



Comprehensive Bike Plan For Kenosha County 2025

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**WISCONSIN
BIKE FED**

Acknowledgments

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Executive Summary

The Comprehensive Bike Plan for Kenosha County 2025 builds on efforts by the community to improve transportation options and the quality of life in Kenosha. The Plan guides the development of a network of bicycle routes linking towns and villages within the County as well as to the larger regional network. The improved network will not only make bicycling a more viable mode of transportation, but will contribute to economic development opportunities and enhanced quality of life for county residents.

Kenosha County is located in the southeastern corner of the State of Wisconsin. The population in 2010 was 166,426. Lake Michigan forms the eastern border of the county. Kenosha County boasts over 12 miles of lakefront and a paved trail runs close to the shore from the north end of the county to the south end with a short gap that takes you through the heart of the City of Kenosha. In addition, Kenosha County has miles of rolling county highways and town roads with very low auto traffic and lovely scenery. With its scattered parks and small communities every few miles, Kenosha County is an excellent place to ride bicycles either for commuting or recreation.

Vision

"In the future, bicycling in Kenosha County will be an accessible, safe, healthy, practical and viable form of transportation and recreation. The bicycle network will provide convenient connections between communities, places of employment, Parks, schools, recreation areas, retail establishments and other popular destinations."

A Vision for Bicycling in Kenosha County,
Wisconsin

Why Bicycling?

Bicycling is a low-cost means of transportation that are non-polluting, energy-efficient, versatile, healthy and fun. It is a simple way to help build physical activity into our daily lives while reducing traffic congestion and air pollution and saving money. The many advantages bicycling include:

- Bicycling is good for the economy. Bicycling makes up \$133 billion of the US economy, funding 1.1 million jobs.¹
- Bikeable and walkable neighborhoods are more livable and attractive, increasing home values property tax revenue.²
- Bicycling can save families money. By replacing short car trips, bicycling can help lessen personal transportation costs.³
- Bicycling is good for public health. Bicycling for exercise can reduce the cost of spending on health care by as much as \$514 per person every year.⁴
- More people bicycling or walking increases safety for others. In a community where twice as many people walk, a person walking has a 66 percent reduced risk of being injured by a motorist.⁵

¹ Flusche, Darren for the League of American Bicyclists. (2009). The Economic Benefits of Bicycle Infrastructure Investments.

² Cortright, Joe for CEOs for Cities. (2009). Walking the Walk: How Walkability Raises Home Values in U.S. Cities.

³ Center for Neighborhood Technology. (2005). Driven to Spend: Pumping Dollars out of Our Households and Communities.

⁴ Feifei, W., McDonald, T., Champagne, L.J., and Edington, D.W. (2004). Relationship of Body Mass Index and Physical Activity to Health Care Costs Among Employees. *Journal of Occupational and Environmental Medicine*. 46(5):428-436

⁵ Jacobsen, P.L. (2003). Safety in numbers: more walkers and bicyclists, safer walking and bicycling. *Injury Prevention* 9:205-209.

Public Involvement

Kenosha County residents, community stakeholder groups and public agency staff helped guide the development of this Plan. Public input about the opportunities and challenges to better bicycling in the county was obtained in several ways, including one key public input workshop (October 2012), and through several project meetings with the plan Steering Committee and county staff from May of 2012 to April of 2013.



Existing Conditions

Kenosha County's bikeway network today consists of bike lanes in developed areas such as the City of Kenosha, unsigned bicycle routes throughout the county, and off street paths running through parks, along roadways, and through natural areas.

This Plan seeks to leverage opportunities and to overcome barriers to accommodating and encouraging bicycle trips.

Opportunities include:

- The eastern portion of the county includes a well connected street network, offering numerous direct connections to destinations along with dense land use that makes for short trips.
- Newly rebuilt frontage roads along I-94 provide a wide shoulder for bicycle use, and easier access under I-94 going east or west;
- Northwest Kenosha County has large open spaces, such as Bong Recreation Area and Brighton Dale County Park and a network of paved town and county roads that see very little automobile or truck traffic.

Constraints include:

- Major crossings of state trunk highways such as STH 50, 45, 75 and 83 can be a significant challenge ;
- Key routes through the southern half of the county are undesirable for bicycling in their current state due to high-speed, high-volume motor vehicle traffic;
- Lack of wayfinding tools along existing bikeway networks.



Implementation

The recommended bikeway network will result in a county where biking for transportation and recreation is an every day, safe activity that is enjoyed by residents and visitors alike. The recommended network builds upon previous and on-going local and regional planning efforts and reflects the input offered by county staff, the project Steering Committee, stakeholder groups, and county residents. Implementation of the plan will take place over many years. The implementation strategy presents a targeted methodology for how Kenosha County can institutionalize bicycle improvements into local and regional planning processes and projects.

The following strategies and action items are provided to guide Kenosha County toward the vision identified in the plan:

- Establish a Permanent Pedestrian and Bicycle Advisory Committee.
- Partner with interested municipalities, bicycle clubs and other interested parties to implement small-scale programs across the county.
- Strategically pursue infrastructure projects by obtaining capital improvement and grant funding as well as incorporating projects into upcoming public works projects, especially the short-term bicycle improvements.
- Regularly revisit project priorities in the plan as projects are completed, conditions change and new projects are needed.

Key Short Term Projects

- A series of existing bicycle routes will be upgraded with signs for clear, direct navigation across the county.
- Bicycle lanes from Paddock Lake to Brighton Dale County Park and Bong State Recreational Area along STH 75 will connect communities to open space and outdoor recreation options.
- CTH C route connecting Wilmet to Trevor and Pleasant Prairie will overcome barriers and provide a bicycle facility between communities.
- A new “Marina Connection” to Illinois will formalize a popular connection for routes in Kenosha County and Lake County, IL .



Bike route signs can indicate, direction, distance and estimated biking time.

The Plan timeframe takes into consideration the planning horizon of 2025 and recognizes that some projects require significant planning, especially off street corridors, and may not feasibly be constructed within this timeframe. The Plan is a living document, not static, and will change to respond to new challenges and opportunities as they arise. The project list and phasing should be frequently reviewed (every 5 years is recommended) to ensure they reflect current priorities and opportunities for the County.

Recommended Bikeway Network for Kenosha County

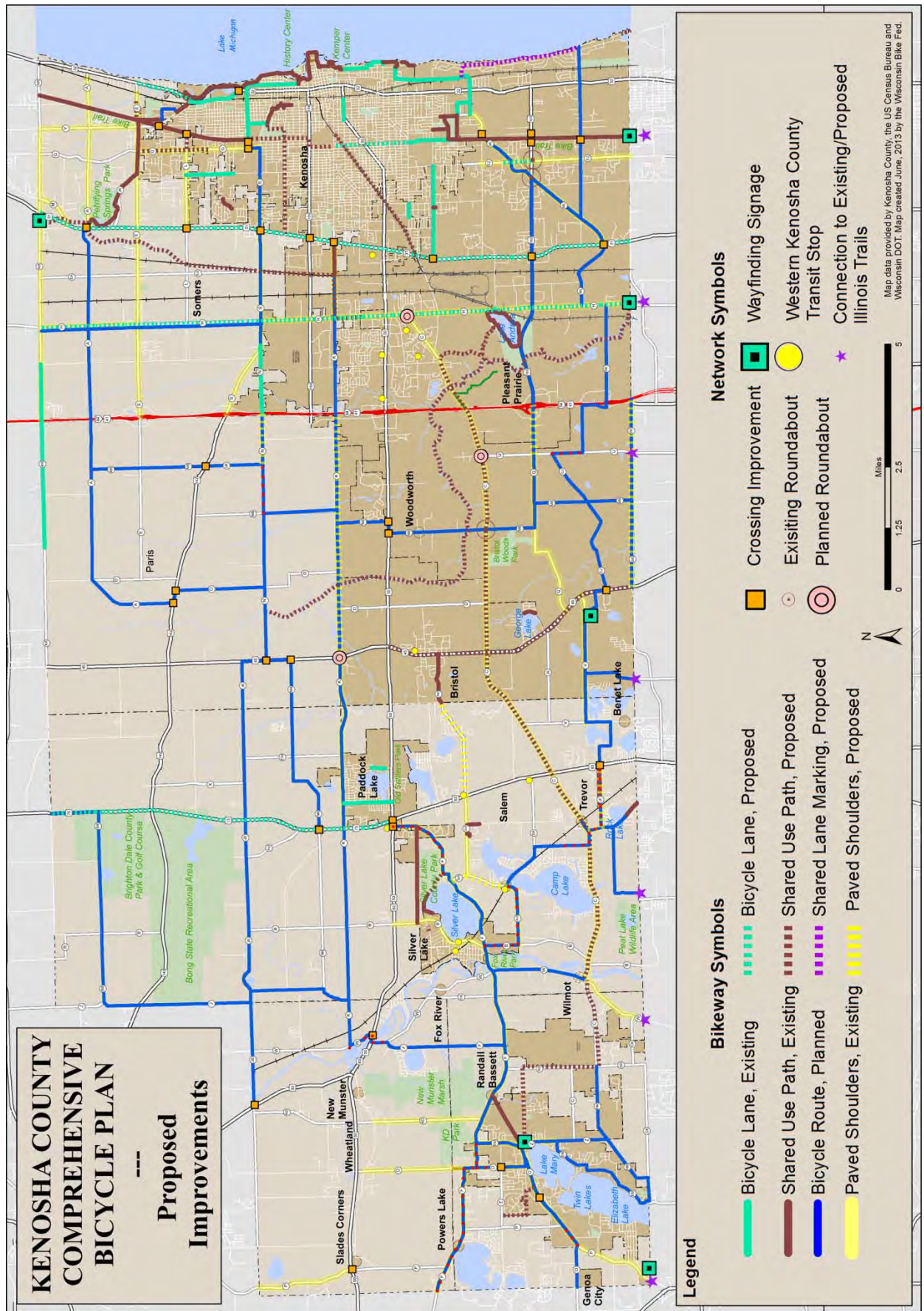


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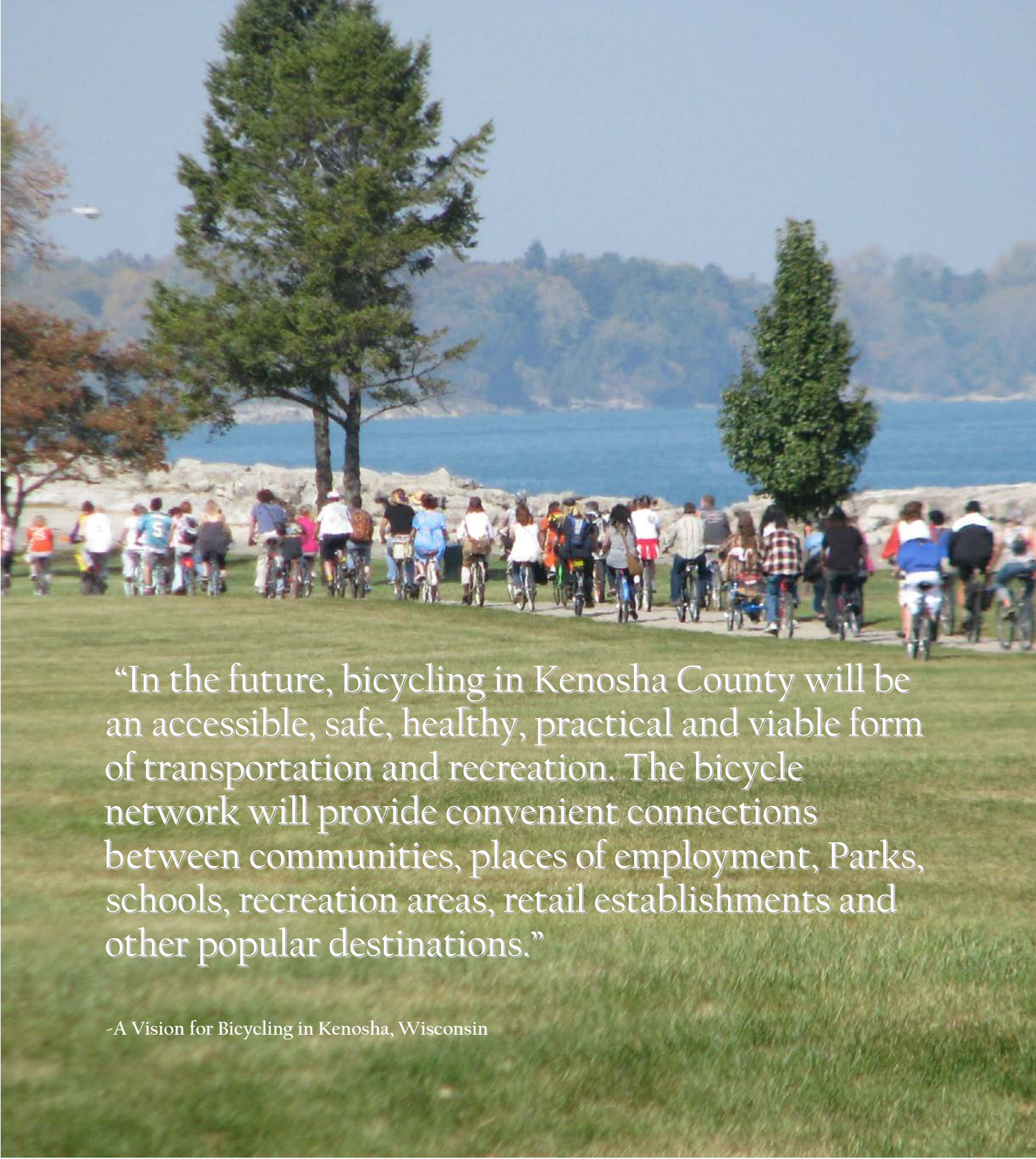
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“In the future, bicycling in Kenosha County will be an accessible, safe, healthy, practical and viable form of transportation and recreation. The bicycle network will provide convenient connections between communities, places of employment, Parks, schools, recreation areas, retail establishments and other popular destinations.”

-A Vision for Bicycling in Kenosha, Wisconsin



1 Introduction

Setting

Kenosha County is located in the southeastern corner of the State of Wisconsin. Its southern border also forms the Wisconsin/Illinois border. The population in 2010 was 166,426. Walworth County is to the west, Lake and McHenry Counties are to the south and Racine County is to the north. Lake Michigan forms the eastern border and Kenosha County boasts over 12 miles of lakefront.

The county can be thought of as having four distinct landscape types. The first being the rural farmland and large open spaces in the northern towns of Wheatland, Brighton, Paris and Somers. The second is the lake country landscape of the towns of Randall and Salem, home to Camp Lake, Mary Lake, Elizabeth Lake and other small lakes. The villages of Bristol and Pleasant Prairie have the Des Plaines River and a combination of rural subdivisions and farmland. Finally the urban area east of I-94 contains the only city in the county, Kenosha, as well as the more densely settled portion of Pleasant Prairie. The varied landscapes and rolling hills make bicycling a very pleasant mode of travel in Kenosha County.

The only city in the county is Kenosha, the villages include:

- Bristol
- Genoa City (partially)
- Paddock Lake
- Silver Lake
- Twin Lakes
- Pleasant Prairie

Towns include:

- Brighton
- Paris
- Randall
- Salem
- Somers
- Wheatland

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The county also has many unincorporated hamlets, including Bassett, New Munster, Trevor, Wilmot, and Woodworth, among others.

Kenosha County has large parks and natural areas scattered throughout; these properties make great destinations by bicycle and also provide lovely landscapes to ride by or through.

Richard Bong State Recreational Area and Brighton Dale County Park combine for 5,500 acres of open space that dominates the northwestern corner of the county. Since 1947 the New Munster Wildlife Area has provided over 1,200 acres for public fishing, hunting and trapping in western Kenosha County. On the far east side of the county, Chiwaukee Prairie State Natural Area is the largest prairie complex in the state and the most intact coastal wetland in southeastern Wisconsin.

In addition, to the state held open spaces, the Kenosha County park system maintains over 1,500 acres of managed recreational land at seven parks located throughout the county. Petrifying Springs (commonly known as “Pets”), Silver Lake and Brighton Dale County Parks all contain internal road systems that make for very pleasant bike riding.

Biking east of I-94 is greatly enhanced by the existence of the Kenosha County Bike Trail, a 14 mile asphalt trail. The north trail begins at 35th Street and 28th Avenue and continues to the Racine/Kenosha county line. The south trail begins at 89th Street and 30th Avenue and continues to the Wisconsin/Illinois border where it connects to the Robert McClory Trail which connects to hundreds of miles of trail in Lake and Cook Counties, Illinois.

Contents of the Plan

The Comprehensive Bike Plan for Kenosha County 2025 provides a path forward for developing a functional bicycling and path network across the county. The Plan is organized as follows:

Chapter 1: Introduction, provides an overview of this plan and its purpose, and the planning context within Kenosha County and Wisconsin.

Chapter 2: Needs Analysis, estimates the amount of bicycling in Kenosha County today, and models the benefits of potential increases of bicycling in 2025.

Chapter 3: Existing Conditions, describes Kenosha County’s existing bikeway network and summarizes strengths and weaknesses of the system.

Chapter 4: Recommended Bikeway Network depicts the recommended system of bikeways and facility types to provide opportunities for cycling throughout the county.

Chapter 5: Recommended Policies, makes the case for a strong Complete Streets policy to support development of the bicycling environment.

Chapter 6: Recommended Programs, describes education, encouragement, enforcement and evaluation measures Kenosha County and/or other local agencies should implement to promote bicycling, increase bicyclist safety, and increase the awareness of bicycling as a viable travel mode.

Chapter 7: Implementation presents evaluation criteria for facilities and programs and details several top-priority projects. This chapter provides cost opinions for the recommended bikeway projects and programs, and identifies potential funding strategies and supporting policies.

Goals and Objectives

The Vision, Goals, and Objectives of the Comprehensive Bike Plan for Kenosha County 2025 are principles that guide the development and implementation of the plan for years to come. The Plan recognizes that some projects require significant planning and may not feasibly be constructed within this timeframe. The Plan is a living document, not static, and will change to respond to new challenges and opportunities as they arise.

The 2010 document, A Vision for Bicycling in Kenosha, Wisconsin (Vision for Bicycling) provides the vision to be carried forward in the Plan. Building on this Vision, the goals and objectives direct the way the public improvements are made, where resources are allocated, how programs are operated, and how county priorities are determined.

Encouragement /Education



- Develop and implement a Safe Routes to School program in at least one school district.
- Produce literature about safe cycling and driving and distribute to county residents.
- Continue to sponsor community bike events.
- Hire a part or full time bike coordinator to provide support for ongoing and future bicycle related initiatives.
- Develop partnerships with other agencies and jurisdictions that are interested in cosponsoring encouragement programs.
- Develop a Bicycle Advisory Committee.
- Apply for Bicycle Friendly Community status in 2014.
- Encourage local businesses to pursue the designation of "Bicycle Friendly Business" from the League of American Bicyclists.

The Five E's

The most effective bicycle plans are holistic and consider the "Five Es" of non-motorized transportation planning: *Engineering, Education, Encouragement, Evaluation and Enforcement*. Our goals are categorized into those same "Es":



1.) Engineering



2.) Education






3.) Encouragement



4.) Evaluation



5.) Enforcement

<p>Enforcement</p> 	<ul style="list-style-type: none"> • Encourage local police officers to participate in the Wisconsin Pedestrian & Bicycle Law Enforcement Training offered by the Wisconsin Department of Transportation (WisDOT). • Continue to work with police departments to continue educational programs like the Officer Friendly Bike Rodeos, and other educational activities. • Encourage traffic enforcement agencies to enforce the rules of the road with a focus on illegal behaviors that pose the most risk to cyclists and other vulnerable road users. • Offer education opportunities in lieu of fines to people on bicycles who violate traffic regulations.
<p>Evaluation</p> 	<ul style="list-style-type: none"> • Review the Kenosha County Bicycle Plan yearly. Compare engineering recommendations to completed road improvements, list all encouragement and education events and compare to plan recommendations. • Conduct regular bicycle counts at strategic locations around the county to determine ridership levels.
<p>Engineering</p> 	<ul style="list-style-type: none"> • Provide at least two east-west corridors and two north-south corridors east of the I-94 corridor that provide safe and convenient links across the county. • Sign a network of bicycle routes that links the primary population centers of the county as well as major recreation sites, parks, schools, and employment areas. Establish a unique branding for Kenosha County routes. • Provide a continuous lakefront bicycle corridor from Illinois to the Racine County border. • Reach an agreement with We-Energies/ATC to build bikeways in power line corridors. • Provide safe and convenient crossings of the I-94 corridor. • Work with surrounding municipalities to create connections to bikeways outside Kenosha County. • Provide ongoing training opportunities for county staff to learn about new innovative engineering techniques that better facilitate bicycle and motor vehicle coexistence.

Public Involvement

The planning process included many opportunities for residents of Kenosha County to share their experiences and knowledge of biking in the area. Many people shared detailed information on where they ride, things they would like to see improved and their program ideas to encourage more people to bike. The information gathered from residents inspired the recommendations for both on-road and trail improvements, and ideas for programs to encourage citizens to use active transportation modes and to educate them on how to do so safely. This information has helped to create a better plan.

Steering Committee

The Steering Committee followed the plan development closely, and met 4 times throughout the planning process:

- June 2012
- September 2012
- October 2012
- April 2013

Public Information Meeting

One public meeting in October 2012 formed the direct outreach with the public during the planning process.

Plan and Policy Review

Over 10 years of plans and policy documents relevant to the Comprehensive Bike Plan for Kenosha County 2025 were reviewed to support the creation of the Plan. The review focuses on plans and studies prepared by the Wisconsin Department of Transportation (WisDOT), as well as relevant information from Kenosha County and the Cities, Towns and Villages within.

The following plans were reviewed for this analysis. A detailed description of each plan is included in Appendix B: Plan and Policy Review.

Statewide Planning Documents

- Administrative Code Trans 75: BIKEWAYS AND SIDEWALKS IN HIGHWAY PROJECTS (2009)



Figure 1-1: The public information meeting was marketed broadly to reach the public.

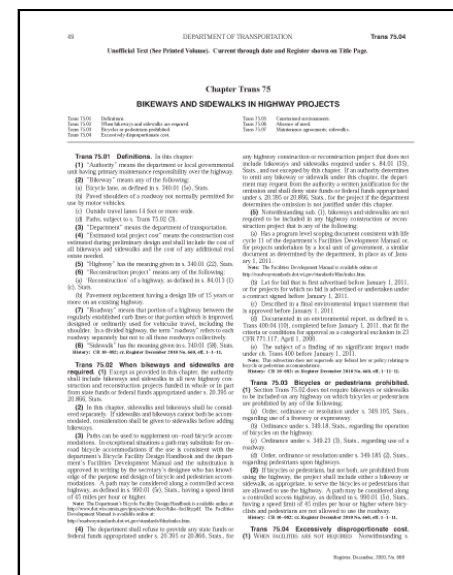


Figure 1-2: Administrative code Trans 75 aims to "ensure that bikeways and pedestrian ways are established in all new highway construction and reconstruction projects funded in whole or in part from state funds or federal funds."

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- Wisconsin State Bicycle Transportation Plan 2020 (1998)
- Wisconsin Pedestrian Policy Plan 2020 (2002)
- Wisconsin Department of Transportation Guide for Path/Street Crossings (2011)
- Developing a Model for Reducing Bicycle/Motor Vehicle Crashes (2006)
- Wisconsin Bicycle Planning Guidance (2003)
- Wisconsin Bicycle Facility Design Handbook (2004)
- Wisconsin Guide to Pedestrian Best Practices (2010)

Regional and County Documents

- 2035 Regional Transportation Plan Map (2010)
- A Vision for Bicycling in Kenosha County, Wisconsin (2010)
- Regional Bicycle and Pedestrian Plan for Southeastern Wisconsin: 2010
- Wisconsin County Bicycle Maps (2009)
- Wisconsin State Trails Network Plan Map (2001)

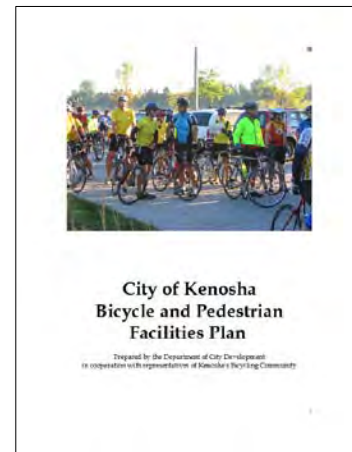


Figure 1-3: The 2007 City of Kenosha Bicycle and Pedestrian Facilities Plan introduced innovative facility types, such as Shared Lane Markings, not included in the 2004 Wisconsin Bicycle Facility Design Handbook.

City, Town and Village Documents

- City of Kenosha Bicycle and Pedestrian Facilities Implementation Plan (2007)
- Town of Randal and Village of Twin Lakes 2024 Transportation Plan (2005)
- Town of Randall Comprehensive Outdoor Recreation Plan (2008)
- Town of Salem 2020 Outdoor Recreation Plan for the Town of Salem
- Town of Somers Bike/Pedestrian Trails Map
- University of Wisconsin-Parkside Hiking/Biking Trails map
- Village of Paddock Lake Comprehensive Plan (2005)
- Village of Pleasant Prairie 2010 Bicycle and Pedestrian Trails Plan (2010)
- Village of Silver Lake Park and Open Space Plan (2003)



2 Needs Analysis

Demand Potential and Benefits

To support and quantify the objectives of the Plan, analysts used a biking demand model to measure the impacts of current and potential future trip activity within Kenosha County. A detailed description of model assumptions and data sources is included in Appendix C: Demand and Benefits Model.

This model uses US Census and other national studies to extrapolate the number of bicycling trips taken today within Kenosha County. Comparing today's trip making with aspirational future mode share targets can illustrate the potential benefits of achieving such changes.

Current Demand and Benefits

Table 2-1 shows the results of the model, which estimates that 1,794 bicycle trips occur in Kenosha County each day for transportation purposes. The majority are utilitarian trips not related to work, which include medical/dental services, shopping/errands, family or personal business, obligations, meals, and other trips.

Table 2-1: Model Estimate of Current Bicycling Trips

	Bicycling
Work Commute Trips (Daily)	312
K-12 School Trips (Daily)	738
College Commute Trips (Daily)	99
Utilitarian Trips	644
Total Current Daily Trips	1,794

To the extent that bicycling and walking trips replace single-occupancy vehicle trips, they reduce emissions and have the tangible economic benefits of reducing traffic congestion, crashes, and maintenance costs. In addition, the reduced need to own and operate a vehicle saves families money. Full benefits calculations are available in Appendix C: Demand and Benefits Model.

Future Demand and Benefits

Estimating future benefits requires additional assumptions regarding Kenosha's future population and anticipated commuting patterns in 2025. Future population predictions determined in the county comprehensive plan, A Multi-Jurisdictional Comprehensive Plan for Kenosha County: 2035 adjusted to the year 2025 by assuming a linear population growth were used in this model. Table 2-2 shows the model results for future trip making in Kenosha County.

Table 2-2: Future (2025) Bicycling Trips

	Bicycling (0.8% Share)	Bicycling (1.6% Share)
Work Commute Trips (Daily)	1,383	2,766
K-12 School Trips (Daily)	970	1,940
College Commute Trips (Daily)	441	882
Utilitarian Trips	2,857	5,713
Total Current Daily Trips	5,651	11,301

The important factor to consider with these future assumptions is not the accuracy of the mode share percentages, but the benefits that would accrue to Kenosha County if those numbers are reached. As more cities across the country track changes in bikeway mileage over time and participate in annual bicycle counts, more data will be available to better understand and refine mode share predictions. A detailed table future benefit calculations is available in Appendix C: Demand and Benefits Model.

Difficult-to-Quantify Benefits of Bicycling and Walking

Bicycling is a low-cost and effective means of transportation and is non-polluting, energy-efficient, versatile, healthy, and fun. Bicycles offer low-cost mobility to the non-driving public. Bicycling as a means of transportation has been growing in popularity as many communities work to create more balanced transportation systems and individuals seek to be healthier. In addition, more people are willing to bicycle more frequently if better bicycle facilities are provided.⁶

In addition to the tangible financial savings estimated above, bicycling has many other benefits that are challenging to quantify. Bike lanes can improve retail business directly by drawing customers and, indirectly, by supporting the regional economy. Patrons who bike to local stores have been found to spend more money than patrons who drive.⁷ By replacing short car trips, bicycling can help middle-class families defray rising transportation costs. Families that drive less spend 10 percent of their income on transportation, compared to 19 percent for households with heavy car use,⁸ freeing additional income for local goods and services.

⁶ Pucher, J., Dill, J. and Handy, S. (2010). *Infrastructure, programs, and policies to increase bicycling: An international review*. Preventative Medicine 50:S106-S125.

⁷ The Clean Air Partnership. (2009). *Bike Lanes, On-Street Parking and Business: A Study of Bloor Street in Toronto's Annex Neighborhood*.

⁸ Center for Neighborhood Technology. (2005). *Driven to Spend: Pumping Dollars out of Our Households and Communities*.



3 Existing Conditions

This chapter describes the current on- and off-street bikeway network in Kenosha County. The chapter begins with an inventory of existing bicycle lane and shared use path facilities, followed by an analysis of system strengths and weaknesses which highlights key areas where improvements may be needed.

Existing Bicycle Facilities

Federal and state bicycle planning and design guides define bikeways as preferential roadways accommodating bicycle travel through the use of bicycle route designations, bike lane striping, or shared-use paths to physically separate cyclists from motorists. Map 3-1 shows the existing bikeway network in Kenosha County.

Existing On-Street Bikeways

On-street bikeways can take several forms, depending on the speed and volume of traffic on the roadway, space available to accommodate bicyclists, and type of users expected on the facility. The following types of on-street bikeways are in-use in Kenosha County today:

Paved Shoulders: Typically found in rural areas, shoulder bikeways are paved roadways with striped shoulders wide enough for bicycle travel. Shoulder bikeways vary in width from 3' to 5'. Shoulder bikeways benefit not just cyclists, but also pedestrians by providing space to walk, motorists by providing additional maneuvering room, and agricultural workers by providing space to operate machinery. Paved shoulders extend the lifetime of the roadway and reduce maintenance costs.

Bike Lanes: Designated exclusively for bicycle travel, bike lanes are separated from vehicle travel lanes with striping and also include pavement stencils. Bike lanes are most appropriate in urban areas on arterial and collector streets, where higher traffic volumes and/or speeds warrant greater separation of bicyclists and motor vehicles.

Signed Bicycle Routes: Bike routes are streets and roadways that are identified as bicycle routes with signage. These routes may be on low traffic roads that do not require special roadway design as cyclists and motor vehicles can share the same space; routes may also be identified on busier roads that also include one of the other facilities identified here. All bicycle routes should include wayfinding signage that clearly identifies direction and distance to nearby attractions.

There are approximately 15 miles of existing bike lanes and 157 miles of other on-street bikeways in Kenosha County. These are illustrated on Map 3-1.

Existing Off-Street Bikeways

Off-Street Bikeways, commonly called shared-use paths (also referred to as “trails” and “multi-use paths”) are often viewed as recreational facilities, but they are also important corridors for utilitarian trips. Off-street facilities that accommodate bicycle travel can be categorized into the following typologies: shared-use path, a facility that has an exclusive right-of-way; side path, a two-way trail on one side of the road located within the road right-of-way; and park trail, a shared-use facility located within a park.

The following section briefly describes these off-street facilities.

Shared-Use Paths have exclusive right-of-way and are not directly adjacent to a roadway. They provide access across the county and connect to the regional network. Shared-use paths are frequently used by cyclists riding long distances, whether to go to work in neighboring towns and villages or to get out around the county for a long-distance weekend ride. In addition to fast-moving cyclists, recreational riders use the shared-use paths for family outings or more leisurely rides.

Side Paths: Some shared-use paths in Kenosha County are directly adjacent to roadways and within the street right-of-way. These ‘side paths’ serve both bicyclists and pedestrians and are wider than a standard sidewalk. Side paths provide commuter routes between residential areas and employment centers, as well as to retail areas. They are used by recreational riders mainly to access the greenway or regional trail network. Side paths that are crossed frequently by driveways and cross roads can pose a danger to bicyclists, making them less preferred to on-street bikeways for transportation oriented riders.

Park Trails: Several parks in Kenosha County provide trails that bicyclists can use for recreation and to connect into the network. As these trails are usually short and often loop on themselves, they are less significant for the bicycle transportation network. However, they are important facilities where families can enjoy a short outing or where residents can safely learn and practice their bicycling skills.

Current off-street bikeways in Kenosha County are a mixture of all types of paths and trails. These facilities are primarily concentrated in the Village of Pleasant Prairie and the City of Kenosha, with other small segments scattered around the county. In total, there are approximately 29 miles of existing off-street bikeways in Kenosha County. These are illustrated on Map 3-1.

US Bicycle Routes (USBR) System

In 2008 the American Association of State Highway and Transportation Officials (AASHTO) established a national corridor plan for U.S. Bicycle Routes to facilitate travel between the states over routes which have been identified as being suitable for cycling. USBR usually use roads and streets suitable for bicycle travel with separated trails incorporated where appropriate. Facility construction/upgrade is not required but is encouraged over time as roads are maintained and upgraded.

Within Kenosha County, USBR 37 runs north-south along an unspecified alignment connecting Milwaukee to Chicago, IL. The proposed Wisconsin alignments can be seen in Figure 3-1.

These USBR recommended routes are an important starting point for communities, and form one foundational element of the recommended bikeway network in this plan.

Comprehensive details about the U.S. Bicycle Routes System are available in Appendix E: US Bicycle Routes System Brief.

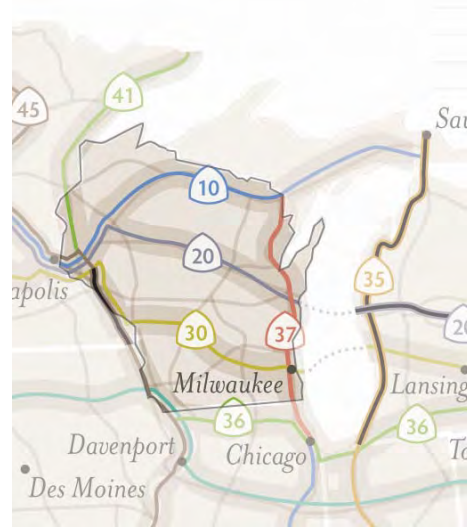


Figure 3-1: AASHTO Recommended US Bicycle Routes System in Wisconsin

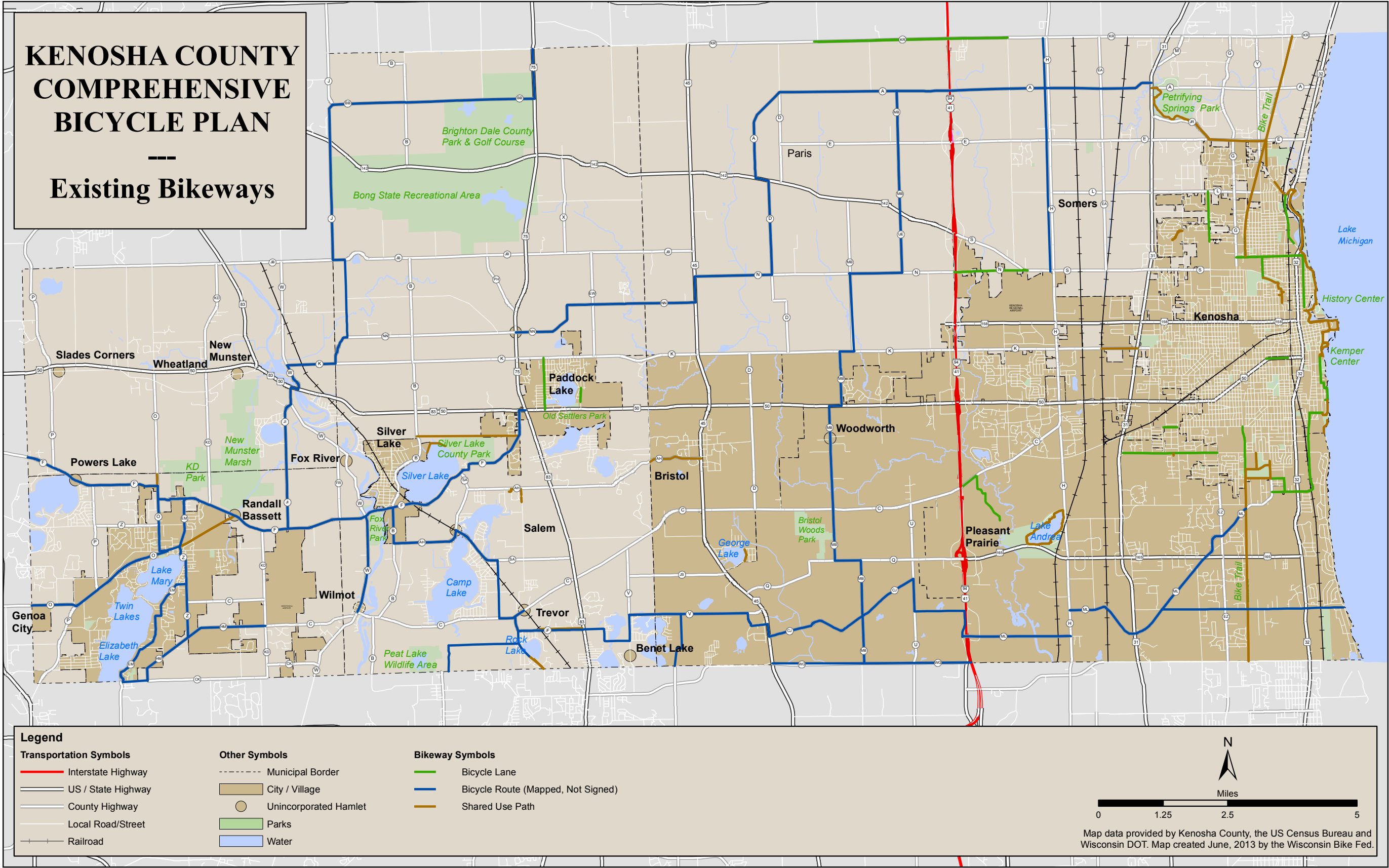
Car-Bicycle Crash Data Map

According to national surveys, safety concerns are the most commonly cited reason that people do not bicycle more often. In the US, most reported motor vehicle / bicycle crashes occur at major arterial intersections and involve a disproportionate number of younger adults and children.⁹ While analysis of motor vehicle / bicycle crashes can yield valuable information, care should be taken when describing trends. Bicycle crashes are relatively uncommon, and therefore data available for rigorous analysis is limited. Also, many crashes go unreported and it is also difficult to measure cyclist exposure in the absence of counts (which would yield a number of crashes by mile).

A dataset including bicycle crashes within Kenosha County between 2007 and 2011 was provided by the Traffic Operations and Safety (TOPS) Laboratory at University of Wisconsin-Madison. These are displayed on Map 3-2: Car-Bicycle Crash Data.

⁹ Federal Highway Administration. "Bicycle Type Manual for Bicyclists" (<http://www.fhwa.dot.gov/publications/research/safety/pedbike/96104/>). n.d. Web. March 1, 2011.

Map 3-1: Existing Bikeways in Kenosha County





Assessment

Constraints

Described below, bicyclists in Kenosha County face a variety of challenges. Major barriers, challenging intersections, and network gaps are identified on Map 3-3 and are described further on the following pages.

Limited Bikeway Network

The existing network of bicycle routes is largely fragmented, with the exception of some continuous routes within the City of Kenosha. The current isolation of bikeways does not serve recreational riders who want to quickly connect into the regional trail system for long recreational rides. The system also does not serve utilitarian cyclists who want to ride to a workplace or shopping center.

Barriers

Interstate 94 has traditionally been a barrier to biking in Kenosha County. However, biking conditions along and across Interstate 94 have greatly improved with the recent reconstruction of the frontage roads and many of the underpasses. The remaining underpasses that are not bike friendly are on the docket for improvements in the near future. Along existing bikeway corridors, major roadways are significant barriers to bicycling in Kenosha County; crossing state trunk highways such as US 45, STH 50, 75 and 83 can be a significant challenge. A sample of undesirable conditions are illustrated on Figure 3-2 on the next page, the bicycling conditions assessment maps from the Wisconsin Department of Transportation.¹⁰

¹⁰ The Wisconsin Department of Transportation County Bike Map is available online at <http://www.dot.wisconsin.gov/travel/bike-foot/countymaps.htm>

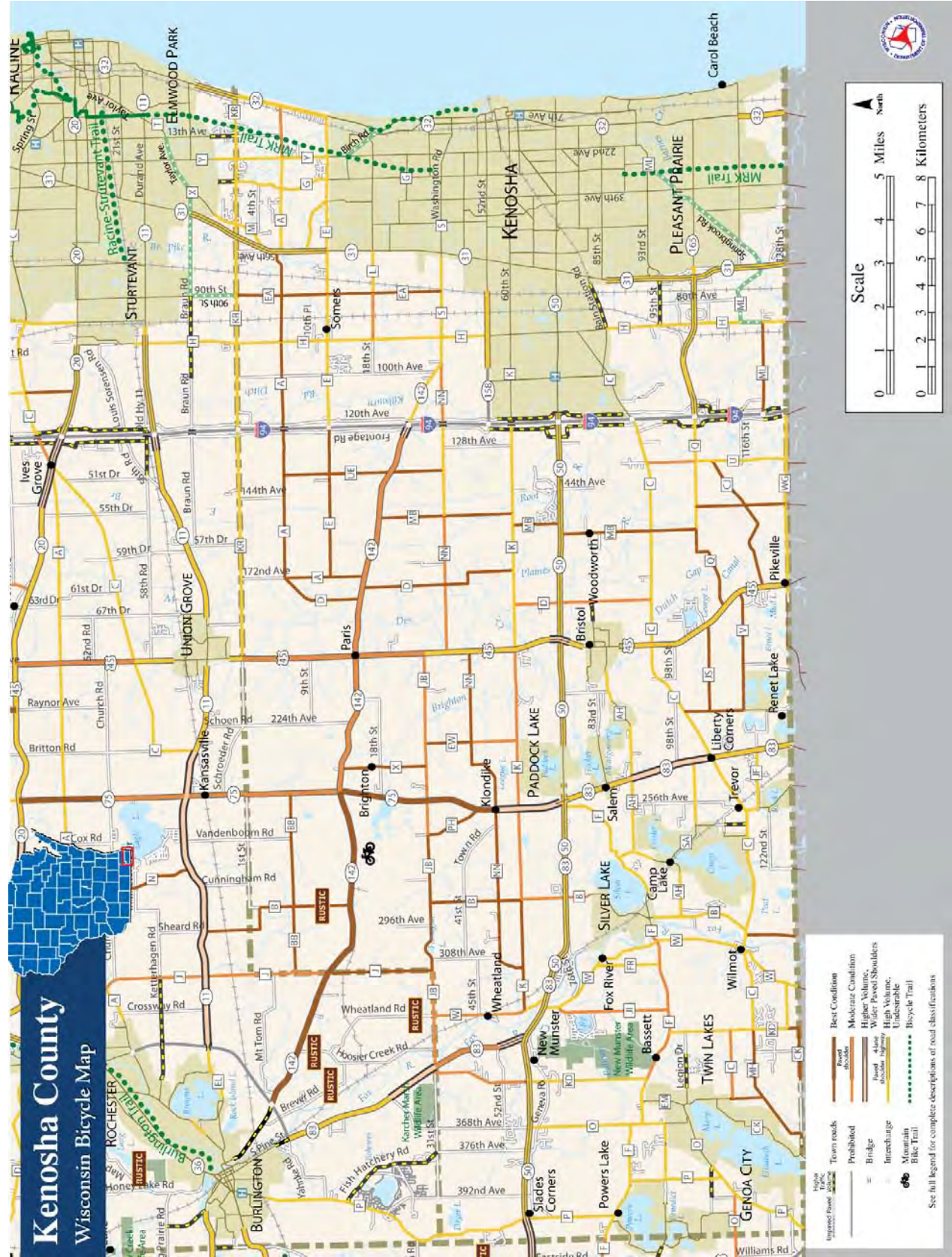


Figure 3-2: A Sample of the Kenosha County Bike Map produced by the Wisconsin Department of Transportation.

Challenging Intersections

Major intersections can be challenging for cyclists riding on the shared-use path system if crossing enhancements are not provided. Additionally locations where cyclists are primarily moving straight through the intersection on a side path, other intersections can be challenging for a cyclist turning off of the side path. For example, the path along CTH E at 22nd Ave in the City of Kenosha requires a cyclist to cross the busy roadways to continue along the path.

There are several intersections in the county that present a challenge to bicyclists due to the fact that the county road route travels along a state trunk highway for a short bit before turning into a county road. Examples of this include CTH MB at STH 50, CTH A at STH 31, CTH F at STH 50 to STH 75 and CTH W to STH 50.

Gaps

While bicyclists in Kenosha County benefit from the existence of some off-street bicycle facilities, these are largely incomplete, disconnected from each other, and do not offer continuous travel opportunities. For example, a path along 60th St in the City of Kenosha dead ends on the west side, without connecting back to the roadway. In addition, even small network gaps between facilities require bicyclists to either ride on the road or on a sidewalk to access another off-street facility. Finally, the area to the northwest of the county lack trail facilities altogether.

Lack of Wayfinding Tools

Kenosha County's bikeway system could benefit from signage and additional wayfinding tools to orient users and direct them to and through major destinations like downtown, schools, parks, and commercial areas. As the on-street network is being developed, cyclists should be directed to key destinations along the bikeway, to raise awareness of the new facilities and to encourage more residents to try bicycling to different destinations around the county.

Side Path Safety Concerns

The AASHTO Guide for the Development of Bicycle Facilities generally recommends against the development of trails adjacent to roadways. Also known as "side paths", these facilities create a situation where a portion of the bicycle traffic rides against the normal flow of motor vehicle traffic. Key concerns about shared-use paths directly adjacent to roadways (e.g., with minimal or no separation) are:

- When the path ends, cyclists riding against traffic tend to continue to travel on the wrong side of the street, as do cyclists going to the path. Wrong-way bicycle travel is a major cause of crashes.
- At intersections, motorists crossing the path often do not notice bicyclists approaching from certain directions, especially where sight distances are poor.
- Ambiguity as to expected user behavior at the crossings of paths, streets, and driveways.¹¹

¹¹ Wisconsin DOT published the *Wisconsin Department of Transportation Guide for Path/Street Crossings* in 2011 to help clarify path/street crossing ambiguities, though user awareness of this guidance is likely to be limited.

- Stopped vehicles on a cross-street or driveway may block the path.
- Because of the closeness of vehicle traffic to opposing bicycle traffic, barriers are often necessary to separate motorists from cyclists. These barriers serve as obstructions, complicate facility maintenance and waste available right-of-way.
- Paths directly adjacent to high-volume roadways diminish users' experience by placing them in an uncomfortable environment. This could lead to a path's underutilization.
- When implementing a sidepath, special attention should be paid to the design of intersections and driveway crossings to mitigate the concerns noted above.

When designing a bikeway network, the presence of a nearby or parallel path should not be used as a reason to not provide adequate shoulder or bike lane width on the roadway, as the on-street bicycle facility will generally be superior to the "side path" for experienced cyclists and those who are cycling for transportation purposes. Bike lanes should be provided as an alternate (more transportation-oriented) facility whenever possible.

Opportunities

Various characteristics foster an environment where bicycling is safe and enjoyable in Kenosha County. These system strengths are described below.

Potential of Northwest Kenosha County

As illustrated previously in Map 3-1, the northwest area of Kenosha County lacks existing bicycle facilities. While official bikeways have not been implemented, the current conditions in this part of the county are relatively compatible with cycling. Figure 3-2 identifies the majority of northwest county roads as "Best Conditions" or "Moderate Conditions." This positive evaluation indicates that future implementation of bikeways in the area will be simpler than they would otherwise.

Gentle Terrain

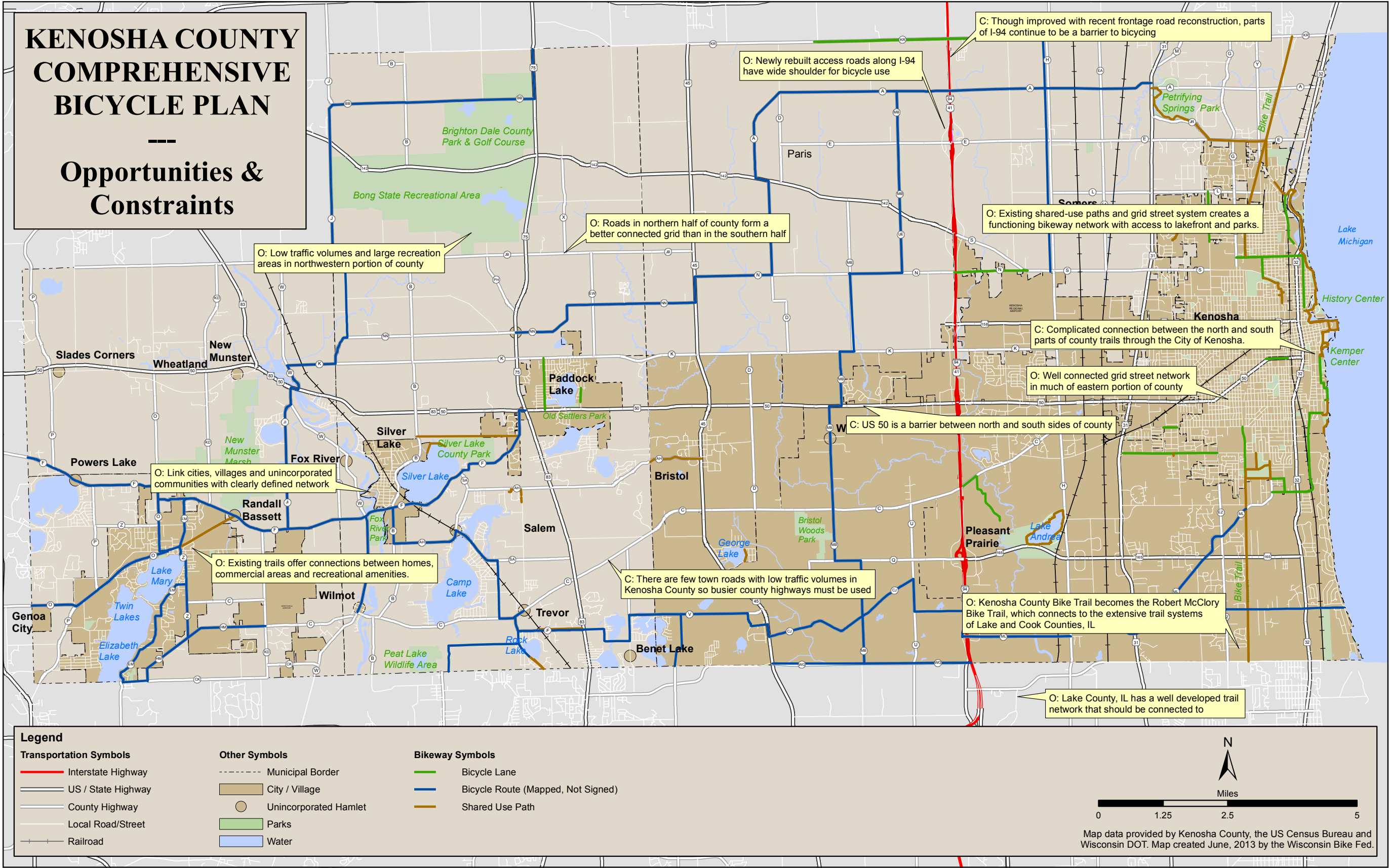
Kenosha County topography generally consists of gently rolling hills with few challenging hills to deter bicycling. The gentle rolling terrain allows for long sight distances and allows motorists time to react to the sighting of bicyclists on the road.

Key Corridors

Earlier planning provides a solid foundation for prioritizing future efforts. Key projects identified in the 2010 report *A Vision for Bicycling in Kenosha County, Wisconsin* are:

- Construct a shared-use path along Highway K (this project is funded)
- Add bike lanes to County Highway H (this project is funded)
- Provide bicycle route and directional signage (a system of routes and maps, without signage, has been developed)
- Pursue agreements to build paths in utility corridors
- Begin preliminary work on a southern shared-use path
- Build a 12 mile shared-use path along CTH C from CTH MB to Wilmot.

Map 3-3: Opportunities and Constraints





4 Recommended Bikeway Network

Introduction

This chapter presents a county-wide system of bikeways, shared-use paths and spot improvements in Kenosha County. The recommended network builds upon previous and on-going local and regional planning efforts and reflects the input offered by county staff, the project Steering Committee, bicycle and stakeholder groups, and Kenosha County residents.

The recommended bicycle and trail network includes bicycle and path facilities connecting key destinations in and around Kenosha County. System improvements include establishing a formalized on-street bikeway system, upgrading intersections for safer path and designated bicycle route crossings, improvements to specific bicycle facilities and projects to enhance safety and encourage bicycling. Some improvements include low-cost measures yielding immediate results, such as re-stripping of streets to accommodate bike lanes, other improvements, such as expanding the local path system, represent longer-term strategies for transforming Kenosha County into a truly bicycle-friendly community.

Facility Definitions for the Kenosha County Bikeway Network

Many on-street bicycle facilities can be developed inexpensively with paint and signs. The recommended bikeway network for Kenosha County has recommendations for five facility types: signed bike routes, shared lane markings, paved shoulders, bike lanes, and shared-use paths. Each facility type is illustrated below and described in detail in Appendix G: Bicycle Design Guidelines.

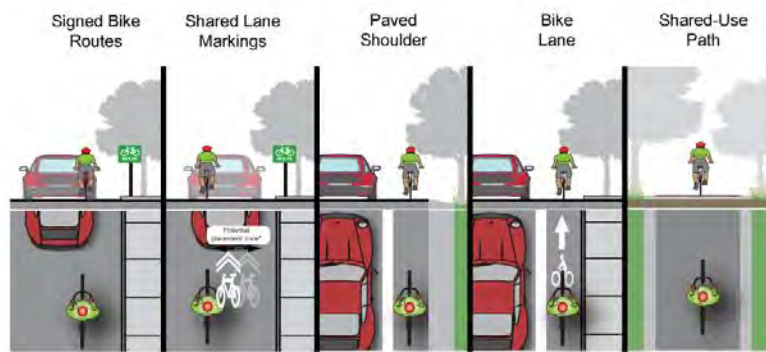
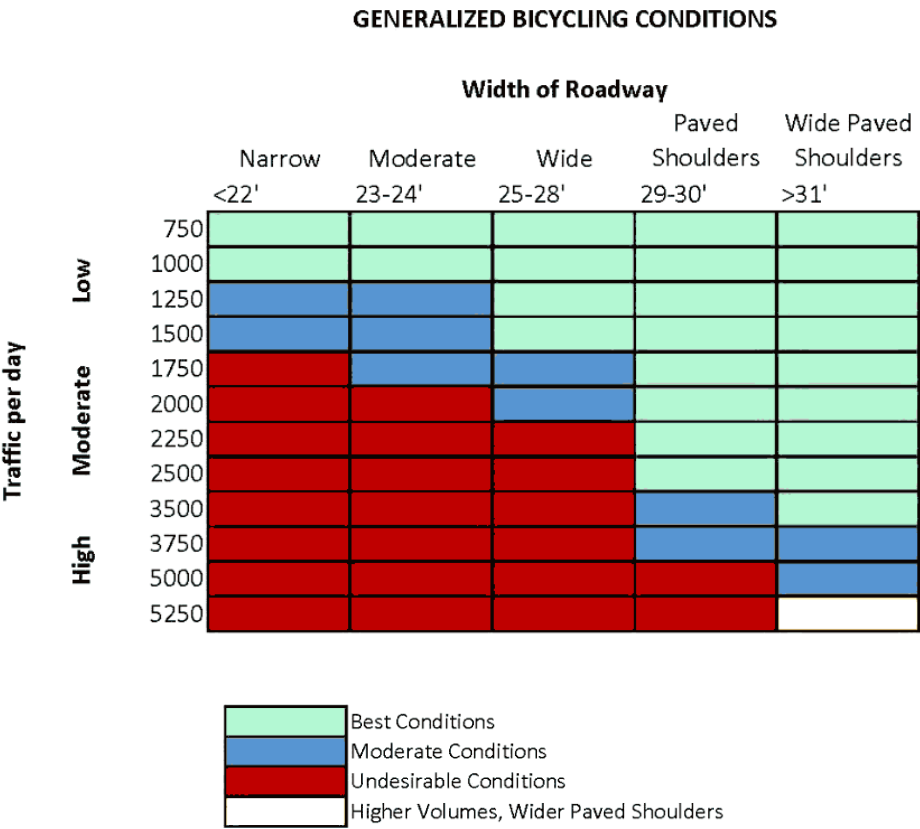


Figure 4-1: Bikeway facility types recommended in the Comprehensive Bike Plan for Kenosha County 2025

Bicycle Facility Selection

Identification of bicycling conditions on rural roadways is a critical part of this plan. Many rural roads in the county have low or very low volumes of traffic, which makes them suitable for cycling with minimal roadway changes. The Wisconsin Rural Bicycling Planning Guide uses the following table to summarize the rating thresholds used to determine suitability for cycling on rural roads. A ranking of “Undesirable Conditions” implies that further enhancement is necessary to create safe and comfortable conditions on that road segment. This system was used to generate the Wisconsin Bike Map. The two main factors in determining suitability are represented – traffic per day and roadway width. A more detailed model that also incorporates truck traffic and percent solid yellow – an indicator of the number of hills and curves present on a roadway, can also be used. Details on this model can be found in the *Wisconsin Rural Bicycle Planning Guide* published by WisDOT.



On-Street Bikeway Recommendations

The following list of recommended on-street bikeways was developed based on public comments, street widths, and a vision of providing an interconnected network that links schools, parks, commercial areas, paths and other attractions. Wherever possible, paved shoulders were recommended over shared lane operation, as they provide both bicyclists and motor vehicle operators with a higher level of comfort by increasing separation between users. However, a few urban streets are not wide enough to provide this facility. In those cases, shared lane markings are recommended.

The proposed network provides some sort of bicycle facility in most areas of the county, and will greatly increase the visibility of existing routes. When combined with the existing and proposed shared-use paths, the on-street bikeways will provide a comprehensive network connecting all parts of the county.

Table 4-1, Table 4-2, Table 4-3 and

RECOMMENDED BIKEWAY NETWORK

Table 4-4 list recommended on-street paved shoulders, bike lanes, shared lane marking facilities, and signed bike routes respectively. Map 4-1 provides an overview of the proposed network.

Table 4-1: Proposed Paved Shoulders

Street	From	To	Miles	Rated Undesirable*
CTH AH	Camp Lake	CTH SA	.85	No
CTH AH	STH 83	Village of Bristol	2.03	No
CTH N	CTH UE	I 94	1.03	Yes
CTH K	US 45	I 94	4.99	Yes
CTH SA	CTH F	STH AH	0.36	No
CTH JF	CTH C	STH 83	1.55	Yes
CTH Q	CTH U	I 94	1.00	Yes
CTH WG	US 45	I 94	3.83	Yes
Total			15.6	

* WisDOT has created a map for each county that rates the suitability of roads for bicycling. Those roads rated undesirable were based on current conditions at the time of assessment and are not recommended for travel by bicycle.

Table 4-2: Proposed Bike Lanes

Street	From	To	Miles
CTH H	State Line	Racine County Line	12.14
STH 31	128th St	CTH KR	12.31
CTH EZ	STH 165	97 th St	0.60
STH 75	STH 50	County Line Road	7.06
Sheridan Rd	Birch Rd	CTH E	1.15
30 th Ave	60 th St	80 th St	1.52
Total			34.78

Table 4-3: Proposed Shared Lane Marking Facilities

Street	From	To	Miles
Lakeshore Drive	3 rd Avenue	116 th Street	2.67
Total			2.67

COMPREHENSIVE BIKE PLAN FOR KENOSHA COUNTY 2025

Table 4-4: Proposed Signed Bike Routes

Street	From	To	Miles
CTH EM	128TH ST	CTH Z	2.61
CTH O	CTH EM	CTH F	0.80
CTH F	CTH KD	CTH EM	1.62
CTH F	CTH W	CTH KD	2.04
CTH F	CTH B	CTH W	0.56
CTH B	CTH AH	CTH F	0.69
CTH JI	CTH F	CTH W	2.45
CTH W (328TH AVE)	STH 50	CTH K	0.53
CTH K	CTH W	CTH NN	0.94
CTH NN	CTH K	308TH AVE	0.62
CTH K	CTH NN	CTH EW	5.00
CTH K	US 45	CTH EW	2.02
CTH K	CTH MB	US 45	2.75
CTH MB	STH 50	CTH K	1.05
CTH JF	CTH MB (160TH AVE)	CTH MB (156TH AVE)	0.24
CTH MB	CTH Q	STH 50	2.99
CTH Q	CTH MB (160TH AVE)	CTH MB (152ND AVE)	0.50
STH 165	CTH ML	I94	4.71
CTH MB	CTH CJ	CTH Q	1.08
CTH CJ	US 45	CTH MB	2.00
116TH ST	CTH U	120TH AVE "WEST FRONTAGE ROAD"	0.97
CTH ML	CTH H	120TH AVE "WEST FRONTAGE ROAD"	2.11
CTH V (116TH ST)	224TH AVE	187TH AVE	2.29
CTH JF	CTH C	STH 83	1.56
CTH C	CTH JF	258TH CT	0.24
264TH AVE	CTH SA	CTH C	1.12
CTH AH	CANADIAN NATIONAL RR	CTH B	1.36

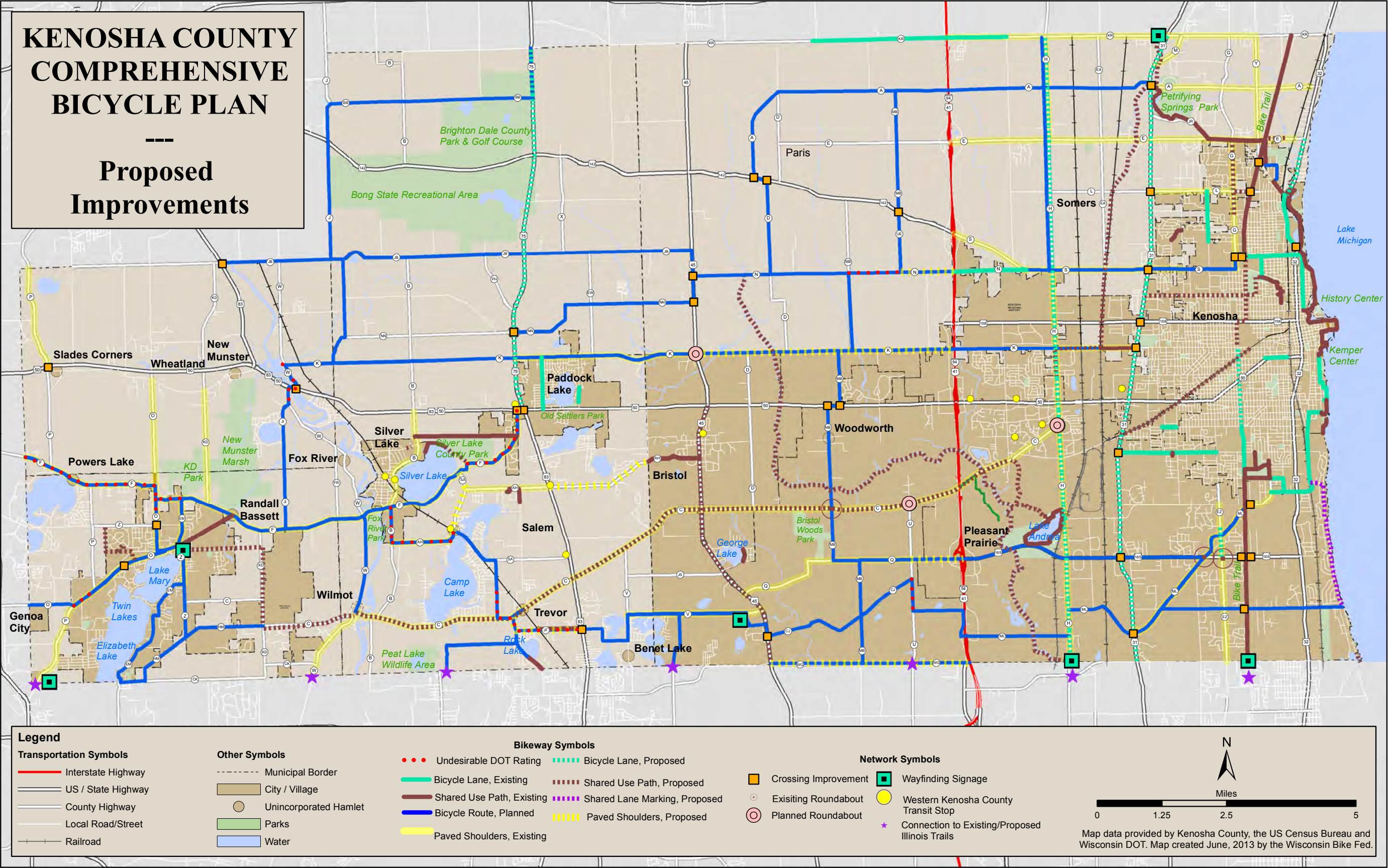
Street	From	To	Miles
CTH F	CTH B	STH 50	3.58
STH 75	CTH BB	1ST ST	0.97
CTH BB	STH 75	CTH J	3.91
CTH J	CTH BB	CTH JJ	3.04
CTH NN	STH 75	US 45	3.85
CTH N	CTH MB	CTH UE	1.02
CTH MB	STH 142	CTH A	2.36
CTH D	STH 142	CTH N	1.81
CTH A	CTH MB	CTH D	2.27
CTH A	CTH H	CTH MB	2.94
CTH A	STH 31	CTH H	2.03
CTH S	96TH AVE	CTH G	4.04
CTH G	35TH ST	38TH ST	0.24
16TH AVE	15TH ST	BIRCH RD	0.35
CTH K	144TH AVE	CTH MB	0.47
CTH K	CTH H	144TH AVE	3.44
CTH K	STH 31	CTH H	1.56
CTH ML	116TH ST	30TH AVE	2.63
116TH ST	CTH EZ	CTH ML	1.22
116TH ST	LAKESHORE DR	CTH EZ	2.26
CTH ML	116TH ST	CTH H	2.23
CTH O	CTH O (LANCE DR)	CTH F	1.18
CTH O	CTH EM	COUNTY BOUNDARY	3.21
CTH F	CTH O	COUNTY BOUNDARY	2.65
CTH MB	CTH WG	CTH CJ	0.92
CTH JB	STH 83	CTH J	2.13
CTH JB	308TH AVE	STH 75	3.56
US 45	CTH N	CTH JB	0.50
CTH N	CTH MB	CTH D	1.49
CTH N	120TH AVE "WEST FRONTAGE ROAD"	CTH UE	1.01
CTH N	CTH N (38TH ST)	CTH K	1.49
CTH K	144TH	CTH MB	0.29

RECOMMENDED BIKEWAY NETWORK

Street	From	To	Miles
CTH UE	CTH N	STH 142	1.15
US 45	CTH NN	CTH N	0.49
CTH N	CTH D	US 45	1.51
122ND ST	232ND ST	CTH V	0.48
232ND ST	119TH ST	122ND ST	0.23
224TH AVE	122ND ST	CTH V	0.51
187TH AVE	CTH V	119TH ST	0.26
119TH ST	187TH AVE	US 45	0.33
119TH ST	STH 183	232ND AVE	0.38
CTH SA	CTH AH	264TH AVE	1.06
CTH JB	STH 75	US 45	3.23
CTH CJ	CTH MB	CTH U	1.23
US 45	119TH ST	CTH CJ	0.24
CTH U	CTH CJ	116TH ST	0.63
120TH AVE "WEST FRONTAGE ROAD"	116TH ST	CTH ML	0.51
CTH JB	CTH J	308TH AVE	0.22
308TH AVE	CTH NN	CTH JB	1.50
CTH A	CTH D	STH 142	1.86
STH 142	CTH A	CTH D	0.26
15TH ST	20TH AVE	16TH AVE	0.22
CTH Z	CTH EM	CTH O	0.77
CTH EM	CTH O	CTH F	0.97
STH 50	CTH W (328TH AVE)	CTH W (FOX RIVER RD)	0.14
CTH W (FOX RIVER RD)	STH 50	CTH JI	0.33
STH 50	CTH F	STH 75	0.13
CTH JF	264TH AVE	CTH JF	0.30
STH 165	I94	CTH MB	2.03
CTH HM	CTH C	STATE LINE ROAD	2.80
STATE LINE ROAD	CTH HM	CTH EM	0.48
CTH Z	CTH HM	CTH EM	1.03
208TH AVE	CTH V	124TH ST	0.67
122ND ST	ROCK LAKE	280TH ST	1.35

Street	From	To	Miles
	RD		
ROCK LAKE RD	259TH AVE	ROCK LAKE TRAIL	0.32
CTH H	CTH A	CTH KR	0.98
CTH H	CTH S	CTH A	3.53
CTH WG	US 45	US 94	3.84
CTH W	CTH C	CTH F	1.89
124TH ST	CTH V	208TH AVE	0.10
208TH AVE	124TH ST	COUNTY BOUNDARY	0.34
280TH ST	122ND ST	COUNTY BOUNDARY	0.51
259TH AVE	CTH JF	ROCK LAKE RD	0.24
Total			148.6

Map 4-1: Recommended Bikeway Network



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Shared-Use Path Recommendations

A number of shared use paths are recommended for Kenosha County. These paths range from short segments of a few hundred feet to longer paths a few miles long. All of these paths serve the same purpose: they increase bicycle access in areas where access does not currently exist, or where users do not feel safe or comfortable using existing streets. Table 4-5 summarizes proposed shared-use path segments.

The projects shown on Figure 4-2 and described in detail below are intended to reflect planning level design. As projects are developed into conceptual designs, it is likely that project locations or details may change slightly or require modification to better match the planned intent to on the ground conditions and opportunities.

Table 4-5: Proposed Shared- Use Paths

Path #	Path	From	To	Miles
1	Pike River Trail	County Line	CTH K	6.44
2	Des Plaines River Trail	County Line	CTH N	14.4
3	Jockey Trail	STH 31	Jockey Plant Property	3.45
4	Washington Park Extension	Existing Trail	Bain Elementary	0.65
5	Prairie Farms Trail	Prairie Springs Park	CTH C	1.61
6	Twin Lakes Trail	CTH Z	CTH O	1.2
7	US 45 Sidepath	CTH WG	CTH 50	5.46
8	30 th Ave/ CTH G Trail	CTH E	22 nd St	1.42
9	CTH C trail	CTH W	104 th St	13.57
10	CTH L trail connector	CTH G	Kenosha County Trail	0.33
11	45 th Street Trail	STH 31	28 th St	1.95
12	Kenosha County Bike Trail Southern Extension	35 th St	30 th Ave via STH 158	1.92
13	CTH K/H Extension	Existing Trail on CTH K	West on K, South on H to 65 th St	1.27
14	Silver Lake Ice House Trail Extension	Existing Trail in Silver Lake County Park	CTH F via Silver Lake County Park	0.59
15	Silver Lake Village Connection	Lotus Drive	Dells Drive	0.08
16	Twin Lakes Trail	Wilmot	Legion Dr	4.78
17	Marina Connection	Spring Bluff Dr	1 st Ct	0.28
18	CTH E	20 th St	Sheridan Rd	.75
	Total			59.55

Any time that a utility (ie. ATC, ANR) expands or creates a new line through Kenosha County the land or easements shall be considered as a viable option for a bike trail as an addition or modification to the current Recommended Bike Network.

Path segments are located on the Recommended Bikeway Map and are described below. Exact alignments would be pending environmental review.

1. Pike River Trail

The proposed shared use path will connect with the planned segment in Mt. Pleasant in Racine County. The Kenosha portion of this trail will travel south from CTH KR to CTH K. This almost 6.5 mile segment will run alongside the Pike River, providing an excellent off-street alternative within the County. The trail will also provide a connection to Petrifying Springs Park, located in the northeast portion of the county. This county park is home to numerous internal trails, streams and rivers, the Carlisle Family Dog Park and winter recreation opportunities. The trail system in Petrifying Springs Park hooks into the existing trail located on CTH JR.

2. Des Plaines River Trail

This plan proposes continuing the Des Plaines River Trail from its current terminus just west of CTH H and the Illinois state border along the river corridor north to CTH N. The riverside path connection is an off-street connection between the CTH N and the Illinois State Border near CTH H. Expanding this trail system will allow recreational and touring bicyclists and other users to travel the entire length of Lake County, IL north for 31 miles, linking Kenosha and Lake Counties. In Illinois, the trail passes through 12 forest preserves. The trail is a key link in a regional network of trails that includes the North Shore Bike Path, the McClory Trail and the Millennium Trail. While some portions of the trail can be built on public land, land acquisition or conservation easements from private landowners will be necessary to complete this trail.

In Illinois, the crushed-gravel trail is open to hikers, bicyclists, cross-country skiers, equestrians, and snowmobilers, in some portions.

3. Rail with Trail from Jockey Plant to STH 31

'Rails with Trails' typically refers to a corridor that includes a trail adjacent to an active railroad. Railroad rights of way are usually 100-200 feet wide and can generally provide ample separation of the trains and trails. Successfully constructed all over the country, Wisconsin examples can be found in Madison and Superior. This proposed trail will connect Kenosha to Pleasant Prairie alongside an existing, active rail corridor. Starting at the intersection of STH 31 and the rail corridor, the path will travel approximately 3.5 miles northeast to the large parcel occupied by the Jockey plant. This path will serve to connect the City of Kenosha to Pleasant Prairie's multi-modal station via the proposed bike lanes on STH 31.

4. Washington Park Trail Connection to Bain Elementary School

Many people requested a path connection from the existing path located in Washington Park west of 22nd Avenue to Bain Elementary School, located to the south of the western portion of the park. This 0.65 mile segment would increase the potential for connection between the park and the school and tie into

the existing Kenosha County Bike Trail as well as the bike lanes located on 22nd Avenue. This area is congested and presents many conflicts for cyclists and pedestrians.

5. Prairie Farms Trail

This trail is scheduled for completion in 2013 and will connect Prairie Springs Park on the north side of Lake Andrea with CTH C (Wilmot Road).

6. Twin Lakes Trail

This trail is planned for the Village and will be built as part of an approved, platted subdivision.

7. US 45 Sidepath

This 5.46 mile sidepath is planned for the west side of US 45 from the southern border of the county to STH 50. Actual alignment of the sidepath will be determined upon the completion of further engineering studies.

8. 30th Ave Trail

This 1.42 mile trail will connect the exiting trail located on CTH E with 22nd Street.

9. CTH C Trail

This trail will facilitate travel between the eastern and western portions of the county. The almost 13 mile trail originates in Wilmot and travels west to the proposed Des Plaines River Trail. Construction of this trail is slated for 2014-2015.

10. CTH L Connector Trail

This small trail segment will provide a connection between the Kenosha County Trail and the proposed CTH G trail. It will be approximately 1/3 mile in length.

11. 45th St Trail

This 1.95 mile trail located on 45th Street will create an east/west connection between the proposed CTH G trail and the bike lanes proposed for STH 31.

12. Kenosha County Bike Trail Southern Extension

This trail segment will extend the existing Kenosha County Bike Trail that currently terminates at 35th Street to 30th Ave. The most northern section will follow travel through existing parcels and Washington Park. There will be a slight jog in the alignment where the trail follows STH 158 and then continues south via 30th Avenue to the proposed 30th Avenue bike lanes that begin at 60th Street.

13. CTH K Extension

This 1.27-mile long trail segment connects with the existing trail segment, which is located on CTH K between the UP rail lines and STH 31. Traveling west from the connection point, this new trail will continue south at the intersection of CTH K and CTH H and continue on the east side of CTH H until 65th Street. This portion of H will be served by both a trail and bike lanes.

14. Silver Lake Ice House Trail Extension

This 0.59-mile trail segment will extend the existing Silver Lake Ice House Trail located in Silver Lake County Park southeast to CTH F.

15. Silver Lake Village Connection

This very small segment of trail – 0.08 miles will connect the residential area of Silver Lake with direct access to the Silver Lake Ice House Trail. The connection will be constructed to fill the gap between Lotus Drive and Dells Drive.

16. Twin Lake Trail

This proposed trail would be an extension of the CTH C shared use path. Development will coincide with the development of the proposed gravel quarry in Twin Lakes along the east side of CTH KD. It would continue along Legion Drive to connect to the rest of the bicycle network in the Twin Lakes area.

17. Marina Trail

This important trail connection is currently used by many bikers heading either south to the extensive Illinois trail system or north to the city and county of Kenosha facilities. As the property is a privately held marina, it will be necessary to work with the landowners for the proper easements and access.

18. CTH E Extension

This would provide for an additional connection for Carthage College with UW Parkside and Petrifying Springs Park.

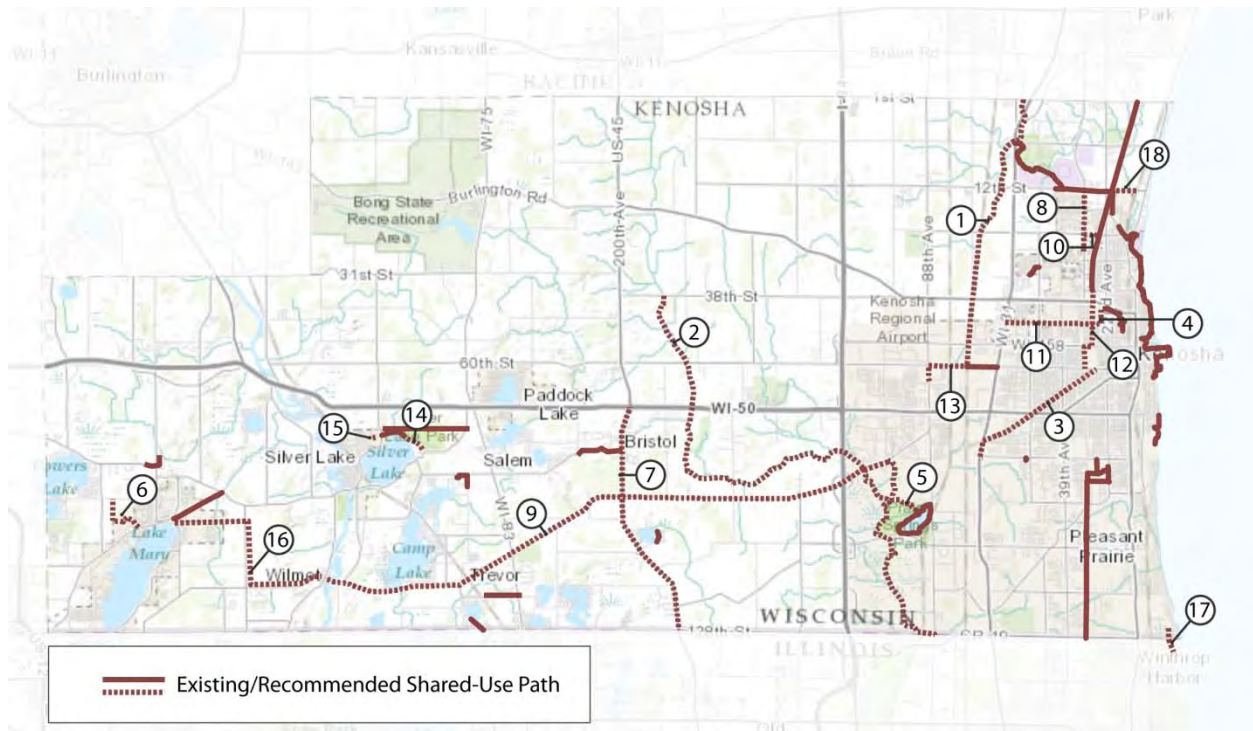


Figure 4-2: Recommended Shared-Use Paths

WisDOT Suitability Ratings

In the summer of 2012, Kenosha County produced and distributed a Bike Route Map for public use. The map is intended to encourage biking in the county and provides bike route suggestions vetted by local riders with many years of experience. A comparison of the suggested bike routes and the WisDOT Bicycle Suitability Map for Kenosha County reveals that there are a number of Kenosha Bike route segments that the WisDOT map calls “High Volume, Undesirable”. In some cases, WisDOT’s analysis may have been completed prior to improvements to the highway segment in question such as paved shoulders, in other cases the highway’s condition has not changed since the WisDOT analysis. The Proposed Bikeways Network Map in this plan delineates the overlapping segments. It is recommended that where the proposed bike routes overlap with WisDOT’s “High Volume, Undesirable” classification, the county place a high priority on paving the shoulders and adding “Share the Road” signs (MUTCD W16-1P). Where the segment already has paved shoulders, the County should install “Share the Road” signs at the beginning of each segment from each direction of travel.

The overlapping segments include:

- CTH F from the western county line to CTH O
- CTH O from CTH Z to CTH F
- CTH O from CTH P to CTH P
- CTH F from CTH O to CTH KD
- CTH W from CTH JI to STH 50
- CTH W from STH 50 to CTH K
- CTH B from CTH F to CTH AH
- CTH AH from CTH B to 278th Ave
- CTH JF from CTH C to STH 83
- 264th Ave (town road) from 110th Street to CTH C
- CTH C from 264th Ave to CTH JF
- CTH Q from CTH MB to CTH MB
- CTH U from CTH CJ to 116th Ave
- CTH K from US 45 to I-94
- CTH N from CTH MB to CTH UE
- CTH H North County Line to STH 158
- CTH H South County Line to Bain Station Road

Spot Improvement Recommendations

Recommendations are provided below to improve specific on-street issues.

- Place signage within the Village of Twin Lakes to alert users to the presence of the Ice House Trail that connects Twin Lakes to Randall. Currently, the trailhead and associated parking lot are accessible only by driving through the Twin Lakes library parking lot, near the intersection of East Main Street and Lake Avenue in Twin Lakes.

- Improve the intersection crossings of the Kenosha County Bike Trails and the streets it crosses. See Appendix F: Trail Crossing Improvements for more detail.
- Improve the lakeside trail and bike route
- Improve the intersection of CTH F and CTH B in the southwestern portion of the county.
- Improve the intersections of the proposed bike lanes on STH 31 with the major intersections of that route.

Wayfinding Improvement Recommendations

Frequent, legible signing is important to help guide users along the connection route.

To establish best practices and user expectations, Kenosha County should pursue a wayfinding signing project to offer clear, easy to follow direction for bikeway. Brief guidance and a signing example is presented below. See Appendix G: Bicycle Design Guidelines for more detailed guidance on wayfinding sign types and placement. To sign for a direct route connection, two sign types are commonly used: Turn Signs and Confirmation Signs. In areas with interconnecting bikeways, a decision sign is also used.



Turn signs Indicate where a bikeway turns from one street onto another street. These signs include destinations and arrows. Turn signs should be placed on the near-side of intersections where bike

routes turn (e.g., where the street ceases to be a bicycle route or does not go through). Pavement markings can also indicate the need to turn to the bicyclist.



Confirmation signs indicate to bicyclists that they are on a designated route and make motorists aware of the bicycle route. These signs can include destinations and distance/time, but do not include arrows. Confirmation signs should be placed every ¼ to ½ mile on off-street facilities and every two to three blocks along on-street bicycle facilities. Confirmation signs should be placed soon after turns to confirm destination.



Decisions signs Mark the junction of two or more bikeways, and help users identify which route will reach their destination. These signs include destinations and arrows. Including distances and travel times are optional but recommended.

Branding and Identification: Integration with local municipal identification is also possible. Consider opportunities for public/private partnerships by featuring commercial destinations on decision signs. The example below shows a turn sign with county and municipal branding.





5 Recommended Policies

In order to fulfill the vision outlined for this plan and create a safe, connected bicycle network, an update to County policies should be pursued. Infrastructure design guidance to support the following policy recommendations is provided in Appendix G: Bicycle Design Guidelines.

The most significant update to County policy to support bicycling interests would be to establish a Complete Streets policy. This policy would be in support of State of Wisconsin Complete Street legislation, and further advance the goals of bicyclists in Kenosha County. Wisconsin's bicycle accommodations law is called Administrative Code Transportation 75 (Trans-75). The code aims to "ensure that bikeways and pedestrian ways are established in all new highway construction and reconstruction projects funded in whole or in part from state funds or federal funds."

A Complete Street is a roadway that, in addition to general purpose vehicular travel lanes, includes items such as sidewalks, bike lanes or shoulders, bus lanes, transit stops, crosswalks, median refuges, curb extensions, appropriate landscaping, and other features that add to the usability and livability of the street as determined by context. As of August 2012, legislation on the subject has been passed in 26 states and more than 325 other jurisdictions throughout the country, and the Safe and Complete Streets Act of 2011 is currently pending in Congress.

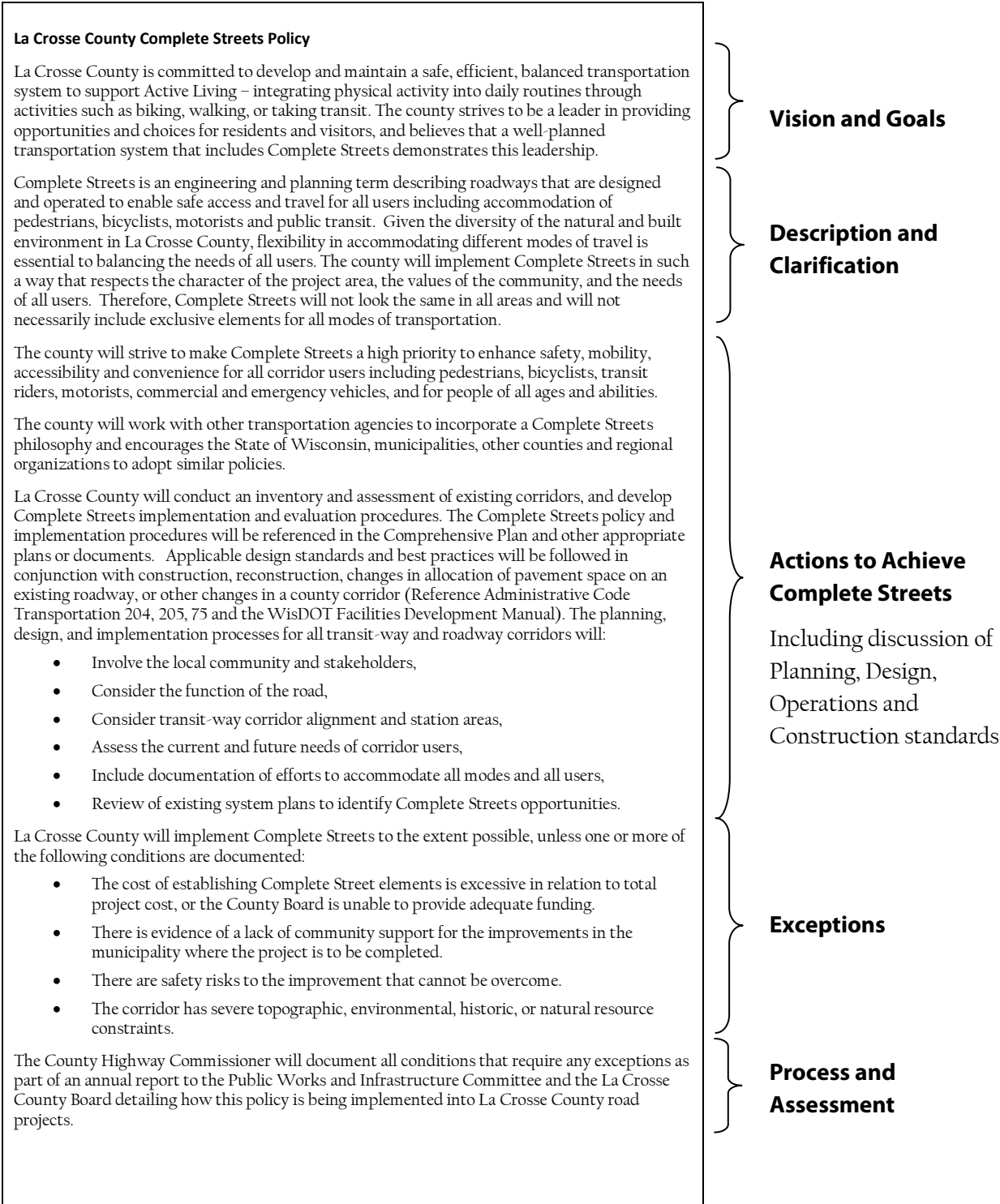
The La Crosse County Experience

In 2011 La Crosse County became the first county in Wisconsin to adopt a complete streets policy. This major milestone was the natural partner to the state-level *Trans-75*, and has sparked a series of local policy adoptions in La Crosse County.

Shortly after the county policy adoption, the City of La Crosse adopted their own complete streets policy called the "Green and Complete Streets Ordinance." This is the first local city-level complete streets policy implementation in the state. Since then, Complete Streets policies were also passed in the City of Holmen and West Salem, and are currently under discussion by the common council of Onalaska.

Figure 5-1 on the following page displays the full text of the policy passed by La Crosse County, and identifies the key elements of their policy. Kenosha County should use the language and content of La Crosse County as a starting point for their own Complete Streets policy.

Figure 5-1: Breakdown of a county-level complete streets policy



A Complete Streets Policy for Kenosha County

To achieve a roadway network that is safe, comfortable, and attractive for all users, Kenosha County should adopt a Complete Streets policy that is consistent with Trans- 75 and considers the following topics:

- Planning
- Design
- Construction
- Operations
- Exceptions

The vision for the Complete Streets policy should live up to the Vision, Goals and Objectives developed of the Comprehensive Bike Plan for Kenosha County 2025. Action items listed below can form the basis for either a formally adopted policy, or an informal action plan.

Planning

1. Regularly discuss current roadway projects to provide seamless transitions between existing facilities.
2. Adopt a green transportation hierarchy as a common basis for transportation planning.
3. Review and provide comment on the Transportation Plans of local cities, towns, and villages.

Design

1. When appropriate, consider roadway design that slows motor vehicles and/or limits access so as to provide greater safety for cyclists, pedestrians, and motorists (e.g. lane narrowing or the reduction of lanes; reduction of access etc.), especially in village or other population centers.
2. Adopt consistent design principles for cyclists and pedestrians as recommended in this Plan and other statewide planning documents.
3. Evaluate existing and potential on-road bicycle use in all repaving and re-striping projects (i.e. striping of bicycle lanes, wide curb lanes, and paving of roadway shoulders or widening of curb lanes) as well as new roadway construction and reconstruction projects.
4. Evaluate the effectiveness of narrowing crossing distances at intersections where high motor vehicle counts and high pedestrian counts are expected.
5. Provide appropriate bicycle accommodation on and along all highway, arterial and collector streets.
6. Maintain the function of existing freight corridors, but evaluate design treatments to improve function of the corridor for cyclists and pedestrians.
7. Provide pedestrian accommodation in the form of sidewalks or shared-use paths adjacent to all arterial, highway and collector streets.
8. Include street trees as a part of sidewalk and shared-use path design wherever possible to create a safer and more pleasant environment for all users.

COMPREHENSIVE BIKE PLAN FOR KENOSHA COUNTY 2025

9. Develop a Complete Streets checklist to guide the development of individual transportation projects¹².

Construction

1. Provide alternate routes for cyclists and pedestrians during construction, reconstruction, and repair of streets. Develop standards to maintain pedestrian and cyclist access during construction activities.

Operations

1. Time traffic signals to provide adequate/comfortable pedestrian and cyclist crossing time
2. In pedestrian areas, provide audible and countdown signal heads. Consider exclusive pedestrian timing or leading pedestrian intervals where appropriate
3. Provide bicycle signal detection at all actuated signals along bikeways and major roads typically used as cycling routes
4. Develop a coordinated maintenance schedule or program to address bikeway, sidewalk, and shared use path maintenance needs
5. Establish performance metrics to track the implementation of this policy. These metrics should be consistent with the Vision, Goals, Objectives developed for the Comprehensive Bike Plan for Kenosha County 2025:
 - a. Miles of bikeways, shared use paths, and sidewalks in relation to miles of roadway
 - b. Reduced collisions involving cyclists or pedestrians
 - c. Improvements to air quality
 - d. Reduced transportation system maintenance costs
 - e. Increased numbers of people walking and cycling (counted annually)
 - f. Increased percentage of traffic signals with countdown signalization and/or bicycle detection

Exceptions

Not every street can be ideal for every traveler. However, it is still important to provide basic, safe, and direct access for users regardless of the design strategy used.

Exceptions to the Complete Streets policy should be made by the transportation authority where:

1. A suitable or more desirable alternative is available within a reasonable distance based on public and staff input or criteria defined in Trans-75
2. The cost of accommodation would be excessively disproportionate to the need or probable use as defined by Trans-75
3. There is public consensus that the accommodation is unwanted as defined by Trans-75

¹² A sample checklist from the Metropolitan Transportation Commission in the San Francisco, CA area can be found here: http://www.mtc.ca.gov/planning/bicyclespedestrians/Routine_Accommodation_checklist_FINAL.pdf



6 Recommended Programs

Introduction

The infrastructure recommendations in the Comprehensive Bike Plan for Kenosha County 2025 will provide safer, more comfortable places for further growth in bicycling and trail use. However, while improving infrastructure is critical to increasing bicycling rates, the importance of outreach, education, and evaluation efforts should not be underestimated.

Programs can ensure that more residents will know about new and improved facilities, learn about the benefits of bicycling, and receive positive reinforcement about why and how to integrate bicycling into their everyday lives. In essence, these efforts market bicycling to the general public and provide a higher "return on investment" in the form of more people representing a variety of demographics bicycling and a higher degree of safety and awareness around bicycling in Kenosha County.

This memorandum contains recommendations for education, encouragement, equity and evaluation programs that should be pursued along with infrastructure investments. For each program, the technical team has provided information about the program purpose, a description of the basic approach and, wherever possible, links to model programs.

Program concepts were developed by the technical team and were based on knowledge about existing events, stated community needs (as communicated through input at public events and meeting of interested members of the Plan Steering Committee in August 2012), and knowledge of national best practices.

Summary of Existing Programs

Visitors and residents of Kenosha County already benefit from a number of ongoing programs and outreach efforts conducted by county staff, other municipal agency staff, volunteers and cycling enthusiasts. Current programs include:

- Bicycle rodeos conducted by Officer Friendly of the Kenosha Police Department. Typical bicycle rodeos in Kenosha County include lessons on bicycle safety, a bicycle obstacle course, and

helmet fitting.

More information: <http://www.kenoshapolice.com/default.aspx?id=7>

- Kenosha Bike Ambassadors, a volunteer group, accepts used bicycles and parts, rebuilds or repairs the frames, and donates them to local or international non-profit organizations.

More information: Carol and Brian Boehm, 262-694-2443

- Washington Park is home to the oldest operating velodrome in the United States. Races are typically held weekly at the track between May and August. In addition to official race events the track is open to the public and occasional bicycle related events are held near at and around the track premises.

More information: <http://www.kenoshavelodrome.com/>

- Kenosha County Job Center serves a number of communities in and around Kenosha County. The Center works with its service base to make sure job seekers can reach their jobs; provision of a bicycle is sometimes part of this program.

More information: <http://www.wisconsinjobcenter.org/directory/wda01/0330.htm>

- Several existing bike clubs in the area organize regular rides for members. The Wheeling Wheelmen, Bicycle Club of Lake County and KR Bike Club are not affiliated with Kenosha County but do play an active role in the bicycling community.

More information: Wheeling Wheelmen <http://www.wheelmen.com/>

KR Bike Club <http://www.krbikeclub.com/>

- Kenosha County currently sponsors several supported bicycle rides including:
 - The first annual DairyAir ride and breakfast occurred in May 2011. This supported ride was attended by about 80 people and routes are developed based on a centralized breakfast location.
 - The Annual Fall Wheel Ride, currently in its third year of operation, allows cyclists to choose from routes of approximately one mile, three miles and eight miles. Attendance has been variable based in part on the weather and construction along the routes. Regardless of the route selected, the ride ends at Petrifying Springs Park.

More information: <http://www.kenoshacvb.com/events/fall-wheel-ride>



Recommended New Education, Encouragement, Enforcement, Equity, and Evaluation Programs

The following recommendations expand on existing programmatic efforts. Short-term recommendations focus on establishing a full or part time bicycle coordinator, enhancing communication and building existing partnerships capacity and longer-term recommendations focus on providing a more diverse set of programs.

Short Term Recommendations

Establish Permanent Bicycle Advisory Committee

Purpose	Advise County on bicycle issues
Target audience	Citizen advocates
E's	Education, Evaluation, Encouragement, Enforcement, Equity
Primary agency	Kenosha County
Potential partners	Racine County, municipal partners including the City of Kenosha
Time frame	Ongoing
Sample program	Beaver Creek, OH: http://ci.beavercreek.oh.us/boards-commissions/bikeway-advisory/

The Comprehensive Bike Plan for Kenosha County 2025 benefited from a Steering Committee that advised the project team and recommends that the County create a permanent Bicycle Advisory Committee (BAC) in order to continue reaping the benefits of this type of citizen involvement. The BAC should focus on nonmotorized transportation in the public right-of-way, including shared use paths. Establishing a BAC emphasizes the commitment to making bicycling safer and more appealing, and has the potential to assist the County in securing funding for bicycle projects.

The charges of the BAC may include some or all of the following:

- Review and provide citizen input on capital project planning and design as it affects bicycling (e.g., corridor plans, street improvement projects, signing or signal projects, and parking facilities)
- Review and comment on changes to zoning, development code, comprehensive plans, and other long-term planning and policy documents
- Participate in the development, implementation, and evaluation of Bike Master Plans and bikeway facility standards
- Provide a formal liaison between local government, staff, and the public
- Develop and monitor goals and indices related to bicycling
- Promote bicycling, including safety and education

Because BAC members are volunteers, it is essential to have strong staff support for the committee in order for it to be successful. A bicycle coordinator is a logical liaison to the BAC and should take charge of managing the member application process, managing agendas and minutes, scheduling meetings, bringing agency issues to the BAC, and reporting to the agency and governing body about the BAC's recommendations and findings. Inviting a law enforcement representative to sit on the advisory committee can help create a strong bridge between the community and local police departments and foster opportunities for understanding and partnership.

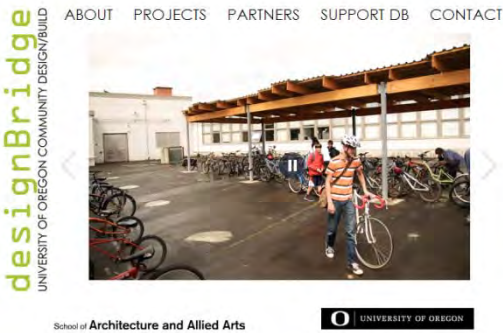
The committee should be created formally and documentation developed that defines the committee's charge, responsibilities, member composition, how members are chosen/appointed, what the decision making structure is, and how often the committee meets.

Partner with Existing Agencies to Create Small Bite Sized Programs

Purpose	Provide bicycling related programs to as many people as possible
Target audience	Citizen advocates
E's	Education, Encouragement, Evaluation, Equity
Primary agency	Kenosha County
Potential partners	Racine County, the City of Kenosha, other interested municipalities, local bicycling clubs, Kenosha County Bicycle Ambassadors, or local colleges
Time frame	Ongoing
Sample program	designBridge, University of Oregon: http://otrec.us/content/rssnews.php?news_id=174

Collaboration among existing agencies will increase the likelihood that bicycling related programs can reach a wide audience. Often, groups can benefit each other by partnering on small projects. Distributing the planning and development of bicycle programs across many people and agencies can reduce organizer fatigue. In order for this model to work, a bicycle coordinator or volunteer coordinator should be responsible for developing an overall schedule, helping to identify and organize volunteers and providing capacity. One example of a successful program is designBridge, a student-run organization that provides design services for community based service projects. This model connects local businesses with a service they need, while providing valuable hands-on experience for students working on the project. Examples include:

- Partnering with local colleges to identify opportunities for real world student projects including:
 - Marketing materials for bike corrals

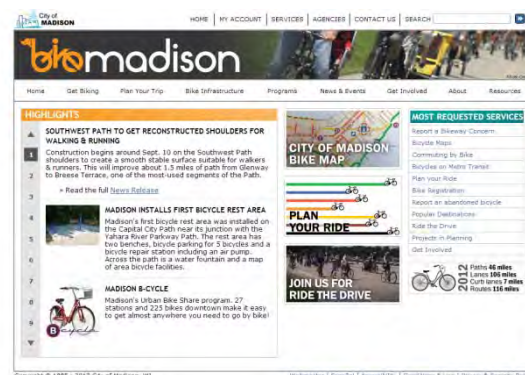


- Business plan for development of a 'bike kitchen' or other centrally located meeting space
- Local welding program for art (or standard) bike racks + installation
- Design and development of user map
- Grant writing assistance
- Partnering with local colleges for mini-courses (e.g., adult education, topics could include dressing for the winter commute, basic bike repair and upkeep, training for your first 50+ mile ride).
- Partnering with local Boys and Girls Club (or other organization) to run an afterschool bike club at one or more middle schools in the area.
- Developing a partnership between Kenosha Bike Ambassadors and Kenosha County Job Center to increase the reach of existing bicycle donation programs.
- Partnership between public health agencies, velodrome race organizers and other community groups to expand Officer Friendly bike rodeos and education around bicycling laws.

Enhance Cycling Related Communication

Purpose	Provide enhanced and centralized communication channels for bicycling information
Target audience	Kenosha County Residents and Visitors
E's	Education, Encouragement, Enforcement
Primary agency	Kenosha County
Potential partners	Racine County, municipal partners including the City of Kenosha
Time frame	Ongoing
Sample program	BikeMadison http://www.cityofmadison.com/bikeMadison/ .

Many residents do not know where to find information about walking and cycling, including laws, events, maps, tips, and biking groups. Kenosha County and other municipal partners should collaborate on a “one stop shopping” website aimed at bicyclists. The website should contain links to local community groups, the Comprehensive Bike Plan for Kenosha County 2025 and periodic updates about Plan implementation, simple evaluation metrics tracking community progress towards infrastructure implementation, information about current projects and how to get involved (e.g. public meetings, comment periods). Other links can include staff contact information, local event calendars and cycling safety resources and (if desired) a



blog or other social media portal. A one-stop bike website would not be difficult to set up, but will only be successful if the site is both easy to use and updated regularly. The site contents should be reviewed at least quarterly for accuracy.

A related listserve would allow two-way communication between interested parties via email about upcoming events, enforcement activities, and project implementation as well as converse about cycling in Kenosha County. It is recommended that a staff person (e.g., a bicycle coordinator) be assigned the task of moderating this listserve and periodically updating the email list. Many email services provide management capabilities and software created specifically for this type of task can be obtained for free or at minimal costs. A few samples include:

- <http://www.lsoft.com/products/listserv.asp>
- <http://groupspaces.com/>

Fund a Full or Part Time Bicycle Coordinator

Purpose	Provide coordination and bicycle programming expertise for the county and municipal partners
Target audience	Citizen advocates, County and Municipal Staff
E's	Education, Encouragement, Equity and Evaluation
Primary agency	Kenosha County
Potential partners	Racine County, municipal partners including the City of Kenosha and others
Time frame	Ongoing
Sample program	Madison, Wisconsin

Hiring a bicycle coordinator or formally designating a bicycle coordinator for Kenosha County would provide a centralized point of contact for planning, programming and policies related to both on and off-street facilities This person may also have responsibility for pedestrian facilities. Typical job duties may include:

- Plan and manage new programs in the areas of non-motorized accommodations, safety, educational materials, enforcement materials, courses, and recreation.
- Develop safety and promotional information such as quarterly newsletters, and route maps.
- Arrange for special displays and events at public and technical information presentations.
- Development, review and implementation of bicycle master plan projects and updates.
- Serve as principal contact with Federal, state and local agencies on matters relating to bicycles and pedestrians.
- Coordinate and maintain budget and forecast budgetary needs.
- Seek funding for implementation of bicycle facilities. Work with appropriate offices to fully integrate bicycle and pedestrian projects in programming decisions.

- Serve on or liaise with the bicycle advisory committee member (if applicable).
- Develop priorities for special studies in areas such as:
 - location and cause of crashes
 - effectiveness of new facility designs
 - barrier removal analysis
- Monitor pedestrian and bicycle use, provide recommendations for system improvement and develop usage data.
- Coordinate bicycle related education, encouragement and enforcement actions.

A bicycle coordinator position could be a part time or full time position that is shared between Kenosha County and other partners, like the City of Kenosha and Racine County. The position could be structured in several ways:

- Partner jurisdictions split funding for the position. This is arranged through interagency agreements and the staff member would be housed in one jurisdiction with a charge to serve all contributing parties. This may present an operational challenge from a supervisory and organizational level.
- A single jurisdictional host at the highest level of jurisdictional organizations (the County) with a charge to serve all municipalities. All member municipalities agree to provide funding support (e.g., through pursuit of grant funding opportunities).

Potential funding sources for a bicycle coordinator position include:

- Federal (Map-21) funding
- General funds
- Partnerships with public health agencies
- Gas tax or sales tax funding
- Local or state grants

Longer Term Recommendations

Report Card

Purpose	Share information about key walking and bicycling metrics
Target audience	County staff, elected officials, general public
E's	Evaluation, Education
Primary agency	Kenosha County
Potential partners	Bicycle Advisory Committee
Time frame	Annually
Sample program	City of San Francisco – http://www.sfbike.org/download/reportcard_2006/SF_bike_report_card_2006.pdf

This planning process has developed goals, objectives, and performance measures related to bicycling and greenways. An annual report is a useful benchmarking activity to compare accomplishments and performance with plan goals.

An annual report should include relevant bicycling metrics (new facility miles, major completed projects, bicycle-involved crashes, number of organized events) and may include information on user satisfaction, public perception of safety, or other qualitative data that has been collected related to cycling.

The report can be assembled annually by staff, volunteers, or the Bicycle Advisory Committee, based on information provided by county staff.



Sunday Parkways, Ciclovias or Open Streets Event

Purpose	Provide opportunities for cycling and walking in safe, bicycle friendly environments
Target audience	Kenosha County visitors and residents
E's	Encouragement, Education
Primary agency	Kenosha County
Potential partners	Racine County, municipal partners including the City of Kenosha
Time frame	Summer
Sample program	Ride the Drive http://openstreetsproject.org/madison/

Sunday Parkways (also called Summer Streets, Ciclovias, or Play Streets) are periodic street closures (usually on Sundays) that create a park-like experience on the street, encouraging walking, bicycling, dancing, hula hooping, roller skating, and more. The purpose of the event is to encourage walking and biking to the general public by providing a car-free street event, an especially effective strategy in neighborhoods



without close access to parks.

Sunday Parkways have been successful internationally and are rapidly becoming popular in the United States. These events promote health by creating a safe and attractive space for physical activity and social contact, and are cost-effective compared to the cost of building new parks for the same purpose. These events are generally very popular and well-attended, and have been shown to be uniquely effective at reaching the “interested but concerned” population who need much more encouragement and training to consider bicycling.

Kenosha County should partner with Racine County and the City of Kenosha to launch one Sunday Parkways event in the first year, with the potential to expand to one event per month between June and September in subsequent years. The Highway 32 corridor between Racine County and the City of Kenosha would be an ideal candidate for the first event. Sunday Parkways will require close collaboration between Kenosha County and participating municipalities, so it will be necessary to come to a clear sense of agreement about roles, responsibilities and financial commitments before proceeding. Several how-to guides and planning resources are available including information from the Open Streets Project (<http://openstreetsproject.org/>)

Sample Programs:

- New York City Summer Streets:
 - <http://www.nyc.gov/html/dot/summerstreets/html/home/home.shtml>
 - <http://www.streetsblog.org/2009/08/10/streetfilms-nyc-summer-streets-2009/> (video)
- Madison, Wisconsin Ride the Drive:
 - <http://openstreetsproject.org/madison/>
- Portland Sunday Parkways:
 - <http://www.portlandonline.com/Transportation/index.cfm?c=46103>
 - <http://www.streetfilms.org/portlands-sunday-parkways/> (video)

Bike Valet Program

Purpose	Encourage bicycle travel; offer appealing alternative to driving for event attendees
Target audience	Current residents who cycle, and event participants who would consider cycling
E's	Encouragement, Education
Primary agency	Kenosha County
Potential partners	Community groups (e.g., Boy Scouts, Girl Scouts), Bike community volunteers , local bike shops, Major festival organizers
Time frame	Summer
Sample program	http://www.sfbike.org/?valet

Providing convenient, secure bike parking at large events can make bicycling to an event a more attractive option and highlight bicycling as a safe and convenient transportation option. Arenas, parks,

and other venues and gathering places often do not have the bike parking capacity to accommodate very large crowds. Temporary facilities, such as corrals or mobile racks, can be brought on site to meet the demand. This type of service can also prevent damage to non-parking facilities, such as trees and hand rails that bicyclists use when appropriate facilities are lacking. Temporary bike parking can be staffed by volunteers or used with standard locks to ensure security.

In Kenosha County, valet bike parking would help to make bicycling a more attractive option for events like the Thursday Night concert series in the City of Kenosha or other events that generate a large number of attendees. Additionally, special event permit processes can be modified to require valet parking for events over a set size, as a way to cut down the demand for vehicle parking.

There are two parts to providing valet bicycle parking: a) purchasing and managing the hardware, and b) staffing and managing each event. Kenosha County should consider purchasing hardware as a way to jump-start a valet bike parking program. There are several ways that hardware can be managed. The simplest is to use A-frame safety barricades, although bicycle riders do not prefer these because they often scratch the bicycle frame. However, if the county owns these already, they may be the best initial solution. Another relatively inexpensive option is to construct a long saw horse-style rack out of metal pipe and hang bicycles from their saddles. Several options that were constructed in-house can be seen on the following web pages:

- http://bike-pgh.org/buy_stuff/bicycle-valet-parking/
- <http://www.bicyclecollective.org/en/programs/valet-bike-parking/338-new-portable-valet-bike-parking-racks>

In the longer term, event bike racks may be manufactured or purchased. Several manufactured rack types are available and provide a range of portability, cost, and features. A few samples are listed below:

- <http://www.bikeracker.com/rack.html>
- <http://www.cycle-safe.com/eventracks.tab.aspx>
- <http://racesmith.com/triathlonbikerack.html>

The exact type of rack needed depends on the way the event is managed. If the event is truly “valet parking” – that is, participants hand their bicycles over to attendants, who then park the bicycle in a secure area – racks can be used that do not permit locking to the frame. If participants will be allowed to park their own bicycles (which is not recommended for security reasons), the rack type must permit locking the frame of the bicycle.

The county may also choose to establish recommendations about how valet parking events should be managed, in the form of a manual or a checklist. This would help other groups successfully execute valet bike parking services. This web page contains recommendations for several different ways of managing the valet process: [http://www.bikecollectives.org/wiki/index.php?title=Valet Bike Parking](http://www.bikecollectives.org/wiki/index.php?title=Valet_Bike_Parking) and should be consulted before setting up a program.

On an ongoing basis, the County may choose to provide valet bike parking services for certain events (such as the Thursday night concerts); while for other events, they may charge a fee to event organizers. County staff are unlikely to have availability to staff valet bike parking events so partnerships should be explored with the other municipal partners, local cycling clubs (who may wish to manage valet services in exchange for tips or a low per-bike fee), or with community volunteers.

Expand or Maintain Existing Programs

Social Rides

Purpose	Create welcoming, low-stress opportunities for Kenosha County residents to experience on-road cycling
Target audience	Residents, particularly new or inexperienced bicycle riders
E's	Education, Encouragement
Primary agency	Kenosha County, local bike shop, and/or community volunteers (e.g. Volunteer Ambassador Program)
Time frame	Summer
Sample program	Geared 4 Kids Ride (Oakland, CA): http://www.geared4kids.org/ Kidical Mass DC: http://kidicalmassdc.blogspot.com/ LACBC Sunday Funday Ride: http://la-bike.org/sundayfunday

In addition to the current DairyAir Ride and Fall Wheel Ride the county may choose to initiate less formal but more frequent social rides. Social rides are designed to be welcoming to inexperienced bicycle riders. They are intended to provide participants with a positive, low-stress bicycling experience by:

- Creating a sense of community around bicycling
- Modeling safe riding behavior
- Introducing people to recommended on-road bicycling routes
- Creating opportunities for people to ask questions and access resources.



Rides may be aimed generally at new or less-confident riders, or they may be aimed at specific groups such as women, families with young children, or seniors. Rides will be more appealing if they have different routes each time, as well as different themes (e.g., public art tour, historic homes ride, nature rides at Richard Bong Recreation Area, Father's Day family ride, park-to-park tour, etc.) and/or feature some appealing incentive to participate (such as samples from local merchants, or bike bells for participants).

In addition to more informal social rides the county may choose to modify or expand the events or routes associated with the DairyAir Ride or Fall Wheel Rides. These rides could attract more users by offering longer ride distances, providing alternative routes, or associated events like the annual 4th of July Parade at Paddock Lake. Another option is to conduct more informal frequent social rides. The ride leader does

not need to be county staff but should be an experienced bicyclist who can answer questions and deal with minor mechanical issues.

Bike Rodeos

Purpose	Provide educational opportunities
Target audience	Youth interested in bicycling
E's	Education, Enforcement
Primary agency	Kenosha Police Department
Time frame	As requested
Sample guide	Safe Routes Philly: http://www.bicyclecoalition.org/files/Bike_Rodeo_Toolkit.pdf

Bicycle Rodeos are fun, simple events that teach bicycle safety to younger children. They often include a helmet fitting, bicycle safety check, and obstacle course. This program is already offered through the Kenosha Police Department at events such as velodrome races or other community festivals. Kenosha County should continue to identify additional educational opportunities such as school events in order to provide bicycle education to as many children as possible. Additionally, bike rodeos and other instructional courses may be taught through the League of American Bicyclists (LAB). Educational offerings and a list of certified instructors in each state can be found at <http://www.bikeleague.org/programs/education>.



7 Implementation

The Comprehensive Bike Plan for Kenosha County 2025 is a plan that county residents and decision makers can use to guide Kenosha's progress towards becoming a great place to bike. This chapter highlights short-term infrastructure recommendations and associated costs, discusses programmatic actions that should be implemented first and provides a suggested timeframe for various actions recommended in previous chapters. Table 7-1 provides a summary of key recommended Plan actions and priority projects, along with implementation timeframes, and notes about likely implementing agencies.

Table 7-1: Recommended Programs and Projects Implementation Summary

Task	Short (0 - 6 years)	Medium (7- 12 years)	Long (13 years and beyond)	Implementers
Social Rides	X			Kenosha County, interested municipalities, bicycling clubs
Bike Rodeos	X			Kenosha Police Department
Full or Part Time Bicycle Coordinator	X			Kenosha County and interested municipalities
Partner on Small Bite Sized Programs	X			Kenosha County, local colleges
Website or Listserve	X			Kenosha County and interested municipalities
Bicycle Advisory Committee	X			Kenosha County, municipal partners including the City of Kenosha
Bicycle Report Card		X		Kenosha County, Bike Advisory Committee
Sunday Parkways/Open Street Event		X		Kenosha County, municipal partners including the City of Kenosha
Bike Valet		X		Community volunteers

Task	Short (0 - 6 years)	Medium (7- 12 years)	Long (13 years and beyond)	Implementers
Priority Project Recommendations (CTH C Path Design)				
Downtown Trevor Alignment		X		Kenosha County Public Works
CTH C Bridge Crossing		X		Kenosha County Public Works
CTH C South of Camp Lake		X		Kenosha County Public Works
CTHC Roundabout		X		Kenosha County Public Works

Infrastructure Project Phasing

The Comprehensive Bike Plan for Kenosha County 2025 provides a set of trail and on-street infrastructure recommendations that the county and other project partners can implement, allowing residents and visitors alike to bike more safely and comfortably. The order in which projects in this plan are constructed will depend on many factors including budget and grant availability, community support and various county policies.

While all projects represent important steps for improving Kenosha’s cycling environment, prioritizing projects will allow the county to program limited financial and staff resources in the most strategic fashion. Projects were scored based on the criteria shown in Table 7-2. The outcome of this exercise was then refined based on known existing opportunities into a coherent, connected cycling network that will grow over time.

Table 7-2. Bicycle Facility Phasing Criteria

Criterion	Description	Scoring Definitions
System Connectivity	To what degree does the project fill a missing gap in the bicycle system?	Projects will receive five points if they fill a gap of less than one-quarter mile and 3 points for gap measuring between one-quarter and one-half mile.
Provides Access to Community Destinations	Score each project based on its proximity to commercial areas, parks and civic areas. Projects receive a higher score if they are located closer to community destinations.	Projects within one-half mile of a park, school or commercial area receive 5 points; projects within one mile receive 3 points.
Roadway Function	Does the street become more complete with a dedicated bicycle facility? Projects are scored based on roadway types. Projects on arterials score higher than projects on local roadways.	Projects will receive 5 points if they are located on highway, 3 points if they are located on an arterial or collector and 1 point if they are a pathway or on a local road.
Safety and Comfort	How well can the project potentially improve bicycling on routes that will likely be used by children and the elderly,	Projects within one-quarter mile of a school receive 5 points; projects within one-half mile of a school receive 2 points.

The proposed bikeway system is comprised of about 150 projects, many of which are smaller segments of larger combined facility improvements. These are organized into three tiers representing the relative project phasing and a suggested construction timeframe:

- 1.) Short Term (0 – 6 Years)
- 2.) Medium Term (7 – 12 Years)
- 3.) Long Term (13 years and beyond)

The Plan timeframe takes into consideration the planning horizon of 2025 and recognizes that some projects require significant planning, especially off street corridors, and may not feasibly be constructed within this timeframe. The Plan is a living document, not static, and will change to respond to new challenges and opportunities as they arise. The project list and phasing should be frequently reviewed (every 5 years is recommended) to ensure they reflect current priorities and opportunities for the County. There are many factors that can and should affect project implementation, including:

- Any changes to existing grant programs, or creation of new grant or funding programs that affect the type or number of large-budget projects that can be implemented
- Any changes in County policy that could affect how local, state or federal funds can be spent
- Changes to zoning and land use that will affect where and how development occurs in Kenosha county
- Changes to staff capacity to manage project implementation
- Community input (e.g., through the Bicycle Advisory Committee)
- Directives (policy or otherwise) from elected officials and other governing bodies
- Interest from partners (e.g., the City of Kenosha) in implementing projects that are partially or entirely within their jurisdiction

It should be noted that the purpose of prioritization table is to understand the relative priority of projects so that the County and/or other agency partners may apportion available funding to the highest priority projects. Medium- and longer-term projects are also important, and may be implemented at any point in time as part of a development or public works project, or as additional funding becomes available. The ranked lists should be considered a “living document” and should be frequently reviewed to ensure they reflect current priorities and opportunities.

Table 7-3. Proposed Project Phasing

Phase	Name	From	To	Facility Type	Length (MI)
Short	CTH H	CTH H	STH 50	Bike Lane	7.71
Short	SHERIDAN RD	BIRCH RD	CTH E	Bike Lane	1.15
Short	STH 31	128TH	CTH KR	Bike Lane	12.31
Short	15TH ST	20TH AVE	16TH AVE	Bike Route	0.22

COMPREHENSIVE BIKE PLAN FOR KENOSHA COUNTY 2025

Phase	Name	From	To	Facility Type	Length (MI)
Short	16TH AVE	15TH ST	BIRCH RD	Bike Route	0.35
Short	CTH C	CTH JF	258TH CT	Bike Route	0.24
Short	CTH H	CTH A	CTH KR	Bike Route	0.98
Short	CTH H	CTH S	CTH A	Bike Route	3.53
Short	CTH Q	CTH MB (160TH AVE)	CTH MB (152ND AVE)	Bike Route	0.50
Short	STATE LINE ROAD	CTH HM	CTH EM	Bike Route	0.48
Short	STH 165	CTH ML	I94	Bike Route	4.71
Short	30TH AVE / CTH G TRAIL	CTH 3	22ND ST	Shared Use Path	1.45
Short	CTH C TRAIL	CTH W	104TH ST	Shared Use Path	13.54
Short	CTH K/H EXTENSION	EXISTING TRAIL ON CTH K	WEST ON CTH K, S ON CTH H TO 65TH ST	Shared Use Path	1.44
Short	CTH L TRAIL CONNECTOR	CTH G	KENOSHA COUNTY TRAIL	Shared Use Path	0.36
Short	SILVER LAKE VILLAGE CONNECTION	LOTUS DRIVE	DELLS DRIVE	Shared Use Path	0.10
Short	US 45	CTH WG	CTH 50	Shared Use Path	5.47
Short	WASHINGTON PARK EXTENSION	EXISTING TRAIL	BAIN ELEMENTARY	Shared Use Path	0.66
Short	CTH SA	CTH AH	CTH F	Paved Shoulder	0.36
Medium	30TH AVE	60TH ST	80TH ST	Bike Lane	1.52
Medium	CTH EZ	STH 165	97TH ST	Bike Lane	0.60
Medium	STH 75	STH 50	County Line Road	Bike Lane	5.99

Phase	Name	From	To	Facility Type	Length (MI)
Medium	116TH ST	CTH U	120TH AVE "WEST FRONTAGE ROAD"	Bike Route	0.97
Medium	116TH ST	LAKESHORE DR	CTH EZ	Bike Route	2.26
Medium	119TH ST	STH 183	232ND AVE	Bike Route	0.38
Medium	120TH AVE "WEST FRONTAGE ROAD"	116TH ST	CTH ML	Bike Route	0.51
Medium	264TH AVE	CTH SA	CTH C	Bike Route	1.12
Medium	308TH AVE	CTH NN	CTH JB	Bike Route	1.50
Medium	CTH A	STH 31	CTH H	Bike Route	2.03
Medium	CTH A	CTH D	STH 142	Bike Route	1.86
Medium	CTH AH	CANADIAN NATIONAL RR	CTH B	Bike Route	1.36
Medium	CTH B	CTH AH	CTH F	Bike Route	0.69
Medium	CTH BB	STH 75	CTH J	Bike Route	3.91
Medium	CTH CJ	CTH MB	CTH U	Bike Route	1.23
Medium	CTH D	STH 142	CTH N	Bike Route	1.81
Medium	CTH EM	128TH ST	CTH Z	Bike Route	2.61
Medium	CTH EM	CTH O	CTH F	Bike Route	0.97
Medium	CTH F	CTH KD	CTH EM	Bike Route	1.62
Medium	CTH F	CTH W	CTH KD	Bike Route	2.04
Medium	CTH F	CTH B	CTH W	Bike Route	0.56
Medium	CTH F	CTH B	STH 50	Bike Route	3.58
Medium	CTH F	CTH O	COUNTY BOUNDARY	Bike Route	2.65
Medium	CTH G	35TH ST	38TH ST	Bike Route	0.24

COMPREHENSIVE BIKE PLAN FOR KENOSHA COUNTY 2025

Phase	Name	From	To	Facility Type	Length (MI)
Medium	CTH HM	CTH C	STATE LINE ROAD	Bike Route	2.80
Medium	CTH J	CTH BB	CTH JJ	Bike Route	3.04
Medium	CTH JB	308TH AVE	STH 75	Bike Route	3.56
Medium	CTH JB	STH 75	US 45	Bike Route	3.23
Medium	CTH JB	CTH J	308TH AVE	Bike Route	0.22
Medium	CTH JF	CTH MB (160TH AVE)	CTH MB (156TH AVE)	Bike Route	0.24
Medium	CTH JF	CTH C	STH 83	Bike Route	1.56
Medium	CTH JF	264TH AVE	CTH JF	Bike Route	0.30
Medium	CTH K	CTH NN	CTH EW	Bike Route	5.00
Medium	CTH K	CTH H	144TH AVE	Bike Route	3.44
Medium	CTH K	STH 31	CTH H	Bike Route	1.56
Medium	CTH K	CTH W	CTH NN	Bike Route	0.94
Medium	CTH MB	CTH Q	STH 50	Bike Route	2.99
Medium	CTH ML	116TH ST	30TH AVE	Bike Route	2.63
Medium	CTH N	CTH MB	CTH D	Bike Route	1.49
Medium	CTH N	120TH AVE "WEST FRONTAGE ROAD"	CTH UE	Bike Route	1.01
Medium	CTH N	CTH MB	CTH UE	Bike Route	1.02
Medium	CTH O	CTH EM	CTH F	Bike Route	0.80
Medium	CTH O	CTH O (LANCE DR)	CTH F	Bike Route	1.18
Medium	CTH O	CTH EM	COUNTY BOUNDARY	Bike Route	3.21
Medium	CTH S	96TH AVE	CTH G	Bike Route	4.04

Phase	Name	From	To	Facility Type	Length (MI)
Medium	CTH SA	CTH AH	264TH AVE	Bike Route	1.06
Medium	CTH U	CTH CJ	116TH ST	Bike Route	0.63
Medium	CTH W	CTH C	CTH F	Bike Route	1.89
Medium	CTH Z	CTH EM	CTH O	Bike Route	0.77
Medium	CTH Z	CTH HM	CTH EM	Bike Route	1.03
Medium	STH 142	CTH A	CTH D	Bike Route	0.26
Medium	STH 165	I94	CTH MB	Bike Route	2.03
Medium	STH 50	CTH F	STH 75	Bike Route	0.13
Medium	LAKESHORE DRIVE	116TH ST	7TH AVE	Shared Lane Marking	2.68
Medium	45TH ST TRAIL	STH 31	28TH ST	Shared Use Path	1.96
Medium	CTH E	20TH ST	SHERIDAN RD	Shared Use Path	0.40
Medium	DES PLAINES RIVER TRAIL	COUNTY LINE	CTH N	Shared Use Path	14.42
Medium	JOCKEY TRAIL	STH 31	JOCKEY PLANT	Shared Use Path	3.45
Medium	KENOSHA COUNTY BIKE TRAIL SOUTHERN EXTENSION	35TH ST	30TH AVE VIA STH 158	Shared Use Path	1.95
Medium	MARINA CONNECTION	SPRING BLUFF DR	1ST CT	Shared Use Path	0.21
Medium	PIKE RIVER TRAIL	COUNTY LINE	CTH K	Shared Use Path	6.45
Medium	PRARIE FARMS TRAIL	PRAIRIE SPRINGS PARK	CTH C	Shared Use Path	1.62
Medium	TWIN LAKES TRAIL	CTH Z	CTH O	Shared Use Path	1.46

COMPREHENSIVE BIKE PLAN FOR KENOSHA COUNTY 2025

Phase	Name	From	To	Facility Type	Length (MI)
Medium	CTH JF*	CTH C	STH 83	Paved Shoulder	1.55
Long	CTH H	CTH H	STH 50	Bike Lane	4.43
Long	STH 75	STH 50	County Line Road	Bike Lane	1.07
Long	116TH ST	CTH EZ	CTH ML	Bike Route	1.22
Long	119TH ST	187TH AVE	US 45	Bike Route	0.33
Long	122ND ST	232ND ST	CTH V	Bike Route	0.48
Long	122ND ST	ROCK LAKE RD	280TH ST	Bike Route	1.35
Long	124TH ST	CTH V	208TH AVE	Bike Route	0.10
Long	187TH AVE	CTH V	119TH ST	Bike Route	0.26
Long	208TH AVE	CTH V	124TH ST	Bike Route	0.67
Long	208TH AVE	124TH ST	COUNTY BOUNDARY	Bike Route	0.34
Long	224TH AVE	122ND ST	CTH V	Bike Route	0.51
Long	232ND ST	119TH ST	122ND ST	Bike Route	0.23
Long	259TH AVE	CTH JF	ROCK LAKE RD	Bike Route	0.24
Long	280TH ST	122ND ST	COUNTY BOUNDARY	Bike Route	0.51
Long	CTH A	CTH MB	CTH D	Bike Route	2.27
Long	CTH A	CTH H	CTH MB	Bike Route	2.94
Long	CTH CJ	US 45	CTH MB	Bike Route	2.00
Long	CTH JB	STH 83	CTH J	Bike Route	2.13
Long	CTH JI	CTH F	CTH W	Bike Route	2.45
Long	CTH K	US 45	CTH EW	Bike Route	2.02

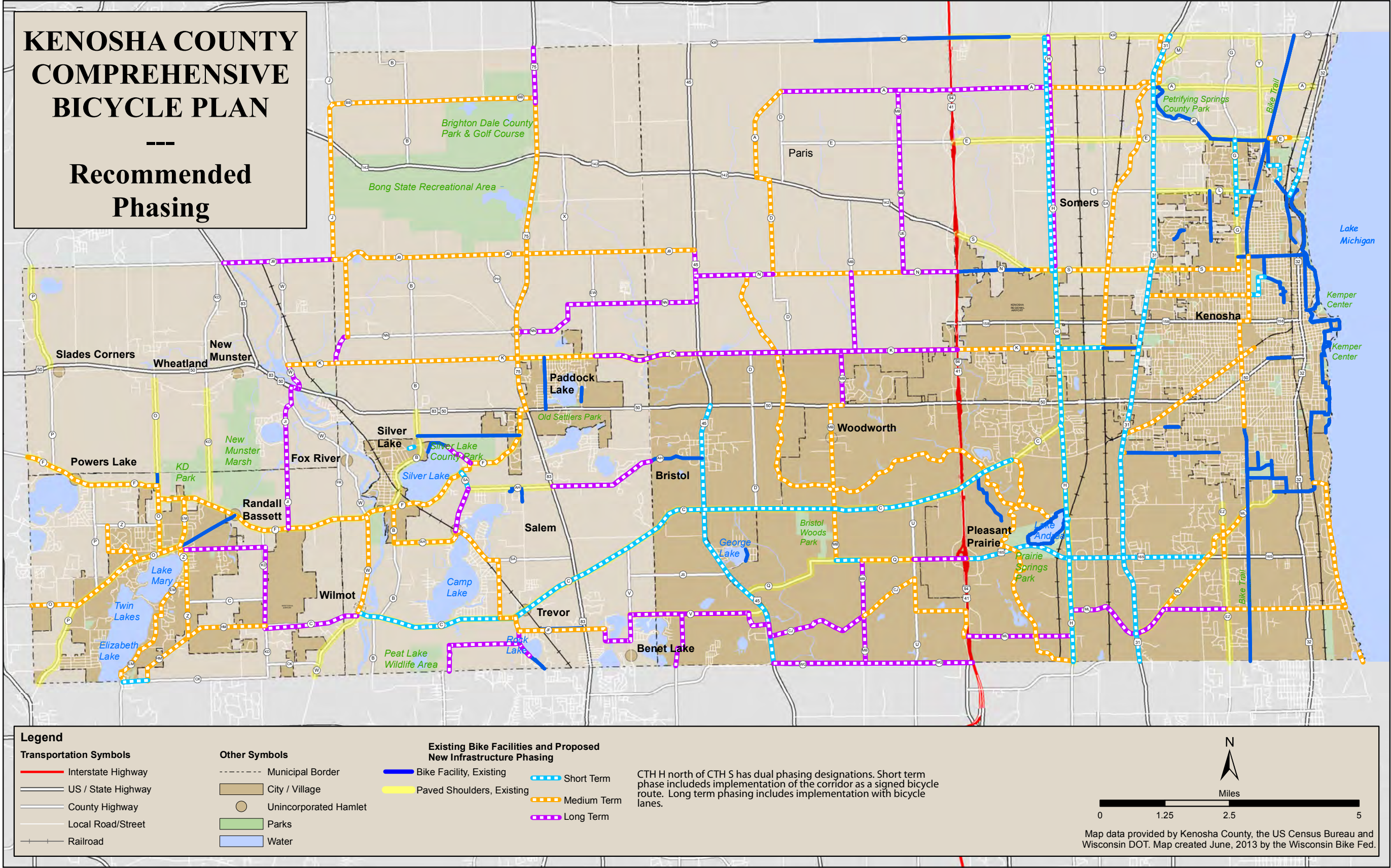
Phase	Name	From	To	Facility Type	Length (MI)
Long	CTH K	CTH MB	US 45	Bike Route	2.75
Long	CTH K	144TH AVE	CTH MB	Bike Route	0.47
Long	CTH K	144TH	CTH MB	Bike Route	0.29
Long	CTH MB	STH 50	CTH K	Bike Route	1.05
Long	CTH MB	CTH CJ	CTH Q	Bike Route	1.08
Long	CTH MB	STH 142	CTH A	Bike Route	2.36
Long	CTH MB	CTH WG	CTH CJ	Bike Route	0.92
Long	CTH ML	CTH H	120TH AVE "WEST FRONTAGE ROAD"	Bike Route	2.11
Long	CTH ML	116TH ST	CTH H	Bike Route	2.23
Long	CTH N	CTH N (38TH ST)	CTH K	Bike Route	1.49
Long	CTH N	CTH D	US 45	Bike Route	1.51
Long	CTH NN	CTH K	308TH AVE	Bike Route	0.62
Long	CTH NN	STH 75	US 45	Bike Route	3.85
Long	CTH UE	CTH N	STH 142	Bike Route	1.15
Long	CTH V (116TH ST)	224TH AVE	187TH AVE	Bike Route	2.29
Long	CTH W (328TH AVE)	STH 50	CTH K	Bike Route	0.53
Long	CTH W (FOX RIVER RD)	STH 50	CTH JI	Bike Route	0.33
Long	CTH WG	US 45	US 94	Bike Route	3.84
Long	ROCK LAKE RD	259TH AVE	ROCK LAKE TRAIL	Bike Route	0.32
Long	US 45	CTH N	CTH JB	Bike Route	0.50
Long	STH 50	CTH W (328TH AVE)	CTH W (FOX RIVER RD)	Bike Route	0.14
Long	STH 75	CTH BB	1ST ST	Bike Route	0.97

COMPREHENSIVE BIKE PLAN FOR KENOSHA COUNTY 2025

Phase	Name	From	To	Facility Type	Length (MI)
Long	US 45	CTH NN	CTH N	Bike Route	0.49
Long	US 45	119TH ST	CTH CJ	Bike Route	0.24
Long	SILVER LAKE ICE HOUSE TRAIL EXTENSION	EXISTING TRAIL IN SILVER LAKE COUNTY PARK	CTH F VIA SILVER LAKE COUNTY PARK	Shared Use Path	0.56
Long	TWIN LAKES TRAIL	WILMOT	LEGION DR	Shared Use Path	4.95
Long	CTH AH	STH 83	Village of Bristol	Paved Shoulder	2.04
Long	CTH AH	Camp Lake	CTH SA	Paved Shoulder	0.85
Long	CTH K*	US 45	I94	Paved Shoulder	5.00
Long	CTH N*	CTH UE	I94	Paved Shoulder	1.03
Long	CTH Q*	CTH U	I94	Paved Shoulder	1.01
Long	CTH WG*	US 45	I94	Paved Shoulder	3.83

* These noted paved shoulder projects occur on corridors also classified as signed bike routes.

Map 7-1: Proposed Project Phasing



Priority Project Sheets

The following pages provide project description sheets with specific recommendations and maps for four high priority projects related to the proposed CTH C path. Specific recommendations were based on field visits, high-resolution aerial photos, and discussions with local and regional planning staff and system users. Each map depicts the recommended bikeway or trail under focus, as well as selected nearby connections. Please refer to Figure 7-1 below for the project's context within the overall surrounding bikeway and trail networks.

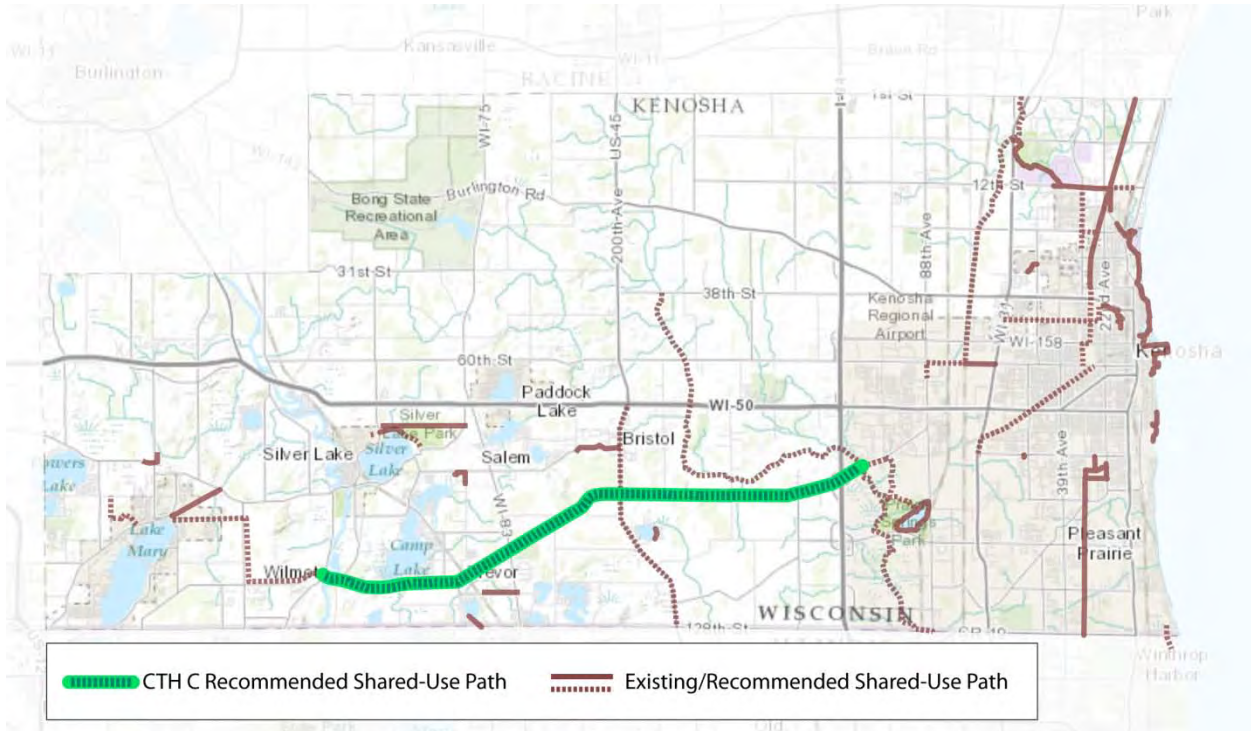
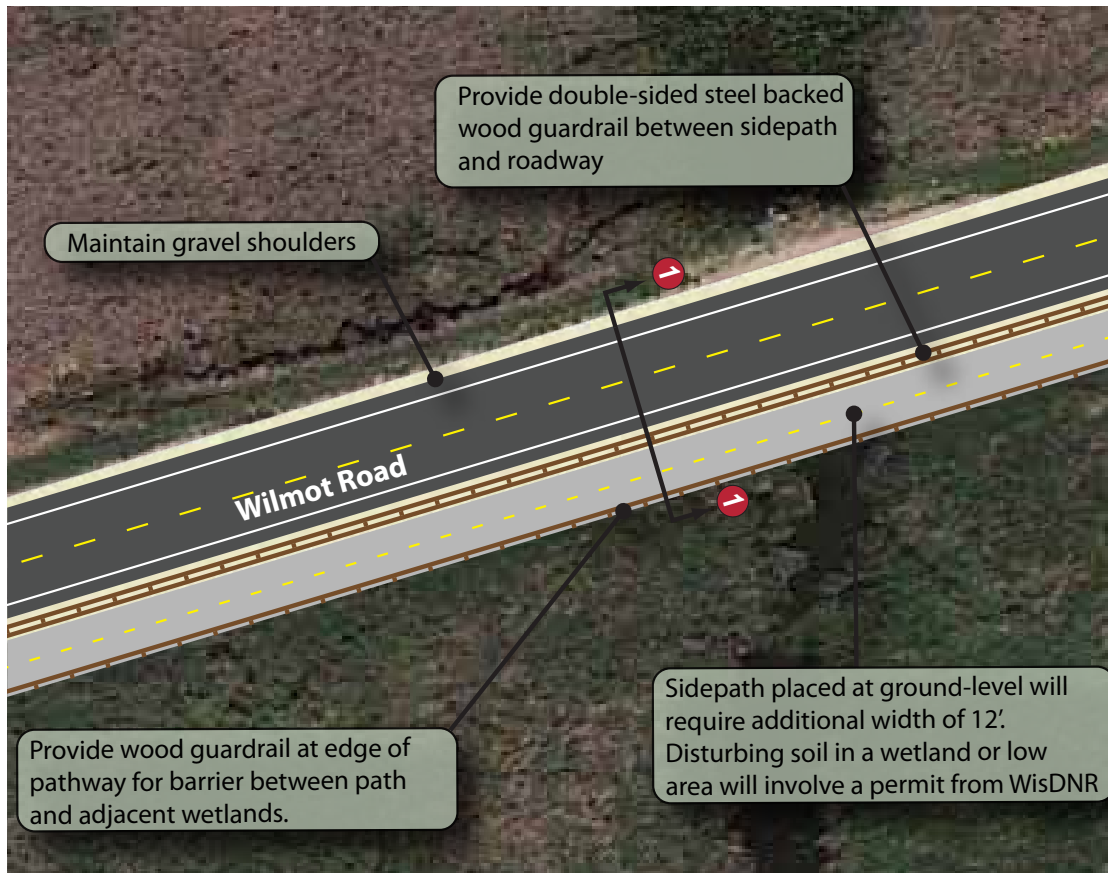
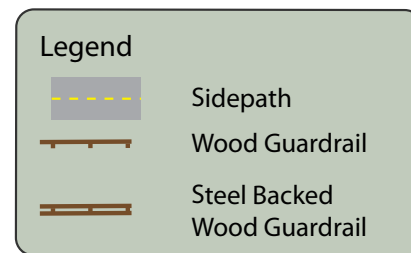
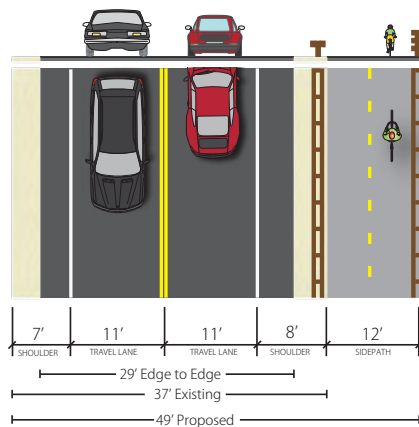


Figure 7-1: CTH C Path Extents

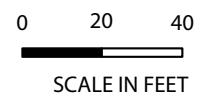


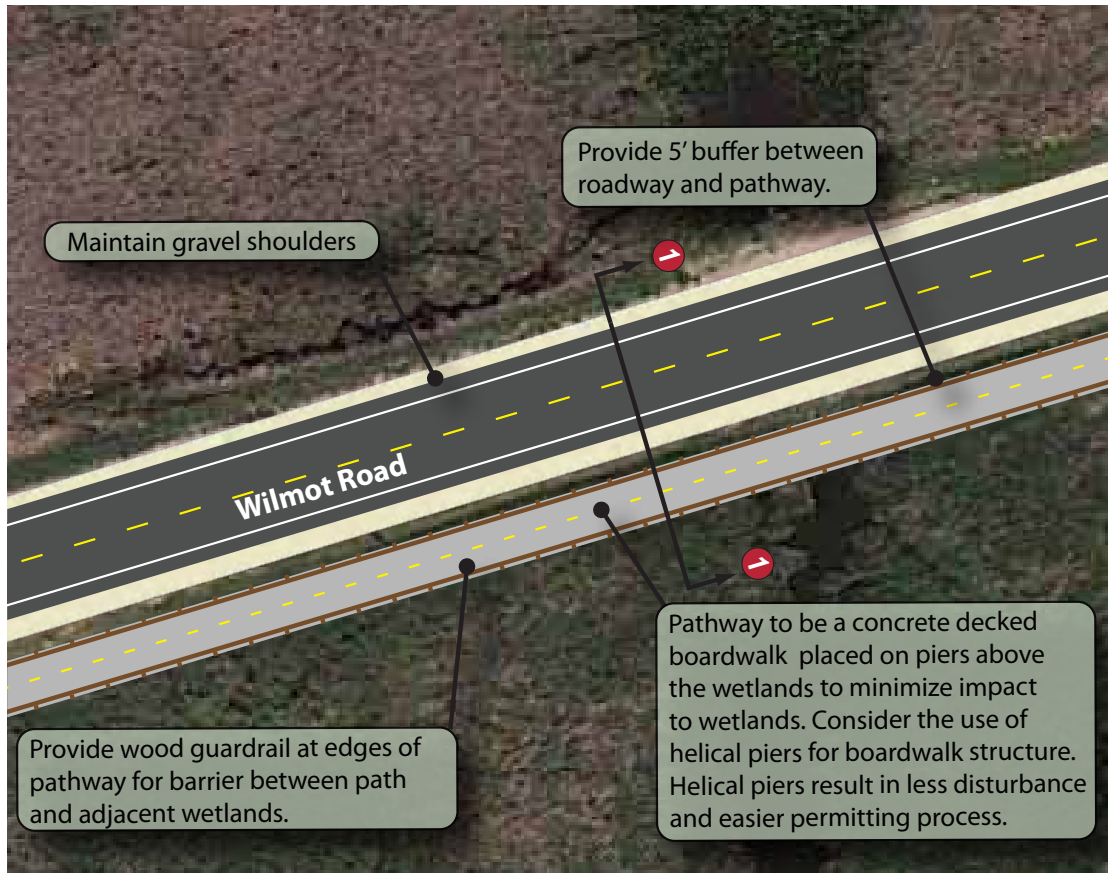
1 PROPOSED CROSS-SECTION Camp Lake Wetlands



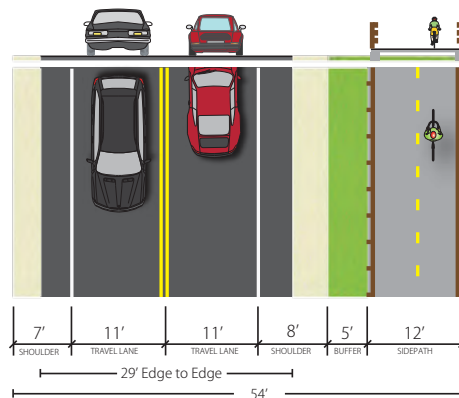
Wilmot Road Sidepath - Camp Lake Wetlands- Option 1

Kenosha County
Comprehensive Bike Plan for Kenosha County 2025
Date: March, 2013





1 PROPOSED CROSS-SECTION Camp Lake Wetlands



Legend

- Sidepath
- Wood Guardrail

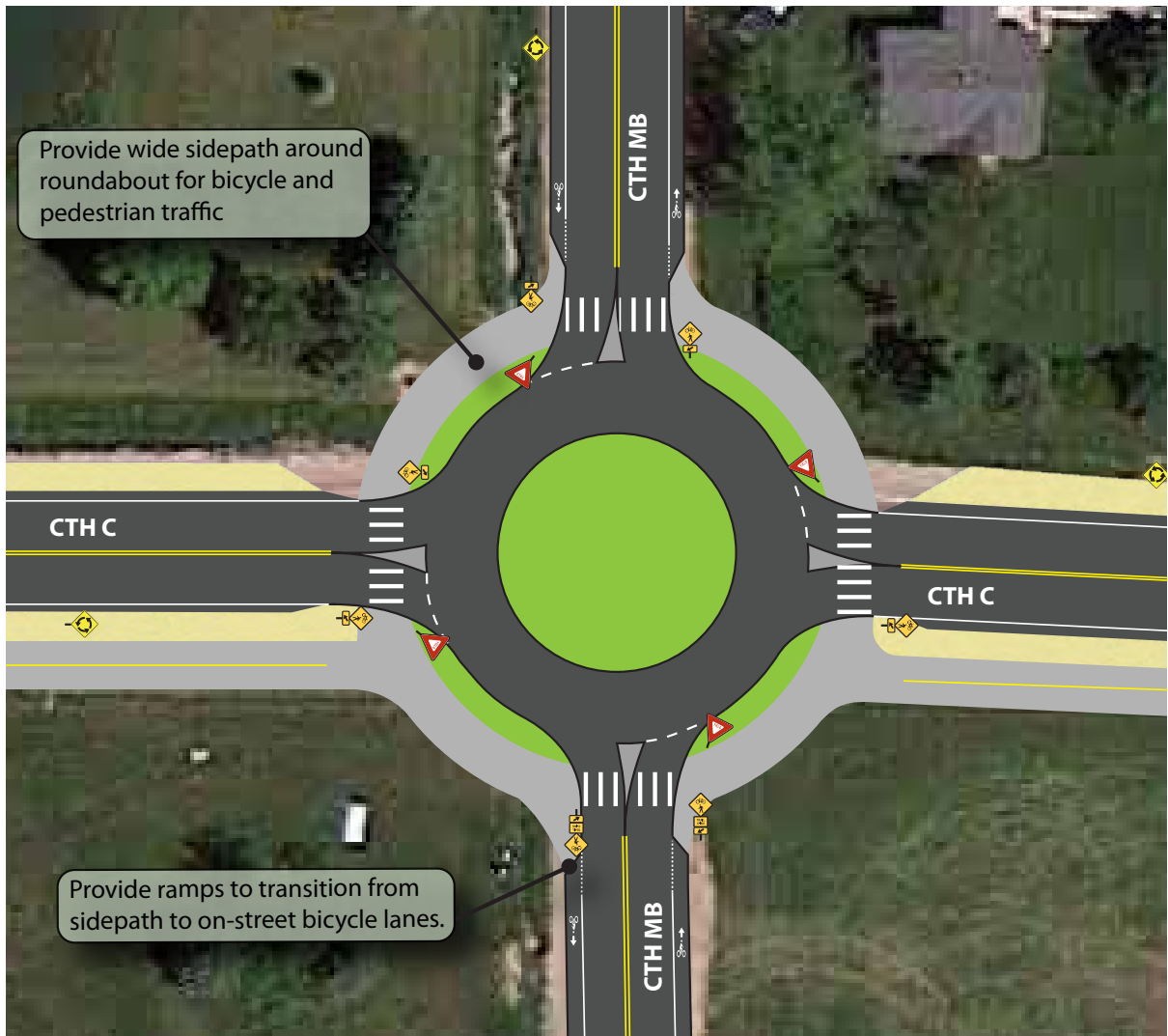
Wilmot Road Sidepath - Camp Lake Wetlands- Option 2

Kenosha County
Comprehensive Bike Plan for Kenosha County 2025
Date: March, 2013



0 20 40
SCALE IN FEET





Legend

	Side Path		Yield Sign
	Bicycle/Pedestrian Crossing Sign		Crossing Marking
	Roundabout Warning Sign		

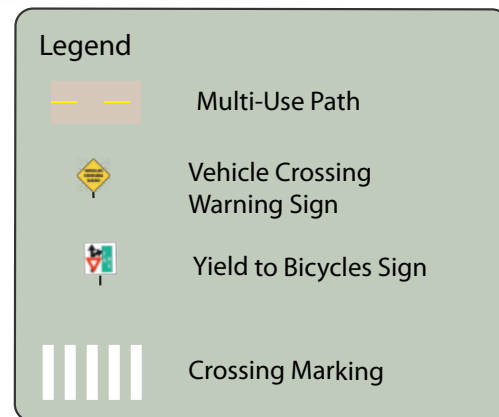
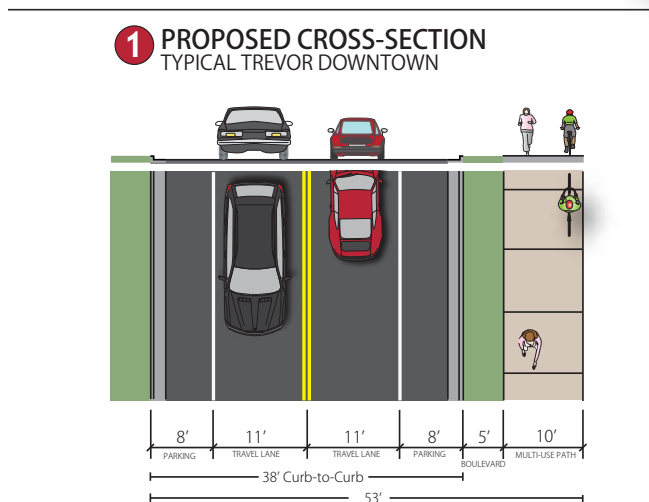
CTH C Sidepath - CTH MB Roundabout

Kenosha County
 Comprehensive Bike Plan for Kenosha County 2025
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 SCALE IN FEET





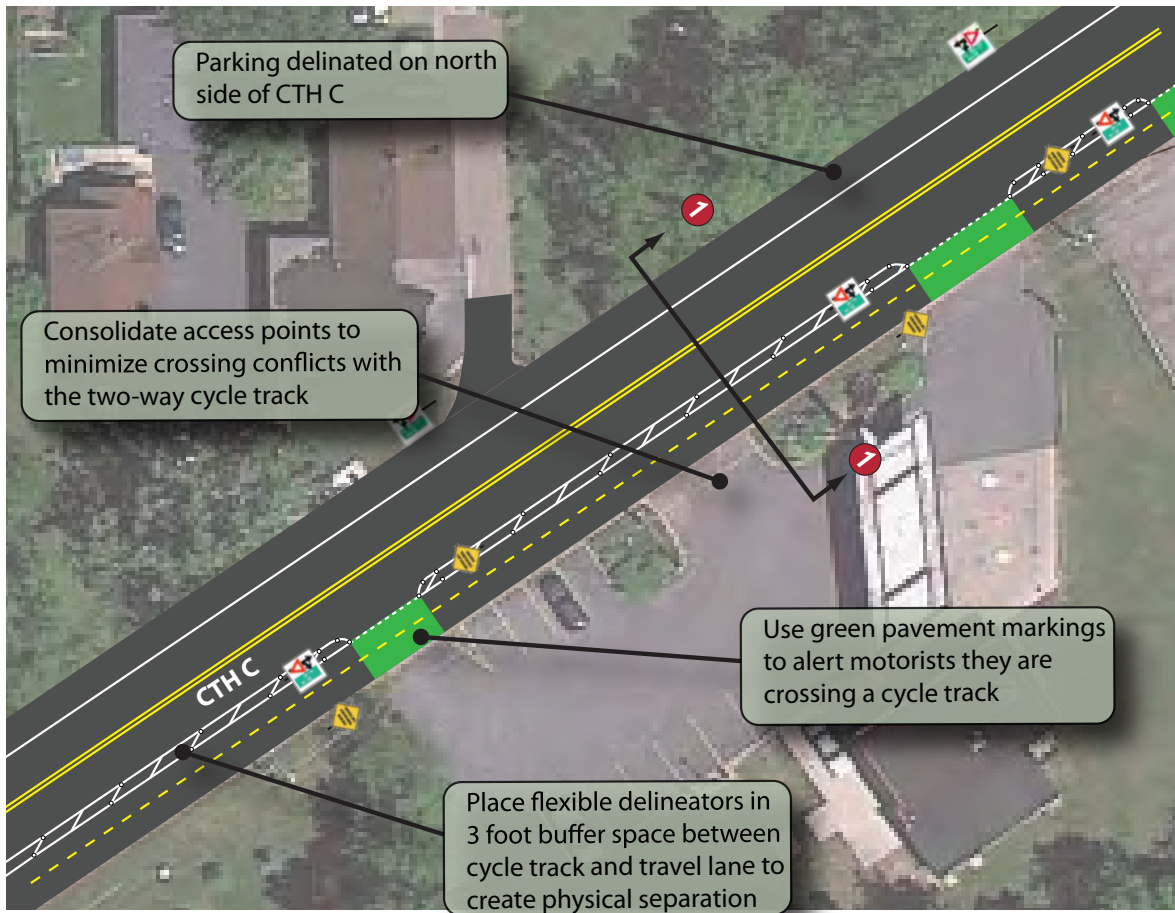
CTH C Sidepath - Trevor Downtown - Option 1

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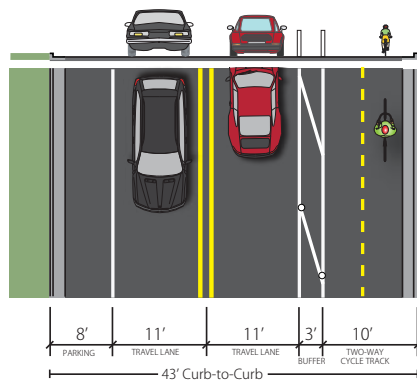


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SCALE IN FEET





1 PROPOSED CROSS-SECTION
TYPICAL TREVOR DOWNTOWN



Legend

- 2-Way Cycle Track
- Vehicle Warning Sign
- Yield to Bicycle Sign
- Flexible Delineator
- Green Pavement Markings

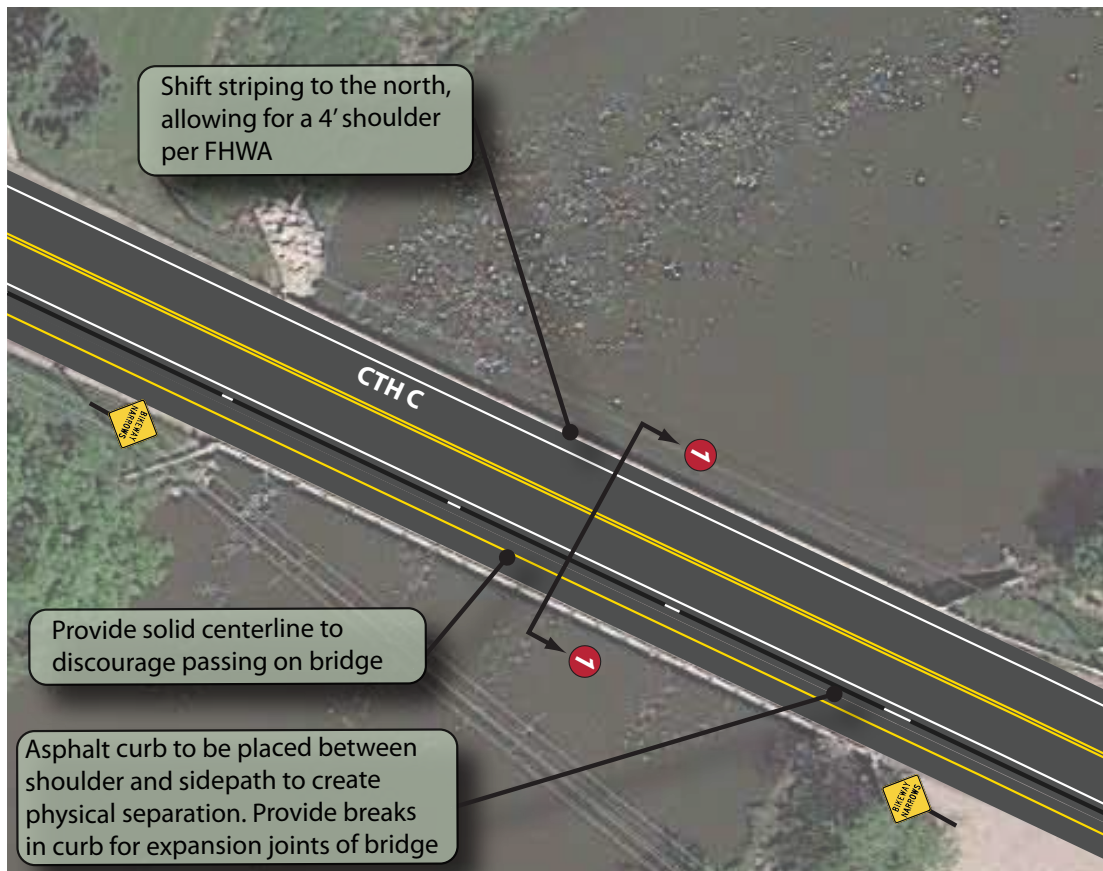
CTH C Cycle Track - Trevor Downtown - Option 2

Kenosha County
Comprehensive Bike Plan for Kenosha County 2025
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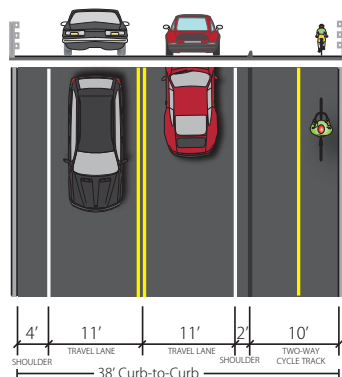


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




1 PROPOSED CROSS-SECTION Wilmot Bridge



Legend

-  2-Way Cycle Track
-  Warning Sign
-  Asphalt Curbing

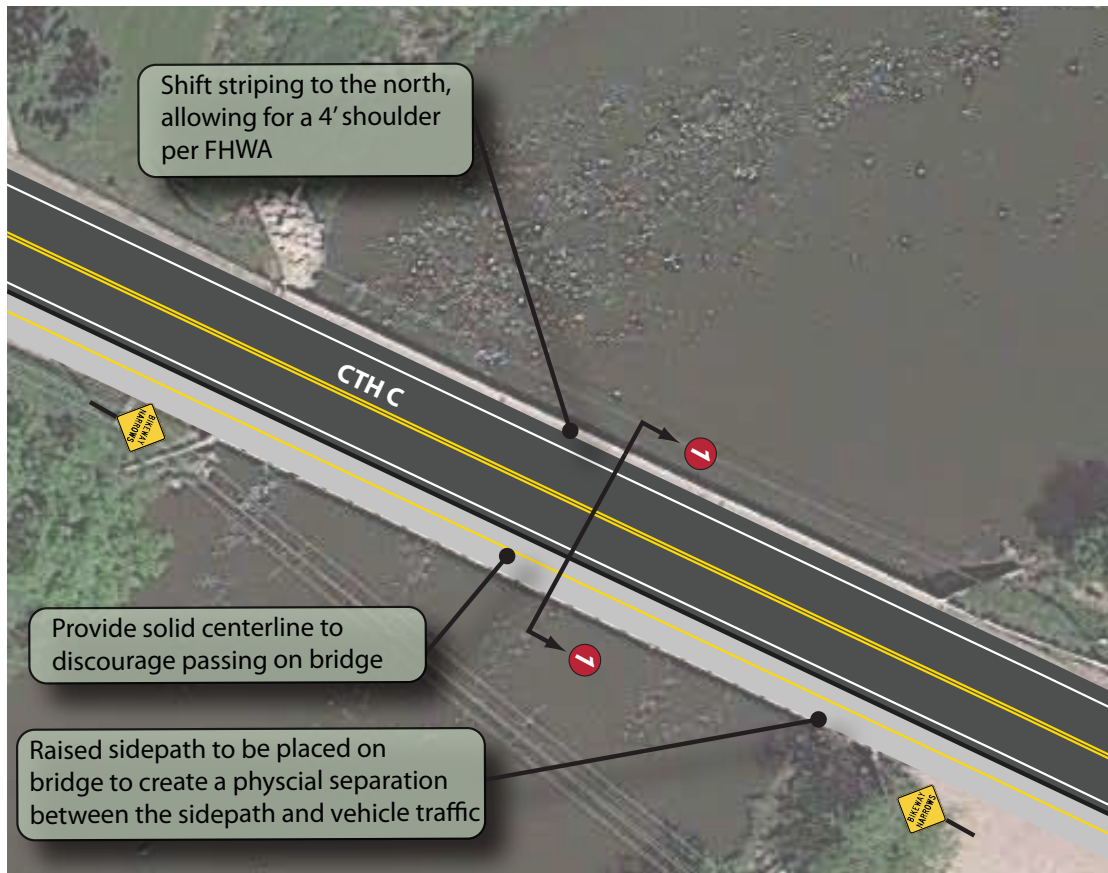
CTH C Sidepath - Wilmot Bridge - Option 1

Kenosha County
Comprehensive Bicycle Plan for Kenosha County 2025
Date: March, 2013

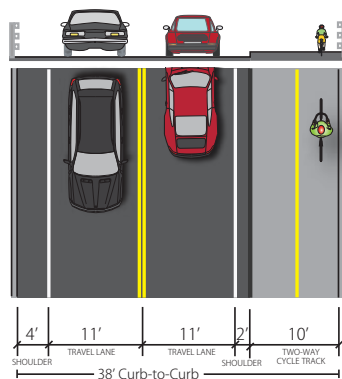


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SCALE IN FEET





1 PROPOSED CROSS-SECTION Wilmot Bridge



Legend

- Raised Sidepath
- Warning Sign

CTH C Sidepath - Wilmot Bridge - Option 2

Kenosha County
Comprehensive Bicycle Plan for Kenosha County 2025
Date: March, 2013



0 15 30
SCALE IN FEET



Cost Estimates

A project cost for each type of on-street bicycle and trail facility is shown in Table 7-4: Cost Assumptions. These cost opinions were developed based on initial planning-level examples of similarly constructed projects and industry averages. These costs are fully burdened estimates provided in 2013 dollars rounded to the nearest thousand and do not include costs for right-of-way acquisition, wayfinding signs or other site-specific costs.

Table 7-4: Cost Assumptions

Facility Type	Cost Per Mile	Annualized On-Going Costs*	Notes
Shared Lane Markings	\$20,000	\$7,000	Assumes SLM marking every 200' each direction, regulatory signage every 400' each direction. May reduce on-going costs by using thermoplastic markings.
Bike Lanes	\$36,000	\$29,000	Assumes striping removal and restriping. Bike lane markings every 800' in both directions. May reduce on-going costs by using thermoplastic markings.
Shared-Use Path	\$1,250,000	Varies***	Assumes 12' path. Estimates do not include ROW acquisition costs; costs for potentially required bridges or retaining walls; or costs for amenities including lighting, benches, bicycle parking, interpretive kiosks, etc.

*Costs include engineering (25%), contingency (15%), and design (20%) allowances.

**Annualized costs assume repainting stripes and pavement markings twice per year.

*** Asphalt paths typically require repaving every 7 – 15 years and concrete pathways every 25

Maintenance Costs

On-street bikeways and trails require regular maintenance and repair. On-street bikeways are typically maintained as part of standard roadway maintenance programs, and extra emphasis should be placed on keeping bike lanes and roadway shoulders clear of debris and keeping vegetation overgrowth from blocking visibility or creeping into the roadway.

Funding Sources

Acquiring funding for projects and programs is considerably more likely if it can be leveraged with a variety of local, state, federal and public and private sources. This section identifies potential matching and major funding sources available for bicycle and trail projects and programs. A detailed description of these funding programs is available in Appendix H: Funding Sources.

Moving Ahead for Progress in the Twenty-First Century (MAP-21)

The largest source of federal funding for bicycle and pedestrian projects is the United States Department of Transportation's (US DOT) Federal-Aid Highway Program, which Congress has reauthorized roughly every six years since the passage of the Federal-Aid Road Act of 1916. The latest act, Moving Ahead for Progress in the Twenty-First Century (MAP-21) was enacted in July 2012 as Public Law 112-141.

MAP-21 authorizes funding for federal surface transportation programs including highways and transit until September 2014. There are a number of programs identified within MAP-21 that are applicable to bicycle and pedestrian projects. These programs include:

- Transportation Alternatives (TAP)
- Transportation Alternatives
- Recreational Trails
- Safe Routes to School
- Planning, designing, or constructing roadways within the right-of-way of former Interstate routes or divided highways
- Surface Transportation Program (STP)
- Highway Safety Improvement Program (HSIP)
- Congestion Mitigation/Air Quality Program (CMAQ)
- New Freedom Initiative
- Pilot Transit-Oriented Development Planning
- Other Federal Grant Programs
- Partnership for Sustainable Communities
- Community Development Block Grants
- Community Transformation Grants
- Land and Water Conservation Fund
- Rivers, Trails, and Conservation Assistance Program

Kenosha County should track federal communications and be prepared to respond proactively to announcements of grant availability.

State Funding Sources

The State of Wisconsin has historically funded bicycle and pedestrian projects above and beyond Federal Transportation Enhancement (TE) dollars through two State grant programs: the Bicycle and Pedestrian Funding Program (BPFP) and the Surface Transportation Program – Discretionary (STP-D). Funding levels and cycles for both programs has been somewhat sporadic since the early 1990s. In 2002 the Surface Transportation Program – Discretionary (STP-D) was dismantled, but the Bicycle and Pedestrian Funding Program (BPFP) still exists.

WisDOT Bicycle and Pedestrian Funding Program (BPFP)

The most recent funding cycle of the BPFP in 2010 provided more than half a million dollars for bicycle and pedestrian planning and design throughout the state. Funding through the program is competitive – a committee ranks projects and makes funding recommendations to the Wisconsin Department of Transportation Secretary.

All BPFP funds have been awarded through FY 2014. Information on the next BPFP funding cycle will be posted on the WisDOT Bicycle and Pedestrian Facilities Program webpage in 2013:

<http://www.dot.wisconsin.gov/localgov/aid/bike-ped-facilities.htm>.

State Recreation Grant Programs

The Wisconsin Department of Natural Resources administers several grant programs that may support bicycle and pedestrian facilities if the investment(s) provide a recreational benefit to the state. The subprograms below are part of the Knowles-Nelson Stewardship Program, a fund created by the Wisconsin Legislature in 1989 to “preserve valuable natural areas and wildlife habitat, protect water quality and fisheries, and expand opportunities for outdoor recreation.”¹³

Programs include:

- Acquisition of Development Rights (ADR)*
- Aids for the Acquisition & Development of Local Parks (ADLP)*
- Habitat Areas
- Natural Areas
- State Trails
- Streambank Protection
- Urban Green Space (UGS) grants*
- Urban Rivers (UR) grants*

* =Local Assistance Grants open to Local Units of Government

Non-profit Conservation Organizations are eligible to apply for all eight Knowles-Nelson Stewardship programs listed above. Eligible Local Units of Government (“towns, villages, cities, counties and tribal governments that have a DNR accepted comprehensive outdoor recreation plan or master plan which has been approved by resolution by the local governing unit”¹⁴) may apply for Acquisition of Development Rights (ADR), Aids for the Acquisition & Development of Local Parks (ADLP), Urban Rivers (UR), and Urban Green Space (UGS) grants.

Projects seeking funding must support “nature based recreation,” defined as “activities where the primary focus or purpose is the appreciation or enjoyment of nature.”⁸ Hiking, bicycling, and multi-use trail

¹³ <http://dnr.wi.gov/topic/stewardship/grants/ApplyLUG.html>

¹⁴ <http://dnr.wi.gov/topic/stewardship/grants/ApplyLUG.html>

activities are specifically mentioned as applicable activities. Each subprogram has specific goals, funding priorities, and other requirements. See <http://dnr.wi.gov/topic/stewardship/grants/Index.html> for more information about each subprogram.

Local Assistance Grant applications are due no later than May 1st. Non-profit Conservation Grant applications are due no later than August 1st. Non-profit Conservation Organizations must have 501(c)(3) status and “must be able to demonstrate that it has the capacity to carry out and complete the project and provide for its maintenance over time.”¹⁵

Detailed application information for Local Governments:

<http://dnr.wi.gov/topic/stewardship/grants/ApplyLUG.html>

Detailed application information for Non-Profit Conservation Organizations:

<http://dnr.wi.gov/topic/stewardship/grants/applyNCO.html>

List of who to contact with questions and application assistance:

<http://dnr.wi.gov/topic/stewardship/grants/Contacts.html>

Grand Guidelines and Application packet:

<http://dnr.wi.gov/files/PDF/Pubs/CF/CF0003.pdf>

Private Foundations

Private foundations are an increasingly important source of funds for bicycle and pedestrian planning and implementation. For example, planners in Ozaukee County successfully secured a \$10,000 grant from the Bikes Belong Coalition and a \$25,000 grant from the Wisconsin Energy Corporation Foundation to partially fund the Ozaukee Interurban Trail.

To read a case study of the Ozaukee Interurban Trail, visit:

<http://www.bicyclinginfo.org/library/details.cfm?id=4154>

For more information on private foundations, including an extensive list of national foundations visit:

<http://www.foundationcenter.org/>

¹⁵ <http://dnr.wi.gov/topic/stewardship/grants/applyNCO.html>

Table 7-5: Summary of Potential Funding Sources

Funding Program		Planning Design and/or Construction			
		On-Street Pedestrian Facilities	On-Street Bicycle Facilities	Off-Street Shared-use Paths	Non-Infrastructure Programs
Federal Sources	MAP-21				
	Transportation Alternatives (TAP)	✓	✓	✓	✓
	Recreational Trails Program (RTP)			✓	
	Safe Routes to School (SRTS)	✓	✓	✓	✓
	Surface Transportation Program (STP)	✓	✓	✓	
	Highway Safety Improvement Program (HSIP)	✓	✓	✓	✓
	Congestion Mitigation/Air Quality (CMAQ)	✓	✓	✓	✓
	New Freedom Initiative	✓		✓	✓
	Pilot Transit-Oriented Development (TOD)				
	Partnership for Sustainable Communities	✓	✓	✓	
	Community Development Block Grants (CDBG)	✓			✓
	Community Transformation Grants (CTG)	✓	✓	✓	✓
	Land and Water Conservation Fund (LWCF)			✓	✓
State Sources	DNR				
	Rivers, Trails, and Conservation Assistance (RTCA)			✓	
	WisDOT Bicycle and Pedestrian Funding Program (BPPF)	✓	✓	✓	
	Acquisition of Development Rights (ADR)			✓	
	Aids for the Acquisition & Development of Local Parks (ADLP)			✓	
	Habitat Area			✓	
	Natural Area			✓	
	State Trails			✓	
	Streambank Protection				
	Urban Green Space (UGS) Grants			✓	
	Urban Rivers (UR) Grants			✓	

Appendices

This report references detailed appendix items for additional data and support of Plan recommendations. The following appendices are available:

Appendix A: Best Practices Review of Vision, Goals and Objectives

Appendix B: Plan and Policy Review

Appendix C: Demand and Benefits Model

Appendix D: Rumble Strips in Wisconsin

Appendix E: US Bicycle Routes System Brief

Appendix F: Trail Crossing Improvements

Appendix G: Bicycle Design Guidelines

Appendix H: Funding Sources

The appendices to this plan may be viewed online at:

<http://www.kenoshacounty.org>

And in person at:

Kenosha County Department of Planning and Development

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