with the exception of one and two family residential uses.

(d) *Location.*

(1) A bicycle parking area shall be located such that it is visible, safe, and convenient with adequate lighting provided. Lighting will be based on the provisions set forth in Chapter 38, Article VII, titled Outdoor Lighting.

(2) Bicycle parking areas shall be located to maximize accessibility to building entrances.

(e) *Design Criteria and Dimensions.* Bicycle parking racks and lockers are encouraged to be unique in design and appearance; however, the bicycle parking area shall be functional, operational, and shall provide for the following:

(1) A bicycle rack, bicycle locker, or functionally equivalent structure shall be used to secure a bicycle.

(2) Bicycle parking areas incorporating the standard inverted “U” shaped bicycle rack, or functionally equivalent structure, shall have the following dimensions:

a. The minimum height of the bicycle rack shall be 36 inches from the base to the top of the rack. b. The minimum length for the bicycle rack shall be two feet.

c. A bicycle rack shall accommodate at least two bicycles.

d. The exterior surface of bicycle racks and bicycle lockers shall be nonabrasive, non-marring, and durable.

e. The bicycle parking area shall comply with the dimensions designated in

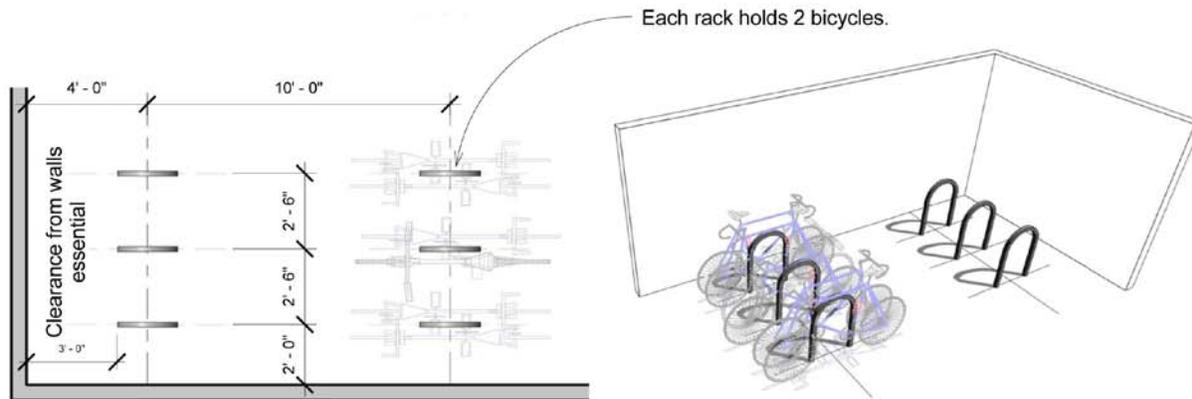


Figure 1: Bicycle Parking Area Source: David Baker + Partners.

(3) The bicycle parking area shall be constructed with adequate space to allow operation of the locking mechanism and each bicycle parking space shall be easily accessible. A bicycle parking area shall not interfere with any designated pedestrian sidewalk or pathway, required vehicle parking spaces or vehicle maneuvering lanes, and shall not eliminate any required landscape area.

(4) The bicycle parking rack shall be installed so that the rack supports the bicycle in an upright position and allows for the bicycle frame and front wheel to be securely locked.

(5) The bicycle parking area shall be hard surfaced with material such as asphalt, concrete, or a brick paving system and shall be adequately maintained and kept free of mud, dust, ice, and snow.

(6) The bicycle racks, bicycle lockers or functionally equivalent structures must be securely anchored.

(7) Up to one-half (1/2) of the required bicycle parking spaces on the site may be located inside of a building.

(f) *Shared Bicycle Parking Facilities.* For sites containing multiple uses or tenants, a single bicycle parking area may be provided as long as the total number of bicycle parking spaces provided is not less than the sum of all of the separate uses combined.

(g) *Bicycle Parking Requirements.*

(1) Unless otherwise provided, one bicycle parking space shall be provided for every ten motor vehicle parking spaces required. The minimum number of bicycle parking spaces provided shall not be less than two. The maximum number of bicycle parking spaces shall not exceed fifty.

(h) *Reduction of required motor vehicle parking spaces.*

The number of required motor vehicle parking spaces on a site may be reduced by one motor vehicle parking space for every two bicycle parking spaces installed on a site in compliance with this section. Motor vehicle parking spaces may not be reduced by more than ten percent (10%) of the total number of required motor vehicle parking spaces.

(i) *Waiver.* An individual may submit a written request to the director of community planning and development for a waiver from the requirements of this section. The request shall state the reason(s) for the waiver and contain any other applicable information related to the waiver. In making a determination regarding a waiver the director of community planning and development may consider characteristics of the site including the type of use, site layout (accessibility, maneuverability, design, and other

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related elements), or unique circumstances.

Section 2. **Validity and Severability.** The provisions of this Ordinance are severable and the invalidity of any phrase, clause or part of this Ordinance shall not affect the validity or effectiveness of the remainder of the Ordinance.

Section 3. **Repealer Clause.** All ordinances or parts of ordinances in conflict therewith are hereby repealed only to the extent necessary to give this Ordinance full force and effect.

Section 4. **Savings Clause.** This Ordinance does not affect rights and duties matured, penalties that were incurred, and proceedings that were begun, before its effective date.

Section 5. **Effective Date.** This Ordinance shall be effective seven (7) days after its publication or upon such later date as may be required under Section 402 of the Michigan Zoning Enabling Act (MCL 125.3402) after filing of a notice of intent to file a petition for a referendum.