

CHAPTER 5 : RECOMMENDATIONS



This chapter identifies a complete list of infrastructure and programming that will help the Michiana region reach the vision of boasting an interconnected, safe, and accessible transportation network where all residents and visitors can travel from place to place without the use of motorized vehicles. These recommendations derive from information gathered during the planning process from the steering committee, local public agencies, stakeholders, public feedback, and technical analysis of the network. Implementation of these recommendations will require strong partnerships, time, and various levels of funding to continue to make our region a thriving place that fosters active transportation culture.

Active Transportation Network

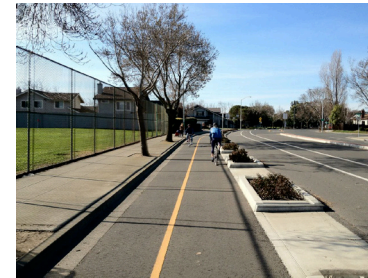
An active transportation network should provide opportunities for all levels and abilities of walkers and people who bike. To accommodate all users safely and comfortably, a variety of facility types are required. For the purpose of this plan, the following facilities were identified:



Shared Use Path: separated facilities that are wide enough to accommodate bikers, walkers, runners, and skaters. These facilities may be adjacent to a road or take their own path.



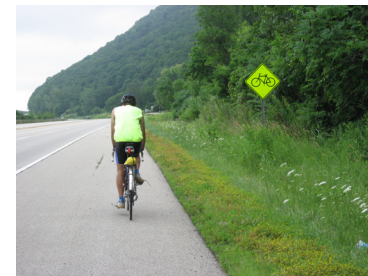
Bike Lanes: 5' to 6' lane marked in the pavement reserved for bicyclists, usually by a white line and bicycle icon. Bicycle lanes can be adjacent to moving traffic, or include a buffered space done by pavement markings.



Cycle Track: one-way or two-way separated path at the street or sidewalk level, designed for use by bicycles only.



Signed Route: Roads where bicycles and vehicles share the same lane. Routes can be identified with “Bike Route”, “Share the Road”, or “Bikes may use the Full Lane” signs. Additionally, sharrows, which are pavement marking of a bike with two arrows above it, signify to bicyclists and drivers that bicyclist can use the full lane.



Wide Shoulder - Signed Route: Roads identified as above, however having a wide shoulder that bicyclists may use to provide distance between them and moving traffic.



Walking Path: Sidewalks or trails that are best suited for pedestrians rather than other recreational uses.



Complete Street Facilities: Areas in which a need was identified for a bicycle or pedestrian facility, however no particular facility was specified. The idea is that these facilities will improve the safety and comfort for people of all ages and abilities, and that a specific facility type can be determined upon further planning and study.

Identified Projects

This plan incorporates 552 miles of bike and pedestrian projects to be included in the Michiana on the Move: 2040 Transportation Plan. Of the 552 proposed miles of infrastructure, the majority are identified as shared use path facilities (47%) or signed routes (32%). These projects, along with smaller local projects such as sidewalk and crossing improvements, will provide a safe, connected, and accessible environment for all users to access important destinations such as schools, places of employment, commercial centers, and recreational opportunities. Because of the long range nature, and broad scope of this plan, it is thought that projects may change as others are being implemented. Any identified project may be improved to a higher facility type as circumstances allow.

The following graphs and map provide a snapshot of what facilities have been identified as projects in each county. For more detail on specific locations of projects, please visit Appendix A.

Figure 5.1 Miles of Proposed Bicycle and Pedestrian Facilities

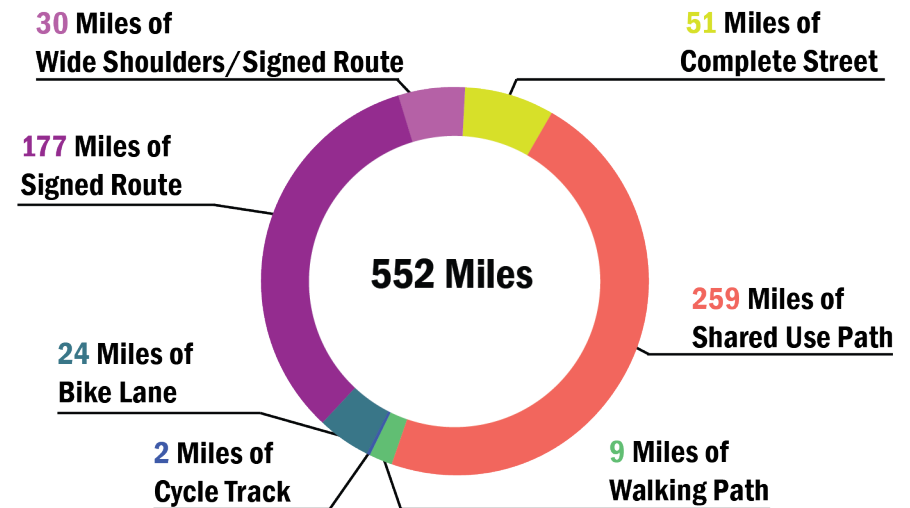


Figure 5.2 Miles of Proposed Bicycle and Pedestrian Facilities by County

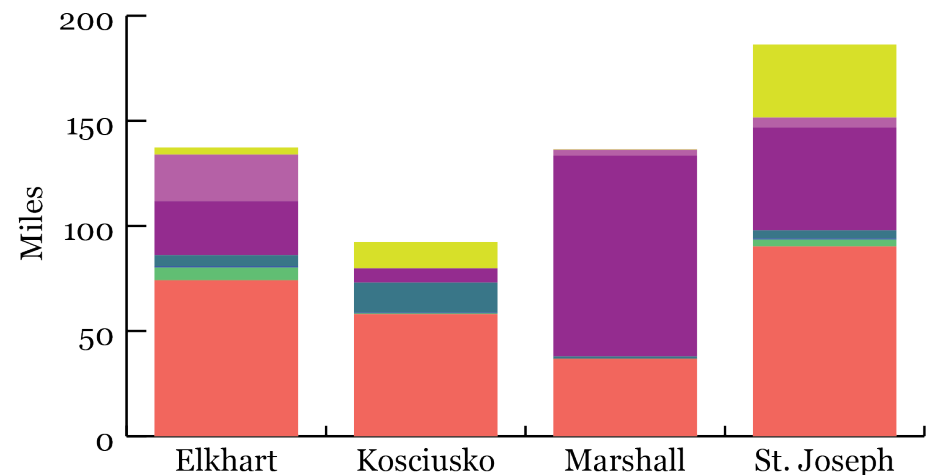
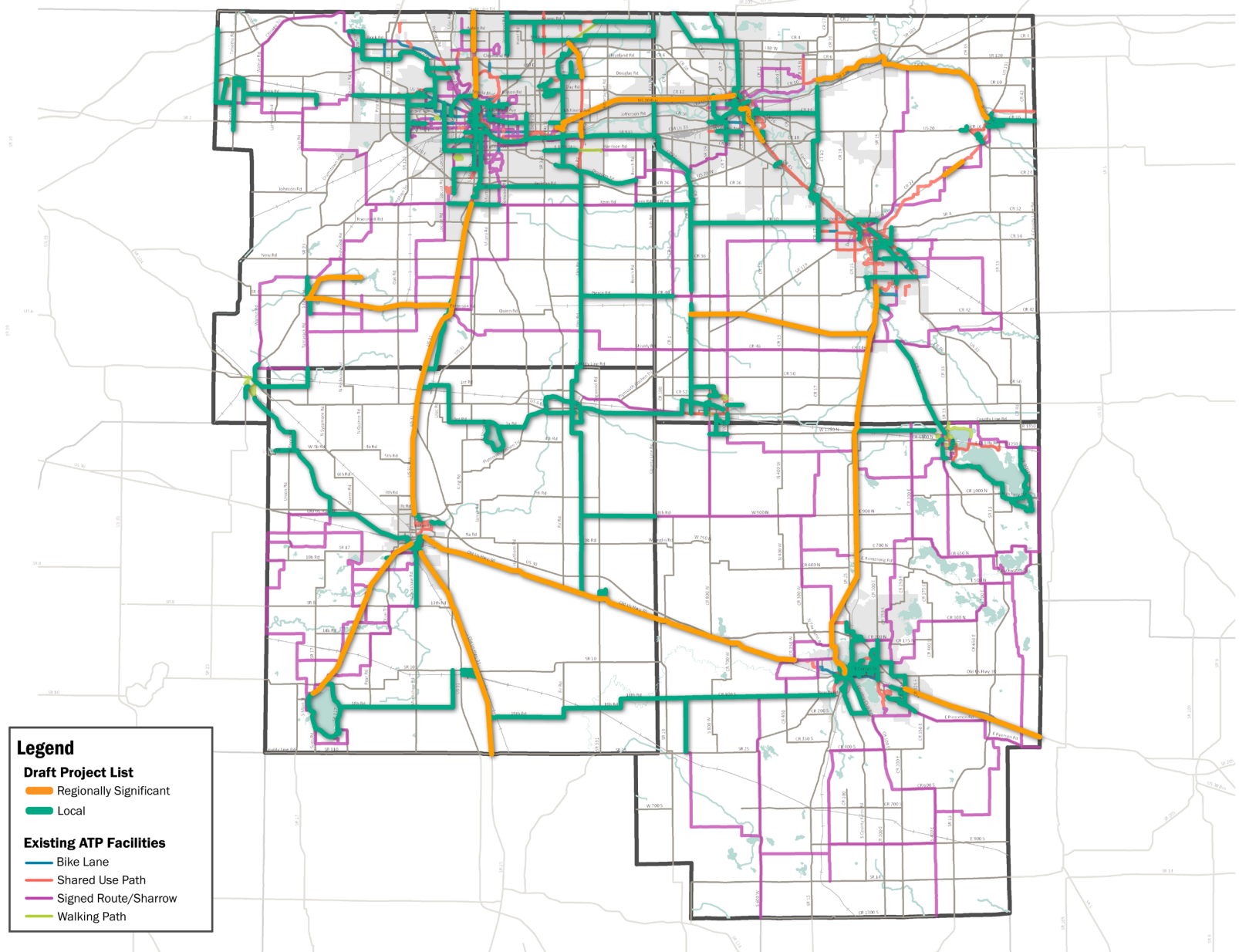


Figure 5.3 Proposed Bicycle and Pedestrian Projects



Regionally Significant Projects

Every project listed helps our communities and region become more walking and bicycling friendly. However, some of the projects are identified as regionally significant because of their impact to the connectivity of our regional active transportation network. Projects that finish missing links and key trails, add additional regional connectivity, and improve small town connections are all crucial to developing a network that is robust and available to all of our residents.

Finish Key Trails

The Michiana region has several important trails connecting our communities. It is important for regional connectivity to finish gaps and extend the trails to other communities.



Pumpkinvine Nature Trail: The Pumpkinvine Nature Trail is a major trail in Northern Indiana. It connects Goshen, Middlebury, and Shipshewana by an abandoned railroad line. The trail is nearly all off road, with the exception between CR 33 and CR 35.



Mapleheart Greenway: An important connection to the Pumpkinvine Nature Trail is on the Mapleheart Greenway, which connects Elkhart to Goshen. The Greenway currently ends at Hively Ave and becomes a bike lane until Indiana Ave. Continuing the Greenway into Downtown Elkhart and to the Riverwalk would extend the Pumpkinvine Nature Trail's length to nearly 30 miles.



Indiana Michigan River Valley Trail: The St. Joseph River is a key feature in the North Central Indiana and Southwestern Michigan. South Bend and Mishawaka connected their Riverwalks to begin the River Valley Trail. The vision is to continue the trail from South Bend into Niles, MI. Niles Township has constructed a trail starting at the State Line and continuing to the south side of Niles. St. Joseph County is in the process of designing and/or constructing sections of the trail from the north side of South Bend to the State Line. Finishing the gaps in the trail is important for regional active transportation travel between Indiana and Michigan.



Capital Avenue Trail: When the Indiana Department of Transportation (INDOT) built a new north-south connection between the Toll Road and US 20 bypass, they included a shared use path along the east and west sides of the road. The trail needs to be completed between Jefferson Blvd and Lincolnway over the St. Joseph and continued north into Granger.

Build a Strong Regional Network

Though our region has several major trails, it is important to continue to grow the regional network. There has been strong interest to connect each of our counties and major cities by trails, especially in the rural areas of the region.

- **E&W Rail Trail:** One of the highest priorities in the region is to connect the Pumpkinvine Nature Trail and the Indiana Michigan River Valley Trail into one off-road network. Through building next to the E&W Railroad line, Mishawaka and Elkhart can connect their two existing Riverwalk trails. This will connect our region's four largest communities completely with off-road shared use paths.
- **Old US 31/Michigan Road Trail:** In 2015, INDOT completed the new limited access highway between South Bend and Plymouth. The old US 31, or Michigan Road, has left our region with an opportunity to use the corridor to build a trail between St. Joseph and Marshall Counties. As INDOT looks to continue improving US 31 south of Plymouth, there may be an opportunity to continue the trail south, out of Marshall County, to connect to Rochester where it can meet the existing Nickel Plate Trail.
- **SR 15/Winona Railway Trail:** In order to connect Goshen and Warsaw, SR 15/Winona Railway was selected as a potential trail corridor. This would provide a connection into Goshen's existing Winona Railway Trail to the north side of Warsaw.
- **US 30/Lincolnway Trail:** In Marshall and Kosciusko Counties, east-west connections have been limited. Using the Old US 30/ Lincolnway corridor, bicyclists can ride between Plymouth and Warsaw. Moving east of Warsaw, using the existing US 30 corridor, riders can continue to Columbia City and eventually to Ft. Wayne.

Improve Community Connections

Regional trails provide economic opportunities for communities, especially small towns. Improved connectivity invites residents, businesses, and visitors to stay in the community.

- **QuakerTrace:** As mentioned above, the Pumpkinvine Nature Trail is an important regional connection in the Michiana region. To improve connectivity, the Quaker Trace trail is planned to connect the north side of Elkhart through Bristol to Middlebury and the Pumpkinvine Trail.
- **Wabash 4th District Railroad Trail:** Sections of the Wabash 4th District Railroad are still in limited use, however abandoned sections provide an opportunity for a Rails-to-Trail project. One section in Elkhart County can connect Wakarusa to Goshen. This path can connect to the Winona Railway Trail between Goshen and Warsaw providing additional regional accessibility.
- **Potato Creek State Park Trail:** Potato Creek State Park is located between the towns of North Liberty and Lakeville. The State Park boasts of several walking and bicycling trails and would benefit with designated trail access to the park. Additionally, using an abandoned rail corridor, a trail can be constructed between North Liberty and Lakeville and connecting to the Old US 31/Michigan Road trail.
- **Culver-Plymouth Rail Trail:** In Marshall County, an abandoned rail corridor exists between the town of Culver and Plymouth. This trail would provide access to the popular Lake Maxinkuckee in Culver. In Plymouth the trail would meet with the Plymouth Greenway and provide connections to the Old US 31/Michigan Road trail and the Lincolnway Trail.

Supporting Programs

Programs and policies are critical components of supporting active transportation and the goals identified within this plan. When implemented in conjunction with the enhancement of bike and pedestrian facilities, low cost programs based around education, encouragement, enforcement and equity can create a flourishing active transportation environment.

Programs can be used to encourage and provide incentives for people to walk and bike as a part of their daily routine; they can educate people of all ages and abilities on how to safely use the street network as a pedestrian and bicyclist; and they can improve access to necessary equipment such as bikes, that many might not have the means to acquire.

The following list describes programs that can be created or expanded upon to enhance walking and biking in the area to foster a safe and comfortable environment for all to use.



MACOG staff teaching Bike hand signals at Get up and GOshen!

Active Transportation Educational Program

Education plays a vital role in ensuring that children and adults alike stay safe while walking and biking. Learning about the benefits of active transportation can also encourage more people to try it out. Ensuring that educational programs are in place through a variety of ways including a safety campaign website, television and radio ads, and schools and community events, would help educate all members of our community about safe and courteous walking, biking, and driving.

Safety Campaign

Creating a cohesive safety campaign targeted for all users of the road will assist in making sure stakeholders and other local interest groups can easily share and educate a wide range of people on the importance of safety and courtesy on the roadway in a consistent and identifiable way.

Safe Routes to School

Safe Routes to School Programs aim to create safe, convenient, and fun opportunities for children to bicycle and walk to and from school. Currently, there are several local organizations and bike groups that hold educational programs, such as bike rodeos, for elementary students. By expanding on what is already being done and incorporating safe routes to school programs in all school districts for a variety of ages will ensure children are encouraged to walk and bike and have the knowledge to remain safe on our streets.

League Cycling Instructors

Expanding our local League Cycling Instructors (LCIs) is one way to promote active transportation education in the region. LCIs are certified to teach the Smart Cycling classes to children as well as adults. The main goal of the class is to ensure people feel comfortable and secure on a bicycle as well as to promote the idea that bikes are treated as a vehicle. LCIs must be a member of the League of American Bicyclists and complete a 3 - day seminar training.

Driver Education

Making sure that all users on the road stay safe means that drivers should also be made aware of how bicyclists and pedestrians are allowed to use the road. Providing information about various bike and pedestrian laws in driver's education courses, such as the 3 foot law, would provide a good introduction into how drivers interact with other users.

Events

Community events are good ways to actively engage children as well as adults. These events can be used to target underserved or hard to reach communities, which can further the reach of active transportation education in the region.

Law Enforcement

While enforcing traffic laws for bicyclists, pedestrians, and motorists can be difficult, law enforcement officers can play a crucial role in establishing respect among all users. Incorporating law enforcement officers into bike and pedestrian education is a good way to collaborate and ensure traffic safety is continually improving.

Targeted enforcement can also be used as an educational opportunity in areas with high volumes of bicycle and pedestrian activity, such as schools, through warnings for illegal behavior or rewards for proper etiquette and safety.

Community Outreach

Community Outreach programs are meant to provide the proper support and mechanisms to municipalities, businesses, and community members on what resources they need to utilize and how to promote the active transportation culture.

Marketing and Branding Campaign

The Michiana region is home to several regionally significant trails: Indiana Michigan River Valley Trail, Mapleheart Trail, and the Pumpkinevine. The creation of a marketing campaign

would promote and bring awareness to these trails, encouraging more use by residents, as well as visitors, of the beautiful trails the region hosts. This marketing campaign can also be used to promote larger events that take place on our trails and attract people to the region.

Active Transportation Resource Guide

Creating an Online resource guide for existing and potential active transportation users will take some of the uncertainty out of planning walking or biking trips. By providing essential resources, such as a regional bike and pedestrian map and end of trip facilities and amenities inventory such as showers, bicycle racks, water fountains, and restrooms; planning a route to a particular destination becomes easier. This resource guide could also provide educational information, such as facility types and rules of the road, as well be a guide to different community events or groups that promote active transportation.

Businesses should be key partners for promoting an active transportation culture as well. With a resource guide geared towards businesses, these key partners can be informed on how to encourage and promote walking and biking for their customers and employees, as well as learn how active transportation can be good for their businesses. Items such as bike racks, health or insurance benefits, or promotions for walkers or bikers can all incentivize walking and biking. Examples of good resource websites include The City of Chicago and the Broward MPO which both have created a comprehensive complete streets website that provides information on existing projects, safety, resources, and way to get involved.

Impact of Trails Study

As more is done to promote trails in our region, quantifying the economic of benefits of such will be important. By conducting an Impact of Trails Study, return on investment of trails can be realized. This study could incorporate user counts, on-site and Online surveys, and assessment of property values near trails.



Broward MPO Complete Streets Website

Bikeways and Walkways Signage and Wayfinding

Our region has existing signed bicycle routes in all four counties, and plans to include more to connect our numerous communities. By creating a common bikeway sign, with directional information such as what destinations are nearby, where the route heads to, and how far the route is, cyclists can explore more confidently on bike. With a signage plan, communities will be able to implement a more effective signed route that can be utilized by many, creating a more connected and accessible network.

Local communities should also look at implementing various signage and wayfinding for walking and biking. Wayfinding is essential to orienting pedestrian and bicyclists of their surrounding physical space and how to navigate and interpret moving from place to place. Elements of wayfinding can help active transportation users locate important destinations, inform them of important information, and help guide them along a particular route. Wayfinding is not just signage, but rather a collection of elements that contribute to a walker or riders experience, including decorative items, kiosks, landmarks,

art, motion or pressure detectors, and smart phone or mobile application interactions. Identifying best practices and what is successful in other like regions will assist communities in implementing, improving, and expanding their own wayfinding systems.

Throughout the planning process it was mentioned that our region is prone to barriers related to perceived distance when walking and biking. Providing wayfinding elements and signage that includes approximate walking or biking times may encourage those, who previously thought destinations were too far, to use active transportation instead.

Partnership Forum (Michiana Active Transportation Committee)

Cultivating partnerships are important parts of accomplishing the implementation of programs and projects. These partnership come from businesses, municipalities, local interest groups, law enforcement, and the public. The formation of the Michiana Active Transportation Committee (MATC) will help ensure that the proper partners are being included as programs and projects are implemented. MATC meetings can also serve as a roundtable to discuss and get input on current activities taking place, and serve as an educational opportunity and a resource for those who are considering getting involved.

Bicycle and Walk-Friendly America

In order to receive a bicycle friendly designation, an application supporting the essential elements including engineering, education, encouragement, enforcement, evaluation and planning, and equity is required. Through the application process, communities, businesses, and universities receive customized feedback and technical assistance to improve conditions for bicycling. Continuing to support the Bicycle Friendly designations of places in our region can be a tool to enhance biking as a real transportation option in our region.

Equity-Based Programs

Ensuring a complete, safe and comfortable transportation network for walkers, bicyclists, and transit users is important for a community, particularly for disadvantaged or underserved populations that may not have access to a personal vehicle. Potential programs that could serve these populations include:

In Goshen, Chain Reaction Bicycle Project is a non-profit which not only encourages bicycling in the region, but also makes it more equitable. They offer a community bicycle repair shop, increased access to bicycles/repairs for people with low income and on work-release, educational program and opportunities, and advocacy for bicycle transportation.

- **Bike Library:** a collection of bikes that can be rented out and used for trips throughout the community.
- **Bike Co-op:** a training programs that educates individuals on bike maintenance while refurbishing bikes and parts that can be given to nonprofits or for individuals for volunteered time.
- **Read to Ride:** a program already being implemented in South Bend, geared towards rewarding children, and their families, with bicycles after reading a certain number of books throughout the school year.
- **Various Transit Programs:** Outreach promoting, educating, and encouraging individuals to use transit, as well as how they might extend their commute by biking and busing together.

Encouragement Programs

Encouragement Programs not only provide incentives for people to start walking or biking, they also increase visibility creating comfort, confidence, and safety on streets for active transportation. There are a wide variety of programs that can be used to encourage people to walk or bike. Below is a highlight of programs that can be implemented or expanded upon throughout the region to reach a critical mass of active transportation users that make our network more enjoyable and safe to use.



Bikes lined up during Fat & Skinny Tire Fest in Warsaw

Walking School Buses and Bike Trains

Walking school buses and bike trains are groups of students accompanied by adults that walk or bike on planned routes to school. They can be offered daily, weekly, or monthly and offer students and parents a safe way to reach schools.

National Bike Month/Bike to Work Week

In May, the League of American Bicyclists promotes National Bike Month, Week, and Day, in communities throughout the nation. These events are meant to showcase the numerous benefits of bicycling, as well as encourage more people to give bicycling a try for any purpose. Overall, this celebration can increase visibility for bicycling, while making it fun for those who typically aren't as comfortable riding a bicycle in the street. The National Bike Challenge, sponsored by People for Bikes, is also a great opportunity to challenge people to ride the whole season long, from May to September.

Syracuse Active4.me

Schools in the Town of Syracuse have been implementing technology to make walking and biking to school more convenient. The Active 4.me technology involves scanning bar codes to log student walking and biking miles. Parents receive a text or email message after their child's code has been scanned, letting them know their children are at school, plus it tracks health and environment stats.



Students participating in the walking school bus to Harrison Primary Center

South Bend Walking School Bus Program

Fall 2015 kicked off the beginning of the South Bend Community School Corporation Walking School Bus Program for 7 Primary Centers. It was piloted during National Walk to School Day in 2013 to 2015 where community leaders served as walking school bus leaders to build engagement. Through this program, schools receive support through the St. Joseph County Health Department and Reducing Obesity Coalition of SJC to offer at least one walking school bus a month.

Walktober

Similar to Bike Month, Walktober can be implemented in October as a health promotion campaign in to encourage employees, customers, or general public to get active.

Neighborhood Street Stories

Street Stories, or Learning Walks, can create a walking route that provides interesting information along the way. These could be geared towards children story telling, the history of a neighborhood, or a variety of other topics that the community might be drawn to and encouraged to walk along.

Open Streets

Open Streets are events that temporarily close portions of a street to vehicular traffic so that people may reclaim the space for a variety of fun activities. These events offer a great venue for educating residents on active transportation, and depending on location, can be used to showcase new bicycle and pedestrian infrastructure and proper etiquette when using those facilities.

Neighboring City Commuting Challenges

Neighboring City Commuting Challenges encourage people who usually drive to work alone, to consider additional forms of transportation. Whether it is walking, biking, taking the bus, or carpooling; residents can track their distances using these methods of transportation to “compete” against neighboring cities for prizes or even just bragging rights. Neighboring City Community Challenges are not only a good way to spark friendly competition, but also about forming strong partnerships across municipal boundaries.

Fun Rides or Runs

Fun rides and runs provide a great opportunity to showcase how the existing transportation network can be utilized for active transportation. Riding in numbers can make participants feel more comfortable and allow them to become familiar with how to properly use the network on a bike. Partnering with well recognized figures in the community, such as Mayors, can send a powerful message to all users of the roadway, that the community is supporting an active transportation culture.



South Bend Mayor Pete and Mishawaka Mayor Wood during the 2016 Inaugural Mayor's Ride

Bike Shares

Bike shares are becoming ever more present in the United States in large and small communities alike. Bike shares provide a fleet of bicycles located at key locations throughout a community that can be utilized for short trips in that community. They can be implemented on small or large scales with opportunities to expand as demand, development, or funding allow.

Commuter Incentives

Making it easy and enjoyable to use active transportation as a means of getting around is important. By providing park & ride or bike & bus locations in our denser communities, people might be encouraged to use walking and biking as part of their daily commute. These activities help residents get in exercise while avoiding heavy traffic in business districts.

Pedal and Park Events

For large events, encouraging people to bike or walk instead of drive reduces congestions and strain on parking. By providing proper infrastructure and services such as biking parking and valet services, biking to the event might be a more convenient option compared to driving.

Best Practices in Design and Policy

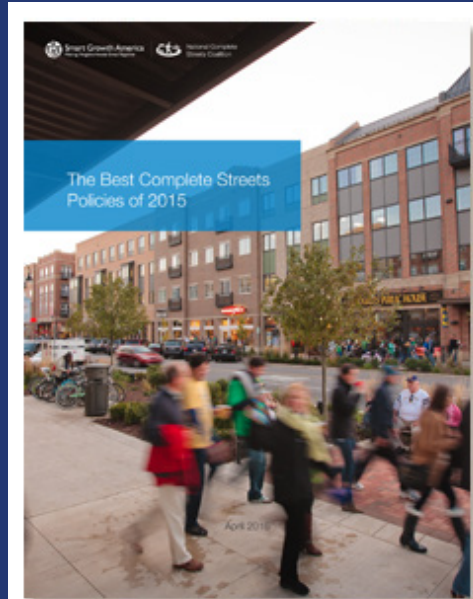
Identifying and utilizing best practices from around the world will ensure that our active transportation network is well-designed, safe, and consistent. Creating a guidance document that is specific to the character of our region will serve as a resource for planners, designers, and engineers as the region continues to promote active transportation. Best practices and implementation should be explored for the following elements:

Complete Streets Policy

Complete Streets are designed with the needs of all roadway users in mind, making the transportation network more comfortable, accessible, and safe. In addition to the identified infrastructure projects, encouraging the adoption of complete streets policy or similar activities is essential to the continuing improvement of the transportation network. This ensures that future transportation projects are being thought about holistically, rather than just for the movement of vehicles.

Smart Growth America's National Complete Streets Coalition named South Bend's Complete Streets Policy Resolution as one of the best of 2015. Sixteen agencies were recognized for their adoption of Complete Streets policies in 2015, and South Bend is in a three-way tie for third place. Across the country, 899 Complete Streets policies have been adopted, which support safe, multi-modal transportation systems for all users. The Coalition wrote a report on how the policies of the last year were evaluated. The scoring was based on ten elements that involve policy language, performance measures, and implementation steps.

While South Bend is the only community in our region to pass a complete streets policy, many other communities, such as Elkhart and Warsaw are implementing the philosophy through designs such as road diets.



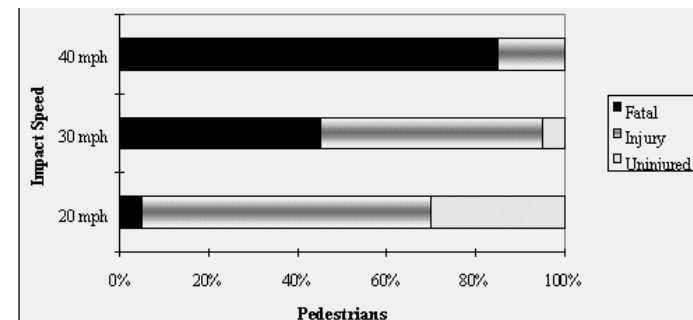
Traffic Calming

Traffic calming is the implementation of mostly physical measures that reduce vehicular speeds by altering driver behavior, which improve safety for other users of the transportation network. Traffic calming promotes pedestrian, bicycle, and transit use by incorporating their preferences while increasing the quality of life and creating attractive streets. Research has shown that limiting vehicular speed greatly decrease the severity of a collision with a pedestrian, as depicted in Figure 5.4 According to the Institute of Transportation Engineers traffic calming objectives include:

- Achieving slow speeds for motor vehicles,
- Reducing collision frequency and severity,
- Increasing the safety and perception of safety for nonmotorized users of the street(s),
- Reducing the need for police enforcement,
- Enhancing the street environment (e.g., street scaping)
- Encouraging water infiltration into the ground,
- Increasing access for all modes of transportation, and
- Reducing cut-through motor vehicle traffic

Source: Lockwood, Ian. ITE Traffic Calming Definition. ITE Journal, July 1997, pg. 22.

Figure 5.4 - Vehicle Impact Speed and Pedestrian Injury Severity (from DETR)



Source: National Highway Traffic Safety Administration

The tools for traffic calming vary, and many can be inexpensive or flexible. Many traffic calming techniques can also be used to enhance the character of a community. The following is a list of possible tools for creating a community that is safe and vibrant for all users:

- Diagonal Parking
- Change One-Way Streets to Two-Way
- Widening Sidewalk/ Narrowing Streets and Traffic Lanes
- Bumpouts
- Chicanes
- Roundabouts
- Raised Medians or Crosswalks
- Diverters
- Speed Hump



Example of Traffic Calming for the City of Kingsport, Tennessee

Streetscapes

Streetscape elements visual elements that can often be incorporated into wayfinding. Items such as landscaping, tree greenery and shade, lighting, seating, and art all have a great impact on a pedestrian's experience. Areas which incorporate these streetscape elements establish character, and can not only attract people, but also spark private interest for development.

Maintenance

Through the course of the planning process maintenance was often highlighted as a concern. To ensure that our region's facilities remain in good condition and are taken care of, communities should have a maintenance plan in place to ensure debris and snow removal, landscaping, and spot maintenance can be accommodated when needed. Municipalities, however, can not accomplish this alone. Forming community partnerships to assist in maintenance of active transportation infrastructure will ensure a longer term and sustainable maintenance plan, while increasing ownership and pride to those who utilize and assist in maintaining the facility. Key partners such as park departments, neighborhood associations, businesses, and other advocacy groups should take a key role in ensuring that our active transportation system remains in excellent condition.

Codes, Ordinances, and Law

Codes, ordinances and laws are several mechanisms used to create a more bikeable and walk friendly region. Codes and ordinances stem from the planning stage to guide design, and are useful for incorporating active transportation into new development because they can address items such as sidewalks, setbacks, bicycle parking, and streetscape design. Creating a resource of what communities are currently implementing and comparing them to similar communities will help our communities identify strengths and improvement opportunities.

In 2014, the City of Elkhart unanimously passed a bicycle buffer ordinance to better protect bicyclist on the road. The City was the fifth city in Indiana to do so, joining South Bend, Fort Wayne, Indianapolis, and Carmel. The ordinance requires that motorists provide a 3 foot buffer when passing bicyclist on city streets.

Bicycle and pedestrian safety laws, while sometimes hard to enforce, are steps in the right direction for advocating a safer street network. Several communities in our region have passed local ordinances such as the 3 foot passing ordinance.

Bicycle Indiana, a member-based organization committed to improving all aspects of bicycling in Indiana, has been working to increase language in legislation that improves bicycling conditions.



Example of a 3 Feet Passing Sign