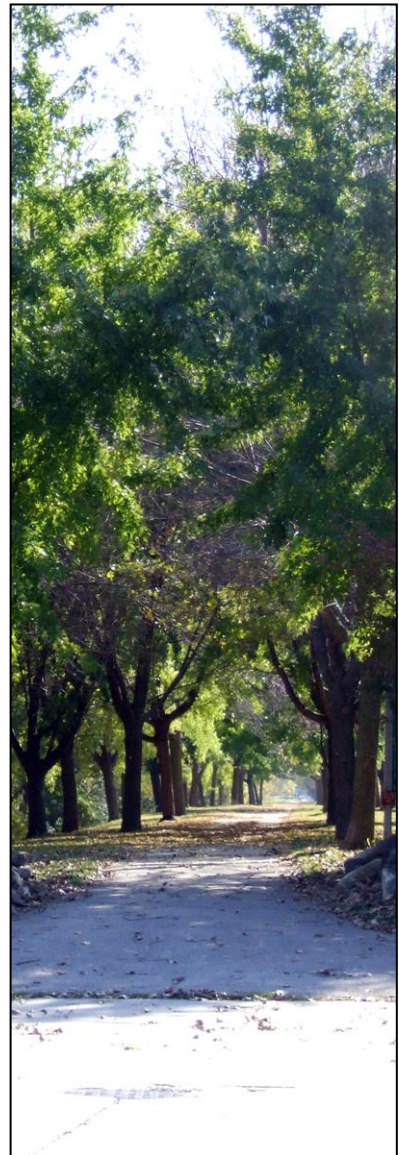


Village of Pleasant Prairie 2010 Bicycle and Pedestrian Trails Plan

Adopted by Ord. #10-27 on April 19, 2010



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The Bicycle Federation of Wisconsin is a statewide nonprofit bicycle education and advocacy organization. The Bicycle Federation of Wisconsin's mission is to make Wisconsin a better place to bicycle. Bicycling is a viable, healthy, and environmentally sustainable means of transportation, recreation, and sport. The Bicycle Federation of Wisconsin provides bicyclists of all ages with information on recreational rides, safety tips, and commuting skills while educating decision makers about the importance of bicycling to our communities.

Learn more at <http://www.bfw.org>.

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Executive Summary



Bicycling and walking are inexpensive, non-polluting forms of transportation and recreation that are accessible to nearly everyone. Children, many elderly and those without access to motor vehicles can rely on cycling and walking as an autonomous form of transportation. Other residents may rely on cycling for transportation due to its low cost, sustainability, or simply the joy of being on a bike. In addition to transportation, residents of all ages and abilities commonly participate in cycling, walking and running activities as a form of recreation and exercise.

For cycling and walking to be viable forms of transportation and recreation, there must be facilities that allow residents to safely and comfortably participate in these activities and reach their destinations. The Village of Pleasant Prairie recognizes the importance of providing these options for its citizens. Focused on bicycling and walking, the *2010 Bicycle and Pedestrian Trails Plan* demonstrates the Village's commitment to providing facilities for walking and cycling. Based on current development as well as future development outlined in the *2035 Village of Pleasant Prairie Comprehensive Plan*, this plan proposes a ten-fold increase in facilities designated for bicycle and pedestrian use. The plan also details encouragement, education, enforcement and evaluation programs and recommendations to boost bicycle ridership and walking within the Village.

The primary goal of this plan is to:

Establish and maintain a safe, comprehensive and integrated bicycle and pedestrian trail network that encourages the use of bicycles and walking for commuting, recreation and other trips.



A series of eight specific objectives and 27 policies are recommended in Chapter 6 to achieve this goal. Primary among these recommendations is the development of a robust and well-connected system of on-street bicycle lanes and off-street shared-use paths that tie together current and future Village neighborhoods, recreation areas, commercial areas and employment centers. The development of this network will allow residents to quickly and safely travel around the Village on bike or foot, no matter what their destination or the reason for their trip.

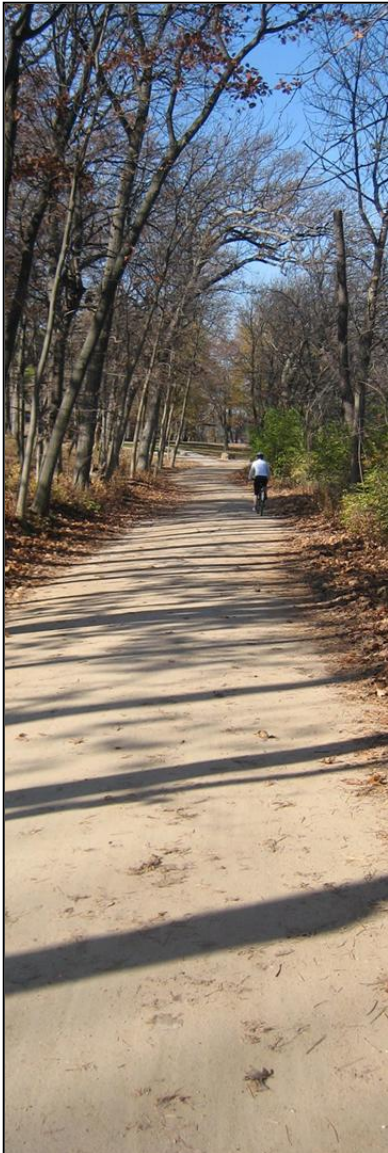
By proactively planning for bicycle and pedestrian facilities and programs and policies that encourage cycling and walking, Pleasant Prairie is demonstrating a commitment to offering Village residents and visitors accessible, environmentally friendly and inexpensive transportation and recreation options.



1. Introduction

Communities across the nation are recognizing that facilities for bicycling and walking are an important part of their infrastructure. These facilities, including shared-use paths, sidewalks and on-street bicycle lanes, offer transportation choices that are available to all ages and socioeconomic groups. Bicycle and pedestrian networks increase travel and recreational opportunities for residents. At the same time, a robust bicycle and pedestrian network can boost the local economy. Urban bicycle greenways have a positive impact on home values. Studies have shown that people walking or cycling to local businesses spend more than those who drive. Bicycle tourism can also draw increased traffic to local businesses.

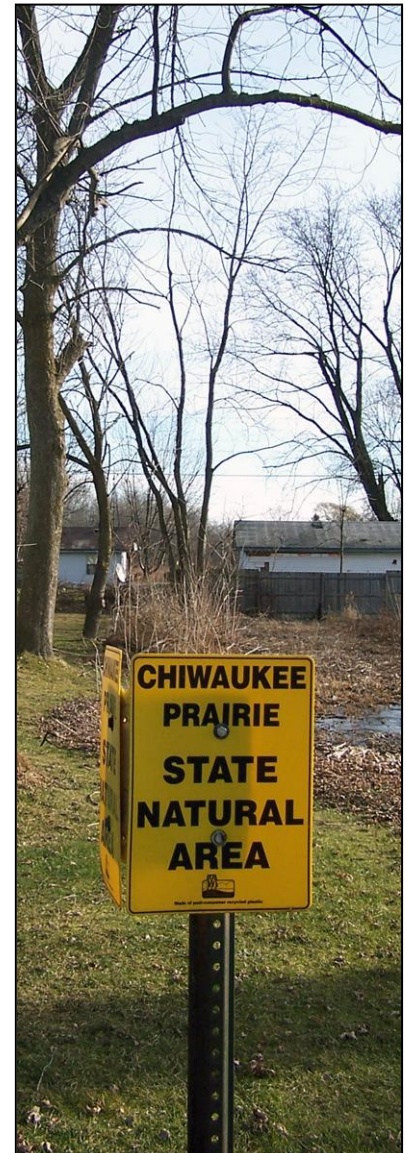
Bicycling and walking are important modes of transportation. Bicycling in particular is a convenient and efficient form of transportation, and for some people, bicycling is their main mode of transportation. Like the automobile, but unlike public transit, a bicycle provides its user with autonomy and flexibility regarding travel schedules and destinations. Bicycling is also a form of transportation that is accessible to many people who cannot drive: the young, some elderly and those who do not own a motor vehicle. A complete transportation system serves motorists, cyclists and pedestrians in a safe and efficient manner.



1.1 Purpose

Prior to incorporation as a village, Pleasant Prairie developed in a way that was not conducive to bicycling or walking: development was dispersed throughout the area and was linked by narrow, sometimes busy streets with no sidewalks or paved shoulders. Since incorporation the Village has grown rapidly. Residents and staff have worked to ensure that this growth and development better serves all forms of transportation while also being environmentally sensitive. This *Bicycle and Pedestrian Trails Plan* will complement that development by designating a system of bicycle and pedestrian facilities that connect all parts of the Village as well as surrounding communities. This plan will guide the development of shared-use paths, demarcate on-street facilities, provide design guidelines and policies for facilities and highlight funding opportunities for the Village to pursue.

The Plan will build on past bicycle and pedestrian planning, including that in the Village's 2006 *Park and Open Space Plan* and the Southeast Wisconsin Regional Planning Commission's (SEWRPC) *Regional Transportation Plan for Southeastern Wisconsin: 2035*, *A Regional Land Use Plan for Southeastern Wisconsin: 2035*, and *Amendment to the Regional Bicycle and Pedestrian System Plan for Southeastern Wisconsin: 2020*. The Plan should be updated every five years to reflect the needs of the community and progress that has been made in implementing new facilities.



1.2 Scope

The Village of Pleasant Prairie Bicycle and Pedestrian Trails Plan focuses on bicycling for transportation. For bicycle transportation, trip origins, destinations and trip purpose are of utmost importance (e.g. commuting to work or school, shopping, attending a social event, etc.), and the bicycle is simply the means to the end. Conversely, recreational bicycling trips are made expressly for the enjoyment of bicycling, and the destination, if there is one at all, is of minor importance. Most trips, and most facilities, serve both functions, but the bicycle facility network must be complete in order to serve the needs of transportation bicyclists while also serving recreational bicyclists and pedestrians.

Bicycle projects must be primarily for transportation purposes to be eligible for funding under most Federal aid programs, although the Recreational Trails Program is an exception. Federal guidelines generally consider any bicycle path other than a closed loop as being principally for transportation and eligible for federal funding.



The Plan is a comprehensive approach to bicycle transportation planning that encompasses the “four E’s:”

- Engineering: facility creation and improvement
- Education: increasing cyclist and motorist awareness of the rules of the road
- Encouragement: programs to increase cycling
- Enforcement: applying the rules of the road to all users: motorists, bicyclists, and pedestrians

When combined with facility improvements, education and encouragement can dramatically increase the levels of bicycling and walking. Educating bicyclists and motorists on how to share the road safely is important. Education of elected officials, planners, engineers and others involved in land use development will help ensure that bicyclists’ needs are included when planning new neighborhoods and roadways. Educating law enforcement officers about the illegal behaviors that are the most common factors in crashes can allow them to better target these behaviors.

The plan identifies existing facilities and recommends new programs, policies and facility projects including off-street paths, on-street facilities, signed routes and support facilities, such as bicycle parking. Implementation of the plan will encourage the use of this practical, non-polluting, affordable mode of transportation. The bicycle and pedestrian facility recommendations are necessary for safety, mobility and access to destinations such as schools, employment centers, commercial areas, public and institutional land uses and recreational areas. Recommendations are prioritized to augment the existing bicycle and pedestrian transportation network in the Village and its connections to other municipalities.

1.3 Summary of Public Input

An effective planning effort requires the participation of the public. Public input during the planning process was solicited via a survey administered online by the Village of Pleasant Prairie and through a public information meeting. Both the survey and the meeting provided the public with opportunities to voice their concerns over bicycle and pedestrian issues as well as offer opinions on the direction of the planning effort and what they would like to see as the end product.

Public Informational Meeting

An informational meeting for the public was held on Thursday, May 28, 2009, from 5:00pm – 7:00pm at the IcePlex in Pleasant Prairie. Notice of the meeting was provided through the Village newsletter that was sent to each Pleasant Prairie household, as well as on the Pleasant Prairie official webpage. A total of 34 people attended the meeting including members of the Bicycle and Pedestrian Trails Plan Steering Committee and the general public. After a brief introduction to the planning process and a description of a map of proposed bicycle and pedestrian trails drawn from the *2006 Park and Open Space Plan*, the meeting was opened up for public comment. Comments were wide-ranging, but specific themes emerged repeatedly:

- **Connections:** The plan should identify a network of on- and off-street routes that connect throughout Pleasant Prairie as well as into the City of Kenosha, the State of Illinois and other recreational areas.
- **Signage:** Provide a signage system that clearly indicates where users are within the trail system, how to get to popular destinations and times and distances to locations.
- **Secure parking:** Provide secure bicycle parking facilities at employment centers, retail destinations, parks and other locations.
- **Maintenance:** Ensure that the bicycle and pedestrian system, both on- and off-street, is well maintained so as to be safe and efficient for all users.
- **Funding:** The plan should identify funding sources for bicycle and pedestrian trails and maintenance.
- **Trail amenities:** Provide off-street bicycle and pedestrian path and trail amenities including trash and recycling receptacles, drinking fountains, restrooms, picnic tables, signage and lighting.
- **Multimodal options:** The plan should identify and tap into opportunities to expand multimodal travel options, particularly rail and bus.

Attendees at the public meeting as well as written comments that were received at the meeting are listed in Appendix A.



Bicycle and Pedestrian Trails Plan Steering Committee

A Steering Committee was established at the beginning of the planning process to oversee development of the plan and to provide input from different areas of the community. The Steering Committee included representatives of the Parks Commission, the Kenosha Unified School District, the Recreation Commission, the Village Public Works, Engineering, Police, and Community Development Departments, and local recreation facilities. The Steering Committee met monthly during the planning process to review progress and provide input on the plan.



Pleasant Prairie hosts numerous triathlons throughout the year drawing thousands of athletes to the Village.

Survey of Public Opinion

A public survey was administered online to Village residents and others interested in bicycling and walking in the Village. Notice of the survey was placed on the Village website as well as in the Village newsletter that was mailed to each household in the Village. A total of 82 people participated in the survey, with the majority of those people residing within the Village. Results of the survey helped guide the planning process and the full survey results are presented in Appendix B.

2. The Importance of Bicycling and Walking

Bicycling and walking are both important forms of transportation and recreation that provide numerous benefits to individuals and communities as a whole.

Bicycling and walking are good forms of exercise and are nonpolluting forms of transportation that are accessible to all. By encouraging bicycling and walking participation, particularly for transportation, Pleasant Prairie can provide social, health and environmental benefits to its residents.

2.1 Social and Health Benefits

Bicycling offers low cost mobility. For those who do not use or have access to an automobile, such as school-age children, bicycling and walking are particularly important. While bicycling and walking may not replace all trips by motor vehicle, they can be a practical mode for many trips and part of multi-modal trips as well (such as a trip to a park-and-ride carpool facility or transit stop).

Increased bicycling levels along with increased quality and quantity of bicycle facilities can benefit the community by providing those unable to drive or without access to a car with more independence; reducing the need for parents to chauffeur their children to school, social and recreational activities; allowing households to meet their transportation needs with fewer cars; and increasing recreational opportunities and, by extension, improving public health.

A total of 76% of respondents to the survey conducted for this plan reported that they regularly walk or jog for exercise while 65% reported bicycling regularly for exercise. Clearly walking and bicycling are important forms of exercise for local residents. Improving bicycle facilities for transportation purposes benefits those who bicycle for recreation and fitness as well. Recreational bicycle rides can begin at home and be combined with other, often utilitarian, trip purposes. When linked with a larger bikeway system, off-street paths can provide important transportation linkages, and a complete bikeway network benefits everyone, regardless of how they use the road.



A sign near the RecPlex reminds motorists of pedestrian rights.

2.2 Environmental and Transportation Benefits

Bicycling is a convenient and efficient form of transportation, and for some, their primary mode of transportation. Bicycling is a popular mode of transportation because a bicycle provides its user with autonomy and flexibility regarding travel schedules and destinations, including multiple destinations. Bicycling is the most energy efficient form of transportation and is often faster than driving for short trips. Bicycling is an important element of a transportation system. Multi-modal trips allow commuters to use their bicycles to reach a bus stop or to ride to their final destination from a convenient parking area. Bicycling levels are much higher during the warmer months, and the development of inexpensive, more versatile bicycles and clothing have increased both the appeal and the practice of bicycling in wetter and colder weather.



Kenosha Transit buses accommodate up to two bikes on front racks.
Credit: Kenosha Transit

While travel within southeastern Wisconsin is predominantly by personal motor vehicle, walking and bicycle travel represent the next largest percentage of internal weekday travel by resident households of the region.

Although the Kenosha Transit bus system provides limited service to the LakeView Corporate Park and small portions of the north side of Pleasant Prairie, most of the residential areas in Pleasant Prairie are not served by transit. However, for the areas that are served, Kenosha Transit's buses have bicycle racks on them which encourage multimodal trips by users.

Increasing bicycle opportunities improves the efficiency of the transportation system and increases environmental benefits. It improves neighborhood livability by reducing motor vehicle traffic and its associated pollution and congestion, reducing the need for motor vehicle parking and reducing motor vehicle crashes, injuries and property damage.

When compared to a motor vehicle, bicyclists take up very little roadway space. In most urban traffic conditions, bicyclists do not significantly limit traffic flow. Providing adequate roadway width for all users, including bicyclists, will increase roadway capacity, reduce congestion and decrease trip times for everyone.

2.3 Economic Opportunities

Improving the bicycling environment can provide non-transportation related benefits as well. The community benefits from bicycle riders who purchase food and other needs locally. The tourism industry benefits as more bicyclists are attracted from outside the community. Most importantly, the quality of life of the community is enhanced by the presence of bicyclists and pedestrians when social interactions occur spontaneously and when people feel safer being outdoors.

Bicycle facilities have been shown to have a positive effect on nearby property values¹ and an increase in business reported by owners of businesses near bicycle facilities.² A study by North Carolina's Department of Transportation of bicycle facilities in the Outer Banks reveals an annual economic impact from the facilities that is six times greater than the one-time capital costs.³ A Wisconsin study showed 39% of responding businesses indicated increased business as a result of users of the Fox River Trail. The same study showed that a bicycle facility had positive effects on real estate values and therefore property tax revenues. Lots adjacent to the Mountain Bay Trail in Brown County, Wisconsin, sold faster and for an average of 9% more than similar property not located next to the trail. The study also suggests that by providing workers an alternative to driving to work, the trail became an inexpensive alternative to increasing road capacity.⁴ The conclusion that trail facilities generate increased revenue through higher property values is corroborated by the Consumer's Survey on Smart Choices for Home Buyers. In that survey, trails ranked the second most important amenity out of a list of 18 choices.⁵



Buffered bicycle lanes add additional separation between travel lanes and the bicycle lane which increases cyclists' comfort level.

¹ National Association of Realtors and National Association of Builders, *Consumer's Survey on Smart Choices for Home Buyers*, April 2002.

² Runge, Cole. *Fox River Trail Study*, Prepared for the Brown County Planning Commission, December 2002.

³ Lawrie, Judson, John Guenther, Thomas Cook, and Mary Paul Meletiou. *The Economic Impact of Investments in Bicycle Facilities: A Case Study of the North Carolina Outer Banks*, summary report, April 2004.

⁴ Runge, Cole. *Fox River Trail Study*, Prepared for the Brown County (WI) Planning Commission, December 2001.

⁵ National Association of Realtors and National Association of Home Builders, *Consumer's Survey on Smart Choices for Home Buyers*, April 2002

3. Existing Conditions

This chapter focuses on the existing conditions in the Village of Pleasant Prairie. The chapter provides an overview of the region, demographic information, the parks system, bicycle and pedestrian facilities and plans and policies currently in effect that impact bicycle and pedestrian planning and facilities. It should be noted that much of the demographic information is drawn from the 2000 Census, and the 2010 Census will provide a more accurate picture of current conditions in Pleasant Prairie when the data is released in 2011.

3.1 Regional Context

The Village of Pleasant Prairie is a rapidly growing community in Kenosha County in the far southeastern corner of Wisconsin. The Village is bordered by Illinois on the south, Lake Michigan on the east, the unincorporated Town of Bristol on the west and the City of Kenosha on the north. The Village is approximately 40 miles south of Milwaukee and 70 miles north of downtown Chicago.



It is important to provide bicycle parking at destinations throughout the Village.

The Village was incorporated in 1989 from the former Town of Pleasant Prairie. Because it incorporated from a Town with no central core, development is largely dispersed throughout the Village. Since incorporation Pleasant Prairie has grown rapidly: the population increased 63% while the number of housing units in the Village grew by 76%. Employment within the Village has increased rapidly as well, particularly with the industrial development of LakeView Corporate Park and commercial sites along 75th Street (State Highway 50) and near the I-94 corridor.

This rapid growth created a need for better bicycle and pedestrian planning and facilities. Many streets that were relatively quiet and safe for bicycling or walking 20 years ago are now busy and uncomfortable for cyclists and pedestrians. Additionally, while bicycle and pedestrian use may be safe and easy within many of the new office parks, industrial sites and residential developments, there are few good links or connections between these developments. Adequate links to popular destinations including Lake Michigan, schools, the RecPlex and IcePlex, and employment centers are also lacking.

3.2 Population and Demographics

Demographic characteristics help determine the amount of bicycle and pedestrian trails that the Village now requires and will need in the future. As part of the transportation network, it is important that trail facilities link not only current housing, employment, and recreation centers, but future ones as well.

Since incorporation, the Village of Pleasant Prairie has experienced a significant population increase. From 1990 to 2009, the population increased from 12,037 to 19,570. This increase of 63% is a far greater growth rate than Kenosha County (27%) and the State (16%). Additionally, the Village's work-day population is significantly higher than this number due to the large number of people who commute to the Village for employment or other opportunities. Pleasant Prairie's population is projected to continue growing rapidly over the next 20 years, although at a slightly lower rate than it has over the last 20 years. The Village's projected population in 2030 is 28,911, a 48% increase over the 2009 estimated population. This growth rate is again significantly higher than the rate for Kenosha County and the State.

The average age of residents of Pleasant Prairie slightly higher than their counterparts in Kenosha County or Wisconsin as a whole: in 2000, the residents of Pleasant Prairie had a median age of 37.0 years, while Kenosha County had a median of 34.8 years and the State of Wisconsin had a median of 36.0 years. In 2000, 34% of the Village's population was under the age of 25, while 11% of the population was 65 or older.

In 2000, the average household size in Pleasant Prairie was 2.73 persons per household, a decrease since the 1990 Census count of 2.83 persons. This average household size was slightly higher than that of the County and State.

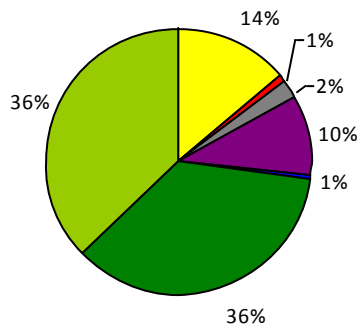
Although the size of the average household is decreasing, the statistical trends indicate that Pleasant Prairie has a growing population with many families. Providing a bicycle and pedestrian network that is comfortable and easy to use by users of all ages and skill levels will increase the quality of life of Village residents.



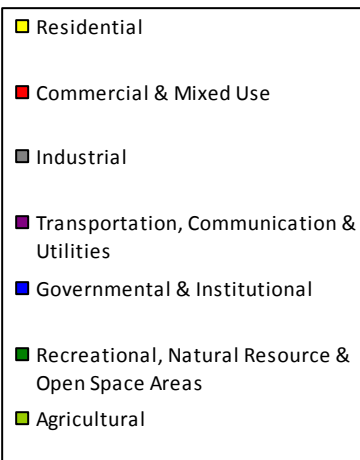
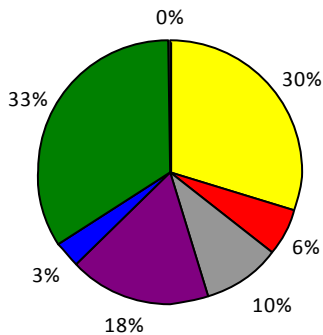
3.3 Land Use

Current and future land use is important for bicycle and pedestrian planning as the location of housing, employment centers, retail areas and recreational areas dictates where people will begin and end many of their trips. A well connected bicycle and pedestrian network should connect all of these areas so that residents can safely and conveniently travel from one location to another.

Village Land Use, 2000



Village Land Use, 2035



Current and Future Land Use

As mentioned in section 3.1, Pleasant Prairie incorporated in 1989. With this step, the new village gained the authority to zone land for specific uses including residential, industrial, commercial and other uses. This authority allows the Village to steer its growth and development in a desirable manner. The *Village of Pleasant Prairie, Wisconsin 2035 Comprehensive Plan* provides a detailed description of existing land uses in the Village, as well as the planned growth over the next 25 years.

Reflecting its recent incorporation, the majority of Pleasant Prairie is comprised of agricultural land, natural open space, and natural resource areas such as woodlands, wetlands, and surface water. These land uses cover approximately 76% of Village land. The remaining land is more developed and is comprised primarily of residential land uses, although commercial, industrial, governmental, transportation, and recreational land uses also cover significant areas of the Village. The *2035 Comprehensive Plan* envisions significant growth in residential, mixed-use, and commercial areas, with additional growth in industrial, governmental and transportation land uses. This growth will occur primarily on land that is currently agricultural and in non-environmentally sensitive open space areas.

Land Use Impacts on Walking and Cycling

Development in Pleasant Prairie is relatively dispersed today, although much of it is clustered at the northern end of the Village, close to Kenosha. Because development is dispersed, it is often difficult for residents to rely on walking or cycling as transportation, as destinations may be too far away or they may not feel safe using the existing streets for walking or cycling. As the Village continues to develop, it should become easier for residents to walk or cycle to destinations as urban street sections with bicycle facilities, sidewalks, and multi-use paths are installed in areas not currently developed. These connections will make it easier for residents to reach destinations and will allow residents to more reliably use walking and cycling as transportation and recreation.

3.4 Parks and Open Space

The 2006 Village of Pleasant Prairie Park and Open Space Plan inventoried existing parks, open space and recreation facilities within the Village. These spaces offer residents the opportunity to participate in organized recreational activities, exercise in areas away from motor vehicles or simply enjoy nature. Residents should be able to safely and easily access these spaces on bicycle or foot.

Regional Park

Three large community parks exist in Pleasant Prairie. The largest of these parks is Prairie Springs Park. This 930-acre park is located in the western portion of the Village, north of 104th Street and west of 88th Avenue. The park offers numerous sporting and recreation activities in addition to playgrounds, softball fields, volleyball pits, and picnic areas. The park also contains some of the Village's only paved bicycle and pedestrian trails. Although Prairie Springs Park contains pedestrian and bicycle trails and other recreational opportunities, many residents noted that it is difficult to access on foot or bicycle.



Prairie Springs Park is a large regional park located in the western portion of the Village. The park contains a popular shared-use path around Lake Andrea.

Community Parks

Anderson Park is a large existing park just north of the Village in the City of Kenosha. The 95-acre park offers City and Village residents amenities including two baseball diamonds, 20 soccer fields, a swimming pool with water slides and picnicking and other opportunities. Village Green Park and Ingram Park are planned for future development in the Village. All of these parks provide or will provide numerous benefits and amenities to Pleasant Prairie residents and should be readily accessible by bicycle or on foot.

Neighborhood and School Parks

The Park and Open Space Plan identified six existing neighborhood parks distributed throughout the Village: Carol Beach Park, Becker Park, Woodlawn Park, Pleasant Prairie Park, Rolling Meadows Park and Lake Michigan Park. These parks range in size from 0.14 acres to 22 acres and offer residents recreational opportunities and open space near their homes. Park space also exists at three Kenosha Unified School District elementary school sites in the Village, with two additional sites planned for future schools. These smaller park spaces provide recreation and open space that is dispersed throughout Pleasant Prairie.



Carol Beach Park is one of six neighborhood parks dispersed throughout the Village.

Open Space and Natural Areas

Numerous other open spaces and recreation areas exist throughout the Village. These areas include recreation areas such as two private driving ranges and a golf course, a private marina and a significant amount of preserved open space and natural areas.



The Chiwaukee Prairie Nature Preserve is a popular destination for cyclists.

The open spaces and natural areas throughout the Village are very popular with local residents as well as visitors to the area. These lands preserve critical plant and animal habitats and environmental corridors. They also allow residents and others to experience outdoor environments that are more natural and less controlled than what they experience in formal park space. Bicycling and walking can be an ideal match for these areas as they are quite, nonpolluting forms of transportation and recreation that require minimal impact in the way of trails and other facilities.

The largest of these areas is the Chiwaukee Prairie State Natural Area which is home to one of the largest prairie complexes in the State and the largest coastal wetland in southeastern Wisconsin. The southern portion of the area is managed by The Nature Conservancy, and the northern parcels are managed by the Wisconsin Department of Natural Resources, including the Kenosha Dunes, which contains open and stabilized sand dunes. Chiwaukee Prairie is recognized as a National Natural Landmark and a State Natural Area.

Other large open spaces and natural areas include the Carol Beach Natural Area Open Space, the Des Plaines River Natural Area Open Space and Momper's Woods. These areas cover over 250 acres throughout the Village and combine with approximately 200 acres of privately held land to form a significant natural presence within the Village. These areas are popular destinations for cyclists and offer opportunities for hiking and other recreational activities.



The Des Plaines River Open Space includes over 750 acres of preserved environmentally sensitive land.

3.5 Bicycle and Pedestrian Facilities

Currently, the only major bicycle trail in Pleasant Prairie is the Kenosha County Bike Trail. This north-south trail runs from the Illinois border through the Village and the City of Kenosha and north to the Kenosha/Racine County line. The trail is built in a former railway corridor and lies at approximately 30th Avenue. The gravel trail is unpaved and is not maintained during the winter months. Although a popular facility, residents voiced concerns over maintenance issues with the trail and problems with crushed gravel from the trail spreading onto connecting roadways and creating hazards.

Prairie Springs Park contains an eight foot wide paved trail that forms a loop around Lake Andrea and other portions of the park. While this trail is a popular recreation facility, it is not connected with any larger network of bicycle or pedestrian facilities and is not useful as a transportation facility.

There are approximately five miles of bike lanes in Pleasant Prairie, primarily in the far northern section of the Village. Residential streets in Pleasant Prairie with low traffic volumes are safe and recommended for bicycling with no additional facilities. Arterial streets that have higher traffic volumes and speeds are in need of better facilities which may include bike lanes, wide curb lanes or paved shoulders to accommodate bicycles. In these cases, critical corridors connecting neighborhoods and destinations are recommended for either bicycle routes or lanes. Some arterial streets are wide enough to accommodate bike lanes without any additional pavement. In areas where there is not enough roadway width to add a full bike lane, bicycle routes may be recommended. Bicycle parking at key destinations is also needed.

Most streets in Pleasant Prairie developed prior to 1989 have a rural cross-section with no curb and gutter or sidewalk. On low-traffic minor residential streets the roadway may be able to safely serve as a pedestrian facility. However, pedestrian accommodations are needed on arterial and connector streets and intersections. A total of 44% of survey respondents reported that they do not feel Pleasant Prairie is pedestrian friendly because of personal safety concerns, and 61% thought the lack of sidewalks made Pleasant Prairie unfriendly for pedestrians. At the same time, 62% of respondents cited automobile traffic as a reason for Pleasant Prairie's pedestrian unfriendliness, a reason that is closely linked with the lack of sidewalks.

A map at the back of this plan depicts the existing as well as proposed bicycle and pedestrian facilities.



Many residential streets with very low traffic volumes are safe and recommended for bicycling in their current condition.

3.6 Existing Plans and Policies

Numerous plans exist at the federal, state, regional and local levels that impact bicycling and walking in Pleasant Prairie. This section provides a brief summary of the most relevant of those plans. Additionally, Section 6.1 details federal and state guidance on the development of bicycle and pedestrian facilities.

Federal Plans and Policies

Congress firmly established the principle that the safe accommodation of bicycling and walking is the responsibility of state and local transportation agencies. This responsibility extends to the planning, design, operation, maintenance and management of the transportation system in federal transportation law, including the *Intermodal Surface Transportation Efficiency Act (ISTEA)*, and its reauthorizations, the *Transportation Equity Act for the 21st Century (TEA-21)* and the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)*.

http://www.americabikes.org/resources_policy_biyclefriendly.asp

The Federal Highway Administration Program guidance on the federal transportation bills states that “In the planning, design, and operation of transportation facilities bicyclists and pedestrians should be included as a matter of routine and the decision not to accommodate them should be the exception rather than the rule. There must be exceptional circumstances for denying bicycle and pedestrian access either by prohibition or by designing highways that are incompatible with safe, convenient walking and bicycling.”

<http://www.fhwa.dot.gov/environment/bikeped/Design.htm>

Wisconsin Plans and Policies

The *Wisconsin Bicycle Transportation Plan 2020* (WisDOT September 1998) is intended “to establish bicycling as a viable, convenient, and safe transportation choice throughout Wisconsin.” The role of the state plan is “ensuring an interconnected transportation system across government boundaries and highway jurisdictions that can work safely for bicyclists....” The two primary goals of the state plan are doubling the number of bicycle trips by 2010 and reducing crashes involving bicyclists and motor vehicles by 10% or more by 2010.

<http://www.dot.state.wi.us/projects/state/bike2020.htm>

The *Wisconsin Pedestrian Policy Plan 2020* outlines statewide and local measures to promote pedestrian comfort and safety. The plan lays out a policy framework to better integrate pedestrians into the transportation network by 2020 and describes WisDOT’s role in meeting pedestrian needs.

<http://www.dot.wisconsin.gov/projects/state/ped2020.htm>

Regional Plans and Policies

The *Regional [I-94] Freeway System Reconstruction Plan for SE WI* (SEWRPC) includes plans to reconstruct the I-94 interchange at County Highway C in Pleasant Prairie. The interchange reconstruction includes a redesign of portions of East Frontage Road and West Frontage Road that will separate the frontage roads from the highway interchange ramps. This should be safer for bicycles and still accommodate motor vehicle traffic. A separate paved shared-use path and wide



shoulders on the West Frontage Road are included as part of this reconstruction. Construction was completed in November 2009.

<http://www.sewrpc.org/freewaystudy>

The *Regional Transportation System Plan for Southeastern Wisconsin: 2035* (SEWRPC Planning Report No. 49) includes SEWRPC's vision for transportation in the region: "A multimodal system with high quality public transit, bicycle and pedestrian, and arterial street and highway elements which add to the quality of life of Region residents and support and promote expansion of the Region's economy, by providing for convenient, efficient, and safe travel by each mode...."

<http://www.sewrpc.org/regionalplans/regionaltransysplan.shtm>

The *Amendment to the Regional Bicycle and Pedestrian Facilities System Plan for Southeastern Wisconsin: 2020* (SEWRPC) "seeks to remove existing impediments to bicycle travel related to the lack of bicycle paths, the lack of safe accommodation on streets and highways, and the lack of support facilities such as bicycle parking and storage lockers. The plan recommends that improvements such as extra-wide outside travel lanes or paved shoulders be considered to be provided whenever an arterial street or highway is constructed or reconstructed to better accommodate shared roadway use by bicycles and motor vehicles."

<http://www.sewrpc.org/transportation/amendmentbikeped.asp>

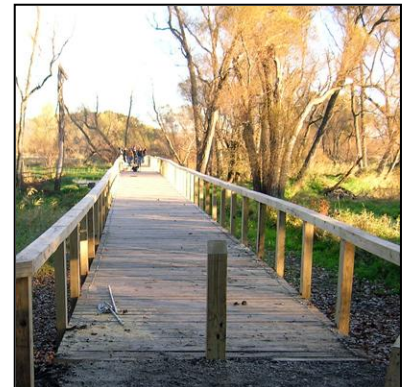
SEWRPC has identified several roads in and around the Village for expansion and/or extension. These projects will have significant impacts on bicyclists' ability to move safely and conveniently around the region. If the goals of the state and SEWRPC's own plans regarding bicyclists are to be realized, it is imperative that the bicyclists be accommodated as an integral part of every project.

While SEWRPC has proposed many projects in and around Pleasant Prairie in the future, the following projects are specifically identified in the 2009 – 2012 Transportation Improvement Program (TIP):

- Project 510 (2009): Resurfacing of State Highway 50 (75th Street) from I-94 to State Highway 31
- Project 513 (2009): Reconstruct State Highway 165 (104th Street) intersections with County Highway ML and County Highway EZ
- Project 516 (2009): Install flashing lights and gates at the 113th Street at-grade crossing of the Canadian Pacific railroad tracks
- Project 523 (2010) Preliminary engineering for reconstruction with additional lanes of County Highway C from County Highway U to West Frontage Road

It is critical that these projects properly accommodate pedestrians and bicycles, particularly since many of these are high-volume roads that are often difficult for cyclists and pedestrians to negotiate.

http://www.sewrpc.org/publications/tip/TIP_2009-2012.pdf



Local Eagle Scouts constructed boardwalks through environmentally sensitive areas to allow bicycle and pedestrian access.

Local Policies and Plans

The Village of Pleasant Prairie 2035 Comprehensive Plan will guide development in the Village for the next 25 years. The plan includes numerous chapters that will impact bicycling and pedestrian facilities in the Village, including the Transportation; Utilities and Community Facilities; Agricultural, Natural, and Cultural Resources; and Land Use chapters. The Comprehensive Plan is Pleasant Prairie's definitive guiding document regarding land use, transportation and other planning and the Transportation chapter has the following goal:

Provide an accessible interconnected network of highways, streets, and bicycle and pedestrian trails within the Village in order to present a safe, affordable, and efficient transportation system that meets the needs of multiple users; and to assure the functionality of the transportation network within Pleasant Prairie and the surrounding region while minimizing the impacts upon the transportation system.



Appropriate signage can draw attention to locations where shared-use paths intersect local streets.

The Village of Pleasant Prairie 2006 Parks and Open Space Plan serves as the planning document guiding park and open space development in the Village. The plan includes a number of policies and recommendations regarding bicycle facilities. The top priority to emerge from public participation in the planning process was the development of a multi-use trail system. Accordingly, the plan includes a map of existing and future bicycle trails and facilities. Additionally, a number of objectives and policies in the plan recommend or support the development of a robust bicycle and pedestrian trail network. No additional bicycle or pedestrian trails have been developed since the adoption of the plan.

It is important for the Village of Pleasant Prairie to work with surrounding jurisdictions to ensure that connections between the various jurisdictions are created concurrently with any new development or redevelopment. Additionally, Pleasant Prairie should encourage the other municipalities to begin creating bicycle plans of their own to incorporate into their long range transportation and land use plans.

4. Education, Encouragement, and Enforcement

There is a common perception that bicycling on streets and crossing streets as a pedestrian is dangerous, when in fact it is not. This concern keeps people from bicycling and walking more or at all. *Education, encouragement, and enforcement* can all be used to effectively counter the perception that bicycling or walking is unsafe. When including *engineering* (facilities discussed in Chapter 6), the “four Es” are popular and effective components to achieving the goals of increasing the number of trips by foot or bicycle and improving the safety and convenience of the bicycling and walking environment.

4.1 Education

Educating motorists and bicyclists to share the road will establish safer, more inviting streets for bicycling. Educating motorists and pedestrians about proper yielding and crossing procedures will establish a more encouraging and safe environment for pedestrians. Bike Rodeos, Bike Ed and Safe Routes to School initiatives are three examples of established bicycle education programs.

Safe Routes to School

The Federal Safe Routes to School (SRTS) program addresses the decline in children walking and bicycling to school. In 1969, about half of all students walked or biked to school. Today, fewer than 15% of all school trips are made by walking or bicycling, while over half of all children arrive at school in private automobiles. This decline in walking and bicycling has had an adverse effect on traffic congestion and air quality around schools as well as pedestrian and bicycle safety. In addition, a growing body of evidence has shown that children who lead sedentary lifestyles are at risk for a variety of health problems such as obesity, diabetes and cardiovascular disease. Safety issues are a concern for parents who cite traffic danger as a reason why their children are unable to bicycle or walk to school. The SRTS program empowers communities to make walking and bicycling to school a safe and routine activity once again. The program funds a wide variety of programs and projects, from building safer street crossings to establishing programs that encourage children and their parents to walk and bicycle safely to school. A Safe Routes to School toolkit is available from WisDOT at:

<http://www.dot.wisconsin.gov/localgov/aid/saferoutes-toolkit.htm>

Bicycle and Pedestrian Education Efforts

Bike Rodeos can be effective tools for teaching children safe bicycling basics, but only when those running the rodeos know what the most common kinds of child bicycle crashes are and the skills needed to avoid them. Teaching Safe Bicycling is a free course coordinated by WisDOT’s Bureau of Transportation Safety that provides instructors with this critical knowledge. For more information contact the WisDOT Bicycle and Pedestrian Safety Program Manager at 608-267-3154 or view course information at:

<http://www.dot.wisconsin.gov/safety/vehicle/bicycle/docs/tsb-brochure.pdf>

Bike Ed is a group of courses developed by the League of American Bicyclists (LAB) to suit the needs of any cyclist. LAB certifies, insures and equips League Cycling



Bicycles and walking should be safe and convenient ways for all students to travel to school.

Instructors (LCIs) to teach anything from basic skills to college level courses. LCIs are the experts in bicycle education and safety. Courses offered include: Road I, Road II, Commuting, Motorist Ed, Kids I and Kids II. LCI's can also offer modified versions of these courses, design bike rodeos and provide general safety consulting. Residents can take these classes on their own or community centers, senior centers, schools and employers can coordinate and host group classes.

Road I

Gives cyclists the confidence they need to ride safely and legally in traffic or on the trail. The course covers bicycle safety checks, fixing a flat, on-bike skills and crash avoidance techniques and includes a student manual. Recommended for adults and children above age 14, this fast-paced, nine-hour course prepares cyclists for a full understanding of vehicular cycling.

Road II

For more advanced students with an understanding of vehicular cycling principles, this 12 hour course includes fitness and physiology, training for longer rides, advanced mechanics, paceline skills, advanced traffic negotiation, foul weather riding and night riding. Student manuals are included with each class.

Commuting

For adult cyclists who wish to explore the possibility of commuting to work or school by bike. This three hour follow-up to Road I covers route selection, bicycle choice, dealing with cargo and clothing, bike parking, lighting, reflection and foul weather riding. Included with the class are handouts and student materials.

Motorist Education

A 3-hour classroom session, this course can be easily added to a driver's education curriculum, such as diversion training for reckless drivers or a course designed for local bus drivers. Directed towards motorists in general, topics covered include roadway positioning of cyclists, traffic and hand signals, principles of right-of-way and left and right turn problems. Materials include Share the Road literature for bicyclists and motorists as well as other fact sheets.

Kids I

Designed for parents, instructors explain how to teach a child to ride a bike. Topics covered include how to perform a bicycle safety check, helmet fitting and bike sizing. The course includes the 10-minute "Kids Eye View" video and a brochure for parents.

Kids II

This 7-hour class for 5th and 6th graders covers the same topics as Road I, including on-bike skills as well as choosing safe routes for riding.

The Bicycle Federation of Wisconsin has trained dozens of people in Wisconsin to teach the League of American Bicyclist courses and the Bike Fed can connect those interested in taking Bike Ed with the closest LCI. For more information on Bike Ed in Wisconsin, visit the Bike Fed's website:

<http://www.bfw.org>



Participants gather in the rain for a Road I course teaching safe bicycling skills.

To find the nearest LCI, visit the League of American Bicyclists website:

<http://www.bikeleague.org/cogs/resources/findit>

4.2 Encouragement

Publicizing bicycling and walking is both education and encouragement. By producing and distributing bicycle and walking education material, the Village can provide bicyclists, pedestrians and potential bicyclists with the information they need to bicycle safely and comfortably. WisDOT provides a range of safety materials for free to anyone requesting them by their publication number.

Bicycle and pedestrian related safety materials provided by WisDOT include:

- Wisconsin Bicycle Laws card (HS 221)
- Bicycle Safety-What Every Parent Should Know (HS 239)
- From A to Z by Bike (HS 214, for ages 11-adult)
- Bicycle Safety: A 'Wheely' Good Idea (HS 213, handbook for ages 8-11)
- Bicycles & Traffic-Get Over Your Fear (brochure HS 238)
- Two-Wheeled Survival (brochure HS 227)
- Sharing The Road: Survival of the Smallest (brochure HS 228)
- Street Smarts (updated brochure HS 207)
- Share the Road with Bicycles (bumper sticker HS 237)
- I Stop for Pedestrians (bumper sticker HS 233)

Request materials from WisDOT by publication number using the form found at:

<http://www.dot.wisconsin.gov/forms/docs/dt1265.doc>

Partnering with other agencies and organizations will help deliver bicycle information more effectively. For example, bicycle education should be integrated into school curricula and park programs so that many more children learn to bicycle more safely and frequently. Partnering with media outlets and the private sector will further increase the reach of education campaigns. The Village could also make use of the website www.StreetShare.org to promote bicycling and walking, and to educate citizens about bicycling and walking in the community.

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

Bike to Work Week

Bike to Work Week (BTWW) is a promotional campaign that has succeeded in increasing the numbers and safety of individuals who bike to work, shop, school or wherever they need to go in the communities where it has taken place. A recent BTWW campaign in Sheboygan County resulted in a 7% gain in bicycling mode share. The Bicycle Federation of Wisconsin produces a toolkit for concerned citizens to encourage bicycling in their community through Bike to Work promotions:

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

Bicycle Map

Producing and distributing a Village map for bicyclists can go a long way towards encouraging and educating citizens. A total of 92% of respondents to the survey

indicated that a bicycle map of the area would positively (54% “strongly,” 38% “moderately”) affect their decision to bicycle more. Such a map could educate citizens about the best routes for bicycling and help teach them to safely share the road with motor vehicle traffic by using safety tips and illustrations on the reverse of the map itself.

In creating a bicycle map it is important to gather information from the public regarding the map content. From previous bicycle mapping projects completed by the Bike Fed, map users have expressed that it is important to include the following items:



Quiet rural roads offer excellent cycling opportunities just outside the Village. A map showing bicycle routes within the Village as well as links to areas outside the Village would be appreciated by cyclists.

- All bicycle facilities, including signed routes, bike lanes, and bike trails.
- Public amenities, such as restrooms, parks, and emergency services.
- Private amenities, such as bike shops.
- A map scale that is appropriate for users to easily determine travel distance, with as many roads as feasible labeled.
- A digital version of the map should be available on-line.

Often some of the funds for a bicycle map can be procured from advertising fees from local businesses wanting representation on the map. It might also be possible to partner with the local tourism board or chamber of commerce for support. A bicycle map is more likely to be an effective educational strategy if it is available for free.

Other Public Education Opportunities

In addition to a bicycle map and education programs described above, there are other ways to get the word out that bicycling is a viable means of transportation and recreation. The Village could work with the Kenosha Area Chamber of Commerce, the Kenosha Area Convention and Visitors Bureau and the Wisconsin Department of Tourism to publicize bicycling. Television and/or radio Public Service Announcements about safe bicycling and motorists safely sharing the road with bicycles could be produced and aired, particularly on Channel 25 WLIP. Advertising in newspapers, on billboards and on buses can gain bicycling exposure.

Bicycle facility openings and other events also provide opportunities for education and outreach. “Earned media,” e.g. a press release in conjunction with a ribbon cutting ceremony, is a great way to get publicity and to generate interest in expanding the bikeway network.

4.3 Enforcement

For enforcement to be effective, law enforcement officers need to know which illegal behaviors are the most common factors in crashes. Wisconsin's Pedestrian and Bicycle Law Enforcement training course, available through the Wisconsin Department of Transportation (WisDOT) Bureau of Transportation Safety, provides education for law enforcement officers. The course qualifies towards the training hours required of most law enforcement agencies. For more information, contact the WisDOT Bicycle and Pedestrian Safety Program Manager at 608-267-3154.

The rules for riding bicycles on the road (and rules for motorists sharing the road safely with bicycles) are available online:

<http://www.dot.state.wi.us/safety/vehicle/bicycle/rules.htm>.

WisDOT also distributes free printed safety materials such as a Summary of Wisconsin Bicycle Laws (HS226), and Bicycle (HS221) and Pedestrian (HS244) Law Cards that fit in a wallet. These materials may be requested using form DT1265:

<http://www.dot.wisconsin.gov/forms/docs/dt1265.doc>

WisDOT's Division of Motor Vehicles Motorist Handbook includes nearly 10 pages of information on bicycling safely and on motorists sharing the road safely with bicyclists.

In addition to training police in law enforcement for bicycle safety, training drivers of commercial vehicles to model behavior can bolster enforcement by police officers. The Cities of Madison and Milwaukee educate all drivers of city vehicles about the regulations that require drivers to yield to pedestrians in crosswalks and to give all vehicles (including cyclists) three feet of clearance when passing. By training Village staff and partnering with Kenosha County or City agencies that operate in Pleasant Prairie, the Village can increase compliance with traffic laws on its streets.

5. Goals, Objectives and Policies

In order to produce an implementable plan, it is necessary to have an overarching set of goals that are supported by specific objectives and policies. These goals, objectives and policies help guide the overall recommendations of the plan and emerged from the planning process including public input.

5.1 Goals

Goals are broad statements that express general public priorities. Goals are formulated based on the identification of key issues, opportunities and problems that impact bicycling and pedestrian issues in the Village.

- Establish and maintain a safe, comprehensive and integrated bicycle and pedestrian trail network that encourages the use of bicycles and walking for commuting, recreation and other trips.

5.2 Objectives

Objectives are more specific than goals and are usually attainable through strategic planning and implementation activities. Implementation of an objective contributes to the fulfillment of a goal.



1. Provide a network of facilities that meets the transportation and recreation needs of users and links neighborhoods, schools, parks, employment centers and other key destinations.
2. Provide robust support facilities including bicycle parking, route signage and lighting that encourage commuter and recreational usage.
3. Provide a safe and easy to use bicycle and pedestrian network.
4. Maintain bicycle and pedestrian trails and support facilities to a level that provides safe, comfortable and convenient usage for users.
5. Increase enforcement of traffic violations by street users so as to reduce the number and severity of motor vehicle, bicycle and pedestrian crashes.
6. Provide safe bicycling and walking education to local children, teens and adults.
7. Conduct encouragement activities such as Bike to Work Week throughout the year to increase participation in bicycle commuting and recreation.
8. Ensure that relevant Village policies encourage and support bicycling and walking.

5.3 Policies

Policies are rules and courses of action used to ensure plan implementation. Policies often accomplish a number of objectives.

Facilities, Operations, and Maintenance

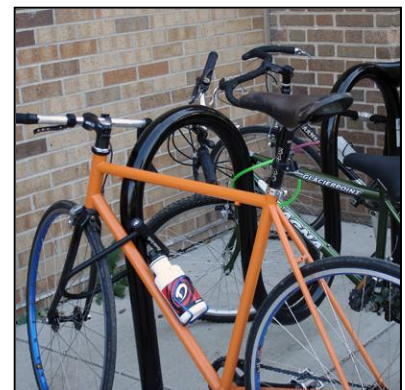
1. In the planning, design and operation of transportation facilities, bicyclists and pedestrians should be included as a part of the public participation process.
2. New and reconstructed arterial streets shall include bike lanes, wide curb lanes or paved shoulders, whenever possible.
3. New and reconstructed collector streets shall include bike lanes, although bike routes may be substituted in specific instances after consideration of traffic speeds and volumes, route continuity, nearby bicycle facilities and adjoining land uses, whenever possible.
4. As bicycles are legal users of the road, off-street bicycle facilities (paths or trails) should be provided as a *supplement* to on-street facilities.
5. Sidewalks should be included in all new development or redevelopment projects and new and reconstructed streets that have an urban cross section, when appropriate.
6. Include pedestrian actuation signals and count-down timers at all signalized street crossings with pedestrian facilities, including shared-use paths, at either side of the street.
7. Provide bicycle signal detectors per State standards at all new signalized intersections with bike lanes and, if feasible, when modifying existing signalized intersections with bike lanes.
8. Meet or exceed standard design guidelines on all new bicycle and pedestrian facilities; bring existing facilities that do not meet those standards up to standard as funding allows. The primary resources for these design guidelines are the Wisconsin Bicycle Facility Design Handbook, the WisDOT Facilities Development Manual (FDM), the Manual of Uniform Traffic Control Devices (MUTCD) and the AASHTO Greenbook.
9. Maintain Village bicycle and pedestrian facilities to a safe and comfortable level. Maintenance should include frequent sweeping to remove hazards, immediate plowing after snowfall and prompt attention to potholes and other hazards as funding allows.
10. Develop guidelines for routine and long-term maintenance of off-street bicycle and pedestrian paths.
11. Replace sewer or other drainage grates that are not safe for bicycle operation as funding allows.

Support Facilities

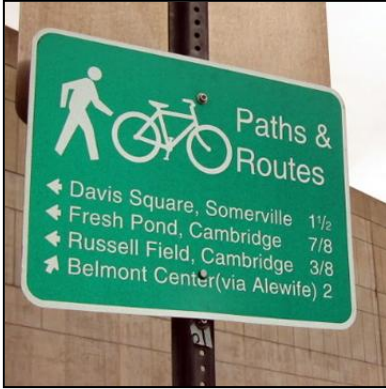
12. Provide short-term bicycle parking (racks) at destination locations throughout the Village including retail and recreation areas, parks, schools, and employment centers.
13. Promote bicycle parking in all new commercial, industrial and multi-unit housing developments.
14. Include support facilities along bicycle and pedestrian paths. Such facilities may include trailhead parking lots, route map displays, rest areas/benches, drinking water, bike racks, restrooms and lighting where deemed necessary for safety.



Wide paved shoulders provide space for pedestrians and cyclists on rural roads.



Providing or requiring short-term bicycle parking at destination locations can encourage bicycle use for transportation.



Directional signage, like this in the Boston area, can aid cyclists in finding destinations.

15. Consistently sign on-street and off-street bicycle and pedestrian facilities to provide users with directional and distance information; on-street signage should comply with the Wisconsin Bicycle Facility Design Handbook and the Manual of Uniform Traffic Control Devices.
16. Work with adjoining communities to ensure that the bicycle and pedestrian network connects to facilities in those communities.
17. Work with Kenosha County and WisDOT to include and implement bicycle facilities on all projects within the Village that fall under County or State jurisdiction.
18. Conduct regular bicycle and pedestrian counts around the Village. Require bicycle and pedestrian counts in all manual traffic counts conducted for specific projects.

Education and Encouragement

19. Include at least one piece of bicycle or pedestrian education at least quarterly in the Village newsletter.
20. Provide bicycle and pedestrian safety and education materials on the Village webpage.
21. Form a Safe Routes to School (SRTS) Committee to develop and implement a SRTS plan and apply for federal, State-administered funding.
22. Provide bicycle and pedestrian education to all students enrolled in public and private schools located in the Village through a Safe Routes to School program.
23. Provide Village police officers with educational materials on bike issues by offering Wisconsin Pedestrian & Bicycle Law Enforcement Training Course on a biennial basis.
24. Adopt Bike to Work Week as a Village-sponsored event, helping with promotion and encouragement of biking.

Enforcement

25. Request that the Village Police Department allocate more time to enforcement of traffic violations, particularly failure to stop/yield violations, speeding and safe passing distance violations.

Funding

26. Pursue funding for bicycle and pedestrian facilities and resources from federal, State and local sources.
27. Apply for federal funding for Safe Routes to School and other bicycle education programs targeted at students.

6. Design Standards

All bicycle and pedestrian facilities in the Village must meet State and federal design standards for such facilities. These standards help ensure that facilities are safe and meet guidance that has been vetted by professionals in the field. Additionally, meeting proper design standards may help lessen or remove the Village's liability should a crash or accident occur on one of the facilities.

The design standards presented on the following pages are intended as an informational guide and should not be used as engineering documents. All facilities should meet the standards presented in the federal and State guidance noted below, particularly the *Wisconsin Bicycle Facility Design Handbook* and the *Manual on Uniform Traffic Control Devices (MUTCD)*.

6.1 Federal and State Design Guidance

The *Guide for the Development of Bicycle Facilities* by the American Association of State Highway and Transportation Officials (AASHTO) is commonly accepted as the "best practices" for building bicycle facilities.

http://www.sccrtc.org/bikes/AASHTO_1999_BikeBook.pdf

The *Manual on Uniform Traffic Control Devices (MUTCD)* by the United States Federal Highway Administration (FHWA) contains currently acceptable signage for use on bicycle facilities as well as experimental signs.

<http://mutcd.fhwa.dot.gov/>

The Wisconsin Department of Transportation *Facilities Development Manual (FDM)* details bicycle facility design (Chapter 11, Section 45, Subject 10). The manual provides definitive guidance from the State on all facility design standards.

<http://roadwaystandards.dot.wi.gov/standards/fdm/index.htm>

The *Wisconsin Bicycle Facility Design Handbook* expands on the *FDM* and meets or exceeds AASHTO guidelines. The *Handbook* uses information from the AASHTO *Guide for the Development of Bicycle Facilities* and is tailored to meet Wisconsin's needs and conditions.

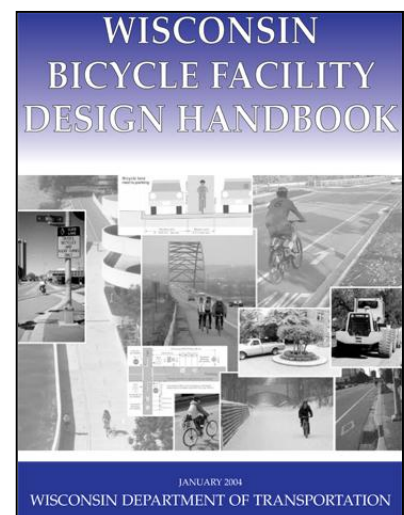
<http://www.dot.wisconsin.gov/projects/state/docs/bike-facility.pdf>

Although intended for larger communities, the *Wisconsin Bicycle Planning Guidance: Guidelines for MPOs & Communities in Planning Bicycle Facilities* contains useful information about the importance of planning a complete bikeway network.

<http://www.dot.state.wi.us/projects/bikes.htm>

In addition to this guidance, all bicycle and pedestrian facilities shall meet the requirements of the Americans with Disabilities Act (ADA) Accessibility Guidelines.

<http://www.access-board.gov/adaag/html/adaag.htm>



The *Wisconsin Bicycle Facility Handbook* provides definitive guidance on bikeway design for all Wisconsin municipalities.

6.2 On-Street Facilities

Under Wisconsin law bicyclists are legal users of the roadway and are entitled to all of the rights and responsibilities of motor vehicles. All streets other than limited access highways are an important part of the bicycle transportation network regardless of if they are specifically designated for bicycle use. However, there are specific on-street facilities that can make streets safer, more comfortable and more convenient for bicycles to use. These facilities are detailed below.



Bike Lanes

A bicycle lane is a portion of the roadway designated for exclusive or preferential use by bicyclists. Bicycle lanes are always one-way facilities and are identified with pavement markings and signing. On two-way streets, a one-way bicycle lane should be provided on each side. Bicycle lanes are the preferred bicycle facility on higher volume urban and suburban roadways (i.e., collector and arterial streets) but are seldom justified on residential streets. Bike lanes provide a significant benefit to safe and efficient bicycle circulation by providing separate identifiable areas on the street for bikes and autos. Bicycle lanes can be used on streets with and without on-street parking. For more information and frequently asked questions regarding bike lanes, see the Pedestrian and Bicycle Information Center:

<http://www.bicyclinginfo.org/engineering/facilities-bikelanes.cfm>



Bike Routes

Signed bike routes are on-street routes intended to provide connectivity and continuity to the bikeway system. Bike routes are usually established along through routes not served by bike routes or as an alternative to bicycling on busy streets. Bike routes are designated by signs or permanent pavement markings and are shared by motorists. Bike routes should provide direct travel from one destination to another or connect discontinuous segments of shared use paths, bike lanes, or bike routes. Efforts should be made, if necessary, to adjust traffic control devices to give greater priority to bicyclists on the route as opposed to other parallel streets. For more information and frequently asked questions regarding bike routes, see the Pedestrian and Bicycle Information Center:

<http://www.bicyclinginfo.org/engineering/facilities-roadways.cfm>



Wide Shoulders

On rural highways smoothly paved shoulders can serve as a bicycle facility. Shoulders provide clearance between bicyclists and high-speed motor vehicle traffic and they reduce the “wind blast” effect of passing trucks. In addition to benefiting bicyclists, wide paved shoulders provide an area for vehicles to pull onto during emergencies and maintenance benefits due to elimination of rutting adjacent to the edge of travel lane, improved drainage, and lateral support for the roadway base. For more information and frequently asked questions regarding wide shoulders, see the Pedestrian and Bicycle Information Center:

<http://www.bicyclinginfo.org/engineering/facilities-shoulders.cfm>

Roundabouts

Although not specific bicycle facilities, roundabouts deserve a special mention due to their recent approval for construction on State Highway 165 in Pleasant Prairie and design issues that can be problematic for bicycles. In general, single-lane roundabouts are excellent facilities for bicycles due to the relatively low speed of traffic and the ability of bicyclists to “take the lane” as they proceed through the roundabout. Double-lane roundabouts much be approached with greater caution due to higher motor vehicle speeds and lane changing within the roundabout.

Bicycle lanes should end before the roundabout with signage indicating that bicycle traffic may use the full travel lane. Additionally, a shared-use path should be provided around the circumference of the roundabout with bicycle entrance and exit ramps from the street; this allows bicyclists who are not comfortable moving into the travel lane through the roundabout to use the path instead. Signage on the path should indicate that it is a one-way facility for bicycles and the path should provide adequate width for pedestrians and bicyclists. It should be noted that WisDOT will fund 100% of construction costs for roundabout shared-use paths on projects the State is responsible for as long as the local municipality assumes maintenance for the facility. For detailed information on design see the WisDOT Roundabout Guide, found in Chapters 11, Sections 25 and 26 of the Facilities Development Manual:

<http://www.dot.state.wi.us/safety/motorist/roaddesign/roundabout-design.htm>

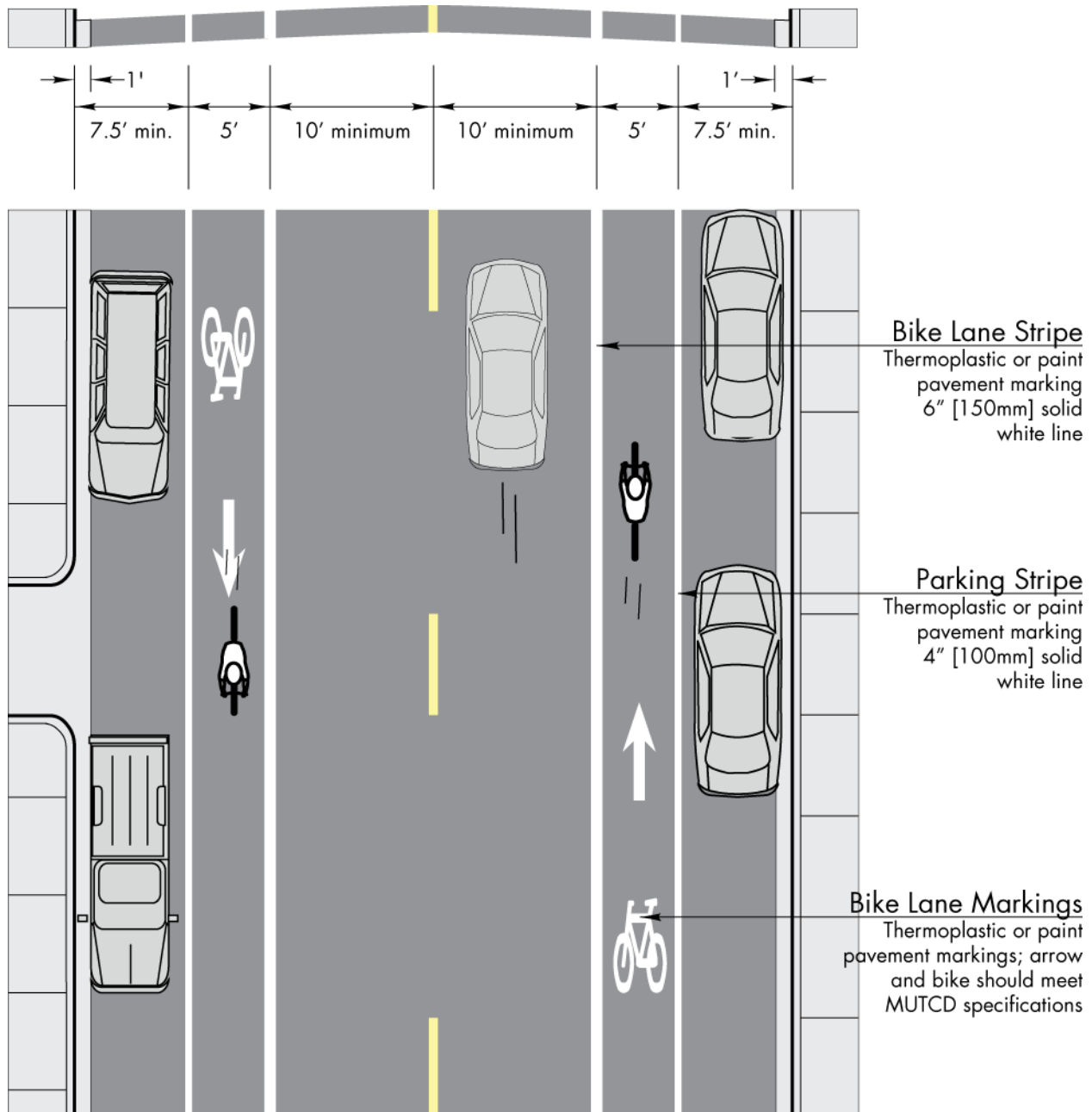


General Urban Street Cross Section with Bike Lanes

This generalized cross section provides *minimum* dimensions for an urbanized street with bicycle lanes. It provides:

- One traffic lane in each direction
- One bicycle lane in each direction
- May include parking lanes on one or both sides of the street

Refer to the *Wisconsin Bicycle Facilities Design Handbook*, *Wisconsin Facilities Design Manual (FDM)* and *2009 Manual on Uniform Traffic Control Devices (MUTCD)* for full guidance and engineering specifications. Diagram is for informational purposes only and is not to scale.

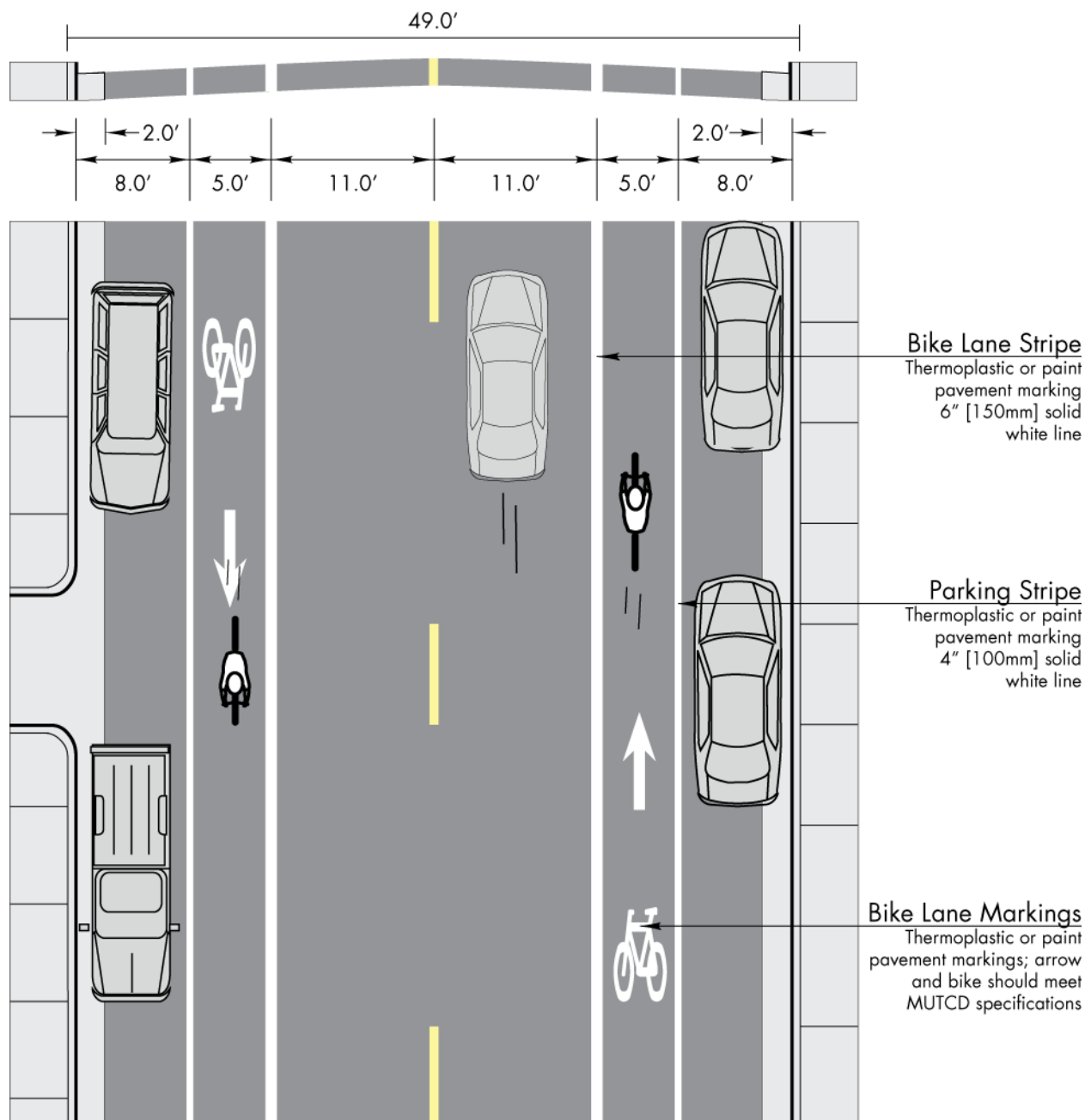


R-2 49' Cross Section

This cross section provides dimensions for Pleasant Prairie's R-2 Residential Collector. It provides:

- One traffic lane in each direction
- One bicycle lane in each direction
- Parking lanes on both sides of the street

Refer to the *Wisconsin Bicycle Facilities Design Handbook* and *Wisconsin FDM* for full guidance and engineering specifications. Diagram is for informational purposes only and is not to scale.

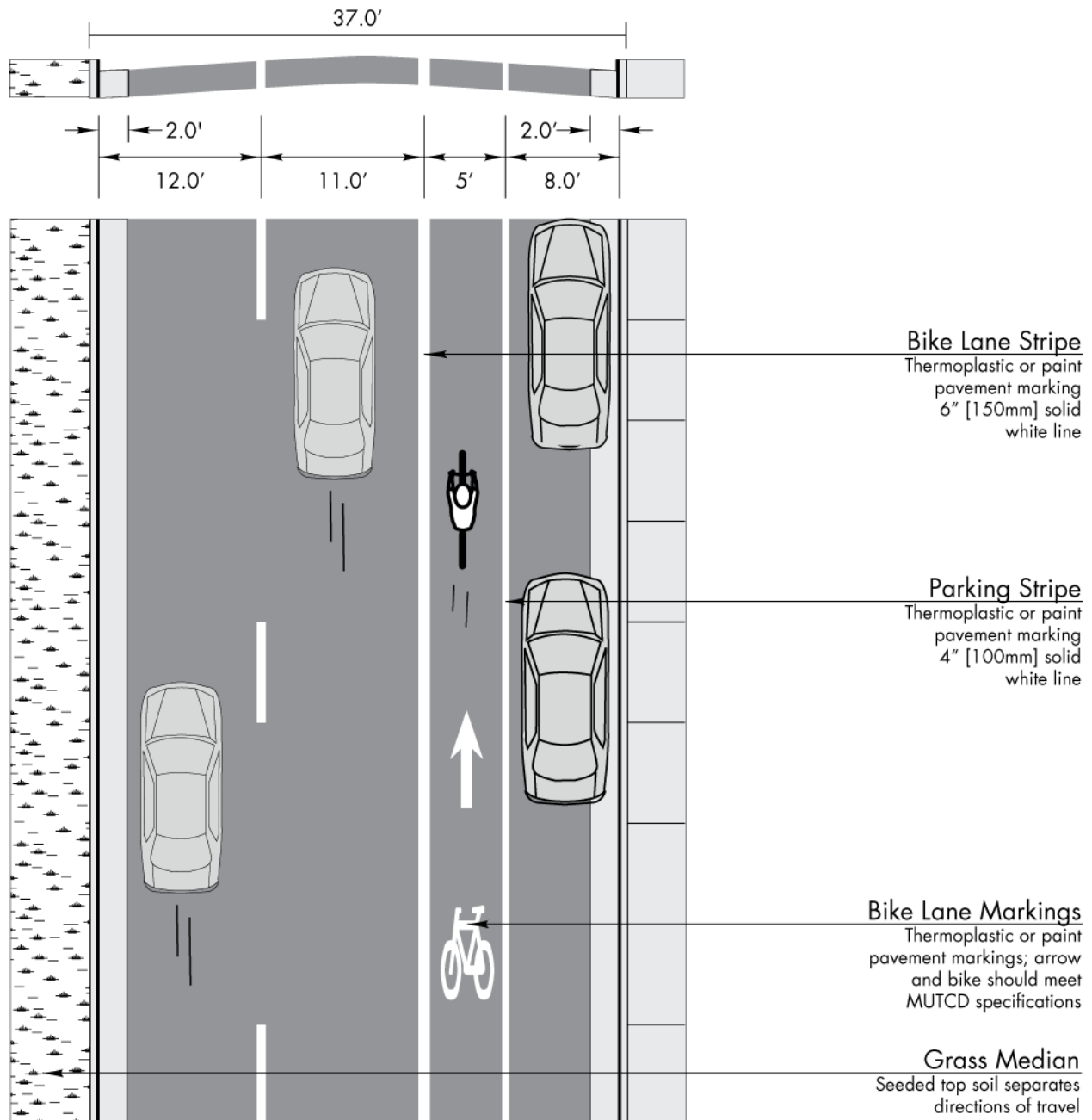


R-5 37' Cross Section

This cross section provides dimensions for one side of Pleasant Prairie's divided R-5 Arterial. It provides:

- Two traffic lanes in each direction (divided by a median)
- One bicycle lane/wide curb lane in each direction
- Parking lanes on both sides of the street (divided by a median)

Refer to the *Wisconsin Bicycle Facilities Design Handbook* and *Wisconsin FDM* for full guidance and engineering specifications. Diagram is for informational purposes only and is not to scale.

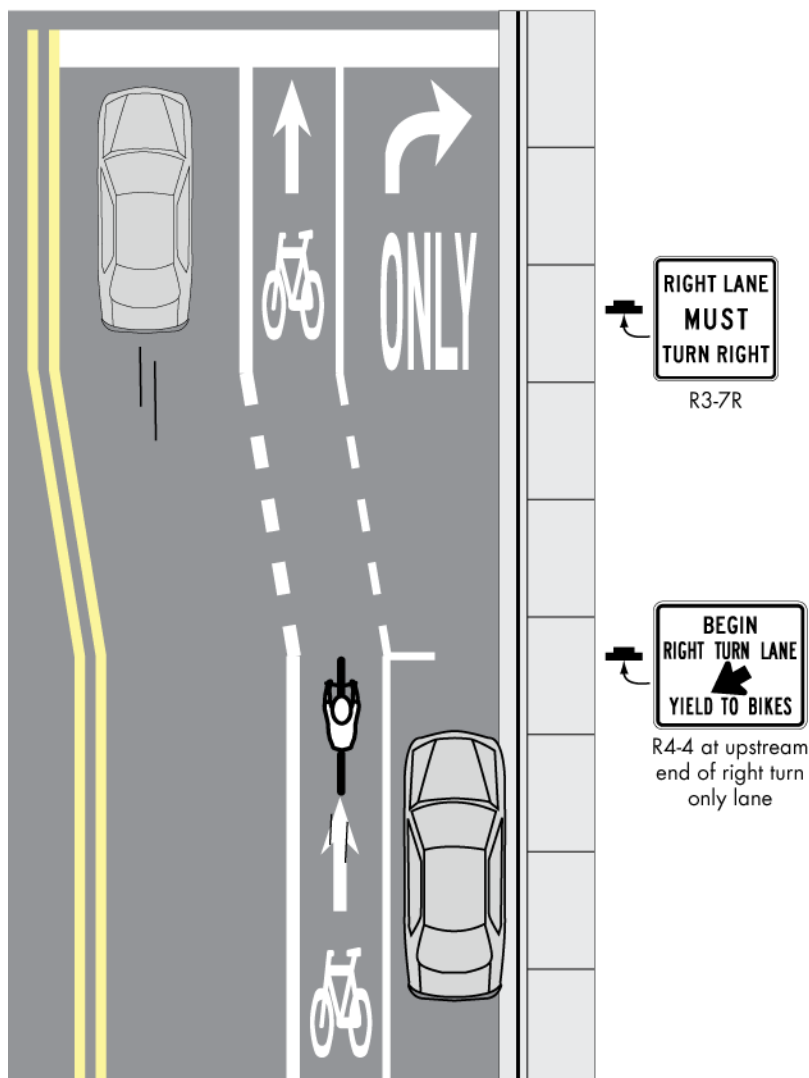


Generalized Intersection with Bike and Parking Lanes

This is a generalized intersection approach for an urban street with one travel lane, one bike lane and one parking lane. Specific Pleasant Prairie intersection engineering documents are provided on pages 34 through 37.

- The parking lane should drop in advance of the intersection
- The right turn only lane should be added in place of the parking lane
- The travel and bicycle lanes may need to shift away from the curb to provide adequate width for the turn lane
- The bicycle lane should be dashed across the area where cars merge into the turn lane
- Signage should indicate that cars merging to the turn lane must yield to bikes

Refer to the *Wisconsin Bicycle Facilities Design Handbook*, *Wisconsin Facilities Design Manual (FDM)* and *2009 Manual on Uniform Traffic Control Devices (MUTCD)* for full guidance and engineering specifications. Diagram is for informational purposes only and is not to scale.

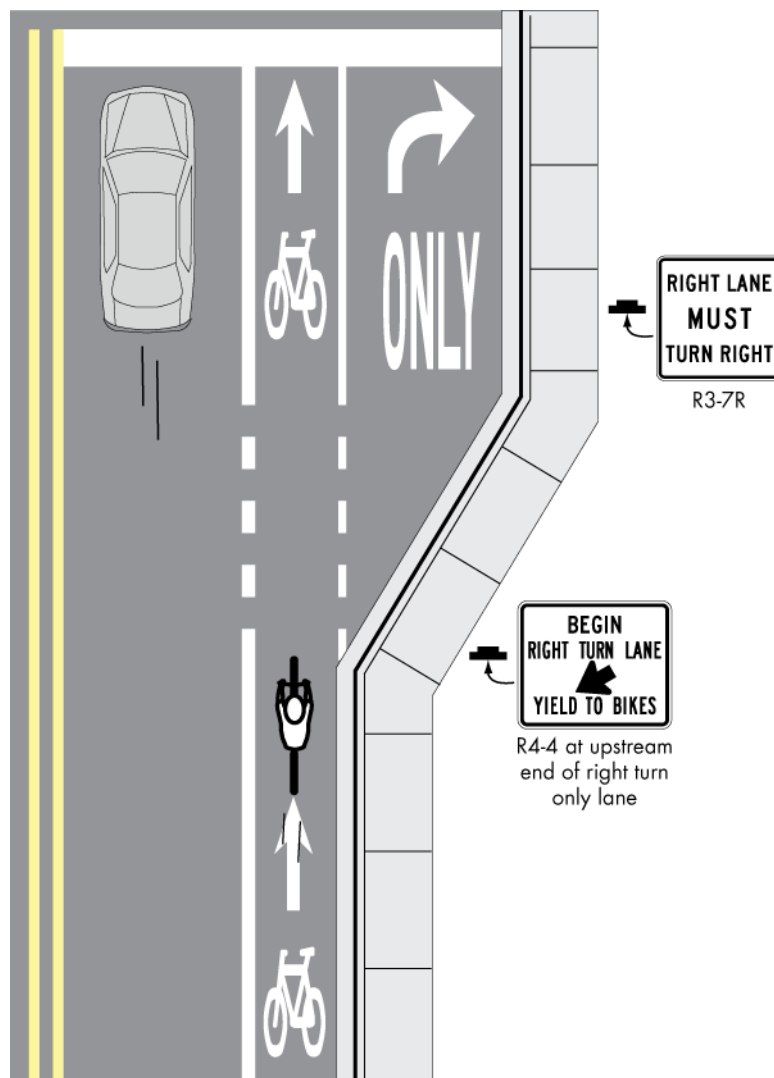


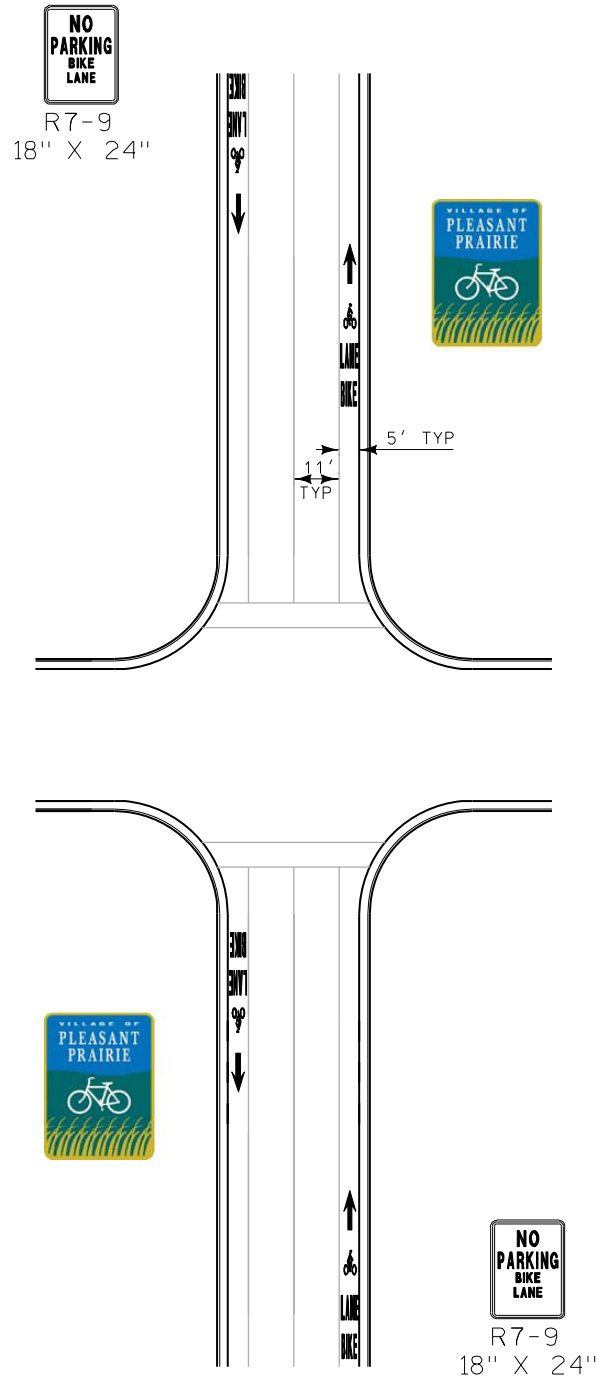
Generalized Intersection with Bike and Turn Lanes

This is a generalized intersection approach for an urban street with one travel lane, one bike lane and an added turn lane.

- The right turn only lane should be added to the right of the bike lane
- The bicycle lane should be dashed across the area where cars merge into the turn lane
- Signage should indicate that cars merging to the turn lane must yield to bikes

Refer to the *Wisconsin Bicycle Facilities Design Handbook*, *Wisconsin Facilities Design Manual (FDM)* and *2009 Manual on Uniform Traffic Control Devices (MUTCD)* for full guidance and engineering specifications. Diagram is for informational purposes only and is not to scale.





SIMPLE INTERSECTION WITH FEW RIGHT TURNS

REVISION/PLOT DATE bike ln- no parking 3/19/10

SOLID BIKE LANE STRIPE WITH NO PARKING

R10-0007-020



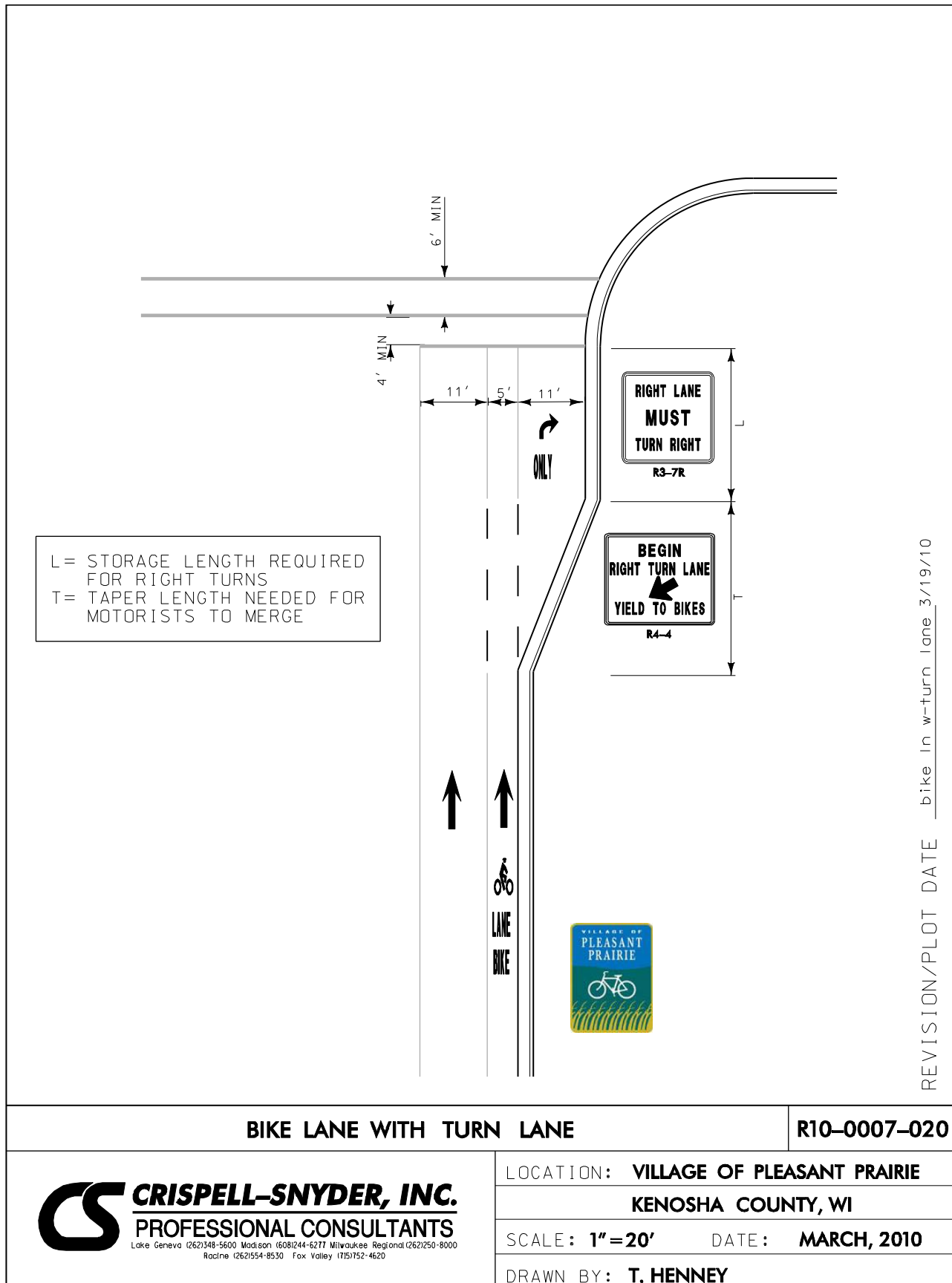
LOCATION: VILLAGE OF PLEASANT PRAIRIE

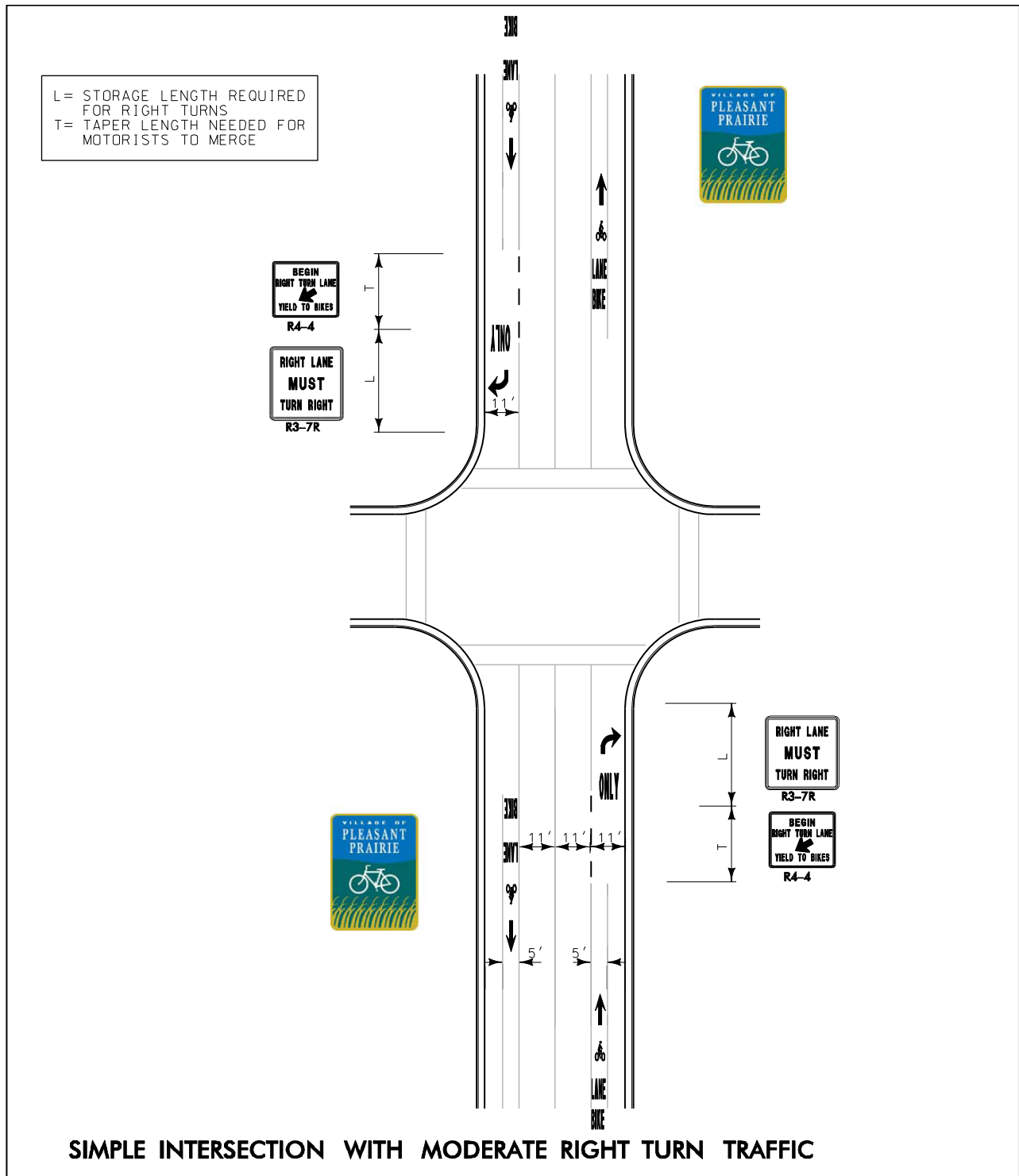
KENOSHA COUNTY, WI

SCALE: 1"=40'

DATE: MARCH, 2010

DRAWN BY: T. HENNEY





SOLID BIKE LANE STRIPE WITH PARKING

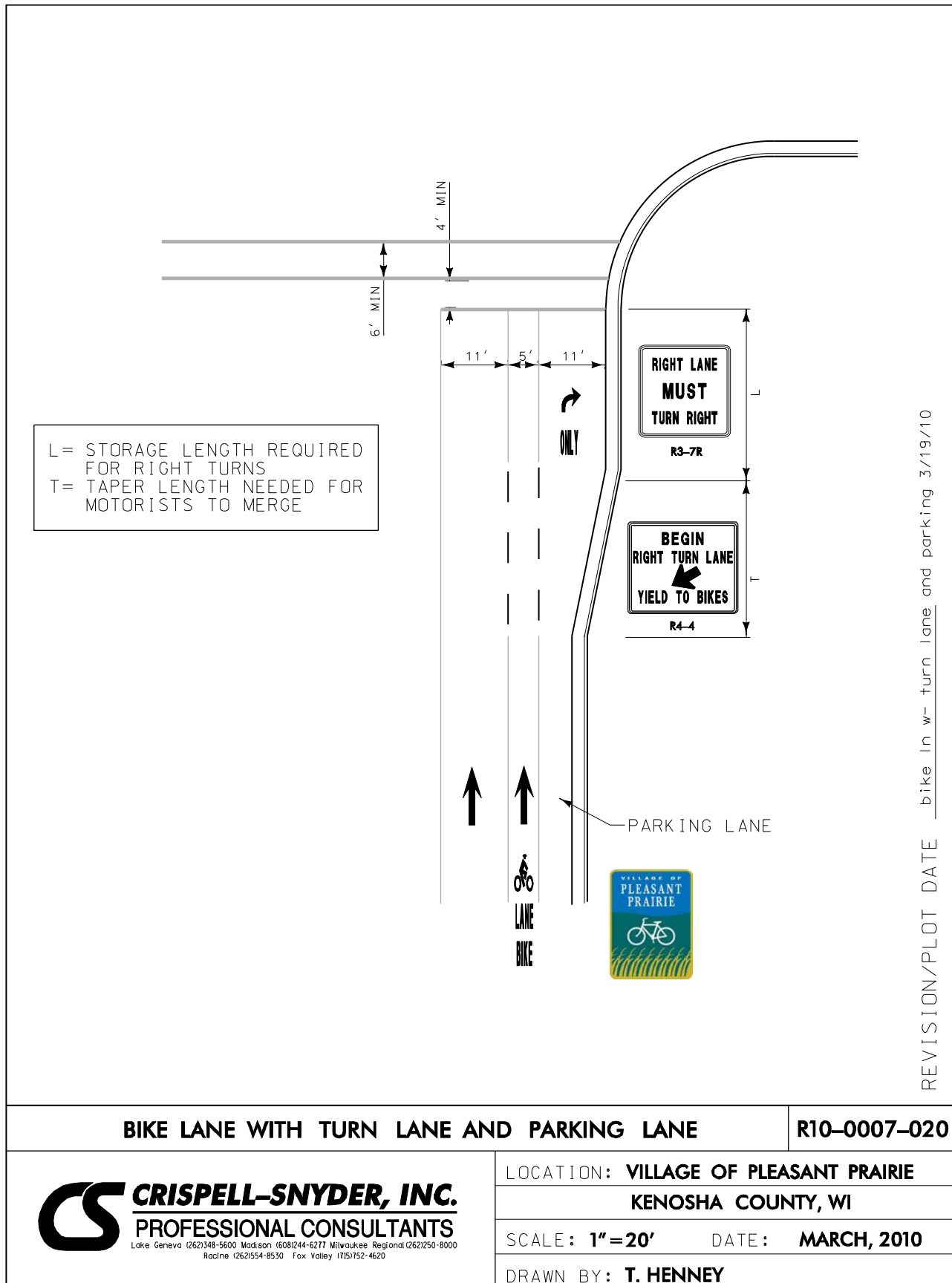
R10-0007-020



LOCATION: **VILLAGE OF PLEASANT PRAIRIE**
KENOSHA COUNTY, WI

SCALE: **1" = 40'** DATE: **MARCH, 2010**

DRAWN BY: **T. HENNEY**

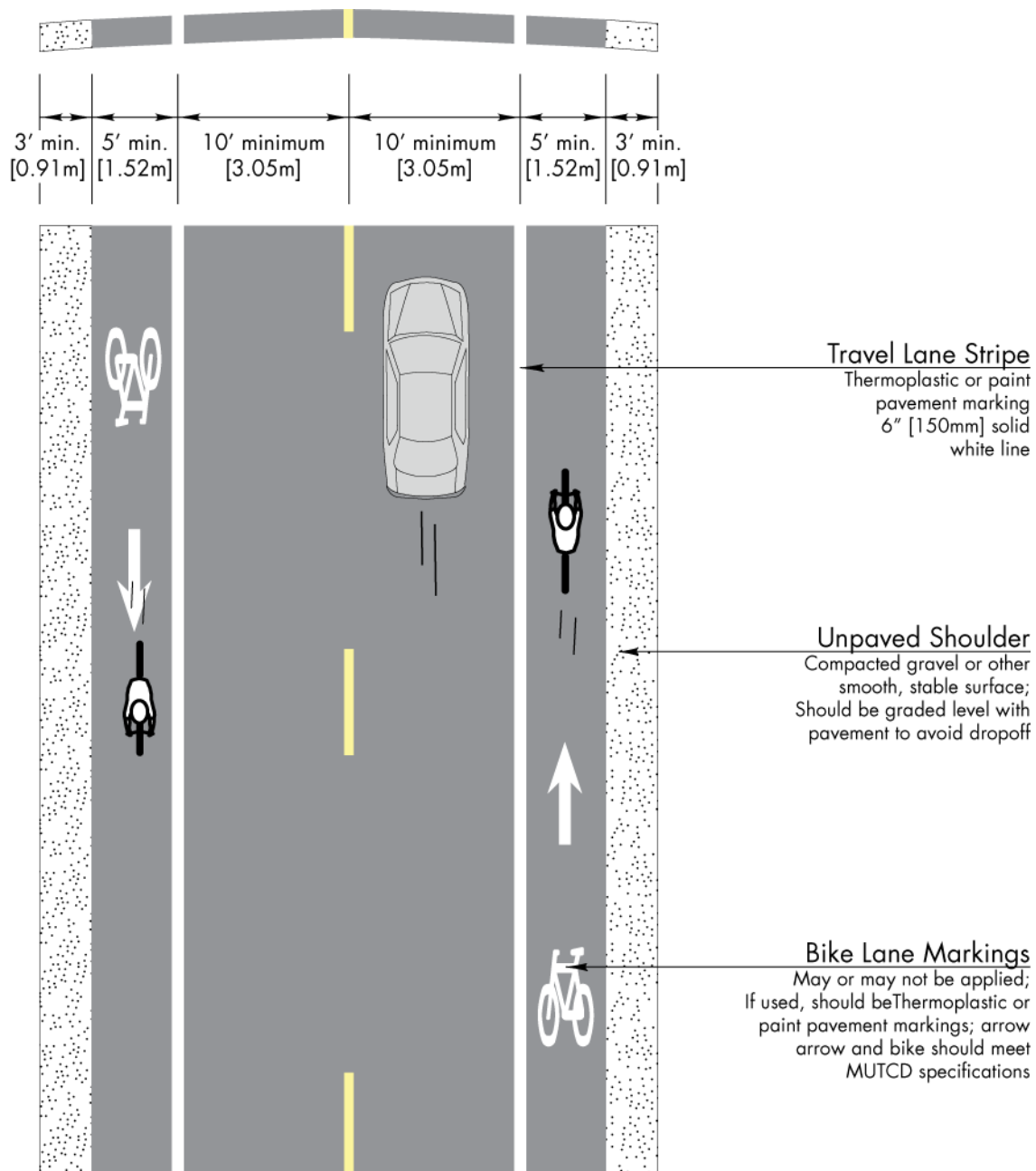


Rural Collector/Arterial Cross Section

This cross section provides dimensions for a rural collector or arterial street with wide paved shoulders. It provides:

- One traffic lane in each direction
- One bicycle lane/paved shoulder in each direction
- May include parking lanes on one or both sides of the street

Refer to the *Wisconsin Bicycle Facilities Design Handbook* and *Wisconsin FDM* for full guidance and engineering specifications. Diagram is for informational purposes only and is not to scale.



Signed Bicycle Routes

Signed bicycle routes are typically designated on low traffic streets and do not feature any special on-street marking for bicycles. Signs for bicycle routes should be placed before and after every turn, at every signalized intersection, every $\frac{1}{4}$ mile in urbanized areas and every $\frac{1}{2}$ mile in rural areas.

Bicycle route signage should be combined with directional signage that allows users to easily determine the distance to specific destinations. Common destinations include parks, schools, cultural centers, retail areas, and other popular locations.

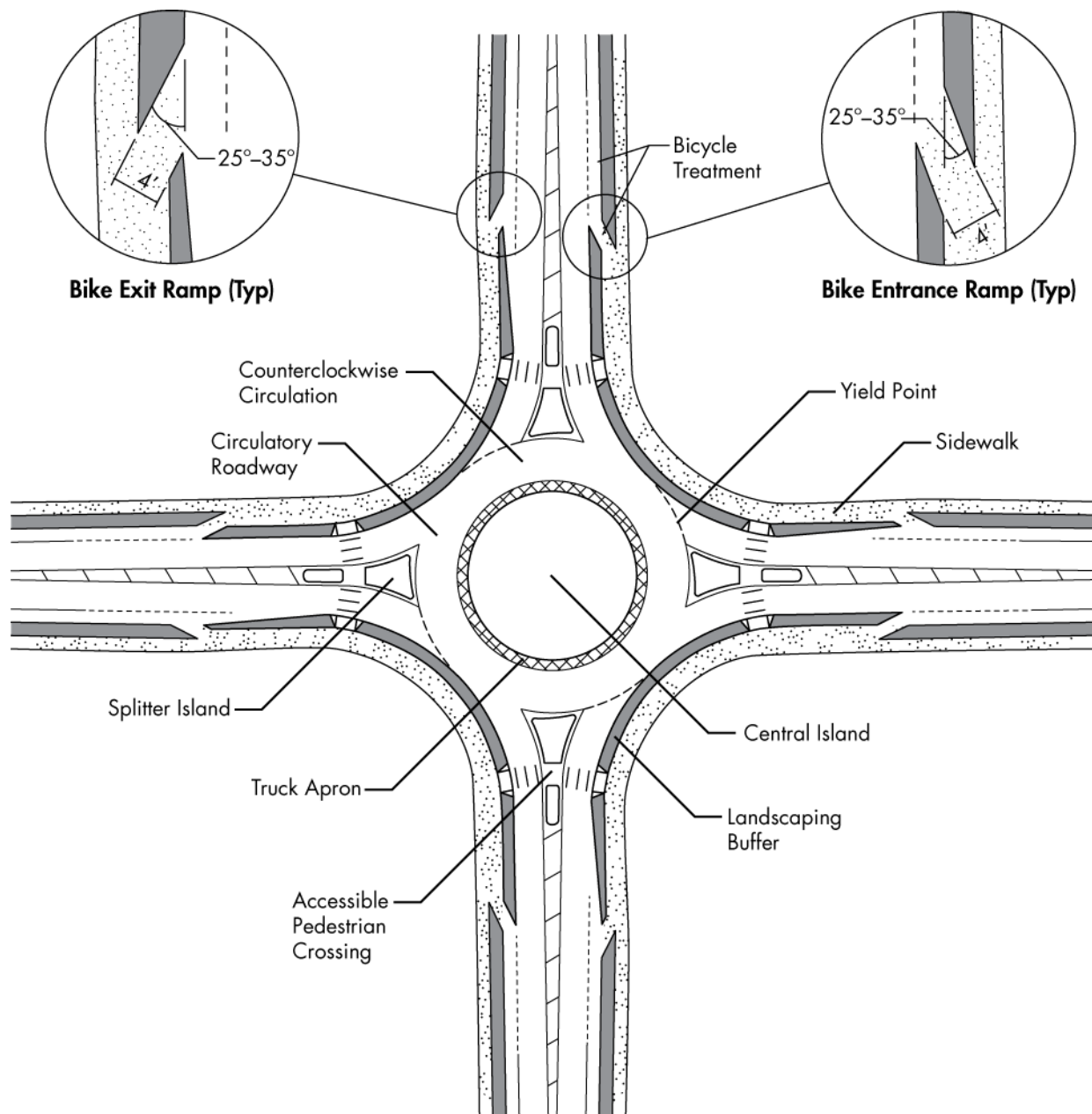
Refer to the *Wisconsin Bicycle Facilities Design Handbook*, the *MUTCD* and *Wisconsin FDM* for full guidance and engineering specifications.



Roundabouts

Roundabouts are increasingly replacing intersections of collector and arterial streets. These facilities provide numerous benefits, but can be challenging for bicyclists to navigate. When approaching a single-lane roundabout, bicyclists should be given the option to “take the lane” and proceed through the roundabout as a motor vehicle would or to use a shared-use path around the exterior of the roundabout.

Refer to the *Wisconsin Department of Transportation Roundabout Guide* and *Wisconsin FDM* for full guidance and engineering specifications.



Source: Wisconsin Department of Transportation Roundabout Guide

6.3 Off-Street Facilities

Off-street facilities are a critical part of the bicycle and pedestrian network. For bicyclists, off-street facilities provide a supplement to on-street facilities and can provide more direct access to specific destinations than on-street facilities do. For pedestrians, off-street facilities can also provide more direct access to destinations. Both sets of users can benefit from facilities that are designed for their specific use without the use of motor vehicles. It should be stressed that as a part of the bicycle network, off-street facilities are a complement to, and not a replacement for, on-street facilities.



Shared-Use Paths

Shared-use paths are paved facilities located in a separate right of way, for the exclusive use of bicycles and pedestrians, with minimal cross flow by motor vehicles. Off-street bike paths are typically located within open space corridors along creeks, high voltage power line corridors and community/city-wide parks. They may also be located within greenways, which are landscaped areas created for the purpose of providing important bicycle and pedestrian linkages between uses. Shared-use paths offer important bicycle commuting opportunities, but on their own are not sufficient to fully support bicycle commuting because of limited connections to destinations. Shared-use paths provide an important recreational amenity for bicyclists, pedestrians, dog walkers, runners, roller blades and other non-motorized forms of travel.

Shared-use paths are paved facilities that should be wide enough to offer a wide range of users a comfortable and safe experience. They are also often located and designed to provide service vehicle access to utility corridors and emergency vehicle access to open space, including police and fire vehicles.



Recreational Trails

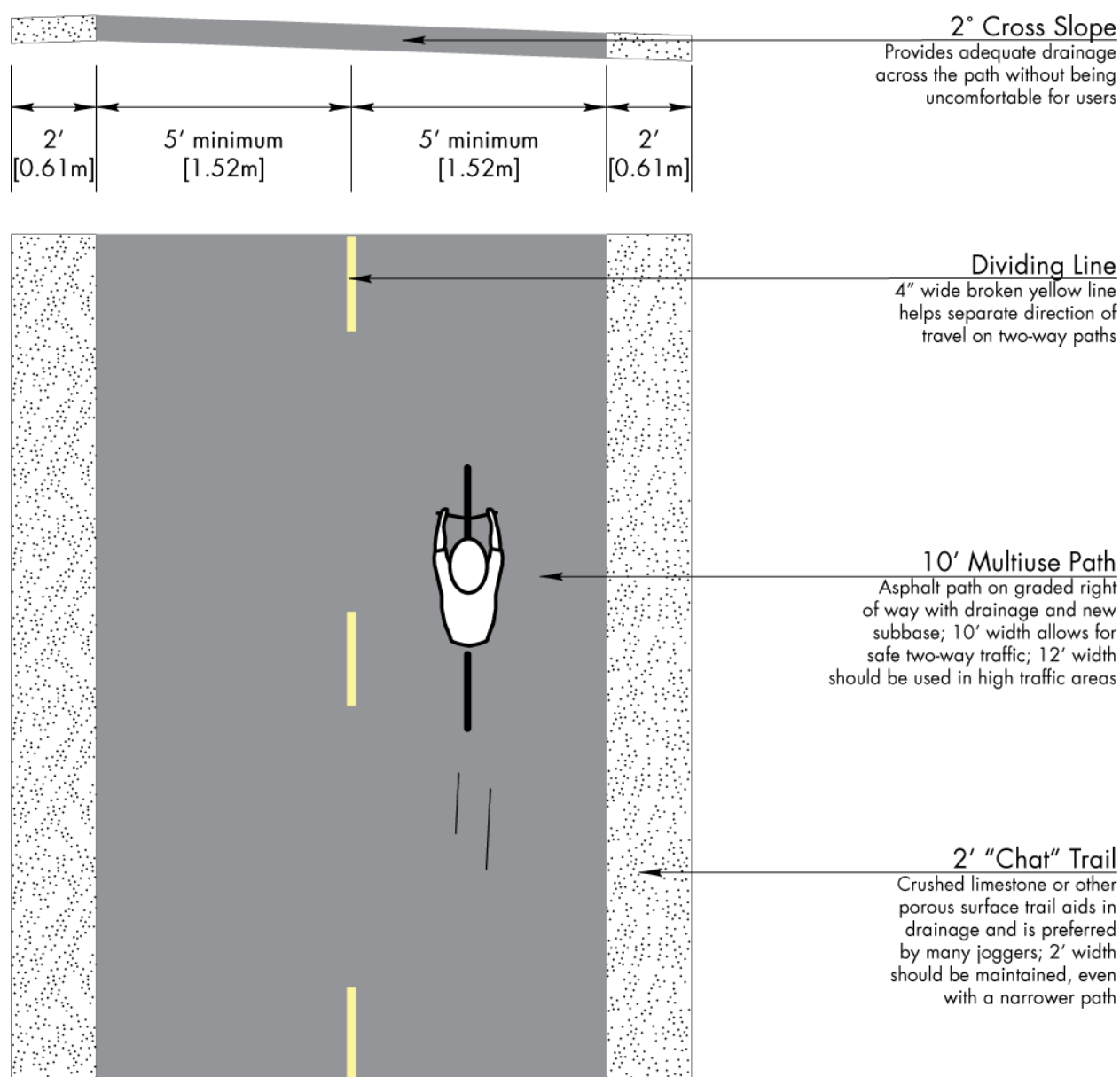
Recreational trails are typically non-paved, narrower trails designed specifically for pedestrian use. Such trails are appropriate in sensitive ecological areas or areas where high levels of bicycle and pedestrian traffic are not desired. Recreational trails are designed primarily for recreational and not transportation purposes, although some may use them for transportation. These trails should be provided as a supplement to the off-street shared-use path network and the on-street bicycle facility network.

Shared-use Paths

Shared-use paths are off-street bicycle facilities that serve two-way bicycle and pedestrian traffic. Because shared-use paths are intended for pedestrian use, the design must conform to Americans with Disabilities (ADA) guidance.

Shared-use paths should be considered a supplement to, and not a replacement for, on-street bicycle facilities.

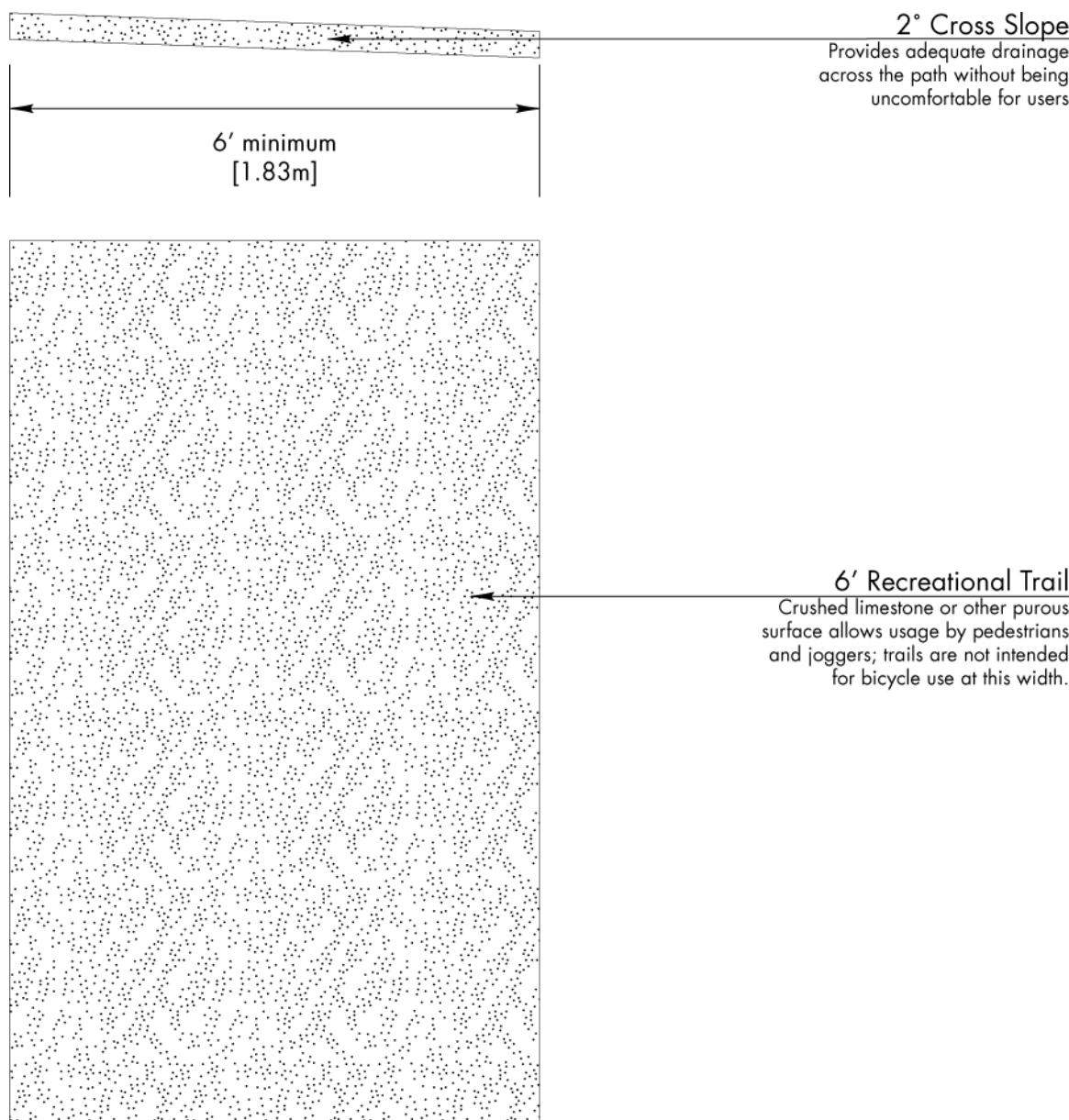
Refer to the *Wisconsin Bicycle Facilities Design Handbook* and *Wisconsin FDM* for full guidance and engineering specifications. Diagram is for informational purposes only and is not to scale.



Recreational Trails

Recreational trails are dirt or gravel trails intended for pedestrian only use. These trails are appropriate in environmentally sensitive areas.

Refer to the *Wisconsin Bicycle Facilities Design Handbook* and *Wisconsin FDM* for full guidance and engineering specifications. Diagram is for informational purposes only and is not to scale.



6.4 Support Facilities

With the provision of bicycle and pedestrian facilities it is critical that the Village or private sponsors offer support facilities and services to ensure that paths and roadways are safe and comfortable to use. These facilities and services include high-level maintenance and the provision of signage throughout the bicycle and pedestrian network. Additionally, trailheads, lighting, and parking areas can be appropriate in specific locations to ease access to the network and increase safety.

General Maintenance

Good maintenance is critical for the safe operation of bicycle and pedestrian facilities. Debris in bicycle lanes or on paths presents a hazard to users as bicyclists can easily fall or be pushed into traffic while pedestrians also risk falls.

On-street bicycle facilities should be maintained as part of regular street maintenance. However, due to the susceptibility of bicycles to damage and danger risks from debris or pavement damage, priority should be given to sweeping bicycle lanes and repairing potholes or other damage more frequently than standard travel lanes. Frequent sweeping of priority bicycle lanes and routes is particularly important because cars in adjoining lanes push rocks and other debris into the less traveled bicycle lanes.

Off-street bicycle and pedestrian facilities, including sidewalks, should also receive frequent regular maintenance. Off-street facilities should be swept as needed, with particular attention paid to areas adjoining gravel paths where gravel may spread onto the pavement and present a slip hazard. Sweeping should also be conducted more frequently during the fall and spring seasons when leaves may present a hazard on trails and paths. The appearance of potholes or cracks is less common on off-street facilities, but those that do appear should be promptly patched and sealed. Regular inspection of sidewalks should check for cracking or lifting due to pressure from tree roots. Vegetation adjoining sidewalks and paths must be pruned to maintain visibility along the facility.

Appendices A.3 and A.4 of the *Wisconsin Bicycle Facilities Design Manual* provide additional details on maintenance of on- and off-street facilities



Bicycle lanes and access should be maintained through street construction or projects that impede into the bike lane.



Shared-use paths should be plowed immediately after a snow fall.

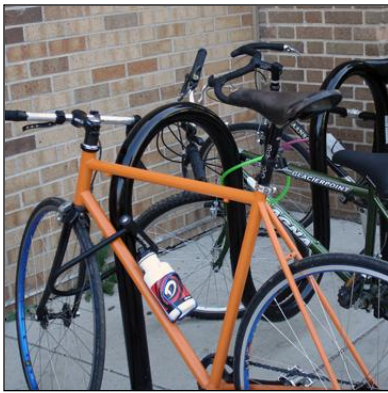
Snow Plowing

For bicycle and pedestrian facilities to serve as true transportation alternatives they must be accessible and usable year round. Snow should promptly be cleared from all priority portions of the network. On-street facilities should be plowed when the street is cleared. It is critical that travel lanes are not plowed into the bike lane therefore forcing bicyclists into the regular travel lane, particularly on high-speed arterials. Sidewalks should be cleared of snow in a timely manner especially in key corridors and areas around schools.

Priority off-street paths should be plowed at the same time as major arterials and collectors. These priority routes should be those that parallel major roadways, serve as cross-Village links, or provide access to major destinations including employment centers, schools, and recreation facilities. Assigning snow clearance duties to the Public Works Department allows path plowing concurrent to the plowing of streets. Plowing of minor off-street paths can occur after major paths and streets have been cleared, but should be cleared in a timely manner after each snowfall.

Bicycle Parking

Bicyclists must have a reasonable expectation that there will be a safe location to lock their bike at their destination for bicycling to serve as a practical form of transportation. The Village should ensure that adequate bicycle parking exists both at recreational sites such as parks, the RecPlex and trailheads, as well as commercial, industrial and employment sites. This can be accomplished by direct installation of racks by the Village, offering a cost sharing program for rack installation with interested businesses, and through changes in the local ordinance that require minimum amounts of bicycle parking at employment and commercial buildings, as is currently done for motor vehicles.



Ample bicycle parking should be provided at popular destinations.

It is important that racks adequately support bicycles and are securely fastened to the ground. The City of Madison has produced a one-page handout that describes racks that do and do not meet the City's standards for bicycle parking. The document also describes minimum dimensions for the installation of bicycle racks. <http://www.cityofmadison.com/trafficEngineering/documents/MadisonBikeParking.pdf>

Bicycle racks should be prominently located so that cyclists can easily find them when arriving at destinations. Cyclists should not have to search around a building for a rack or lock their bike to objects such as street signs or railings because racks are not available. Studies have shown that patrons arriving by bike or on foot typically spend more money at local restaurants and shops than those arriving in motor vehicles. Additionally, employees who regularly commute by bike tend to be healthier and have lower medical costs than those who do not commute by bike. It may be useful to highlight these facts to business owners when requesting or requiring that they install bicycle parking.

Signage and Markings

Adequate signage is essential throughout the bicycle and pedestrian network. This signage provides regulatory, warning and directional information to users on both on-road and off-road facilities.

Regulatory signage and marking should provide users with a clear indication of how they should behave. Common markings and signage indicates proper direction of travel, speed limits and establishing right of way for users.

Warning devices alert users to potential hazards. These devices often warn of hazardous conditions including steep grades, sharp curves or changes in path conditions. Signage can also alert users to approaching intersections or railroad crossings. When used on off-street facilities, warning signage should be the same as MUTCD-approved on-road signage, although it is often scaled down slightly in recognition of the lower speeds of path users compared to street users.

Users often consider informational signage the most important signage on a path or street. This signage commonly points users to popular destinations, orients users within the larger network and provides travel distances and approximate times to specific locations. Informational signage should generally follow MUTCD guidance, although there is more freedom to use custom colors or designs with this signage, particularly on off-street paths.

All signage and markings should comply with the *Wisconsin Bicycle Facilities Design Manual*, which details signage and marking requirements throughout the manual. Section 4.14 of the Manual presents guidance specific to off-street paths, although much of the signage detailed there is also relevant to on-street facilities.

Lighting

Bicyclists in the State of Wisconsin are required to use a front headlight when traveling between dusk and dawn. Despite this requirement, fixed-source lighting should be considered to improve visibility and safety along paths and at intersections with streets. Lighting allows bicyclists to better see their surroundings and observe potential hazards, while also providing pedestrians who may not have a light the same advantages. Lighting should be strongly considered where night use of paths is expected; paths to and from the RecPlex are a good example in Pleasant Prairie. Regardless if lighting is provided along paths, lighting should always be provided at intersections between paths and streets or other paths. Additionally, lighting should be strongly considered through underpasses or tunnels, on overpasses and in areas where personal safety may be a concern, even if lighting is not provided on other portions of the path.

All path lighting should comply with the guidance provided in the *Wisconsin Bicycle Facility Design Manual*, section 4.13. Additionally, lighting should be provided at a scale that is appropriate for bicycles and pedestrians. Tall street lamps intended for lighting streets or parking lots are not appropriate for path or sidewalk lighting, although they may be used where paths intersect streets.

Trailheads



Pedestrian scale lighting should be closely spaced. These lights in Madison are solar powered.



Trailheads located at a number of locations throughout the Village can provide an important amenity to path and trail users. Trailheads should be located at heavily used path and street intersections. At a minimum, these locations should provide a small parking lot, bicycle racks, a large map of the bicycle and pedestrian network and benches for resting. Additional amenities can include drinking fountains, public restrooms and lighting. The trailheads should provide a safe and welcoming environment for path users whether they are beginning and ending their trip there, or using the area for a rest during their commute or workout. The Village should consider integrating trailheads and with existing and planned parks, this allows shared use of facilities with park visitors.



Trailheads can be provided at popular destinations such as parks where parking and other facilities can be shared.

7. Recommended Bike and Pedestrian Network

This section describes the recommended bicycle and pedestrian trail network in the Village. The network was developed through the public participation process, future development plans and plats, an assessment of local roadways and current transportation plans. The network was designed to provide coverage throughout the community, including access to schools, parks, and other popular destinations, and connectivity into surrounding municipalities.

7.1 Proposed Network

A map of the proposed bicycle and pedestrian network is presented on the following page. As shown in Table 1, the proposed network expands the bicycle and pedestrian facilities in the Village from approximately 10 miles to 98 miles. Slightly more than half of the total network is comprised of on-street bicycle lanes, while the remainder is primarily composed of paved shared-use paths. These facilities, combined with installation of sidewalks in new developments and along rebuilt roadways, will result in a robust network for pedestrians and bicyclists.

Table 1: Existing and Planned Bicycle and Pedestrian Facilities (miles)

	Existing	Proposed	Total
Bicycle Lanes	2.29	50.98	53.27
Shared-use Path (Paved)	3.74	27.18	30.92
Shared-use Path (Gravel)	3.53	2.24	5.77
Recreational Trails	0.80	7.52	8.32
Total	10.36	87.92	98.28

The proposed facilities will need to be individually evaluated for feasibility and environmental constraints before implementation, particularly the shared-use paths and proposed future streets.

A full map of existing and proposed bicycle and pedestrian facilities is located at the back of this plan. Small maps on the following pages divide Pleasant Prairie into thirds and detail the proposed facilities within those areas.



A newly striped street providing one travel lane, one bike lane and one parking lane in each direction.

7.2 Facility Recommendations and Conceptual Costs

This section provides more detailed information on the proposed bicycle and pedestrian facilities, including segment lengths and conceptual costs. Costs for bicycle projects vary widely across the state and the country and the figures provided should be treated only as very rough planning figures.

Cost Calculator

A detailed project cost calculator is provided Pedestrian and Bicycle Information Center. This tool provides regional averages for construction, planning, administrative and other costs while also allowing users to specify known costs.

<http://www.bicyclinginfo.org/bikecost/>

Bicycle Lanes

The cost assumptions for bicycle lanes are for pavement markings and signage only. It is assumed that streets with proposed bicycle lanes either have adequate width to add lanes or that space for lanes will be added when the street is next reconstructed. *Construction costs are not included in the cost estimates for bicycle lanes.* Based on costs provided by WisDOT and from recent City of Milwaukee projects, an estimate of \$5,000/mile is used for painted bike lanes.

Shared-Use Paths

Cost estimates vary widely for paved shared-use paths depending on the topography, soil and water features, drainage issues and other environmental constraints. Common figures for a 10' paved shared-use path vary from \$240,000/mile (Florida Department of Transportation) to over \$1.3 million/mile (Roseville, CA Bike Plan) for basic paths. Road crossings, environmental constraints, drainage issues, and path amenities can rapidly escalate these costs. For the purposes of this plan, an estimated cost of \$500,000/mile is used.



A divided shared-use path in Madison provides separate space for bicyclists and pedestrians.

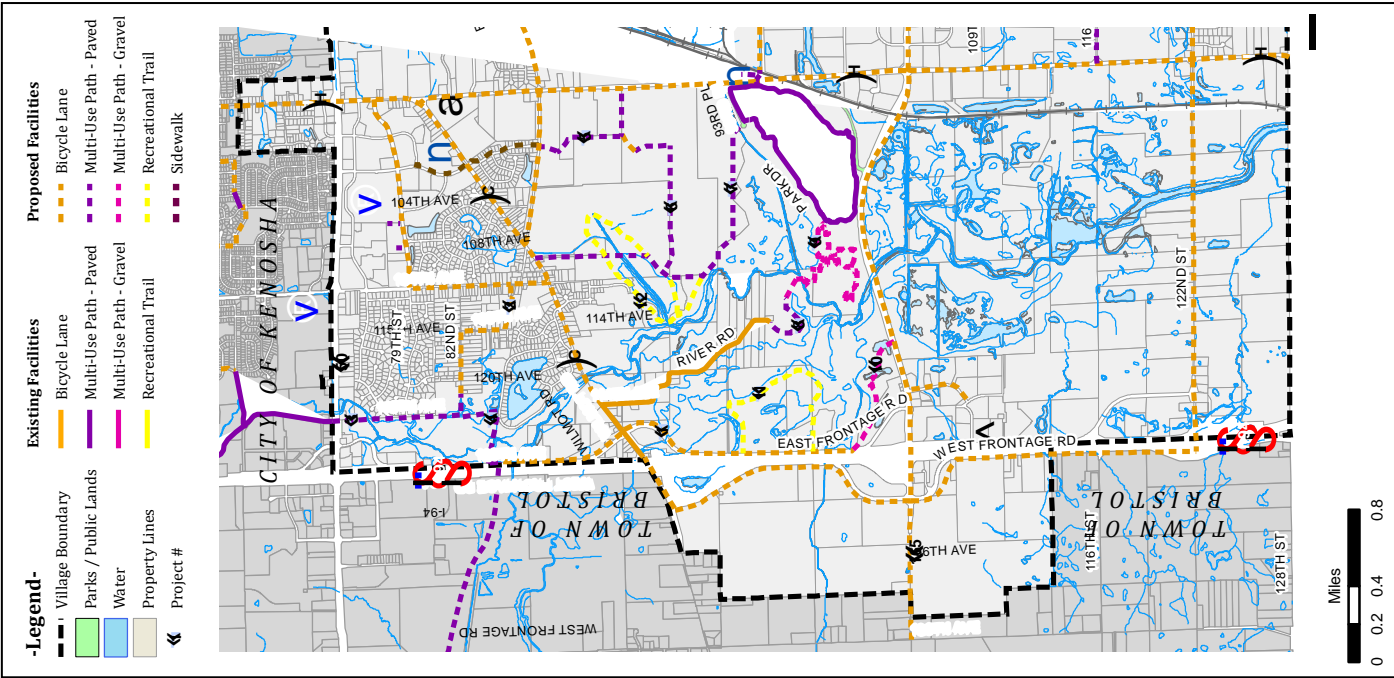
The proposed gravel multiuse paths are estimated to cost \$25,000/mile. Pricing for recreational trails is not provided as costs can vary widely given ground conditions.

Budgeting

The Village should budget for engineering costs, including a contingency for cost overruns. Federal and State funding is awarded for a fixed amount, and will not cover cost overruns, so budgets should be made carefully. A common figure to budget for engineering and contingencies is 20% of the total project cost.

Table 2: Proposed Bicycle Network Conceptual Costs

	Length	Cost per mile	Total
Bicycle Lanes	50.98	\$5,000	\$254,900
Shared-use Path (Paved)	27.18	\$500,000	\$13,590,000
Shared-use Path (Gravel)	2.24	\$25,000	\$56,000
Recreational Trails	7.52	N/A	N/A
Total	80.40		\$13,900,900



Existing and Proposed Facilities

West Section

West Village Border – 88th Ave

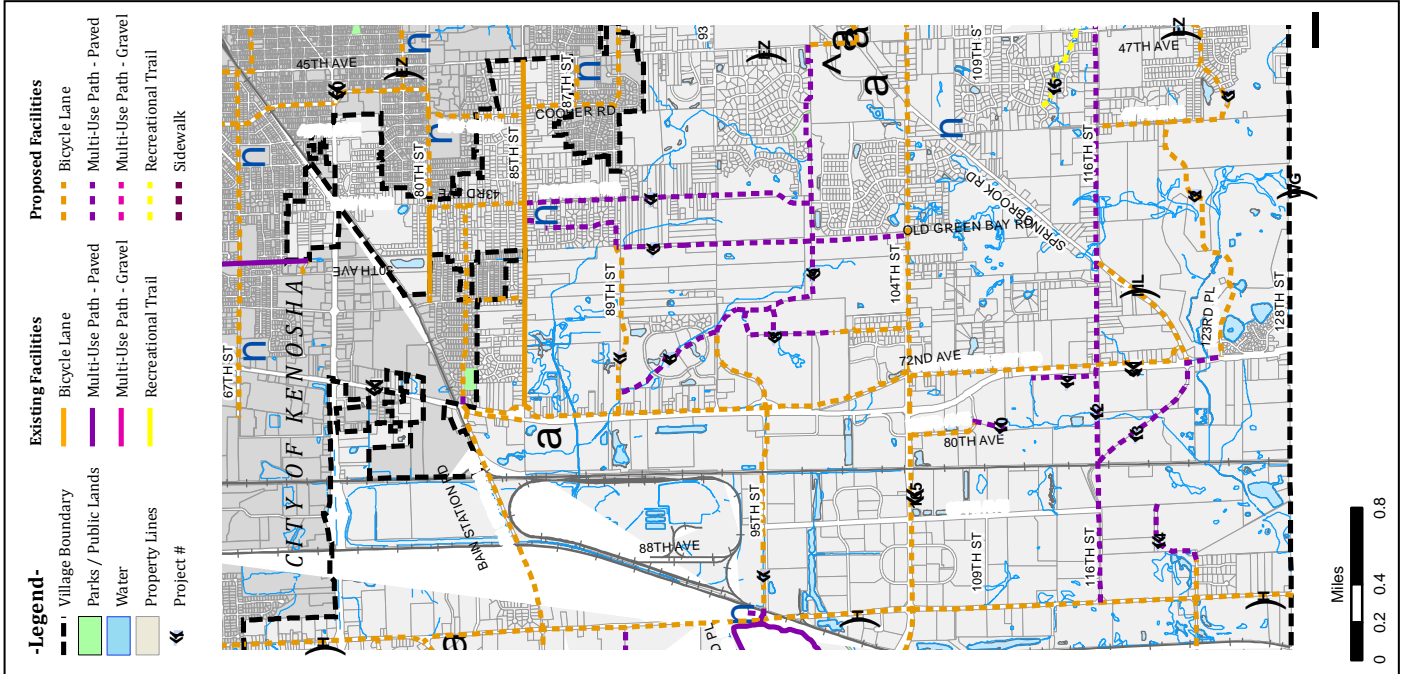
Name	#	From	To	Miles	Estimated Cost
Proposed Bike Lanes (On Street)					
Prairie Ridge Blvd		104th Ave	88th Ave	1.03	\$5,163
82nd St		E of 111 Ave	108th Ave	0.33	\$1,652
Bain Station Rd		104th Ave	88th Ave	1.02	\$5,114
Cty Hwy C		West Frontage Rd	88th Ave	2.50	\$12,516
104th St		W Village Border	88th Ave	3.00	\$14,984
122nd St		West Frontage Rd	88th Ave	2.09	\$10,431
West Frontage Rd		South of Cty Hwy C	122nd St	3.02	\$15,109
East Frontage Rd		104th St	S of Cty Hwy C	1.22	\$6,105
114th Ave		104th St	116th Ave	0.36	\$1,775
River Rd		Cty Hwy C	End	1.11	\$5,567
108th Ave		82nd St	84th St	0.24	\$1,218
104th Ave		Prairie Ridge Blvd	Bain Station Rd	0.73	\$3,668
88th Ave		S Village Border	N Village Border	5.54	\$27,698
Proposed Bike Lanes (Future Streets)					
East Frontage Rd	1	South of Cty Hwy C	North of Cty Hwy C	1.15	\$5,735
	2	108th Ave	104th Ave	0.26	\$1,304
Proposed Multiuse Paths - Paved					
Path 3		3 N Village Border	84th St	1.00	\$498,382
Path 4		4 W Village Border	84th St	0.33	\$163,584
Path 5		5 Bain Station Rd	Path 6	0.48	\$240,655
Path 6		6 Path 7	88th Ave	1.24	\$621,644
Path 7		7 Cty Hwy C	Lake Andrea Path	1.84	\$918,920
Path 8		8 River Rd	Jerome Creek	0.50	\$248,863
Proposed Multiuse Paths - Gravel					
Path 9		9 Jerome Creek	Lake Andrea Path	1.57	\$39,182
Path 10		10 East Frontage Rd	104th St	0.67	\$16,869
Proposed Recreational Trails - Gravel					
Trail 11		11 East Frontage Rd	East Frontage Rd	1.22	No estimate

Existing and Proposed Facilities

Central Section

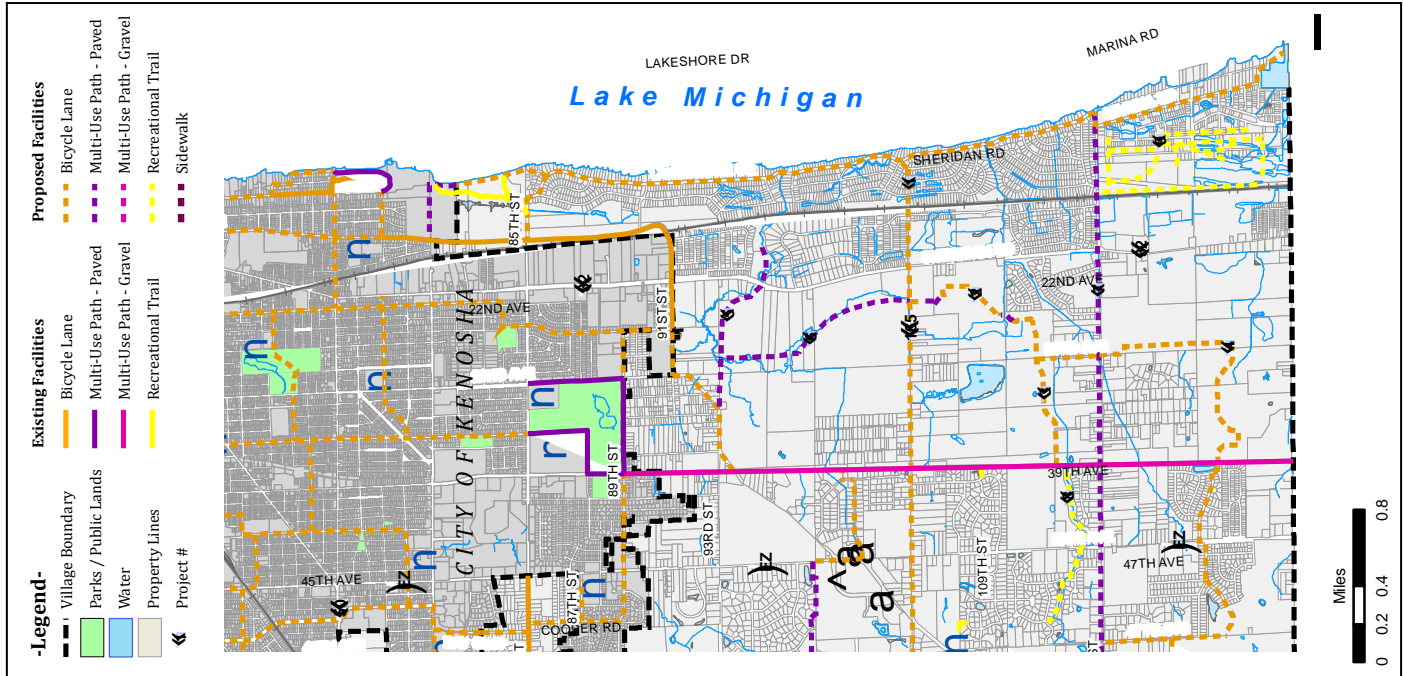
88th Ave – 39th Ave

Name	#	From	To	Miles	Estimated Cost
Proposed Bike Lanes (On Street)					
Bain Station Rd		88th Ave	Green Bay Rd	1.23	\$6,127
80th St		60th Ave	Village Border	0.55	\$2,730
82nd St		60th Ave	Cooper Rd	0.50	\$2,479
85th St		Green Bay Rd	39th Ave	1.89	\$9,472
86th Pl		43rd Ave	39th Ave	0.25	\$1,250
104th St		88th Ave	39th Ave	2.99	\$14,937
122nd St		88th Ave	End	0.22	\$1,096
123rd Pl		Green Bay Rd	End	0.45	\$2,242
122nd St		43rd Ave	39th Ave	0.19	\$962
123rd St		End	122nd St	0.15	\$754
Green Bay Rd		Bain Station Rd	85th St	0.30	\$1,519
Old Green Bay Rd		Bain Station Rd	Springbrook Rd	3.81	\$19,075
Cooper Rd		80th St	85th St	0.50	\$2,515
Springbrook Rd		Green Bay Rd	39th Ave	2.64	\$13,213
39th Ave		Path 8	100th St	0.26	\$1,290
43rd Ave		Village Border	85th St	0.25	\$1,251
43rd Ave		85th St	86th Pl	0.22	\$1,089
47th Ave		116th St	123rd St (Future)	0.65	\$3,257
72nd Ave		104th St	108th St	0.35	\$1,739
64th Ave		104th St	100th St	0.29	\$1,444
Proposed Bike Lanes (Future Streets)					
89th St (Future)		1 Green Bay Rd	89th St (Existing)	0.90	\$4,523
123rd Pl Extension		2 123rd Pl (Existing)	47th Ave	1.01	\$5,049
123rd St Extension		3 47th Ave	123rd St (Existing)	0.20	\$1,003
64th Ave Extension		64th Ave		0.11	\$558
Proposed Multiuse Paths - Paved					
Cooper Road Path		4 85th St	Cooper Rd (S Section)	1.54	\$768,462
Path 5		5 #1	104th St	1.54	\$768,877
Path 6		6 89th St (Future)	93rd St	0.64	\$318,033
95th St Path		7 88th Ave	Old Green Bay Rd	1.06	\$530,980
Path 8		8 64th Ave Extension	Path 9	0.72	\$361,901
Path 9		9 Old Green Bay Rd	39th Ave	2.47	\$1,237,366
72nd Ave Extension		10 72nd Ave	Park	0.17	\$85,915
Green Bay Rd Path		11 116th St	Park	0.35	\$172,609
116th St Path		12 88th Ave	39th Ave	2.98	\$1,492,488
Springbrook Rd Path		13 116th St	Green Bay Rd	0.63	\$313,406
122nd St Extension		14 122nd St		0.46	\$230,977
54th Ave Path		Park	89th St	0.37	\$186,785
89th St Path		54th Ave	End	0.12	\$60,220
Green Bay Rd Path		Springbrook Rd	123rd Pl	0.19	\$92,782
Proposed Recreational Trails - Gravel					
Trail 15		15 113th St	39th Ave	0.46	No estimate



Existing and Proposed Facilities: East Section 39th Ave – Lake Michigan

Name	#	From	To	Miles	Estimated Cost
Proposed Bike Lanes (On Street)					
Springbrook Rd		39th Ave	91st St	1.38	\$6,922
899th St		Village Border	Village Border	0.17	\$832
89th St		22nd Ave	17th Ave	0.25	\$1,248
85th Ave		7th Ave	3rd Ave	0.22	\$1,121
3rd Ave		85th Ave	86th Pl	0.06	\$309
86th Pl		3rd Ave	1st Ave	0.10	\$516
100th St		39th Ave	32nd Ave	0.43	\$2,143
32nd Ave		39th Ave	Park	0.06	\$310
104th St		39th Ave	8th Ave	1.80	\$8,990
22nd St		166th St	End	0.25	\$1,259
122nd St		39th Ave	32nd Ave	0.37	\$1,837
332nd Ave		122nd St	Kenosha County Path	0.06	\$321
Marina Rd		116th St	End	0.87	\$4,363
Lakeshore Dr		116th St	86th Pl	2.98	\$14,876
Proposed Bike Lanes (Future Streets)					
104th St Extension	1	104th St (Existing)	2nd Ave	0.30	\$1,490
	2			0.45	\$2,271
	3	Kenosha County Path		0.80	\$4,000
	4	Kenosha County Path	166th St	1.51	\$7,529
Marina Rd Extension		Marina Rd	Lake Michigan	0.24	\$1,188
Marina Rd Extension		22nd Ave	#3	0.09	\$452
Proposed Multiuse Paths - Paved					
Path 5	5	Springbrook Rd	Park	0.95	\$476,582
Path 6	6	104th St	Path 5	1.10	\$548,105
116th St Path	7	39th Ave	Lakeshore Dr	2.28	\$1,139,666
		32nd Ave	Kenosha County Path	0.05	\$22,997
Proposed Recreational Trails - Gravel					
Trail 8	8	39th Ave	Kenosha County Path	0.45	No estimate
Trail 9	9	S of 116th St	E of RR Corridor	3.70	No estimate



7.3 Funding Opportunities

Many different funding sources are available for accommodating bicycles and pedestrians through on-street or off-street facilities. In order to be eligible for funding under most federal aid programs, bicycle projects must be primarily for transportation purposes. In general, federal guidelines consider any bicycle path or trail other than a closed loop trail as being principally for transportation and eligible for federal funding. State funding for the construction of on-street and off-street bicycle facilities is available through programs administered by the Wisconsin Department of Transportation (WisDOT), and includes funds provided directly by the state and “pass-through” funds provided by the Federal government as part of the Federal-aid Highway, Transit, and Highway Safety Programs.

Transportation-Based Funding Sources

The following is a summary of potential transportation-based funding sources for accommodating bicycles from WisDOT:

Local Transportation Enhancement (TE) Program Bicycle and Pedestrian Facilities Program (BPFP)

The Transportation Enhancement Program funds projects that increase shared-modal transportation alternatives and enhance communities and the environment. Federal funds administered through this program provide up to 80% of costs for a wide variety of projects such as bicycle or pedestrian facilities, landscaping, streetscaping and the preservation of historic transportation structures. Examples of bicycle projects include shared-use trails, paved shoulders, bike lanes, bicycle route signage, bicycle parking, overpasses/underpasses/bridges and sidewalks.

The Bicycle and Pedestrian Facilities Program (BPFP) was merged with the TE program beginning with the 2008 application cycle. As the name implies, BPFP funds bicycle and bicycle/pedestrian facilities. Per state statute, BPFP cannot fund exclusive pedestrian projects or streetscaping projects even if they include some bicycle and pedestrian elements. Because the TE program also extensively funds bicycle and pedestrian facilities, the two programs share the same application, review and selection process.

- Central Office Program Manager: 608-264-8723
- SE Region Program Manager: 262-548-8789



Shared-use paths should contain traffic control and directional signs where they intersect streets.

Congestion Mitigation and Air Quality Program (CMAQ)

The primary purpose of the Congestion Mitigation and Air Quality (CMAQ) Improvement Program is to fund projects and programs that reduce travel and/or emissions in areas that have failed to meet air quality standards for ozone, carbon monoxide (CO), and small particulate matter. Bicycle and pedestrian projects are eligible for CMAQ if they reduce the number of vehicle trips and miles traveled. Approved projects are reimbursable at 80% of the cost, and a local match of 20% is required. Almost all bicycle projects eligible for Transportation Enhancements are likely to be eligible, but a higher burden of proof that the project will reduce air pollution will be required for CMAQ funding. CMAQ is not a statewide program; only bicycle projects in Milwaukee, Kenosha, Racine, Ozaukee, Waukesha, Washington, Sheboygan, Kewaunee, Manitowoc, and Door Counties are eligible.

Hazard Safety Improvement Program

Bicycle and pedestrian projects are eligible for this program that focuses on projects intended for locations that have a documented history of previous crashes.

- Contact WisDOT SE Region Traffic Safety Engineer, 262-548-5958, for more details before contacting the statewide coordinator at 608-266-3341.

Surface Transportation Program - Urban

Metropolitan areas receive an allocation of funds annually. These funds can be used on a variety of improvement projects including bicycle and pedestrian projects. Most of the Metropolitan Planning Organizations (MPOs) that administer this program have been using these funds to integrate bicycle and pedestrian projects as larger street reconstruction projects are taken on. SEWRPC is the MPO for Southeast Wisconsin.

- Contact SEWRPC, 262-547-6722

Recreation-Based Funding Sources

The following information for potential recreation-based funding sources was culled from the Wisconsin Department of Transportation website.

Funding for the Recreational Trails Program (RTP) is provided through federal gas excise taxes paid on fuel used by off-highway vehicles. Towns, villages, cities, counties, tribal governing bodies, school districts, state agencies, federal agencies and incorporated organizations are eligible to receive reimbursement for development and maintenance of recreational trails and trail-related facilities for both motorized and non-motorized recreational trail uses. Eligible sponsors may be reimbursed for up to 50% of the total project costs.

Eligible projects include:

- Maintenance and restoration of existing trails
- Development and rehabilitation of trailside and trailhead facilities and trail linkages
- Construction of new trails (with certain restrictions on Federal lands)
- Acquisition of easement or property for trails

Wisconsin Department of Natural Resources (DNR) regional staff review and rank eligible projects. Projects are then ranked in a statewide priority listing. The highest ranking projects will be funded to the extent that funds are available.

Following you will find general program information for programs that provide up to 50% funding assistance to acquire land or conservation easements and develop facilities for outdoor recreation purposes – the Stewardship Local Assistance Grant Programs, the Federal Land & Water Conservation Fund Program, and the Federal Recreation Trails Program. Any project application submitted will be considered for each of the following programs that it is eligible for.

Under the Knowles-Nelson Stewardship Local Assistance Grant Program, the following programs provide 50% funding assistance to acquire land and easements and develop trails, facilities, etc. for nature-based outdoor recreation purposes.

Aids for the Acquisition and Development of Local Parks (ADLP)

ADLP helps to buy land or easements and develop or renovate local park and recreation area facilities (e.g. trails, fishing access, and park support facilities). Applicants compete for funds on a regional basis.

Urban Green Space Grants (UGS)

UGS helps to buy land or easements in urban or urbanizing areas to preserve the scenic and ecological values of natural open spaces for outdoor recreation, including non-commercial gardening. Applicants compete for funds on a statewide basis.

Acquisition of Development Rights Grants (ADR)

ADR helps to buy development rights (easements) for the protection of natural, agricultural, or forestry values, that would enhance outdoor recreation. Applicants compete for funds on a statewide basis.

Land and Water Conservation Fund (LWCF)

LWCF provides 50% funding assistance for the acquisition and development of public outdoor recreation areas and facilities. Similar to the Stewardship ADLP program above except that active outdoor recreation facilities are eligible for grant assistance and school districts may be eligible project sponsors. Applicants compete for funds on a statewide basis.

Recreational Trails Act (RTA)

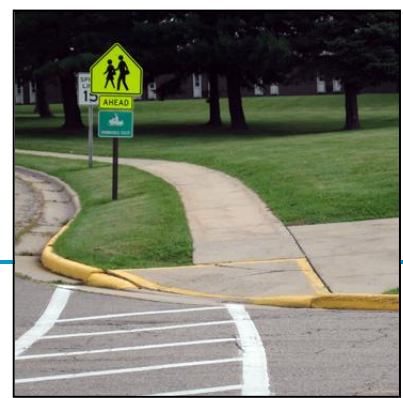
RTA provides 50% funding assistance for the development and maintenance of recreational trails and trail related facilities for both motorized and non-motorized recreational trail uses. Applicants compete for funds on a statewide basis.

These programs are administered by the Wisconsin Department of Natural Resources. The Stewardship Advisory Council, with representatives from local units of government and nonprofit conservation organizations (NCOs), advises the department on matters relating to the Stewardship program. Similarly the State Trails Council advises the department on matters relating to the Recreational Trails Program. The National Park Service plays the major role in working with the Department on the Land & Water Conservation Fund Program and the Department of Transportation plays a role with the Recreational Trails Program. Key components of the programs are cooperation and partnership between the Wisconsin Department of Natural Resources, the federal government, local units of government and NCOs. The programs recognize the important role each partner plays in meeting the conservation and recreation needs of Wisconsin residents and is designed to assist groups in meeting those needs. The application deadline for all of the programs is May 1 each year and complete applications should be submitted to the regional Community Services Specialist (CSS).

Pedestrian Specific Funding

Traffic Signing and Marking Enhancement Grants Program

The Traffic Signing and Marking Enhancement Grants Program provides funds to local units of government for the installation of traffic signing and roadway



marking enhancements, with the goal of improving visibility to assist elderly drivers and pedestrians. The program distributed approximately \$3.8 million in state funding in 2005 and 2006. Funding for the TSMEGP was eliminated in the 2007-2009 State Biennial Budget, but continues by Wisconsin State Statute 85.027 through June 30, 2009.

Other potential funding sources

Impact Fees and Dedications

Many of the paths and trails proposed in this plan are on land that has yet to be developed. Whenever possible, as new development is proposed, impact fees, easements, or dedications should be required to provide paths through the development and connecting to the larger network.

Additional federal, state and county programs

In addition to the funds administered by the state, funding for public bicycle and pedestrian projects can come from federal highway traffic safety programs, federal traffic safety (section 402) funds, the County (Kenosha County Department of Public Works), impact fees required of new development or redevelopment, public/private partnerships or wholly from the private sector. Additionally, TIF funding and Block Grants can be leveraged as local matching funding for state and federal grants.

Properly designated crosswalks and warning signs can alert motorists to the potential presence of pedestrians.

8. Conclusion

Bicycling and walking are inexpensive, non-polluting forms of transportation and recreation that are accessible to nearly everyone. The Village of Pleasant Prairie is proactively planning for these activities to ensure that residents and visitors can safely and efficiently travel throughout the village on foot or bike.

The *2010 Bicycle and Pedestrian Trails Plan* calls for a ten-fold increase in the amount of bicycle lanes, shared-use paths and recreational trails in the Pleasant Prairie. When fully implemented, these facilities will create a robust network throughout the Village and will allow users to safely bicycle and walk to specific destinations or simply for exercise or personal enjoyment.

The *2010 Bicycle and Pedestrian Trails Plan* will serve as the guiding document for bicycle and pedestrian facilities as well as encouragement, education and enforcement programs in the years to come. By actively planning for bicycling and walking, the Village demonstrates the importance of these activities. Providing the facilities proposed in this plan will offer low-cost and environmentally friendly transportation and recreation options that are accessible to all residents.

Appendix A: Public Meeting

Attendees at May 28, 2009, Public Meeting

<u>First</u>	<u>Last</u>	<u>City/Village</u>
Clyde R	Allen	
Karen	Armstrong	Pleasant Prairie
Stan	Armstrong	Pleasant Prairie
Jim	Bandura	Pleasant Prairie
Dennis	Bell	Pleasant Prairie
Brian & Carol	Boehm	Pleasant Prairie
Dale	Brandes	
Mildred M.	Carlson	Kenosha
Sally	Fennema-Jansen	
Cliff	Folkers	Pleasant Prairie
Kate & Tom	Fuller	
Jim	Hart	Pleasant Prairie
Carolyn	Henry	
Peggy	Herrick	Pleasant Prairie
Troy	Holm	Pleasant Prairie
Richard & Carol	Hunt	Pleasant Prairie
Kim	Jensen	Pleasant Prairie
Carla	Knickrehm	Pleasant Prairie
Karen	Kostizke	
Jeff & Dorene	Martin	
Don	Moldenhaner	Kenosha
Mike	Pollocoff	Pleasant Prairie
John	Roscioli	Pleasant Prairie
Greg	Scheppler	Pleasant Prairie
Mike	Schmitz	
Mike	Spence	Pleasant Prairie
John	Steinbrink, Jr.	Pleasant Prairie
Dave	Steck	Pleasant Prairie
Brian	Wagner	Pleasant Prairie
Jean & Jessie	Werbie	Pleasant Prairie

Public Comments from May 28, 2009, Public Meeting

The following written comments were submitted at the meeting:

- I am interested in putting in bike friendly trails going east-west from Kenosha.
- Please recommend that all major and minor roads, when widened, be widened to the max. Wilmat Road (Hwy C) – many children in the area by Pleasant Prairie School, eventually this road is going to be widened, please create a separate lane like on University Ave in Madison. Cars drive on this road way fast now and will probably be faster once widened.
- A good map that can be carried and passed out would be ideal – similar to Racine map.

Appendix B: Public Survey Results

An online survey was available for public input from mid-May 2009 through the end of September 2009 to gauge public opinion on bicycle and pedestrian facilities and usage. The survey was advertised in the Village of Pleasant Prairie *The Village* newsletter that is mailed to all Pleasant Prairie households. Additionally, a link to the survey was posted on the official Village website. Because the survey was available online, it was open to anyone who wanted to participate, regardless of if they were a Pleasant Prairie or not.

The survey had a total of 82 participants. The results of the survey are printed below, as are verbatim responses to open-ended questions, although personal information has been removed. Although there were 82 total participants, the number of responses to each question may not sum to 82 as some participants skipped some questions and some questions allowed participants to enter more than one response if appropriate.

Question 1: How important do you think it is to include bicycle issues in the Village's transportation planning process?

Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant	No Opinion	Did Not Answer
58	16	0	8	0	0
70.73%	19.51%	0.00%	9.76%	0.00%	0.00%

Question 2: Where do you live?

Village of Pleasant Prairie	Kenosha County, Outside VPP	Outside of Kenosha County	Other	Did Not Answer
64	17	1	0	0
78.05%	20.73%	1.22%	0.00%	0.00%

Question 3: If you are employed, how far do you live from your primary job?

Less than 1 mile	1-2 miles	2-5 miles	5-10 miles	10+ Miles	I am not employed	Did Not Answer
6	5	11	11	32	16	1
7.32%	6.10%	13.41%	13.41%	39.02%	19.51%	1.22%

Question 4: Do you walk or jog regularly?

Yes	No	Did Not Answer
74	8	0
90.24%	9.76%	0.00%

If yes, do you primarily walk/jog (check all that apply)

For Exercise	Personal Enjoyment	Means of Transportation	Year-Round	Did Not Answer
63	53	9	29	2
76.83%	64.63%	10.98%	35.37%	2.44%

Question 5: Do you have access to a bicycle?

Yes	No	Did Not Answer
80	2	0
97.56%	2.44%	0.00%

If yes, do you (check all that apply)

Ride Regularly	Personal enjoyment	Exercise	Means of Transportation	Ride Year-Round	Did Not Answer
39	63	53	23	10	2
47.56%	76.83%	64.63%	28.05%	12.20%	2.44%

Question 6: What's the longest distance you would consider riding a bicycle?

0-1 Mile	1-5 Miles	5-10 Miles	10+ Miles	Did Not Answer
1	9	16	53	1
1.25%	11.25%	20.00%	66.25%	1.25%

Question 7: If you have school-age children in your household, do they regularly walk or bike to school?

Yes	No	Not Applicable	Did Not Answer
4	35	39	0
5.13%	44.87%	50.00%	0.00%

If you answered no, why not?

1. Not allowed; have to ride bus or be driven
2. KUSD schools are too far away
3. Rural
4. Prairie Lane Elementary discourages it because there are no sidewalks

5. School won't allow it
6. They attend Prairie Lane; it is not allowed as there is not access
7. Teen
8. I don't want them riding their bikes on Sheridan Rd
9. No safe route to school
10. No sidewalks, cars drive too fast down Cooper Rd
11. Too far away, unsafe roads to ride
12. Speeders on 7th Ave. Potholes on 91st St. Dangerous cross at Sheridan/91ST
13. Because it is too far and roads don't have sidewalks!
14. not safe
15. No sidewalks, dangerous road to walk 85th Street
16. 7 miles and 25 miles from home; no safe route either
17. Too far away, busy roads
18. We drive them
19. Crossing Springbrook Road
20. Too far
21. Roadway to school is dangerous even though bike route (91 St into 7 Ave)

Question 8: Do you feel that Pleasant Prairie is pedestrian friendly?

Yes	No	Did Not Answer
7	70	3
8.75%	87.50%	3.75%

If no, why?

Personal Safety Concerns	Bad Weather	Automobile Traffic	Bad Driver Behaviors	Destinations are too far away	No Sidewalks	Unsafe Intersections
35	4	50	24	25	49	27
43.75%	5.00%	62.50%	30.00%	31.25%	61.25%	33.75%

Other Responses (12):

1. No shoulder on the road
2. Rural Community
3. No shoulder to walk on
4. Roadways unsafe
5. Need sidewalk - Carol Beach
6. No shoulders to walk on
7. No police enforcement
8. Poor roads, no bike lanes
9. No accommodations
10. Narrow roads - no bike lanes
11. RecPlex is only destination
12. Other walking paths to lake

Question 9: Do you feel that Pleasant Prairie is bicycle-friendly?

Yes	No	Did Not Answer

11	69	0
13.75%	86.25%	0.00%

If no, why?

Personal Safety Concerns	Bad Weather	Automobile Traffic	Bad Driver Behaviors	Destinations are too far away	No Bike Lanes	Unsafe Intersections
38	4	46	26	11	60	26
47.50%	5.00%	57.50%	32.50%	13.75%	75.00%	32.50%

Other Responses (11);

1. Rural Community
2. Poor road conditions 116th St.
3. Road condition - 93rd, 116th
4. Rough roads
5. No police enforcement
6. Some areas are good
7. Little or no shoulder
8. Only on bike trail
9. It depends on which part of Pleasant Prairie you are talking about. For instance 85th Street between Cooper Road and 39th Avenue is great because it provides a large paved shoulder on each side. This is great to encourage non-motorized travel. Then there is the stretch of 7th Avenue between 75th Street and 91st Street, with its narrow bike lane to be shared by both north and southbound travelers. While I do like striped bike lanes on roadways as a way to bring bicycles on the road into the mind of car drivers, this stretch is not only unsafe, it perpetuates a myth that it is best to ride a bicycle against traffic. I will save space by not listing the many reasons why riding a bicycle against traffic is not safe since you are working with the Bike Fed they can educate the Village on the many reasons why bicycling against traffic is unsafe. This stretch of striped bike lane is also unsafe because it is not wide enough to accommodate two bicycles traveling in opposite directions, put two cars driving in opposite directions at the same time and you have a recipe for disaster.
10. No shoulders on Cooper, 85th, 92nd, etc
11. Narrow bike lanes

Question 10: What places in Pleasant Prairie would you like to be able to reach by bike or foot?

Parks/ Recreation Trails	Shopping Areas/ Supermarket	Schools	Downtown Kenosha	Work	Doctor's Offices/ Hospitals	Did Not Answer
79	43	20	46	13	16	1
96.34%	52.44%	24.39%	56.10%	15.85%	19.51%	1.22%

Other Responses (10):

1. Restaurants
2. RecPlex
3. Bike trails, RecPlex
4. Restaurant/café
5. Carol Beach area
6. North Point Marina
7. I-94 and west
8. Lake County, Des Plaines River trail
9. Lakefront
10. Lakefront

Question 11: How would the factors below affect your decision to bicycle or walk?

More on-street bicycle facilities (bike lanes, paved shoulders, wide travel lanes, etc.)

No Affect	Moderately Affect	Strongly Affect
4	13	60
5.19%	16.88%	77.92%

More sidewalks

No Affect	Moderately Affect	Strongly Affect
17	26	31
22.97%	35.14%	41.89%

More greenway trails

No Affect	Moderately Affect	Strongly Affect
1	29	47
1.30%	37.66%	61.04%

More bicycle parking

No Affect	Moderately Affect	Strongly Affect
18	39	20
23.38%	50.65%	25.97%

Increased enforcement of laws applying to motorists and bicyclists

No Affect	Moderately Affect	Strongly Affect
12	35	30
15.58%	45.45%	38.96%

Education programs for bicycle safety

No Affect	Moderately Affect	Strongly Affect
27	32	19
34.62%	41.03%	24.36%

A map of bicycle facilities for planning routes

No Affect	Moderately Affect	Strongly Affect
6	29	41
7.89%	38.16%	53.95%

Question 12: Where do you feel comfortable bicycling?

Streets containing bike lanes

Yes	No
66	12
84.62%	15.38%

Streets signed as designated bike routes

Yes	No
51	27
65.38%	34.62%

Low traffic neighborhood streets

Yes	No
78	1
98.73%	1.27%

Main Village thoroughfares

Yes	No
14	63
18.18%	81.82%

Rural thoroughfares

Yes	No
41	36
53.25%	46.75%

Greenway trails

Yes	No
71	8
89.87%	10.13%

Question 13: Whenever possible, the Village will seek grants for development of bike routes and trails. Would you be willing to support this endeavor using tax dollars?

Yes	No	Did Not Answer
72	6	2
90.00%	7.50%	2.50%

Question 14: Any additional concerns or comments?

1. Huge savings and pollution abatement if kids had a safe way to ride or walk to schools
2. The trails in the park areas should be routed to keep the hiker/biker in natural surroundings. They should not be near any houses or manmade structures where possible without a natural barrier between them
3. The Des Plaines River trail is great but we need to utilize biking/walking to replacing "driving" everywhere we need to go.
4. I feel this is an awesome idea. I feel that Cooper Rd. is especially a horrible place for walking or riding bikes and you see many adults and children walking and riding to school every morning down this road. I would love to see this issue addressed. I would most definitely vote yes to spend tax dollars on this endeavor!!
5. It would be terrific if Pleasant Prairie could connect with the Des Plaines River trail that ends just across the border in Illinois. Good luck.
6. It is unsafe to ride on Village Streets and I will never allow my children to ride on Village Streets either. Want to make an impact on the Village? Build a train station.
7. I would love to see a bike lane or trail on 116th Street. I use that street quite often to bike from Carol Beach out to the industrial park and it is very bumpy and very narrow without shoulders.
8. Thanks for fixing 93rd Street... however 116th Street is a major E/W street that crosses the bike path and the road is horrific to bike due to cracks and bumps especially going east from Old Green Bay Road.
9. Poorly maintained roads (especially along the triathlon route) make training more difficult.
10. Pleasant Prairie has a great chance to change the roads and make the bike path more reachable for families to travel to safely.
11. That would be great to have bike lanes, sidewalks and more trails.
12. Some street conditions are rough. Particularly 116th Street. 116th is a main road I would like to use to get to the current trails, however it is just too rough so I end up driving my car and unloading out bikes to avoid 116th Street
13. I regularly bike the triathlon route and 93rd Street is in extremely poor condition for bikes between Cooper and Green Bay Rd. It is dangerous the road is in such poor condition.
14. 116th Street and especially 93rd Street are bad roads for biking. Need road improvement and bike lanes! Thanks!
15. Streets containing bike lanes that I've seen have only one lane - so all traffic going in both directions use this lane - it does not seem safe and the lane is narrow. Also - in Pleasant Prairie where I live, you have to use Sheridan to access any other roads/trails in the community. Sheridan is very busy, drivers travel very fast and intersections are difficult/unsafe for turning. It is tough turning onto our road (101st) in a car, let alone a bike. I believe adding bike lanes and making the roads safe for bikers and pedestrians would greatly enhance the appeal of living in Pleasant Prairie. Thanks for this opportunity.
16. I frequently ride 10-15 miles per day, 4-5 days per week and I frequently ride on the bike trail from 89th Street south to the IL border and further south. It is not in as good a condition as in IL. There are spots where ruts are deep and gravel is loose. I also do not feel it is safe to ride alone on the bike trail,

especially after dark. If you have more questions please feel free to contact me: [omitted].

17. The Village has always held an "edge" in exercise/fitness needs for individuals and families. This project would continue that tradition and support the "green" needs of the future.
18. Present bike trails need to be maintained, large gravel or stone should not be used especially at street crossings and access to street crossing should not be inclined.
19. I currently bike at times when traffic is low to minimize safety issues. I would like to bike to work, but traffic is worst during commuting hours. Please consider providing more bike trails such as the Kenosha Bike trail and Des Plaines River trail. These trails eliminate most of the encounters between bikes and cars, providing a much safer route for commuting.
20. Having a bike trail from Prairie Ridge subdivision to RecPlex center instead of hwy H
21. One of the most popular and scenic areas of our town is Lakeshore Drive. Many people walk, jog, bicycle and push baby strollers down this road. It is dangerous to do these activities on this road regardless of automobile speeds because there is just not enough room for both autos and pedestrians to safely use this road. Dedicated paths are needed along Lakeshore Drive and the surrounding Chiwaukee Prairie areas in order for the citizens to more fully utilize and to safely access these areas.
22. I live on Cooper Road, not far from Whittier School. I would love to see sidewalks or something that my child could use when she goes to middle school next year at Lance. Currently, I would not allow her to ride her bike or walk to school. Even though the speed limit is 30 all the way down Cooper, drivers constantly exceed the speed limit. I'd love to see the road widened, bike lanes and /or sidewalks put in, but that could also encourage drivers to go even faster. I think enforcement of the speed limits in the Village would help a great deal.
23. I do enjoy the Kenosha bike trail and the path from Southport Park through Kenosha. There are some great bike paths available. I would like to see more so that we are encouraged to bike and walk to destinations.
24. The current location of the winter snowmobile trails on Hwy 165 would be an excellent place for a paved bike trail with connections to Prairie Springs Park and to the gravel trail east of 39th Avenue.
25. A paved trail would be nice to have. My 5-year old child slipped on the gravel on the Kenosha County bike trail last fall and was injured. The dirt trail is not compatible with road bikes and makes bikes and riders very dirty. Lack of neighborhood sidewalks for safe walking is also a concern. We often take evening walks between Springbrook Meadows and Village Green subdivisions. The busier streets (like Cooper Rd) are not safe for strollers and small kids on bikes and scooters. Finally, a paved trail linking Lake Andrea to residential neighborhoods to the East of Green Bay Road would be used heavily. Currently, riding on Hwy 165 is the only option, clearly not safe for children. A trail from the Kenosha County Bike trail to the Lake Andrea trail would provide access to the lake for users of this widely used trail.
26. I'd focus less on public safety/law enforcement issues as it relates to cycling/walking. The number of cyclists I see pass in front of my house tells me that the problem isn't one of unsafe conditions or safety but, rather, the need to

better connect Village parks, transit areas, etc. with potential pathways. Don't focus on nanny-state politics, just look at how you can make efficient use of our tax dollars to make this a more navigable village.

27. As a Carol Beach resident I am strongly interested in sidewalks for walking alone and with my children. With the many bicycles we get in the area in addition to automobile traffic it has become very unsafe to walk with children or with strollers. Vehicles also drive VERY fast especially down Lakeshore Dr. They take the curves at high speeds and you cannot react once you see the car coming at a high speed. I have not taken my children for many walks in the neighborhood because of the vehicle and bike traffic. Sidewalk would be a fantastic addition for the residents here and would significantly improve the safety of the area. [Name and address omitted].
28. There is no police presence on Lakeshore Drive. It's a drag way for speeders from 90th Street to the south. Everyone is driving way too fast on this street: residents, school buses, UPS, Fed Ex, Pat's Sanitation all drive at dangerous speeds.
29. Pleasant Prairie needs to connect better to Kenosha especially with Main Street (39th) via a well marked bike lane. The bike path is not safe for female individuals biking alone.
30. We'd like to see more paved or fine gravel trails in natural settings, similar to the abandoned railroad trails in the state (Elroy-Sparta trail, Red Cedar trail etc) A trail in the northwest corner of Pleasant Prairie would be great!
31. Let's Do It!
32. Both "Main" and "Rural" thoroughfares should be marked No. Is it possible to have bike lanes marked on Hwy C from 50 to I94. Traffic is getting heavy and the new interchanges worry me. Also, I stay off of H during much of the day due to traffic from the industrial park, especially between 50 and 165. I really miss not going past John Steinbrink's house as much as I used to. Bain Station Road could also use shoulders, especially between H and C. Thanks for the opportunity to voice my opinion.
33. Let's get bike friendly!
34. It's obvious that the time for more bike/walking is upon us. For the environment and economy.
35. Good Idea. Keep putting 3' paved shoulder on all new roads and resurface roads.
36. I commend you for taking the initiative to look into improving our community
37. Paint crossing lines on the roads where the bike trails cross. The openings are not clearly marked and hard to judge the distance in a car.
38. I would most like to see the 7th Avenue stretch corrected. What bothers me most about it is the way it is telling people that it is safe to ride a bicycle against traffic when this is wrong and very dangerous. I believe what the Village of Pleasant Prairie is doing by asking for input and more importantly working with the bicycle federation of Wisconsin is fantastic. I am very optimistic that these steps are going to go a long way to help the Village of Pleasant Prairie become a great place to live, work and visit.
39. The village needs a safe East-West bicycle corridor to connect RecPlex with the lakefront. 93rd St sees a lot of bicycle traffic, but is EXTREMELY unsafe (narrow, bumpy road, no shoulders, dangerous intersection at CR ML
40. We live in Prairie Village condos and would like to be able to get to Lake Andrea, but 93rd Street is just too narrow with most traffic seeming to go faster than the

posted speed limit. When I'm driving my car through there at 35-40 mph, I often have a car or truck running up behind me. Then too, to go east over to the bike trail on 93rd Street from 39th Ave, it'll rattle the fillings out of your teeth on a bike or car.

41. Carol Beach Lake Shore Drive has a bike trail that would that could use a little more widening. Its very appealing to everyone who has walked or biked along the lakeshore.

Appendix C: Rules for Bicycling on the Road

The following information is drawn from the Wisconsin Department of Transportation Safety and Consumer Protection webpage.

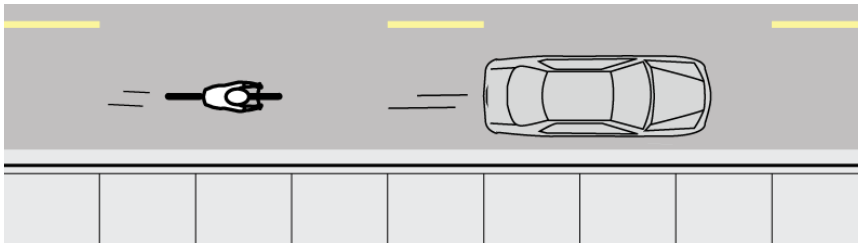
<http://www.dot.state.wi.us/safety/vehicle/bicycle/rules.htm>

General rules

- Bicycles are vehicles. They belong on the road.
- Ride at least three feet from the curb or parked vehicles.
- Ride in a straight line. Don't swerve in and out around parked vehicles.
- Always ride in the same direction as traffic.
- Sidewalk riding for bicyclists past the learning stage can be more dangerous than on the road, obeying traffic laws. It is also illegal in most communities.
- Obey all traffic laws.
- Be predictable! Let other users know where you intend to go and maintain an understood course.

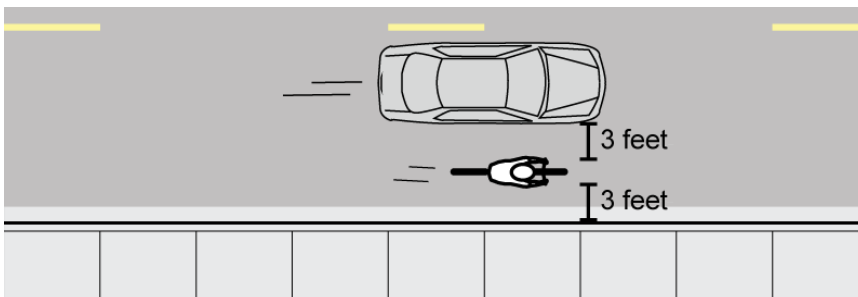
Narrow lanes

- Ride in the center of the lane.
- Keep at least three feet between yourself and passing or parked traffic.



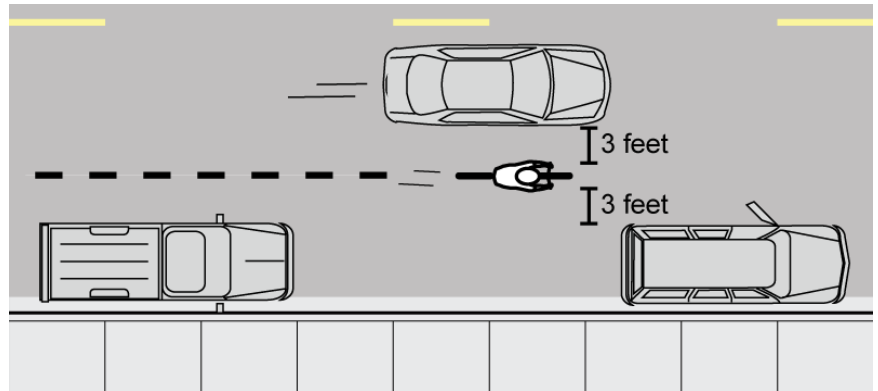
Wide lanes

- Ride just to the right of the actual traffic line, not alongside the curb.
- Keep at least three feet between yourself and the curb or parked vehicles.
- Motorists should be passing you with at least 3 feet of clearance.

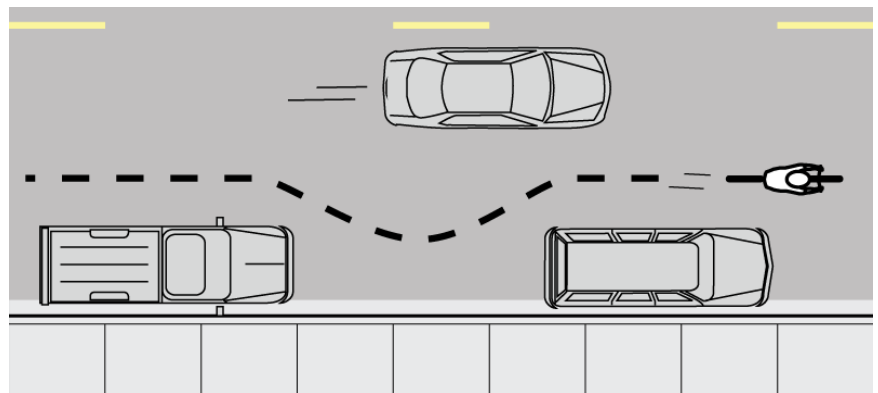


Don't get doored!

- Ride in a straight line three feet out from parked cars. You'll avoid car doors that open in front of you and you'll be more visible to other drivers.



- Don't pull into the space between parked cars. Ride just to the right of the actual traffic line, not alongside the curb.

**Take the lane**

You will fare better with other road users if you function like a legal vehicle operator, which you are.

- Right turning motorists can be a problem, but taking the lane or more of the right portion of the wide curb lane can prevent this. Take an adult bicycling course to learn skills and develop confidence in traffic.
- Left turning motorists are the cause of most adult bicyclists' crashes. Motorists claim not to see the cyclist who is traveling in a straight path in the opposite direction.

Bicyclists, when making your own left turn look over your left shoulder for traffic, signal your left turn and change lanes smoothly, so you are to the left side or center of the through lane by the time you reach the intersection. If a left turn lane is present, make a lane change to center of that lane. Do not move to left of that lane as left-turning motorists may cut you off.

- Do not wait until you reach the crosswalk, then stop and try to ride from a stop across other traffic. If you need to cross as a pedestrian, leave the

travel lanes, then get into the crosswalk, walking or riding your bicycle like a pedestrian travels, not fast, and with pedestrian signals.

Lane positioning can be especially important in approaching a downhill intersection. Moving to the center makes you more visible to intersecting and left turning motorists in opposing lanes.

- Going downhill, your speed is likely to be closer to traffic speeds or posted speed limits. Hugging the curb when there are visual barriers increases your chances of being struck by a bigger vehicle, or of hitting a pedestrian or sidewalk riding bicyclist.
- Take the lane, be seen and see other traffic better if you are close to traffic speeds

How to ride

Wear bright colors during the day and retro-reflective items at night along with headlight and taillight to increase your visibility to other road users.

- Wear a bicycle helmet on every ride to reduce your chance of head injury in event of a fall or crash. Most serious injuries from a fall or crash are to the head and most frequently, the forehead, so wear helmet level with the ground, just above the eyebrows.

Be aware of changing road surfaces, new construction or unusual barriers on the roadway, distracters for both you and other vehicle operators.

- Leaves can be slippery in the early morning and are a hazard even when slightly damp. Distractions such as dogs, wild animals and even humans can draw attention from the roadway and lead to a crash. Expect them.

Motorist reminders

- Bicycles are vehicles. They belong on the road.
- Cyclists need room to get around potholes, sewer grates and other obstructions.
- Leave at least three feet when passing bicycles, more room at higher speeds.
- Change lanes to pass any bicycle traveling in a narrow lane.
- Train yourself to scan for fast moving (it's hard to tell speed) bicycles and motorcycles in the opposing lane to you when turning left, and scan sidewalks and crosswalks for pedestrians and bicyclists using the sidewalk and crosswalk as a pedestrian. Always scan to your right side sidewalk before you leave a stop light or stop sign. And to the left and right side sidewalks when on a one-way street.

Appendix D: Wisconsin State Bicycle Laws

The information below is a summary of current Wisconsin State Laws relating to bicycling. The numbers in brackets refer to the specific state statute; for the complete statutes, consult the Wisconsin Department of Transportation Summary of Wisconsin Bicycle Laws.

<http://www.dot.state.wi.us/safety/vehicle/bicycle/docs/bikelaws.pdf>

A. Vehicular Status

- The bicycle is defined as a vehicle. [340.01(5)]
- The operator of a vehicle is granted the same rights and subject to the same duties as the driver of any other vehicle. [346.02(4)(a)]

B. Lane Positioning

- Always ride on the right, in the same direction as other traffic. [346.80(2)(a)]
- Ride as far to the right as is practicable (not as far right as possible). [346.80(2)(a)]
- Practicable generally means safe and reasonable. 346.80(2)(a) lists a few situations when it is not practicable to ride far to the right:
- When overtaking and passing another vehicle traveling in the same direction;
- When preparing for a left turn at an intersection or driveway;
- When reasonably necessary to avoid unsafe conditions, including fixed or moving objects, parked or moving vehicles, pedestrians, animals, surface hazards or substandard width lanes [defined as a lane that is too narrow for a bicycle and a motor vehicle to travel safely side by side within the lane].

C. One Way Streets

- Bicycles on a one-way street with 2 or more lanes of traffic may ride as near the left or right-hand edge or curb of the roadway as practicable (in the same direction as other traffic). [346.80(2)(b)]

D. Use of Shoulders

- Bicycles may be ridden on the shoulder of a highway unless prohibited by local authorities. [386.04(1m)]

E. Riding 2-Abreast

- Riding 2 abreast is permitted on any street as long as other traffic is not impeded. When riding 2 abreast on a 2 or more lane roadway, you both have to ride within a single lane. [346.80(3)(a)]

F. Hand Signals

- Bicyclists are required to use the same hand signals as motorists [346.35].
- Hand signals are required within 50 feet of your turn. It is not required continuously if you need both hands to control the bicycle [346.34(1)(b)]

G. Passing

- A motorist passing a bicyclist in the same lane is required to give the bicyclist at least 3 feet of clearance, and to maintain that clearance until safely past. [346.075]
- A bicyclist passing a stopped or moving vehicle is also required to give at least 3 feet of clearance when passing. [346.80(2)(c)]

H. Use of Sidewalks

- State Statutes allow local units of government to permit vehicles on sidewalks through local ordinances. [346.94(1)]
- When bicycles are allowed to be operated on sidewalks, bicyclists must yield to pedestrians and give an audible warning when passing pedestrians traveling in the same direction. [346.804]
- At intersections and other sidewalk crossings (alleys, driveways), a bicyclist on the sidewalk has the same rights and duties as pedestrians. [346.23, 24, 25, 37, 38]

I. Bicycling at Night

- Bicycling at night requires at least a white front headlight and a red rear reflector. The white front light must be visible to others 500 feet away. The red rear reflector must be visible to others between 50 and 500 feet away. A red or amber steady or flashing rear light may be used in addition to the required reflector. These are required no matter where you ride--street, path or sidewalk. [347.489(1)]

J. Duty to report accident

- The operator of a vehicle involved in an accident resulting in injury to or death of any person, or total damage to property owned by any one person of \$1,000 or more shall immediately give notice of such accident to the police. [346.70]
- "Injury" means injury to a person of a physical nature resulting in death or the need of first aid or attention by a physician or surgeon, whether or not first aid or medical or surgical treatment was actually received;
- "Total damage to property owned by one person" means the sum total cost of putting the property damaged in the condition it was before the accident, or the sum total cost of replacing such property.
- This section does not apply to accidents involving only vehicles propelled by human power.