

Kingsley - Paradise Community

Pathway Plan
2009



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Chapter One. Purpose and Planning Process

Project Overview

This plan is the result of over two years of community-wide discussions and cooperative planning efforts in the greater Kingsley/Paradise Community. While this plan focuses on pathway development and pedestrian circulation, it is also representative of a much greater effort to establish a collaborative environment in the greater Kingsley area. As used throughout this document, the “Kingsley/Paradise Community” constitutes the geographical areas within the Village of Kingsley and Paradise Township. However, for the purpose of this plan and future planning and development efforts, the “Kingsley/Paradise Community” refers to one, larger cooperative community.

Community Background - A Commitment to Cooperation

Local jurisdictions have been working on several different cooperative planning initiatives in this area of Grand Traverse County for many years. In 1993, several local governments, including Paradise Township and the Village of Kingsley, worked together to develop *Visions South Grand Traverse* - a strategic plan for community and economic development in the region. One of the results of this collaborative planning effort was the development and construction of Civic Center South, the County’s southern regional park.

In an effort to foster greater cooperative planning in the region, the Grand Traverse County Planning Commission recently convened a series of meetings with the Kingsley and Paradise Planning Commissions to discuss recent legislation and new opportunities for joint planning. Through these meetings, the two planning commissions identified a list of options for coordinated policies, placing the highest priority on pedestrian/recreational trails. At the last joint meeting (April 2008), the Kingsley Area Schools agreed to become a stakeholder in the cooperative planning effort - in part, to better link and incorporate their recently initiated *Safe Routes to School Program*.

“Do not go where the path may lead,
go instead where there is no path and
leave a trail.”

- Ralph Waldo Emerson

In addition to the local interest in pedestrian and recreational trails, regional planning efforts by the Northwest Michigan Council of Governments and a county-wide planning effort by the Grand Traverse County Parks and Recreation Commission recently identified several preferred trail corridors for the

greater northwest Michigan region. One of the primary corridors identified extends from Traverse City to Cadillac, via the Kingsley/Paradise Community.

Last fall, public officials from Grand Traverse County, the Village of Kingsley, Paradise Township and the Kingsley Area Public Schools submitted a proposal to the *Partnerships for Change - Sustainable Communities Program* to move the cooperative planning discussions into a more formal planning process. The proposal sought assistance to: (1) establish a collaborative environment between the Village, Township and Schools; and (2) develop a community-wide trail/pedestrian plan.

Partnerships for Change (PfC) - Sustainable Communities is a multi-jurisdictional planning assistance program administered by the Land Information Access Association (LIAA), a non-profit community service organization. Program sponsors include the Michigan Municipal League (MML), Michigan Townships Association (MTA), Michigan State University Extension (MSUE) and the Michigan Association of Planning (MAP). The overall mission of the program is to foster new and expanded cooperation between cities, townships and villages in developing and carrying out local land use policies that contribute to the preservation of cultural and natural resources.

In December 2008, LIAA staff members met with a local steering committee to discuss the parameters of the project and establish a project work plan. The original steering committee consisted of representatives from the County, Village, Township and the Public Schools. As the project progressed, the steering committee grew, to include representatives from the Michigan Department of Transportation, the Grand Traverse Land Conservancy and other interested citizens.

Planning Process

In January 2009, LIAA staff members and the local steering committee kicked off a six-step, five-month public planning process. Through a well publicized series of meetings and open dialogue, citizens and public officials have had many opportunities to shape a plan that is unique to the Kingsley/Paradise Community.

Step One. LIAA staff members and the local steering team verified the project's mission and goals, established a workable planning process, and determined a reasonable project schedule. In addition, meeting participants identified initial community assets and potential project challenges.

Step Two. In January 2009, LIAA staff members and the local steering team engaged the public in an effort to develop a comprehensive community asset inventory and identify potential challenges for a non-motorized pathway system. The steering committee asked participants to help identify six types of community assets: (1) physical; (2) financial; (3) organizational; (4) environmental; (5) institutional; and (6) cultural. Following the meeting, LIAA staff members and steering committee members worked together to identify gaps in the information and document additional community assets. LIAA staff members then developed a community asset map. *Maps 1 and 2* illustrate the community assets identified.

Step Three. In February 2009, LIAA staff members and the local steering committee reviewed the community assets map and discussed opportunities for cooperation and initial pathway locations. In addition, Bob Wick, Director of Development for the Traverse Area Recreation and Transportation Trails, Inc. (TART) provided a presentation on pathway development, pathway design, pathway maintenance and marketing and how local planning efforts could tie in with other regional TART pathway planning efforts. After some additional discussion, LIAA staff members and the steering committee agreed to hold a special “pathway mapping” meeting to identify *preliminary* locations for a new non-motorized pathway that would connect Mayfield Pond with the Village of Kingsley.

In March 2009, LIAA staff members and the steering committee met to map preliminary locations of a new, non-motorized shared-use pathway corridor, connecting Mayfield Pond with the Village of Kingsley. In mapping the preliminary locations of the corridor, steering committee members took into consideration property ownership, physical obstacles, access, road/railroad crossings, potential easements, natural resources, existing land use and the existing and/or planned local pathway and recreation assets.

Step Four. Building on the public and steering committee meetings, LIAA worked with the steering committee to develop a *draft plan* for pathways and pedestrian circulation in the Kingsley/Paradise Community. Among other things, the plan includes a *preliminary* pathway map, potential resources for funding and options/tools for implementation.

Step Five. In May 2009, LIAA staff members and the local steering committee reviewed the *draft plan* and discussed the list of potential implementation actions for the steering committee and local public officials.

Step Two: Public Meeting - Public officials and interested citizens discuss and identify community assets.



Step Three - The Steering Committee works to map the preliminary locations of a new non-motorized pathway connecting the Village of Kingsley and Mayfield Pond.



Step Six. During this step in the process, LIAA staff members worked with the local steering committee to develop a *final draft plan* for pathways and pedestrian circulation in the Kingsley/Paradise Community. In June of 2009, the *final draft plan* was presented to the Village and Township Planning Commissions for *preliminary* approval. Upon their approval, the *final draft plan* was presented to the community at a large public meeting in October 2009. In response to comments and suggestions provided at the public meeting, LIAA staff members worked with the local steering committee to develop a *final plan*. The *final plan* was presented to and adopted by the Village Council, Township Board and Kingsley Area Public Schools Facilities Committee. In addition, local officials worked to incorporate portions of the *final plan* into a new joint recreation plan for the Village and Township.

Purpose of the Plan

The purpose of this plan is to provide the framework for cooperative planning, pathway development and pedestrian circulation within the greater Kingsley/Paradise Community. Therefore, the plan is designed to:

- Provide a tool-set that will enable the local participating units of government and area pathway advocates to plan for, design, fund and implement non-motorized pathways and pedestrian circulation throughout the greater Kingsley/Paradise Community.
- Incorporate existing physical, natural and cultural resources in the development of new non-motorized pathways and pedestrian circulation routes throughout the greater Kingsley/Paradise Community.
- Establish a framework to connect with other non-motorized pathways and/or trails throughout Northwest Michigan.
- Establish a framework for on-going communication between the Village of Kingsley, Paradise Township and the Kingsley Area Schools.
- Educate the public on the benefits on non-motorized pathways and their importance in creating livable communities.

Community Vision Statement

This vision statement and the associated goals were developed through a brief but comprehensive community planning process, involving citizens, public officials, regional trail advocates, regional organizations and the project steering committee.

Vision Statement

A community-wide pathway and pedestrian circulation system that enhances the quality of life in the greater Kingsley/Paradise Community and provides residents and visitors of all abilities well-maintained multi-use pathways that enable non-motorized users and pedestrians to safely access residential, business, natural and civic resources within the community and throughout the region.

Goal: Non-Motorized Connectivity

An inter-connected, non-motorized pathway system within the Kingsley/Paradise Community comprised of accessible sidewalks, bike routes, crosswalks and shared-use paths - with linkages to the regional pathway/trail networks of greater Northwest Michigan.

Goal: Alternative Transportation

Safe, accessible and convenient routes to parks, neighborhoods, schools, businesses and other assets in the greater Kingsley/Paradise Community that promote walking, biking and other forms of non-motorized transportation as an alternative form of transportation.

Goal: Recreational Opportunities

Access to recreational opportunities for people of all ages and abilities.

Goal: Implementation Resources

Local officials, citizens and advocacy groups with the resources, knowledge and funding required to implement the plan.

Goal: Education

Public support and awareness of non-motorized transportation opportunities, cultural/natural assets (through interpretive signage) and stewardship efforts within the Kingsley/Paradise Community.

Goal: Trail-Based Tourism

Increased levels of economic activity in response to business-to-pathway linkages, unique pathway-based events, marketing and other promotional activities.

Goal: Inter-jurisdictional Cooperation

On-going communication and cooperative planning between the Village, Township and Public Schools.

Chapter Two. Existing Conditions

Recreation Assets

This chapter describes the recreation, physical and cultural assets currently within the greater Kingsley/Paradise Community. This inventory of the community assets has been compiled from discussions with the project steering committee, public officials, and the general public. We have also used information from the following publications: The Village of Kingsley Master Plan, 2007; Paradise Township Master Plan, 2006; Northwest Michigan Council of Government Northwest Michigan Regional Non-Motorized Strategy (NWMCOG), 2008; TART Trails Map, 2008; the Northwest Region Road & Trail Bicycling Guide (NWMCOG/MDOT); and 2008 Safe Routes to School Audit Results (Kingsley Public Schools).

Parks

Brownson Park

Brownson Park is a 2-acre park located on South Brownson Avenue, just south of Blair Street. Park facilities include playground equipment, tennis courts a “slash pad,” a 9/11 memorial, several site furnishings and portable restrooms.

The Grove

The Grove is a 7-acre park located one-block east of North Brownson Avenue and one-block north of Main Street. Future plans for the park include the “Kingsley Trail” - a linear, non-motorized pathway and playground equipment, a pavilion and grills.

Civic Center South

Civic Center South is a 40-acre regional park located near the south end of Clark Street, just west of the Kingsley Area School athletic fields. Park facilities include ball fields, soccer fields, a disk-golf course, an archery range, tennis courts, basketball courts, an ice-rink (in winter only), playground equipment, walking paths and a restroom/concession building. The park was developed through funding provided by the Michigan Department of Natural Resources (MDNR), Rotary Charities, the Oleson Foundation, Grand Traverse County, the Village of Kingsley, Paradise Township, Mayfield Township, Fife Lake Township, Union Township, local businesses and community volunteers.

Recreation Assets - Brownson Park



Recreation Assets - The Grove



Recreation Assets - Civic Center South



Kingsley Community Playground

The Kingsley Community Playground is located off Clark Street and Edwards Street, in the center of the Kingsley Area School Campus. Park facilities include playground equipment.

Mayfield Pond Park

Mayfield Pond Park is a 30-acre park located along Swainston Creek, in the un-incorporated Village of Mayfield. Owned by Paradise Township, park facilities include a bridge, hiking trails, picnic tables, a pavilion and outdoor restrooms.

Motorized Trails

Grand Traverse Cycle Trail (ORV)

Boardman Valley Snowmobile Trail

Madison Street Snowmobile Trail

The Madison Street Snowmobile Trail is an unofficial east/west snowmobile trail - traversing along Madison Street and M-113.

Non-Motorized Trails

North Country Trail

The North Country Trail (NCT) traverses over 4,000 miles from the Adirondacks of New York to North Dakota. Managed under the National Park Service, portions of the trail are located near the Kingsley/Paradise Community.

Shore to Shore Trail

The Shore-to-Shore trail is a hiking and horseback riding trail that extends from Lake Michigan to Lake Huron. Portions of the trail are located near the un-incorporated Village of Mayfield.

Recreation Assets - Community Playground



Recreation Assets – Mayfield Pond Park



Public and Private Sites

The following public sites were compiled from the Village of Kingsley Master Plan¹ and conversations with the project steering committee.

Brown Bridge Quiet Area

The Brown Bridge Quiet Area is a 1,310 acre nature preserve located off Garfield Road, just north of the Paradise Township Boundary. A natural trail through the Brown Bridge Quiet Area provides opportunities for hiking, cross-country skiing studying nature. The Brown Bridge Quiet Area also provides opportunities to use non-motorized watercraft.

Additional Recreation Opportunities at Nearby Locations

- Manistee River (just south of Paradise Township in Wexford County)
- Boardman River (near the north boundary of Paradise Twp.)
- Fife Lake Township (east of Paradise Township)
- Pere Marquette State Forest (in northern and southeastern locations)
- East Creek Reserve - Rotary Charity Property (Summit City Road, east of Mayfield)
- State Forests/Campgrounds/Pathways
- Kingsley Club - Private Golf Course (Niblick Trail)

Cultural Assets

The following public sites were compiled from the Village of Kingsley Master Plan².

Kingsley Area Schools

Covering the southern half of Grand Traverse County and a small portion of northern Wexford County, the Kingsley Area School District encompasses approximately 122 square miles. The district includes one elementary school, middle school and high school. District recreation facilities include two football fields, a track, softball and baseball fields and several Jr. all-purpose fields.

Businesses and Downtown

There are a number of small businesses within the Village of Kingsley that provide most of the essential goods and services required for a small community. The primary commercial and industrial areas are

Cultural Assets - Kingsley Football Field



Cultural Assets - Downtown Kingsley



¹ Village of Kingsley Master Plan, 2007. Written by R. Clark Associates, Inc.

² IBID

located along Main Street/M-113 and Brownson Avenue. The heart of downtown Kingsley is located on Brownson Avenue. In addition, there are a number of small businesses located north of the Village, along Garfield Avenue.

Neighborhoods

The neighborhoods within the Village of Kingsley consist of primarily modest homes on original platted lots. In addition, the Village has a couple of fairly new and modern subdivisions with large lots and homes (Whispering Pines, Kingsley Heights, and Kingsley Ridge), an approved Planned Unit Development (PUD), two apartment complexes and a mobile home park (Cherrywood Village).

Community Services

Community Services include a post office, a new public library (a branch of the Traverse Area District Library) a community resource center, three churches and the government offices of the Village (also new) and Township.

Existing Non-Motorized Initiatives

The following non-motorized initiatives and projects have been identified or planned, or are currently under development within the greater Kingsley/Paradise Community. The existing non-motorized initiatives within the Kingsley/Paradise Community provide the foundation for additional action steps and the trail development options, outlined in Chapter Six.

The Kingsley Trail

Officials from the Village of Kingsley, Paradise Township and Kingsley Public Schools are working to develop about a one-mile non-motorized trail that would traverse from Eden Street to Kingsley Road. The proposed trail would utilize the current railroad right-of-way through the Village (and Grove Park). The central location of the proposed trail will provide residents of the Kingsley Ridge, Kingsley Heights and the Cherry Woods neighborhoods with biking and walking access to Kingsley High School and Brownson Avenue.

Safe Routes to School

Over the past year, the Kingsley Area Schools has facilitated a number of activities under its *Safe Routes to School Program*. Recently, school officials, in partnership with Michigan State University administered a survey to area parents and students. Among other things, the survey found that

Cultural Assets - Neighborhoods



Cultural Assets - New Public Library and Municipal Offices



Existing Non-Motorized Initiatives - Proposed Kingsley Trail



approximately 43% of the parents who responded *would* or *might* allow their children to bike to or from school if the route to school was improved.

In addition, school officials and a local stakeholder team (teachers, parents, students and law enforcement officers) completed a walking audit of the Village of Kingsley Community. The walking audit identified 42 specific areas for improvement - grouped into five categories (the full report can be found in *Appendix B*).

1. Crosswalks: Many streets need crosswalks either updated or created
2. Zebra Strips: Many streets in front of the school (wherever students cross) need zebra stripes.
3. Signs: The 35mph sign near Northland Foods (heading west into town) needs to be relocated so that drivers can see it and slow down before entering town. Pedestrian crossing signs should be placed near the “splash pad” at Brownson Park.
4. Traffic Light & Crossing Guard: There should be a crossing guard or traffic light (instead of the current flashing light) at the intersection of Garfield and M-113.
5. Lack of Sidewalks: The Village should include sidewalks along most of its streets.

The Kingsley Area Schools is currently working with the Village of Kingsley to implement several of these improvements.

Northwest Michigan Regional Non-Motorized Strategy

In 2008, the Northwest Michigan Council of Governments, in cooperation with the Michigan Department of Transportation developed a comprehensive, regional non-motorized transportation facilities strategy for the 13 counties in the northwest lower Michigan region. Through this effort, local officials identified several priority non-motorized routes throughout the region. In Grand Traverse County, a priority route was identified from Traverse City to Cadillac, via the Kingsley Community.

The Grand Vision

The Grand Vision is a citizen led, land use and transportation study that will provide a framework for the next 50-years of development in the six counties that make up the greater Grand Traverse Region. Among other things, the public input process of this regional planning effort has revealed that *road, bike, pedestrian and transit networks*³ are one of the components that matters most for area citizens.

Existing Non-Motorized Initiatives - Safe Routes to School Program



³ The Grand Vision website: www.thegrandvision.org/

Chapter Three. Pathway Benefits and Design Considerations

Benefits of a Non-Motorized Pathway System and Pedestrian Circulation

There are numerous human, health and general community benefits associated with non-motorized trails. These benefits have been the subject of many studies and reports published in recent years. In fact, this literature is quite extensive. This section will briefly summarize some of the benefits of non-motorized transportation, as identified after a review of several state and national resources.

In 2008, Dr. Chuck Nelson of the Department of Community, Agriculture, Recreation and Resource Studies at Michigan State University presented, *Benefits of Trails and Greenways*, at the Genesee Regional Trail and Greenway Summit. In his power-point presentation¹, Dr. Nelson identified seven benefits of trails.

1. Physical
2. Psychological
3. Knowledge
4. Social
5. Economic
6. Spiritual
7. Environmental

Physical. According to an executive summary from the Michigan Fitness Foundation², *adults are considered to be physically active if they engage in at least 30 minutes of moderate physical activity on five or more days per week. Fifty-five percent of Michigan adults fail to meet this criterion and are therefore classified as physically inactive.*

According to the presentation by Dr. Nelson, non-motorized trails can provide³:

- Cardiovascular system workout

¹ A full copy of the presentation can be found on the Michigan Trails and Greenway Alliance website: www.michigantrails.org/

² *The Economic Cost of Physical Inactivity in Michigan*. Study conducted by David Chenoweth, PH.D. - Michigan Fitness Foundation, 2003. Found at: www.michiganfitness.org/active/index.html

³ A full copy of the presentation can be found on the Michigan Trails and Greenway Alliance website: www.michigantrails.org/

- Support a range of activity (especially for the most common disabilities: arthritis and heart disease)
 - Vigorous, competitive training
 - Moderate physical exercise/recreation
 - Joint flexibility
- Tremendous benefits to young through safe Routes to Schools
 - Active youth = healthy adults
 - Active youth involve parental activity

Psychological. According to the Carolina Thread Trail⁴, a regional network of greenways and trails in North Carolina, *there is a growing body of research that suggests that mere contact with the natural world improves psychological health. Green studies have been shown to relieve feelings of anxiety and improve our ability to cope with stressful situations.* According to the presentation by Dr. Nelson, non-motorized trails can provide⁵:

- Confidence from competence
 - Trail users choose how they want to use the trail
 - Opportunity to develop skills, voluntary activity
- Family/group friendly setting
 - Facilitates individuality while part of a group
 - Some walk, some skate, some ride bike, some use adaptive mobility device, etc.
- Opportunity to volunteer/give back
- Safety Patrol
 - Friends Group
 - Maintenance, fund raising, special projects

Knowledge. According to the presentation by Dr. Nelson, non-motorized trails can provide⁶:

- Environmental knowledge

⁴ Carolina Thread Trail website: www.carolinathreadtrail.org/benefits/health.html

⁵ A full copy of the presentation can be found on the Michigan Trails and Greenway Alliance website: www.michigantrails.org/

⁶ A full copy of the presentation can be found on the Michigan Trails and Greenway Alliance website: www.michigantrails.org/

- Use interpretive signage/brochures to promote discovery learning about diverse habitats and unique ecosystems
- Relate trail connectivity to environmental interdependence
- Community Awareness
 - Better acquaintance with businesses, neighborhoods, etc.
- Historical Sense
 - Most trails and greenways use former railroads, waterways, Native American foot trails, etc.
 - Interpretive signage/brochure/historic sites make history come alive

Social. According to *Go for Green*, an active living and environment program in Canada,⁷ *because of their linear design, trails act as a meeting place for the community. Trails foster community involvement, and corresponding pride, in addition to providing an opportunity to interact with people of varying backgrounds, and experiences.* According to the presentation by Dr. Nelson, non-motorized trails can provide:⁸

- Trails are the community's front porch
 - Everyone is welcome
 - Common positive interest in the welfare of trail
- Diversity in trail uses/users promotes tolerance
 - Different motivations for trail use
 - Promotes interaction about diverse equipment, clothing activity attractions, etc.
- Trails are a link, not a barrier compared to some infrastructure

Economic. According to a report provided by the National Park Service,⁹ the economic benefit of trails can be substantial.

In relation to tourism: A 2004 case study in the Outer Banks of North Carolina found that

- 680,000 visitors bicycle in the area annually, represents 17% of area tourists
- 43% cite bicycling as an important factor in selecting the area for vacation
- 53% cite bicycling as a strong influence in the decision for return visit
- Bicycling visitors generate economic impact of \$60 million

⁷ Go Green website: www.cfpc.ca/english/cfpc/home/default.asp?s=1

⁸ A full copy of the presentation can be found on the Michigan Trails and Greenway Alliance website: www.michigantrails.org/

⁹ Economic Benefits of Trails, Greenways and Open Space: Compiled by Rory Robinson, NPS – May 2007.

Found at : <http://www.michigantrails.org>

In relation to Corporate Relocation and Retention: The results of an on-going survey as part of Michigan's Cool Cities Initiative found that while job opportunities are important in choosing a place to live, quality of life is significantly more important - of the attributes of preferred place to live, participants identified safe streets as #1, walkable streets as #3 and trails and parks as #13.

In relation to Property Values: A 2004 survey by the National Association of Realtors and National Association of Home Builders asked 2,800 people nationwide what they would like to see in a new community and 57% said walking/jogging trails.

According to the presentation by Dr. Nelson, non-motorized trails can provide:¹⁰

- Direct Spending
 - Trail equipment (bikes, blades, shoes)
 - Travel (fuel, food, beverage, souvenirs, repairs)
- Indirect Spending
 - Multiplier effect where what is spent positively reverberates through the economy
 - Trail-side restaurant owner expands business to build porch to better serve trail users (carpenters, masons, bankers all benefit)
- Reduced fuel from increased non-motorized transportation
- Trail attracts visitors who are linked to other attractions by trail use
- Keeps locals near home to enjoy amenities
- Improve property values
 - Almost every trailside residence creates their own access rather than their own barrier
 - Real estate agents more likely to report more rapid home sales for trail-side homes

Environmental. According to the presentation by Dr. Nelson, non-motorized trails can provide:¹¹

- Corridors provide path for plant and animal migration (link rather than separate habitats)
- Blueways preserve especially sensitive habitats (surface waters, floodplains, wetlands)
- Non-motorized transportation energy usage

Spiritual. According to the presentation by Dr. Nelson, non-motorized trails can provide:¹²

- Body is temple
 - Not a cosmetic, but physical health, one that is based on taking care of a divine creation

¹⁰ A full copy of the presentation can be found on the Michigan Trails and Greenway Alliance website: www.michigantrails.org/

¹¹ A full copy of the presentation can be found on the Michigan Trails and Greenway Alliance website: www.michigantrails.org/

¹² A full copy of the presentation can be found on the Michigan Trails and Greenway Alliance website: www.michigantrails.org/

- We are stewards of the earth
 - Not a concept of dominance but one of long-term care and concern about divine creation
- What we do matters as we can destroy and impair as well as steward the environment

What a Non-Motorized Trail System Should Do

In addition to the benefits listed above, the City of Ann Arbor Non-Motorized Transportation Plan¹³ states that a well-implemented non-motorized transportation system will reap rewards by:

- Providing viable transportation alternatives for individuals who are capable of independent travel yet do not hold a driver's license or have access to a motor vehicle at all times
- Improving safety, especially for the young and old who are at most risk due to their dependence on non-motorized facilities and their physical abilities
- Improving access for the 20% of all Americans who have some type of disability and the 10% of all Americans who have a serious disability
- Improving the economic viability of a community by making it an attractive place to locate a business while simultaneously reducing public and private health care cost associated with inactivity
- Encouraging healthy life styles by promoting active living
- Reducing the water, air, and noise pollution associated with automobile use by shifting local trips from automobiles to walking or bicycling
- Improving the aesthetics of the roadway and community by adding landscaping and medians that improve pedestrian environment and safety
- Providing more transportation choices that respect an individual's religious beliefs, environmental ethic, and/or uneasiness in operating a vehicle
- Reducing the need for downtown parking spaces and parking decks
- Creating a stronger social fabric by fostering the personal interaction that takes place while on foot or bicycle
- Reducing dependence on and use of fossil fuel with the resulting positive impact on climate change.

¹³ City of Ann Arbor Non-Motorized Transportation Plan, 2007. Prepared by the Greenway Collaborative, Inc.

Design Considerations

The design of a non-motorized trail is important. The design of a non-motorized trail can influence the number of, and the way in which, people interact on the trail. According to suggested standards identified by the American Planning Association (APA)¹⁴, *contemporary trail planning should focus on creating an integrated trail system that accommodates a wide range of users - placing great emphasis on the recreational "value" of an individual trail and the trail system*. As noted in later sections of the plan, many trail users utilize trails for a variety of activities including, recreation, transportation and personal well-being. To support this wide-range of potential experiences, trails should provide high quality recreational experiences that¹⁵:

- Are visually appealing and located in a pleasant, natural open space or linear park corridor that is away from traffic and the built environment
- Provide a continuous experience that takes users from their neighborhood to a variety of destinations
- Offer continuity with limited interruptions and impediments to travel
- Are not too difficult of a grade
- Are safe for a family to use, as well as those with limited technical skills.

Public officials, citizens and planners should also consider the following design elements in determining what type of community trail system to develop.

Skill Level

An important consideration in the design and development of a trail system is to understand the different needs and skill levels of potential trail users - specifically bicyclists. In general, bicycle users fall into one of three categories.¹⁶

Experienced Riders - Generally use their bicycles for fitness or transportation. Speed, convenience and directness are important factors in route selection. Although they are comfortable riding in traffic,

¹⁴ *Planning and Urban Design Standards*, American Planning Association, 2006. John Wiley & Sons, Inc.

¹⁵ Ibid

¹⁶ Ibid

adequate operating space is important to safe riding and avoiding confrontations with motor vehicle operators.

Recreational Riders - Typically use their bicycles for recreation and fitness, less so for transportation. These riders tend to avoid busy roads with higher traffic speeds, unless there is a defined area for bicyclist such as a wide shoulder or a designated bikeway. These riders are generally comfortable riding on local streets and busier trails.

Youth and Children Riders - Tend to be slower and less confident than adults. Children use trails for recreation and getting to key destinations in the community, such as school, convenience stores, parks and recreational facilities. Residential streets with low motor vehicle speeds are acceptable, but trails are preferred by this group.

In order to reach the greatest number of users, the trail should be designed to accommodate the *least skilled* bicyclist while still being of interest to the most skilled.¹⁷

Pathway Categorization

The definitions for pathways often vary from community to community. The pathway definitions used in this plan are provided in *Planning for Pathways*¹⁸, an implementation resource guidebook developed by the Northwest Michigan Council of Governments to aid local governments in their efforts to implement policies outlined in the New Designs for Growth Guidebook, including bike and pedestrian circulation. These pathway definitions were selected for use in this plan to help establish a common language among local governments and provide consistency with future pathway development efforts throughout the greater Northwest Michigan region.

Pathways

Facilities used for non-motorized transportation, primarily walking and biking, including bike lanes, bike routes, sidewalks, and shared use paths.

¹⁷ Ibid

¹⁸ Planning for Pathways - An Implementation Resource of the New Designs for Growth Guidebook. Northwest Michigan Council of Governments 2009 www.ndfg.org

Bicycle Lanes

A portion of a roadway which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists

Shared Use Paths

A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users. Paths should be constructed at a minimum width of 10 feet, with a maximum separation of 10 feet from the roadway, and should conform with standards established in the most recent edition of AASHTO's Guide for the Development of Bicycle Facilities.

Bike Route

A shared roadway which has been designated by signing as a preferred route for bicycle use.

Shared Roadway

A roadway which is open to both bicycle and motor vehicle travel. This may be an existing roadway, street with wide curb lanes, or road with paved shoulders.

Sidewalks

The portion of a street or highway right-of-way designed for preferential or exclusive use by pedestrians. Sidewalks should generally be designed at a minimum of 5 feet. Standards for the engineering and design of sidewalks should conform with the standards established in the most recent edition of the AASHTO Guide for the Development of Pedestrian Facilities.

Trail

Linear route on land or water with protected status and public access for recreation or transportation purposes such as walking, jogging, hiking, bicycling, horseback riding, mountain biking, canoeing, kayaking, backpacking, and vehicular travel by motorcycle or all-terrain vehicles.

Additional Pathway Categorizations

As previously noted, the definitions of pathways vary from community to community. The following sections provide additional pathway definitions from national, state, and local agencies. The additional

Pathway Categorization - Bike Lane



Pathway Categorization - Shared Use Path



Pathway Categorization - Bike Route



Pathway Categorization - Shared Roadway



Pathway Categorization - Trail



definitions are included in this document to provide local officials with a broader understanding of pathways and alternative design and development criteria.

Trail Classifications

Trail classifications can help public officials and planners plan trails for specific user groups. However, in most instances, *the distinction between trail types or classifications is as much about their location and recreational value as it is about technical design considerations.*¹⁹ In general trails can be grouped into three classifications²⁰.

1. Destination Trail 2. Linking Trail 3. Natural Trails

The following section provides a brief description of the three types of trails and some of their design considerations.

Destination Trail

Due to its location and recreational appeal, this type of trail often becomes a destination unto itself. A destination trail typically will accommodate walkers, bicyclists and in-line skaters. Access on the trail is usually provided through distinct use lanes (e.g. bike/walk) or as a shared use.

Design Priority: Creating a compelling recreational experience that includes a variety of landscapes and community settings

Surface: Asphalt/bituminous, crushed compacted aggregate or concrete

Trail Width: 8 to 12 feet, depending on surrounding landscape

User Speeds: 10 to 20 mph. depending on surroundings

Sight Distances: Minimum of 50 feet with 100 feet preferred

Trail Gradients: Average less than 5%

Overhead Clearance: Minimum of 10 feet

Other Considerations:

- Roadway crossings must be at safe locations
- Trail amenities (e.g. benches, picnic tables) should be provided at appropriate locations
- Trail lighting should be provided at intersections
- Access for general public-safety and maintenance vehicles is important

¹⁹ *Planning and Urban Design Standards*, American Planning Association, 2006. John Wiley & Sons, Inc.

²⁰ Ibid

Linking Trail

Linking Trails emphasize safe travel for pedestrians to and from parks and around the community

Design Priority: Providing safe connection between specific destinations

Surface: Asphalt/bituminous, crushed compacted aggregate or concrete

Trail Width: 8 to 10 feet, depending on surrounding landscape

User Speed: 10 to 20 mph. depending on surroundings

Sight Distances: Minimum of 50 feet with 100 feet preferred

Trail Gradients: Average less than 5%

Overhead Clearance: Minimum of 10 feet

Other Considerations:

- Roadway crossings must be at safe locations
- Trail amenities (e.g. benches, picnic tables) should be provided at appropriate locations
- Trail lighting should be provided at intersections and for security
- Access for general public-safety and maintenance vehicles is important

Nature Trail

Nature Trails area located in natural areas, parks, and open spaces where experiencing nature is the primary objective

Design Priority: Simple and intimate - keeping with the setting/landscape

Surface: Natural soil's, turf or crushed aggregate

Trail Width: 4 to 8 feet

User Speed: 10 to 20 mph. depending on surroundings

Grade: Flexible - can be steep

Overhead Clearance: Minimum of 8 feet

Other considerations:

- Roadway crossings must be at safe locations
- Trail amenities (e.g. benches, picnic tables) should be provided at appropriate locations
- Small shelters should be provided for storm protection
- Trail lighting at entrance

Trail Accessibility

Accessibility is a very important component of design and development of a trail system. Because trails are considered transportation and recreation facilities, accessibility is mandated by the Federal Americans with Disabilities Act of 1990 (ADA). In addition, general accessibility *to* and *from* (outside the actual trail) trails is very important. Public accessibility can be accomplished by providing easily identifiable and appropriate signage, hard surfaced connections, and parking.

Linear Trail Surface Types

Understanding surface types can also help public officials and planners plan for specific user groups. The following section identifies the design standards of linear trail surfaces. Each standard listed below is outlined in *Connecting Michigan*, a statewide trailways vision and action plan developed by the Michigan Trails and Greenways Alliance.²¹ Each surface type identifies positive and negative aspects in regard to durability, seasonal use, ADA requirements, maintenance costs and installation costs.

Native or Natural Rail Surface

This surface consists of the sub-base once the steel rails, ties and large ballast are removed. This underlying base material would be a combination of well drained fines, gravel cinder.

Surface Positives: Raised surface from neighboring land, under 2% slope.

Surface Negatives: Soft, un-compacted surface, vegetation and erosion issues and hard to maintain ADA requirements.

Costs: Extensive maintenance costs due to the raised grade made of well drained fines, surface will be rugged, and rutted. Limited development cost if used as passive trail in rugged condition.

Lineal Trail or Utility Corridors

Vary in width and provide greenbelts for native plant life and wildlife habitats. The width of some corridors allow for off grade side multi-use paths for runners, equestrian or snowmobile use.

Surface Positives: Utilizes native soils, take advantage of any topography changes in the corridor, and would be maintained by clearing, brushing or by mower.

Surface Negatives: Not a compacted surface, vegetation and erosion issues, hard to maintain ADA requirements.

²¹ *Connecting Michigan* a Statewide Trailway Vision and Action Plan. Michigan Trails and Greenway Alliance

Costs: Limited, if only a path is mowed or maintained as a passive greenbelt or habitat corridor.

Soft or Installed Surface

Application would consist of compacted gravel, limestone, steel slag or it could consist of a sub-base of compacted gravel with a finish base of limestone or slag over the existing sub-base

Surface Positives: Provides a “soft” surface for runners, joggers, wide-wheeled bikes and strollers, meets ADA requirements, is stable and compacted as needed in the season, compatible with snowmobile use. Limestone can repel some invasive vegetation on the trail.

Surface Negatives: Dust issues during dry seasons, not compatible with inline skaters and narrow wheel road bikes. Needs seasonal grading.

Costs: \$60,000 to \$80,000 per mile depending on surface materials; this figure does not include culvert repairs, bridge work and road crossings.

Hard Surface Asphalt

Application would consist of a single 2-inch lift or two (1.5 inch lifts) of MDOT 13A material over a 6” aggregate base with 2 foot wide gravel shoulders installed over the existing sub-base

Surface Positives: Meets the needs of all varieties of wheeled trail users. Provides a well-drained surface, easy to brush clean and maintain.

Surface Negatives: Root or plant damage, linear cracks and asphalt separation along the trail edge.

Snowmobile stud damage

Costs: The estimate to asphalt pave a section of the Fred Meijer White Pine Trail in Kent County ranges from between \$150,000 to \$183,000 per mile.

Hard Surface Concrete

Surface would consist of a single 4’ thick run of concrete over a graded and compacted railroad sub-base.

Little history for use on linear trails. Municipalities have used concrete for sidewalks for years.

Surface Positives: Meets the needs of all varieties of wheeled trail users. Provides a well-drained surface, easy to brush clean and maintain.

Surface Negatives: Limited history on this surface for linear trail, and how the surface responds to winter snowmobile stud use

Costs: The estimate for this surface type is \$200,000 per mile.

Bike Paths

The design of bike paths and bike lanes is an important element in the overall planning and development of a non-motorized transportation system. The following section describes design guidelines for four different non-motorized bike paths. The first three descriptions are described in the Kalamazoo River Valley Trailway Master Plan.²²

Bike Route (Designated Shared Roadway)

A shared roadway that has been designated by signing as a preferred route for bicycle use. Low speed/low volume streets and roadways are the best choices for bicycle route signing. Under such circumstances, cars and bikes can effectively share an 11' or 12' wide travel lane, with no special accommodations for bicycle travel, such as wide curb lanes or striped bicycle lanes, needed.

Wide Curb Lane

An outside or curbside travel lane of sufficient width (14') for bicyclist and motorist to share the lane with a comfortable degree of separation. The bicycle space is not striped, and generally the total width is less than a road with a paved shoulder or bike lane treatment. Streets with wide curb lanes may be signed as bicycle routes when traffic volumes and speeds are moderate to low

Bicycle Lane

A portion of a roadway, a minimum of 4" wide, which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists. Due to the safety hazards discussed under side-paths, bicycle lanes are always implemented as one-way facilities located on either side of the street, with arrows and pavement markings indicating the proper direction of travel. Where on-street parking is present, the bicycle lanes must always be placed between the parking lane and the travel lane, not next to the curb. Since bicycle lanes are highly visible they are often referred to as "host facilities," and as such, invite people to consider riding their bikes as an alternative to driving. Bicycle lanes are most appropriate on streets with moderate to high volumes of traffic, where most cyclists would not feel comfortable sharing a lane with traffic without the additional operating space. When implementing these types of facilities, it is important to pay attention to the lane striping

²² *Kalamazoo River Trailway Master Plan*. Greenway Collaborative, Inc., Bicycles including O'Boyle, Cowell, Blalock & Associates and The Forum for Kalamazoo County

treatment at intersections to help ensure that vehicles and bicycles are aware of each other when turning and merging.

Paved Shoulder

A paved shoulder is a one-way (on each side of the road) road shoulder that has been paved and marked for pedestrian and bike use. There is no standard width for a paved shoulder, though 4 to 5 feet is appropriate.²³

Water Trails

While not in the scope of this plan, local stakeholders expressed interest in the potential development of “water trails” in the Kingsley/Paradise Community. According to the Washington Water Trails Association²⁴, a water-trail is a route along a river or across other bodies of water for people using small boats like kayaks, canoes, day-sailors or rowboats. Water trails are most often identified by the land facilities that support water travel. These include launch and landing sites, campsites, rest areas and other points of interest.

Water Trails - Detroit Heritage River Water Trail. Example & photo from the Metropolitan Affairs Coalition.



²³ *Trail Development Process*, a presentation to the Newaygo Community Recreation Authority. May 14, 2009

Presentation provided by Emily Meyerson, Meyerson Consulting and Northern Lower Peninsula Trailways Coordinator

²⁴ Washington Water Trails Association - www.wwta.org/about_us/faq.asp

Chapter Four. Funding and Implementation

New funding will be required to implement the non-motorized transportation initiatives outlined in this plan. Non-motorized trails and maintenance can be financed through several funding sources.

Michigan Natural Resources Trust Fund

The Michigan Department of Natural Resources (DNR), Natural Resources Trust Fund (MNRTF) provides funding assistance for state and local outdoor needs, including land acquisition and development. This assistance is directed at creating and improving outdoor recreational opportunities and providing protection to valuable natural resources. Grant amounts range from \$15,000 to \$500,000, with a required minimum local match of 25%. For more information, please visit their website at: www.michigan.gov/dnr.

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) provide grants to local units of government to acquire and develop land for outdoor recreation. A minimum 50% match on either acquisition or development projects is required from local governments. The Michigan Department of Natural Resources makes recommendations to the national Park Service (NPS), which grants final approval. For more information, please visit the DNR website at: www.michigan.gov/dnr.

Michigan Trail-Way Fund

In 1993, the state of Michigan enacted “trailways” legislation calling for a statewide system of smooth-surfaced trails passing through Michigan’s natural areas and communities. The legislation allows communities to formally designate existing trails as a “Michigan Trailway” through the DNR Natural Resources Commission. Trails under development can be considered for trailway designation and receive financial assistance from the Michigan Trailways Fund, if master plan or other documentation that provides a basis for evaluation is presented for review. For more information, please visit the DNR website at: www.michigan.gov/dnr.

Transportation Enhancement Fund

In 1992, the Michigan Department of Transportation (MDOT) established the *Transportation Enhancement Program* to improve the quality of life for Michigan citizens by providing funding and other assistance and creating and responding to opportunities to enhance Michigan’s transportation system. The program was the result of the *Intermodal Surface Transportation Efficiency Act* of 1991. In

1998, the program was re-authorized in the *Transportation Equity Act for the 21st Century (TEA-21)*. Under previous programs, activities eligible for funding included the provision of facilities for pedestrians and bicycles including new or reconstructed sidewalks, walkways, wide paved shoulders and off-road trails, acquisition of scenic easements and scenic or historic sites, landscaping and other scenic beautification improvements including trail and waterfronts, and the preservation of abandoned railway corridors to acquire railroad right-of-way, construct multi-use trails, and develop rail-with trail projects. Federal law requires the applicant to provide a minimum match of 20% of the project cost. For more information, please visit the DOT website at: www.michigan.gov/mdot.

SAFETEA-LU

In 2005, the Federal Government passed the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU)* authorizing funding for a number of federal surface transportation projects and non-motorized *high priority (HPP)* earmarked projects. For more information, please visit the DOT website at: www.michigan.gov/mdot.

Michigan Transportation Funds

Under Public Act 51 of 1951, revenue from state fuel taxes and license plate fees are deposited in the Michigan Transportation Fund. This revenue is shared among local and state transportation agencies for construction, maintenance and operation of state transportation systems. The state transportation law (MCLA 247.660k) requires that a minimum of 1% of state transportation funds be spent for non-motorized transportation.

Michigan Cool Cities Initiative

In 2003, the Governor established the *Cool Cities Initiative* - a comprehensive program designed to build community prosperity, grow investment in financial and human capital, attract a talented workforce to Michigan, and retain its college graduate population. In 2007, the Cool Cities Initiative, in partnership with the Michigan State Housing Development Authority (MSHDA) awarded grants to four communities to participate in the Cool Cities Michigan Main Street Program and Cool Cities Blueprints for Michigan's Downtowns Program. Under the grant, the four communities will receive five years of intensive technical assistance through MSHDA, with a focus on revitalization strategies designed to attract new business investment and job creation to its central business district. We believe trail development could be a significant component to any downtown revitalization effort. For more information about the Cool Cities Initiative, please visit: www.coolcities.com

Community Energy Project Grants

The Michigan Department of Labor and Economic Growth - Energy Office has grants under its “Green Commuting” category available for public or non-profit organizations. This program has previously funded a community biking program. For more information, please visit the Department’s website at: www.michigan.gov/dleg.

Michigan Recovery and Reinvestment Plan

Under the recently adopted American Recovery and Reinvestment Act (ARRA), federal stimulus funding has been allocated to States in an effort to jump start the economy and create jobs. As a result, the new Michigan Economic Recovery Office has posted descriptions of available grants and links to granting agencies. For example, it appears the *Rural Community Facilities Program*, under the U.S. Department of Agriculture provides funding for schools and transportation. For more information about possible grant opportunities (including the Rural Community Facilities Program) please visit: www.michigan.gov/recovery

Safe Routes To School

Under SAFETEA-LU, funding is available through the Safe Routes To School program to develop and construct new bike-lanes, pathways, and sidewalks. Funding can also be used for education and programming.

Active Living by Design Grants

Established under the Robert Wood Johnson Foundation in 2001, this national grant funds technical assistance to 25 action oriented community partnerships to develop and implement projects that support physical activity and active living. For more information about the grant please visit: www.activelivingbydesign.org

Other Funding Sources

General Fund

Funding can be provided by general fund appropriations from each participating jurisdiction and/or organization.

Donations

Businesses, corporations, private clubs, community organizations and individuals may contribute to non-motorized improvement programs 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 and/or facilities.

Millage

A community property tax millage may be used to finance non-motorized trail initiatives for land acquisition, new facilities and operation. The recreational Authorities Act (PA 321 of 2000) authorizes a Recreation Authority to levy a tax of not more than 1 mill for a period of not more than 20 years on all the taxable property within the territory of the Authority

Pay Boxes on Trails

Each of the participating jurisdictions could place pay boxes at primary access points on the trail to collect donations

Utility Companies

There are numerous natural gas/oil wells throughout the greater Kingsley/Paradise Community. Local officials could inquire about receiving funding for non-motorized trail projects. Local officials could also inquire about access to power easements owned by DTE and/or Cherryland Electric.

Foundations

There are a number of local, state and national foundations that may provide funding for non-motorized initiatives.

Applying for Funding

The following tips for fund raising and grant writing are outlined in the 2007 Genesee County Regional Trail Plan¹. The tips were collected from the *Rails-to-Trails Conservancy* and can be useful as officials in the Kingsley/Paradise Community consider future funding options.

¹ Genesee County Regional Plan , 2007 – Genesee County Metropolitan Alliance

Develop a fund raising plan for your projects: Begin with your estimated project cost and set funding goals from key resources. This is a valuable resource because foundations often require you to show percentages of funding anticipated from each source.

Identify key components of your project that can be tailored to specific funding sources: Without compromising your project, try to develop a list of mini projects tailored to the interests of a number of different funding sources.

Complete all planning elements prior to submitting funding requests: seeking funding prematurely is not advisable as you often only get one chance to make a positive impression on a potential funder.

Start by writing a two-page summary letter: This helps to succinctly define your project and your request for support. Many funding sources provide guidelines for the initial “inquiry letter”. Make sure you follow their guidelines.

Create a credible team prior to seeking funding: Funders are interested in not only the quality of your project, but the quality of your organization or team as well.

Establish strong partnerships and demonstrate coordination: Funders are interested in strong partnerships and coordination among agencies. They especially like to see public and private sectors working together to leverage funds.

Establish broad community support prior to seeking funding: At a minimum, all project partners should provide “lead” funding, both cash and in-kind services, where feasible. If you do not have “lead” funding, attach support letters from individuals, local businesses, civic groups and others to your request.

Submit proposals: Once the research is completed, partners are in place, backed by a solid plan, submit proposals to your target list of funders. Make sure to follow any and all guidelines set forth by potential funders.

Complete all follow-up documentation: Thank and recognize donors: make sure you send thank-you letters recognizing receipt of donations and complete any required follow-up documentation.

Cost Estimates

The financial commitment required of local jurisdictions to plan for, develop and maintain non-motorized trails can be substantial. Therefore, communities need to be aware of some of the costs associated with trail development (e.g. brush clearing, engineering, paving) and maintenance (e.g. drainage, clearing, mowing, minor repairs). Local officials who carefully review and consider these issues can better develop a reasonable vision for their trail system. The following “cost estimate” charts were collected from the 2007 Genesee County Regional Trail Plan². The charts were developed from the “Trails for the 21st Century” a 2001 Rails-to-Trails Conservancy Publication and adopted from the Virginia Department of Transportation. Please note, the development and maintenance costs provided below will vary from location to location and are designed to provide a general cost estimate. For additional information about trail estimated development and maintenance costs, please refer to the summary of *Connecting Michigan* in *Chapter Three* of this plan.

Estimated Cost Per Mile For Non-Motorized Development		
Surface Material	Cost Per Mile	Longevity
Wood Chips	\$ 65 - 85K	Short Term (1 -3 years)
Granular Stone	\$ 60 - 100K	7-10 years
Resin Stabilized	Varies Based On Application	7-15 years
Asphalt	\$ 200 - 300K	7-15 years
Concrete	\$ 300 - 500K	20+ years
Boardwalk	\$1.5 - 2 Million	7-15 years

Source: "Trails for the 21st Century", Rails-to-Trails Conservancy, 2001

Typical Yearly Maintenance Costs For One-Mile Paved Trail	
Drainage and storm channel maintenance	\$500
Sweeping/blowing debris off trail	\$1,200
Pickup and removal of trash	\$1,200
Weed control and vegetation management	\$1,000
Mowing of grass shoulder	\$1,200
Minor repairs to trail surface/safety features	\$500
Maintenance supplies for work crews	\$300
Equipment fuel and repairs	\$600
Total Estimated Cost per mile	\$6,500

Source: "Trails for the 21st Century", Rails-to-Trails Conservancy, 2001

Cost Estimates For Retrofitting Existing Road Sections for Bike Paths	
Paved Shoulder Per Mile 4 feet each side	\$70,000
Bike Lanes Per Mile 5 feet each side w/curb & gutter	\$281,000
Wide Curb Lane Per Mile 2 feet each side	\$50,000

Source: Adapted from the Virginia Department of Transportation, 2000

² Genesee County Regional Plan , 2007 - Genesee County Metropolitan Alliance

Trail Maintenance

Trail maintenance is a very important component of providing for a non-motorized trail system. Properly maintained trails can provide for pleasant and safe experiences for users, encourage repeat visits, and minimize adverse impacts on the surrounding environment. In addition, most funding agencies require applicants to clearly identify maintenance costs and responsibilities. An understanding of who will be responsible for trail maintenance and how maintenance will be funded must be discussed among trail providers.

There are a number of activities associated with trail maintenance. The following “maintenance checklist” is provided from *Trails America*³, a national non-profit organization working for trail development. The checklist was developed by Jed Wagner, a Supervisor with the City of Denver Parks and Recreation Department. The City of Denver has 130 miles of paved trails, open 24 hours a day and maintained for year-round use. While some of the items listed below may be beyond the scope of the Kingsley/Paradise Community, they illustrate some of the key trail maintenance considerations.

Maintenance to be performed on a continuous, scheduled basis:

1. Trail user safety
2. Trails inspection
3. Trail sweeping
4. Trash removal
5. Tree and shrub pruning
6. Mowing vegetation
7. Scheduling maintenance tasks

Maintenance to be performed on an irregular or as needed basis:

1. Trail repair
2. Trail replacement
3. Snow and ice removal
4. Weed control
5. Trail edging
6. Trail drainage control

³ Maintenance Checklist for Greenways and Urban Trails, Jed Wagner. 1999 – American Trails: www.americantrails.org

7. Trail signage
8. Re-vegetation
9. Habitat enhancement and control
10. Public awareness
11. Trail program budget development
12. Volunteer coordination
13. Records
14. Graffiti control
15. Mapping
16. Coordination with other agencies
17. Education and interpretation
18. Law enforcement
19. Proper training of employees

Liability

Local governments should discuss and be aware of liability considerations. However, most non-motorized trails are covered by local municipal insurance policies. In general, the public liability risk of trails is small compared to the liability of roads and other recreation facilities.⁴ The most proactive action any community can take to prevent un-wanted lawsuits is to design a safe trail, make it user-friendly and develop and implement a comprehensive maintenance program.

Inter-governmental Cooperation and Trail Management

State enabling legislation has allowed local governments in Michigan to work across jurisdictional boundaries to provide for and finance a wide range of park and recreation services for many years. One of the most recent statute to enable inter-jurisdictional cooperation for park and recreation services is the Recreational Authorities Act [Public Act 231 of 2000; MCL 123.1131 et. seq.] Currently there are nine Recreational Authorities in Michigan established under this act, representing over 30 local jurisdictions. The Recreational Authority Act allows two or more villages, cities, townships, counties and/or districts to establish a Recreational Authority for the acquisition, construction, operation, maintenance, or improvement of public parks, including foot, bicycle and bridle paths.

⁴ Management and Maintenance, Rails to Trails Conservancy, 2008. www.railstotrails.com

The following chart illustrates the different state statutes that support community recreation planning and development.

Act	Title	Government Units Covered	Governing Body Established by the Act
1905 PA 157	Township Parks and Places of Recreation	Townships	Township Park Commission or Board of Commissioners ⁵
1913 PA 90	Parks, Zoological Gardens and Airports	Counties	County Park Trustees
1917 PA 156	Recreation and Playgrounds	Cities, Villages, Townships, Counties and School Districts	Recreation Board
1929 PA 312	Metropolitan District Act	Cities, Villages, Townships, and Parts Thereof	Charter Commission
1965 PA 261	County and Regional Parks	Counties	Parks and Recreation Commission ⁶
1989 PA 292	Metropolitan Councils Act	Cities, Counties, Villages and Townships ⁷	Metropolitan Area Council
Part 721 of 1994 PA 451	Michigan Trailways	Federal Government, Counties, Cities, Villages and Townships	Michigan Trailway Management Council ⁸
2000 PA 321	Recreational Authorities Act	Cities, Counties, Villages, Townships and Districts	Board of Directors

This chart is adapted from Appendix A of the DNR Guidelines for the Development of Community Park, Recreation, Open Space and Greenway Plans

⁵ Formed when two or more townships hold land jointly; it is made up of the supervisor or designee from each Township

⁶ To oversee a Regional Park

⁷ With a Metropolitan Area

⁸ Councils are formed pursuant to the Urban Cooperation Act (1967 PA7)

Community Support

Among other things, local trail advocates, residents, businesses owners and community support groups can be very helpful in planning for and promoting trails, volunteering for small construction projects and helping to secure funding. The following local and/or regional organizations were identified as potential trail advocates for the non-motorized trail system in the Kingsley/Paradise Community.

- TART - Bob, Otwell Executive Director
- The Outdoor Club
- Camp Pugsley
- Grand Traverse Conservation District
- Community Park and Recreation
- DDA
- Grand Traverse Hiking Club
- Grand Traverse Snowmobile Association
- Paradise Sportsman Club
- Grand Traverse Land Conservancy
- Cherryland Cycle Club
- The new Public Library
- Heritage Days Supporters White Pine trail
- Community Clubs

Community Stakeholders

In addition to the local advocates and stakeholders listed above, local, regional and statewide agencies, governments and organizations can be helpful in planning for and promoting trails, volunteering for small construction projects and helping to secure funding. Such stakeholders include:

Road Agencies

Recreational Groups (e.g., snow-mobile association)

Environmental Organizations (e.g., Grand Traverse Land Conservancy)

Health Officials (e.g. doctors, hospital administrators)

Regional Government Leaders (e.g., NWMCOG)

Senior Organizations

School Officials

Coordination with Planning and Zoning

Planning for community pathways is generally part of a larger comprehensive or recreation planning process. However, community pathways can also be addressed through a specific pathway or community transportation planning process. In these instances, it is important for local jurisdictions to incorporate or reference the goals, objectives and implementation strategies of the pathway plan into the community master plan, recreation plan and capital improvement plan. This will ensure that pathway facilities are properly addressed, planned for, funded and integrated into the overall development of the community.

Zoning is a valuable tool that can bring about orderly development, ensure that new uses are compatible, promote the welfare of the community and implement community policies⁹. *According to the Northwest Michigan Council of Governments Planning for Pathways*¹⁰, “zoning offers a number of opportunities for local governments to achieve specific objectives. While it hasn’t been used exclusively in the past to implement non-motorized transportation objectives, there is a role for zoning in ensuring that these objectives are addressed, either by the jurisdiction itself or by private developers.” “By incorporating pathway requirements into site plan or development review, planned development, and overlay zoning language, local governments can address where and what type of facilities should be constructed, as well as what design standards must be met”.

⁹ Mark Wyckoff, Michigan Zoning Guidebook for Citizens and Local Officials 2nd Addition. May 2009 - Planning & Zoning Center at MSU Michigan State University extension, and the Michigan Association of Planning

¹⁰ Planning for Pathways - An Implementation Resource of the New Designs for Growth Guidebook. Northwest Michigan Council of Governments 2009 www.ndfg.org

Chapter Five. Non-Motorized Transportation Resources

Establishing new non-motorized transportation systems and/or pathways can be a very time consuming and complex endeavor for any community. Fortunately, there are a number of easily accessible resources that can help communities plan for and develop non-motorized transportation systems and/or pathways.

Smart Growth

Smart Growth is a land use planning movement that emphasizes a set of planning principles designed to serve the economy, community and the environment. Smart Growth provides a framework for communities to make informed decisions about how and where they grow. Proponents of Smart Growth say that the principles make it possible for communities to grow in ways that support economic development and jobs; create strong neighborhoods with a range of housing, commercial, and transportation options, and achieve healthy communities that provide communities with a clean environment.¹

The *Ten Tenets* or *Principles of Smart Growth* have been widely adopted and promoted by a wide range of planning and developmental organizations, environmental agencies, local communities and state agencies - including the Michigan Land Use Leadership Council in 2004. Several of the Smart Growth Principles address concepts associated with non-motorized transportation, trail development and pedestrian circulation.

Smart Growth Principles

1. Mix land uses
2. Take advantage of compact building design
3. Create a range of housing opportunities
4. Create walkable communities
5. Foster distinctive, attractive communities with a strong sense of place
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Strengthen and direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions predictable, fair, and cost effective
10. Encourage community and stakeholder collaboration in development decisions

¹ Getting to Smart Growth, 100 Policies for Implementation: Smart Growth Network Publication
www.smartgrowth.org

Complete Streets

Complete Streets is a diverse coalition of groups that has joined together to work in support of complete streets. Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street. Creating complete streets means transportation agencies must change their orientation toward building primarily for cars. Instituting a complete streets policy ensures that transportation agencies routinely design and operate the entire right of way to enable safe access for all users. Places with complete streets policies are making sure that their streets and roads work for drivers, transit users, pedestrians, and bicyclists, as well as for older people, children, and people with disabilities.² The Complete Streets website provides a number of resources, including reports, presentations, sample ordinances and design guidelines.

Context Sensitive Solutions

Initially started as an effort by the Federal Highway Administration (FHWA) to find ways to design highways to fit better in the environment, context sensitive solutions has now evolved into a coalition of groups supporting broader contextual solutions to transportation design issues. As indicated on the Context Sensitive Solutions website, "Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist."³

In 2003, Governor Jennifer Granholm issued an Executive Directive that requires MDOT to incorporate context sensitive solutions into transportation projects whenever possible. Under CSS, MDOT solicits dialogue with local governments, road commissions, industry groups, land use advocates, and state agencies early in a project's planning phase. This dialogue helps to ensure that bridges, interchanges, bike-paths and other transportation projects "fit" into their communities. The CSS approach results in projects that respect a community's scenic, aesthetic, historic, economic, and environmental character.⁴

² Complete Streets: www.completestreets.org

³ Context Sensitive Solutions: www.contextsensitivesolutions.org

⁴ Michigan Department of Transportation, Context Sensitive Solutions: www.michigan.gov/mdot

Greenway Collaborative

The Greenway Collaborative is a small consulting firm based in Ann Arbor, Michigan that focuses on greenway, trail, open-space and non-motorized transportation planning.⁵ The Greenway Collaborative designs each project with the underlying goals of creating a more healthy, active and sustainable community. Over the next year, the Greenway Collaborative is hosting a free webinar series. The webinars provide in-depth information on a specific trail or non-motorized transportation issues. Some of the Greenway Collaborative's most recent webinar presentations can be found at their website.

Connecting Michigan - A State Trailways Vision and Action Plan

Connecting Michigan is a proactive and broad-based initiative to identify and address the critical issues that are impeding Michigan's progress on developing a statewide interconnected system of trailways and greenways. The Connecting Michigan Initiative (and publication) was spearheaded by the Michigan Trails & Greenway Alliance (MTGA), in partnership with the National Park Service: Rivers, Trails, and Conservation Assistance Program (NPS-RTCA) and the Michigan Recreation and Park Association (MRPA). The MTGA is committed to fostering and facilitating the creation of an interconnected statewide system of trails and greenways for environment/cultural preservation purposes. MTGA works at both the state and local levels by assisting public and private interests in trail and greenway planning, funding, development and maintenance.⁶ The Connecting Michigan publication (and accompanying CD) includes information pertaining to: the history of trailways in Michigan; state studies and action plans; implementation strategies; and information resources. The action plans discuss future goals and actions related to ten targeted issues.

Michigan Trails Finder⁷ - Michigan Trails and Greenways Alliance

The Michigan Trails and Greenways Alliance in cooperation with Michigan State University's Remote Sensing & Geographic Information Science Research and Outreach Services, have developed an interactive website/viewer database that allows users to find and view built trails throughout the state. The statewide data base is still very much a work in progress - not all trailways have been mapped.

Connecting Michigan Action Plans Targeted Issues

1. Trailway Funding
2. Trailway Database & Website
3. Property Issues (easements & titles)
4. Trailway Usage
5. On-Road Connections
6. Building Trailways Support
7. Overcoming Boundaries (gaining cooperation)
8. Coordinating Resources
9. Multi-Use Trails & Design
10. Statewide Trailways Network

⁵ The Greenway Collaborative: www.greenwaycollab.com

⁶ Michigan Trails & Greenway Alliance: www.michigantrails.org

⁷ Michigan Trails & Greenway Alliance: www.michigantrails.org

Rails-to-Trails Conservancy

The Rails-to-Trails Conservancy is a non-profit organization working with communities to preserve unused rail corridors by transforming them into trails that enhance the health of America's environment, economy, neighborhoods and people⁸. The organization's website includes a number of helpful resources, including publications, report and links. The website can be found at www.railstotrails.org/index.html.

Michigan Trails at the Crossroads: A Vision for Connecting Michigan (2006)

Developed by the Michigan Department of Natural Resources, in cooperation with MDOT, this report outlines (including funding sources) how the state will work to create a statewide trail system. A copy of report can be found at: www.michigan.gov.

TART

Traverse Area Recreation and Transportation Trails, Inc. (TART) is the non-profit regional trails organization for the greater Traverse City region. Their mission is to enrich the Traverse Area an interconnected network of trails, bikeways and pedestrian ways; and encourage their use.⁹ TART's friendly staff can be very helpful in assisting in trail design, development and implementation.

Safe Routes to School

Safe Routes to School (SR2S) is an international movement- and now a federal program - to make it safe, convenient and fun for children to bicycle and walk to school. When routes are safe, walking or biking to and from school is an easy way to get the regular physical activity children need for good health. Safe Routes to School initiatives also help ease traffic jams and air pollution, unite neighborhoods and contribute to students' readiness to learn in school.¹⁰ The purposes of Safe Routes to School programs are:

- To enable and encourage children, including those with disabilities, to walk and bicycle to school;
- To make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age;
- 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 elementary schools.

⁸ Rails-to-Trails Conservancy: www.railstrails.org

⁹ TART: www.traversetrails.org

¹⁰ Safe Routes to School - Michigan: www.saferoutesmichigan.org

City of Davis Comprehensive Bicycle Plan

One of the most prolific bicycle communities in the country, the City of Davis California has led an effort to make bicycles the primary mode of transportation. This master plan is a great example of how bike-trails can be incorporated into the community. A copy of the plan can be found at: <http://cityofdavis.org>

Planning for Pathways

This document was designed to aid local governments in their efforts to implement policies outlined in the New Designs for Growth Guidebook, including bike and pedestrian circulation. Among other things, *Planning for Pathways* provides definitions for pathways and information on pathway maintenance, engineering standards and zoning ordinance examples. A copy of the document can be requested by calling the Northwest Michigan Council of Governments

Trail Towns - Capturing Trail Based Tourism

This document outlines how communities can take advantage of economic opportunity associated with biking and hiking. Among other things, *Trail Towns* provides information on how to design trails into your current public amenities, how to understand user needs, how to promote trail systems and how to create a comprehensive trail oriented community. A copy of the document can be found at: www.atatrail.org/pdf/1TTManual.pdf

Additional Information Resources (Adapted from *Connecting Michigan*)

National Advocacy Groups

Active Living By Design
www.activelivingdesign.org

National Recreation and Park Association
www.nrpa.org

American Canoe Association - Water Trails
www.americancanoe.org

Professional Trail Builders Association
www.trailbuilders.org

American Trails
www.americantrails.org

Rails-to-Trails Conservancy
www.railtrails.org

National Center For Bicycling and Walking
www.bikewalk.org

Thunderhead Alliance
www.thunderheadalliance.org

The Conservation Fund
www.conservationfund.org

The Trust for Public Land
www.tpl.o

Other National Groups

Pedestrian and Bicycle Information Center
www.pedbikeinfo.org

Walkable Communities, Inc.
www.walkable.org

State Advocacy Groups

League of Michigan Bicyclists
www.lmbike.org

Michigan Mountain Biking
 Association
www.mmba.org

Michigan Environmental Council
www.mecprotects.org

Michigan Recreation and Park Association
www.mrpaonline.org

Michigan Trails and Greenway Alliance
www.michigantrails.org

State Government Agencies

Michigan Department of Community Health
www.michigan.gov/mdch

Michigan Department of Transportation
www.michigan.gov/mdot

Michigan Department of Natural Resources
www.michigan.gov/dnr

Travel Michigan
www.michigan.org

Federal Government Agencies

Federal Highway Administration
www.fhwa.dot.gov

National Park Service: Rivers, Trails, and Conservation Assistance Program
www.nps.gov/rtca

Other Groups

Governor's Council on Physical Fitness
www.michiganfitness.org

Regional Trail Groups

Genessee Regional Trail Council
www.co.genessee.mi.us/gcmpe-plan/Trails.htm

Heart of Michigan Trails
www.michigantrails.org/heart_og_mi.asp
Huron Greenways Initiative
www.hurongreenways.info

Macomb County Trails
www.wadetrail.com/resources/macomb/index.htm

Noquemanon Trails Network
www.noquetrails.org

Oakland Trails Advisory Council
www.oakgov.com/parksrec

St. Clair County Trails
www.stclaircounty.org/Offices/parks/btob.asp

The GreenWays Initiative
Community Foundation for Southeast Michigan
<http://greenways.cfsem.org/>

Top of Michigan Trails Council
www.topofmichigantrails.org

West Michigan Trails and Greenways Coalition
www.trails.org

Publications and Other Media

Trails for the 21st Century, 2nd Edition
Rails-to-Trails Conservancy, 2001
www.railtrails.org

Guide for the Development of Bicycle Facilities, 3rd Edition
American Association of State Highway and Transportation
www.transportation.org

Designing Sidewalks and Trails for Access - Parts I and II
Beneficial Designs, Inc
www.fhwa.dot.gov/hep/pubs.htm

Making the Connection: Rail-Trails in Michigan Today - DVD
Michigan State University
www.carrs.msu.edu/trails

Chapter Six. Action Plan

This chapter outlines a series of action strategies to achieve the vision and goals of this plan. The action strategies outlined in this chapter were established by the steering committee after considerable discussion concerning the most logical and practical way to achieve the goals and objectives and in response to the public meeting.

Action Strategy One. Construct the Kingsley Trail

As previously discussed in Chapter Two, officials from the Village of Kingsley, Paradise Township and Kingsley Public Schools are working to develop about a one-mile, non-motorized pathway that would extend from Eden Street to Kingsley Road (see Map 2).The proposed pathway would utilize the current railroad right-of-way through the Village (and Grove Park). The central location of the proposed pathway will provide residents of the Kingsley Ridge, Kingsley Heights and Cherry Woods neighborhoods with biking and pedestrian access to Kingsley High School and Brownson Avenue.

Public officials from the three entities should continue to work together on the implementation of the *Kingsley Trail Completion Guide* (Appendix A). The Kingsley Trail Completion Guide outlines six substantial but achievable goals and the required steps for implementation, including:

1. Trail Property Acquisition - Acquire property and/or easements along the planned route
 - Kingsley School Property
 - Railroad Property
2. Trail Layout - Establish the legal parameters of the site (setbacks, etc...)
3. Village Construction - Mark routes, clear brush, level hills, and surface pathway
4. Cost Estimation - Estimate new or anticipated costs and total costs (as trail get implemented)
5. Funding - Work to identify, write and apply for grant funding. Work with local advocacy groups to secure in-kind support and/or funding
6. Contract Construction

Additional Recommendation. In addition to the planned implementation measures listed above, local officials should explore and discuss the development of a pedestrian link or spur from the proposed Kingsley Trail at Blair Street and the new District Library/Village Office and Brownson Park (see Map 6). A new pedestrian link at this location would provide users with direct access to several additional cultural assets including the downtown area, neighborhoods and the public schools. In addition, the new

Action Strategy One. - Recommendation to add a pedestrian link at Blair Street to connect with the public parking lot (with BATA stop), Brownson Park, the district library , the village offices and downtown Kingsley.



pedestrian link would tie in with the newly finished parking lot, sidewalk infrastructure and a BATA Bus Stop. One of the primary obstacles would be access across the existing rail road tracks.

Action Strategy Two. Implement Safe Routes to School Improvements

As previously discussed in Chapter Two, school officials and a local stakeholder team (teachers, parents, students and law enforcement officers) completed a walking audit of the Kingsley Community. The walking audit identified 42 specific areas for improvement - grouped into five categories. School officials should continue to work with the Village of Kingsley to implement several of these improvements (a full list of suggested improvements is listed in *Appendix B*).

Action Strategy Three. Establish Safe and Accessible Pedestrian Crossing Routes Across M-113

In addition to the Safe Routes to School improvements, school and public officials should continue to work with the Michigan Department of Transportation to identify safe and accessible pedestrian routes across M-113. Through preliminary discussions during the planning process, two locations have been identified as “potential” pedestrian routes across M-113: (1) Elm Street and (2) The proposed *Kingsley Trail*. A pedestrian crosswalk at Elm Street could utilize existing sidewalk infrastructure and provide a fairly direct link with the northern neighborhoods of the Village and the school facilities. A pedestrian crosswalk at the location of the proposed *Kingsley Trail* would require local officials to minimize the number of other signs located near the proposed crossing and remove existing vegetation to establish clear sight lines. Community stakeholders also identified Garfield Road as a “potential” pedestrian route across M-113 upon the placement of a new traffic signal.

Action Strategy Four. Establish a Shared Use Pathway Corridor Linking the Planned Kingsley Trail (and the Village of Kingsley) to Mayfield Pond Park

As previously discussed in Chapter One, LIAA staff members and the steering committee worked together to map a preliminary location for a new non-motorized shared use pathway connecting Mayfield Pond Park with the Village of Kingsley. In mapping the preliminary location of the pathway, steering committee members took into consideration property ownership, physical obstacles, trail connections, road/rail-road crossings, land acquisition, natural resources, existing land use (*Maps 3 & 4*) and the existing/planned local pathway/recreation assets. The primary factors in determining this preliminary pathway location was access to public lands (including school property and township parks lands) and land use. By locating the pathway to the west of the railroad, the trail would avoid sensitive wetlands and utilize the existing elevations to create a more dramatic view-shed along the trail. Some of the obstacles

Action Strategy Two. - Local officials will continue to implement the specific improvements identified in the *Safe Routes to School Plan*.



Action Strategy Three. - Local officials should continue to explore safe and accessible pedestrians across M-113. Elm Street has been identified as one potential crossing area.



and/or concerns of this route include limited community linkages, the length/cost of the trail and access to stet lands.

In addition to the preliminary trail location identified by the steering committee, local officials should continue to discuss and explore alternative pathway locations, including the railroad right-of-way or land easements adjacent to Garfield Road. The railroad right-of-way would provide a clear and defined space for the pathway and could provide a link to other pathway resources in Grand Traverse County. One of the primary obstacles and/or concerns with this route is the reluctance of railroad companies to allow trails within their right-of-way. Though rare in Michigan, there are some examples of pathways along active railroad corridors. In addition, the rail corridor traverses through substantial wetlands. A pathway along Garfield Road would provide several community linkages and a substantial visual presence in the community. One of the primary obstacles and/or concerns with this route is the number of easements that would be required to build the pathway. The location of the preliminary pathway corridor established by the steering committee and the other two pathway corridor options are illustrated on *Map 5*.

Once a preferred pathway location has been established, community officials should continue to work together to formally establish/identify the pathway corridor and construct the pathway. The following activities and/or questions can help public officials formally establish the pathway corridor.

1. **Re-examine property ownership along the route.** Are most property owners friendly/not friendly toward pathways? Would some property owners demand certain requirements? Which trial route is the most appropriate?
2. **Acquire necessary land and/or easements.**
3. **Inventory and photograph the pathway corridor.** Inventory and photograph different components of the pathway corridor including: vegetation, wildlife habitat, topography, soils, hydrology/drainage, safety consideration and other possible amenities.
4. **Create a 1-2 page fact sheet on the project and corridor.** Create a 1-2 page fact sheet on the project and corridor that highlights: the route, attractions and linkages to destinations, description of topography, possible pathway users, basic costs, and the pathway name.
5. **Identify and organize stakeholders.** Identify and organize stakeholders to help secure pathway awareness, support and funding. Stakeholders should include the local citizens, organizations and businesses and regional organizations (e.g. TART).
6. **Initiate public involvement activities:** Conduct opinion surveys, host informal meetings, talk with focus groups, host a community-wide public forum
7. **Build awareness.** Develop mailings and/or press releases, conduct an open house

Action Strategy Four. - Local officials should continue to explore the railroad right-of-way as a location for a new non-motorized pathway connecting the Village of Kingsley and Mayfield Pond. Pictured below - the railroad corridor leading south from Mayfield Pond.



8. **Work directly with affected landowners to address their concerns.** Discuss and address landowner concerns about the planned pathway. Provide answers to their questions.
9. **Seek funding.** Utilize the funding sources (and other sources) outlined in this plan to secure funding for pathway development
10. **Develop a formal preliminary design.** Develop a “formal preliminary design” for the pathway corridor. The design should include pre-engineering details (e.g. survey & route alignment), the location of bridges and retaining walls, detailed cost estimates, a feasible schedule, design details and required permits.
11. **Construct the pathway.**

Other Important Considerations to address during the development process

- Liability Insurance
- Maintenance Schedule
- Set up Operations Logistics
- Preliminary Security
- Volunteer Help

Action Strategy Five. Establish an Inter-Governmental Body to Oversee Development, Implementation and Maintenance of the Pathway System

As discussed in Chapter Four, there are a number of legal options that allow local governments to work together to provide for, maintain and finance pathways. Public officials from the Village, Township and school district should continue to meet, discuss and explore opportunities for formal coordination.

Action Strategy Six. Establish Bicycle Facilities throughout the Village of Kingsley

Public officials should discuss and explore the development of several bicycle facilities throughout the Village of Kingsley, including: bike routes, on-street bike-lanes, and bicycle infrastructure (i.e. bike racks).

As described in Chapter Three, a bike route is a shared roadway which has been designated by signing as a preferred route for bicycles. Typically located on slow/low-traffic streets, bike routes can be used to link key destinations in close proximity. A bike route may be appropriate for: (1) Blair Street; (2) Fenton Street; (3) Brownson Avenue; (4) Clark Street (from Fenton Street to Civic Center South); and (5) a route that includes Brown Street, Mack Avenue, Madison Avenue and Elm Street. A bike route on Blair Street

Action Strategy Six. - An on-street bike lane may be appropriate along Brownson Avenue.



would provide an east/west route connecting the north side of the Kingsley School Complex and the surrounding neighborhood with downtown Kingsley, Brownson Park and the District Library. In addition, a link could be made with the proposed trail spur from the Kingsley Trail (described in Action Strategy One). A bike route on Fenton Street would provide a west/east access connecting the south side of the Kingsley School Complex and the surrounding neighborhood with downtown Kingsley, Brownson Park and the District Library. A bike route on Brownson Avenue would provide the north/south link between Blair and Fenton Streets. A bike route on Clark Street would connect to existing sidewalk infrastructure and a bike route on Fenton Street. This route would provide a link to the school complex, and the surrounding neighborhood, with downtown Kingsley, Civic Center South and several High School Sports Facilities. A bike route from the Brown Street to Elm Street would connect the northern neighborhoods to the school complex and other community assets south of M-113. Users would use existing sidewalk infrastructure and bike routes on Blair Street. The location of the preliminary bike route facilities are illustrated on *Map 6*.

Upon additional discussion and assessment, public officials should explore expanding bike routes to include on-street bike-lanes at (1) Blair Street; (2) Fenton Street; and (3) Brownson Avenue. The implementation of on-street bike-lanes on these three streets will require local officials to examine road width, available parking and traffic patterns at key drop-off and pick-up times around the school complex.

In an effort to make the community more bicycle friendly, public officials should also provide bike racks and/or lockers at key destinations around the Village. Village officials have recently purchased and plan to place a series of bike racks at key locations around the Village. In addition, school officials and local should provide bike racks and/or bike lockers around the school grounds.

Action Strategy Seven. Incorporate Action Strategies Into Planning Documents and Zoning Regulations

As described in Chapter One, this plan is the result of over two-years of community-wide discussions and cooperative planning efforts in the greater Kingsley/Paradise Community. To be sure the action strategies outlined in this plan are funded and implemented, local officials should incorporate and/or reference this plan in their master plan, recreation plan and capital improvement plan. In addition, local officials should incorporate pathway and bicycle parking requirements into their site plan review ordinance.

Action Strategy Six. - Temporary bike rack in front of the new district library



Maps