

Antwerp Township



Pathways Plan

2010

Acknowledgements

A pathways and ecology park plan was recommended in the Antwerp Township Community Recreation Plan for 2006 through 2011 and initiated by the Planning Commission. Over time, the Township appointed a Pathways Plan Committee to complete the work of the planning process with assistance from LSL Planning, Inc.

Antwerp Township Planning Commission

Ray VanUum – Chair
Leslie Cronenwett – Vice Chair
Denise M. Schultz – Secretary
Harriet Kucinich
Ronald DerHammer
John Paquin
Steve Bryer (2008 – 2010)

Antwerp Township Board of Trustees

Daniel Ruzick, Supervisor
Heather Mitchell, Clerk
Bonnie Osborne, Treasurer
Bruce Cutting, Trustee
Ronald DerHammer, Trustee

Antwerp Township Pathways Plan Committee

Leslie Cronenwett
Ronald DerHammer
Jamie Harmon
Kevin Lockhart
Denise Schultz
Gary Stock

LSL Planning, Inc.

Steven J. Van Steenhuyse, AICP
Rose Scovel, AICP
Eric Frederick, AICP, LEED AP

Table of Contents

- Background 1**
 - History of the Project 1
 - Previous Studies 2
 - Current Conditions and Practices 2
 - Benefits of Pathways 3
 - Eco-Park Concepts 4

- Inventory & Analysis 6**
 - Existing Conditions 6
 - Land Uses 6
 - Destinations 8

- Goals 11**

- Plan 18**

- Pathways Plan 18**
 - Location Concepts 18
 - Preferred Concept 18
 - Functional Design 22
 - Design Amenities 24
 - Maintenance 29

- Ecology Park 30**

- Implementation 31**
 - Funding 31
 - Pathways Phasing 35
 - Future Planning 36

- Appendix A: Public Involvement A-1**

Background

History of the Project

Since the early 1970's, the popularity of pathways has increased for both transportation and recreation opportunities. A comprehensive non-motorized pathway network encourages alternative modes of movement within the community while contributing to a balanced transportation system. Further, pathway systems provide an outlet for much needed recreation. Statewide, a growing number of people have recognized the benefits of pathways including economic, cultural, social, and recreation benefits which help define the quality of life for a community, not to mention the increased public health, safety, environmental protection and alleviated pollution which results from pathway systems.

Antwerp Township recognizes these benefits and has pledged a commitment to development of a comprehensive pathway system.

Antwerp Township has experienced a steady period of growth, which is anticipated to continue. Development threatens to reduce access to some of the natural areas, public lands and recreational opportunities in the Township and surrounding area. Antwerp Township is located amidst many regional park facilities. Connectivity to these areas and within the township between schools and local parks is important for a comprehensive system. While the automobile will certainly remain the primary mode of transportation here, many residents desire other choices as well. They want to be able to walk to a friend's house or to the store, or to take their bikes to the many nearby parks and schools. Now is the time for pathways planning in Van Buren County before continued development makes future pathways more difficult. It is for these reasons that we are planning for our collective future in Antwerp Township by developing this pathways plan.

Purpose of the Plan

This plan is intended to identify a pathway system for the township, and serve as the basis for an ecology park. It will recognize the natural resources of the township including the ecologically important areas along the East Branch of the Paw Paw River and its tributary creeks and drains. The plan will also recognize the existing regional trail systems including the Kal-Haven Trail and the Van Buren State Park Trail.

Planning Process

The planning process was a cooperative effort spanning six months.¹ Initiated by the Township staff and government, the planning effort was led by the Township planning consultants LSL Planning, Inc. The following highlights the major steps involved in the Plan development:

Focus Groups

Focus Group sessions were held in May, 2008 to gain input from stakeholder groups regarding the development and maintenance of pathways in the Township and to reach general consensus on the preferred routes. Individuals from neighboring communities, community and interest groups, and county, regional and state agencies were invited to participate. The focus group topics were: Walkers,

¹ The project was begun in April 2008, but was placed on hiatus while other Township priorities were concluded. In late 2009, the project was picked up again and completed in early 2010.

Runners, and Joggers; Bikers and Rollerbladers; Connectivity; and, Ongoing Maintenance. Summaries of the focus group meetings are included in Appendix A.

Public Workshop

A public workshop was held in January, 2010 to introduce citizens to the pathways Plan concept, answer questions, and identify needs, concerns and issues regarding the proposed pathways. The workshop asked participants to comment on various pathway proposals, identified preferred design concepts and amenities, and to express their ideas and concerns. A summary of the comments heard at the meeting and in the survey distributed at the meeting are as follows:

- a. A pathway should be more than just a wide shoulder
- b. They should be off-road to the maximum extent possible, and separated from the road where off-road is not possible
- c. Spurs to key destinations are important
- d. 26th Street has engineering challenges, Drape Road to 63rd Avenue is more feasible for an alternate route
- e. Loop routes should be included
- f. A connection through the wooded area south of 56th Avenue between 30th Street and 32nd Street is a good idea, but the alignment needs to be revised to be passable
- g. The purposes of the ecology park are for enjoying nature and walking, and also student learning

Plan Development

The planning for an Antwerp Township pathway system began with the collection and gathering of data on the existing conditions for non-motorized travel. Needs and safety concerns were identified, as well as an analysis of current roadways and pathways in relation to their suitability for various types of pathways. This data, along with input heard from the pathways committee, general public, and Township staff was used in the development of the Plan.

Previous Studies

In 2006, the Township updated the Community Recreation Plan, which included a survey of Township residents and business owners. The survey revealed that the top recreation facility need was pedestrian/bike paths along roadways. Another highly rated project was development of cross country trails. Many of the highest overall responses were related to land preservation, including ecologically sensitive areas and natural open spaces. In response, the Community Recreation Plan recommends creating a framework for trailway/ecology park planning, creating a conceptual plan and design standards for the trailway/ecology park, and ultimately developing the park system.

Current Conditions and Practices

Antwerp Township and each of the villages are separate zoning jurisdictions, each with its own regulations for land division and development. This is a potential barrier to creating consistent pedestrian connections between the village centers, key destinations, and the pathway system. This barrier can be overcome through coordinated review and revision of zoning ordinances where necessary to ensure new development provides for better pedestrian connectivity.

The zoning ordinance for Antwerp Township requires new development to reserve adequate right-of-way for sidewalks on both sides of the street, but not necessarily to install the sidewalks. Revising this policy to require installation of the sidewalks, particularly on collector and arterial roads, will help complete the pedestrian network.

Biking to destinations can be encouraged in the township by provision of bike racks at destinations (stores, recreational facilities, government buildings, and schools, for example). One way to ensure bike parking at stores, offices, and other service locations) is to require bicycle parking facilities as a part of site plan review requirements in the zoning ordinance. This has been established in several communities who are trying to encourage biking as an alternate means of transportation. A related tool is reducing the required number of automobile parking spaces in exchange for the installation of bike racks. This is an incentive based approach, rather than a regulatory approach.

Benefits of Pathways

Pathways positively impact residents and improve communities by providing a number of benefits, ranging from the obvious recreation and transportation opportunities to the more obscure benefits of improved economics, health, public education and quality of life. Specifically, benefits provided by pathways include:

Recreation Opportunities

The increased demand for recreation is resulting in the increased presence of pathways throughout the nation. Pathways provide for a diverse range of recreational interests, including walkers, joggers, hikers, runners, cyclists, rollerbladers, cross country skiers, and horseback riders. Pathways provide an opportunity for residents to enjoy their community and take in the natural and cultural features of Antwerp Township at their own pace.

Transportation Alternatives

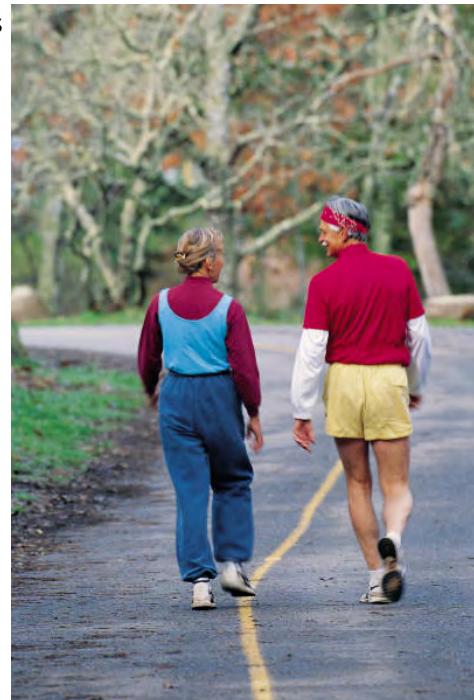
A network of non-motorized pathways in Antwerp Township will ensure that residents, particularly children, can travel safely, without the use of an automobile. The plan identifies pathway connections to residential neighborhoods, schools, recreation facilities, and commercial nodes to provide a safe alternative for accessing these destinations.

Environmental Protection

Pathways can help preserve important natural landscapes, provide needed links between fragmented habitats and offer numerous opportunities for protecting plant and animal species. In addition, reduced reliance on the automobile leads to reduced pollution and traffic congestion.

Enhanced Economics

It has also been shown that pathways actually tend to reduce crime and increase property values. Experience nationwide has shown that well-planned trails attract families, local residents, and other



Recreation, fitness, and transportation are all pathway functions

friendly, responsible people, whose presence on the trails serves as a “neighborhood watch,” driving troublemakers away. Access to pathways is one of the most desirable amenities that homebuyers seek, and the value of most properties is enhanced by being located near a pathway.

Improved Health

Health problems such as heart disease, stroke, diabetes, and obesity are all linked to a lack of exercise. Pathways help people of all ages and health incorporate exercise into their daily routines by providing them with safe and easy access to the places they need or want to go and contribute towards the fight against obesity and inactivity. Possible health benefits of regular pathway use include weight loss, reduce blood pressure, reduced risk of developing Type II diabetes, and lessened symptoms of depression and anxiety.



Healthy communities are attractive places to live

Outdoor Education

Pathways traverse a wide range of environments and can be used as an outdoor classroom. The installation of interpretive signage can describe natural, cultural or historic aspects of the community.

Quality of Life

The quality of life is a primary attractor and marketing tool for communities and helps keep residents satisfied with their community. Areas perceived as having a high quality of life often include amenities and features such as numerous parks, ample open space and good schools, with a safe and walkable environment.

Eco-park Concepts

Development of an ecology park was a driving force behind the goals of the 2006 Antwerp Township Community Recreation Plan. The concept is to build on the work the Nature Conservancy has done in preserving sensitive environmental areas in the community and provide recreational and educational opportunities related to those natural environments.

Ecology parks exist in several communities across the United States. The specific features of these parks vary, but most have a dual purpose of preserving environmentally sensitive areas and providing for a living, learning laboratory for students and others. Typical features include:

- Informational/interpretive signage
- Boardwalks into and through wetland areas
- Areas for restoration projects

In Antwerp Township, the concept is to integrate the pathway system into the eco-park so that the park is a feature along the pathway and part of the system, but still retains its character as a laboratory and restoration area.

Case Study: Marian College Eco-Lab

The Marian College Eco-Lab in Indianapolis, Indiana is an example of this kind of living, learning laboratory. It is on the former estate of James Allison (founder of the Indianapolis 500 and Allison Transmission), adjacent to the Marian College campus. The landscape was a Jens Jensen landscape from the early 1900s. After having been neglected for decades, the landscape has become a natural habitat and ecosystem unto itself. Marian College faculty, staff, and students have been working to restore the landscape (including removing invasive species and establishing native vegetation). The Eco-Lab functions as an outdoor classroom for Marian College and an Indianapolis Public Schools magnet school focusing on the life sciences.



Ecological restoration is taking place

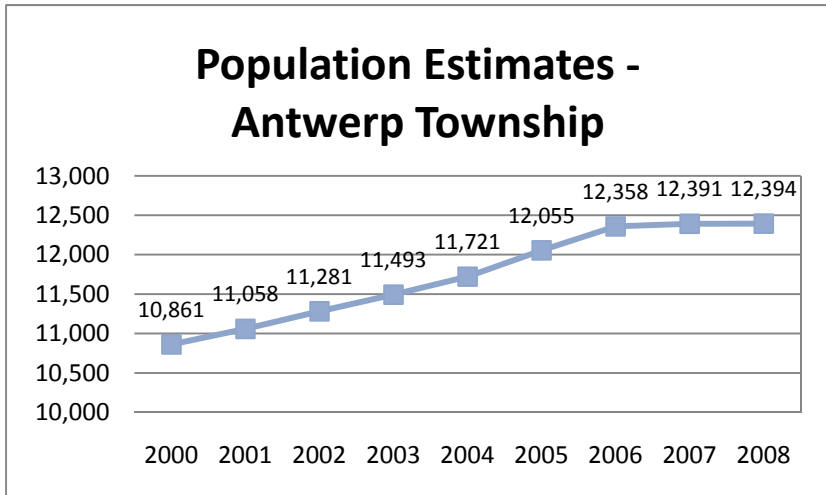


Walking paths through area

Inventory & Analysis

Existing Conditions

The population of the township has been growing since 2000, adding more than 1,700 people between July 2000 and July 2006. This is a growth rate of nearly three percent per year. Growth pressure can change the character of the township and limit the ability of people to enjoy natural areas and features. It can also limit safe, convenient, enjoyable walking and biking routes if they are not planned to promote connectivity.



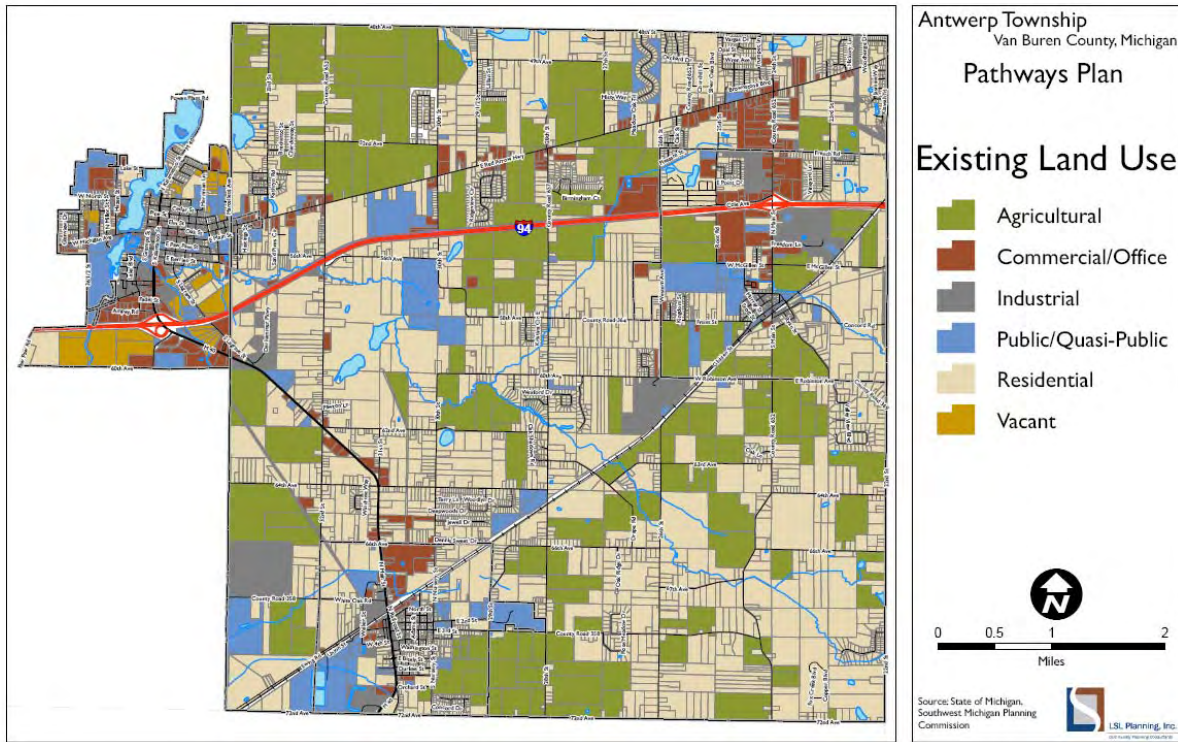
Other demographic characteristics data have not been updated for the community, since the Antwerp Township Community Recreation Plan was completed in 2006 and new Census data is not yet available.

Land Uses

The way land has developed in the community also influences how well neighborhoods and other residential areas are able to be connected to public places, employment centers, commercial areas, and key destinations.

Based on Van Buren County assessment classifications, “residential” is the primary land use designation in Antwerp Township, occupying approximately 54.3 percent of the land area within the study area (which includes the villages of Paw Paw, Mattawan and Lawton). Many residential properties consist of a single family dwelling on a large lot, so much of land designated as “residential” actually consists of woodland or open space. Agricultural uses also occupy a significant amount of land in the study area (24.4%). Public uses including schools, government buildings, parks and other public lands occupy 5.9 percent of the land area. Commercial and industrial uses are primarily concentrated in the villages and along key transportation corridors. (See Figure 1).

Figure 1: Existing Land Use



Roads

The road network in the township includes Interstate 94 running east-west in the northern third of the township, along the south side of the village of Paw Paw and through the village of Mattawan. Other significant roads include the Red Arrow Highway and M-40. County roads 652, 653 and 657 provide north-south connectivity through the township while county roads 358 and 364 provide east-west access in addition to the Red Arrow Highway and I-94. These major roadways provide access for the villages and surrounding land uses and connect destinations within the township, Van Buren County, and the region, and some pathway connections will follow these key corridors.

Existing Regional Trails

The Kal-Haven Trail State Park and Van Buren trails serve the region. Kal-Haven extends nearly 35 miles from South Haven to Kalamazoo on the abandoned Kalamazoo & South Haven rail line. Ten feet wide, the trail is surfaced with crushed slag and limestone. Parking is available in Kalamazoo at the 10th Street trailhead, about two miles north of West Main Street (look for the red caboose); in Bloomingdale at the depot; in Grand Junction at the DNR lot; and at the trailhead in South Haven at Wells Street and Bailey Avenue. Trail passes are needed to use the trail but are good for both the Kal-Haven and Van Buren trails. Van Buren County leases the trail and is responsible for maintenance.



Van Buren Trail is a State regional trail

The Van Buren trail runs from Hartford to South Haven. The trail surface is unimproved and parking is provided at the Hartford trail head. The trail is leased and maintained by Van Buren County.

Destinations

Paw Paw Prairie Fen

The Nature Conservancy's recent purchase of 150 acres along the East Branch of the Paw Paw River near Mattawan anchors the project that will ultimately protect species like the federally endangered Mitchell's satyr butterfly.

Wine Destinations

St. Julian

St. Julian is Michigan's oldest and largest winery. This family-owned winery, founded by Mariano Meconi in 1921, is located in Paw Paw.

Warner Vineyards

Warner Vineyards has been creating wine since 1938 and is Michigan's second oldest winery. It is located on the riverbank near downtown Paw Paw. Warner has transposed the village's old water-works building into the winery's Wine Haus. This state-designated historical structure, built in 1898, is unique with its interesting architecture: an exaggerated roof line and tall, solitary chimney.

Parks in the Antwerp Township Area

Recreation facilities, parkland and pathways are offered by various entities within or abutting the Township as described below:

Mattawan Village Park

This downtown park contains a gazebo, a playground and picnic areas. The park also includes a memorial to Mattawan Police officer Scot Beyerstedt, who was killed in the line of duty in 2005.

Township Activity Center

Located adjacent to the Township Hall in the Village of Mattawan, the activity center has a multi-purpose room with kitchen facilities, restrooms and a dance floor. It is available for rent.

Mattawan Little League Complex

West of the Township Hall on Front Street within the Village limits, this complex contains 10 baseball/softball fields and concession facilities.

Cannon Park

A quarter-acre parcel off North Main Street in the Village of Lawton, this park has a picnic area.

Chancy Lewis Park

Located off South Main Street in the Village of Lawton, this park includes one tennis court, an outdoor basketball court, playground equipment, horse shoe pits, picnic pavilions and restrooms.

Courtyard Park

A pocket park located in the central business area of Paw Paw. This park has picnic and seating areas. It is under Van Buren County's jurisdiction.

Hazen Street Park

Known to local citizens as “Duck Park,” this park is located on the west shore of Maple Lake in Paw Paw Township and has picnic tables and open space.

Maple Island Park

This park is a five acre island park, accessible by footbridge, which includes swimming in Maple Lake, playground equipment, picnic tables, and restrooms.

Sunset Park

Located on the northeast shore of Maple Lake in Paw Paw, this seven acre park has a dock, boat ramp, picnic area and restrooms.

Tyler Field

The site of the former Paw Paw High School football stadium is now a village park, with a new “Kid’s Paradise” playground and athletic fields for baseball, softball, soccer and football.

Schools

Schools are also great destinations to be connected by pathways since pathways enable more children to get to school safely and allow families to walk or bike to activities at the school. Antwerp Township is served by three school districts, Mattawan Consolidated Schools, Lawton Community Schools, and Paw Paw Public Schools. The schools offer a variety of outdoor recreational amenities (particularly playgrounds) that are available for community use when school is not in session.

Mattawan Consolidated School District

The Mattawan Consolidated School District has a high school, middle school, and two elementary schools (early and later) located on a campus at 56720 Murray Street in Mattawan.

Lawton Community Schools

Lawton Elementary School is located at 100 Primary Way. Lawton Middle School is located on the new Blue Pride Drive, off 29th Street approximately a mile east of downtown Lawton. Lawton High School is located at the end of Second Street, also approximately one mile east of downtown. The William Strong Arboretum east of Lawton High School is an educational and recreational asset and is being used by science classes as an outdoor laboratory. There is also a nature trail at the facility used by the community and the Cross Country team, which has been mentioned as a destination for trail users.

Paw Paw Public School District

Paw Paw Early Elementary School is located at 512 North Street and the Later Elementary School is located at 612 North Street. The Paw Paw Middle School is located at 313 W. Michigan Avenue. Paw Paw High School is located east of the Village at 30609 Red Arrow Highway.

Other Destinations

During the focus groups, participants voiced a variety of responses related to other key destinations when walking or biking. Some of them are specific locations, others a type of place.

Natural Places

Several of the destinations mentioned, particularly among walkers, were natural places in the community like creeks to watch the fish, orchards and fields, and places where there are horses. These natural areas need to be included in the pathway system to provide users with the experiences they are seeking.

Ice Cream

We all love walking and biking for a treat. Ice cream parlors were among the key destinations discussed in the focus groups. The Sugar Bear in Paw Paw is on Michigan Avenue/Red Arrow Highway in downtown Paw Paw, just west of M-40. The Scoop in Mattawan has since closed, but there is community interest, so new ice cream businesses are likely to appear in the future.

For a Purpose

Participants also mentioned that they were interested in using the pathways for a purpose, to get where they needed to go, replacing car trips. Specific destinations mentioned included post offices, the grocery store, and the pharmacy. The libraries were also noted as desirable destinations. Here are some of the key destinations in the village centers:

Lawton	Mattawan	Paw Paw
<ul style="list-style-type: none"> • D Coy Duck’s • Big T Tavern • Old Hat Brewery & Grill • Wagoner’s Grocery • The Breakfast Place • Vineyard Café • Lawton Village Hall 	<ul style="list-style-type: none"> • Brandiwine Coffee & More • Kazoopy’s Pizza and Grinders • Main Street Pub & Grill • Mancino’s • Subway • Chin Chin’s • Wagoner’s Grocery • Mattawan Village Hall • Antwerp Township Hall 	<ul style="list-style-type: none"> • St. Julian Winery • Warner Vineyards • Brewster’s • Chan’s Palace • Copper Grille • O’Farrell McGuire’s Irish Pub • Sportsman’s Bar • Kevin’s Tavern on the River • Café 237 • Bistro 120 • Grapevine Grill • Gallagher’s Eatery & Pub • LaCantina Restaurant • Sugar Bear • Family Fare Grocery • Strand Theater • Paw Paw Village Hall • Paw Paw Township Hall • Van Buren County Court House and County Offices

Goals

Goals are broad statements of what the community hopes to accomplish. They are community aspirations and broad direction that are supported by objectives and actions that advance the goals. Five goals have been established for the Pathways Plan. Each is described below with its accompanying objectives and action statements.

1. Implement an ecology park as a living, learning laboratory

The ecology park concept from the 2006 Community Recreation Plan will provide an opportunity for Nature Conservancy land to be a public asset and well as an environmental treasure held in trust. This area will be a key destination along the pathway system as well as a learning laboratory in its own right.

In order to achieve this goal, the following objectives need to be met:

1A. Establish the conditions under which the public will have access to a Nature Conservancy site and its functions as an ecology park.

An ecology park has been a goal of the Antwerp Township community since the Community Recreation Plan was adopted in 2006. The Nature Conservancy owns land that could be used for this purpose if agreement about access, development, and similar issues can be reached.

Action:

- Enter into a Memorandum of Understanding between the Township and the Nature Conservancy. The Memorandum of Understanding will need to address such issues as:
 - Areas accessible to the public
 - Signs
 - Pathways through the Nature Conservancy land
 - Parking
 - Maintenance responsibilities
 - Hours of operation
 - Liability
 - Coordination of educational activities

1B. Design and implement a program for informational/interpretive signs.

The signs for the ecology park should be consistent throughout the site. Signs should include wayfinding and warnings in addition to interpretive signs related to natural features.

Actions:

- Design a consistent look for signs
- Identify locations where signs are needed
- Determine the content of interpretive signs
- Finance and procure the signs
- Solicit volunteers to install the signs

1C. Celebrate the ecology park changes

Mark the “grand opening” of the ecology park with a ribbon cutting festival. Invite school children and families, local elected and appointed officials, and user groups specifically.

Actions:

- Establish a group of volunteers to host the “grand opening”
- Secure sponsorship to pay for marketing and refreshments
- Market the event through the schools, elected officials, and user group networks
- Market to the general public through the Internet, newspaper, radio, and posters in local hangouts

1D. Continue to promote the ecology park as a community asset

Ongoing marketing of the ecology park will be needed to continue success.

Actions:

- Meet with local science teachers to explain the benefits of visits to the ecology park.
- Meet with high school ecology clubs to promote the ecology park.
- Maintain information about the park on the township web site.

2. Connect villages in the township by pathways

Creating “alternative” means of transportation between the villages provides transportation options, particularly for those who are too young to drive, no longer drive, and who are seeking more affordable or environmentally sustainable ways of getting around. Providing bicycle and pedestrian connections between the villages will allow for choice.

In order to achieve this goal, the following objectives need to be met:

2A. Determine village priorities for sidewalk extensions and plan for appropriate pathway connections.

In order to support a functional pathway system, there needs to be connectivity to the system. The sidewalk network, where it exists, is one of the most effective ways of connecting people to the pathway system, and should be maintained to encourage walking and biking. The Township should work with the Villages to promote maintenance of sidewalk connections to the pathway system, and should also require sidewalks at appropriate locations within the township.

Actions:

- Establish a program for residents and business owners to report cracked, broken, or missing sidewalk sections
- Explore means of public and private financing for sidewalk repairs
- Where necessary, create special assessment districts to complete sidewalk networks and extend sidewalks in targeted areas

2B. Ensure future connectivity by requiring new development to provide sidewalks or pathway connections.

Sometimes it is difficult to require and enforce installation of sidewalks in new development, especially when it seems the community is requiring a “sidewalk to nowhere.” However, these sections become important components of the overall network as connections are made and “gaps” filled. Sidewalks or

pathways should be required for all new residential subdivisions, commercial, institutional, or industrial development.

Actions:

- Review zoning and land development requirements for sidewalk or pathway requirements
- Allow exceptions to sidewalk requirements only in highly unusual circumstances
- Consider requirements for bicycle parking in addition to vehicle parking for new commercial and institutional development projects

2C. Fund and build the proposed pathway system connecting the villages.

A need for a separated pedestrian and bicycle network has been identified. Connecting the villages was a priority of the public during the planning process. Criteria for the design of the pathway are included in the Plan chapter.

Actions:

- Prepare applications and seek grants for the development of the pathway system (if seeking grants through the Michigan Department of Nature Resources and Environment, an updated 5-year parks and recreation plan will be needed)
- Conduct preliminary design engineering to determine the exact location, design, materials, and cost of trail construction
- Obtain right-of-way where needed to implement the trail
- Conduct final design (construction documents)
- Contract for construction, including amenities
- Determine the management and maintenance structure for the pathway system

One option discussed by the focus groups was inviting local and regional pavement companies to use segments of the pathway trail for testing of new products. This option could provide real test conditions for the companies, highlight local and regional businesses, and reduce materials costs for construction.

2D. Fund and build connections that address the “gaps” between the existing sidewalk network and the pathway system.

Maintenance of the existing sidewalk network and requiring developers to install sidewalks or pathways may still leave critical “gaps” in the system that limit its usefulness as a transportation network. There may be an appropriate public role in filling these gaps.

Actions:

- Determine the location of key “gaps” between destinations and the pathway system
- Identify ownership and existing easements or rights-of-way
- Obtain needed easements or right-of-way
- Determine a funding source and timeline
- Construct appropriate connections

3. Provide for safe pathways to key destinations

Like connections between the villages, connections to key destinations in the township provide transportation choice. Key destinations discussed during the planning process are identified in the Plan chapter.

In order to achieve this goal, the following objectives need to be met:

3A. Determine and prioritize the destinations within the township that should be connected by a pathway system.

Not all of the “key” destinations will be included in the earliest phases of the pathway system. Prioritizing the destinations will allow for phasing of construction.

Actions:

- List all “key” destinations along the preferred route.
- Establish priorities.
- Use the priorities to develop the construction phasing plan.

3B. Design/engineer a pathway system to connect the destinations that is separate from the roadway network.

In order for pedestrians and bicyclists to feel safe, they need to be separated from the vehicular traffic. Safety was a major concern in the focus group meetings.

Actions:

- Conduct preliminary engineering design of pathways paying particular attention to pedestrian safety at intersections. Use traffic calming measures where appropriate.
- Obtain necessary right-of-way.
- Identify and secure funding, including local matches for grant programs.
- Conduct final design/engineering.
- Construct the pathway including pedestrian amenities and safety features.
- Determine the management and maintenance structure for the pathway system.

To ensure safety, standards in the Manual on Uniform Traffic Control Devices (MUTCD) should be followed.

3C. Working with appropriate agencies, determine corridors for side paths or bike lanes within road rights-of-way.

Connections to the pathway system are critical to its success. In some places bike lanes within the existing right-of-way can provide these important connections.

Actions:

- Identify a location to institute a “road diet” pilot project to narrow lane widths and accommodate bicycle lanes within the existing pavement on lower volume local roads.
- Expand the “road diet” program to other lower volume local roads, where possible.
- Adopt complete streets policies and include bike lanes or paths in the design considerations for paving and widening projects.

Not all roads are going to be eligible for “road diets” due to minimum travel lane standards for vehicles. Whenever road projects to repave or widen a road are under consideration, bike lanes or side paths should be considered in the design process.

3D. Develop an amenity program to make pedestrians and bicyclists feel safe and comfortable.

Amenities like lighting, signs, benches, drinking fountains, and restrooms contribute to the safety and comfort of pathway users. Certain amenities may be needed in the initial design and construction (such as lighting) while others may be considered in later projects (restrooms).

Actions:

- Prioritize amenities and determine design and placement for each type of amenity.
- Include amenities in the preliminary and final design plans.
- Install amenities prior to pathway opening/dedication.
- Determine if the amenities will be maintained by the same entity responsible for the pathway or another entity.

3E. Coordinate a police presence and response plan for the pathway system.

While studies show that pathways can reduce crime in some areas, there is still a need for coordination with local law enforcement and emergency response to attend to pathway users who may fall ill or be injured. There is also a need for a certain level of police visibility to provide a sense of security for pathway users.

Actions:

- Secure buy-in for police patrol and response prior to trail construction.
- Include law enforcement and emergency response providers in the design of the pathway.
- Maintain good communication between law enforcement, the Township, the management entity and abutting property owners.

4. Meet the needs of a variety of pathway users

A variety of user groups were identified for the pathways, including: walkers, joggers, runners, bicyclists, rollerbladers, children, elderly people, and people using wheelchairs. These groups may have different needs related to their use and enjoyment of the pathway.

In order to achieve this goal, the following objectives need to be met:

4A. Comply with ADA requirements and strive for universal accessibility

ADA requirements must be implemented for all federally funded projects and should be met for projects that are not federally funded. Universal accessibility goes beyond the requirements and ensures that places are accessible to families with strollers, small children learning to walk, people walking with canes or having difficulty walking, and the visually or hearing impaired.

Actions:

- Design for at least minimum compliance with ADA requirements, if not achieving universal accessibility for the pathways.
- Require new sidewalks and pathways to meet ADA standards for universal accessibility.
- Retrofit existing sidewalks and pathways to comply with ADA requirements and, if possible, achieve universal accessibility.

4B. Separate fast and slow pathway “traffic.”

Some pathway users will be faster (cyclists and rollerbladers) than others (walkers, runners, and joggers). Establishing “rules of the path” for yielding to other users is one way to manage “traffic” on the path. In certain locations, it may be preferable to separate the two types of users by using on-street bikes lanes and a sidewalk for other users, or divided pathway configurations.

Actions:

- Where indicated on the pathways map, obtain right-of-way sufficient for separation of users.
- Use clear signage to indicate the yield rules or separation of user types.
- Launch an education campaign about sharing the road with bicyclists and provide bicycle safety courses.

5. Ensure ongoing maintenance of the pathway system

Funding sources (including local organizations) are more likely to be available for development of a pathway system if there is a well established maintenance program and responsible entity in place to maintain the integrity of their investment. Additionally, property values and safety are enhanced by well maintained systems.

In order to achieve this goal, the following objectives need to be met:

5A. Determine who is responsible for maintenance of the pathway infrastructure, amenities, and routine activities (like snow removal, mowing and trash removal).

Routine maintenance such as trash removal, mowing and snow removal is different than “capital” maintenance such as repairing cracks in the pathway, maintaining the lighting and repairing or replacing other pedestrian amenities. The routine maintenance requires regular attention and is labor intensive but relatively inexpensive. “Capital” maintenance can be less labor intensive since it is usually contracted to specialized companies, but can be expensive. These different needs may require different management approaches.

Actions:

- Determine the most appropriate management approaches for both routine and “capital” maintenance.
- Enter into contracts or memoranda of understanding between the Township and the management entity.

5B. Identify and maintain a revenue source for maintenance.

Funding for the long term operations and maintenance of the pathway system should be identified at the outset of the project.

Actions:

- Determine the required operating revenue needed to support maintenance.
- Identify the most locally acceptable means of securing that revenue on a regular basis.
- Communicate with the public about the costs of maintaining the facilities as a township asset.
- Maintain ongoing efforts to identify and secure funding sources

5C. Encourage volunteers and recreational organizations to take part in maintaining and promoting the pathway system.

Volunteer and organization assistance with maintenance and promotion can ease the demand for public resources while providing the valuable community-wide asset of a pathway.

Actions:

- Meet with local recreational organizations to gauge their level of interest and commitment to maintenance and/or promotional activities.
- Develop a maintenance plan and schedule.
- Assign organizations to maintenance tasks as appropriate.
- Promote the need for volunteers on the township web page.
- Develop a Facebook fan page or similar Internet resources for the pathway system.
- Have scheduled maintenance “events.”
- Promote maintenance events to recreational groups and local employers.

Plan

Pathways Plan

Location Concepts

Two concepts were presented to the public at a workshop in January 2010 after discussion and revision by the Pathways Plan Committee. The concepts are described below:

Concept #1 includes a main on-road route that connects the three villages and has opportunities for spurs to key destinations (such as schools) that are off of the main route. The route runs north from Mattawan along Main Street/County Road 652 to Red Arrow Highway. It continues west to Paw Paw along Red Arrow, turning south on M-40 in downtown Paw Paw. Following M-40, the route continues south into Lawton. In downtown Lawton, the route follows 3rd Street east to 29th Street, where it heads north to join 66th Avenue. At 26th Street the route heads north to follow the railroad corridor back into downtown Mattawan. Alternate routes for this concept include:

- Following the rail corridor from downtown Lawton into Mattawan.
- Following I-94 west, instead of Red Arrow Highway and connecting to Paw Paw at 56th Avenue.
- Bypassing Paw Paw by extending the route south 32nd Street for a shorter loop system.
- An off-road (utility corridor) loop off of 32nd Street midway between I-94 and M-40 that would connect to the main route at 66th Avenue.
- Following an abandoned rail line south from Paw Paw to the west side of Lawton.

Wherever the main route does not directly connect to a school or community destination, spur routes are proposed. The length of the main route is 17.6 miles. Concept #1 is shown as **Figure 2**.

Concept #2 is a more compact main loop system that achieves connectivity between the villages. Beginning in downtown Mattawan, the route extends west along 58th/56th Avenue into downtown Paw Paw. From there it continues south along M-40 into downtown Lawton. County Road 358 is the route heading back east, until it meets County Road 652 to head north back into Mattawan. Alternate routes for this concept include:

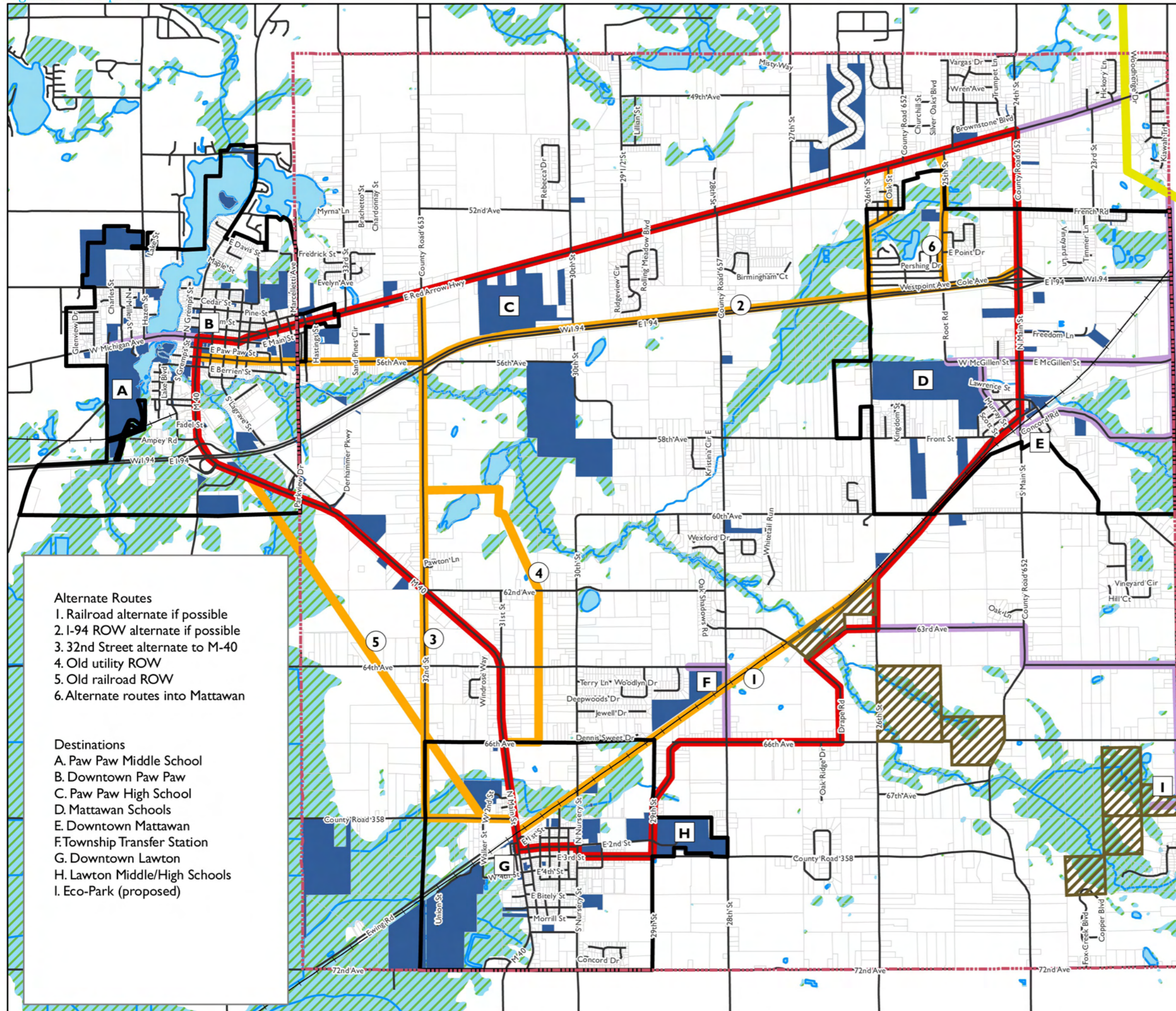
- A 32nd Street alternative to M-40 south from 58th Avenue to County Road 358, providing a shorter loop.
- A utility corridor off-road loop off 32nd Street.
- An alternate east route into Mattawan that avoids use of county roads.
- Woodland clearing route extended from 58th Avenue to County Road 653.

Spur routes are proposed wherever the main route does not directly connect to key destinations. Total length for the main loop is 16.6 miles. Concept #2 is shown as **Figure 3**.

Preferred Concept

A combination of Concept #1 and Concept #2 was generally the preferred alternative by participants in the public workshop. An addition to this main route concept would be a second phase of the project adding a loop that includes the north half of alternate route 1 and alternate route 2 from concept 2. Distance for the main route, including the loop is 16.3 miles. A map of the preferred concept is provided as **Figure 4**.

Figure 2: Concept #1



Alternate Routes

1. Railroad alternate if possible
2. I-94 ROW alternate if possible
3. 32nd Street alternate to M-40
4. Old utility ROW
5. Old railroad ROW
6. Alternate routes into Mattawan

Destinations

- A. Paw Paw Middle School
- B. Downtown Paw Paw
- C. Paw Paw High School
- D. Mattawan Schools
- E. Downtown Mattawan
- F. Township Transfer Station
- G. Downtown Lawton
- H. Lawton Middle/High Schools
- I. Eco-Park (proposed)

Antwerp Township
Van Buren County, Michigan

Pathways Plan

Pathways Concept #1

-  Township Boundary
-  Property in Conservation
-  Public/Quasi-Public Property
-  Waterways
-  Wetlands
-  Alternate Routes
-  Possible Regional Trail
-  Main On-Road Route
-  Spurs to Other Routes/Sites

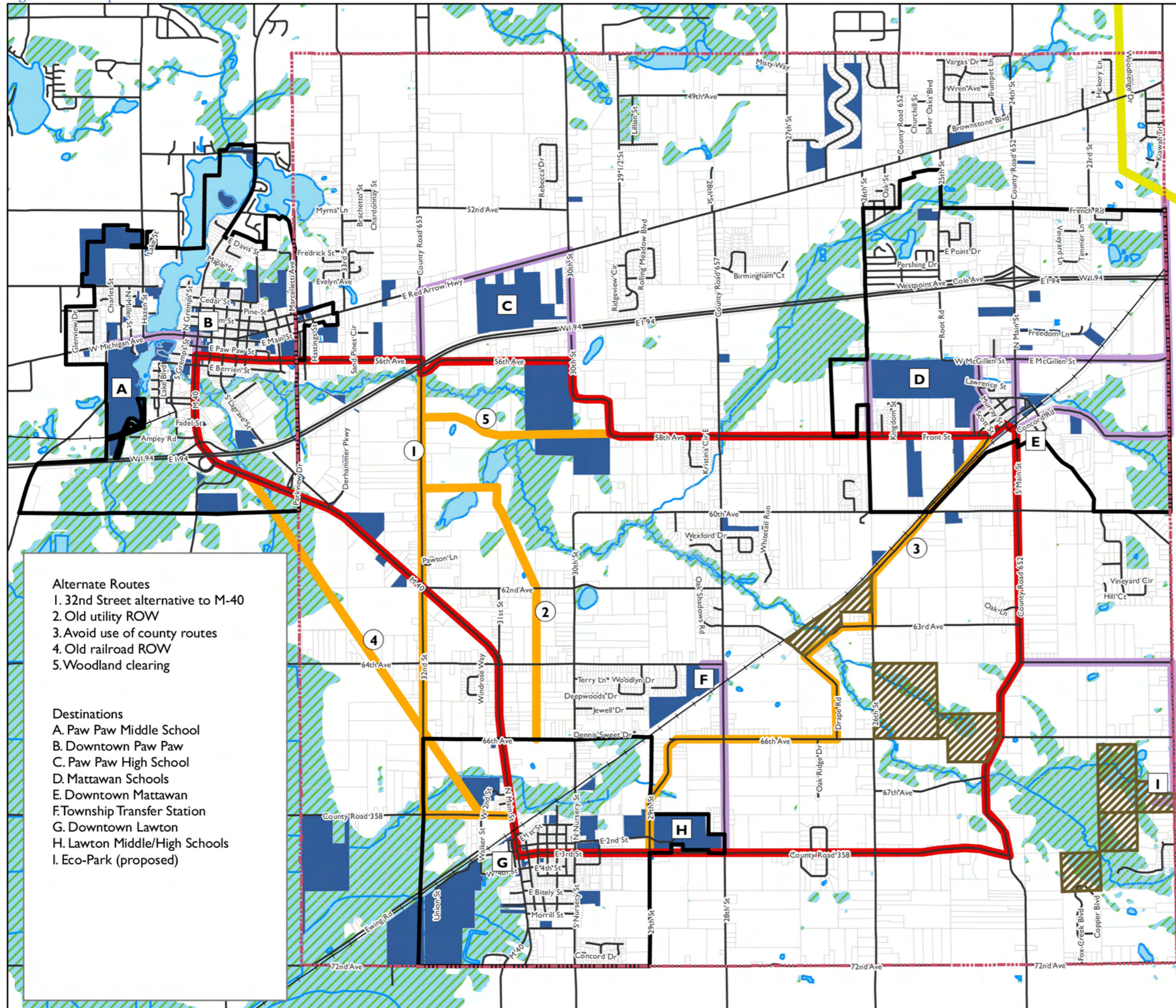
Figure 2



Source: State of Michigan,
Southwest Michigan Planning
Commission



Figure 3: Concept #2



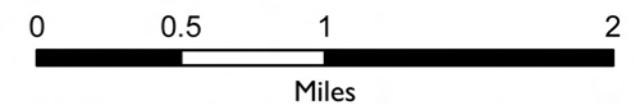
Antwerp Township
 Van Buren County, Michigan
Pathways Plan
Pathways
Concept #2

- Township Boundary
- Property in Conservation
- Public/Quasi-Public Property
- Waterways
- Wetlands
- Main On-Road Route
- Alternate Routes
- Possible Regional Trail
- Spurs to Other Routes/Sites

- Alternate Routes**
1. 32nd Street alternative to M-40
 2. Old utility ROW
 3. Avoid use of county routes
 4. Old railroad ROW
 5. Woodland clearing

- Destinations**
- A. Paw Paw Middle School
 - B. Downtown Paw Paw
 - C. Paw Paw High School
 - D. Mattawan Schools
 - E. Downtown Mattawan
 - F. Township Transfer Station
 - G. Downtown Lawton
 - H. Lawton Middle/High Schools
 - I. Eco-Park (proposed)

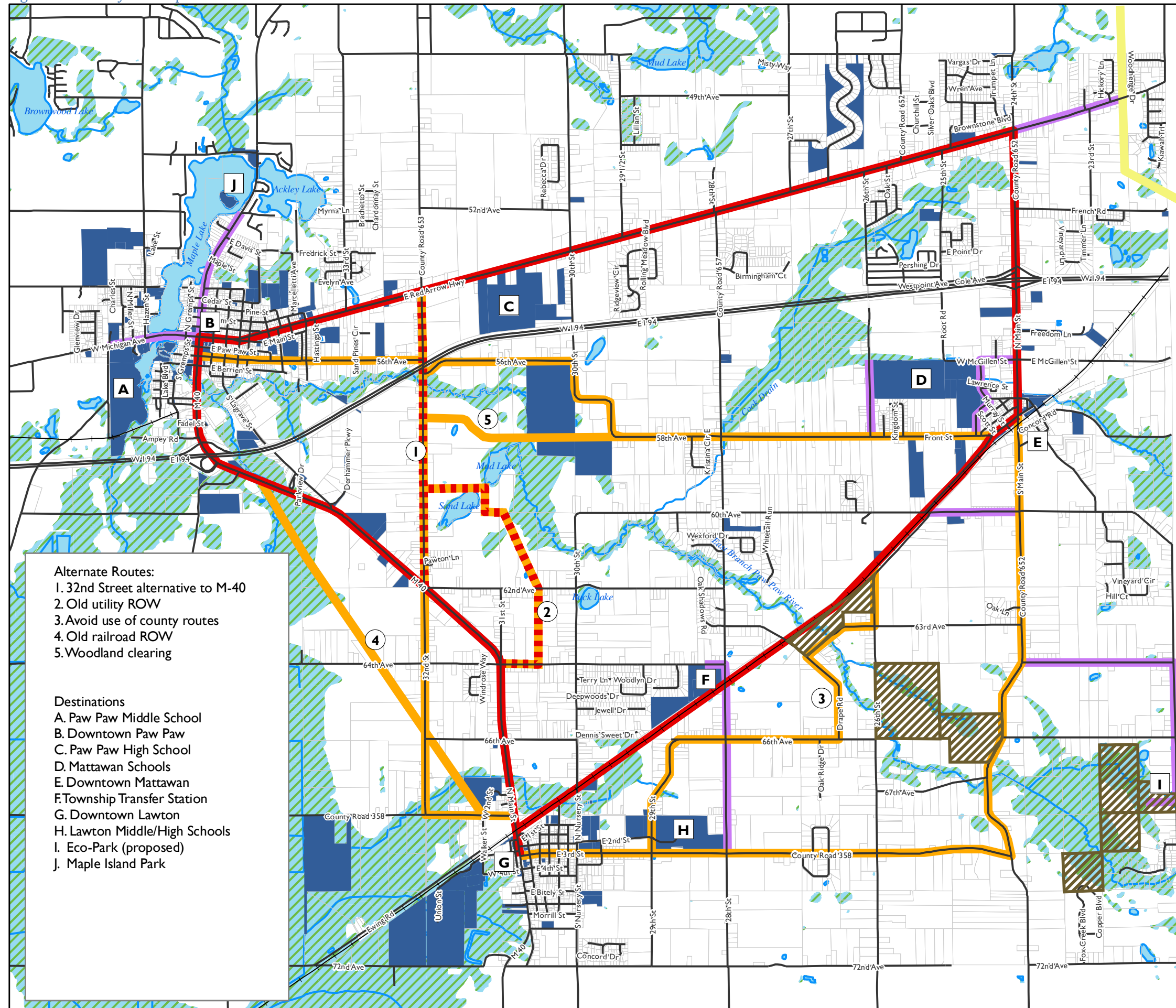
Figure 3



Source: State of Michigan,
 Southwest Michigan Planning
 Commission



Figure 4: Pathways Concept



Alternate Routes:
 1. 32nd Street alternative to M-40
 2. Old utility ROW
 3. Avoid use of county routes
 4. Old railroad ROW
 5. Woodland clearing

Destinations
 A. Paw Paw Middle School
 B. Downtown Paw Paw
 C. Paw Paw High School
 D. Mattawan Schools
 E. Downtown Mattawan
 F. Township Transfer Station
 G. Downtown Lawton
 H. Lawton Middle/High Schools
 I. Eco-Park (proposed)
 J. Maple Island Park

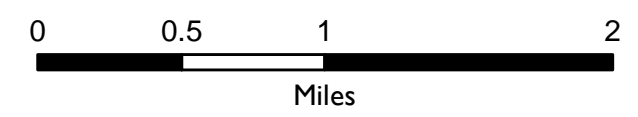
Antwerp Township
 Van Buren County, Michigan

Pathways Plan

Pathways Concept

- Property in Conservation
- Public/Quasi-Public Property
- Waterways
- Wetlands
- Proposed Main Route
- Future Loop
- Alternate Proposed Routes
- Possible Regional Trail
- Spurs to Other Routes/Sites

Figure 4



Source: State of Michigan,
 Southwest Michigan Planning
 Commission



Later phases of the pathway system development should include alternate routes 3, 4, and 5 with some modifications. Modification to alternate route 5 would need to include rerouting to avoid impassible situations.

Spurs for the preferred concept should be developed in order of preference for reaching the key destinations. At the workshop the preferences expressed¹ were:

1. Mattawan Schools
2. Paw Paw High School
3. Regional trail
4. Paw Paw Middle School
5. Ecology park, and
6. Township Recycling Transfer station

Functional Design

Between the main route, alternate routes, and spurs the concepts show a number of different opportunities for trails including road right-of-way, utility corridors, abandoned rail corridors, and active rail corridors. Depending on the road right-of-way available, routes shown along the street could range from wide pathways separated from the traffic lanes by a grassy strip; sidewalks for pedestrians; marked bike lanes; or traffic lanes with sharrow (arrows reminding drivers to share the road with bikes – see graphic) painted on the roadway for bikes. Available right-of-way, engineering constraints and cost will determine the type of pathway needed along each section of the pathways system.

Cross sections may also vary depending on whether the route is connecting to a suburban/urban segment at one of the village lines or is in a rural stretch of the pathway. In suburban/urban areas the cross section may separate bike users from pedestrian uses due to volume and speed of the bicyclists, while in a rural area the volume is lower and the potential for bike-pedestrian conflict is lower.

Pathway width can vary somewhat with function. Generally the width of a shared use path should be at least 10 feet. When the volume is anticipated to be heavy, the path width should be from 12 to 14 feet to allow for safe passing and multiple user types. An area of two feet beyond the pavement width should be graded on either side of the paved area.



Suburban/urban separated bike/walk trail



Bike lane on road with pedestrian sidewalk

¹ While the spur destinations are listed in order of preference, there was little variation in how many votes each destination received; therefore, this order should not, by itself, determine pathway priorities.

Pavement material also depends on the programmed users and the anticipated volume of use. Areas intended for low-volume pedestrian-only use may be surfaced with natural materials or gravel, while high-volume multi-user surfaces should generally be paved with asphalt. Asphalt and concrete are popular surface materials because of their longevity and ability to be used for strollers, bikes, and rollerblading. Runners typically prefer asphalt over concrete as it has more “give.” Crushed aggregate surfaces are less usable for bicyclists and unusable by rollerbladers. If natural surfaces are being considered, a synthetic bonding material may be desirable to ensure a firm and slip-resistant surface for canes, strollers, and wheelchairs.

Vertical clearance is also an important consideration. Generally eight feet of vertical clearance should be provided for shared use paths to ensure safety for bicyclists. Heights needed for emergency vehicle access should also be considered.

Other considerations include:

- Need for railings
- Changes in elevation
- Openings in the tread (for drainage or other purposes)
- Grade and cross-slope
- Protruding objects



Shared use path



Sharrow

Design Amenities

The design amenities section is intended to illustrate alternatives for the Township to consider in developing a pathways system. Examples from other communities are used to illustrate a range of alternatives available, not to recommend exact replication of any design concept.

Crosswalk signs and signals

Crosswalks should be marked to provide awareness to trail users that they need to stop and make drivers aware that there is potential for pedestrians and bikers to be entering the intersection.

Signs – Signs can be used on the trail to alert pedestrians and bicyclists that they need to stop, because vehicles will not be stopping. These signs also alert trail users of which road they are crossing. Pathway signs should be accompanied by a sign on the road that alerts drivers that they are crossing a place that may have pedestrians, for an added level of safety.

Crosswalk signals – Crosswalk signals come in a variety of types. The most basic cycle together with the traffic signal and include only symbols of a hand and a walking person. Others are activated by the pedestrian and allow crossing with the next cycle of the light, and the most advanced are demand-responsive and switch to a pedestrian crossing when activated. Some of the signals include countdown timers so pedestrians know how long they have before the signal will change and others include a sign that explains what each symbol (hand, flashing hand, person) means.

During the public workshop, Antwerp Township residents expressed a preference for signs similar to the picture at the top, with instructions for pathway users and identification of the cross street.



Sign identifies cross street and rules



Crosswalk signal

Crosswalk Striping

Conventional striping – Either traditional perpendicular stripes or the continental striping pattern (shown) will delineate the crosswalk for drivers and can be appropriate in low traffic or low traffic speed areas.

Customized pattern – a customized paint pattern allows greater visibility for drivers and can contribute to the design theme or identity of a trail or district. This pattern can be appropriate for collector or arterial streets with higher volumes and speeds, and in special districts such as arts districts, university districts, and downtowns.

Change in materials – A change in materials is a strong signal to drivers to pay attention to what is happening in the intersection. Alternative materials include brick (shown), integrally colored concrete, and cobblestone.

Details of crosswalk striping were not considered by the participants in the public workshop. This detail can be determined at design and may be changed over time as the needs and desires of the Antwerp Township community change.



Conventional striping



Customized striping



Change in materials

Street Furniture

Places to stop and rest are important to creating a user-friendly trail environment. Benches and trash receptacles are important components of the street furniture for a trail system. To create a quality trail experience, the street furniture elements should be of the same or similar design throughout the trail or system and the various elements should be from the same set (trash receptacle, benches).

Standard – Benches and trash receptacles should be able to be secured to the ground and have finishes that are resistant to rust, weathering, graffiti, and scratching. Many of the finishes available today have taken these issues into consideration and are able to provide durable coating for the benches and trash receptacles.

Natural materials – some amenities are now available using natural and/or sustainable materials. These amenities are appropriate for places with a high level of vigilance (to protect against vandalism) and that are desired to blend with the natural context of the trail system (particularly for rural segments or environmentally sensitive areas).

Design – Some street furniture is now available in designs that can be part of the overall character of the trail theme, even if that theme is not very conventional. Issues with durability and security of the materials should be considered.

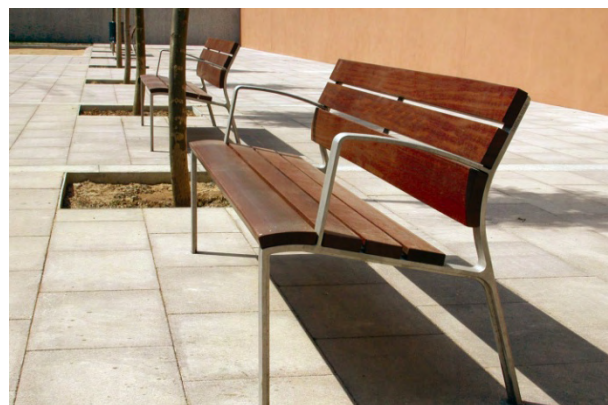
During the public workshop, Antwerp Township residents expressed a preference for metal benches or flat benches with no backs. Benches should be weather and vandalism resistant and securely mounted.



Standard



Natural materials



Design

Mile Markers

Mile markers are critical features if the trail is going to be used as part of a regional system or for athletes who like to train outdoors. While an increasing number of athletes are using personal geographic positioning systems (GPS), many still rely on mile markers for knowing the distance of their runs.

Simple distance – Mile markers can be relatively simple and merely mark the distance from the start of the trail. Mile markers can also be painted on the trail surface itself.

Road style signage – A somewhat more sophisticated system identifies the trail and the distance. These systems maintain the appearance of highway signs, while being scaled for trail use.

Permanent markers – Permanent, high quality markers that are not easily moved are ideal in most situations. These too can be relatively simple concrete markers with only the distance.

Design elements – The most elaborate markers are permanent and include the trail logo and mile information, and may include other information such as a sponsor. The marker shown includes the overall greenway logo and the mile/kilometer distance. Others styles include boulders engraved with the trail logo and the distance. The mile markers can be designed to fit with the overall design theme of the trail.

Simple, familiar signage that worked with deep snow was a priority for mile markers expressed by participants in the Antwerp Township public workshop. The "road style" marker was the preferred type .



Simple distance



Road style



Permanent markers



Design elements

Trailheads

There are several types of trailheads, depending on the function of the trailhead. Each function brings its own design considerations.

Parking – Some trailheads provide a few parking spaces (on or off street) for people who live a distance from the trail and those with special needs to access the trail. Most of this type of trail head does not have lighting or any special amenities. It also generally lacks regulation such as hours.

Destination or District Trailhead – the design of this type of trailhead will depend on the area it is serving. There may or may not be amenities like restrooms and drinking fountains, but there is typically a larger off-street parking area and direct connections for pedestrians to the destination. This may also serve as a gathering place and have amenities such as benches.

Community or Regional Trailhead – this type of trailhead offers a greater number of parking spaces and may also include amenities such as restrooms, drinking fountains, and parking lot lighting. This type of facility is often closed at the end of the trail hours each day.

Rest areas in addition to trailheads may be needed if the spacing of the trailheads is more than a few miles. Generally, rest areas should be provided on the uphill side if only provided on one side of a trail. For heavily travelled trails, the rest areas need to be more frequent and should be on both sides of the trail to minimize conflict.

Participants in the Antwerp Township public workshop felt that parking and restrooms should be available at trailheads, and drinking fountains and trash receptacles need to be available as well. They also expressed that maps of the pathway system should be available at trailheads.



Destination Trailhead

Maintenance

Maintenance is an ongoing function and expense of having a pathway system. There are routine maintenance activities that need to be handled by staff or scheduled volunteers to ensure that they are completed in a timely manner. More periodic maintenance activities may need to be done by contractors (depending on the scope of the maintenance or repair). Annual (or more frequent) community clean-up events are one way to approach major routine items and periodic maintenance that can be done by volunteers. The type of maintenance program adopted, who is responsible for maintenance activities, and the cost of maintenance will depend in large part on the type of organization that oversees the pathway system.

A Township department as the organizational entity would likely be staff dependent for routine maintenance and some periodic maintenance, using contractors for major periodic maintenance. Volunteer programs may be coordinated for major routine maintenance.

Non-profit management of the pathways would likely involve a focus on volunteers, with perhaps a limited staff role and the most significant projects done by contractors. Regularly scheduled volunteers and frequent community events are typically for this type of structure to accomplish maintenance work.

Contracting with another entity already involved in the maintenance of pathways in the area (such as Van Buren County) is another approach that could be used to ensure both regular and periodic maintenance.

Routine

Routine maintenance includes daily/weekly activities related to general upkeep of the pathway system, including:

- Trash collection and removal
- Re-stocking and cleaning restrooms at trailheads
- Branch/large limb removal
- Tree/shrub trimming
- Mowing (possibly)
- Snow removal (unless pathways are groomed for cross-country skiing)
- Light bulb replacement
- Spot pavement repair
- Graffiti removal

Periodic

Periodic maintenance is a less-frequent occurrence, but includes more capital-intensive types of maintenance and repair activities including:

- Painting/replacing faded/broken trash cans , benches, and light standards
- Painting trail markings
- Replacing faded, vandalized, or broken signage
- Repairing pavement sections
- Trailhead renovations

Ecology Park

An ecology park was a priority established in the 2006 Antwerp Township Park and Recreation Plan. Specific details were not provided as to the goals or expectations for the ecology park, other than a desire to preserve open space and provide for environmental education areas. At the time that plan was adopted, it was anticipated that the ecology park would be through conceptual design in 2006-2007 and final design in 2008-2009 with phase I construction commencing in 2009-2010 and phase II in 2010-2011. Changes to the economy and organizational structure have delayed the planning and implementation of both the pathway and ecology park projects.

In their survey responses from the public workshop, Antwerp Township residents indicated a desire for the ecology park to have primary functions of being a place to enjoy nature and a place for students to use as a learning laboratory. Desired features include interpretative signs and boardwalks into wetland areas. They also expressed a desire for the area to be “off-limits” to bicycles and to have a trailhead and parking area.

The location currently being considered for the ecology park is the property held in conservation in the southeast corner of the township.

Agreements have not yet been reached regarding public access to the land, hours of availability, construction of walkways/boardwalks through the wetland areas, signs, and parking. Terms of these agreements will determine the conceptual and final design of the ecology park concept. The conceptual design for the site should balance the desire to protect natural systems and habitat in that location with public access and educational opportunities.



Approximate location of proposed ecology park

Dirt roads into the area currently exist off Van Kal Avenue and several places have been previously disturbed that could be used for parking and other trailhead amenities.

Other opportunities for ecological parks in the township, in conjunction with the villages or The Nature Conservancy, should also be considered to provide a theme or connectivity between various segments of the pathway system.

Implementation

Funding

Potential funding sources for non-motorized planning, design and construction change and evolve on a regular basis. Understanding available funding programs requires continuous monitoring. The funding sources described below serve as a reference and resource, to assist the Township when identifying potential funding options.

General Fund

In an effort to accelerate the development of pathways, provide adequate local matches for grant applications, and to cover basic maintenance costs, the township would need to annually set aside monies in the general fund to be used for pathways.

Developer Escrow Fund

Developers could be allowed to deposit funds to an escrow account instead of constructing pathways across the frontage of or through new developments. This fund will then be used for the future construction of new pathways.

Planned Road Improvements

Coordinating the timing of the design and construction of pathways with planned road improvements reduces costs and may be provided by the Michigan Department of Transportation (MDOT) and/or the Van Buren County Road Commission. The Township should maintain consistent communication with MDOT and the road commission to ensure that the planned pathways are accommodated into any road improvements.

Safe Routes to School Program (SRTS)

The SRTS Program provides federal-aid highway funds through MDOT to enable and encourage children to walk and bicycle to school, to make bicycling and walking to school a safer and more appealing transportation alternative, and to facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. (<http://www.saferoutesmichigan.org/>) Schools must be the lead for this funding source, not the township government. The Mattawan Consolidated School District is currently in the process of implementing a Safe Routes to School program.

Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU)

SAFETEA-LU provides funding for numerous types of projects that support the enhancement of transportation facilities and promote safe and efficient multi-modal transportation methods. This is a reimbursement program that originally comes from the federal level and is administered by MDOT. Under this program, the Township is eligible to apply for funding to implement non-motorized pathway priorities. (<http://www.fhwa.dot.gov/safetealu/>)

Special Assessment District

A Special Assessment District is a special district formed by a local government agency and includes property that will receive direct benefit from the construction of new public improvements, such as the installation of pathways.

Donations

Businesses, corporations, private clubs, community organizations, and individuals will often contribute to recreation and pathways to benefit the communities in which they are located. Private sector contributions may be in the form of monetary contributions, the donation of land, the provision of volunteer services, or the contribution of equipment or facilities.

Grant Funding

Several state grants may be used to partially fund parts of the pathways system or the Ecology Park. As public funds become less available, matching funds and partnerships may be required to pursue various grants. Some grant programs may be suspended until the state or federal funding is available, so it is important to check each fiscal year to see if a particular program has been funded.

Michigan Natural Resources Trust Fund

The Michigan Natural Resources Trust Fund (MNRTF) has been in place since 1976. It provides financial assistance to local governments and the Department of Natural Resources and Environment (DNRE) to purchase land or rights in land for public recreation or protection of land because of its environmental importance or its scenic beauty. It also assists in the appropriate development of land for public outdoor recreation.

Applications are accepted annually as follows:

- April 1 - Land acquisition and recreation development project application deadline. Development project applications must be submitted by April 1.
- August 3 - Secondary application deadline for land acquisition projects only.

There are eight (nine for development applications only) evaluation criteria:

1. Need for project
2. Applicant history
3. Site quality and Project quality
4. Natural Resource Protection and Use/Recreation Opportunities
5. Financial Need of the Applicant
6. Urban Area Recreation Opportunities
7. Local Match
8. Entrance Fees
9. Universal Design (development applications only)

The state and counties, cities, townships, villages, school districts, the Huron-Clinton Metropolitan Authority, or any authority composed of counties, cities, townships, villages or school districts, or any combination thereof, which authority is legally constituted to provide public recreation. Local units of government must have a DNRE-approved 5-year recreation plan on file with the Department prior to application.

Michigan Transportation Enhancement Program

The Transportation Enhancement (TE) program is a competitive grant program that funds projects such as non-motorized paths, streetscapes, and historic preservation of transportation facilities that enhance Michigan's intermodal transportation system and improve the quality of life for Michigan citizens.

Funding priority will be given to non-motorized facilities that:

- connect and develop documented regional or statewide trail 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 involve planning efforts or serve as connectors to regional trails
- are a priority on MDOT, county or regional trail plans
- address documented safety deficiencies
- are part of a broader non-TE funded non-motorized system

Clean Michigan Initiative's Local Recreation Grants

In 1998, Michigan voters approved a bond initiative to fund improvements to State and local parks. The Local Recreation Grants Program provides funding for the development and renovation of indoor or outdoor public recreation facilities and infrastructure. The goal of the program is to enhance or develop recreational opportunities by improving or replacing an existing public facility, by meeting the recreational needs of the local residents, or by attracting tourists. Grants are awarded for non-acquisition projects in amounts between \$15,000 to \$750,000, based on the need for the project, capability of the local community to operate and maintain the improvement, and quality of the site and project design. More information can be found at:

http://www.michigan.gov/dnr/0,1607,7-153-30301_31154_32314---,00.html

Michigan Natural Heritage Program Grants

The Michigan Natural Heritage Program is open to all individuals, groups, and government units. Primary funding for the program is provided through a portion of the sale of Wildlife Conservation license plates and through the US Fish and Wildlife Service. Applicants must provide a 25 percent match for the project. In-kind matches are valued using the methods authorized in Title 43, Part 12, Section 12.64 of the Code of Federal Regulations.

The goal of the Natural Heritage Program is to identify, protect, manage, and restore native plant and animal species, natural communities, other features, and to promote the knowledge, enjoyment, and stewardship of Michigan's native species and ecosystems for present and future generations.

Project scores are based on the following criteria:

- Project description
- Need
- Timeline
- Expected results
- Potential success
- Community or local support
- Budget appropriateness
- Outreach and communication plan
- Demonstrated ability to complete the project

Land and Water Conservation Fund

Applications for the Land and Water Conservation Fund are evaluated using four criteria:

- Project need
- Applicant history
- Site and project quality

- Alignment with the state recreation plan

In 2009, alignment with the state recreation plan was determined to be primarily trails, community outdoor recreation, green technology in outdoor recreation, universal access and coordination, and cooperation among recreation providers. A match of at least 50 percent is required from local government applicants.

The minimum grant request amount is \$30,000 and the maximum is \$75,000.

Recreational Trails Program Grants

The criteria for the Recreational Trails Program Grants are:

- Need and benefit
- Site/project quality
- Balance among project types
- Balance among trail uses
- Geographic distribution of projects
- Balance among programs/divisions

Some of the criteria are not within control of the local community.

Recreation Improvement Fund Grants

Recreation Improvement Fund dollars are available for operation, maintenance, and development of recreation trails, restoration of land damaged by off-road vehicles, and inland lake cleanup. Projects are evaluated based on the following criteria:

- Need and benefit
- Site/project quality
- Balance among project types
- Balance among trail uses
- Geographic distribution of projects
- Balance among programs/divisions

Some of the criteria are not within control of the local community.

For the Recreational Trails Program and the Recreation Improvement Fund grants, a Department of Natural Resources and Environment (DNRE) division/bureau must always be the applicant. Projects sponsored by local units of government can be considered for funding if they contribute to Department program goals and are located on DNRE land or linked to a trail on DNRE land. Local unit of government applications will not be considered unless the project is developed as a joint project with a DNRE division/bureau prior to the application deadline.

Pathways Phasing

Phase I of the project focuses development on the main on-road “backbone” of the system. This includes the pathway segments along County Road 652, Red Arrow Highway, M-40, and County Road 358, including those sections within the villages. In order to fully develop this backbone system, coordination with the villages, the Van Buren County Road Commission, and the Michigan Department of Transportation will be needed for use of the right-of-way and for developing design parameters. Development of the backbone is a short-term (up to 5 years) project. This phase may be broken into three smaller sub-phases, depending on funding and grant availability. The segments connecting each village would be the three sub-phases.

Phase II of the project includes development of a loop system to allow for varying distances along the pathway system. This loop will include segments along 32nd Street and the utility corridor east of M-40. Phase II would be a short-to-medium term project occurring in the next 5-10 years.

Future phases would include a route using 29th Street east of Mattawan to 66th Avenue, north along Drape Road to 63rd Avenue, then north along 26th Street and Glidden Avenue into Mattawan. Another future phase would be the potential for a direct connection between Paw Paw and the west side of Lawton using the abandoned railroad corridor. A third future phase would be development of a path through the woodland clearing south of 56th Avenue between 30th Street and County Road 653. The exact location of this segment would depend on survey and engineering work to determine a location that is suitable for a path. Future phases would develop as funding permits, likely within the medium-term (5-10 year) or long-term (10-20 year) range. Much of the development in these phases will be dependent on acquisition of right-of-way or easements where the pathways are proposed on private property or utility lands.

Spur routes proposed in the preferred concept map can be designed and constructed at the same time as adjacent phases, or in between phases as funding permits. The priority order established for the spurs (based on comment at the public workshop) is:

1. Mattawan Schools
2. Connection to regional trail (as the regional trail develops)
3. Paw Paw Middle School
4. Eco Park (as the ecology park is developed)
5. Transfer Station

These priorities may evolve depending on the construction timing and phasing of the backbone route.

Future Planning

Future planning work for the project includes development of preliminary engineering design work. This level of design work includes identification of right-of-way and easement locations, determination of appropriate cross sections, selection of signs and site amenities, and similar items. Final design work is then needed to prepare the construction drawings and project specifications.

Items that need to be addressed between this plan and the first users on the trail include:

- Land acquisition/easements
- Preliminary design
- Final design
- Permitting
- Funding
- Grant seeking
- Maintenance arrangements
- Construction bids, letting, contracting
- Conceptual design for ecology park
- Final design for ecology park
- Marketing

Appendix A: Public Involvement

Focus Groups

Focus group meetings were held May 6, 2008 at the Antwerp Township Hall. Participants listened to a presentation on the benefits of pathways before dividing into smaller focus groups. Two concurrent sessions were held, followed by a break and another pair of concurrent sessions. The focus group discussions are summarized below.

Walkers, Joggers, and Runners

- What routes do you currently use? Why?

Route	Reason
Maple Grove Cemetery	History, stones to sit on
Country block (Porter Township near 352 and 28 th)	Nowhere else to walk
KVCC Nature Trail	Lovely, forested, secluded
Oak Ridge/66th	Convenient, not too much traffic, kids can use
Paw Paw around lake	
Around field	Variety, flexibility, interesting routes, not repeating the same route to return

- What distance do you typically cover?
 - 45 minutes
 - 1 hour
 - 1 hour, 15 minutes
 - ~3 miles
 - Depends on interesting things to look at
 - Different levels – fast for fitness, slow with family
- Do you stop anywhere? Where?
 - Orchards
 - Fields
 - The way the light filters through the trees
 - Creek – fish
 - Horses
 - Hills
 - Natural features
 - Ice Cream

- What surface do you prefer to use?

Surface Type	Preference (number of responses)
• Concrete	
• Asphalt	
• Stone/gravel	
• Natural (bark, etc.)	

Depends on the trail – soft nice for natural areas, hard for connectivity, hard along roads

Demonstration projects in various segments – local concrete and asphalt contractors
Porous pavers

- What makes you feel safe?
 - light
- What makes you feel unsafe?
 - Traffic volume
 - Traffic speed
 - Young drivers
- What route(s) would you like to be able to take? What is stopping you now?

Desired Route	Barriers
To Library	Hilly, limited visibility, no marked crosswalks
Villages (downtowns) from rural areas without using shoulders	Shoulders too narrow or non-existent
For a purpose: <ul style="list-style-type: none"> • Post office • Grocery • Pharmacy 	

- Where would new pathways/routes help you?
 - Kids want to walk places
 - Mattawan business woman/jogger killed several years ago
 - Start with what we can do before going too far with ADA and universal accessibility, upgrade financing available later
 - I-94 bridge (being widened, is MDOT adding sidewalks? Check with MDOT, stress township support; kids are walking there; needs to be separated overpass)
 - Red Arrow

Bicyclists and Rollerbladers

- Are you typically headed to a destination? Where?
 - Proposed soccer facility on M-40 – potential Wal-Mart – may attract bikers
- What makes you feel safe? Unsafe?
 - SE area – topography may lead to unsafe conditions
 - M-40 not a good corridor for bikes
 - CR 658 – VBCRC looking at traffic control/safety (shoulder rumble strips) at curves – need to segregate bikes here
- What route(s) would you like to be likely to use? What is stopping you now?

Desired Route	Barriers
	Roads too narrow
	Ordinances can be a barrier

- Where would new pathways/routes help you?
 - Connect the 3 communities
 - Access to conservation area
 - East Branch Paw Paw River Corridor
 - Like a hilly route
 - CR 652 S. of Mattawan – bikers like this type of route – but paved shoulder may not work
 - New 652 bridge over I-94 – accommodate trails
 - Red Arrow – connect schools
 - Conservancy at Van Kal
 - Some stretches of river should not have a path
 - Access to villages a priority – connect subdivisions north of Red Arrow
- Would on-street routes be acceptable?

Yes	Would use roads with designated lanes/paved shoulders
No	
Maybe	Need to educate motorists / law enforcement about using bike lanes

- Other?
 - Direct routes for transportation/utility
 - Talk of paved shoulder on M-40 from Paw Paw to Kal Haven (plan?)
Problems with acquiring land for separated lanes
 - VBCRC – adding shoulders to Blue Star near South Haven
 - Three types of users (Conservation – passive, Biking to destinations/commuting, Pleasure biking)
 - Put bike racks on buses – Van Buren Transit may have fixed routes in future
 - Real Estate agents put trail info in relocation packages – good draw
 - New employees at MPI – how to get them to use bikes?
 - Agri-tourism – trails would enhance/vice versa
 - Snowmobiles – develop their own trails (Good for economics of the area, Look at snow trail maps)
 - Rollerblading requires hard surface
 - May need different surfaces for different users

Ongoing Maintenance

- Who should be responsible for the day-to-day maintenance? Capital maintenance like new amenities, hardscape repairs, etc?

Day-to-Day Maintenance	Capital Maintenance
Township	Villages
Villages	Township
Third party non-profit	Needs to be coordinated
Coordination	Park Authority (linear park authority)
Partnership	
Use community service (jail) groups	

- Could a volunteer corps be used for assisting with day-to-day maintenance?

Yes	X
No	
Maybe	X clean-up volunteer program; not wholly rely on volunteers; project focused

- How should maintenance be funded?
 - Fundraiser events
 - Fund specific projects
 - Millage

Connectivity

- What are the strengths/weaknesses of the proposed pathways shown?

Strengths	Weaknesses
Villages	Haven't considered pedestrian connections between subdivisions

- Are there additional locations that the pathways need to serve?

Yes	<p>High Schools – from villages – cross-country teams</p> <p>Nature preserves as destinations</p> <p>Work places</p> <p>Municipal buildings / public buildings / libraries (Antwerp library busiest in county)</p> <p>Wineries / Wine Festival (tourist draw)</p> <p>Connect Park & Ride areas</p> <p>Arboretum trail at Lawton High School</p> <p>Bus stops – connect areas with bike-rack equipped buses</p>
No	
Maybe	

- Where should connections be made to other systems?
 - MDNR / MDOT like regional connections – make grants more attractive
 - Kal Haven
 - Van Buren
 - to Kalamazoo/Portage
 - Sister Lakes

- Other?
 - Areas not planned for connectivity – have to retrofit
 - Lots of plats where 657 crosses E. Branch

- Connect residential areas
- Sidewalks – no reason to have them in some areas
- Hard to promote pedestrian requirements
- Incentives for connections
- Best connection separates peds/bikers from vehicle lanes
- Asphalt/hard surface not needed everywhere (Get best bang for buck)
- Start with “main trunk” accessible and engineered

Public Workshop

A public workshop was held January 28, 2010 at the Antwerp Township hall. Goals, concepts for the pathway system including alternate routes and spurs, and design amenity concepts were presented and participants completed a survey as a part of the presentation. Members of the Pathways Committee and the consulting team were available to answer questions following the presentation. Results from the survey follow.

1. Goals

Do you have comments on any of the goals?

- Bike paths
- To find pathways to allow non-motorized vehicles to get from village to village and school to school.
- An ecology park was included in the recreation plan as a goal. Is this still a primary goal? It seems trailways should be primary and the ecology park is secondary unless trailway connects to the ecology park.
- Like all the goals
- All easy to understand and sensible
- I’ll make clear again: 26th Street is not suitable for widening or engineering to add paths. Better on concept #2. Lawton: 66th East to Drape; north to conservancy and east to 26th then northeast to Mattawan.
- Not only connect villages in the township by the pathway, but also schools to park or recreation areas.
- A safer place for people to ride bikes.
- Make use of existing roadways for main path will get you to towns
- Off road to maximum extent possible

2. Connectivity

1. Which alternate system do you prefer for the pathways plan (rank order)?

Concept 1 Rank #: Overall #2

Would you prefer any of the following alternates to the route (check all that apply)?

Alternate 1.1: 3

Alternate 1.2: 3

Alternate 1.3: 4

Alternate 1.4: 4 (comment: as a loop, not instead of 40 or 32nd)

Alternate 1.5: 5

Alternate 1.6: 2

- Main route should not include 26th

- A “hybrid” that would be the north half of #1 and the south half of #2 would be my first choice.

Do you support any of the spurs to key destinations (check all that apply)?

- Spur to Paw Paw Middle School: 8
- Spur to Township Transfer Station: 4
- Spur to Mattawan Schools: 9
- Spurs to potential regional trail: 9
- Spur to proposed eco-park: 8

Concept 2 Rank #: Overall #1 (north half of main route = Red Arrow)

Would you prefer any of the following alternates to the route (check all that apply)?

- Alternate 2.1: 4
- Alternate 2.2: 4 (to make a loop)
- Alternate 2.3: 4 (with Draper to 63rd)
- Alternate 2.4 : 3
- Alternate 2.5: 4 (interesting areas, but alignment must change – as drawn = impossible)

Do you support any of the spurs to key destinations (check all that apply)?

- Spur to Paw Paw Middle School: 7
- Spur to Paw Paw High School: 9
- Spur to Mattawan Schools: 10
- Spur to Township Transfer Station: 5
- Spurs to potential regional trail: 8
- Spur to proposed eco-park: 6

Other comments:

- Concept 2 seems more recreational and Concept 1 seems more focused on connecting destinations, which is important.

Are there other pathways that should be considered (either on- or off-road)?

- Both on or off road
- M-40 _ 358 – 652 – Red Arrow
- Trail separate from busy roads (M-40 and Red Arrow)

3. Design

1. What pathway design features and amenities are important to you (check all that apply)?

- Parking at trail heads: 7
- Trail signage: 9 (road signage)
- Lighting: 2
- Restrooms: 3 (parking areas only)
- Drinking fountains: 2 (parking areas only)
- Separate lanes for walkers and bikers: 1 (if high usage)
- Emergency phones: 0
- Benches: 2
- Mile markers: 5
- Grade separation at roadways (overpass or underpass): 1

- ❑ Other: pathway should be more than just a wide shoulder; dark!; trail maps at trailheads; trash containers; off-road to the maximum extent possible; separate from road where off-road not possible; “stay on the trail” signs in natural areas; observation decks at scenic locations in natural areas

2. Preferences – Signs: Please indicate your preference order for each type of sign (A, B, C)

1: A-5, B-3, C-2 2: A-4, B-4, C-2 3: A-1, B-3, C-6

- Logo that is easy to pick out/see
- Uniformity with MUTCD is good so everyone recognizes what it is

A



B



C



3. Preferences – Lighting (suburban/moderate density segments): Please indicate your preference order for each type of lighting (A, B, C)

1: A-5, B-2, C-3 2: A-2, B-5, C-2 3: A-3, B-2, C-5

A



B



C



- Lighting systems like A which direct light downward are much better because they are less attractive to insects and other wildlife and less disruptive to them. Also tend to be more efficient.
- Should be 100% cutoff
- Down light only preferred if lighting is necessary at all

4. Preferences – Trailhead Furniture: Please indicate your preference order for each type of seating (A, B, C)

1: A – 5, B – 1, C – 4 2: A – 2, B – 4, C – 4 3: A – 3, B – 5, C – 1

- Or flat benches with no seat backs

5. Preferences – Mile Markers: Please indicate your preference order for each type of marker (A, B, C)

1: A – 7, B – 0, C – 3 2: A – 1, B – 6, C – 3 3: A – 2, B – 4, C – 4

- Keep it simple, need to consider weather (able to stand up) and vandalism
- Keep it simple



4. EcoPark

1. What would you like to use the eco-park for (check all that apply)?

- Walking and enjoying nature: 9
- A learning laboratory for students: 6
- A place to teach your children about natural systems: 5
- A place to do service work: 3
- Other: The Paw Paw Prairie Fen Preserve on Van Kal Road is currently open for walking and we will be adding some interpretive signs and a small boardwalk. Ecological restoration is underway. We would welcome student use of the property. There will also be opportunities at the East Branch Prairie Preserve on 26th Street which is one of your alternate routes for Concept 2. The Township may have opportunities to purchase ecologically significant land to tie into the pathway system. TNC has worked successfully in the past with other townships to acquire such lands through the Michigan Natural Resources Trust Fund; isolation; quiet; non-motorized; perhaps this could be a walking only trail – no bikes; non-motorized vehicle transportation road

2. What features would you like to see in the eco-park?

- Interpretive signage: 7
- Boardwalks into wetland areas: 7
- Ecological restoration projects: 5
- Other : walking trails that wouldn't allow bikes, etc. for walkers and runners; trailhead/spur with parking around site.

