



Context & Background

PROJECT PURPOSE

The *Warsaw + Winona Lake Bicycle and Pedestrian Master Plan* establishes a comprehensive framework for a connected bicycle and pedestrian system that will be used for both recreation and transportation purposes. The study area boundary for this plan includes all incorporated areas of the City of Warsaw and Town of Winona Lake as well as county areas immediately adjacent.

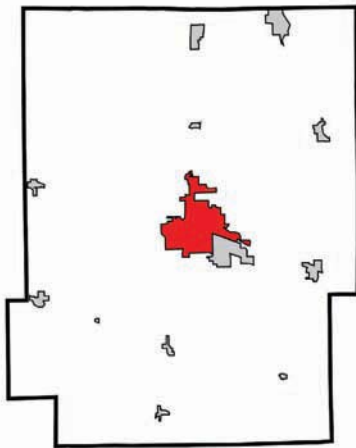
The focus of the *Warsaw + Winona Lake Bicycle & Pedestrian Master Plan* is bicycle and pedestrian movement and the reduction of potential conflicts among transportation modes. Bicycle and pedestrian facilities serve as critical links in an overall transportation network providing access to neighborhoods, employment centers, schools, retail destinations, and recreation opportunities. These facilities, and the entire bicycle and pedestrian system, can enrich the livability of a community in that they provide transportation choices and recreation options that are available to nearly all citizens regardless of ability, age, or economic status.

Physical conditions, trends, previous and concurrent studies, development plans, demographic data, and public input all contributed to *The Warsaw + Winona Lake Bicycle and Pedestrian Master Plan*. The planning process started in June of 2012 with a kick-off meeting with the already existing Bicycle Advisory Committee and City and Town staff. Committee meetings occurred monthly through December. Two public meeting were held (July 26 and October 25) to





Location of Kosciusko County in Indiana



Kosciusko County, Indiana
Warsaw is shown in red, Winona Lake is the gray area in the lower right corner of Warsaw

solicit input on destinations, potential routes, desired connections, safety concerns, and other opportunities and constraints. Targeted stakeholder outreach was also conducted to ensure critical project partners were provided the opportunity to provide input and comment. Supplementing City and Town staff and public involvement, many days of field work were conducted to analyze and evaluate the proposed routes, critical crossings, verify logical connections, and ascertain challenges to facility construction.

COMMUNITY PROFILE & COMMUNITY BACKGROUND

The City of Warsaw and the Town of Winona Lake are located in Kosciusko County, Indiana. Warsaw is the county seat and covers approximately 11.6 square miles. The adjacent Town of Winona Lake covers approximately 3.2 square miles. Populations (2010 Census Data) of Warsaw and Winona Lake are 13,559 and 4,908 respectively. Warsaw, known as Lake City, primarily occupies the area between Pike Lake and Center Lake (to the north) and Winona Lake (to the southeast). The Tippecanoe River passes through the West portion of Warsaw. US Route 30 and Indiana State Road 15 both pass through town and State Road 25 is located on the southeast side of the City. Winona Lake occupies an area adjacent to the southwest corner of the incorporated City of Warsaw. Median ages in Warsaw and Winona Lake are 33.0 and 27.9 respectively which is considerably younger than the US median age of 37.2 and the Indiana median age of 37. More than 65.3 percent of all households qualify as families with an average of 33.65 percent of households having at least one child under the age of 18.

The combined 2010 population of Warsaw and Winona Lake represents 23.7 percent of the total county population of 77,358. The area's combined population is significantly larger than the County's next most populated city, Syracuse, with a population of 2,809. Warsaw is the center of employment in the County as well as retail and commercial development.

The area is known as the "orthopedic capital of the world" and is home to several major orthopedic device manufacturers including DePuy, Zimmer, and Biomet and the industry is the area's largest employer. These employers as well as the overall lake character of the area draw many visitors to the area, especially during the summer months making Warsaw and Winona Lake unique among their similarly sized peers in the State.

The *Warsaw + Winona Lake Bicycle and Pedestrian Master Plan* is the culmination of many community efforts to increase connectivity and safety in the area. In April of 2011, the KCV Cycling Club hosted a Bicycle-friendly Community Seminar facilitated by the Indiana State Department of Health (ISDH). Participation from a broad range of community stakeholders and the overall success of the seminar prompted ISDH to fund a follow up grant for the completion of this master plan.



The community has successfully developed three segments of multiuse path, greenway, or other facilities under the umbrella of the “Lake City Greenway” system name. These include the 1.2 mile Beyer Farm Trail running from Pike Lake Park east to Kosciusko Community Hospital. The Beyer Farm Trail consists of a long boardwalk across the wetlands on the south shore of Pike Lake, with an asphalt section at each end. The trail connects the Kosciusko Community Hospital complex with Pike Lake Park and Beach with a focus on education and preservation of natural wetlands. The 1.8 mile Chinworth Bridge Trail runs from near the Zimmer production facility along Zimmer Road and Old US 30 to the Tippecanoe River and includes two historic bridges. The Heritage Trail is 1.8 miles and begins at Winona Avenue, continuing through downtown Winona Lake, along Canal Street to Roy Street and incorporates the area of the Old Chicago Boys Club. More recently, the City of Warsaw completed bicycle lanes on East Smith Street between Country Club Road and East Winona Avenue.

The community boasts an extremely active bicycling organization, the Kosciusko County Velo (KCV) Cycling Club which strives to develop and promote healthy lifestyle opportunities in and for the community through bicycling. Through a joint effort of municipal government and the KCV Cycling Club, a Bicycle Advisory Committee (BAC) was created in early 2012. The focus of the BAC is broader than the previous Lake City Greenway efforts and includes other issues such as education, evaluation, and encouragement. The primary task adopted by the BAC was the completion of a bicycle and pedestrian master plan and the pursuit of a Bicycle Friendly Community designation from the League of American Bicyclists (LAB).

A preliminary Bicycle Friendly Master Plan was created in late 2011 and early 2012 and included development of preliminary infrastructure standards and the creation of the Warsaw + Winona Lake walk and bike graphic identity. The preliminary plan and application was submitted to the LAB in February of 2012. Despite the many successes throughout the community, it was recognized that a more comprehensive bicycle and pedestrian master plan was needed to help the City of Warsaw and Town of Winona Lake reach their full potential in the development of an integrated walking and bicycling system.

In the development of an outline for this project, three overarching goals were identified by the community:

1. Understand the true prevalence of walking and bicycling in the community and increase the number of both groups.
2. Increase the number of people walking and bicycling for everyday transportation to and from school, work, and other destinations.
3. Provide guidance for programs, policies, and infrastructure to support walking and bicycling.



Chinworth Bridge and trail on the west side of Warsaw near Old US 30



LAND USE CHARACTER



Looking South on Buffalo Street from Center, Street, Downtown Warsaw. The white building on the right is the new City Hall.

The City of Warsaw and Town of Winona Lake encompass 14.8 square miles. The incorporated areas and surrounding context are urban, suburban, and rural in character. The City of Warsaw is built around a traditional urban core of downtown low and mid-rise commercial and mixed use buildings typical to small Indiana cities. Downtown contains many professional offices, locally owned shops and restaurants, and community services. As the Kosciusko county seat, the center of both Warsaw and County government is found downtown. An urban, historic residential core surrounds the downtown area and major commercial and industrial development occurs north from downtown along SR 15, west and east of downtown along Center Street, east of downtown along Winona Avenue, and along both sides of US 30. Given that Warsaw is the largest municipality in the county, retail development is more advanced than what might be expected for a community of its size. Many national retailers are found in Warsaw, primarily along US 30 and SR 15, including Lowes, Walmart, Kohls, Petsmart, Staples, Carsons Department Store, and a variety of American and foreign automobile dealerships. Community development has been largely shaped by the influence of Center, Pike and Winona Lakes. Each lake is primarily residential in character with municipal parks located on each lake. On the edge of incorporated limits and beyond into the county the land use character includes suburban residential neighborhoods and rural areas.



Canal Street in the Town of Winona Lake. Many of the houses along the left side of the picture are now speciality shops and artist studios.

The Town of Winona Lake has developed around a village concept. The layout of the community is compact with the central business district generally found along Park Street on the east shore of Winona Lake. Buildings in the commercial core are typically one to two stories with architectural styles generally ranging from historic to lake vernacular. The majority of businesses are locally owned specialty shops, artist studios, and restaurants and many are located in renovated residential structures, especially those along Canal Street. As the name implies, these businesses also face a canal that provides boat parking and access to Winona Lake. Grace College, an evangelical Christian liberal arts college, is located on the east side of Winona Lake with an undergraduate enrollment of approximately 1,200 students.

Recreation facilities are scattered throughout the City and Town and include 15 parks and over 168 acres of public recreation space. Major facilities are collections of parks associated with both Center Lake (Bixler Park, Municipal Park, Nye Park, and Central Park) and Pike Lake (Beyer Park, Lucerne Park, and Pike Lake Beach). The Winona Lake Park is located on Park Avenue and Winona Lake. In addition to the public facilities, The City-County Athletic Complex (CCAC) is a 65 acre sports facility located just west of Warsaw on Old US 30. The CCAC is a private not-for-profit sports facility with lighted softball and baseball diamonds, various sized soccer fields, and other sports facilities.

Most development occurs south or west of US 30 although community growth has crossed north and east of US 30 and continues to do so. The road pattern



varies throughout the project area. It can best be described as a modified grid pattern. Although the typical Indiana County grid system does exist, in many cases these roads are not continuous due to the presence of many natural features (lakes, Tippecanoe River), railroads, and limited crossings of US 30.

EXISTING CONDITIONS ANALYSIS

Existing conditions were identified and assessed in a variety of ways throughout the planning process. Preliminary conditions were reviewed using available aerial and GIS data. This information was used to generate the base maps used in the planning process. In-field analysis was completed throughout the process and consisted of trips made by car, foot, and bicycle. This effort focused on assessing existing infrastructure, cross referencing field observations with mapping information, and comparing base data with existing plans. Existing facilities were identified and mapped based on location and type and connection gaps were noted. Existing transportation and utility infrastructure, land uses, natural features, and community habits affecting facility development were evaluated. Evaluation included general review of the following influences:

- Forces affecting existing and future land use such as environmental and historic resources, utilities, community needs, views, patterns, and zoning policies
- Patterns and directions of growth
- Physical connection to existing and proposed transit and multi-modal facilities, parks, schools, commercial areas, residential areas, and civic facilities (libraries, community centers, churches, etc.)
- Connections to and from the study area to surrounding systems and destinations

This information was compiled into a preliminary opportunities and constraints diagram which illustrates potential forces affecting bicycle and pedestrian system development.

ONLINE SURVEY

An online survey was used to gather information about residents' walking and biking habits and interests and to solicit opinions on existing and future infrastructure improvements and programming. The survey was open for seven weeks (mid-May to early July) and a link to the survey was included on the BAC's Facebook page, RideWalkWarsawWinonaLake. A total of 184 surveys were completed. The survey consisted of 28 questions: 12 questions pertaining to WALKING; 12 questions pertaining to BIKING; and 4 general questions. A full set of survey results can be found in the digital Appendix.

The summary of survey results shows that nearly 90% of survey respondents have

Warsaw Bicycle and Pedestrian Master Plan

WALKING Survey

This survey was specifically created to gather information from residents to learn more at

1. In the past year, in a usual week, have you WALKED for at least 10 minutes at

Yes

No

2. If no, why not? Select all that apply.

Too busy, no opportunity

Disability/health impairment

Bad weather/wrong season

Don't want to/don't enjoy it

Age

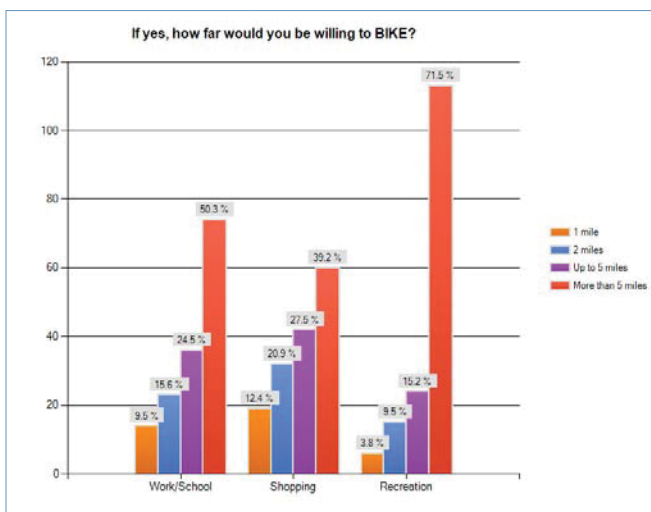
No safe place to walk

Part of the online survey used in this master plan process.



walked in the last year for at least 10 minutes at a time for recreation, exercise, transportation, or other reason. Nearly 70% of survey respondents have biked for at least 10 minutes at a time for recreation, exercise, transportation, or other reason. Of those that have not walked, the majority (45.5%) indicated that the reason is because there is “no safe place to walk.” Of those that have not biked, the majority (39%) indicated that the reason is because they are “too busy” or have “no opportunity.”

In general Warsaw and Winona Lake were identified as “somewhat easy” to walk around and a lack of sidewalks was noted as the top reason making it difficult to walk in certain areas of the community. 94% of survey respondents indicated that providing new pedestrian facilities such as sidewalks and paths would make it easier to walk in the community. Additional changes that were indicated to make walking more attractive included repair of existing facilities, increasing lighting and safety of walking areas, and increasing walking education opportunities. Health benefits and exercise were cited as the top reason for walking. 20.4% of respondents indicating they use walking as a means of commuting.



Example of survey result graph.

Given opportunity and safe access, 85% of respondents would walk to work/school, shopping, or recreational destinations with people being willing to walk the furthest to recreation destinations (64.1% of respondents would walk more than 15 minutes to recreation).

The survey indicated Warsaw and Winona Lake are “somewhat easy” to bike around with busy roads and too much (vehicular) traffic begin cited as the primary reasons that biking can be difficult in certain areas of the community. 90.1% of survey respondents indicated that providing more bicycle lanes would make it easier to bicycle in the community while 77.3% indicated the addition of paths/greenways would also help. Other considerations include increased bicycle parking, safety improvements, and increased education. Health benefits and exercise were again cited as the top reason for bicycling; however, 50.6% of respondents indicated they use bicycling as a means of commuting.

Given opportunity and safe access, 89% of respondents would bicycle to work/school, shopping, or recreational destinations with people being willing to bicycle the furthest to recreation destinations (71.5% of respondents would bike more than 5 miles to recreation).

Survey respondents were asked to rank in order their priorities for spending funding on variety of bicycle and pedestrian improvements ranging from infrastructure to education. Survey results showed priority in order of highest to lowest:



1. Multiuse paths and trails
2. Bicycle lanes
3. Sidewalks
4. Crosswalks/intersection improvements
5. Organized walks/runs/rides
6. Bicycle and pedestrian safety education
7. Printed materials
8. Bicycle and pedestrian programs
9. Outreach and training events
10. Bicycle fairs

In summary:

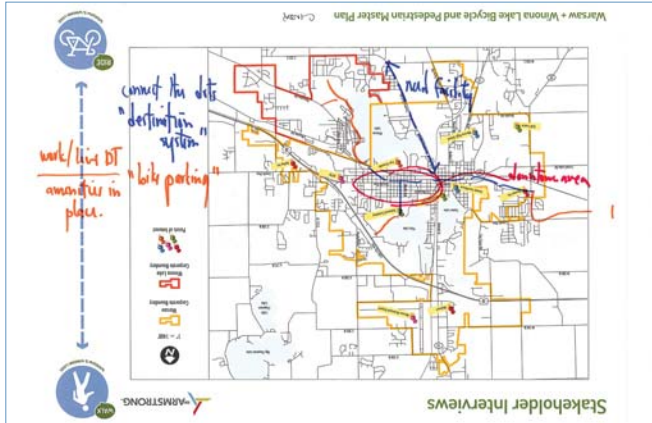
- A majority of survey respondents walk and/or bike on a regular basis for exercise and recognize the health benefits associated with it.
- Warsaw and Winona Lake pedestrians are concerned about their safety when they walk – in terms of a lack of sidewalks, the condition of sidewalks, and/or adjacent vehicular traffic.
- New pedestrian facilities in the community along with crosswalks and intersection improvements would make walking easier and more desirable in Warsaw and Winona Lake.
- Bicyclists indicated that biking is difficult in Warsaw and Winona Lake because of vehicular traffic volumes and a limited number of paths/bike lanes.
- Additional bicycle facilities (e.g. bike lanes, paths/trails) in the community would make biking easier and more desirable in Warsaw and Winona Lake.
- Respondents indicated that educating bicyclists and motorists on the rules of the road is important to the development of a safe and usable system.
- In general, survey respondents support using tax dollars to improve walking and biking conditions in the community.

STEERING COMMITTEE (BICYCLE ADVISORY COMMITTEE)

The planning team led monthly meetings with members of City and Town staff and a steering committee that mirrored the existing Bicycle Advisory Committee (BAC) members. Committee meetings were generally interactive in nature and involved a brief presentation and summary of project progress and milestones followed by facilitated exercises meant to engage the committee and generate plan direction. Meetings were held on the first Thursday of the month (second Thursday of July), from June to December, 2012. Copies of any PowerPoint presentations from the committee meetings can be found in the digital Appendix.



STAKEHOLDER INTERVIEWS



Example of marked-up map generated during a stakeholder interview.

On July 12 and 23, the planning team conducted a total of 11 targeted stakeholder interviews which lasted approximately 30 minutes each. Discussion topics included commuting, opportunities and constraints, and any “hot” issues that required identification. Each interview included open discussion and marking up of the preliminary opportunities and constraints diagram with additional information the stakeholders felt was relevant. This information was then incorporated into the final opportunities and constraints map included in this study. Results of these meetings can be found in the digital Appendix.

NORTHERN INDIANA LAKES FESTIVAL

Members of the planning team and BAC participated in the 2012 Northern Indiana Lakes Festival on Saturday, June 9 at Center Lake Beach and Municipal Park. Project information was on display and general bike safety information was distributed. The event was well attended and while limited specific input was gathered, the event generated interest in the project and encouraged additional online survey responses.

PUBLIC MEETINGS



Participants of the July 26 open house participated in several exercises designed to gather wishes and needs of the community.

Two public meetings were held during the planning process. The first meeting was July 26, 2012, at the Center Lake Pavilion from 4:00 – 6:30 PM. The meeting was held in an open house format and included a series of facilitated exercises to gain public input. Participants were asked to indicate their comfort level on a variety of potential facility types ranging from traditional paths to on-street facilities such as bike lanes and signed routes to support facilities such as bike boxes. Participants were also asked to review the draft mission statement and provide a “big idea” concept they felt was missing. Each concept was written on a speech bubble shaped chalk board and photographed for use in a collage. Participants were also asked to review the proposed vision-supporting guiding principles and indicate their level of agreement with each.

The primary exercise incorporated into the first public meeting was the use of a large format aerial map displayed on the floor. Participants were asked to use various color foam blocks to indicate specific destinations they would like to reach by walking or bicycling. Blocks were placed on places of residence, work, shopping destination, and recreation/entertainment destinations.

A second public meeting was held October 25, 2012, at the Winona Lake Senior Center from 6:00 – 8:00 PM. This meeting included a formal presentation and question and answer period followed by open-house format exercises. Preliminary route options and signage and identity concepts were presented for review and comment. Participants were once again asked to place foam blocks on the large aerial – this time to indicate their priorities for route and



facility development. The five “E’s” of bicycling and walking (discussed later in the master plan) were also presented. Participants were asked a series of yes/no questions to indicate the overall community knowledge of current facilities, programs, laws, and education related to biking and walking.

Display materials, presentations, and summaries of meeting results for both meetings can be found in the digital Appendix.



A discussion of route options at the second public meeting, held October 26th at the Winona Lake Senior Center.



A collage of the “big ideas” generated in the first public meeting.

This page intentionally blank.