City of Rhinelander Bicycle and Pedestrian Plan

2019

City of Rhinelander
Bicycle & Pedestrian Plan
2019

The City of Rhinelander Plan Commission

Mayor Christopher Frederickson, Chair

Sandra Bergman

Russ Brown

Andrew Larson

James Leschke

George Kirby

Jenny Bonardelli

Matt Wocelka

Adopted on:

October 14, 2019

For more information contact:

North Central Wisconsin Regional Planning Commission

210 McClellan Street, Suite 210

Wausau, WI 54403

715-849-5510 staff@ncwrpc.org www.ncwrpc.org

Table of Contents

Chapter 1: Introduction

Biking and walking are both important modes of transportation, whether used separately or in concert with other modes of transportation. In small towns, active transportation can be even more common than it is in larger urban areas.[1]

The focus of this plan is to enhance the viability of bicycling and walking as forms of transportation throughout the City of Rhinelander (Map 1). This plan focuses on guidelines for planning bicycle and pedestrian facilities, with general design and funding information included. This plan also examines existing conditions for biking and walking and suggests routes and segments on which to prioritize bicycling and walking improvements.

Since 1991, the federal government has recognized the role of walking and biking and their importance as part of a balanced transportation system, as outlined in the Intermodal Surface Transportation Efficiency Act (ISTEA).

The United States Department of Transportation (US DOT) and the U.S. National Safety Council also aim to end traffic fatalities within 30 years, and the Wisconsin Department of Transportation (WisDOT) has launched the Zero in Wisconsin campaign to prevent traffic deaths.

Project Purpose

The City of Rhinelander received Transportation Alternatives Program (TAP) funding from WisDOT to develop a plan to improve bicycle and pedestrian facilities within the City. The North Central Wisconsin Regional Planning Commission (NCWRPC) wrote and facilitated that plan between 2018 and 2019 with oversight provided by various committees of the City Council; culminating with the City Plan Commission, and an advisory group comprised of local officials, residents, and other stakeholders who bicycle and/or walk in the City.

The City of Rhinelander Bicycle and Pedestrian Plan is one of the first steps in the implementation of the North Central Wisconsin Regional Bicycle & Pedestrian Plan (RBPP) of 2018, written and adopted by NCWRPC. That Regional Plan sets up a high-level framework for establishing a route and trail system in and around the Rhinelander Area. This City Bicycle and Pedestrian Plan analyzes bicycle and pedestrian transportation in Rhinelander at a greater level of detail, and recommends policies, programs, and facility treatments to improve the safety, convenience, and attractiveness of bicycling and walking for Rhinelander residents and visitors alike.

[1] Federal Highway Administration. 2016 *Small Town and Rural Multimodal Networks.*

Bicycling & Walking as Transportation

Bicycling and walking are two of the most efficient ways to get around. Walking is ubiquitous; nearly everyone depends on walking for at least part of every trip, if only from the parking lot to the nearest building. Although some lament that "people just can't seem to walk anywhere anymore," the reality is that, given the opportunity, many people choose to walk from one place to another, particularly if they can do so safely and conveniently. During the past fifty years, however, there is no question that Americans have become increasingly auto-dependent. This is partially by choice and partly as the result of a development pattern where individual land uses (e.g. retail, fast food, and schools) exist on the periphery of communities. Not only are edge of town land uses a long walk from where people live, but they may be a half-mile or more from the nearest sidewalk. Conditions such as these not only discourage able-bodied pedestrians, they literally prevent access for pedestrians with special needs, a group that includes elderly, children and people with disabilities.

In many parts of the world, walking and bicycling are major modes of travel and relied on for utilitarian purposes. Even in many western countries walking and bicycling constitute a major portion of all transportation trips and connections between these modes and transit are well developed. In the U.S. and Wisconsin, however, the opposite is true because cities have evolved around the automobile, making destinations and land uses so spread out that only driving can overcome such distances for many trip purposes.

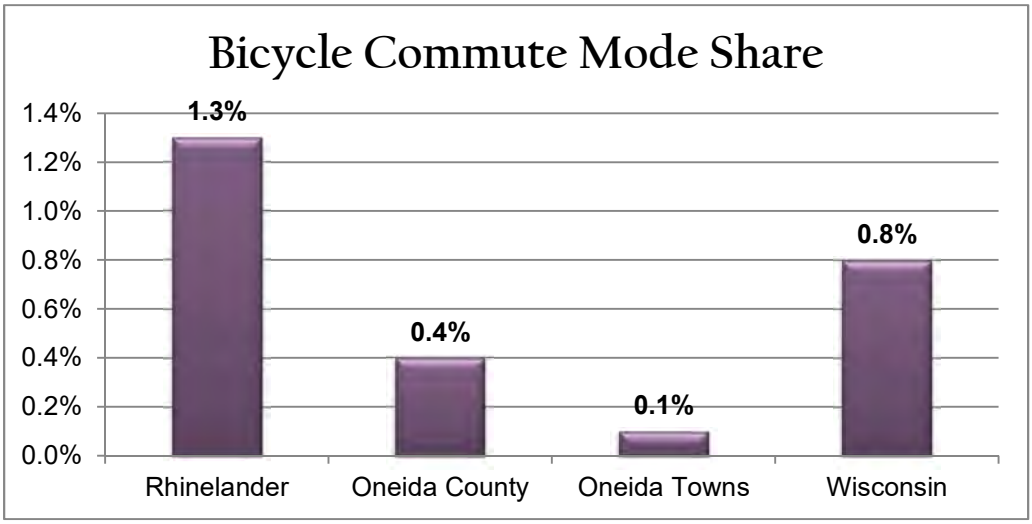
In Wisconsin, a relatively small percentage of people walk or bike to work or for work-related purposes. This is primarily because so few people live within walking or bicycling distance of where they work. When other trip purposes are considered, walking and bicycling face the same challenges. Often trips to the store, school, or even a person's favorite restaurant are just too far for there to be much potential for bicycling or walking. Or if they are close-by, they are not served well with bikeways and/or sidewalks.

Bike lane on Woodland Dr installed to facilitate commute to school.

Bicycling & Walking in the City of Rhinelander

Bicycling to work is more common among residents in Rhinelander than in Oneida County as a whole. Between 2011 and 2015, an average of 1.3 percent of Rhinelander residents bicycled to work, compared to only 0.4 percent in Oneida County (and only 0.1% of residents in Oneida County townships).

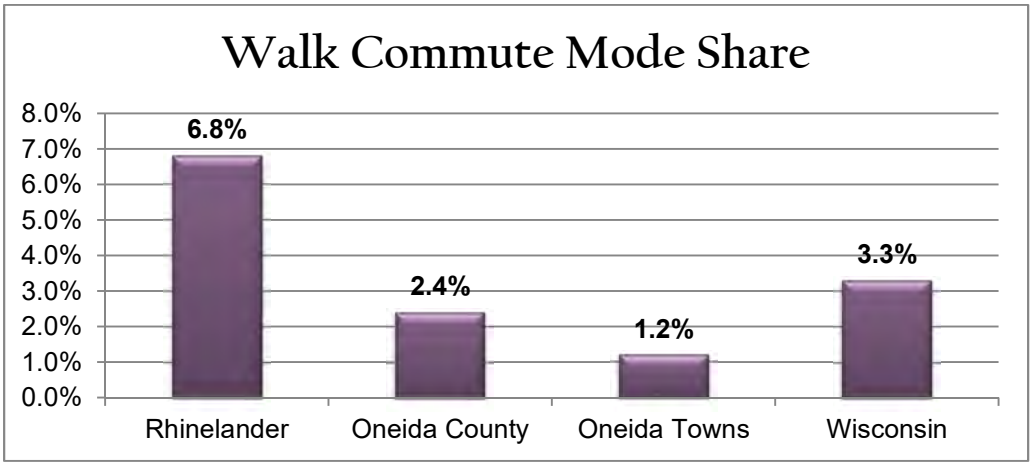
Figure 1



Source: American Community Survey 2011-2015

With nearly 7 percent of residents walking to work between 2011 and 2015, the percentage of those who walk to work in Rhinelander is considerably higher than that of those who bicycle to work. The amount of residents who commute to work via walking in Rhinelander is higher than that of Oneida County and the state as a whole, as an average of 2.4 percent of Oneida County residents (and 1.2 percent of residents of Oneida County Towns) and 3.3 percent of Wisconsin residents commuted to work by walking during this time frame.

Figure 2



Source: American Community Survey 2011-2015

Defining Who Rides Bicycles

Not everyone who walks or bikes has the same ability or confidence riding. Age, experience, and bicycling ability dictate where and when individuals (or parents, in the case of children) feel comfortable to safely bicycle on roads.

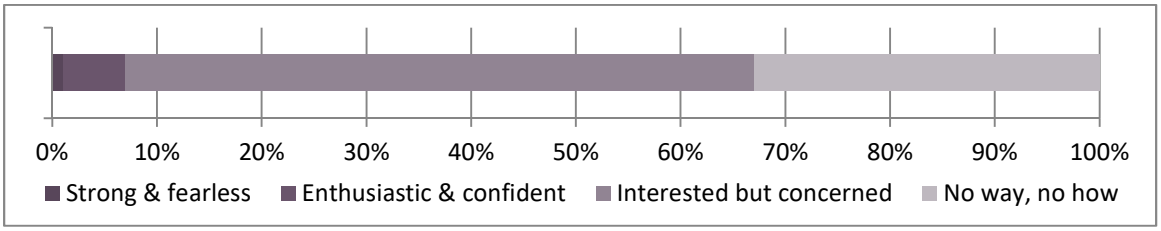
Types of Cyclists

The American population can be divided into four classes of bicyclists (see Figure 3):

- 1 percent describe themselves as "*strong and fearless.*"
  - These riders are confident in their abilities and will ride regardless of roadway condition, amount of traffic, or inclement weather.
- 6 percent call themselves "*enthusiastic and confident.*"
  - Riders are comfortable sharing the road with motor vehicles, but they prefer to ride on separate facilities like bike lanes. May or may not ride in inclement weather.
- 60 percent are "*interested but concerned*" about their vulnerability.
  - Very few of these people regularly ride a bicycle, but they like riding. They are concerned that their route is not safe to ride, so they don't ride very often, and definitely do not ride when the weather is bad.
- 33 percent say "*no way, no-how*" to biking.
  - They are not interested in bicycling at all, not even for recreation.

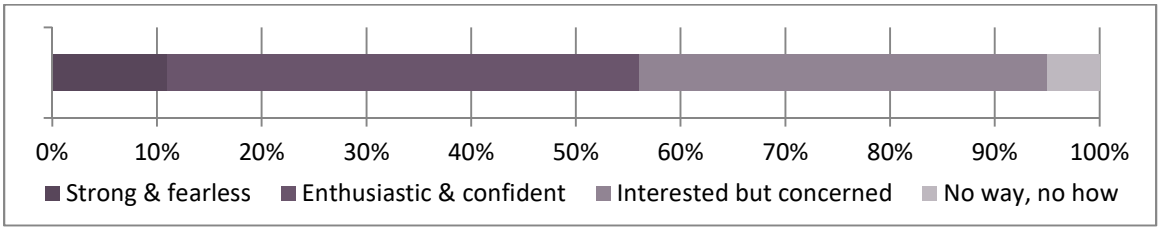
Figure 3: Types of Cyclists

American Population



Source: Portland Office of Transportation

Rhinelander Population



Source: 2018 Rhinelander Bike & Pedestrian Survey

Age Differences

In general, young bicyclists are found in places where a park is within a mile from their home, and where development is clustered, like in a city's downtown. Some kids learn the basics of balance and control with their first bicycle by the age of four. By the time they turn 10 years old many children are allowed to ride to school if the route is safe, or to the store, or to visit friends. By the time kids reach their junior high years (7-9th grades), they often have good traffic safety skills. Bicycles are their primary means of independent mobility beyond walking.

Many high school students stop riding their bikes as infatuation with the car takes hold. But after high school, some people come back to bicycling, especially if they attend college. Beyond school, many people limit their bicycling to family outings, recreational trail riding, and within a few miles of their homes for low-impact exercise.

Some adults bicycle to work. The latest trend is that young adults are choosing where to live based upon how walkable or bike able their commute is. Other adults may use bicycles for touring long distances. Bicycle clubs which tend to cater to people in the 25 to 50 age group often sponsor rides through rural areas.

By retirement age, many people who have not ridden for years take up bicycling again as a way to keep fit. For some older adults, the bicycle or adult tricycle may be their only means of independent travel. In many cases, these bicyclists will ride close to home or on local trails.

The challenge to increasing bicycling among the general population is making biking appeal to the big "interested but concerned" contingent.

By building a bicycle network that addresses the needs for the "interested but concerned" group, the more confident bike riders will also be served.

Types of Pedestrians

Everyone is a pedestrian at some point in their trip, whether it is from home to care, or walking to the bus stop. *There are essentially two groups of pedestrians: 1) general pedestrians who walk, and 2) pedestrians with limitation that make walking difficult or impossible.* The general pedestrian is anyone who can walk along and across streets without being limited by physical, sensory, or cognitive impairments. Other pedestrians, such as the elderly, children, people with physical or mental disabilities, and the blind may have limitations that make walking more challenging.

Since there are people with different abilities, then understanding how they need to interact with pedestrian facilities is the first step for policy makers in creating accessible facilities. The needs of disabled people and other pedestrians should determine what kinds of accessible design everyone can use. WisDOT's Pedestrian Policy Plan 2020 was used in this section to identify the types of pedestrians and their limitations for navigating the built environment.

Children

Facilities designed to separate and protect children will be welcomed by everyone else. General limitations of children include:

- One-third less peripheral vision than adults, making it difficult to see turning vehicles or those down the road;
- Less cognitive ability and experience to judge speed and distance, making safe crossings more difficult;
- Lower auditory development makes it difficult to localize the direction of vehicle sounds;
- Overconfidence in their judgements may result in poor decisions on crossing timing;
- Inability to read or comprehend warning signs, traffic signals, and directional aids;
- Inexperience dealing with complex traffic situations results in poor decisions; and
- No sense of fear.

Nearly one-fourth of Wisconsinites are younger than 15 years of age. Children do not develop adequate sign, thinking, and hearing abilities necessary to cross streets safely until age 10 or later. – WisDOT, Ped. Policy Plan

Mobility Impairments

People with mobility impairments include those who use wheelchairs, crutches, canes, walkers, orthotics, and prosthetic limbs.

Characteristics common to mobility impaired individuals include:

- Space requirements to accommodate their assistive device (for example, manual wheelchairs have an average turning radius of 5 feet and require a minimum width of 3 feet of sidewalk); and
- Difficulty negotiating soft surfaces (e.g. grass, sand, or loose gravel).

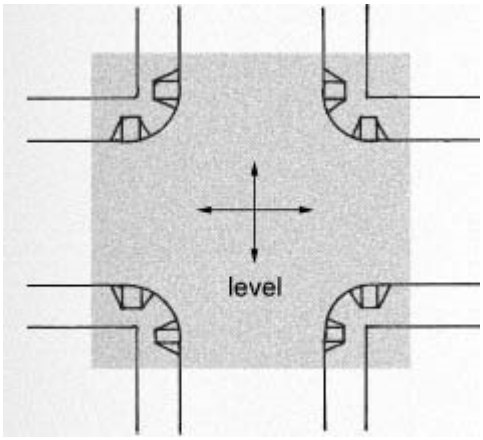
Sensory Impairments

Sensory impairments include problems with depth perception, deafness, tunnel vision, blindness, or color blindness. Assistive technologies may include hearing aids, corrective lenses, white canes, or guide dogs. For visually impaired users, intersections are easiest to navigate when the line of travel from the edge of the sidewalk to the opposite curb is straight and unimpeded by obstacles rather than skewed as at some irregularly shaped intersections. Designing curb ramps to face the line of travel across a road, as shown in Figure 4, will greatly assist visually impaired users. Driveways pose a challenge because the hearing impaired pedestrian is unable to hear the vehicle especially when shrubs or fences block sound and view.

For visually impaired users, intersections are easiest to negotiate when the line of travel from the edge of the sidewalk to the opposite curb is straight and unimpeded by obstacles. –WisDOT, Ped. Policy Plan

Figure 4: Curb ramp placement at intersection

The preferred design is to have a separate curb ramp aligned with each crossing direction to allow all pedestrians to cross at the same location. At most intersections, a pair of perpendicular curb ramps placed at 90 degree angles to one another is the optimal design for meeting these criteria.



The shaded area represents the portion of the intersection that should be level for pedestrian travel.

Source: FHWA, Designing Sidewalks and Trails for Access.

Cognitive Impairments

People with cognitive impairments have difficulty perceiving, recognizing, understanding, interpreting, and responding to information. Cognitive disabilities can hinder a person's ability to think, learn, and reason. Facility designers might consider that such a reduced capacity for sensory processing and problem solving may cause such people to experience more difficulties negotiation unfamiliar environments.

Overall, level sidewalks and well-designed ramps and crossings complement people with disabilities. –WisDOT, Ped. Policy Plan

The Benefits of Walking and Bicycling

The potential benefits of biking are significant and help to justify expenditures required to develop a comprehensive, safe, and attractive bicycle network throughout the City of Rhinelander. The public recognizes the benefits of biking beyond its recreational values on a national, State, regional, and local level. These benefits include the following factors:

- ***Transportation:*** *General transportation benefits of bicycling include a wider range of transportation choices, reduced congestion, decreased need for parking, and the implementation of safety improvements that benefit all roadway users. Biking is among the most efficient modes of transportation in regards to operation, development of facilities, and maintenance.*

- ***Health and Fitness:*** *Bicycling is among the best forms of exercise and can therefore effectively enhance the health of individuals and the communities.*

- ***Recreation:*** *Paths developed for bicycling provide recreation opportunities.*

- ***Economic:*** *Bicycling translates into tourism. WDNR has targeted bike touring and trail riding as high potential tourism activities since the 1980s, and has recently added mountain biking to that list. The State annually distributes over 50,000 Wisconsin bike maps. Several studies of State trail-related expenditures have been conducted showing expenditures ranging from $33 to $49 per person per day.*

- ***Social:*** *Bicycling stimulates the social interaction of families and community. Trails can help provide a sense of place and a source of community pride.*

- ***Quality of Life:*** *The extent of bicycling in a community has been described as a gauge of how well it is advancing its citizens' quality of life. Streets that are busy with bicyclists are considered environments that work at a more human scale and foster a heightened sense of place. These benefits are difficult to quantify, but when asked to identify sites that they are most proud of, residents often name spots where bicycling is common, such as a popular bikeway or riverfront project.*

- ***Environmental:*** *Biking consumes no fossil fuels and does not contribute to noise or air pollution. Further, careful development of off-road facilities can protect and enhance natural resources.*

Significant overlap exists between these benefits. One benefit can often build upon another. For example, quality of life is an increasingly important factor in attracting and retaining businesses in a community, and trails are important contributors to quality of life. By enhancing the County's quality of life through the development of multimodal corridors, economic benefits may also be achieved. Another example of potential economic gain for a community would result from the health and fitness benefits of trails. The health improvement due to increased outdoor exercise can help control medical costs over the long term.

Planning Process and Community Input

5-E Approach

Encouragement, Education, Enforcement, Engineering, and Evaluation are the "E's" that combine to provide a well-rounded and complete bicycle and pedestrian network and Plan. Each of the E's are briefly described below.

- **Encouragement**- strategies and programming that are about getting people walking and bicycling; such activities will help build support for creating more walkable places, decrease traffic congestion, and improve physical health.

- **Education**- includes teaching pedestrians, bicyclists, and drivers about traffic safety and creating awareness of each other's use of the roadway; the signing of bike routes shows motorists that bicyclists may be present, and also provides wayfinding for bicyclists – just like highway signs for motorists.

- **Enforcement**- strategies by law enforcement, engineers, and other partners are used to deter unsafe behaviors of drivers, pedestrians, & bicyclists, and to encourage all road users to obey traffic laws and share the road safely.

- **Engineering**- any physical change that improves conditions for walking or biking; some improvements include: building paths, creating safer crossings, and slowing down traffic. At the same time, engineering practices recognize the importance of a balanced roadway environment that can accommodate the needs of all modes of transportation, be it foot, bicycle, or motor vehicle.

- **Evaluation**-Includes monitoring the outcomes and documenting the results of the implementation of the other E's. Data collection before and after infrastructure improvements are implemented, such as user surveys and bicycle and pedestrian counts, are critical to measuring the overall effectiveness of the network.

Public Participation

The City of Rhinelander Parks, Buildings and Grounds Committee provided oversight and guidance to NCWRPC for the planning process throughout 2018 until oversight was transferred to City Plan Commission in 2019. NCWRPC solicited comments and input regarding the plan from the public in the summer of 2018 through a survey and mapping exercise. This plan was also informed by the input of an ad hoc advisory group made up of City officials; residents and other stakeholders interested in biking and walking which was instrumental in the ultimate assembly of proposed routes for this plan.

Survey Results

From May to August of 2018 an online survey was conducted to gauge attitudes and experiences toward biking and walking among Rhinelander residents. After completing the survey, respondents had the option to provide more specific geographic input via the wiki-mapping exercise. The survey link was promoted in the City Newsletter, made available at local bike shops, and sent out to the Oneida County Biking and Walking Trails Council email list, as well as the stakeholder list developed for the planning process. See Appendix 1 for a compilation of survey results.

There were 113 surveys completed. Respondents were allowed to skip questions, so some questions have smaller response groups. About 68% of respondents live in Rhinelander with the remainder likely visitors and others with interest in traveling through or within Rhinelander by bike or foot. A majority of respondents were female (55% female, 45% male). Respondents came from all age groups with a strong showing of at least 25% in the 35 to 44, 45 to 54 and 55 to 64 age groups.

Key Findings of the Survey:

- Most people drove alone to work, with a very slight dip in summer (May-October) that corresponds to the very slight increase in bicyclists and walkers.
- More people would bicycle if "something changed" (e.g. road improvements, or personal/equipment improvements).
- Bicyclists would travel longer distances if "something changed" (e.g. road improvement or personal/equipment improvement).
- About 27% of respondents commute to work less than 1 mile, but fewer than 14% either walk or bike to work.

Top 3 things that prevent respondents from bicycling more in summer:

1. Some part of my trip is not safe to bike for traffic reasons (44 responses)
2. Not enough time to travel by bike (37 responses)
3. Road or path surfaces are poor for biking (16 responses)

Top 3 infrastructure improvements that would improve biking in Rhinelander:

1. Off-street trails (54 responses)
2. Paved shoulders on rural roads (50 responses)
3. Bike lanes on busy streets (49 responses)

Top 3 programs or information that would help respondents bike more often:

1. Motorists sharing the road better (46 responses)
2. Signed bicycle routes (41 responses)
3. Bike maps (27 responses)

- The average walking distance for work or school is up to 1.5 miles.
- The average walking distance for shopping or errands is up to 1 mile.
- The average walking distance for recreation or exercise is beyond 2 miles.
- The average walking distance for social or entertainment is up to 2 miles.

Top 3 things that prevent respondents from walking more in summer:

1. Not enough time to walk (29 responses)
2. Some part of my trip is not safe to walk (26 responses)
3. Too many physical barriers (7 responses)

Top 4 things that make walking in Rhinelander difficult:

1. Sidewalks don't exist, or gaps in sidewalk. (26 responses)
2. Few off-street trails in my part of Rhinelander (26 responses)
3. Busy rural roads/highways without paved shoulders (20 responses)
4. Sidewalks not cleared in winter (19 responses)

Top 3 infrastructure improvements that would improve walking in Rhinelander:

1. Off-street path on busy roads/highways (34 responses)
2. Sidewalks on both sides of busy streets/at least one side of busy neighborhood streets (25 responses)
3. Sidewalks cleared of snow (24 responses)

Top 3 programs or information that would help respondents walk more often:

1. Motorists sharing the road better (24 responses)
2. Signed routes (13 responses)
3. Walking route maps (47 responses)

Wiki-mapping Results

At the end of the online survey there was a thank you screen page identifying a second part for them to complete at any given time (they could save the link for later). This second part invited them to plot bicycle and pedestrian routes, or potential issues onto the open source tool called: *Wikimapping*. Results are shown in Map 2.

Participants had two possible ways to contribute to the interactive exercise:

1. **Add a Route:** Participants had the option to draw five different kinds of routes relating to routes users enjoy, routes users think need improvement, or routes users want to see developed in the future.
2. **Add a Point:** Participants were encouraged to plot points on the map indicating conflict areas, places where bicycle parking is needed, and destinations to which users can walk or take their bicycles.

"I want a path here" destinations include extension of the "Commerce Trail", Nicolet College, Heal Creek, golf course, state offices/Hwy 17. Route improvement suggestions include bike access to the soccer fields and sidewalks in the high school area.

Conflict points include the Kemp Street Bridge and Ocala Street/South Oneida Avenue. One bike parking needed point was placed at the Chamber of Commerce.

Advisory Group Workshops & Public Meetings

Meetings were organized to engage local officials, stakeholders and residents in discussion of issues and opportunities for bicycling and walking in the City of Rhinelander. Participants included citizen advocates, City staff, representatives of trail building and advocacy organizations, county health department and others. A summary of each of these meetings is provided below:

City of Rhinelander Parks, Buildings & Grounds Committee Meetings (February 26; April 30; July 30 & Nov. 26 of 2018)

Oversite of the Bike & Ped Plan was initially placed with the City's Parks Committee. NCWRPC Staff met with this Committee several times over the course of 2018 to provide updates on plan progress, answer questions and discuss plan issues. Topics discussed included planning process and timelines, survey results, and preliminary routing concepts. Committee members included:

- Sherrie Belliveau
- Tom Kelly
- Ryan Rossing
- David Holt
- Andrew Larson

Oneida County Biking and Walking Trails Council Meeting (April 30, 2018)

The Oneida County Biking and Walking Trails Council or OCBWTC has been dedicated to making all of Oneida County including the City of Rhinelander more walkable and bike-able since 1999. In addition to planning and developing routes and trails, the OCBWTC plays a valuable supporting role such as assisting the Rhinelander Police Department, area schools, and other organizations in conducting periodic bike safety rodeos. The NCWRPC met with OCBWTC representatives early in the planning process to gain an understanding of the current state of biking and walking in the area. Members present indicated that although there has been some recent progress made; such as the Commerce Trail and the widening of some sidewalks downtown, there is some concern about the apparent overall lack of commitment by the City to improving bike-ability and walkability. The group hopes, that with new city leadership and the positive step of developing a new bike and ped plan, that this level of commitment will increase moving forward. Another issue that was pointed out was the need for tourism wayfinding signs. OCBWTC members participating included:

- Tom Rulseh
- Tom Rudolph
- Brian Hegge
- Jackie Cody

Ad hoc Advisory Workshop and Public Open House (June 27, 2018)

A group of biking and walking stakeholders for Rhinelander was identified as part of the planning process. This group was invited to a workshop in June of 2018 to provide assistance and input in the development of the bike and ped plan. The main framework for the proposed route and trail system was sketched out at this meeting and refined at subsequent meetings of the City Bike-Ped Committee. Attendees included:

- Jackie Cody - OCBWTC
- Linda Conlon - Oneida County Health Dept.
- Jeffery Herrett - Citizen
- Tom Jerow - Citizen
- Al Jozwiak - Bikes N Boards & Rhinelander Area Silent Trails Association (RASTA)
- Tim Kingman - City of Rhinelander
- Kevin Schmith - Citizen
- Steven Schreier - County Board District 4, Rhinelander
- Jamie Taylor - Northwoods River News

City of Rhinelander Bicycle and Pedestrian Committee Meeting (September 5, 2018)

This Committee was formed by the City, but had not previously met. Organizational structure and function was discussed. Results of the Ad hoc Advisory Workshop and Open House were reviewed. Details for part of the routing plan were discussed and adjusted. Committee members attending included:

- Carolyn Dejongh
- David Holt
- Al Jozwiak

City of Rhinelander Bicycle and Pedestrian Committee Meeting (October 3, 2018)

The remainder of the routing plan was discussed in detail and adjusted. Committee members attending included (Mayor Frederickson also participated):

- David Holt
- Al Jozwiak
- Ryan Rossing

City Plan Commission (March 5, 2019)

Transitioned oversite of bicycle and pedestrian plan project to City Plan Commission. Reviewed planning process to date and intent moving forward with Plan Commission as an update to the City Comprehensive Plan. Plan Commission members attending included:

- Mayor Frederickson
- Jenny Bonardelli
- Sandy Bergman
- Russ Brown

City Council (October 14, 2019)

The City Council held a public hearing on the proposed bicycle and pedestrian plan. One local resident spoke in favor of the plan and encouraged the City to move forward with making the City more bikeable and walkable. After the hearing, the City Council adopted the bike and ped plan and made it an amendment to the City Comprehensive Plan. Council members in attendance included:

- Mayor Frederickson
- Andrew Larson
- Lee Emmer
- Tom Kelly
- Dawn Rog
- David Holt
- Steve Sauer
- Ryan Rossing

Plan Goals and Objectives

To guide the process of documenting the activities and facilities needed to enhance bicycle and pedestrian facilities throughout Rhinelander, a number of goals and objectives were created. As the public and private sectors consider improving biking and walking conditions within their realms of influence, they are encouraged to review how these goals and objectives affect may improve their efforts.

The following goals regarding Rhinelander's bicycle and pedestrian network are an essential part of this plan and should be considered by local, County, State, and Federal agencies when undertaking activities related to these networks. These goals and objectives were crafted to reflect the priorities of the City as they were expressed throughout this planning process.

GOAL

Become a more bicycling and walking friendly community.

Objectives

1. Encourage the development of a walking and biking route and trail system throughout the City.
2. Update the 2003 Rhinelander Area Pathways Project (City Bike-Ped Plan).
3. Develop the City bike-ped system in phases, beginning with the crowning framework recommended in this Plan for promotional purposes, and expand bikeabiliy and walkability incrementally around this crown.
4. Create a Bicycle and Pedestrian Advisory Committee charged with championing implementation of this plan, overseeing bike-ped issues within the City and making Rhinelander more bikeable and walkable.
5. Consider making all roads classified as collector or arterial, pedestrian and bicycle friendly.
6. Encourage employers to provide bicycle parking.
7. Install bike parking in downtown.
8. Continue requiring pedestrian accommodations in new developments.
9. Create safer areas to walk and bike to school.
10. Improve children's safety around schools during drop-off and pick-up, so children can walk and bike safely to school.
11. Support additional transportation options for those who choose not to own a car; and for those without access to an automobile; including the disabled, seniors, youth, or low income individuals.
12. Promote bike-ped routes and trails as a tourism and economic development driver that can help to attract and retain new residents and businesses, as well as, a visitor draw.
13. Establish a city-wide bike system that can support and enhance the City's BMX and mountain bike venues, which draw significant biking interested visitors to the City.
14. Support the development of county-wide and regional bike-ped facility projects with connections to the City's system to increase the promotional value.

Chapter 2: Background and Inventory

Knowing what currently exists provides a baseline for monitoring changes in facility use. An inventory of demographic data, roadway conditions, bicycling and walking facilities, and crash locations will build this baseline.

Demographic Analysis

The City of Rhinelander is located within Oneida County in Northcentral Wisconsin. The city is bordered to the north by the Towns of Newbold and Pine Lake, to the southeast by the Town of Pelican, and to the southwest by the Town of Crescent. The City lies approximately 135 miles northwest of Green Bay, roughly 60 miles northeast of Wausau, and roughly 55 miles south of the Wisconsin-Michigan border. The city covers 8.61 square miles, with an estimated population of 7,583 residents in 2015.

The City of Rhinelander is the largest community within Oneida County. According to projections from the Wisconsin Department of Administration (WDOA), the City of Rhinelander is expected to decrease by 83 residents between 2010 and 2030, as shown in Table 1, which displays population trends for the City of Rhinelander. While the City of Rhinelander is expected to decrease in population, Oneida County is expected to increase in population by roughly 3,000 residents over the same time period. Moderate growth is expected in the Towns surrounding Rhinelander.

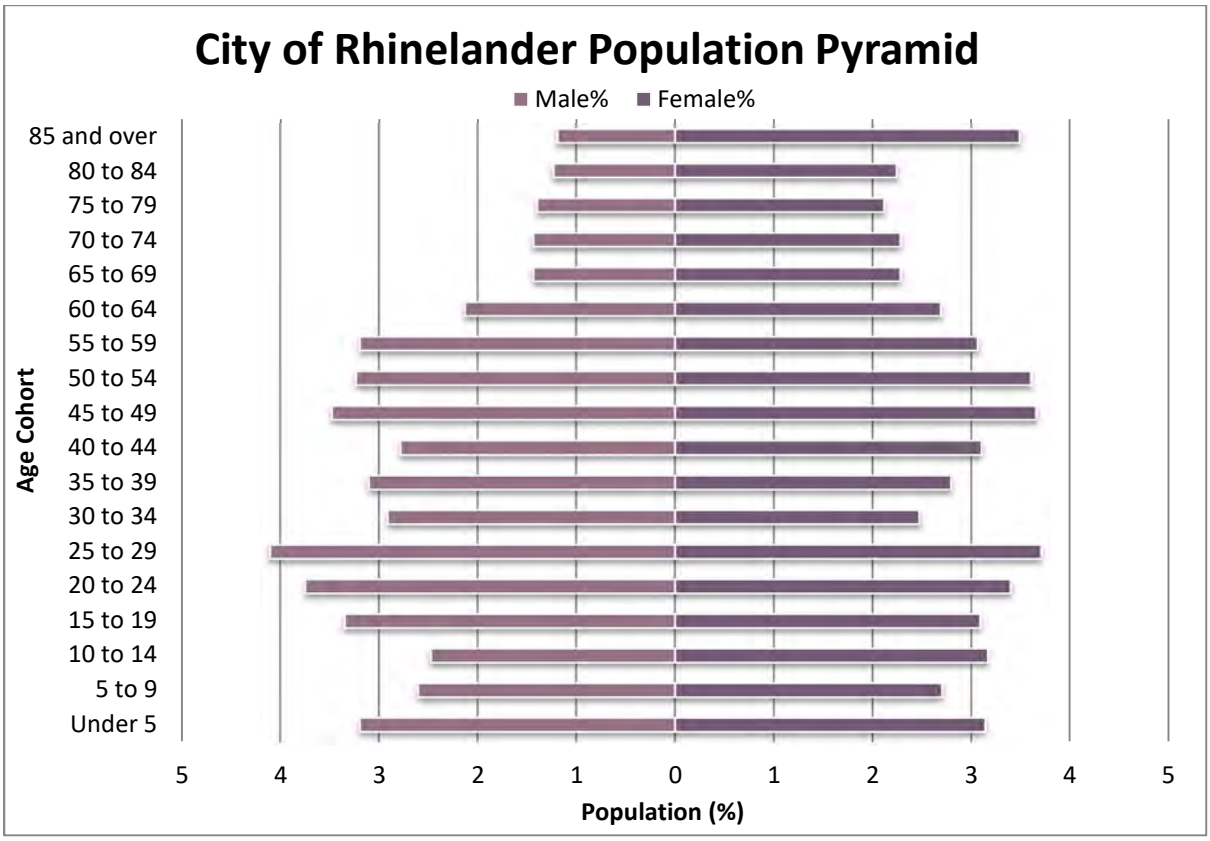
Table 1: City of Rhinelander Population Trends, 2000-2030

	2000	2005	2010	2015	2020	2025	2030
City of Rhinelander	7,735	7,615	7,798	7,583	7,625	7,730	7,715
Oneida County	36,776	36,623	35,998	35,653	37,265	38,905	38,985

Source: US Census and WI DOA.

Walking and biking are often the only means of transportation for individuals under 16 years of age. According to 2015 estimations from American Community Survey (ACS), roughly 17 percent of residents within Rhinelander are 15 years old or younger. A survey conducted by the U.S Census has found that individuals most likely to walk or bike to work are in the 16 to 24 and the 55 and over age groups, with rates of walking or biking to work decreasing between 25 and 54 years of age. Approximately 42 percent of Rhinelander residents are likely to walk or use bicycles for their commuting needs due to their young age or being in age groups considered more likely to bicycle or walk to work.

Figure 5



Source: U.S. Census, 2010

Rhinelander had a median age of 40.0 in 2010, compared to a median age of 48.0 for Oneida County, as shown in Table 2. Approximately 39 percent of residents within Rhinelander are between 25 and 54 years of age, while approximately 25 percent of residents within the city fall in age groups (16-24 and 55-65) considered as more likely to bike or walk to work.

Table 2: Rhinelander Age Characteristics, 2010

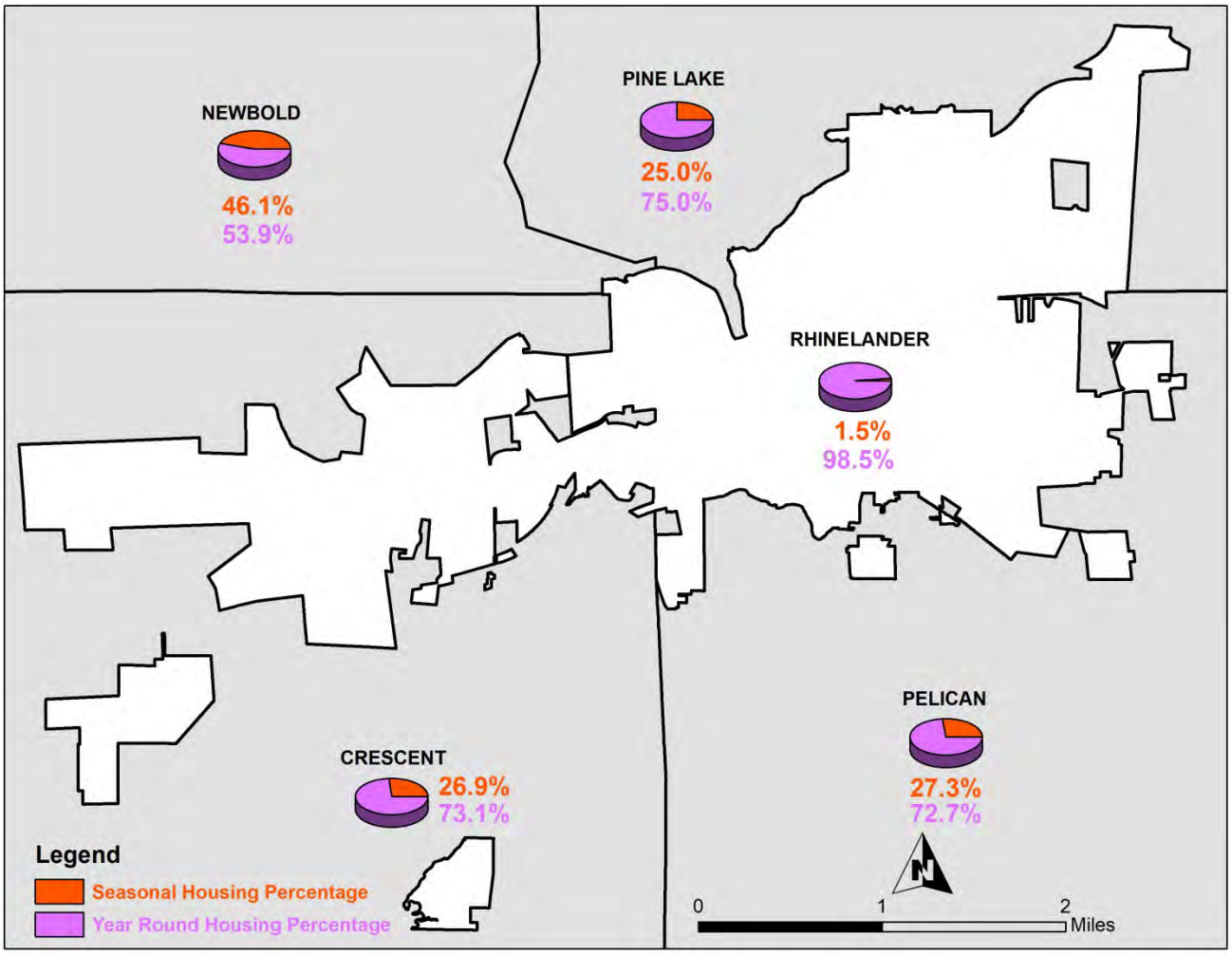
	Median Age	% Under 15	% 25-54	% 16-24, 55-64
Rhinelander	40.0	17.29	38.95	24.67
Oneida County	48.0	14.58	37.77	25.98

Source: US Census 2010

Impact of Seasonal Housing

Bicycling as a recreation activity is common among seasonal residents, especially when scenic trails are available. Seasonal residents often travel to an area just to enjoy the outdoors and this can include bicycling from place to place or on bicycle trails. Figure 6 shows the percentage of seasonal housing units to total housing units in the City of Rhinelander and its surrounding municipalities. Seasonal housing rates vary from approximately 46% in Town of Newbold to 1.5% in City of Rhinelander. Seasonal housing rates are significantly lower in the City of Rhinelander than in the municipalities that surround the city. The trend over the last 20 years has been for seasonal home owners to retire to their seasonal home, thus becoming permanent residents in their former "cottages". New permanent and seasonal homes are being built as well. These trends are both projected to increase.

Figure 6: Year Round and Seasonal Housing, 2014



Review of Existing Plans, Policies and Regulations

This summary of existing plans, policies, and ordinances influencing bicycling and walking in Rhinelander starts with regional plans and policies, and is then organized by municipality. Summaries include purpose, goals, recommendations, identification of bicycle and pedestrian facilities, and/or other key information provided in the plan.

The following plans and policies related to walking and bicycling in Rhinelander were reviewed for this plan:

- Wisconsin Bicycle Transportation Plan 2020 **(1998)**
- State Trails Network Plan **(2003)**
- Wisconsin State Statutes
    - Statute 346.25 – Crossing at Place Other than Crosswalk
    - Statute 346.28 – Pedestrians to Walk on Left Side of Highway
    - Statute 346.79 – Special Rules Applicable to Bicycles
    - Statute 346.80 – Riding Bicycle on Roadway
    - Statute 346.803 – Riding Bicycle on Bicycle Way
    - Statute 346.804 – Riding Bicycle on a Sidewalk
    - Statute 347.489 – Lamps and other Equipment on Bicycles
- North Central Wisconsin Regional Bicycle and Pedestrian Plan **(2018)**
- Oneida County Comprehensive Plan **(2013)**
- Oneida County Outdoor Recreation Plan 2014-2018 **(2014)**
- Oneida County Countywide Biking & Walking Routes & Trails Plan **(2002)**
- City of Rhinelander Code of Ordinances
    - Streets and Sidewalks
    - Public Safety and Licensing – Traffic
    - Zoning Ordinance
- City of Rhinelander Comprehensive Plan **(2016)**
- City of Rhinelander Outdoor Recreation Plan 2015-2020 **(2015)**
- City of Rhinelander Downtown Economic Development & Street Scape Plan **(2015)**
- Rhinelander Safe Routes to School Plan 2012-2017 **(2012)**
- Rhinelander Waterfront Redevelopment Plan **(2009)**
- Rhinelander Area Pathways Project **(2003)**

Wisconsin Bicycle Transportation Plan 2020

The Wisconsin Bicycle Transportation Plan was adopted in December 1998. The intention of this plan is to serve as a blueprint for improving conditions for bicycling, clarify the role that the Wisconsin

Department of Transportation (WisDOT) plays in bicycling transportation, and to establish policies to further integrate bicycling into the current transportation system.

The following two points serve as the primary goals of the state bicycle plan:

- *Increase levels of bicycling throughout Wisconsin, doubling the number of trips made by bicycles by the year 2010 (with additional increases achieved by 2020).*
- *Reduce crashes involving bicyclists and other motor vehicles by at least ten percent by the year 2010 (with additional increases achieved by 2020).*

Objectives of this plan include planning and designing new and improved transportation facilities to accommodate and encourage use by bicyclists, expanding and improving a statewide network of safe and convenient routes for bicycle transportation, expanding the range of bicycle education activities, improving enforcement of laws to prevent dangerous and illegal behavior by motorists and bicyclists, and encouraging more bicycle trips by promoting the acceptance and usefulness of bicycling.

The state bicycle plan generalizes the benefits of bicycling into the following eight categories: health, transportation, safety, environmental, transportation choice, efficiency, economic, and quality of life. When weighing the health benefits of bicycling against the health risks (crash potential) of bicycling, the *National Bicycling and Walking Study* states that "*Once people are drawn to greater use of these modes, their numbers may reinforce their greater safety on the roadway as they become more fully accepted as legitimate users of the transportation system,*" meaning that increasing numbers of bicyclists could lower the likelihood of being involved in a bicycle crash, due to increased awareness and acceptance of bicyclists on the road.

The 1987 study *Safety Effects of Cross-Section Design for Two-Lane Roads* found that adding four-foot wide paved shoulders on rural two-lane highways reduces occurrences of bicycle-motor vehicle crashes by 29 percent, and the addition of 8-foot wide paved shoulders reduces these crashes by 49 percent.

State Trails Network Plan, 2003

The State Trails Network Plan produced by the Wisconsin DNR, identifies a series of potential trail corridors that would link existing trails, public lands, natural features, and communities. The preservation of transportation corridors, especially old rail lines, is discussed as a very important strategy for creating recreational corridors. The following segments of the statewide trail network involve Rhinelander.

Segment 15 – Ashland to Rhinelander

This potential trail would connect Ashland with Woodruff, Minocqua, Rhinelander, and finally to Crandon. From Woodruff/Minocqua, an old abandoned rail corridor near the route of State Highway 47 may possibly provide the opportunity to connect the City of Rhinelander. If the rail corridor is not intact, it may be feasible to use roadways and existing trails, since the northern half of the route is through the Northern Highland-American Legion State Forest. **NCWRPC Note:** *Segments of this proposed*

trail exist now, including segments near Woodruff and McNaughton. The former rail bed still exists from Rhinelander to Monico, but the right-of-way is owned by multiple private owners who also own the adjacent land. The Monico to Crandon segment is not abandoned rail, but is an existing snowmobile trail within the USH 8 right-of-way on level land – great potential for a four season multi-use trail.

Segment 19 – Langlade County to Michigan

This abandoned rail corridor links the State of Michigan with the Mountain Bay Trail near Eland in Marathon County. It passes through a few state wildlife areas and some county forests. This corridor also links to the proposed Three Lakes to Rhinelander and Crandon to Tomahawk abandoned rail corridors in Oneida County. **NCWRPC Note:** *The Three Eagle Trail (bicycling & walking) uses segment 19 from Three Lakes, north 3 miles toward Eagle River.*

Segment 68 – Rhinelander to Three Lakes

This abandoned rail corridor would link these two communities by an off-road connection. At Rhinelander, links to the Washburn to Fond du Lac corridor, and at Three Lakes links to the Langlade County to Michigan corridor are possible. Significant bike trail interest has occurred in Oneida County. Strong support can be expected for this connector trail. **NCWRPC Note:** *Cannot find the rail corridor that supposedly makes up this segment.*

Wisconsin State Statutes

The Wisconsin State Statutes serve as generable laws applicable throughout the state of Wisconsin. An overview of the statutes that relate to bicycling and walking is provided on the following page.

346.25: Crossing at Place other than Crosswalk

Under this statute, every pedestrian, bicyclist, or rider of any electric personal assistive mobility device crossing a roadway at any point other than within a marked or unmarked crosswalk shall yield the right-of-way to all vehicles upon the roadway.

346.28: Pedestrians to Walk on Left Side of Highway; drivers to yield on sidewalks

Under this statute, every pedestrian traveling along and upon a highway other than upon a sidewalk shall travel on and along the left side of the highway and upon meeting a vehicles shall, if practicable, move to the extreme outer limit of the traveled portion of the highway. Operators of vehicles shall yield the right-of-way to pedestrians, personal delivery devices, bicycles, and riders of electric personal assistive mobility devices on sidewalks as required by s. 346.47.

346.79: Special Rules Applicable to Bicycles

This statute refers to special rules bicyclists must abide by whenever operating upon a highway, bicycle lane or bicycle way.

"A person operating a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto

- Except as provided, no bicycle may be used to carry or transport more persons at one time than the number for

which it is designed.

- In addition to the operator, a bicycle otherwise designed to carry only the operator may be used to carry or transport a child seated in an auxiliary child's seat or trailer designed for attachment to a bicycle if the seat or trailer is securely attached to the bicycle according to the directions of the manufacturer of the seat or trailer."

"No person operating a bicycle shall carry any package, bundle, or article which prevents the operator from keeping at least one hand upon the handle bars"

"No person riding a bicycle shall attach himself or herself or his or her bicycle to any vehicle upon a roadway"

"No person may ride a moped or motor bicycle with the power unit in operation upon a bicycle way"

346.80: Riding Bicycle or electric personal assistive mobility device on Roadway

This statute refers to the rules that bicyclists must adhere to when riding upon a roadway.

"In this section, 'substandard width lane' means a lane that is too narrow for a bicycle or electric personal assistive mobility device and a motor vehicle to travel safely side-by-side within the lane"

"Any person operating a bicycle or electric personal assistive mobility device upon a roadway at less than the normal speed of traffic at the time and place under the conditions then existing shall ride as close as practicable to the right-hand edge or curb of the unobstructed traveled roadway, including operators who are riding two or more abreast where permitted, except when:"

- "When overtaking and passing another vehicle proceeding in the same direction"
- "When preparing for a left turn or U-turn at an intersection or a left turn into a private road 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 that make it unsafe to ride along the right-hand edge or curb"

"Any person operating a bicycle or electric personal assistive mobility device upon a one-way highway having two or more lanes available for traffic may ride as near the left-hand edge or curb of the roadway as practicable"

"Any person operating a bicycle or electric personal assistive mobility device upon a roadway shall exercise due care when passing a standing or parked vehicle or a vehicle proceeding in the same direction and, when passing a standing or parked vehicle that is a school bus that is not displaying flashing red warning lights or a motor bus, shall allow a minimum of three feet between the bicycle or electric personal assistive mobility device and the vehicle"

"Persons riding bicycles or electric personal assistive mobility devices upon a roadway may ride two abreast if such operation does not impede the normal and reasonable movement of traffic. Bicycle or electric personal assistive mobility devices operators riding two abreast on a two-lane or more roadway shall ride within a single lane"

"Persons riding bicycles upon a roadway may not ride more than two abreast except upon any path, trail, lane or other way set aside for the exclusive use of bicycles and personal assistive mobility devices"

"No person may operate a bicycle, electric personal assistive mobility device, or moped upon a roadway where a sign is erected indicating that bicycle, electric personal assistive mobility device, or moped riding is prohibited."

"Every rider of a bicycle or electric personal assistive mobility device shall, upon entering a highway, yield, and every personal delivery device operator shall ensure that the personal delivery device, upon entering on a highway, yield the right-of-way to motor vehicles."

346.803: Riding Bicycle or electric personal assistive mobility device on Bicycle Way

This statute refers to the rules that bicyclists must adhere to when riding upon a bicycle way.

"Every person operating a bicycle or electric personal assistive mobility device upon a bicycle way shall:

- Exercise due care and give an audible signal when passing a bicycle or electric personal assistive mobility device

rider or a pedestrian proceeding in the same direction.

- Obey each traffic signal or sign facing a roadway which runs parallel and adjacent to bicycle way."

"Every person operating a bicycle or electric personal assistive mobility device upon a bicycle way open to two-way traffic shall ride on the right side of the bicycle way"

"Every operator of a bicycle or electric personal assistive mobility device entering a bicycle way shall yield the right-of-way to all bicycles and pedestrians in the bicycle way"

346.804: Riding Bicycle on a Sidewalk

When riding upon a sidewalk permitted for bicycle use by local authorities, this statute requires every person operating a bicycle upon a sidewalk shall yield the right-of-way to any pedestrian and shall exercise due care and give an audible signal when passing a bicycle or electric personal assistive mobility device rider or a pedestrian proceeding in the same direction.

347.489: Lamps & other Equipment on Bicycles and other vehicles and devices

This statute refers to bicycle equipment requires across the State of Wisconsin.

No person may operate a bicycle, motor bicycle, personal delivery device, or electric personal assistive mobility device upon a highway, sidewalk, bicycle lane, or bicycle way during hours of darkness unless the bicycle, motor bicycle, personal delivery device, or electric personal assistive mobility device is equipped with or, with respect to a bicycle or motor bicycle, the operator is wearing, a lamp emitting a white light visible from a distance of at least 500 feet to the front of the bicycle, motor bicycle, personal delivery device, or electric personal assistive mobility device. A bicycle, motor bicycle, personal delivery device, or electric personal assistive mobility device shall also be equipped with a red reflector that has a diameter of at least 2 inches of surface area or, with respect to an electric personal assistive mobility device, that is a strip of reflective tape that has at least 2 square inches of surface area, on the rear so mounted and maintained as to be visible from all distances from 50 to 500 feet to the rear when directly in front of lawful upper beams of headlamps on a motor vehicle. A lamp emitting a steady or flashing red light visible from a distance of 500 feet to the rear may be used in lieu of the red reflector.

No person may operate a bicycle, motor bicycle, or electric personal assistive mobility device upon a highway, bicycle lane, or bicycle way unless it is equipped with a braking system in good working condition, and can adequately control the movement of and to stop the bicycle, motor bicycle, or electric personal assistive mobility device whenever necessary.

No bicycle, motor bicycle, or electric personal assistive mobility device may be equipped with nor may any person riding upon a bicycle, motor bicycle, or electric personal assistive mobility device use any sire or compression whistle.

North Central Wisconsin Regional Bicycle & Pedestrian Plan, 2018

The North Central Wisconsin Regional Bicycle and Pedestrian Plan analyzes bicycle and pedestrian transportation throughout the North Central Region. The purpose of this plan is to "recommend policies, programs, and facilities to improve the safety, viability, convenience, and attractiveness of bicycling and walking for transportation." This plan also serves to "bridge the gap" between local community planning and State plans, as well as fill in gaps where improvements for bicycling and/or walking end in local community plans, to create a regional network of safe walking and bicycling.

The Federal Highway Administration defines the purpose of walking and bicycling networks in the following quote. "A complete network creates safe, comfortable, and accessible multimodal routes for

people walking and bicycling. The network may be comprised of varying facilities that appeal to a range of ages and abilities, such as shared use paths, sidewalks, and bike lanes. These facilities also provide equitable transportation for people of all income levels."

The Regional Bicycle and Pedestrian Plan contains the following four region-wide goals:

- **Mobility** – *The Trail System must enhance bicyclists' ability to get around the Region including access to key destinations such as schools, parks, retail areas, and other public facilities.*
- **Functionality** – *New off-road routes, improved existing street routes, signage and marking, and route promotion must be combined to function as a system that is easy and desirable to use.*
- **Safety** – *Every bicyclist and pedestrian in the North Central Region deserves a system that is safe for travel. Improving bicyclist and pedestrian safety was a top priority of the 2004 North Central Wisconsin Regional Bicycle Facilities Plan.*
- **Connectivity** – *The Trail System must provide a seamless transportation system on multiple levels including; internally to all areas of a community; externally to outlying neighbors around the Region; and becoming a part of the bigger picture of a statewide trails network.*

Regional Bike-Ped Workshop - Rhinelander Session

A public input workshop was held in the City of Rhinelander on April 3, 2017 as part of the development of the Regional Bicycle and Pedestrian Plan. Participants of the workshop included citizen advocates, county planning staff, trail building and advocacy programs, bicycle industry representatives, and county health departments, among others. A mapping component was included, and this allowed participants to mark specific opportunities or issues. One major finding of the Rhinelander workshop was a general agreement among participants that the area contains some very nice roads for bicycling, but these roads are not well connected and are surrounded by high volumes of traffic, often traveling at high speeds.

Bicycle and Pedestrian Issues identified by participants involving the City of Rhinelander include the following:

- People must bike in the travel lane on STH 8 between Woodboro and Rhinelander
- County Highway K has so much bicycle and pedestrian traffic that it needs to have a large shoulder
- Improvements are needed all along Highway 47 from Rhinelander to Lake Tomahawk and Minocqua, all along Highway 17N at least to Sugar Camp, and along Highway A from Sugar Camp to Three Lakes
- No connector to tech college in Rhinelander
- Rhinelander is isolated from surrounding areas

Bicycle and Pedestrian Opportunities identified by participants involving the City of Rhinelander include the following:

- Connecting the Newbold Trail to Lake Tomahawk and to Clear Lake Trails and campgrounds
- Adding shoulder width on short parts of some county highways (e.g. CTH C, K, and G) in the Rhinelander area could greatly improve the connectivity among the town roads.
- Connect Rhinelander to Crandon using existing rail corridor

Regional Bike-Ped Plan Wiki Exercise

Conflict areas in Rhinelander were identified using a wikimapping exercise done at the public workshop. The following conflict areas were identified in Rhinelander:

- County Highway G/Lake Julia Road
- W Kemp Street Bike/Pedestrian Trail at the Wisconsin River
- Along USH 8

Public input for these conflict issues noted a gap in the Kemp St Bike/Pedestrian Trail, and that there is no safe crossing road.

Regional Bike-Ped Plan Corridors

Regional corridors are used to link communities. Bicycle corridors form a conceptual network representing where people want to go on an inter-community or regional basis. Implementing such connections is not always accomplished in the most direct ways, however. Traffic volumes and other safety factors, physical barriers, and the location of previously existing facilities all play a role in the ultimate determination of routes. This recommended network was identified from existing local plans, local input, suitability mapping, and incorporates inventoried existing facilities. Regional corridors that connect to Rhinelander, and there current suitability, are identified below; refer to the North Central Wisconsin Regional Bicycle & Pedestrian Plan, 2018 document for more details on these corridors:

- **Hazelhurst-Rhinelander: 24-25 miles, moderate condition**
- **Minocqua-Rhinelander: 24-29 miles, poor condition**
- **Monico-Rhinelander: 14 miles, poor condition**
- **Rhinelander-Three Lakes: 21-24 miles, moderate condition**
- **Elcho-Rhinelander: 22-28 miles, moderate condition**
- **Rhinelander-Tomahawk: 23-24 miles, poor condition**

Popular bicycling locations near Rhinelander as noted in the Regional Bicycle and Pedestrian Plan include: Newbold Trail, the Downtown Rhinelander Chamber Bike Route, and Nicolet Technical College.

Oneida County

Oneida County has several plans in place relating to walking and bicycling in and around the City of Rhinelander. Oneida County also has numerous facilities located in close proximity to Rhinelander that

provide opportunities for walking and bicycling. Below is an overview of the walking and bicycle policies Oneida County has in place regarding Rhinelander.

Oneida County Comprehensive Plan, 2013

The Transportation Element of the Comprehensive Plan notes that "Rhinelander acts as a kind of hub with trails and routes reaching out like spokes to other destinations such as Minocqua/Woodruff, Three Lakes, and the Bearskin Trail, among others." Map 4-3 of the Comprehensive Plan includes an updated bike route and trail map of Oneida County.

Goals related to bicycling and walking in the Oneida County Comprehensive Plan mirror the goals described in the City of Rhinelander Comprehensive Plan.

Oneida County Outdoor Recreation Plan, 2014-2018

The Oneida County Outdoor Recreation Plan was created to provide direction toward meeting current and future recreation needs of the County by inventorying and analyzing existing recreational facilities within the County and providing recommendations to meet the needs identified for recreation in the County.

In terms of goals of the plan, walking and bicycling are directly addressed in Goal 3 and the following Objectives:

- Goal 3: Support development and connection of trails.
    - Objective 1: Support approval of the Oneida County Countywide Biking & Walking Routes & Trails Plan.
    - Objective 4: Support local government or local group development of trails for hiking, biking, walking, birding, ATV/UTVing, and snowmobiling.

Existing County Facilities

Oneida County maintains approximately 40 miles of walking trails within county-owned forests and approximately 5 miles of mountain bike trails. Major trails or routes of note include Newbold Trail, Bearskin State Trail, Three Eagle Trail, and the Washburn Non-Motorized Trail System. Other county facilities that provide walking and bicycle opportunities include Almon Recreation Area and Perch Lake Park. The Multiple Use Trail & Route Plan Map (Map 2 in the plan) highlights existing and proposed bicycle and multi-use trails and routes within Oneida County. The Trails & Routes Map (Map 7 in the plan) also highlights existing and proposed bicycle trails.

Recommendations

The following recommendations in the Oneida County Outdoor Recreation Plan relate to walking and bicycling:

- Multi-Use Trails – Develop trails and routes throughout Oneida County.

- Silent Sport Trails – Develop silent sport trails in the Washburn Lakes Silent Sports area as present by RASTA to the Forestry Committee.
- Trail Maintenance – Continue to work with volunteer groups to maintain trails. The Oneida County Forestry Department has an active working relationship with RASTA to maintain silent sport trails, and a similar working relationship with over a dozen motorized recreational clubs that maintain snowmobile throughout Oneida County and ATV trails on the Oneida County Forest. This recommendation is to continue those relationships.

Oneida County Countywide Biking & Walking Routes & Trails Plan, 2002

In 2002, the Oneida County Biking and Walking Trails Council developed this bike route plan with assistance from NCWRPC. This plan proposed a system of non-motorized transportation routes and trails throughout the County with connections to Rhinelander. The Plan was updated in 2010, but the update was not adopted by the County. However, the main elements of the plan have been integrated into the County Outdoor Recreation Plan.

City of Rhinelander

The City of Rhinelander also has several plans and policies in place relating to walking and bicycling within the City. Below is an overview of the related plans and policies the City has in place.

City of Rhinelander Code of Ordinances

The City of Rhinelander Code of Ordinances contains the following items that are relevant to bicycling and walking within Rhinelander.

Streets and Sidewalks

Section 3.01 covers streets and sidewalks in Rhinelander. Under Section 3.01.02, abutting land owners are required to construct and maintain sidewalks as decided by the Common Council or Director of Public Works. Section 3.01.03 requires a permit for any excavation or opening of a sidewalk. Section 3.01.05 requires the abutting land owner to remove snow and ice within 24 hours of any snowfall to allow for safe walking conditions for pedestrian traffic. Failure to remove snow or ice will result in the owner being charged the cost of removal. Section 3.01.12 describes maximum sidewalk widths for various types of roadways.

Public Safety and Licensing - Traffic

Section 4.02.10 covers bicycle regulations within the City. Under section 4.02.10, bicyclists are required to register their bicycles and are prohibited from riding their bike without it being registered. Registration is permanent and requires payment of a one-time fee. Bicycling is allowed on all sidewalks except for the following segments:

- Frederick St. – From Thayer to Stevens

- Rives St. – From Courtney to Stevens
- Davenport St. – From Courtney to Oneida Ave.
- King St. – From Brown to Pelham
- Anderson St. – From Frederick to Pelham
- Alban St. - From Frederick to Anderson
- Brown St. – From Frederick to Courtney
- Stevens St. – From Frederick to Pelham

Under Section 4.02.10, bicyclists are subject to the same laws and ordinances applicable to the operator of any vehicle, and are also granted the same rights. Bicycling is prohibited between one-half hour before sunset and one-half hour before sunrise unless the bicycle is equipped with proper reflecting lights that are visible from 50 feet away. Bicyclists are required to operate their bike as near to the curb as possible, use audible signals when overtaking pedestrians, stop for all arterial signs, observe all other traffic regulations, and yield right-of-way to all vehicles or persons when emerging from an alley. Bicyclists are prohibited from clinging or attaching themselves to other bicycles, propelling their bicycle at unsafe speeds, racing other persons or vehicles, and engaging in acrobatic, trick riding, or any other skylarking while on a moving bicycle.

The following bicycle routes are designated by Section 4.02.10:

- The south side of Acacia Ln. – From its intersection with Iverson St. to its intersection with Woodland Dr.
- The west side of Woodland Dr. – From its intersection with Acacia Ln. to its intersection with East Timber Dr.
- The north side of Timber Dr. sidewalk and portion of the roadway – From its intersection with Woodland Dr. to its intersection with Chippewa Dr.
- The sidewalk on the east side of Chippewa Dr. – From the intersection with Timber Dr. to its intersection with Winnebago St.
- The sidewalk on the south side of Winnebago St. – From the intersection with Chippewa Dr. to the YMCA of the Northwoods building.

Zoning Ordinance

The construction of walkways and trail bridges built on pilings are listed as a permitted use under Section 5.07.30. Section 5.07.03 prohibits lands located in a residential district to be used as a walkway for accessing any land located in a business or industrial district.

City of Rhinelander Comprehensive Plan, 2016

Bicycling and walking are covered by the Bicycle and Pedestrian Facilities section in the Transportation Element of the City's Comprehensive Plan. All roads within Rhinelander are legal to walk or bike on, but this does not mean that all roads are currently well suited for walking or bicycling. Roads classified

as "poor suitability " for bicycling within the City at least without some improvement include USH 8, STHs 47 & 17, and CTHs C, G, & P. This Plan acknowledges the City's 2003 bike-ped plan but references a recommendation for a complete update. The Plan also highlights the corridors from the Oneida County bike-ped plan that link Rhinelander to adjacent communities as part of a countywide non-motorized transportation system, these corridors include:

- Rhinelander – Three Lakes
- US Highway 8 East (Rhinelander to County Line)
- Rhinelander – Bearskin Trail
- Rhinelander East
- Crescent Lake Loop
- Rhinelander – Woodruff Trail
- CTH G –NTC – Almon Recreation Area

Transportation Goals, Objectives, and Policies related to bicycling and walking include the following:

- Goal: Develop and maintain a well-integrated and cost-effective transportation system that is capable of moving people and goods to, from, and within the community in a safe and efficient manner.
    - Objective 3: Support additional transportation options for those who choose not to own a car; and for those without access to an automobile; including the disabled, seniors, youth, or low income individuals.
        - Policy A: Revise the City's Sidewalk Ordinance
            - Require sidewalk installation at time of road installation;
            - Add an option for bikeway development, and their use instead of sidewalks;
            - Consider removing the cost of sidewalk installation from landowner to city – just like road installation.
        - Policy C: Encourage the development of a walking and biking trail & pathway system throughout the City.

City of Rhinelander Outdoor Recreation Plan, 2015-2020

The primary purpose of the City's Outdoor Recreation Plan is to "provide continued direction toward meeting the current and future recreation needs of the City of Rhinelander."

ORP Survey

A survey of Rhinelander residents conducted in December 2014 found that walking/hiking was the most common recreational activity within the City while bicycling was the 7th most common recreational activity. The survey found that in 2014, 78 percent of residents surveyed went walking/hiking for recreation and 39 percent of residents surveyed went bicycling for recreation.

Goals

The following goals and objectives of the City's Outdoor Recreation Plan address walking and bicycling:

- Goal 3: Become a more bicycling and walking friendly community
    - Objectives
        - Update Rhinelander Area Pathways Project 2003 (Map 2). Many improvements have taken place that were not in that plan.
        - Create a Bicycle and Pedestrian Advisory Committee to advise the City on bike and pedestrian planning decisions. Committee membership could include 2 Alderpersons and 3-5 citizens who are interested in making Rhinelander more bikeable and walkable.
        - Consider making all roads classified as collector or arterial, pedestrian and bicycle friendly.
        - Consider requiring bicycle parking at all employers.
        - Install bike parking in downtown.
        - Continue requiring pedestrian accommodations in new development.

Recommendations

The City's Outdoor Recreation Plan recommends developing more recreational trails, specifically along the Wisconsin and Pelican Rivers. Map 2 and Attachment F of the plan highlight proposed trails and connections to other trails throughout Oneida County respectively. The plan recommends completing parts of the trail as opportunities arise, attempt to finish trail segments that are mostly complete, update the 2003 Rhinelander Area Pathways Project to account for changes made since the plan was created, creating a bicycle and pedestrian advisory committee, and to develop the proposed trails highlighted in Map 2 and in Attachment F that are in Rhinelander.

The plan also recommends requiring bicycle friendly parking in each park. The plan recommends having the proposed Bicycle and Pedestrian Committee consider creating a bicycle parking ordinance that requires bicycle parking at each employer, using Bike Parking Guidelines included in Attachment D of the plan to determine amount of space needed and the design quality for bike racks, and installing bicycle friendly parking in the City's downtown.

Capital Improvements

Capital improvements related to bicycling and walking in parks within Rhinelander include re-constructing and paving the BMX track with asphalt at West Park, and paving a 10-foot wide asphalt path near Shepard Park in the Prospect Street R-O-W, west of Bruner Street to connect adjacent housing to the park.

City of Rhinelander Downtown Economic Development & Streetscape Plan, 2015

One part of the City of Rhinelander Economic Development & Streetscape Plan focuses on redesigning various streets in Downtown Rhinelander; including Brown Street, Davenport Street, and Stevens Street. Proposed changes to Brown Street include converting angled parking spaces into parallel parking to increase amount of space available on the road, widening the driving lanes from two 11.5-foot lanes to two 12-foot lanes, adding a 5-foot terrace on each side of the road, and adding bicycle lanes in the long-term. No significant traffic flow changes to Davenport Street or Stevens Street were proposed in this plan.

Another part of the plan focuses on streetscaping. Improvements to streets in Rhinelander as a result to the streetscaping portion of the plan include; new street lighting (mostly pole-mounted), adding bike racks throughout the downtown area, increasing the amount of wayfinding signage at key intersections throughout and leading into downtown, as well as strategically within downtown to help pedestrians navigate the area.

Streetscape treatments specific to Brown Street includes the provision of pedestrian only connections between rear parking areas and the street via alleys already in place. These alleys would be marked with Hodag paw prints to indicate that they connect to an important destination or feature and to encourage people to use them.

Other potential projects from this plan include; designating Anderson Street as a bike route through downtown, designating pedestrian routes between Brown Street and rear parking areas, and converting a one block section of Anderson Street into a pedestrian plaza for festivals and events.

Rhinelander Safe Routes to School Plan 2010-2015

The primary purpose of Safe Routes to School Plans nationwide is to increase the safety and regularity of children walking or bicycling to and from school. One of the primary reasons Safe Routes to School is a nationwide effort is to increase walking and bicycling among children as part of their daily routine to help combat childhood obesity. The two following goals served as the vision for this plan:

- Create safer areas to walk and bike to school
- Improve children's safety around schools during drop-off and pick-up, so children can walk and bike safely to school

Safe Routes to School Plan Recommendations

The Safe Routes to School Plan layout a number of *Community-Wide* ("CW") as well as site-specific recommendations for each school facility. Many of the recommendations pertain directly to the School District implementing programs and policies; including the site specific recommendations for each school facility. However, some of the community-wide recommendations would directly involve the City. The community-wide recommendations from the City of Rhinelander Safe Routes to School Plan are as follows:

CW 1. Encourage Walking:

- CW 1a. Create a Walk To School Day event every October. Also encourage the public to walk or bike to work on that same day.
- CW 1b. Support Bicycle Rodeo teachers to get "Train the Trainer" education from WisDOT's annual workshop.
- CW 1c. Create Walking School Buses throughout the city to rendezvous at corner school bus stops. Each public and private elementary school would be served by one or more city-wide school bus route that would operate like city bus routes with locally spaced stops and a direct stop in front of every elementary school.
- CW 1d. Develop student incentive program such as WisDOT's Mileage Club.

CW 2. School Sign Replacement:

- CW 2a. Perform school-by-school analysis of school speed limits and school signs to determine if they are still warranted.
- CW 2b. Relocate and replace all school signs citywide that need replacement per MUTCD standards.

CW 3. Pedestrian Street Crossings:

- CW 3a. Review pedestrian signal timing and button actuation at E. Courtney St. & S. Pelham St. and change signal if necessary.
- CW 3b. Use WisDOT created educational materials to remind residents how to recognize what a flashing red hand means about crossing the road ("Crosswalk Safety" brochure HS 211).
- CW 3c. Replace pedestrian signal actuator signs at each traffic signal button to the new sign with colored symbols and text.

CW 4. Motorist Education:

- CW 4a. Use public service announcements and WisDOT materials to educate drivers about how to share the road with bicyclists and pedestrians.
- CW 4b. After all engineering changes are made near a school, then create a public education campaign for the surrounding neighborhood and the school parents.
- CW 4c. Provide a web page that shows motorists how to share the road with bicyclists and pedestrians.
- CW 4d. Send police officers to 16-hour WisDOT training course on pedestrian and bicycle training ("Pedestrian & Bicycle Law Enforcement Training Course").

CW 5. Bicyclist Education:

- CW 5a. Send information to parents in emails, newsletters, websites, or handouts illustrating proper ways to walk or bike, and bicycle upkeep tips.
- CW 5b. Add sections to current classroom curricula on the benefits of walking or biking to school. Program examples include: *Moving and Munchin,'* the *Green and Healthy School Program*, and Bike Federation's *Walking Wisdom* and *Bike Drivers Ed*.
- CW 5c. Continue providing community-wide bicycle training events (e.g. bicycle rodeo with helmet distribution or Bike Fed's *Share and Be Aware Ambassadors*).
- CW 5d. Train a school district employee to assist with implementing Walking School Buses, Bike Trains, and other school implementation actions listed in the Action Plan.

CW 6. Bicycle & Pedestrian Facilities:

CW 6a. Continue to install curb ramps where existing sidewalks exist to benefit all non-motorized users.

CW 6b. Install sidewalk links per each school's recommendation in this plan.

CW 6c. Paint crosswalks that are adjacent to schools in the "Ladder" style to add visibility to each crossing.

CW 6d. Revise the parking ordinance to require bicycle parking that provides 2 points of contact with a bicycle to be locked.

CW 7. Evaluate SRTS:

CW 7a. Parent Survey & homeroom Student Tally.

CW 7b. Teacher & staff observations.

CW 7c. Evaluate on-site traffic management plan.

CW 7d. Walking & biking integrated into curriculum with various lesson plans and school policy revisions.

CW 7e. Community regularly announces Walk To School Day events, or recognizes other press releases.

Rhinelander Waterfront Redevelopment Plan, 2009

As part of the planning process for the 2009 Rhinelander Waterfront Redevelopment Plan, community members were asked what problems they saw facing their downtown currently, and what they would do in an ideal world. The answer was: connectivity and wayfinding needed to be improved. Of the four main points for improvement, two directly relate to bicycling and walking:

- The main street needs to once again become the focus of the downtown, and a new life needs to be brought to the streetscape.
- A plan for the inter connectivity of these and other elements needs to be implemented. This plan will address the pedestrian experience in the downtown of Rhinelander, including the views, information, and wayfinding cues available.

Phase 1 of the master plan focuses on an underdeveloped space in the downtown. This will transform this space into a multi-functional public plaza. On the north side of this plaza, the creation of an entrance into the town square plaza with an informational kiosk with news, events, and maps for wayfinding and orientation is suggested.

Phase 2 of the plan creates a Riverfront Restoration Area, with walking paths that connect to the multi-modal river trail that would be created as part of this plan.

Phase 4 of this plan focuses on improving the pedestrian experience and installing traffic calming measures. Improving the pedestrian experience would be achieved by improving wayfinding, adding pedestrian bump-outs to slow the speed of traffic, and various road-specific improvements. Widening entry roads into the downtown area to accommodate bicyclists is another part of Phase 4. Road specific improvements as part of Phase 4 include:

- **Courtney Street**: partial lane reduction, on-street parking, and traffic calming devices.
- **"Woonerven" Main Street**: increased canopy cover, a refocus on pedestrian experience, encouragement of foot traffic, and a channel through traffic to arterials on either side of Main Street.
- **Davenport Street**: pedestrian improvements between Courtney & Main Street and increased canopy cover.

Phase 5 of this plan includes the creation of a downtown Riverwalk Marina which would provide water access to pedestrians and bicyclists, while also being connected to the multi-modal river trail.

Rhinelander Area Pathways Project, 2003

Purpose

The purpose of the 2003 Pathways Project is to guide the development of bicycle and pedestrian facilities for the Rhinelander area. The plan aims to make the Rhinelander area more mobile by increasing the viability of walking and bicycling, and making them more attractive as transportation choices. This plan recommends corridors and pathways that will allow people to access destinations such as schools, employment centers, residential districts, recreation areas, and commercial retail areas via walking or bicycling.

Benefits of bicycling and walking include reduced traffic congestion, reduced need for parking, wider range of transportation choices, enhanced health and fitness, increase in tourism, increases in social interactions among families and communities, enhanced quality of life, decrease in air pollution, and protection of natural resources.

Goals

The Rhinelander Area Pathways Project contains the following goals:

- Mobility – The Pathways System must enhance bicyclists' and pedestrians' ability to get around the City including access to key destinations such as schools, parks, retail areas, and other public facilities.
- Functionality – New off-road routes, improved existing street routes, signage and marking, and route promotion must be combined to function as a system that is easy and desirable to use.
- Safety – Every bicyclist and pedestrian in the City of Rhinelander deserves a system that is safe for travel. Improving bicyclist and pedestrian safety was a top priority of the Pathways Project.
- Connectivity – The Pathways Project must provide a seamless transportation system on multiple levels including: internally to all areas of the City of Rhinelander; externally to outlying neighbors such as Woodruff via the connection to the Rhinelander-Woodruff Trail; and becoming part of the bigger picture of a statewide network by linking to the Bearskin, to the Hiawatha, to the Ice Age Trail, to the Mountain Bay Trail.

Pathways System – Trail Segments

The proposed Pathway System is split into 11 segments. Standards for the pathway include an 8-foot minimum path width (with a preference of 10 feet), slopes that are less than 5 percent, and surface material types consisting of asphalt, brick pavers, or Portland cement. The proposed trail segments are as follows:

1. Chamber of Commerce Building to Riverwalk Center
2. Riverwalk Center to West Phillip Street
3. West Spur to Larsen Drive or County Highway K
4. Lennox Street to Hodag Park
5. Dwight Street to Iverson Street
6. Rhinelander School District Property
7. County Highway C and Future STH 17 By-pass Spur
8. Coolidge Avenue / Shepard Street
9. East Spur North of Lincoln Street
10. Pioneer Park, Ocala Street & South Spur
11. Shepard Park and Back to Chamber of Commerce Building

How Previous Plans Are Integrated Into This Current Process

State (and federal) plans, although not specific in recommendations for Rhinelander, set the tone and general policy framework for planning and provide guidelines and requirements that must be followed at the local level. Regional plans establish a physical framework around which to build more fully integrated system. But, the emphasis is more on connecting neighboring places (i.e. greater Oneida County and beyond or county to county for example: Oneida to Vilas) than system recommendations within a given place. Planning for this Rhinelander Bike-Ped system included tying into the regional connections identified in the Regional Bicycle and Pedestrian Plan.

At the local level there have been a number of previous planning efforts that have addressed bicycle and pedestrian issues within the City of Rhinelander. These efforts have two basic types, either area-wide or more focused, area specific.

The area-wide plans all begin with the City's foundational 2003 bike & ped plan which brought together and expanded on a number of trail concepts that had been floating around the community for some time. Because the planning was taking place simultaneously, Oneida County's 2002 bike-ped plan mirrors Rhinelander's 2003 plan, and they are essentially two volumes making up the same plan. Since then, other plans have "planned" for a bike-ped system in and around Rhinelander, simply by referencing these 2002/2003 plans. These include both the City and County Outdoor Recreation Plans and Comprehensive Plans. All four of these plans include general recommendations to A) implement the 2002/2003 plans and B) update those plans (now accomplished by this process); as well as new recommended system maps that mirror the 2002/2003 system with minor additions or modifications. This recommended system as reflected through these various plans was essentially carried over to the

current effort with modifications by the planning committee to accommodate changing conditions and perspectives.

The area-specific plans focus on something like a school or schools, the downtown or the riverfront. While these plans informed the current planning process, many of the recommendations are extraneous to the primary purpose of the bike-ped plan. Where it was appropriate, recommendations were carried over and incorporated here. For example, the Waterfront Redevelopment Plan calls for a trail loop along both sides of the river extending to other parts of the community. While this has been an integral aspect of bike & ped planning in the City for some time, it is only one part of a complex plan to revitalize the downtown and better utilize the riverfront, and the ultimate recommendation regarding bicycle and pedestrian facilities with in the Waterfront Plan is to implement the City's Bicycle and Pedestrian Plan.

Existing Facilities Inventory

As part of the planning process it is important to take stock of what currently exists in the City. Existing facilities to be integrated into the proposed route and trail system for this Plan are described below and shown in Map 3. Of course, every public road is essentially open for walking and biking, with the exception of limited access divided highways such as an Interstate.

In addition, the City of Rhinelander has an extensive sidewalk network. Map 4 shows a City-wide sidewalk inventory completed for this Plan (Note: Inventory of presence of sidewalk only; condition assessment was beyond the scope of this Plan). The City is considering undertaking a more detailed sidewalk inventory project, see Appendix 4 for details, which would help with bike-ped project development as well as ADA compliance.

The following existing facilities are incorporated into the proposed routing for this Bicycle and Pedestrian Plan:

- Ascension St. Mary's Hospital Path - An off-street path links the hospital facilities to sidewalks and businesses on State Highway 17 and Eisenhower Parkway.
- Timber Drive Bike-Ped Lane - A wide lane for bicycle and pedestrians is marked off on Timber Drive to fill a gap in the sidewalk along the north side of the road.
- Woodland Drive Bike-Ped Lane - A lane for bicycle and pedestrian use is marked off on the west side of Woodland Drive from Timber to Acacia Lane for children to access the school, however, anecdotal reports indicate vehicle's parking in this area reduce its utility.
- Lincoln Street Bike Lanes & Sidewalks: The City installed bike lanes and sidewalk along Lincoln Street between Eisenhower and Evergreen with a Transportation Alternatives Program (TAP) grant.
- Coolidge Avenue Bike Lane - A bike lane is marked on the west side of Coolidge Avenue between Timber and Dahl.

- Barnes Street Bike Lanes - The City took advantage of an opportunity to incorporate bike lanes into the reconstruction of Barnes Street between Oneida Avenue and Shepard Street due to its proximity to Pioneer Park.
- Hodag Park Trail - An off-street trail runs the length of Hodag Park, along the water front.
- Riverwalk Center - A short off-street trail runs along the river between the Riverwalk Center to the Bandshell.
- River Trail - An off-street trail runs along the River from Ocala Street to Shepard Park. In addition, a board walk is being built along the River adjacent to the boat launch facility on Boyce Street across from Shepard Park.
- Commerce Trails - An off-street trail connect visitors at the hotels on the city's west side along Kemp Street and connecting up with the existing Riverwalk off-street trail at the Chamber of Commerce. Additional segments are being planned.
- Hanson Lake Trails - Primarily a mountain bike area, these trails aren't so much part of the City bike route system, but a destination of it and an important element of an overall "bike friendly" image (along with BMX park).

The Timber Dr bike/ped lane.

Roadway Conditions

Generally, the wider the road, the more vehicle and bicycle traffic it can accommodate, because fewer *triple pass occurrences* would restrict traffic speed. It is the law in Wisconsin that a motor vehicle must provide at least 3 feet between it and a bicycle when passing. Buses are wider than cars, and buses are about 8.5 feet wide; so a car (less than 8.5 feet wide) + 3 feet + a bike + an on-coming car can fit on a road that is 24 feet wide without any of the three vehicles leaving the pavement. The car passing the bike would probably cross the centerline slightly to make room for the bike, while still maintaining room for the on-coming vehicle.

Triple Pass Occurrence

A *triple pass occurrence* is when a bicycle, an on-coming motor vehicle, and an overtaking motor vehicle arrive at the same lateral section at the same time.

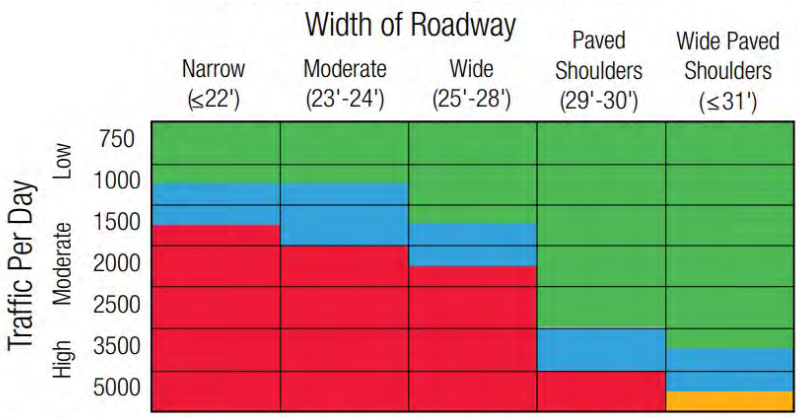
Local Roadway Suitability Evaluation

WisDOT has developed a road evaluation method based on the needs of rural bicyclists as part of their Rural Bicycle Planning Guide in 2006. The method is quantifiable and cyclists, stakeholders, and other agencies can practice the method which contains the following steps:

1. *Identify Annual Daily Traffic, or ADT*
2. *Determining how much of a road segment has a solid yellow line-roads with more solid yellow lines are less suitable for cycling because of limited sightlines. The more curves or hills along a stretch of roadway, the more solid yellow lines that stretch of roadway will have.*
3. *Identifying percentage of ADT that is truck traffic (if unknown, the guide suggests assuming ten percent of ADT).*
4. *Determine Pavement width.*

The guide then provides intuitive reference table to determine bicycling conditions for rural roads. The tables are separated based on common road widths. A summary chart of varying rural bicycling conditions is illustrated in Figure 7.

Figure 7: Generalized bicycling conditions for rural roadways



The table illustrates, in a generalized fashion, how state and county highways were classified by their conditions for bicycling. Traffic and width of roadways are the two primary variables affecting bicycling conditions. Green – Best conditions; Blue – Moderate conditions; Yellow – Higher Volumes, Wider Paved Shoulders; Red – Undesirable Conditions

The basic premise of the road suitability methodology is to make adjustments to the traffic volume (ADT) and pavement width (in feet) for the roadway being evaluated based on the other factors listed such as percent yellow line or percent truck traffic. From this system, bicycle suitability for roads is categorized in the following ways:

- Local Roads (City, Village, Town Roads) – Generally considered as "best condition" due to low traffic.
- Best Conditions for Bicycling
- Moderate Conditions for Bicycling
- Higher Volume, Wider Paved Shoulders

- Higher Volume, Undesirable Conditions
- Bicyclists Prohibited

While these categorizations do not constitute a plan or strategy, they do provide a detailed and relatively user-friendly inventory of current bicycling conditions while taking into account road types, conditions and general desirability.

In and around a built-up or "urban" area, main arterials and collector streets must be evaluated carefully when being considered as designated bike routes. On urban roads, slightly higher traffic volumes are suitable for bicyclists because speeds are generally lower than rural roads. In areas where traffic is dangerously fast, many communities are turning more to traffic calming techniques. Neighborhood streets generally need not be individually evaluated because traffic volumes on these streets are typically low enough that they are well suited to bicycling activities without any physical improvements.

Traffic Counts

Traffic counts identify how many motor vehicles pass a point during the count period. Some counters are calibrated to also identify bicycles, but neither WisDOT nor Rhinelander are using such counters at this time.

Map 5 shows the average daily traffic at count locations around Rhinelander. These counts come from counts taken by WisDOT in 2009, 2012, or 2015. If a segment did not have a 2015 count then the 2012 count was used. Counts that showed less than 500 Annual Average Daily Traffic (AADT), usually makes them the "best conditions' for bicycling if a road is paved, otherwise a gravel road could be a hazard to a bicyclist if the surface is not graded and from a passing vehicle's dust.

Crash Analysis

Safety is often cited as the primary reason people do not bike or walk more. Creating a safer environment for these activities is an important focus that requires an understanding of safety issues and proven actions that can be taken to improve safety. Crashes involving motor vehicles that result in injuries or fatalities to bicyclists and pedestrians have been recorded at the state and federal levels for many years.

Over the past few decades, traffic safety experts have been moving away from the term "***accident"*** in favor of the term "***crash***" to describe a collision. An accident is defined as an unforeseen and unplanned event or circumstance. WisDOT made this change in 1990 because traffic crashes are not accidents, but avoidable events caused by a single variable or chain of variables.

Crash data are reported universally for Wisconsin on Form MV400. However, it is important to highlight some shortcomings:

1. Some studies indicate that as few as ten percent of all bicycle crashes are reported;

2. Some roads with a higher frequency of bicycle crashes may have higher bicycle use;

3. Very often there will be no detectable pattern of bicycle crashes because of the small number reported in smaller cities.

Reported bicycle or pedestrian crashes in Rhinelander between 2000 and 2016 are shown on Map 6.

Bicycle Crashes

There are numerous roads within Rhinelander where multiple reported bicycle crashes have occurred between 2000 and 2016. Table 3 displays roads within Rhinelander where there were multiple reported bicycle crashes. Overall, the city contained 9 intersections with multiple reported bicycle crashes. The intersection of Davenport and Stevens Street had the most reported bicycle crashes during this time period with 5; followed by the Brown Street - Courtney Street intersection with 4.

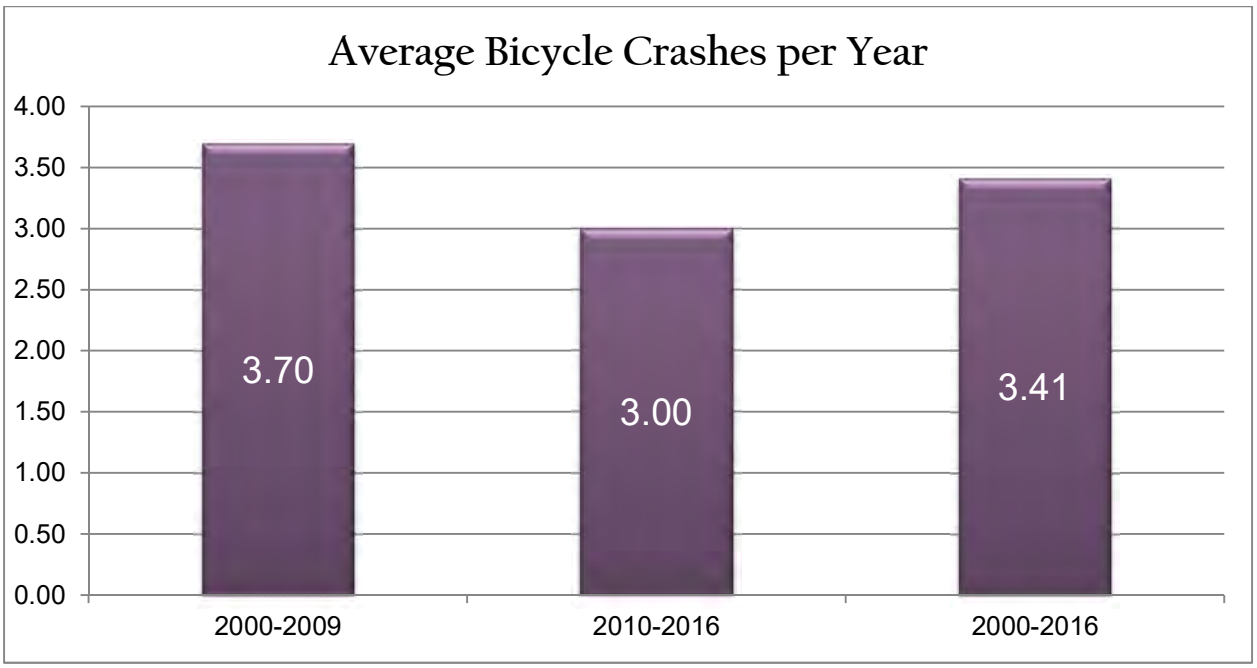
Table 3: City of Rhinelander
Street Intersections With Multiple Bicycle Crashes

INTERSECTION	# CRASH REPORTS
Davenport St. Stevens St.	5
Brown St. - Courtney St.	4
Courtney St. - Davenport St.	3
Thayer St. - Phillip St.	3
Baird Ave. - Frederick St.	2
Davenport St. - Sutliff Ave.	2
Courtney St. - Young St.	2
Lincoln St. - Maine St.	2
TimberSt. - Iverson St.	2

Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Lab.

Rhinelander had 58 reported bicycle crashes from 2000 to 2016. The city averaged 3.41 bicycle crashes per year from 2000 to 2016. The amount of bicycle crashes per year has been declining, as Rhinelander averaged 3.70 bicycle crashes from 2000-2009 and 3.00 bicycle crashes from 2010-2016, as shown in Figure 8. Of the 58 total bicycle crashes in Rhinelander, 55 resulted in an injury, 0 resulted in fatality, and 3 resulted in property damage exceeding $500. The City of Rhinelander accounted for 64 percent of reported bicycle crashes in Oneida County between 2000 and 2016.

Figure 8



Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory

Bicycle crashes occurred at a much higher frequency in the City of Rhinelander than in the rest of Oneida County between 2000 and 2016. Rhinelander had 58 bicycle crashes during this time, while the rural portions of Oneida County accounted for 32 reported bicycle crashes, as shown in Table 4.

Table 4: Bicycle Crash Data (2000-2016)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Rhinelander	3	4	3	3	9	4	1	9	0	1	5	1	2	6	2	1	4	58
Rural	2	3	4	1	0	2	2	3	4	3	1	1	1	1	3	0	1	32
Oneida County	5	7	7	4	9	6	3	12	4	4	6	2	3	7	5	1	5	90

Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory

Pedestrian Crashes

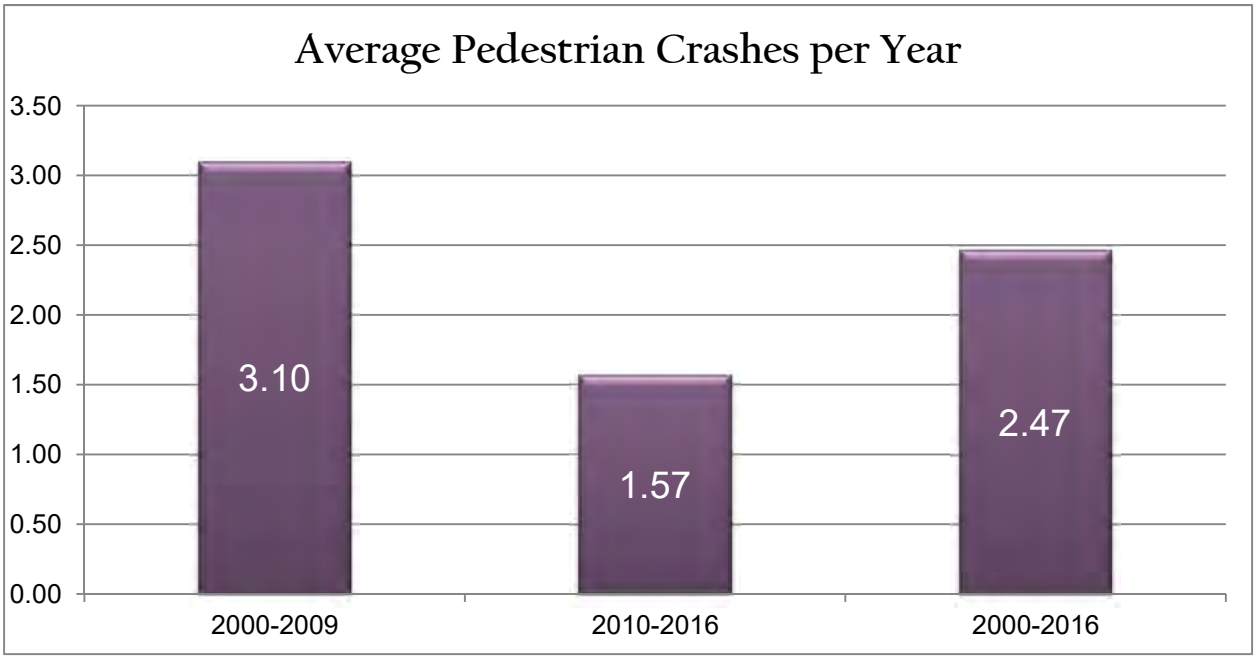
The City of Rhinelander also contains a high number of roads where multiple pedestrian crashes occurred from 2000 to 2016. Table 5 displays roads within Rhinelander where there were multiple reported pedestrian crashes. Overall, the city contained 6 intersections where there were multiple reported pedestrian crashes. The intersection of Courtney Street and Pelham Street had the most reported crashes during this time period with 4.

Table 5: City of Rhinelander Street Intersections With Multiple Pedestrian Crashes	
INTERSECTION	# CRASH REPORTS
Courtney St. - Pelham St.	4
Davenport St. - Stevens St.	2
Courtney St. - Shiek Plaza Dr.	2
Davenport St. - Brown St.	2
Stevens St. - Rives St.	2
Stevens St. - Woodland Dr.	2

Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Lab.

The City of Rhinelander had a total of 42 reported pedestrian crashes from 2000 to 2016. The city averaged 2.47 reported pedestrian crashes per year during this time. Pedestrian crashes have dramatically decreased over time, as the city averaged 3.10 pedestrian crashes from 2000-2009 and 1.57 pedestrian crashes from 2010-2016, as shown in Figure 9. Of the 42 total pedestrian crashes in the city, 38 resulted in an injury, 2 resulted in fatality, and 2 resulted in property damage exceeding $500. The fatalities occurred at the intersection of Courtney Street and Young Street in 2000 and mid-block on Lincoln Street in 2006.

Figure 9



Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory

Between 2000 and 2016, Rhinelander accounted for 54 percent of reported pedestrian crashes in Oneida County. The City of Rhinelander had a total of 42 reported pedestrian crashes between 2000 and 2016, while rural portions of Oneida County accounted for 36 reported pedestrian crashes, as shown in Table 6.

Table 6: Pedestrian Crash Data (2000-2016)

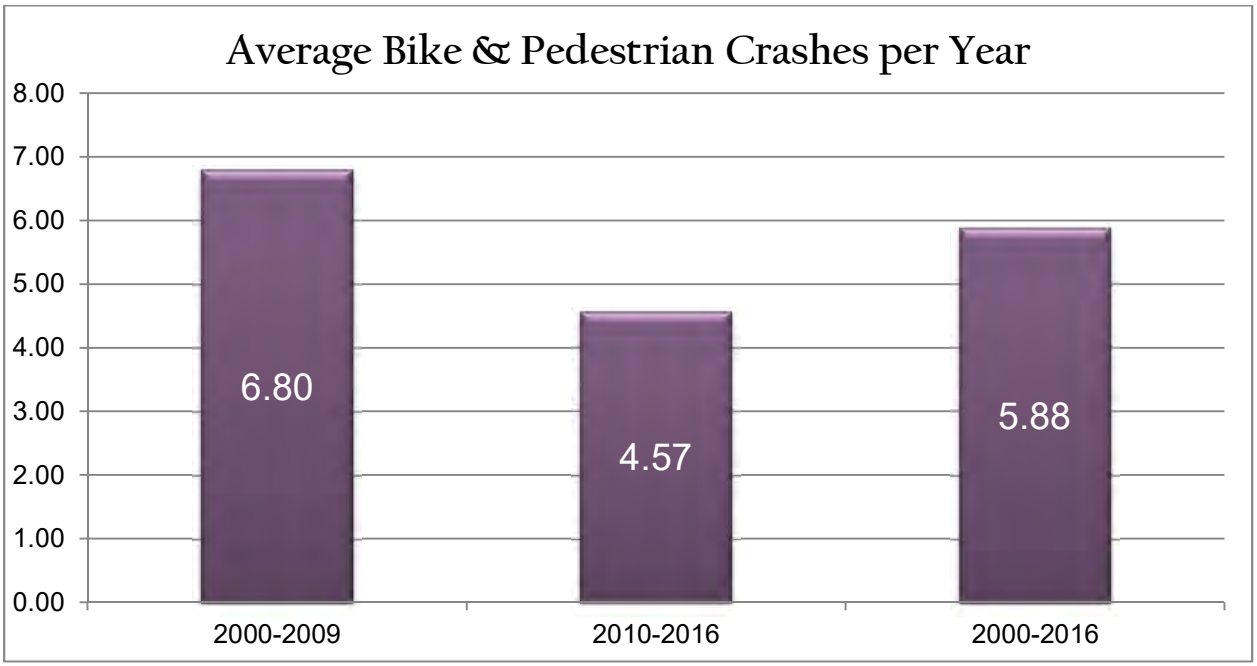
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Rhinelander	4	4	5	2	0	6	1	7	1	1	2	1	1	3	1	2	1	42
Rural	2	5	1	2	1	0	3	4	2	1	2	3	0	1	6	3	0	36
Oneida County	6	9	6	4	1	6	4	11	3	2	4	4	1	4	7	5	1	78

Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory

Overall Crash Incidence

Over the course of the 17 year period (2000-2016), the City of Rhinelander had a total of 100 crashes that involved either a bicyclist or a pedestrian, averaging 5.88 reported crashes involving either a bicyclist or pedestrian per year. The average number of crashes per year has decreased over time, as the city averaged 6.80 crashes between 2000 and 2009, and 4.57 crashes between 2010 and 2016, as shown in Figure 10. Of the 100 crashes in Rhinelander involving either a bicyclist or pedestrian, 93 crashes resulted in an injury, 2 crashes resulted in fatality, and 5 crashes resulted in property damage exceeding $500.

Figure 10



Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory

Between 2000 and 2016, the City of Rhinelander accounted for 59.52 percent of all reported crashes in Oneida County. The city had 16 total reported crashes in 2007, the most of any year, and only 1 reported crash in 2008, the lowest amount in any year. Table 7 displays a breakdown of bicycle and pedestrian crash data for the City of Rhinelander and Oneida County.

Table 7: Bicycle & Pedestrian Crash Data (2000-2016)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Rhinelander	7	8	8	5	9	10	2	16	1	2	7	2	3	9	3	3	5	100
Rural	4	8	5	3	1	2	5	7	6	4	3	4	1	2	9	3	1	68
Oneida County	11	16	13	8	10	12	7	23	7	6	10	6	4	11	12	6	6	168

Source: MV400 Crash Database, Wisconsin Traffic Operations and Safety Laboratory

Chapter 3: Community Livability

What Is Livability?

Multiple federal agencies, non-profit organizations, and professional associations have developed different definitions of livability. Livability is most often used to describe the diverse aspects of society, surroundings, and shared experiences that shape a community. It includes an interrelated set of economic, spatial, and social components that together are challenging to understand and measure in the defined work of planning and development. In addition, livability embraces the human experience of place, and is specific to the place and time in question. According to former Secretary of Transportation Ray LaHood, "Livability is about tying the quality and location of transportation facilities to broader opportunities such as access to good jobs, affordable housing, quality schools, and safe streets." A sample of definitions of livability adopted by federal or national organizations, follows:

Representative Definitions of Livability	
Agency/Organization	**Definition**
U.S. DOT	Livable communities are places where transportation, housing, and commercial development investments have been coordinated so that people have access to adequate, affordable, and environmentally sustainable travel options
AASHTO	AASHTO's 'livability' objective is to use transportation investments to improve the standard of living, the environment, and quality of life for all communities, rural, suburban, and urban.
Partners for Livable Communities	Livability is the sum of the factors that add up to a community's quality of life—including the built and natural environments, economic prosperity, social stability and equity, educational opportunity, and cultural, entertainment, and recreation possibilities.
***AASHTO is the American Association of State Highway Officials**	

Livability Principles

On June 16, 2009, the U.S. Department of Housing and Urban Development (HUD), U.S. Department of Transportation (DOT), and the U.S. Environmental Protection Agency (EPA) joined together to help communities nationwide improve access to affordable housing, increase transportation options, and lower transportation costs while protecting the environment.

The Partnership for Sustainable Communities works to coordinate federal housing, transportation, water, and other infrastructure investments with the goal of making neighborhoods more prosperous, allowing people to live closer to jobs, saving households time and money, and reducing pollution. The partnership agencies incorporate six principles of livability into federal funding programs, policies, and future legislative proposals. These six

principles are the foundation of the various goals and objectives introduced in the Regional Livability Plan ensuring that the region's livability is in sync with the larger national plan.

Department of Transportation Livability Principles:

1. **Provide more transportation choices.** - Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.

2. **Promote equitable, affordable housing.** - Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.

3. **Enhance economic competitiveness.** - Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.

4. **Support existing communities.** - Target federal funding toward existing communities—through strategies like transit-oriented, mixed-use development and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.

5. **Coordinate and leverage federal policies and investment.** - Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.

6. **Value communities and neighborhoods.** - Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

Livability & City Bike-Ped Planning

Planning to make the city more bikeable and walkable can go a long way to enhancing the livability of the community. Adopting a complete streets policy and working to implement a city wide bicycle and pedestrian plan show the community's commitment to improving living conditions and helps guide the city's efforts. Enhancing community livability in this way make the city a more enjoyable place to live and want to stay for current residents. In addition, it helps build community image as a desirable place, and thereby making it more attractive to prospective residents and businesses.

The remainder of this section describes development of a complete streets policy and two common programs to help measure the city's progress towards bikcability and walkability: Bicycle Friendly Community designation and Walkscore.

Complete Streets

A complete street is a street that is designed to accommodate all modes of transportation, including bicycling, walking, transit, and automobiles. As every community's needs are different, there is not a one-size-fits-all policy. A low volume, low speed neighborhood street may not need any additional facilities to accommodate pedestrians and bicyclists, while a major arterial through a community may need sidewalks and bicycle lanes, and a rural highway may only need paved shoulders to accommodate all modes of transportation.

Elements of a Strong Complete Streets Policy

Vision and Intent: Includes an equitable vision for how and why the community wants to complete its streets. Specifies need to create complete, connected, network and specifies at least four modes, two of which must be biking or walking

Diverse users: Benefits all users equitably, particularly vulnerable users and the most underinvested and underserved communities.

Commitment in all projects and phases: Applies to new, retrofit/reconstruction, maintenance, and ongoing projects.

Clear, accountable expectations: Makes any exceptions specific and sets a clear procedure that requires high-level approval and public notice prior to exceptions being granted.

Jurisdiction: Requires interagency coordination between government departments and partner agencies on Complete Streets.

Design: Directs the use of the latest and best design criteria and guidelines and sets a time frame for their implementation.

Land use and context sensitivity: Considers the surrounding community's current and expected land use and transportation needs.

Performance measures: Establishes performance standards that are specific, equitable, and available to the public.

Project selection criteria: Provides specific criteria to encourage funding prioritization for Complete Streets implementation.

Implementation steps: Includes specific next steps for implementation of the policy.

Source: Smart Growth America

However, a Complete Streets policy directs future street projects to be designed in a comprehensive manner that incorporates the perspective bicyclists and pedestrians of all ages and abilities into every road project rather than being auto-centric. A complete street takes into consideration the volume and type of traffic, the speed of traffic, street connectivity, and the potential volume of bicycle and pedestrian traffic to build and modify the appropriate type of infrastructure to increase pedestrian and bicyclist safety and comfort, as well as the automobile.

In Wisconsin, the Complete Streets law was changed in the State's 2015 biannual budget and now State transportation projects shall give "due consideration" to establishing bicycle and

pedestrian transportation accommodations. Only 11 communities, 3 regions, and 1 county within Wisconsin have developed a Complete Streets policy, while nearly 1,500 communities nationwide have done so.

Local Complete Streets Policies

When developing their own Complete Streets Policy, the City of Rhinelander should look to other communities within Wisconsin to learn what could be included in their Complete Streets Ordinance. There are eleven communities within Wisconsin that have developed a Complete Streets Policy, including: Appleton, Franklin, Grand Chute, La Crosse, Madison, Manitowoc, Milwaukee, New Richmond, Onalaska, Stevens Point, and West Salem.

The elements addressed in a Complete Streets Policy vary between communities. Not all communities include the same elements within their policy, nor do they incorporate all of the elements of a strong policy listed above. For example, Milwaukee's policy addresses 12 different elements based mainly on actions the City will take; New Richmond's policy includes a vision, goals, guiding principles, and an evaluation method; the Town of Grand Chute includes performance measures in their policy; while Stevens Point's policy focuses solely on designing their streets to accommodate the safety and convenience for all users.

Source: Wisconsin Bike Federation

Milwaukee Complete Streets Policy

Milwaukee's Complete Streets Policy was nationally recognized by Smart Growth America as the nation's third-best Complete Streets Policy of 2018. Milwaukee's Complete Streets Policy includes twelve elements to incorporate Complete Streets within the City. While Milwaukee is a much larger community than Rhinelander, Milwaukee's Complete Streets Policy can still be used as a guide and as a benchmark for Rhinelander to develop their own high-quality Complete Streets Policy. Milwaukee's policy seeks to address accessibility and maximize the comfort, safety and needs of all users; incorporates Complete Streets to achieve a complete, interconnected transportation network; incorporating the Complete Streets Policy in public way improvements, as well as future plans, projects, policies, resolutions, and ordinances; including stormwater management into future projects; prioritizing aspects of the Complete Streets Policy; the role the Department of Public Works will take under the Complete Streets Policy; involving the public in processes involving public way design, project development and implementation; and establishing a Complete Streets Committee and establishing the roles and tasks the Committee will be responsible for. The elements of Milwaukee's Complete Streets Policy are described in more detail below.

Public Way:

Develop design, operation, and maintenance standards to address accessibility and maximize the comfort, safety and needs of all users. [Image source: Wisconsin Bike Federation]

Transportation Network:

Incorporate the Complete Streets Policy to achieve a complete interconnected transportation network that serves all users and encourages walking, biking, and transit. [Image source: Smart Growth America]

Incorporation:

Incorporate this policy into all public way improvements and phases, as well as all future or amended City plans, policies, resolutions, and ordinances. [Image source: City of Minneapolis]

Stormwater Management:

Incorporate stormwater management and maintenance of green infrastructure within the public way to contribute to a comfortable and healthy pedestrian environment. [Image source: The Infrastructure Show]

Prioritization:

Priority will be given to the following: safety; street design elements that encourage and support walking, biking, and transit; and the goal for all users to safely, comfortably, and conveniently travel across and through the City's transportation network. [Image source: Boston Complete Streets]

Department of Public Works:

Prioritize universal and equitable investment in underserved communities throughout the City which lack existing infrastructure that encourages walking, biking, and transit trips, as well as areas where data indicate crash risk and health disparities. [Image source: FHWA]

Public Engagement:

Engage with stakeholders when designing public way improvements through a variety of methods including through online surveys, public involvement meetings, community organizations, collaboration with the Mayor, etc. [Image source: Smarter Growth California]

Complete Streets Committee:

- Establishes a Complete Streets Committee.
- The Complete Streets Committee shall oversee implementation of the Complete Streets Policy by prioritizing, assigning, monitoring, and establishing timelines for numerous actions.
- Work cooperatively to address community concerns and together assist in achieving community visions and goals in a manner that respects local context.

New Richmond Complete Streets Policy

The City of New Richmond is a community within Wisconsin that is similar in size to Rhinelander that has adopted their own Complete Streets Policy. New Richmond's Completes Streets Policy includes a vision for the city's transportation network with Complete Streets; Goals of the Complete Streets Policy; Guiding principles; applicability and scope of the policy; implementation of Complete Streets; Best practices and design guidance, and an annual evaluation of the Complete Streets Policy within New Richmond. Like New Richmond has done in their Complete Streets Policy, Rhinelander should look to establish a vision, goals, guiding principles, and an evaluation method for a Complete Streets Policy.

Image source: Imagine Kalamazoo

Vision

Complete Streets are a vital component of New Richmond's transportation network and contribute directly to the health, safety, economic vitality, and quality of life in the New Richmond Community. Through implementation of Complete Streets principles, the transportation network in New Richmond will be safe, accessible, and convenient for all transportation users of all ages and abilities regardless of their mode of transportation.

Goals

The Complete Streets Policy will ensure that the City's streets complement and enhance the surrounding land use and neighborhood character and accommodate all users, including drivers, bicyclists, pedestrians, senior citizens, children, and people with mobility impairments. Specifically, the goals are:

- To make streets safer and more inviting by reducing the frequency and severity of vehicular, bicycle, and pedestrian-related accidents.
- To ensure safe routes for students to get to school.
- To improve and enhance the health and well-being of the City's residents by providing safe and convenient opportunities for walking and bicycling.
- To improve the City's quality of life and local economy by providing high-quality multi-modal transportation facilities.

Guiding Principles

Each street in the City of New Richmond is unique, and there is no "one size fits all" approach. The following principles shall guide the development of transportation projects:

- Shall be appropriate to the function and context of the transportation facility;
- Shall be sensitive to the neighborhood context and cognizant of neighborhood needs;
- Shall be flexible in project design to ensure that all users have basic safe access and use;
- Shall be considered a component of a comprehensive, integrated, and interconnected transportation network that allows all users to choose between modes of travel; and
- Shall be consistent and compatible with the City's Comprehensive Plan and the City's Bicycle and Pedestrian Master Plan

Evaluation

On at least an annual basis, the Director of Public Works shall share quantifiable performance measures with the Public Works Committee and City Council related to the Complete Streets Policy, including but not limited to the following:

- Vehicle, bicycle, and/or pedestrian accident data
- Number of crosswalks improved or installed
- Number of ADA accommodations built or installed
- Number of traffic calming facilities installed
- Linear feet of sidewalks or trails built or repaired
- Number of boulevard trees planted
- Maintenance activities of existing Complete Streets facilities
- Total dollar amount spent on Complete Streets improvements

Building a Complete Streets Policy for Rhinelander

The first step Rhinelander should take in the process to adopt a Complete Streets Policy is to determine a vision outlining what they hope to accomplish with a Complete Streets Policy. It is important that Rhinelander has a vision that will help develop a policy that will be beneficial for the community. Creating a vision will also help Rhinelander determine the scope of their policy (should it cover many elements like Milwaukee's policy, or should it cover less elements and focus on incorporating street design to accommodate all users like in Stevens Point?).

Next, Rhinelander should view Complete Streets Policies that other Wisconsin communities have in place, and decide which elements of their policies are applicable for a Complete Street Policy in Rhinelander. Reviewing other local policies can also provide Rhinelander with ideas on how to incorporate Complete Streets, actions that other communities have taken on their streets, attainable goals that could be relevant to Rhinelander, and a general format for the Complete Streets Policy. Reviewing policies also makes it easier for Rhinelander to determine which communities would be helpful contacts for incorporating a Complete Streets Policy.

Next Rhinelander should create a set of attainable and measurable goals that will outline how to accomplish their desired mission. Creating a set of attainable and measurable goals will allow Rhinelander to set targets to reach in their policy, determine which aspects of their transportation network to address, and will also help to measure the success of the policy and determine where improvements could still be made.

After creating a set of goals, Rhinelander should determine the actions that they are willing or able to incorporate to meet these goals. Actions could include setting design standards and criteria for new road construction, reconstruction, and road projects; determining the proper design practices to incorporate; determining the scope of facility additions or enhancements (such as sidewalks, trails, bike lanes, etc.); where to incorporate facility additions or enhancements; and determining which traffic calming and speed management measures to incorporate.

Rhinelander should also create a Complete Streets Committee similar to the one in Milwaukee. This committee would be responsible for overseeing the implementation of Complete Streets in Rhinelander. The Complete Streets Committee would also be responsible for monitoring progress, determining priorities, setting timelines, and assigning tasks for various projects related to the Complete Streets Policy. The Complete Streets Committee can also help to raise support for Complete Streets, and for Rhinelander's quest to become a Bicycle Friendly Community, by distributing informational flyers, packets, and social media posts that highlight the benefits of walking and bicycling; hosting walking and bicycling events aimed to encourage residents and visitors to walk and bike Rhinelander's streets, and by working with local health, schools, bicycle, and silent sport groups to help increase awareness for the need to enhance walking and bicycling within Rhinelander.

Implementing Complete Streets in Rhinelander

After building the framework for a Complete Streets Policy, Rhinelander should focus on how to implement their Complete Streets Policy. Rhinelander will need to determine where road upgrades should be implemented; how to effectively manage the speed of traffic on their streets to provide a safe environment for bicyclists and pedestrians, while still moving traffic at an appropriate pace; and which types of road upgrades, or road diets, the City will incorporate as part of the policy.

Rhinelander will also need to prioritize future projects aimed to incorporate their Complete Streets Policy. Priority should be given due existing gaps, such as missing portions of sidewalks, within their street network before moving onto larger projects such as creating bicycle and pedestrian lanes on existing streets.

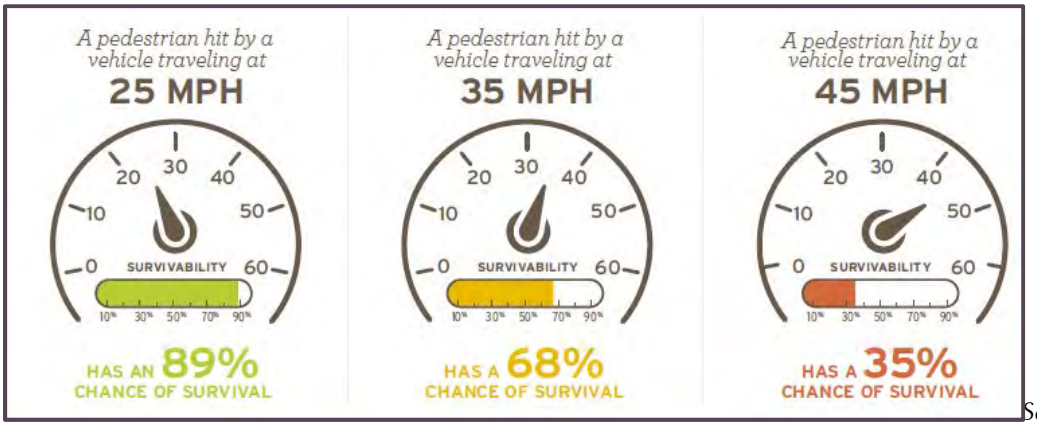
Focus on Low Stress Networks

When upgrading their street network to incorporate their Complete Streets Policy, Rhinelander should focus on creating a low stress network. Complete Streets policies focus on accommodating the widest range of ages and abilities, from children to seniors, and fitness enthusiasts to people with mobility challenges. Communities looking to implement Complete Street policies should focus on low stress networks, which include multi-use trails and paths that are separate from traffic to serve as the widest range of bicycle and pedestrian users. As real and perceived dangers are often barriers to walking and bicycling, a low stress network has the greatest potential to attract people that do not currently bike or walk for transportation, but would like to do so.

A low stress network includes low volume neighborhood streets. While bike lanes on an arterial street may be an important connection and will be used by more confident bicyclists, if there are low traffic neighborhood streets nearby that can serve as an alternative, those streets are likely to be more attractive to the majority of bicyclists.

Speed Management

While Complete Streets generally focus on creating networks through low stress networks, this is not always possible or practical. In some cases high stress roadways can be converted or improved through road dieting and/or traffic calming techniques. As the illustration below shows, slowing speeds greatly reduces the likelihood that a crash involving a pedestrian and motorist results in a fatality. Similar results would likely be seen for bicyclists as well.



Source: FHWA, 2016

At a relatively low cost, four lane roads can be restriped to two travel lanes, a center turn lane, and bidirectional bicycle lanes. The US DOT found that this classic road diet typically results in a 19 to 47 percent reduction in crashes, reduced vehicle speed differentials, improved mobility and access by all road users, and integration of the roadway into surrounding uses that result in an enhanced quality of life (https://safety.fhwa.dot.gov/road_diets/).

Traffic can be slowed on two lane roads through the use of bump/bulb outs which act as a chokepoint at intersections or on the middle of the road, forcing motor vehicles to slow down. A chicane is an artificial feature that creates extra turns in a road. Speed bumps or speed tables can achieve the same effect.

Engage in Short & Long Term Infrastructure Planning

When communities adopt a Complete Streets Policy, the transformation is usually a gradual process. Because of this, Rhinelander should engage in short-term and long-term infrastructure planning to help determine which projects to prioritize. Immediate priorities are identified, such as missing street cuts and missing sidewalks that are critical to the network. The community and friendship groups may start committees to raise funds for off-road trails. However, major pedestrian and bicycle improvements are usually planned as a part of future road maintenance and improvement projects in a similar manner that older water and sewer lines are replaced opportunely. Future improvements should be included in Rhinelander's Capital Improvement Plan (CIP). This increases the support for the project as costs are reduced and reduces the likelihood of opposition and stalling.

Public Involvement

Rhinelander should look to involve the public as much as possible when implementing their Complete Streets Policy. This would help build awareness and support for Complete Streets within Rhinelander. Complete Streets forums would help decision makers learn where citizens would most like to see improvements, what type of improvements would help make them safe, and could help to address any potential concerns citizens may have. Hosting informational events will help keep citizens up to date on progress of Complete Streets, help citizens better understand newly designed roads, and can help to increase walking and bicycling within the City. Providing Complete Streets educational classes will help increase safety awareness, teach bicyclists and pedestrians how to use newer amenities, and also teach drivers how to safely navigate the City's upgraded roads. Hosting walking or bicycling fundraiser events can also help to provide additional funding for Complete Streets and will encourage citizens to bicycle or walk to their destinations more often.

Bicycle Friendly Community Program

The Bicycle Friendly Community Program (BFC), administered by the League of American Bicyclists, is a program that seeks to improve the quality of life by engaging communities to improve conditions for bicycling to help the community capture the tremendous benefits that bicycling can offer for not only the community itself, but also for its citizens. The BFC program ranks communities across the United States as a Diamond, Platinum, Gold, Silver, Bronze or honorable mention community. There are currently 464 recognized Bicycle Friendly Communities and nearly 100 honorable mention communities across the nation, including 17 Bicycle Friendly Communities within Wisconsin. The BFC program provides safe accommodations for bicyclists while also encouraging people to bike as a means of transportation and for recreation.

BFC Program Overview

- Sets Standards for what constitutes a real bicycling culture and environment
- Affects decisions on how communities grow
- Inspires action, involvement and coordination among people that want to improve conditions for bicyclists
- Guides progress by acting as a roadmap for what communities should do next
- Rewards persistence as people respond to feedback, make changes and come back again and again to get recognition
- Raises expectations as to what really is expected and involved in making a great place for bicycling

An initiative of the BFC program is to help communities that actively support bicycling by providing hands-on assistance for enhancing bicycling in communities, by providing incentives for communities to enhance bicycling, and by giving award recognition to qualifying communities. The Bike Federation of Wisconsin is an excellent resource for the Bicycle Friendly Community Process and can help provide information, guidance, and can help communities fill out an application.

Application Process

The Bike Federation of Wisconsin (BFW) provides the following suggestions that could help the City of Rhinelander in their application for a Bicycle Friendly Community Award:

- Plan a strategy for pitching bicycle-friendly improvements
- Gather support
- Evaluate the community with the Bicycle Friendly Community Scorecard

Generally, the League of American Bicyclists scores communities based on the 5 "E's"; Engineering, Education, Encouragement, Enforcement, and Evaluation and Planning. Another consideration that can help boost a community's score is Equity.

As part of the application process, the community will have to fill out a questionnaire that asks questions about the community's engineering, education, encouragement, enforcement and evaluation efforts. This comprehensive questionnaire is designed to produce a complete picture of the applicant community's effort to improve bicycling.

The 5 E's For a Bicycle Friendly Community

Engineering: Bike lanes, bike routes, trails, bike parking, local Complete Streets policy, etc.

Education: Availability of cycling education, safety materials, Safe Routes to School Programs and number of League cycling instructors.

Encouragement: Bike to Work Week events, Bike Challenge participation, printed materials such as maps and brochures, fun events like Tour de Fat, etc.

Enforcement: Bicycle police, laws that protect bicycles, targeted enforcement programs to encourage people to share the road, liaison between bicycling community.

Evaluation & Planning: Community Bike Plan, annual bike counts, evaluation of crash data, mode share, etc.

The application process also includes a public survey to provide local context and perspective for the BFC review team's decision-making process, and is used in combination with the online BFC application submitted by the community. It is important to note that applicant communities will not be judged on the number of responses received, and that input from the survey does not determine a community's award level.

After learning about the application process, a community should take the next step and learn how bicycling conditions in their community compare to bicycling conditions in communities who have earned Bronze Status. Rhinelander should use the Building Blocks of a Bicycle Friendly Community and the Benchmarks of an Average Bronze Status Community (described below) to help determine how close Rhinelander is to a Bronze Status certification.

Building Blocks of a Bicycle Friendly Community

The Building Blocks of a Bicycle Friendly Community can be used to identify the key benchmarks that define the BFC award levels. Benchmarks are established for a variety of topics that fall under the 5 "E's"; Engineering, Education, Encouragement, Enforcement, and Evaluation and Planning. There is a total of ten Building Blocks, which are highlighted below. These Building Blocks can help communities understand the criteria for each award level, and how they compare to the benchmarks.

- **High Speed Roads with Bicycle Facilities** - Reflects the reported bicycle facilities on roads with posted speed limits of more than 35 mph. The average Bronze Community has bicycle facilities on 19% of its high speed roads.

- **Total Bicycle Network Mileage to Total Road Network Mileage** - Reflects the entirety of bicycle facilities, located on and off-road, divided by the reported centerline miles of all roadways. The average Bronze Community has a ratio of roughly 1 mile of bike network for every 4 miles of road network.

- **Bicycle Education in Schools** - Reflects the percentage of elementary, middle and high schools that offer bicycle education and the type of education offered at each school. Prevalence and type are used to create descriptive categories, with the average Bronze Community having "Average" Bicycle Education in schools.

- **Share of Transportation Budget Spent on Bicycling** - Reflects the reported percentage of each community's total transportation budget, over the past 5 years, invested in bicycle projects. The average Bronze Community reports that 9% of its transportation budget is invested in bicycle projects.

- **Bike Month and Bike to Work Events** - Reflects the number of events promoted as part of bike month in each community. The number of events is used to create descriptive categories, with the average Bronze Community having either "Average" or "Good" Bike Month and Bike to Work Events.

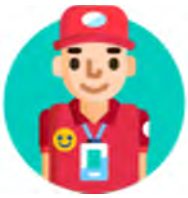
- **Active Bicycle Advocacy Group** - Reflects reported bicycle, active transportation, and transportation equity advocacy groups. Over 90% of communities that apply report the existence of an advocacy group in their community.

- **Active Bicycle Advisory Committee** - Reflects whether a bicycle advisory committee exists and how often it is reported to meet. The average Bronze Community has a bicycle advisory committee that meets roughly every two months.

- **Bicycle Friendly Laws & Ordinances** - Reflects local ordinances or state laws that are reported to protect or restrict bicyclists in each community. The number of restrictive laws is subtracted from the number of protective laws and that numbers used to create descriptive categories. The average Bronze community has between "Acceptable" and "Average" Bicycle Friendly Laws & Ordinances.

- **Bike Plan is Current and is Being Implemented** - Reflects reported information on the existence of a bike plan, the age of the bike plan, whether that bike plan has goals, and whether those reported goals are being met. Nearly 70% of communities that apply report having a bike plan that is current and is being implemented.

- **Bike program Staff to Population** - Reflects reported information on the number of full-time equivalent employees in each community and the population of each community. The average Bronze Community has 148,000 residents per one staff person.



Bronze Award Criteria

A Bronze Award is the lowest level of award given out to communities under the Bicycle Friendly Communities Program. While it is not necessary to meet each individual benchmark to achieve Bronze Status, it is helpful to be as close as possible to or exceed the benchmarks. The benchmarks for Bronze Status communities are displayed below in **Table 8**.

Communities similar in size to Rhinelander within Wisconsin that have achieved Bronze Status include the City of Monona and the City of Sturgeon Bay. Reaching out to officials in these communities could be beneficial in helping Rhinelander achieve Bronze Status.

Table 8: Bronze Award Building Block Benchmarks	
Criterion	**Benchmark**
Engineering	
Bike Access to Public Transportation	Good
Total Bicycle Network Mileage to Total Road Network Mileage	26%
High Speed Roads with Bicycle Facilities	19%
Education	
Public Education Outreach	Some
Annual Offering of Adult Bicycling Skills Classes	One
% of Primary & Secondary Schools Offering Bicycle Education	33%
Encouragement	
Active Bike Clubs & Signature Events	Yes
Bike Month & Bike To Work Events	Good
Active Bicycle Advisory Committee	Maybe
Active Advocacy Group	Maybe
Recreational Facilities like Bike Parks & Velodromes	Maybe
Enforcement	
Law Enforcement/Bicycling Liaison	Yes
Bicycle Friendly Laws/ Ordinances in Place	Some
Evaluation	
1 Bike Program Staff Person	1 per 77k citizens
Bike Plan is Current and Being Implemented	Maybe

Rhinelander Conditions

If Rhinelander is serious about applying to become a Bicycle Friendly Community, it is important to examine the current conditions for bicycling in Rhinelander compared to the established benchmarks of an average Bronze Status Community. This comparison will include a brief overview for the conditions under each of the 5 "E's". Brief overviews for how Rhinelander compares to the average Bronze Status Community are listed below for each of the 5 "E's", while **Table 9** displays comparisons of how Rhinelander stacks up against the benchmarks for Bronze Status.

Engineering

Currently, the City of Rhinelander is below all of the benchmarks established by the average Bronze Status Community. Seeing that the City does not have a transit system with a set route, there is no access to public transportation for bicycles within the City. Rhinelander also does not provide the same percentage of bicycle facilities on their road networks as the average Bronze Status community, nor does Rhinelander have an equal or higher percentage of high speed roads with bicycle facilities. It should be noted that if the recommendations of

this plan are implemented, Rhinelander would meet the benchmarks for their bicycle network mileage and the percentage of high speed roads with bicycle facilities.

Education

Bicycle Educational services currently offered in Rhinelander include a Bike Rodeo event aimed to increase bicycle safety, awareness, and skills in children and a New Rider Clinic hosted by the Hodag BMX Club. Schools within Rhinelander currently do not offer bicycle education classes outside of an annual Bike Rodeo, and there is little public bicycle education outreach within the city as well. Recommendations within this plan related to Education include providing more bicycle education events such as bicycle rodeos or other events that target both children and adults, including at least one piece of bicycle education in a newsletter or bill to residents per year, providing bicycle safety and education materials on the City's website, and offering a bicycle education course as an alternative to punishment for minor offenders of bicycle rules.

Encouragement

There are various Bicycle Clubs and Advocacy groups within Rhinelander. The Rhinelander Area Silent Trails Association, the Hodag BMX Club, and the Oneida County Biking and Walking Trails Council are organizations that promote and support bicycling within Rhinelander. Rhinelander also recently started hosting an annual bicycling event, Bikes & Burgers, an event that was held for the second time in summer of 2019. Rhinelander is also home to the Hanson Lake Trail System and a Hodag BMX complex within West Side Park, which provide park-like atmospheres for bicyclists to enjoy. Northwoods LEAN also has introduced a 100 mile challenge in Oneida and Vilas Counties, with James Williams Middle School and Central Intermediate School being participants in the challenge. However, Rhinelander is currently missing an active Bicycle Advisory Committee, which could lower Rhinelander's score in the Encouragement category. Recommendations of this plan related to Encouragement include sponsoring Bike to Work Week, a Bike & Walk to School Day, and promoting the Wisconsin Bike Challenge.

Enforcement

Rhinelander currently does not have many laws and ordinances that are designed to promote or enhance bicycling within the city. Rhinelander's Public Safety and Licensing - Traffic ordinances allows bicyclists to ride on sidewalks on most roads within the city, and also designates existing bicycle routes within the city. Rhinelander also currently does not have a Bicycling Liaison, or law enforcement official dedicated solely to bicycling safety. Recommendations of this plan related to Enforcement include requesting the Rhinelander Police Department to perform crosswalk enforcement, enforcing posted speed limits, and promoting bicycle education courses to the Rhinelander Police Department.

Evaluation & Planning

This Bicycle & Pedestrian Plan is the first step in evaluating bicycle conditions within Rhinelander, as well as implementing strategies and improvements that are designed to improve support and conditions for bicycling within Rhinelander. This Bicycle & Pedestrian Plan ensures that Rhinelander has a current bicycle plan, and provides recommendations that will help to improve bicycling in Rhinelander by targeting improvements within the 5 "E's". There are numerous recommendations within this plan that aim to improve Rhinelander's conditions for each of the 5 "E's", with each recommendation being highlighted with the appropriate 5 "E" icon. It will be up to the City of Rhinelander to implement the recommendations of this plan to meet the implementation standards for a Bronze Status Community. Rhinelander also does not currently have a staff person dedicated to the City's Bicycle Program. Adding a Bicycle Program Staff member would not only help meet the benchmark of 1 bike program staff person per 77,000 residents, it would also help the City evaluate the outcomes and effectiveness of Rhinelander's bicycle network.

Table 9: Rhinelander Comparison to Bronze Status Benchmarks

Criterion	Benchmark	Rhinelander
Engineering		
Bike Access to Public Transportation	Good	None
Total Bicycle Network Mileage to Total Road Network Mileage	26%	12.30%
High Speed Roads with Bicycle Facilities	19%	
Education		
Public Education Outreach	Some	Little
Annual Offering of Adult Bicycling Skills Classes	One	One
% of Primary & Secondary Schools Offering Bicycle Education	33%	0%
Encouragement		
Active Bike Clubs & Signature Events	Yes	Yes
Bike Month & Bike To Work Events	Good	No
Active Bicycle Advisory Committee	Maybe	No
Active Advocacy Group	Maybe	Yes
Recreational Facilities like Bike Parks & Velodromes	Maybe	Yes
Enforcement		
Law Enforcement/Bicycling Liaison	Yes	No
Bicycle Friendly Laws/ Ordinances in Place	Some	No
Evaluation		
1 Bike Program Staff Person	1 per 77k citizens	No
Bike Plan is Current and Being Implemented	Maybe	Maybe

Steps for Rhinelander to Achieve Bronze Status

In their efforts to become designated as a Bicycle Friendly Community, the first steps Rhinelander should take are to implement the recommendations of this Bicycle & Pedestrian Plan. Implementing these strategies will not only help to improve conditions across the 5 "E's" and meet their subsequent benchmarks, but it will also help show the League of American Bicyclists, the judges that determine designation status, that Rhinelander is serious about improving bicycling conditions within the city, and that the city is ready to help support and promote bicycling.

Why Should Rhinelander become a BFC?

- Helps Create a Vibrant Community
- Health Benefits
- Reduced traffic congestion
- Increased property values
- Increase in Tourism
- Save on Parking costs

Increasing public support for bicycling is another step that Rhinelander should take. Rhinelander should establish partnerships with organizations such as the Rhinelander Area Silent Trails Association, Hodag BMX Club, Rhinelander School District, Oneida County Biking and Walking Trails Council, Oneida County Health Department, Northwoods LEAN, Ascension St. Mary's Hospital, and Bikes & Boards to help promote bicycling within the city by providing bicycle events, distributing benefits of bicycling information to residents through a variety of media, and to help establish bicycle education courses.

Rhinelander should also reach out to the Bike Federation of Wisconsin for guidance on filling out an application. The Bike Federation of Wisconsin helps communities fill out applications, and also helps to pinpoint and strengthen a community's weaknesses when it comes to bicycling. Rhinelander should also reach out to other Wisconsin communities that have been designated as a Bicycle Friendly Community to learn the actions that these communities took to become a Bicycle Friendly Community. As noted earlier, the Cities of Sturgeon Bay and Monona are communities that are similar in size to Rhinelander that have achieved Bronze Status.

After the application process is finished, Rhinelander will receive a report card detailing how Rhinelander graded in each of the 5 "E's". An unsuccessful application will provide key steps that Rhinelander will need to take in order to achieve Bronze Status. Receiving a successful Bronze Status application report card will also help Rhinelander learn key steps that it would need to take in order to achieve Silver Status.

Award Determination

The League of American Bicyclists defines their award decision making process as follows:

- Points assigned to the data by formulas;

- Personal review of each application by League staff, including supplemental materials;
- Comparisons to similar communities in our award database, particularly based upon the Building Blocks of a Bicycle Friendly Community and characteristics such as population and type of community; and
- If necessary, review of public and advocate surveys or direct outreach to local advocates.

Other criteria besides the Building Blocks of Bicycle Friendly Community or the 5 "E's" include ridership rates within the community, safety measures such as crashes (measured by the amount of crashes per 10,000 bicycle commuters), and fatalities (measured by the amount of fatalities per 10,000 bicycle commuters). Applicants such as Rhinelander also have the opportunity to provide extra information pertaining to bicycling in their community, and why this helps make the community worthy of a Bicycle Friendly Community designation at the end of the application.

Walk Score

Walk Score is a tool that calculates an area's walkability based on an areas proximity to amenities such as grocery stores, schools, parks and other destinations. Walk Score only deals with a location's proximity to amenities however, and it should be noted that an area's pedestrian amenities, such as sidewalks, crosswalks, street connectivity, etc., are not included in the Walk Score analysis. Walk scores can be attributed to entire communities, or individual addresses in a community. Walk Score ratings range from 0 to 100, and communities are placed in one of the following categories based on their score; Car Dependent (0-24), Car Dependent (24-49), Somewhat Walkable, Very Walkable, or Walker's Paradise.

In Rhinelander, there is no community-wide walk score. Instead, walk scores are available for many different addresses within the City. This leads to a wide range of scores within Rhinelander, as some areas have scores that rate as high as "Very Walkable", while others have scores that rate as low as "Car-Dependent". For example, Downtown Rhinelander has a walk score of 80, making it a "Very Walkable" location, while Rhinelander High School has a walk score of 12, making it a "Car-Dependent"

Walk Score Rankings

90-100: Walker's Paradise

Daily errands do not require a car

70-89: Very Walkable

Most errands can be accomplished on foot

50-69: Somewhat Walkable

Some errands can be accomplished on foot

25-49: Car- Dependent

Most errands require a car

0-24: Car Dependent

Almost all errands require a car

location. Because of this, multiple locations will be examined to help determine walkability within Rhinelander. Locations in Rhinelander were scored based on their proximity to the following: Drinking & Dining, Groceries, Shopping, Errands, Parks, Schools, and Culture & Entertainment.

Walk Scores in Rhinelander by Area

Downtown Rhinelander

As previously mentioned, Rhinelander's downtown area is "Very Walkable" with a walk score of 80. Rhinelander's downtown area scores very highly in its proximity to schools, entertainment, and groceries, while scoring moderately high in each of the other categories.

Rhinelander High School

As previously mentioned, the Rhinelander High School area is "Car-Dependent" with a walk score of 12. This area scores highly in its proximity to schools, has an average score in proximity to parks, and extremely low scores in all other categories.

Wal-Mart

Lincoln Street's Wal-Mart location is classified as "Car-Dependent" with a walk score of 45. The area surrounding Wal-Mart scores highly for its proximity to groceries, errands, and restaurants, but extremely low scores for its proximity to parks and schools, which bring down the area's score.

North Stevens Street

The North Stevens Street area is classified as "Car-Dependent" with a walk score of 10. North Stevens Street has an average score for proximity to restaurants, but has extremely low scores for each of the other categories.

West Side Park

The West Side Park area is classified as "Car-Dependent" with a walk score of 15. The West Side Park area scores low in all categories, however it should be noted that there is no score for this locations proximity to parks.

North Brown Street

The North Brown Street area (north of Timber Drive) is classified as "Somewhat Walkable" with a walk score of 67. This areas scores highly in proximity to schools and entertainment, and has average scores in the rest of the categories.

Forest Home Cemetery

The Forest Home Cemetery area is classified as "Somewhat Walkable" with a walk score of 65. This area scored average or higher in each category, with especially high scores for proximity to groceries and entertainment.

East Kemp Street

The area south of E Kemp Street is classified as "Very Walkable" with a walk score of 73. This area scores particularly well for its proximity to groceries, schools, and entertainment, while having above average scores in each of the other categories.

West Kemp Street

The area north of W Kemp Street and west of the Wisconsin River is classified as "Car-Dependent" with a walk score of 22. This area has an average score for proximity to errands, but has low scores for each of the other categories.

Hodag Park

The Hodag Park area is classified as "Car-Dependent" with a walk score of 13. This area scores well for its proximity to parks, has a below average score for proximity to schools, and scores poorly for its proximity to each of the other categories.

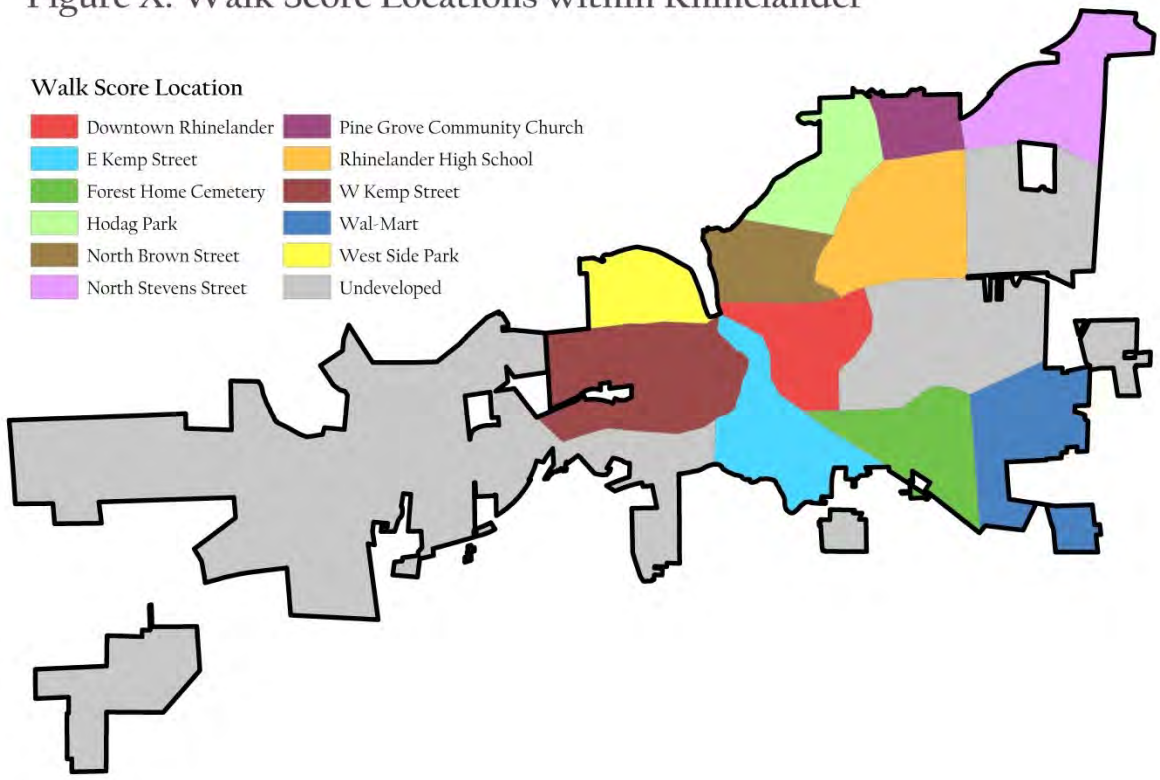
Pine Grove Community Church

The Pine Grove Community Church area is classified as "Car-Dependent" with a walk score of 12. This area scores above average for its proximity to parks, below average for its proximity to restaurants and schools, and scores poorly for each of the other categories.

Figure 11 displays the locations where walk scores were analyzed for Rhinelander. Locations with a low amount of development or pedestrian traffic, such as the airport, were not included and are mapped as "Undeveloped". Walk scores within Rhinelander tend to be highest closest to Rhinelander's "Downtown" location, with walk scores decreasing as the distance from Downtown increases. This is not surprising given that most businesses within Rhinelander are located in this area of the City.

While Walk Score can be a helpful tool in determining an area's walkability, it is not a tell-all tool for analyzing walkability. Areas with low walk scores can still be considered as walkable, especially if they have the appropriate infrastructure in place (sidewalks, crosswalks, etc.) to provide safe conditions for pedestrians.

Figure X: Walk Score Locations within Rhinelander



Improving Rhinelander's Walk Score

Improving walk scores within Rhinelander should be focused on providing destinations for residents to walk to. While not all residents would choose to walk to these destinations, providing these destinations would increase the number of potential walking trips within a

specific location, which could help decrease traffic levels in busier areas of the City, making it safer to walk in those areas.

Since walk scores are based off a location's proximity to amenities, improving walk scores throughout Rhinelander would be based on attracting businesses to areas with low walk scores. Adding local businesses such as grocery stores, retail stores, and restaurants to residential areas would not only boost walk scores in these areas, but would also help increase walking levels within these locations as well. Developing parks in the West Kemp Street, North Stevens Street, and Wal-Mart locations would also help to boost walk scores.

Rhinelander should also focus on increasing and maintaining pedestrian infrastructure (sidewalks, crosswalks, shared use trails, multi-use lanes, etc.) within Rhinelander in their efforts to increase their overall walkability. Providing pedestrian infrastructure will help increase safety, comfort, and ultimately walking levels within Rhinelander.

Pedestrian utilizing bike lane on Coolidge Ave.

As indicated earlier, the City will be engaging in a detailed inventory and analysis of its sidewalk system. Pending the outcome of this study, the following is a list of potential pedestrian improvement projects offered by the Oneida County Biking and Walking Trails Council. The primary goal should be to fill in the gaps within the sidewalk network. The (*) denotes school safety projects.

Eastside

- Coolidge Avenue sidewalk on both sides*
- Timber Drive to Woodland Drive sidewalk both sides.*

- Timber Drive to Brown Street sidewalk on both sides.*
- Eisenhower Parkway turning lanes.
- Sidewalks on both sides of Eisenhower Parkway.
- Sidewalk to dental clinic.

West Side

- Sidewalk along River Street
- Sidewalk on Lois Street
- Sidewalk on sides streets off River Street

North Side

- Sidewalk from GM to BP station.
- Sidewalks on both sides of Stevens.
- Sidewalk both sides on East Timber to Acacia Lane.*
- Iverson Street to Acacia Lane.*

South Side

- Connect Bruner Steet with sidewalks on both sides of Ocala for passage Pioneer Drive.
- Sidewalk on both sides of Boyce Drive.
- Mead Street connects to Boyce Drive connecting boat landing and Hodag Park.

Chapter 4: Bicycle and Pedestrian Corridor Recommendations

Routing Criteria

NCWRPC, with input from the Parks, Buildings & Grounds Committee, Bicycle & Pedestrian Committee and the Advisory Group, used the following set of criteria to establish routes:

- Establish Off-Road Routes when possible
- Bolster current routes where Rhinelander residents and visitors are already walking and biking
- Establish connections identified through public participation efforts
- Consider the other following factors in developing routes:
    - Safety, particularly for families and youth bikers
    - Recreation & Economic Appeal
    - Opportunities for improved wayfinding

Facility Types and Design Guidance

This plan makes facilities and policy recommendations intended to improve cycling conditions for the City of Rhinelander. The following facility treatments that may be appropriate for areas within and around the City are provided by WisDOT, the Federal Highway Administration's *Small Town and Rural Multimodal Networks Guide*, the National Association of City Transportation Officials (NACTO)'s *Urban Bikeway Design Guide*, and the North Central Wisconsin Regional Bicycle & Pedestrian Plan's recommendations and guidance for facility improvements. Each treatment is described in detail, with benefits and drawbacks and design considerations described.

Hodag Park Riverfront Trail.

Mixed Traffic Facilities

These facilities are most appropriate for accommodating multimodal transportation and motorized vehicles in the same road space. In general, these facility types are most appropriate for low speed, low volume traffic and tend to require generally lower levels of investment.

Yield Roadways

Definition: *Bidirectional motor roadway that utilizes a road diet to slow traffic and create a comfortable space for pedestrian and bicyclists on the road.*

Appropriate Setting: *Low speed, residential areas*

Benefits: *Affordable to construct and maintain. Meshes well with traditional neighborhood quality. Design can easily support on-street parking and minimize storm water runoff.*

Other Considerations: *Road dieting and visuals (like trees) can narrow corridors to lower speeds*

Design Guidelines

- *Width should be between 12 and 20 feet.*
- *When roadway functions as two-lane, single-lane street, pull-out areas should be provided very 200-300 feet with parking openings 16-20 feet wide to accommodate emergency vehicles*

Yield Roadway in Ennis, MT *Source: FHA Small Town & Rural Multimodal Networks 2016*

Bicycle Boulevards

Definition: *A route through a neighborhood (or to a local destination) on a low stress roadway shared with motor vehicles.*

Appropriate Setting: *Low stress roadways in incorporated or otherwise dense areas. A route to an in-town destination.*

Benefits: *Perfect for small cities like Rhinelander. Ideal routing measure to in-town destinations or creating continuous paths in communities for alternative transportation.*

Limitations: *May require more pavement to accommodate pavement foot traffic. Not most appropriate for rural settings.*

Design Guidelines

- *Requires pedestrian crossing treatments and traffic calming in order to be fully successful.*
- *Should not cross major roadway if at all possible*
- *Shared roadway between bicycle and motor vehicle should be between 12 and 22 feet*
- *Parking lane should be seven feet in length*
- *Shared Arrow ('Sharrow') markings and route wayfinding are necessary for a successful bicycle boulevard.*

Bike Boulevard in Nampa, ID
Source: National Association of City Transportation Officials

Advisory Shoulders

Definition: *Bidirectional motor roadway that visually delineates a designated, non-exclusive space for bicyclists on roads that are otherwise too narrow for bike lanes with hashed lane markings*

Appropriate Setting: *Rural roads with low traffic volumes, and on some collector routes.*

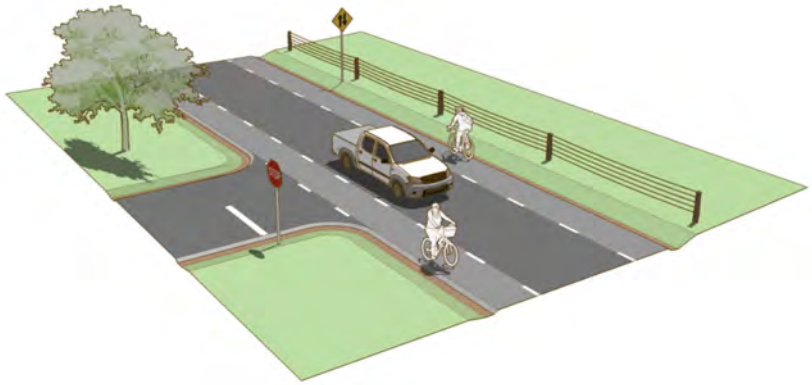
Benefits: *"Road Diet" style feature that clearly communicates where users should operate. Affordable, and requires little community investment.*

Limitations: *May require more pavement to accommodate pavement foot traffic. May require community acclimation.*

Design Guidelines

- *Advisory Shoulder should be six feet wide, and absolutely no less than four feet wide in circumstances with no curb or gutter*
- *Center two-way travel lane should be between ten and 18 feet, most preferably between 13.5 and 16 feet.*

Advisory Shoulder
Source: Small Town and Rural Design Guide: Facilities for Walking and Biking



Visually Separated Facilities

These facilities are most appropriate for designating specific spaces for multimodal transportation in the same road space as vehicular traffic. These facility types are generally suited to higher traffic-volume roads.

Pedestrian Lanes

Definition: *Bidirectional motor roadway that visually delineates an exclusive, designated space for pedestrians.*[2]

Appropriate Setting: *Local and collector roads in small cities and villages*

Benefits: *Ideal treatment for providing interim, temporary connectivity in lieu of sidewalks*

Limitations: *Not a recommended treatment for rural roads. Challenging to remove snow and to sweep. Risky for visually impaired pedestrians. May be perceived as a space for bicycles.*

Design Guidelines

- *Pedestrian Lane should be between five and eight feet in width*
- *Special care should be made that the surface of a pedestrian lane be slip resistant and durable*
- *Appropriate markings and signage highly recommended to clarify intended and exclusive use of lane for pedestrians*
- *Wisconsin state statute requires pedestrians to walk towards traffic; therefore pedestrian lanes are only a viable option, if provided along each side of the roadway. Pedestrians shouldn't be encouraged to walk with traffic unless there is a physical separation from the travel lanes.*

Bike Lanes

Definition: *An exclusively designated lane for bicyclists on a roadway.*

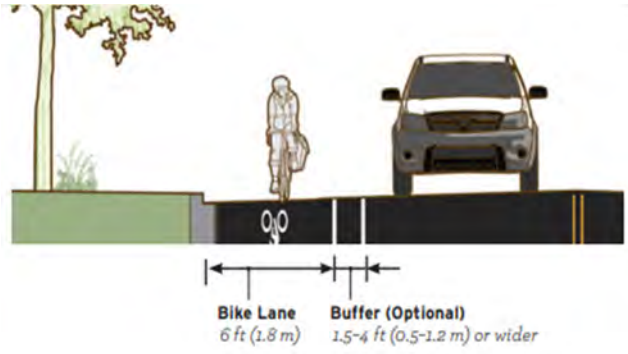
Appropriate Setting: *Highly versatile to many settings, but most appropriate on roadways with moderate traffic going moderate speeds*

Benefits: *Highly versatile to road types and traffic levels. Sends very clear visual cue to drivers. Ideal connector of local bike routes to larger corridors. Widely recognized facility type*

Limitations: *May provide stress to bicyclists in high traffic situations. Special care needs to be given when bicycle lanes encounter intersections.*

Design Guidelines

- *Width*
  - *Preferred width: 5 to 7 feet, absolute minimum of four feet (45 mph or less) or five feet (greater than 45 mph).*
  - *Bike lanes greater than seven feet wide should be accompanied with a buffer zone to discourage motor vehicle use of bike lane for parking or driving.*
- *Buffers should be between 1.5 and four feet in width*
- *It is essential that bike lanes be marked with consistently solid lines.*
- *Pavement marking are essential, and signage optional but encouraged.*



[2] In Wisconsin, a pedestrian lane must be marked on both sides of the roadway, with pedestrians walking toward vehicular traffic.

Paved Shoulders and Urban Shoulders

- **Definition:** *A clearly designated space reserved for bicyclists or pedestrians along a roadway when sidewalks or other facility treatments are for whatever reason unattainable. White edge lines provide visual separation between travel lanes and paved shoulders. Urban shoulders are provided along roadways with curbs.*

Appropriate Setting: *Collector and arterial roads and highways with moderate to high traffic and truck volumes. Additionally appropriate for longer travels on rural routes. In urban settings, can be used as an alternative to bike lanes. Unlike bike lanes, allowed in areas with minimal, occasional parking.*

Benefits: *Provides achievable facility to host routes when sidewalks, shared use paths, bike lanes, and other facility types are not possible. Especially useful in accommodating multimodal transportation with higher speeds*

Limitations: *Requires wider roadways*

Design Guidelines

- *Widths*
  - *Minimum width: three to five feed (depending on ADT, bicycle use, % trucks, & % double yellow lines)*
  - *Desirable width, collector Routes: 3 to 5 feet*
  - *Desirable width, arterial routes: five to eight feet for rural; five to seven for urban*
- *Optional but recommended buffer should be between 1.5 to four feet*
- *Other proven safety measures in the buffer include striping and rumble strips*

Climbing Bike Lanes

Definition: *A specially designed set of bike lanes on uphill roads or roads too narrow to accommodate bidirectional bicycle lanes*

Appropriate Setting: *Narrow or hilly road segments*

Benefits: *Provides for bidirectional bike traffic in special circumstances while minimally interfering with vehicular traffic*

Limitations: *Facility treatment for very specific circumstances*

Design Guidelines

- *One dedicated bike lane travels in the uphill direction*
- *Downhill lane is shared by cars and cyclists*
- *"Sharrow" markings can be used on downhill lane*

Physically Separated Facilities

These facilities operate separately, and at times completely independently of roadways. These facility types are exclusively for multimodal transportation, and interact only indirectly or occasionally with motor vehicles.

Shared Use Paths

Definition: *A bidirectional, off-road facility separated from the roadway, that offers low-stress and exclusive experiences for all forms of active transportation.*

Appropriate Setting: *Outside of built up areas;*

Design Guidelines

- *Width of path itself should be between ten and twelve feet, depending on volume of user traffic.*
- *Gravel shoulders should be two feet in width.*
- *Asphalt is most common surface material, although*

connector between communities, neighborhoods, etc.

Benefits: *Completely independent of motor vehicle transportation network; displays rural character; low-stress; attractive for tourism and economic development.*

Limitations: *Sometimes requires more public resources, community investment; requires major real estate if within new right-of-way, intersections with roadways require special attention.*

gravel and concrete are also acceptable.

Sidepaths

Definition: *A bidirectional, off-road facility exclusively reserved for multimodal transportation that still runs parallel to the roadway.*

Appropriate Setting: *Alongside collector and arterial roads and highways; can be suitable for rural and built-up areas alike; should only be placed along roadways with limited number of driveway/roadway access points.*

Benefits: *Extremely versatile; maintains rural and small town character; a widely preferred facility to a paved shoulder for long and short connections.*

Limitations: *Sometimes requires more public resources, community investment; intersections with roadways require special attention.*

Design Guidelines

- *Width of path itself should be between eight and twelve feet, depending on volume of user traffic.*
- *A minimum of a two foot clearance should be present to signposts or related features.*
- *Asphalt is most common surface material, although gravel and concrete are also acceptable.*
- *Sidepaths should be at least five feet removed from the roadway unless a physical barrier is present.*

Sidewalks

Definition: *A separated facility dedicated to pedestrians that almost always run parallel to roadways*

Appropriate Setting: *Cities, villages, other built up areas*

Benefits: *Applicable and appropriate to all but the very lowest speed roadways; widely recognized facility type; versatile connector to a wide variety of destinations*

Limitations: *Can be costly; may be difficult in especially dense areas lacking space*

Design Guidelines

- *Width of sidewalk should be five to eight feet (depending on location). Six feet is necessary for sidewalks at curb with no terrace area.*
- *Sidewalks require a frontage zone (space between buildings and sidewalk) and terrace area (space between sidewalk and roadway)*
- *Frontage zone should be between one and two feet*
- *Terrace area should be between four and six feet*
- *See DOT Table 10 on the following page.*

Sidewalks separated from the roadway are the preferred accommodation for pedestrians. Sidewalks are a central staple to any bicycle and pedestrian plan, and they provide many benefits including safety, mobility, and healthier communities. Roadways without sidewalks are more than twice as likely to have pedestrian crashes as sites with sidewalks on both sides of the street. Providing walkways for pedestrians dramatically increases how well pedestrians perceive their needs are being met along roadways. The wider the separation between the pedestrian and the roadway is, the more comfortable the pedestrian facility. (U.S. Department of Transportation Federal Highway Administration).

When should sidewalks be installed on both sides of the road?

- New and existing Urban & suburban streets
- New and existing residential, commercial, and industrial arterials
- New residential collectors
- Existing residential collector routes with multifamily buildings

When should sidewalks be installed on one side of the road?

- Existing residential collectors
- Existing residential local roads with more than four units per acre
- New Residential local roads with one to four units an acre

When should shoulders be installed?

- New Local Residential Roads with less than one unit an acre
- Existing suburban and urban streets

Table 10: WisDOT Guidelines for Sidewalk Placement in Urban / Built-Up Areas

Land-Use / Dwelling Unit / Functional Classification	New Urban & Suburban Streets	Existing Urban & Suburban Streets
Commercial & Industrial (All Streets)	Both Sides	Both sides. Every effort should be made to add sidewalks where they do not exist and to complete missing links
Residential (Arterials)	Both Sides	Both Sides
Residential (Collectors)	Both Sides	Multifamily: Both sides Single family: Prefer both sides, require at least one side
Residential (Local Road) More than 4 units/acre	Both sides	Prefer both sides; Require at least one side
Residential (Local Road) 1 – 4 units/acre	Prefer both sides; At least one side required	One side preferred, at least 4 feet
Residential (Local Road) Fewer than 1 unit/acre	One side preferred; Shoulder on both sides	At least 4 feet shoulder on both sides required

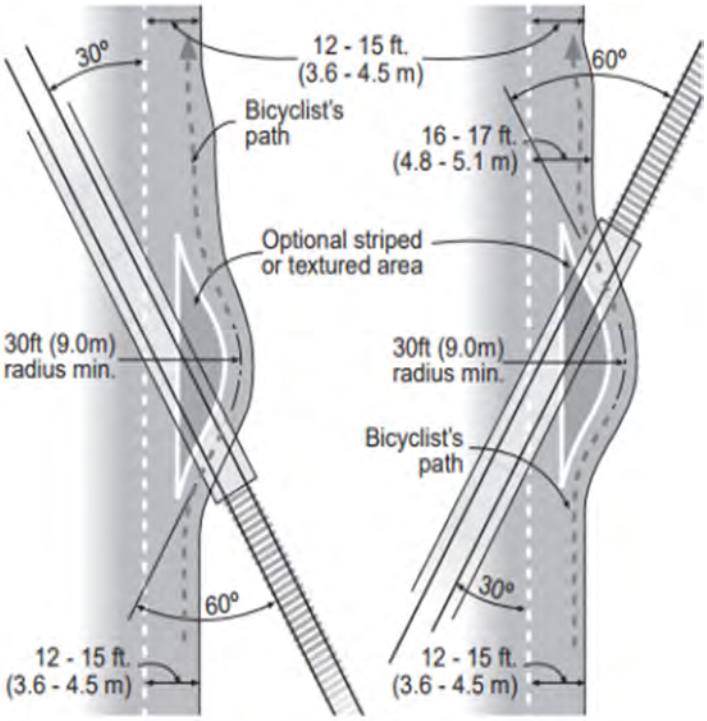
Other Facility Improvement Guidelines

Railroad Crossings

Railroad Crossings should be both straight and run perpendicular to rail tracks. There have been many bicycle crashes that have resulted from improper crossing angles and the smoothness of the crossing itself. The following issues and appropriate treatments for barriers posed by railroad crossings are as follows:

Crossing angles are acutely hazardous when crossing the tracks at 30° or less. Crossing angles between 31° and 60° also would benefit from remedial action. Adjusting the bike lane, or "flairing" the roadway, can mitigate this problem, as illustrated in Figure 12.

Figure 12: Railroad crossing angles



Source: WisDOT, Wisconsin Bicycle Facility Design Handbook, 2004

Gaps between the roadway and the rail track itself are the primary catalyst of bicycle accidents involving railroad crossings. Fixing gaps on the outside of the rail can be performed easily with rubber or polymer filler. However, the gap on the inside of the rails (Gauge flangeway) must remain open to keep train wheels on the tracks. While this gap cannot be completely reconciled, the risk can be greatly mitigated by using rubber or concrete installations to smoothen the pathway across the track. At the very least, signage should warn bicyclists of the potential risks of an upcoming railroad crossing. Lack of Smoothness can also cause bicycle crashes at railroad crossings regardless of gaps or crossing angles.

Bridges

Bridges without proper accommodations for active transportation can be significant barriers for bicyclists and pedestrians hoping to reach point A to point B, either forcing detours or making routes altogether impossible. Federal policy from the United States Department of Transportation highly encourages the accommodation of bicycle and pedestrian needs on bridges during bridge construction and rehabilitation. Title 23 United States Code **§217 states the following:**

"In any case where a highway bridge deck being replaced or rehabilitated with Federal financial participation is located on a highway on which bicycle are permitted to operate at each end of such bridge, and the Secretary determines that the safe accommodation of bicycles can be provided at reasonable cost as part of such replacement or rehabilitation, then such bridge shall be so replaced or rehabilitated as to provide such safe accommodations." (United States Department of Transportation)

Providing bicycle and pedestrian accommodation on bridges leads to two direct benefits: 1) connectivity – bridges are often pinch-points in the road network, so well-designed, interconnected bicycle and pedestrian facilities allow all users to safely and conveniently get where they want to go, and 2) safety – implementation of bicycle and pedestrian facilities on bridges often improves the safety of these modes, decreasing the likelihood of collisions or conflicts with other road users. In addition to the direct benefits of safety and connectivity, an infrastructure improvement often leads to increases in bicycling and walking, called induced demand. As a result of this induced demand, communitywide indirect benefits may occur, including: health, sustainability and social equity. Further, accommodating bicycle and pedestrian modes of transportation in bridge replacement or rehabilitation has been proven to result in cost savings versus separate, standalone bicycle and pedestrian facilities. [3]

Paint

Painting clear bicycle lanes as well as shared-lane arrows ("sharrows") on roads provides clear routes for both cyclists and motorists. Additionally, there are multiple designs for painting a high visibility crosswalk that bring increased visibility and awareness of proper pedestrian pathways. These relatively cost-effective methods can bring a sense of clarity and safety to both drivers and bicyclists utilizing the roads. These crosswalk markings can be found in Figure 13, below.

Figure 13: Crosswalk Marking Types

Source:SFbetterstreets.org

[3] Jesse Cohn and Elliot Sperling, *Improving Pedestrian and Bicycle Connectivity during Rehabilitation of Existing Bridges*, Fehr & Peers (Pedestrian & Bicycle Information Center: White Paper Series, November 2016). http://www.pedbikeinfo.org/cms/downloads/PBIC_WhitePaper_Bridges.pdf.

Signage & Wayfinding

A bicycle wayfinding system consists of comprehensive signing and/or pavement markings to guide bicyclists to their destinations along preferred bicycle routes. Signs are typically placed at decisions points along bicycle routes – typically at the intersection of two or more bikeways and at other key locations leading to and along bicycle routes. Signage can indicate distance and/or time estimates for destinations. Wayfinding signage particularly benefits infrequent bicyclists by reducing the barrier to entry of figuring out a route. It also serves to remind motorists that they are likely to encounter bicycle traffic. See Appendix 2 for additional wayfinding resources.

Bike Parking

For bikes to be used more often for transportation, everyday destinations like work, school, stores, offices, government buildings, and restaurants must have places to park a bicycle securely. Installing bike racks by each employer (both rural and urban), or conveniently located in a commercial district, would provide secure parking for residents and visitors alike. Installing bike racks in each park, especially near spectator sports facilities, would provide secure parking for residents and visitors. Some guidelines for bike parking are illustrated in Appendix 3

General parking recommendations include the following:

1. Use the *Bike Parking Guidelines* in Appendix 3 when purchasing a bike rack, so that it allows a bicyclist to use a U-lock to secure their front tire and bike frame to a rack, and keeps the bike upright while locked.

2. Provide bicycle parking guidance to all employers that want to become more bicycle friendly.

3. Consider installing bicycle parking (Appendix 3) at city and county buildings (e.g. city hall, courthouse, health department, forestry department, etc.) and all parks.

4. In business districts where visitor parking is provided on-street, work with the local government to identify space for bike racks within the road & sidewalk right-of-way.

Facility Cost Estimates

The Pedestrian & Bicycle Information Center, in conjunction with FHWA and the Robert Wood Johnson Foundation, released *Costs for Pedestrian and Bicycle Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public* in 2013. The report gathers nearly 1,800 observations of infrastructure costs from bids from projects across the country.

To estimate potential costs for similar facilities in Rhinelander, NCWRPC calculated an average (adjusted for inflation) of similar bids per facility type. These averages are then adjusted for the cost of living in north central Wisconsin compared to the nation through the Cost of Living Index (COLI) compiled by the council for Community and Economic Research, a nationally recognized measure used by economists, business and researchers to compare prices in relativity to cost of living for urban areas across America.

These estimates are intended to provide a "ballpark" estimate for City officials and stakeholders when considering future projects. These estimates should not be used as an assumed price equivalent to that provided in a bid by a company.

Bike & Ped Facility Cost Estimates, 2018

Facility Type	2012 Natl. Average*	Est. Average for Central Wisconsin (2018)***	Unit
"Sharrow" marking	$180	$190	*1 Sharrow*
Bench	$1,550	$1,636	*1 Bench*
Bicycle Lane	$133,170	$140,530	*1 Mile*
Bicycle Rack	$660	$697	*1 Bike Rack*
Boardwalk	$2,219,470	$2,342,129	*1 Mile*
Bollard	$730	$770	*1 Bollard*
Bridge (Pre-fab Steel)	$206,290	$217,690	*1 Bridge*
Bridge (Wooden)	$124,670	$131,560	*1 Bridge*
Curb & Gutter	$21	$22	*1 Linear Foot*
Diverter	$26,040	$27,479	*1 Diverter*
Diverter (Semi-/Partial)	$15,060	$15,893	*1 Diverter*

Fencing	$130	$137	*1 Linear Foot*
Flashing Beacon	$10,010	$10,563	*1 Flashing Beacon*
Gateway Sign	$340	$359	*1 Sign*
Median	$7.26	$7.66	*1 Square Foot*
Multi-Use Trail (Paved)	$481,140	$507,730	*1 Mile*
Multi-Use Trail (Unpaved)	$121,390	$128,099	*1 Mile*
Paved Shoulder (Asphalt)	$5.56	$5.86	*Per Square Foot*
Pedestrian Crossing (Striped)	$360	$380	*1 Crossing*
Pedestrian Railing	$100	$105	*1 Linear Foot*
Raised Crosswalk	$8,170	$8,621	*1 Raised Crosswalk*
Roundabout/Traffic Circle	$85,370	$90,088	*1 Roundabout/ Circle*
Sidewalk (Concrete)	$32	$34	*1 Linear Foot*
Signed Bicycle Route	$25,070	$26,455	*1 Mile*
Signed Bicycle Route with Improvements	$239,440	$252,673	*1 Mile*
Speed Bump	$1,550	$1,636	*1 Speed Bump*
Speed Hump	$2,640	$2,786	*1 Speed Hump*
Speed Table	$2,400	$2,532	*1 Speed Table*
Stop/Yield Sign	$300	$317	*1 Sign*
Street Trees	$430	$454	*Per Tree*
Streetlight	$4,880	$5,149	*1 Streetlight*
Striped Crosswalk	$7.38	$7.79	*Per Square Foot*
Wheelchair Ramp	$740	$781	*1 Ramp*

Source: University of North Carolina Highway Safety Research Center, 2013 (NCWRPC estimates, 2018)

2012 Dollars, per source paper National Averages are adjusted to match the Cost of Living Index (COLI) for the Wausau Urban Area plus inflation.*

Corridor Recommendations

The following corridors were identified for development as part of a City of Rhinelander Walking and Biking Route & Trail System utilizing the established routing criteria and the facility types and design guidance. The corridor network for the City is illustrated in Map 7. Route numbers correlate to the map for ease of reference.

The proposed corridors are outlined in the following tables with discussion on a variety of factors including:

- Route Justification
- Existing or proposed segments
- On or off road segments
- Surface type and what uses for year-round use
- Key connections
- Suitability for bicycles and pedestrians
- Potential Accommodations & Improvements
- Time Frame
  - Short-term: 1-5 years
  - Mid-term: 6-10 years
  - Long-term: 10+ year

1. Corridor: Chippewa Drive between North Stevens Street & Lincoln Street

Description & Justification: This pathway forms the eastern bookend of the City's bike-ped system; tying together the Stevens Street, Timber Drive and Lincoln Street corridors. Serves the Chippewa Drive/Highway 17 commercial area including access to several key destinations such as: new Aspirus Clinic, YMCA, Ice Arena, Hospital, and Lincoln Street commercial areas via Eisenhower Parkway.

WisDOT is planning improvements to Highway 17 that will include converting the existing sidewalk to a 10-foot multi-use path and intersection improvements at Stevens Street and Eisenhower Parkway.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
Proposed Chippewa Dr/Hwy 17 Eisenhower Pky Existing Trail access to hospital	On-Road: Eisenhower Pky Off-road: Chippewa Drive Hospital Access	Pavement	Clinic YMCA Ice Arena Hospital Stevens St Corridor Timber Dr Corridor Lincoln St Corridor	Multiuse Path Construction (WisDOT) Signage/Wayfinding	Short-term (Multiuse Path) (Signage)

Responsible Parties: City of Rhinelander

2. Corridor: Stevens Street between Timber Drive & Chippewa Drive

Description & Justification: Serves business along the Stevens Street corridor and the surrounding residential areas. Links with the path along Chippewa Drive/Highway 17 to provide access to popular biking areas northeast of the City as well as destinations to the south such as the YMCA, the Ice Arena, and the new Aspirus Clinic.

There have been calls for bike lanes on Stevens Street for a very long time and now the City is moving forward with improvements on this street, over the next several years that will include incorporation of bike lanes.

WisDOT has scheduled improvements on Highway 17 which will include converting the sidewalk to a 10-foot multiuse path and intersection improvements at the intersection of Stevens Street and Chippewa Drive/Highway 17. These improvements will increase safety for bicyclists and pedestrians

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
All Proposed	All On-Road	Asphalt Pavement- year round	Northside commercial & residential Downtown	Add bike lanes - Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding	Short - term (lane markings) (signage)

Responsible Parties: City of Rhinelander

3. Corridor: Lakeshore Drive / Hodag Park between W Phillip Street & N Stevens Street

Description & Justification: Provides access to Hodag Park and serves the surrounding residential area.

The former potato chip plant property on the lake shore off Dwight Street has been redeveloped with residential condominiums. It was discussed during the creation of this plan, that the condo development project involved developer's agreements granting an easement for a trail along the shoreline. Status of any such agreements should be investigated and, if valid, appropriate action be taken to extend the shoreland trail from Hodag Park to Dwight Street.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
Proposed Lennox St W Timber Lakeshore Dr Dwight St Hodag Park Trail Extension Existing Hodag Park Trail	On-Road: Lennox St W. Timber Lakeshore Dr Dwight St Off-Road: Trail in Hodag Park and Extension	Asphalt Pavement	Hodag Park	Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding Develop Hodag Park Trail Extension (pending easement)	Long-term (Hodag trail extension) Mid - term (lane markings) Short-term (signage)

Responsible Parties: City of Rhinelander

4. Corridor: Timber Drive between W Phillip Street & Chippewa Drive

Description & Justification: Serves the Rhinelander school complex including 3 schools: an elementary, a middle and a high; and provides access to the ice rink and YMCA.

A short segment of bike lane exists on the eastern end Timber Drive.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
Proposed E Timber Dr W Timber Dr Existing short segment of bike lane where sidewalk ends	All On-Road	Asphalt Pavement- year round	Rhinelander High School, Middle School, and Elementary School Ice Arena YMCA Downtown	Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding	Mid - term (lane markings) Short-term (signage)
Responsible Parties: City of Rhinelander					

5. Corridor: Lincoln Street between Evergreen Street & Eisenhower Parkway

Description & Justification: Serves Lincoln Street commercial corridor and adjacent residential.

The City got a TAP grant to put bike & ped accommodations on Lincoln Street between Evergreen Street, where the Lincoln Street corridor narrows dramatically, and Eisenhower Parkway. Due to this narrowing of Lincoln, the bike route is dropped down Evergreen Street to Coon Street and follows Coon Street to Shepard/Coolidge.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
Existing Lincoln St. Proposed Evergreen St Coon St	On-Road: Lincoln St Evergreen St Coon St	Asphalt Pavement- year round	Lincoln Street commercial & adjacent residential areas Access to Hospital via Eisenhower Parkway	Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding.	Mid - term (lane markings) Short-term (signage)

Responsible Parties: City of Rhinelander

6. Corridor: Old Highway 8

Description & Justification: Public input identified this route as a popular "nice ride" for bicyclists

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
All Proposed	All On-Road Newel St Old Highway 8	Asphalt Pavement - year round		Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding.	Long - term (lane markings) Mid-term (signage)

Responsible Parties: City of Rhinelander

7. Corridor: Coolidge Avenue / Shepard Street between Barnes Street & Timber Drive

Description & Justification: Long standing "bike route" in the City, particularly for access to the middle and high schools. A bike lane was marked on the west side of Coolidge between Timber Drive and Dahl Street / Spring Lake Road for this purpose.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
Proposed Shepard St Coolidge Ave Existing Coolidge Ave (Dahl St / Spring Lake Rd to Timber	All On-Road	Asphalt Pavement- year round	Rhinelander Middle and High School complexes	Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding.	Long - term (lane markings) Mid-term (signage)

Responsible Parties: City of Rhinelander

8. Corridor: Barnes, Oneida, King & Brown between Shepard Street & W Phillip Street

Description & Justification: Connects various parts of the City Bike-Ped System to the Downtown area. Passes City Hall.

When Barnes Street was reconstructed bike lanes and a new sidewalk were incorporated, in part, due to proximity to Pioneer Park.

In the City's 2015 Downtown Economic Development & Street Scape Plan, Brown Street was identified for a "future configuration" that included bike lanes. This was to be accomplished by reconfiguring the parking and restriping. That plan also suggested the designation of Anderson Street as a bike route "through the Downtown." Stating that the intent was "not to route bicyclists off Brown Street, but to provide a safe, low traffic route for them."

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
Proposed S Oneida Ave King St N Brown St Existing Barnes St	All On-Road	Asphalt pavement-year round	Pioneer Park Downtown/ CBD City Hall	Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding.	Long - term (lane markings) Mid-term (signage)

Responsible Parties: City of Rhinelander

9. Corridor: County Highway G to Nicolet Area Technical College (NATC)

Description & Justification: Uses County Highway G for bicycle commuting between the City and the Tech-School. Continuing along G to Hixon Lake Road would also provide an access route to Almon County Park, a popular recreation destination for City residents.

The direct and essentially only way to get between the City and the School, Highway G is relatively narrow with significant levels of high-speed traffic, and no bike-ped accommodations.

The City has no jurisdiction over the County Highway, but should work with Oneida County to consider paved shoulders to better accommodate bicyclists and pedestrians.

Crossing Highway 8 is an issue, and the City should coordinate with WisDOT to incorporate safety improvements the next time they work on this intersection.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
Proposed	On-Road: County Highway G	Asphalt Pavement - year round	NATC	Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding. Consider paved shoulders.	Long-term (CTH G paved shoulders) (US 8 intersection) Mid-term (lane markings) Short-term (signage)

Responsible Parties: Rhinelander, Oneida Co., DOT, & possible coordination w/Town of Pelican.

10. Corridor: Ocala Street & Pioneer Park - between River Trail & Barnes Street

Description & Justification: On-street route on Ocala Street, together with off-street trail through Pioneer Park, connects east and west side of City's Bike-Ped system and provides link to route on County Highway G for access to Nicolet Area Technical College.

Long range vision for this corridor includes continuation of River Trail along the river through the old hospital property. There have been a number of issues holding this back. It is probably not feasible to follow the river all the way to Oneida Avenue, so taking either Dorr or Randall Avenue up to Ocala Street before crossing Oneida Avenue into Pioneer Park is the compromise.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
All Proposed	On-Road: Ocala St Off-Road: Trail through Pioneer Park	Asphalt pavement - year round Off-road trail could be crushed granite or limestone	River Trail Pioneer Park County Highway G Corridor / Access to NATC	Trail segment in Pioneer Park Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding.	Long-term (off-road segment) Mid-term (lane markings) Short-term (signage)

Responsible Parties: City of Rhinelander

11. Corridor: Riverfront Loop

Description & Justification: The river front loop or Riverwalk concept seeks to take better advantage of the Wisconsin River riverfront for the Downtown and the City as a whole. Ties into the Commerce Trail at the Chamber of Commerce and extends to the south to include the River Trail along the Pelican River.

The concept calls for encircling the riverfront with trail on both sides between Kemp and Davenport Street. To make the connections between the sides of the river and complete the loop, The city's bridges on Kemp Street, Davenport Street and Phillip Street are critical elements of the concept. However, these bridges are all relatively narrow, carry significant traffic and have inadequate bicycle and pedestrian accommodations.

One way many communities address bike-ped safety issues at bridges on busy roads is by incorporating an underpass into the design when replacing an aging bridge. Rhinelander should consider an underpass at each of these principle bridges and at Kemp Street in particular. Through an informal visual survey conducted as part of this planning process, it appears that there is adequate clearance and a solid foundation to accommodate an underpass of Kemp Street. In addition, an unofficial consultation with an area civil engineer indicated an underpass could be routed under the bridge, but whether it could be designed to DOT standards was undetermined. If not, it could still be routed under the bridge, just not with state or federal funding. It's possible that a design solution meeting DOT standards could be identified as part of a total replacement project. An underpass would clearly be the safest way to address issue of crossing Kemp Street. A hybrid pedestrian beacon at Kemp & Boyce could also be considered.

Long range vision for maximizing riverfront utilization includes extending the trail north from Davenport to Phillip Street and from Phillip Street to the northwest along the southern shoreline of the Rhinelander Flowage. However, this is industrial land with a host of issues that would have to be worked out. Although, dam permit provisions requiring river access for kayaking present an opportunity. In addition, further along the Flowage segment the layout of other land uses hinders trail alignment. There was some discussion of some landowners in this area being supportive of trails and interested in granting access through their properties for a trail.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
Proposed Boyce Dr Kemp St Marshall St Davenport St Portions of Off-Road Trail	On-Road: Boyce Dr Kemp St Marshall St Davenport Phillip Off-Road: Proposed Off-	Asphalt Pavement Consider crushed granite or limestone for some of the longer off-road	Wisconsin River Pelican River Shepard Park/Dog Park Riverwalk	Off-road, riverfront trail segment construction Bridge Improvements Lane markings (bike lanes, urban shoulders, sharrows, etc.)	Long Term (off-road construction) (bridge improvements) Mid-term (lane

	Road Trail	segments	Centre	Signage / Wayfinding.	markings)
Existing River Trail (Shepard Park) Commerce trail segments Riverwalk Centre Trail	Commerce Trail Rhinelander Riverwalk River Trail		Commerce Trail Corridor Downtown		Short-term (signage)
Responsible Parties: City of Rhinelander					

12. Corridor: Commerce Trail

Description & Justification: Ties into the Riverwalk at the Chamber of Commerce. Extends west to commercial / hotel area. Completed phase 1 extends to beginning of commercial area. Phase 2 being planned from end of phase 1 out to Highway 47. Connects Hanson Lake and Heal Creek access to rest of City Bike-Ped system.

Will need to work with WisDOT to take path within Highway 47 right-of-way to cross under the rail overpass bridge.

Round-about to be built at intersection of Highways 8 and 47 designed for retrofit of bike-ped accommodations in the future if needed.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
Existing Phase 1 Proposed Phase 2	All Off-Road	Asphalt Pavement	Chamber of Commerce West side commercial / hotel areas	Complete construction of Trail Phase 2 Signage / Wayfinding.	Mid-term (Phase 2 of trail) Short-term (signage)
Responsible Parties: City of Rhinelander, WisDOT					

13. Corridor: Phillip Street - between West Hill Road & N Brown Street

Description & Justification: Connects the City's west side residential areas to the Downtown. Also provides access to West Park which contains the Hodag BMX Complex.

Phillip Street Bridge is narrow with a narrow sidewalk on only one side. Improved bicycle and pedestrian accommodations should be incorporated into future bridge improvement/replacement plans; including consideration of a possible underpass. The bridge is a critical element of long term Riverwalk plans.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
All Proposed	On-Road: W Phillip St	Pavement-year round	West Side Park / BMX Facility West side residential Downtown	Bridge bike & ped accommodations improvement Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding.	Long-term (bridge) Mid-term (lane markings) Short-term (signage)

Responsible Parties: City of Rhinelander

14. Corridor: Davenport & West Hill Road - between River Street & Highway 47

Description & Justifications: Connects Hanson Lake and Heal Creek access to rest of City Bike-Ped system. Links to Newbold Trail. Serves residential areas on west side of City.

Utility easement to west of Lois Street provides opportunity for off-street trail segment between West Hill and River Road. If this off-road segment is developed, a connection to W. Phillip Street would need to be worked out. Lois Street is an interim or alternative route.

River Street becomes County Highway K outside the City limits to complete the connection to Larsen Drive and the Newbold Trail.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
All Proposed	On-Road: River St / CTH K West Hill Rd Davenport St Lois St Off-Road: Trail between River St & West Hill Rd Connection to Phillip St	Asphalt pavement - year round Possible use of crushed granite or limestone for off-road segment	Newbold Trail Hanson Lake Recreation Area	10' multi-use trail segment between West Hill and River St. and Connection to W. Phillip. Safety Improvements at intersection of STH 47 and Davenport St. Lane markings(bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding.	Long-term (off-road segment) (47 intersection) Mid-term (lane markings) Short-term (signage)

Responsible Parties: City, Oneida Co. & possible coordination w/ Towns of Crescent and Newbold.

15. Corridor: Hanson Lake, Air Park & River Roads - between Highway 47 & Heal Creek

Description & Justifications: Links City Bike-Ped System to Hanson Lake area multi-use recreational facilities which includes extensive internal trail network with trailhead off Hanson Lake Road. Also provides access to the Heal Creek Recreation Area and trails adjacent to the Northwood Golf Course. Would also link to some popular biking routes in the Town of Crescent.

The primary issue with this route is the crossing of US Highway 8 with extensive paved area to traverse, significant traffic, and relatively high speeds.

South River Road is under Town of Crescent jurisdiction, so the Town's agreement and cooperation is needed for designation. If agreeable, Town could consider applying pavement markings such as sharrows and lane marking where appropriate to boost safety for bicyclists. The possibility of interested land owners granting easements to locate an off-road trail to Heal Creek was also discussed.

Existing or Proposed?	On or Off Road?	Surface Types and Season (*if applicable*)	Key Connections	Accommodations or Improvements	Time Frame
All Proposed	All On-Road: Hanson Lake Rd Air Park Rd N. & S. River Rd	Asphalt pavement - year round	Hanson Lake Recreation Area Heal Creek Recreation Area	Ask for median refuge and safety consideration on US 8 when WisDOT has improvement project in this area. Lane markings (bike lanes, urban shoulders, sharrows, etc.) Signage / Wayfinding.	Long-term (median) Mid-term (lane markings) Short-term (signage)

Responsible Parties: City of Rhinelander, WI Dept. of Transportation, Town of Crescent

Non-infrastructure Recommendations

A primary goal of the Rhinelander Bicycle & Pedestrian Plan is to create an interconnected, usable, and safe bicycling network for Rhinelander residents and visitors. Survey results for the plan demonstrate that both the lack of safety and the lack of perception of safe conditions, are a major barrier to more bicycling and walking throughout the City.

Encouragement, Education, Enforcement, and Evaluation are the "E's" that combine with Engineering solutions (discussed in previous sections) to provide a well-rounded and complete bicycle and pedestrian network and Plan. Each of the E's are briefly described below.

- **Encouragement** combines many initiatives and the strategies of the other E's to build enthusiasm and interest in the network and its use. Programs include Cyclovias, National Bike Month activities, launch parties for new bike/ped facilities, and employer driven incentive strategies such as mileage reimbursements.

- **Education** is a broad category that ranges from identifying and promoting safe routes for pedestrians and bicyclists to promoting how-to strategies, such as how to ride safely or adjust a helmet. Education policies and programs are instrumental to the success of networks as they empower users to get out and use the facilities.

- **Enforcement** includes policies that address safety issues such as speeding, illegal turns and movements, and general rules of the road. Programs include options for community members to work collaboratively to promote safe bicycling, walking, and driving. Initiatives include crosswalk enforcement, Share the Road, and Be Safe, Be Seen – a bike light enforcement campaign.

- **Evaluation** includes monitoring the outcomes and documenting the results of the implementation of the other E's. Data collection before and after infrastructure improvements are implemented, such as user surveys and bicycle and pedestrian counts, are critical to measuring the overall effectiveness of the network.

The remainder of this section details the non-infrastructure recommendations. The recommendations include suggestions for other departments, agencies or organizations that may assist in carrying out the recommendation.

1 | Encouragement Recommendations

Small incentives or events can encourage people to walk or bike more. Often a simple challenge or perk – like commute stations that provide coffee and bagels during Bike to Work Week – provides the nudge people need to walk or bike for a trip for which they normally would have driven.

1.1 | Bike and Walk Events

Bicycling to work or to other destinations is a great way to get exercise, save money, reduce pollution, and have some fun. Bike to Work Week and Bike and Walk to School Day are national activities and are easily organized with help from the League of American Bicyclists website (http://www.bikeleague.org/). Information on the website includes national and local events, promotional materials, and a handbook. The Wisconsin Bike Fed (http://www.wisconsinbikefed.org/) also provides support for Wisconsin communities that wish to participate in Bike to Work Week. Bike and Walk to School Day is an important component of Safe Routes to School as it both encourages and educates students on how to get to school via bike or their feet.

Recommendation: Sponsor Bike to Work Week and Bike & Walk to School Day and work with employers and advocates to provide events and support.

Responsibility: City; School District; Oneida County Biking and Walking Trails Council

The Wisconsin Bike Challenge is an annual event geared towards encouraging people to replace car trips with bicycle trips. Part of a larger national challenge, the Wisconsin program targets workplaces, hoping to increase the number of people who choose to commute via bicycle. Employees can form teams based on their location or their workplace and prizes are awarded in the transportation category.

Recommendation: Promote the Wisconsin Bike Challenge to local employers to encourage bicycling to work and for other transportation and recreation trips.

Responsibility: County Health and Human Services Department, and other service organizations that promote worksite wellness

Family friendly events can be a great way to capture the *Interested but Concerned* portion of the cycling population, as well as a great way to introduce kids to bicycling as part of everyday life. These events are often community oriented and can be as simple as a group ride organized on a Sunday afternoon.

Recommendation: Sponsor and/or support local family-friendly events that promote bicycling or walking.

Responsibility: City; Oneida County Biking and Walking Trails Council; private businesses; service organizations

1.2 | Bike Maps

People who are not familiar with bicycling in a specific area often have a difficult time determining what their route to a specific location should be. Streets that they might use to drive to a destination may not be streets they are comfortable bicycling on. Providing maps of bicycle facilities and streets that are suitable for bicycling is a good way to encourage people to bicycle more and to raise awareness about bicycle facilities.

Recommendation: Develop a bicycle user map that displays bicycle facilities as well as a bicycle suitability rating for area streets. The map should be available online and in print format.

Responsibility: City; Oneida County Biking and Walking Trails Council

2 | Education Recommendations

Education is critical to the success of a bicycle and pedestrian network within a community. There is often a mentality that "if you build it, they will come" when considering bicycle facilities. However, this is not always the case; people should be educated about new bicycle and pedestrian facilities. Most Americans do not receive any formal training on how to ride their bikes on a street, how bicycles work, or the rules of the road. Educational activities and strategies attempt to fill that knowledge gap.

Signs such as this one seek to educate road users about proper use of the roadway.

The City should coordinate with the School District on Safe Routes to School Programming and curriculum development instill the benefits of biking and walking and promote safe practices. The City should also consider obtaining copies of the Wisconsin Bicycle and Pedestrian Laws reference cards (WisDOT in conjunction w/ the Bike Fed) to make available for handout at school biking and other events.

2.1 | On-Bike Education

Bicycle Rodeos are clinics to teach children skills and precautions about riding a bicycle and are a great way to direct and deliver bicycle related curricula to children. Topics discussed typically include the parts of a bicycle, how a bike works, how to fix a flat tire, proper helmet fitting, rules of the road, road positioning, and on-bike skills. These rodeos are often facilitated by local police department or cycling clubs and model programs are available through the League of American Bicyclists website.

Recommendation: Provide bicycle education events such as bicycle rodeos and other activities targeted at children.

Responsibility: Oneida County Health Dept., Oneida County Biking and Walking Trails Council; School District; Rhinelander Police Department; service organizations such as the Kiwanis club

Most adults can also benefit from a brief bicycle riding education course. Such courses can educate participants about the rules of the road as they apply to bicyclists, common hazards

and safety issues to be aware of when bicycling, and how to interact safely with motor vehicle traffic.

Recommendation: Provide bicycle education events such as bicycle rodeos and other activities targeted at adults. Courses may be offered through Nicolet College, Oneida County UW-Extension or other education initiatives.

Responsibility: Oneida County Biking and Walking Trails Council; Oneida County UW Extension; Rhinelander Police Department; Nicolet College; service organizations such as the Kiwanis club

2.2 | Direct Mail Education

Including bicycle and pedestrian related educational pieces in utility or tax bills is an easy way to reach a large group of people. Simple communications can cover a seasonal topic such as rules of the road, local bicycling ordinances, back-to-school safety information, and using lights as fall approaches.

Recommendation: Include at least one piece of bicycle and pedestrian education annually in municipal communications to residents (newsletter, utility bills, tax bills, etc.), including communications from the City.

Responsibility: City

2.3 | Web-Based Education

Providing bicycle and pedestrian safety and education material to residents via the City's website is an excellent way to reach potential and current users. Information should include:

- Maps and other resources;
- Links to laws, statutes, and ordinances related to walking and biking – both local and state;
- Information about local biking and walking events;
- List of and links to local bike shops; and
- List of and links to all walking and biking groups, including clubs, racing teams, and advocacy groups.

Recommendation: Provide bicycle and pedestrian safety and education materials on the City website and encourage other local organizations to provide information on their websites or provide a link to the City's site.

Responsibility: City

2.4 | Education In Lieu of Punishment

Offering a bicycle and pedestrian education course as an alternative for bicyclists, pedestrians, and motorists who are first-time minor offenders of bicycle- and pedestrian-related rules of the road is an efficient and cost effective way to deal with infractions. The City should explore this option for educating rather than punishing some rules of the road violators. This program needs to be supported by the local municipal court.

Recommendation: Investigate offering a bicycle and pedestrian education course as an alternative for bicyclists, pedestrians, and motorists who are first-time minor offenders of bicycle and pedestrian-related rules of the road.

Responsibility: City; Rhinelander Police Dept.

3 | Enforcement Recommendations

Despite a number of laws aimed at improving safety for non-motorized users, lack of compliance with those laws is an often cited reason for why residents do not bike or walk to local destinations more frequently. Enforcement of those laws is often the most effective way of creating a culture of compliance.

3.1 | Crosswalk Enforcement

Crosswalk enforcement programs are an effective way to train motorists to yield to pedestrians in crosswalks. Plains-clothed police officers attempt to cross in designated crosswalks and motorists who fail to yield are issued tickets or warnings and educational materials. If this campaign is done frequently enough, but at unpredictable times, it can be a very effective way to increase compliance with yield to pedestrian laws within the community.

Recommendation: Request that the Rhinelander Police Dept perform crosswalk enforcement activities to enforce the state law requiring motorists to yield to pedestrians in crosswalks, particularly in commercial areas and near schools.

Responsibility: Rhinelander Police Department

3.2 | Speed Enforcement

Too often speed limits are viewed as guidelines by motorists. Studies show that the probability of serious injury and death to non-motorized users when hit by a car exponentially increases with each increment of 5 mph. The enforcement of posted speed limits through warnings, ticketing and yard sign campaigns can quickly make compliance the rule of the neighborhood.

Recommendation: Enforce posted speed limits, particularly in school speed zones.

Responsibility: Rhinelander Police Department

The use of automated speed-tracking equipment is a cost effective way to alert motorists to their speed. The equipment usually utilizes flashing LED signs that change significantly in appearance when an excessive speed is detected. Often placed near schools and other places where pedestrians are known to be present, automated speed-tracking equipment can cause motorists to consciously slow down.

Recommendation: Utilize automated speed-tracking equipment to provide feedback to motorists when they are exceeding the speed limit.

Responsibility: Rhinelander Police Department

3.3 | Law Enforcement Training

Law enforcement officers are not always aware of how traffic laws relate to bicyclists or the types of traffic violations that are most likely to result in crashes between bicyclists and motorists. Brief education courses for law enforcement officials can provide information about these topics and potentially count toward continuing education requirements that many officers are required to pursue.

Recommendation: Promote bicycle education courses to the Rhinelander Police Department. The Wisconsin Department of Transportation occasionally offers a course *Enforcement for Bicycle Safety* that trains law enforcement officials in bicycle related enforcement techniques and strategies.

Responsibility: Rhinelander Police Department

3.4 | Snow Clearance

The best sidewalk network becomes largely useless for pedestrian mobility if it is not cleared of snow and ice promptly during the winter. The City of Rhinelander has an ordinances that requires the removal of snow and ice following a storm within 24 hours. This ordinance should be enforced so that pedestrian facilities are usable year round.

Recommendation: Enforce the snow and ice removal ordinance either by removing the snow and ice and billing the responsible party or by ticketing responsible parties who have not cleared snow and ice from their sidewalks in the specified timeframe.

Responsibility: City; Rhinelander Police Dept.

4 | Evaluation Recommendations

By evaluating and assessing the levels of cycling and walking within the City, community leaders and staff will be able to more effectively direct their efforts to improve cycling and walking conditions for residents and visitors. City staff will also be able to justify proposed capital improvements with hard statistics.

4.1 | Bicycle and Pedestrian Advisory Committee (BPAC)

Creating a permanent Bicycle and Pedestrian Advisory Committee within the City structure emphasizes the City's commitment to make biking and walking safer and more appealing to residents and visitors. The BPAC typically focuses on non-motorized transportation in the public right-of-way which includes shared use paths. Potential committee responsibilities include:

- Review and input on capital project planning and design as it affects bicycling and walking;
- Review and comment on changes to zoning, development code, comprehensive plans, and other long-term planning and policy documents;

- Participation in the development, implementation, and evaluation of Bicycle and Pedestrian related Master Plans and facility standards;
- Provision of a formal liaison between local government, staff, school district, and the public;
- Development and monitoring goals and indices related to bicycling and walking; and
- Promotion of bicycling and walking, including mapping, safety, and education.

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

Recommendation: Create an official Bicycle and Pedestrian Advisory Committee to monitor and assist in the implementation of this Plan and other bicycle and pedestrian issues throughout the City.

Responsibility: City Council

4.2 | Bicyclist and Pedestrian Counts

Annual bicycle counts provide a direct mechanism for tracking bicycling trends over time and for determining the impact of projects, policies, and programs that have been implemented. The National Bicycle and Pedestrian Documentation Project provides a recommended methodology, survey and count forms, and reporting forms available for free online. Local trainers for the program are also available. Counts are conducted using volunteer labor and therefore put little financial burden on local budgets.

Recommendation: Conduct annual bicycle and walking counts throughout the City to measure the usage of facilities and growth in these modes of travel.

Responsibility: City - various departments / Public Works

4.3 | Bicycle and Pedestrian Friendly Recognition

The League of American Bicyclists ranks applicant communities on their level of "bicycle friendliness" on a scale from "Honorable Mention" through "Diamond." The Bicycle Friendly Community program provides a roadmap to improve conditions for bicycling and the guidance to make Rhinelander a more bikeable community. The application process will help the City recognize its strengths and weaknesses regarding bicycling, and the response from the League of American Bicyclists will help guide bicycle improvements. A bicycle friendly ranking can drive tourism and events to communities and can represent health savings for the community. Finally, a bicycle friendly ranking is something the City can be proud of.

Recommendation: Pursue designation for Rhinelander as a Bicycle Friendly Community from the League of American Bicyclists.

Responsibility: City; Oneida County Biking and Walking Trails Council

The Pedestrian and Bicycle Information Center (PBIC) awards communities that improve and prioritize pedestrian safety, access, mobility, and comfort with either a bronze, silver or gold designation. PBIC, which is a partnership between the Federal Highway Administration, the University of North Carolina and FedEx, provides a community assessment tool to evaluate existing pedestrian conditions and programs largely based on the "5 E's:" engineering, encouragement, education, enforcement, and evaluation. This walk audit can also be used in planning for future improvements and filling in the gaps in the other E's.

Recommendation: Apply for Walk Friendly Community status.

Responsibility: City - various departments

The League of American Bicyclists honors businesses that have made an effort to be bicycle friendly. Offering secure bicycle parking, private fleets of shared bicycles, shower facilities, and other amenities can help businesses earn a bicycle friendly ranking while also helping those businesses attract and retain employees.

Recommendation: Encourage local businesses to apply for Bicycle Friendly Business status from the League of American Bicyclists (http://www.bikeleague.org/content/businesses).

Responsibility: City

Chapter 5: Plan Implementation and Conclusion

In order to keep the City of Rhinelander Bicycle and Pedestrian Plan relevant and timely to the needs of the County, County staff, committees and other stakeholders should periodically review the plan to evaluate whether the county is meeting the goals and objectives stated in the plan.

It is important to note that implementation, as with many public works projects, is heavily contingent on acquisition of right-of-way and accessibility of funding sources. Funding assistance for major projects would most likely come from WisDOT or the Wisconsin Department of Natural Resources (Wisconsin DNR). Relevant programs to fund the recommendations illustrated in this plan are listed below.

Preliminary Cost Estimates by Recommended Corridor

The following is a rough estimates for costs involved in establishment of a basic trails system for each corridor as discussed in this Plan. These figures are approximate, for planning purposes only. Detailed designs and specifications need to be prepared to obtain more precise cost estimates before a particular project is undertaken.

Corridor 1	
Multi-use Path Conversion	Coordination w/ DOT
Corridor 2	
Bike-Ped Improvements	Integrate w/ Stevens St. Reconstruction Project
Corridor 3	
Multi-use Trail Extension	$157,396
Signage	$4,080
Corridor 4	
Lane Marking	$39,682
Signage	$4,760

Corridor 5

Signage	$5,440

Corridor 6

Lane Marking	$19,841
Signage	$2,720

Corridor 7

Lane Marking	$25,661
Signage	$3,400

Corridor 8

Bike/Ped Accomdations	Subject to Downtown Streetscape Plan (Long Term)

Corridor 9

Lane Marking (City portion)	$4,232
Signage (in City)	$1,360
Extended Accommodations	Coordination w/ County & DOT (Hwy 8 Xing)

Corridor 10

Lane Marking	$10,846
Mulit-use Trail	$132,009
Signage	$3,400

Corridor 11

Multi-use Trail	$426,493
Signage	$8,840
Davenport St. Bridge Improvements	Integrate w/ Bridge Reconstruction (Long Term)
Kemp Street Bridge Underpass	Subject to Engineering Study

Corridor 12

Multi-use Trails	DNR Trails Grant Projects

Corridor 13

Lane Marking	$27,776
Signage	4,080
Phillip St. Bridge Improvements	Integrate w/ Bridge Reconstruction (Long Term)

Corridor 14

Multi-Use Trail	$192,937
Lane Marking	$16,667

Highway 47 Crossing Improvements	Coordination w/DOT
Signage	$2,720

Corridor 15

Lane Markings	$25,925
Highway 8 Crossing Improvements	Coordination w/DOT
Extended Accommodations	Coordination w/ Town

Corridor Development Priorities

Significant time and effort will be needed to design and raise funds for construction of individual sections of the proposed system. Based upon experience with development of the Green Circle Trail in Stevens Point, it could take a decade before the vision of a complete system becomes a reality. Since the project is a major undertaking that will require commitment of staff and financial resources, the actions and activities in the pathway development process need to be prioritized.

Two of the most important elements of the development process are preliminary design and official mapping. These activities form the foundation for developing budgets and final design plans as well as preserving trail areas for purchase and development by the City.

Therefore, in terms of overall project management, staff and financial resources should be allocated to the tasks of preliminary design and official mapping before other phases of the pathway development process are pursued. This prioritization of activities, however, should not be followed blindly since there may be intervening opportunities for constructing segments that should not be ignored. For example, there may be grant funds available or foundation donations available that could assist in the purchase of land and construction of portions of the system. Donations of land and easements are also possible. Given these opportunities, it may be more desirable to delay design and mapping of some segments in order to purchase land and construct a facility.

The preliminary design and official mapping process should be carefully scheduled and monitored to insure that progress is being made on these tasks. If staff time is not available to meet the schedule, it may be desirable to hire consultants to complete the design activities and to conduct the necessary survey work for placing segments of the Pathway on the Official City Map.

As discussed above, because of the size of the overall project, priorities need to be established for design, mapping and construction activities on each segment of the system. Some projects will be relatively quick, easy and less expensive ways to make an impact and begin to establish an identity for the system. Projects meeting this description include: signing existing trails that

will become part of the system such as in Hodag Park; signing and marking routes that utilize already existing municipal streets; and development of new segments where the route uses existing public lands. A priority list is for programming purposes only and should be reviewed and modified as unforeseen opportunities or potential problems surface.

Funding Sources

Funding is arguably the greatest limitation to expanding bicycle and pedestrian infrastructure. with dwindling local, state, and federal budgets. This undoubtedly has affected the capital budget of Rhinelander. State and federal grant programs have not been immune to cut-backs. Competition for grant funding continues to increase while the total sum available shrinks. Developing a strategy to maximize the availability of funding for bicycle and pedestrian projects in Rhinelander is important to the implementation of this Plan.

It is also important to make the most of the City's internal funding resources. Often, the most cost-effective way to implement bicycle and pedestrian infrastructure improvements is by adding them to the scope of other capital projects. Building sidewalks while replacing or upgrading utilities, or marking on-street bicycle accommodations (bike lanes, urban shoulders, or shared lane markings) as part of street resurfacing projects provide economies of scale that will help funding for bicycle and pedestrian projects go farther.

The following is an overview of some of the major funding sources for bicycle and pedestrian projects. The City should seek to maximize the funding obtained from these programs and apply on a regular basis for projects to implement this Plan.

Transportation Alternatives Program (TAP)

TAP is a legislative program authorized by Congress through the Fixing America's Surface Transportation (FAST) Act signed into law in 2015. Safe Routes to School Programs, Bicycle & Pedestrian Facilities programs, and transportation enhancements are all TAP-eligible projects, including this plan. WisDOT facilitates TAP program and funding management.

During the last TAP cycle, WisDOT eliminated the $300,000 minimum amount for infrastructure projects; however, the DOT still suggest infrastructure projects in the $300,000 to $1 million range. $50,000 is still the minimum amount for non-infrastructure projects.

Recreation Trails Program (RTP)

The Wisconsin DNR administers this federal program to provide reimbursement for motorized and non-motorized trail development and maintenance. Governments are eligible for up to 50 percent reimbursement for trail development through this program. Funding is allocated through the following ratio of uses: 30 percent non-motorized, 30 percent motorized, and 40

percent diversified.[4] Applications are due May 1st each year, and counties, local governments, state agencies and school districts can all apply for this funding source.

Land & Water Conservation Fund (LWCF) Grants

Administered by the State and Local Assistance Programs Division of the National Parks Service, the LWCF Grants program provides local and state governments matching grants to acquire and develop public outdoor recreation areas, which could include some pedestrian and bicycle trails and facilities. Historically, grants have funded either the acquisition of park and recreation lands, or "combination" projects to both acquire land and kick off recreation development for a project.

Doppelt Family Trail Development Fund

Launched in 2015, the Rails-to-Trails Conservancy's Trail Development Fund distributes about $85,000 a year to qualifying projects to bolster the conversion of old rail lines to bicycle paths. The RTC Conservancy's Trail Development Fund has filled the funding gap for many rails-to-trails projects across the country.

Community Development Block Grant – Public Facilities (CDBG-PF) Program

Administered by the Wisconsin Department of Administration (DOA) – Division of Energy, Housing, and Community Resources, the CDBG-PF Program provides funding for communities to support facility or infrastructure projects for communities. Eligible projects must meet one of three national objectives as set by the U.S. Department of Housing and Urban Development (HUD). Pedestrian or bicycle improvements could qualify under some circumstances.

- *Benefiting low- and moderate-income persons*
- *Preventing or eliminating slums or blight*
- *Meeting other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare or the community and other financial resources are not available to meet such needs.*

Highway Safety Improvement Program (HSIP)

While HSIP does not pertain to bicycle and pedestrian transportation, this WisDOT program can help improve safety measures on problematic stretches of highway where crashes have occurred in the past, thereby creating a safer and more hospitable transportation network. HSIP improvements generally require a ten percent match of state or local funds. The program generally funds low-cost options that can be implemented quickly.

Premier Resort Area Tax

The Premier Resort Area Tax or PRAT is a new local program approved by a City referendum and enacted by City Council in 2016. PRAT entails a half-percent sales tax collected by tourism

[4] '40 percent diversified' means that 40 percent of funds will go to a) diverse non-motorized uses; b) diverse motorized uses; and c) diverse project hosting both motorized and non-motorized uses.

related retailers. The fund is intended to pay for infrastructure expenses such as road maintenance. Some of the funds could be allocated to bicycle and pedestrian infrastructure improvements to implement this Plan. Bike-ped infrastructure not only benefits City residents but also contributes to the tourism element of the City's economy.

Conclusion

The City of Rhinelander Bicycle and Pedestrian Plan is intended to address a long-term period, and plan for a bicycle/pedestrian network in the City for the next twenty years. However, planning for the future does not end upon the adoption of this Plan. Circumstances and user needs change frequently, and thus this plan should be closely monitored and analyzed to ensure that it continues to meet the changing needs of the City and its residents. Additionally, as communities do with their comprehensive plans, the City should consider a formal update of the plan in ten years to update goals, objectives and recommendations to ensure planning and implementation of bicycle and pedestrian planning in Rhinelander remains timely and cutting-edge.

APPENDIX 1: SURVEY TABULATION

Survey Results

Question 1: In a usual week from May through October when the weather is good enough, how do you get to work? ***Answered: 113 Skipped: 0***

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Work at home. No commute.	7	15	14	14	14	14	7
Not a work day	34	10	8	12	12	14	32
Flex Time / compressed day off	0	0	0	0	0	0	0
Drove alone	8	41	44	42	42	41	12
Carpooled or Vanpooled	1	1	3	1	1	1	1
Bus	0	0	0	0	0	0	0
Bicycled	3	7	8	6	6	5	4
Walked	1	3	2	2	2	2	2
Taxi	0	0	0	0	0	0	0

Question 2: In a usual week from November through April when the weather is good enough, how do you get to work? ***Answered: 105 Skipped: 0***

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Work at home. No commute.	9	13	13	13	13	13	10
Not a work day	30	12	9	11	11	12	28
Flex Time / compressed day off	0	1	0	1	1	0	0
Drove alone	9	45	45	44	43	42	13
Carpooled or Vanpooled	1	1	3	1	1	2	1
Bus	0	0	0	0	0	0	0
Bicycled	1	3	3	3	3	3	2
Walked	1	2	2	2	2	2	2
Taxi	0	0	0	0	0	0	0

Question 3: What type of bicyclist are you? ***Answered: 74 Skipped:***

	Percent	Responses
No way, no how.	5.41%	4
Interested but concerned.	39.19%	29
Enthusiastic and confident.	44.59%	33
Strong and fearless.	10.81%	8

Question 4: In winter (November through April), how often do you bicycle for the following purposes?

	Not at All	Daily	Several Times a Week	Several Times a Month	Several Times a Year
Work or school commute	55	1	3	1	0
Shopping or errands	54	1	4	1	0
Recreation or exercise	40	2	12	12	3
Social or entertainment	44	2	5	7	3

Question 5: In summer (May through October), how often do you bicycle for the following purposes?

	Not at All	Dail y	Several Times a Week	Several Times a Month	Several Times a Year
Work or school commute	45	3	5	3	5
Shopping or errands	37	1	13	7	4
Recreation or exercise	5	10	28	20	6
Social or entertainment	12	3	20	18	9

Question 6: What distance do you bicycle one-way for the following trips?

	Not at All	Less than 1-mile (about 5 minutes)	Up to 2 miles (About 15 minutes)	Up to 5 miles (About 30 minutes)	Up to 8 miles (About 45 minutes)	Beyond 8 miles (More than 45 minutes)
Work or school commute	46	1	2	1	6	3
Shopping or errands	36	5	7	6	6	2
Recreation or exercise	4	0	2	10	13	35
Social or entertainment	14	0	7	9	13	17

Question 7: What distance would you bicycle one-way for the following trips if something changed? "Something" could be a road improvement, or a personal / equipment improvement.

	Not at All	Less than 1-mile (about 5 minutes)	Up to 2 miles (About 15 minutes)	Up to 5 miles (About 30 minutes)	Up to 8 miles (About 45 minutes)	Beyond 8 miles (More than 45 minutes)
Work or school commute	26	1	5	8	6	9
Shopping or errands	22	4	10	8	9	9
Recreation or exercise	6	1	2	3	9	41
Social or entertainment	10	1	3	7	8	30

Question 8: How far is your one-way work or school commute now? ***Answered: 64 Skipped: 22***

	Percent	Responses
Less than 1 mile	26.56%	17
Up to 2 miles	14.06%	9
Up to 5 miles	12.50%	8
Up to 8 miles	17.19%	11
Beyond 8 miles	29.69%	19

Question 9: What encourages you most to ride a bicycle? (Pick your top reason.) ***Answered: 62 Skipped: 23***

	Percent	Responses
Health/Exercise	61.29%	38
Fun/Recreation	27.42%	17
Cost savings on commuting	4.84%	3
Convenience	3.23%	2
Environmental Impact	1.61%	1
No other transportation choice	1.61%	1

Question 10: How often do you wear a helmet?

	Percent	Responses
Never	8.06%	5
Not often	11.29%	7
Most of the time	14.52%	9
Every time I ride	66.13%	41

(Optional) If you don't wear a helmet every time, please note why:

- Lazy
- Usually on a trail
- My kids do but I don't…not a good excuse
- I don't have one
- Read up on helmet policies in other more bike/pedestrian countries. Helmet laws are archaic at best
- Its warm
- Forget

Question 11: Which of the following prevents you from bicycling more in summer? (Choose all that apply.)

	Responses
Some part of my trip is not safe to bike for traffic reasons	44
Not enough time to travel by bike	37
Road or path surfaces are poor for biking	16
Too many physical barriers	15
I don't want to sweat before work/school	8
Not physically able to do more	5
Some part of my trip is not safe to bike due to personal safety	5

Question 12: What infrastructure would improve biking in Rhinelander for you? (Choose all that apply.)

	Responses
Off-street trails	54
Paved shoulders on rural roads	50
Bike lanes on busy streets	49
Intersection bike accommodations	36
Bike racks at my destination	20
Other (please specify)	14
Nothing more regarding road improvements	0

[Q12] Other (Please specify):

- Paved shoulder on county highways(G,K,C) between connecting town roads. Usually just a short distance.
- Marked bike commuter routes to raise driver awareness
- Office located in office park on Hwy 17 N- no safe route for biking/waling after intersection w/Stevens St.
- Bike lanes on Kemp bridge
- DRIVER TRAINING!!!! Designated bike routes into town Paved Shoulders big enough to be safe on busy sections Potholes fixed on road edges
- SKATEPARK <3
- Community education on bicycle awareness. FAR too many motorists shout at bicyclists to "get out of the road and onto the sidewalk" Sharing the road safely seems to be a challenge for motorists in our community. Off stree trails would be the BEST solution ☺
- Black top bike trail like Vilas County has
- Rhinelander and Oneida County are generally NOT bike friendly. I travel to Vilas County 15+ times a year to bike the amazing bike trail system there.
- Look at what paved paths has done for the towns of Vilas County! This town...absolute zero.
- Wider/better shoulders on non-rural roads, sidewalks, traffic light at davenport/47
- Widened roads or added bike paths-we live off pine lake road in Rhinelander-I cant believe it is a bike route-its very dangerous due to all the turns/hills and bikes have to be right on the road, not to mention cars drive way to fast down this road. Maybe you could add a shoulder for bikes?
- Bike lanes on busy streets like Lincoln Street I avoid or ride on side walk, rarely use bike lane. The bike lane on barrens st is great less traffic and more room with the parking lane.
- The crossing at the intersection of Kemp and Boyce Dr. is difficult and dangerous. Needs a trigger crossing. Speed limit from on Kemp from 47 to the Chamber needs to be reduced to 35 miles per hour. Traffic is still going 40+ when it reaches Boyce.

Question 13: Which of the following programs or information would help you bike more often? (Choose all that apply.)

	Responses
Signed bicycle routes	41
Motorists sharing the road better	46
Bike maps	27
Some way of constant encouragement	6
Bike To Work/School events	9
Nothing more regarding programming or information	5
Having a guaranteed ride home if I needed a car unexpectedly	6
Various biking in traffic education for myself	4
Bike education for my children, so we can ride more often together	5
Other (please specify)	5

[Q13] Other (Please specify):

- Dedicated bike trail along Hwy 17 N at least to Menards-bike lane on the road would not be a viable/safe option due to traffic
- Designated biker routes
- Biking on Oneida County roads is currently an exceptional challenge. At least open the snowmobile trail to fat tire biking
- Trails that are not part of roads with cars
- Regional connections to trails in Three Lakes, Woodruff, and the Bear Skin Trail in Harshaw

Question 14: If you want to continue with the walking questions, then pick: "Yes"

	Percent	Responses
Yes	79.03%	49
No	20.97%	13

Question 15: If you want to continue with the walking questions, then pick: "Yes"

	Percent	Responses
Yes	100%	4
No	0%	0

Question 16: What is the main type of walking facility you use for the following purposes?

	I don't walk for this purpose	Sidewalk	City/Village street without sidewalk	Rural Road With Shoulder	Rural Road Without Shoulder	Shared-Use Trail
Work or school commute	37	6	3	1	0	0
Shopping or errands	18	26	2	0	2	0
Recreation or exercise	1	18	3	3	18	8
Social or entertainment	5	21	3	3	6	9

Question 17: In winter (November through April), how often do you walk for the following reasons?

	Not at All	Daily	Several Times a Week	Several Times a Month	Several Times a Year
Work or school commute	41	0	2	1	2
Shopping or errands	28	2	5	9	3
Recreation or exercise	9	7	15	13	6
Social or entertainment	18	1	10	11	7

Question 18: In summer (May through October), how often do you walk for the following reasons?

	Not at All	Daily	Several Times a Week	Several Times a Month	Several Times a Year
Work or school commute	38	1	2	1	2
Shopping or errands	20	2	12	9	4
Recreation or exercise	1	11	26	7	5
Social or entertainment	6	4	20	11	6

Question 19: What distance do you walk one-way for the following trips?

	Not at All	A few blocks (About 5 minutes)	Up to 1 mile (About 15 minutes)	Up to 1.5 miles (About 30 minutes)	Up to 2 miles (About 45 minutes)	Beyond 2 miles
Work or school commute	39	1	2	0	1	1
Shopping or errands	19	14	7	0	4	3
Recreation or exercise	1	0	8	6	10	25
Social or entertainment	6	3	7	5	10	16

Question 20: What encourages you to walk most?

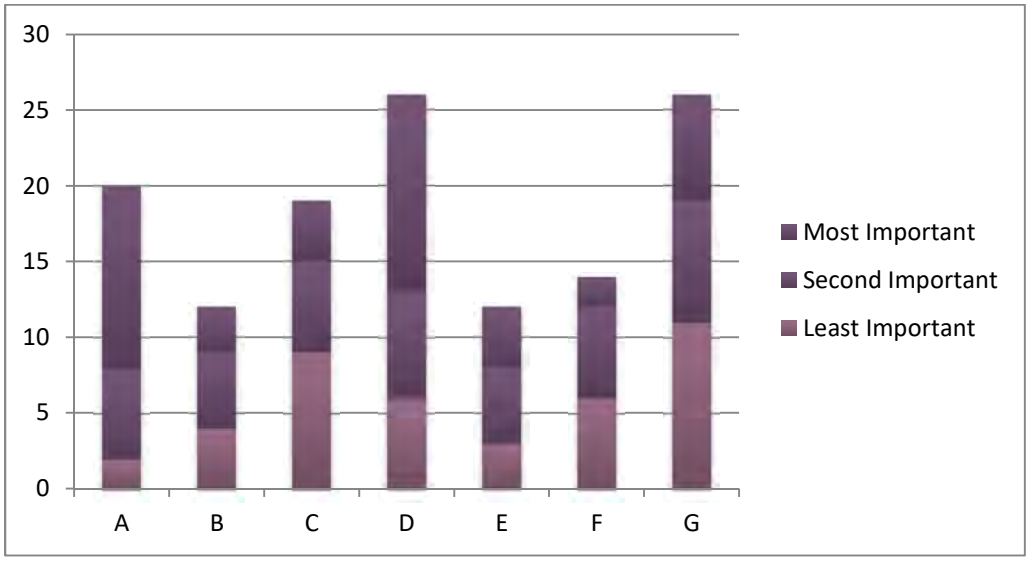
	Percent	Responses
Health/Exercise	58.33%	28
Fun/Recreation	27.08%	13
No other transportation choice	8.33%	4
Convenience	4.17%	2
Environmental Impact	2.08%	1
Cost savings on commuting	0%	0

Question 21: Which of the following prevents you from walking more in summer? (Choose all that apply.)

	Percent	Responses
Not enough time to walk	60.42%	29
Some part of my trip is not safe to walk	35.42%	17
Some part of my trip is not safe	18.75%	9
Too many physical barriers	14.58%	7
Not physically able to do more	12.50%	6
I don't want to sweat before work/school	4.17%	2

Question 22: What makes walking in Rhinelander difficult?

(Please choose your 3 most important reasons from list provided.)



A: Busy rural roads/highways without paved shoulders.

B: Crossing intersections without traffic signals/signs

C: Sidewalks not cleared in winter.

D: Sidewalks don't exist, or gaps in sidewalk.

E: Sidewalk in disrepair/obstructed *(e.g. tripping hazards, trees/brushes, parked cars/garbage cans on sidewalk, too narrow, etc.)*

F: Motorists don't yield to pedestrians in crosswalks

G: Few off-street trails in my part of Rhinelander.

Question 23: What infrastructure would improve walking in Rhinelander for you?

	Percent	Responses
Off-street path/sidewalk on busy rural roads/highways	73.91%	34
Paved shoulders on busy rural roads/highways	47.83%	22
More or improved lighting	15.22%	7
Sidewalks cleared of snow	52.17%	24
Motorist education about pedestrians' rights while in crosswalk	39.13%	18
In cities: Sidewalks on both sides of busy streets, and at least one side of busy neighborhood streets	54.35%	25
Sidewalks repaired or cleared of obstructions	43.48%	20
Easier way to cross road at traffic light or stop/yield sign controlled intersection	28.26%	13
In cities: Sidewalks on both sides of most streets	30.43%	14
Nothing	3.17%	1
Audible pedestrian signals to cross busy streets	8.70%	4
Curb ramps at every crosswalk	10.87%	5

[Q23] Other (Please specify):

- It would be nice to have bike/walk paths near pioneer park and make a loop river walk between bridges near Trigs/chamber of commerce
- Fix the roads
- Way too few bike lanes and paved road shoulders
- Longer crosswalk times. You barely start crossing and have to run to cross in time
- Curb ramps ideal as many walk with strollers

Question 24: Which of the following programs or information would help you walk more often?

(Choose all that apply.)

	Responses
Walking route maps	10
Motorists sharing the road better	24
Nothing more regarding programming or information	10
Some way of constant encouragement	6
Signed (Sidewalk stenciled)routes	13
Walk to Work/School events	5
Having a guaranteed ride home if I need a car unexpectedly	4
Other (please specify)	3
Anti-slip shoes/boots for winter	3
Various walking/crosswalk education for myself	3

[Q24] Other (Please specify):

- This survey is way to bias towards walking, fix the potholes, spend the money where its needed, not on bicycle trails or walking paths.
- Cleared sidewalks in winter
- Walking paths that are safe, tranquil and not along busy streets

Question 25: Would you like to make any additional comments?

Comments:

- The biggest problem area is around the high school. There needs to be sidewalks at the street on both sides of the street
- Having safe but effective routes and trained motorists would help
- The survey assumes everyone either works or goes to school. There should be an option for retired-don't have a daily commute
- Please install a bike/ped lane or path all the way to Nicolet College and put in a trigger for crossing the bypass at all bypass crossings!
- Look at what paved pats and biking has brought to the towns of Vilas County. This town is riddled with potholes and is a joke
- Traffic needs to SLOW down, pay attention to DRIVING, and YIELDING to pedestrians. Longer cross walk signals and cross walk signals that work. Love the new ones downtown that count down so you know how much time you have to cross before the light changes (some need to be longer though)

- Pine lake road is not a safe biking route-need to be a shoulder added or taken off the bike route-surprised someone hasn't been hurt yet. Thanks
- Desperately need a crossing signal at Boyce and Kemp intersections to connect bicycle/walking paths

Question 26: What is your age?

	Percent	Responses
Younger than 25	1.69%	1
25 to 34	16.95%	10
35 to 44	25.42%	15
45 to 54	27.12%	16
55 to 64	25.42%	15
More than 64	3.39%	2

Question 27: What is your gender?

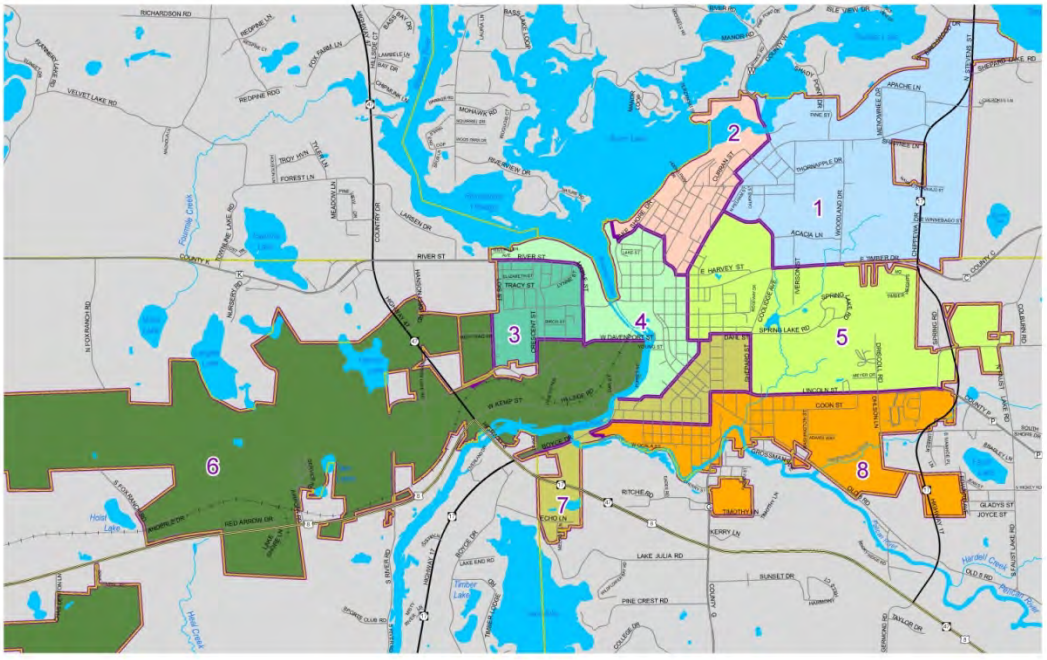
	Percent	Responses
Male	44.83%	26
Female	55.17%	32

Question 28: Do you live in or own a summer home in Rhinelander?

	Percent	Responses
Yes	67.80%	40
No	32.20%	19

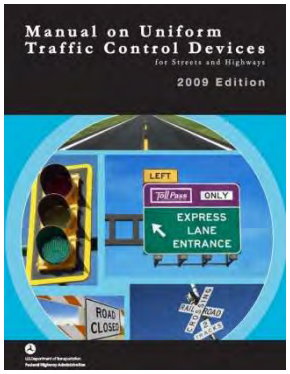
Question 29: What zone of Rhinelander do you live in (See map below)?

	Percent	Responses
Zone 1	12.50	4
Zone 2	6.25	2
Zone 3	3.13	1
Zone 4	15.63	5
Zone 5	12.50	4
Zone 6	31.25	10
Zone 7	12.50	4
Zone 8	6.25	2



Appendix 2: Wayfinding

The *Manual for Uniform Traffic Control Devices* (MUTCD) is the required manual to use when determining what sign is needed along a road or on private property that is open to the public. Other guides also exist such as NATCO's *Urban Bikeway Design Guide*, and WisDOT's *Wisconsin Bicycle Facility Design Manual*.

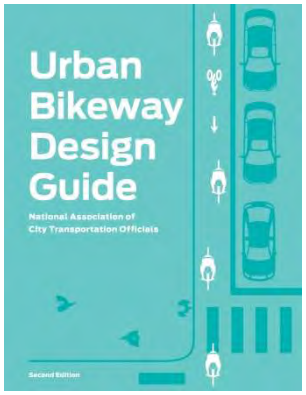


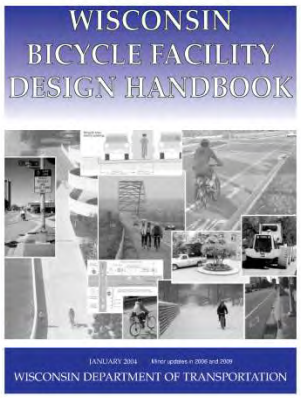
Bike Route Signs

Recommendations:

- Determine if a logo will be used or not (M1-8a is the logo sign). Signs going into other counties may not want to have logos on them (similar to County Highways that are named the same in adjacent counties).
- Determine what numbers will be used for each route.
- Coordinate ordering and sign installation per MUTCD requirements.

Sources:





M1-8

M1-8a

Wayfinding Throwback

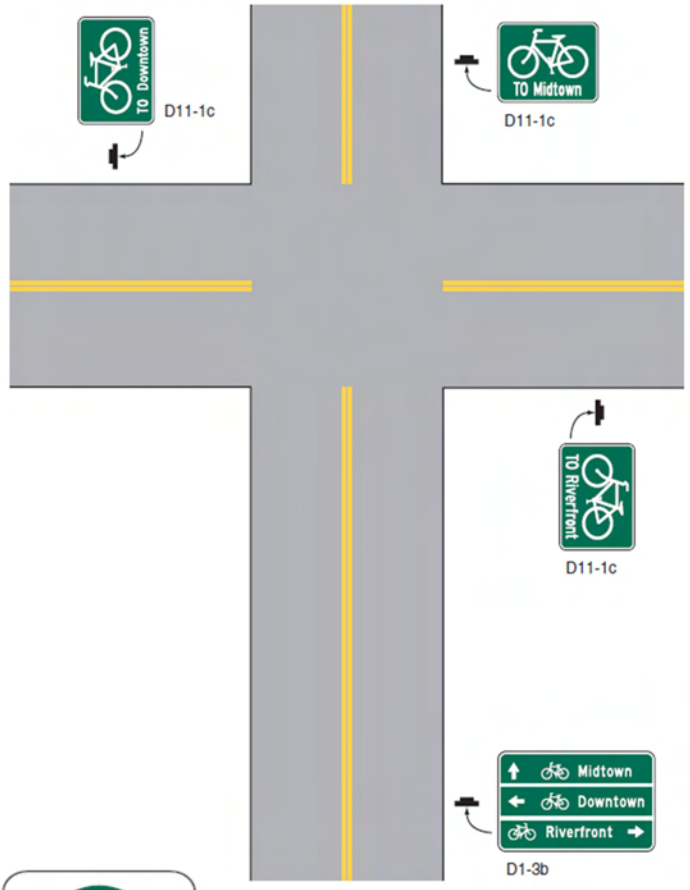
- 1911, a centerline is painted on a Michigan road.
- 1914, the first electric traffic signal is installed in Cleveland.
- 1915, the first STOP sign appears in Detroit.
- 1918, Wisconsin is the first state to erect official route signs as part of its maintenance functions.
- 1920, the first 3-color traffic signal is installed in Detroit.

Possible Bike Loop Route Signs

Recommendations:

- Determine if a Bike Loop Route is temporary (less than 2 years) or long term (2 years or longer). If it is a temporary route, then consider not signing it.
- For long term loop routes, consider using "D1-3b" signs to show each route turn before an intersection (see Figure 9B-6). No need to install "D11-1c" signs, unless you want the rider to verify that they are on the correct route – particularly useful if the intersection is in a busier place (like in a city or village).
- Coordinate ordering and sign installation per MUTCD requirements, and any volunteer assistance.

Figure 9B-6. Example of Bicycle Guide Signing



Note: Bicycles are allowed on most streets, so don't use "Begin" or "End" signs above a bike route sign. Motorists may interpret their use as bicycles are only allowed on bike routes.

D11-1

M1-8

This "M1-8" sign may be used instead of the "D11-1" sign if route numbers are used.

M5-1 M6-2 M6-1

D1-3

This "D1-3" sign may be used for park wayfinding.

See MUCTD for guidance.

R4-11

W11-1*

W16-1P*

In situations where there is a need to warn motorists to watch for bicyclists traveling along the highway, the SHARE THE ROAD (W16-1P) plaque may be used in conjunction with the W11-1 sign.

Place this sign assembly (below) on:

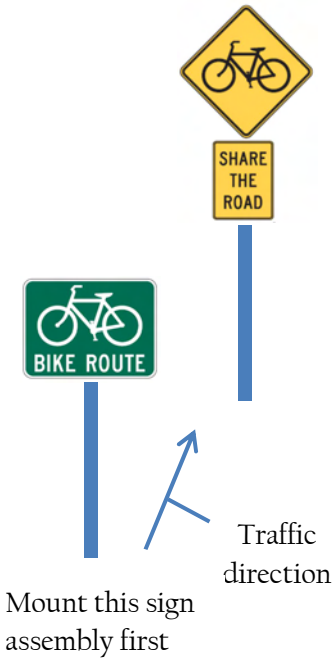
- Roads that enter Rhinelander. Consult WisDOT for state highways, or the Highway Commissioner for county highways.

Place this sign assembly (below) in line with painted sharrows on:

- Roads where on-street parking is used.
- Business districts.

After the last block where a ***Bike Route*** sign is installed, place the ***Share The Road*** assembly at the start of the next block/road intersection.

If bike route ends at a 4-way intersection, then 3 ***Share The Road*** assemblies should be used – similar to how county highways are signed.



Section 2A.04 Excessive Use of Signs (From MUTCD 2009)

Guidance:

- *Regulatory and warning signs should be used conservatively because these signs, if used to excess, tend to lose their effectiveness. If used, route signs and directional guide signs should be used frequently because their use promotes efficient operations by keeping road users informed of their location.*

NCWRPC Note: Since the green bike route signs (D11-1, and m series) below are guide signs, then frequent use is justified per the above guidance (2A.04). Frequent use is defined below in the NACTO text.

- "...every 2 to 3 blocks along bicycle facilities, unless another type of sign is used (e.g., within 150 ft of a turn or decision sign). Should be placed soon after turns to confirm destination(s). **Pavement markings can also act as confirmation that a bicyclist is on a preferred route."**
  (From NACTO Urban Bikeway Design Guide)

Rural Roads

On quiet country roads, little improvement is necessary to create excellent bicycling routes (fig. 2-9). Examples include town roads and many county trunk highways. State trunk highways and some county trunk highways, however, tend to have more traffic and a higher percentage of trucks. As a result, they are often improved with the addition of paved shoulders (sec. 2.6).

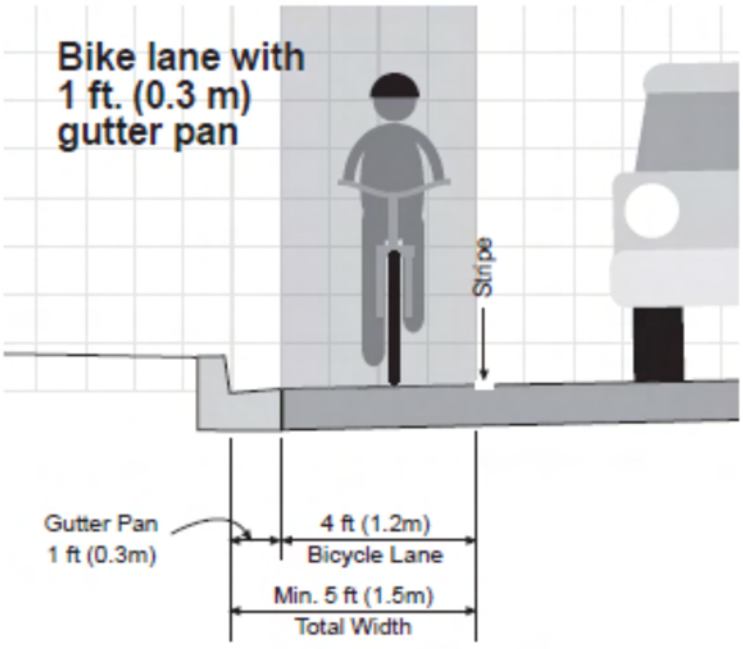
Figure 2-9: Many low-volume country roads need few improvements in order to serve bicyclists well.

No improvements beyond a bike route sign are needed on asphalt paved or seal coated rural roads with traffic volumes less than 500 AADT (annual average daily traffic).

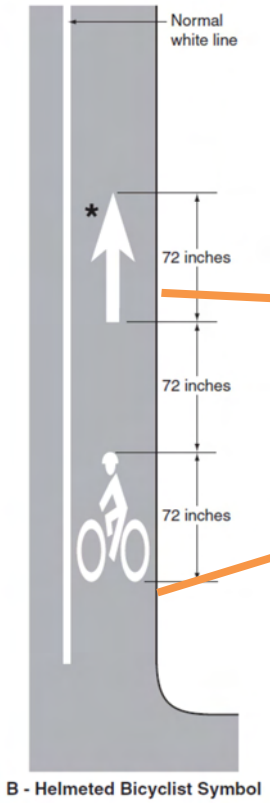
Dust should be controlled on gravel rural roads that are signed as bicycle routes.

Asphalt Road with curb

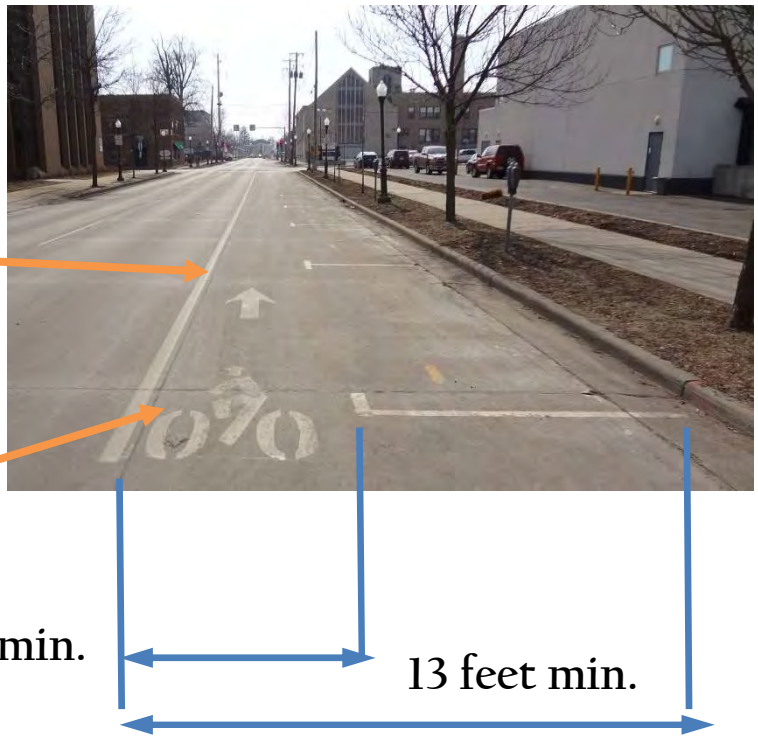
On a curbed asphalt street without parking, the standard clear width of a bicycle lane is 4 feet, as measured from the inside of the stripe to the joint line with the gutter pan. Depending on whether a 1 foot or 2 foot gutter pan is used, the total width from curb fact to the inside of the bike lane stripe would either be 5 or 6 feet total.

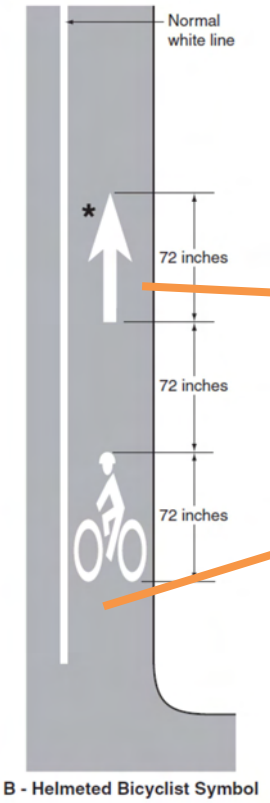


Road with parking and curb

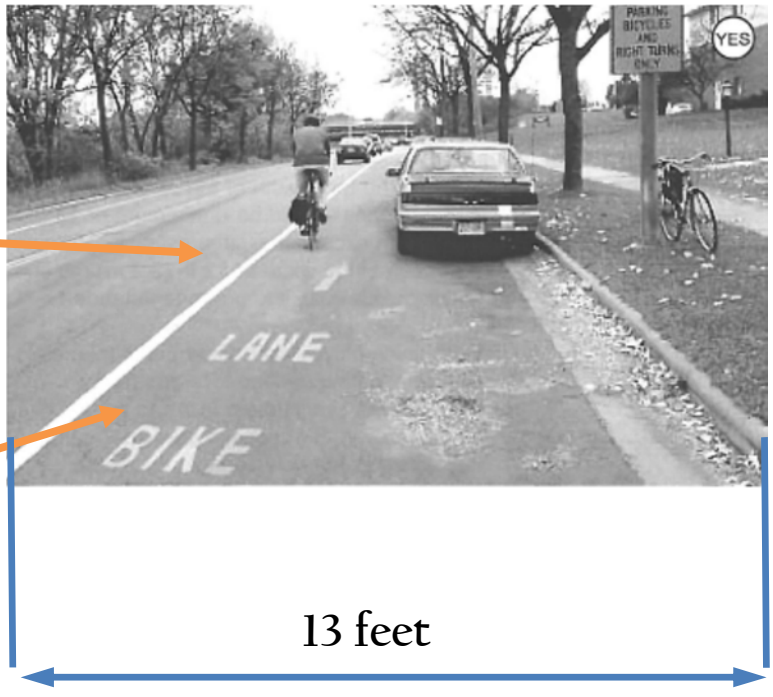


Sample bike lane next to **painted** on-street parking.





Sample bike lane next to **non-painted** parking lane.



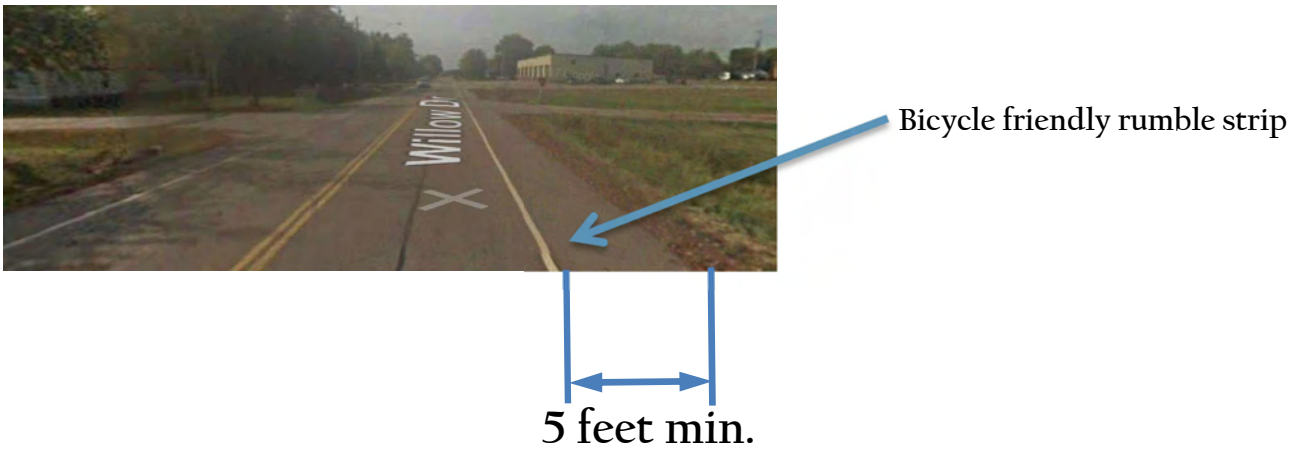
Urban or Paved Shoulder

Where on-street parking is necessary to keep, but where that parking may not be used consistently, an ***urban shoulder*** is suggested to be painted to encompass up to 7 feet of the whole parking lane. This area may be used to park cars and ride a bike in when cars are not there.

NOTE: Do not paint bike lane markings on the shoulder.

Sample ***urban shoulder*** where parking is allowed

Sample ***paved shoulder*** where parking is allowed:



Recommendations

- Along higher volume roads, 3 to 5-foot paved shoulder provides safe space for bicyclists depending on ADT, % trucks, % double yellow line & number of bicyclists. Also, trucks and cars can pull off the road to adjust their vehicles.
- If traffic is riding over the white line, then install bicycle safe rumble strips on the white lines.
- Contact your WisDOT Bicycle Coordinator to verify what size shoulder a specific road should have based upon expected bicycle and pedestrian traffic.

Appendix 3: Bike Parking Guidelines

Bicycle Parking Guidelines

A summary of recommendations from the Association of Pedestrian and Bicycle Professionals

Bicycle Parking Design

- Required spaces shall be at least 2 feet by 6 feet.
- An access aisle of at least 5 feet shall be provided in each facility.
- Racks shall be situated to allow a minimum of 2 feet between adjacent bike parking stalls.
- Spaces shall have a vertical clearance of at least 80 inches.

Bicycle Rack Design

Structures that require a user-supplied locking device:

- must accommodate U-shaped locking devices;
- support the bike frame at two points;
- be securely anchored to the ground or the building structure; and
- be designed and maintained to be mud and dust free.

Bicycle Rack Location

- Racks should be located in a clearly designated safe and convenient location.
- Racks should be designed and located to be harmonious with the surrounding environment.
- Racks should be at least as convenient as the majority of auto parking spaces provided.

To learn more about bicycle parking guidelines, visit the Association of Pedestrian and Bicycle Professionals at: www.apbp.org.

These bicycle racks do NOT meet the design guidelines:

Grid or Fence Style Racks

Wave or Ribbon Style Racks

These bicycle racks DO meet the design guidelines:

Inverted-U Style Racks

Angled Wave Style Racks

Freestanding Style Racks

The above images are examples only. NCWRPC does not endorse any particular bicycle rack manufacturers.

If you have questions about whether a particular bicycle parking rack you are considering using meets these requirements, please contact NCWRPC planner **Fred Heider**, AICP at **fheider@ncwrpc.org**.

Appendix 4: Sidewalk Inventory Scope

MEMORANDUM

Date: February 19, 2019

To: Daniel Guild, City Administrator

From: Mark Barden, P.E.

Subject: City of Rhinelander
2019 GIS Sidewalk Inventory Proposal

The City has requested a proposal to provide a City wide inventory of sidewalk and handicap ramps with the intention of identifying areas that currently do not have sidewalk as well as handicap ramps without truncated domes. This inventory would include approximately 56 centerline miles of streets maintained by the City.

We propose to begin the inventory using a combination of existing GIS data sources. WISLR is a database that the City has been maintaining in conjunction with DOT for many years that contains basic geometric and quantitative attributes and the City's existing GIS data contains information about right-of-way width, ground slopes, and building locations. This will be supplemented by a physical inventory as needed to determine areas of deficiency within the City. We anticipate the report to be used by the City as a budgetary tool only for future sidewalk construction consideration. Detailed construction cost estimates would be need to be completed for any specific areas scheduled for construction.

The description of the scope of engineering services for each task is as follows:

GIS Mapping Inventory

- Identify and Inventory of gaps in sidewalk within the City limits using aerial photos
- Evaluate constructability of sidewalk using search criteria for steepness of side slopes, right-of-way width and proximity of existing buildings

Physical Inventory

- Verify gaps shown on aerial photos
- Verify construction limitations in field
- Inventory handicap ramps and document the existence of ramps and whether a truncated dome panel configuration is present

Report

- Provide budgetary construction estimates for filling sidewalk gaps and replacing/installing truncated dome panels at handicap ramps
- Work with the Public Works Director to prioritize areas of construction based on costs, ease of construction, scheduled annual street maintenance projects, and anticipated utility projects that would necessitate complete street reconstruction.
- Provide an assessment of limitations in filling gaps (road width, constructability, etc.) relative to budget estimates

GIS Mapping Updates

- Update the City's GIS mapping system showing inventoried sidewalk and ramps

Appendix 5: Plan Adoption

CITY OF RHINELANDER PLAN COMMISSION
RESOLUTION #PC-2019-01

A RECOMMENDATION OF THE CITY OF RHINELANDER BICYCLE AND PEDESTRIAN PLAN 2019 AS AN AMENDMENT TO THE CITY OF RHINELANDER PLAN COMPREHENSIVE PLAN

WHEREAS, the Common Council of the City of Rhinelander established a Plan Commission for the purposes of preparing and amending a Comprehensive Plan for the City; and

WHEREAS, on November 15, 2016 the Common Council adopted the City of Rhinelander Comprehensive Plan to promote public health, safety and welfare by guiding long-range growth and development within the City; and

WHEREAS, the City of Rhinelander Plan Commission has reviewed the recommended amendment to the Comprehensive Plan at a regular monthly meeting; and

WHEREAS, members of the public, adjacent local governmental units, and Oneida County will be given a 30-day review and comment period prior to the public hearing which will be conducted by the City Council for the proposed amendment to the Comprehensive Plan; and

WHEREAS, after said hearing, the City Council will decide whether to adopt by ordinance the proposed amendment to the Comprehensive Plan; and

WHEREAS, the Comprehensive Plan may be used as the basis for, among other things, updating the City's Code of Ordinances, guiding actions affecting growth and development within the jurisdiction of the City, and applying for grant or other funding; and

WHEREAS, the proposed amendment incorporates a program to improve community livability within Rhinelander by encouraging a more bike-able and walkable city; and

NOW, THEREFORE, BE IT RESOLVED, by the City of Rhinelander Plan Commission that the City of Rhinelander Bicycle and Pedestrian Plan 2019 is hereby recommended as an Amendment to the City of Rhinelander Comprehensive Plan pursuant to s.62.23 and s.66.0295, Wis. Stats. Adopted this 3rd day of September 2019.

Passed and Adopted by the Plan Commission on this 3rd day of September 2019.

CITY OF RHINELANDER, a Municipal Corporation of the State of Wisconsin.

Mayor Christopher Frederickson, Chairperson
City of Rhinelander Plan Commission

ATTEST:

Theresa Lassig
Plan Commission Recording Secretary

ATTEST:

Valerie Foley
City Clerk

CERTIFICATE

STATE OF WISCONSIN)
) ss.
COUNTY OF ONEIDA)

I, Theresa Lassig, Plan Commission Clerk/Recording Secretary of the City of Rhinelander, do hereby certify that the foregoing resolution was duly adopted at a meeting of the Plan Commission of the City of Rhinelander, held at City Hall on the 3rd of September 2019 at 6:00 p.m., the vote on the resolution being 6 Aye, 0 Nay, and 1 Absent.

ATTEST:
By: Theresa Lassig
Plan Commission Clerk Recording Secretary

CITY OF RHINELANDER, ONEIDA COUNTY, WISCONSIN

SERIAL ORDINANCE #2019-05

AN ORDINANCE ADOPTING THE BICYCLE/PEDESTRIAN MASTER PLAN, PREPARED BY NORTH CENTRAL REGIONAL PLAN COMMISSION AS AN AMENDMENT TO THE COMPREHENSIVE PLAN

SECTION I – TITLE/PURPOSE
The title of this ordinance is the City of Rhinelander Comprehensive Plan Update 2019-1 Ordinance. The purpose of this ordinance is for the City of Rhinelander to lawfully adopt an update to its Comprehensive Plan.

SECTION II – AUTHORITY
The Common Council of the City of Rhinelander has authority under sections 62.23 (2) and 66.1001 (4) (c), Wisconsin Statutes to adopt updates to its Comprehensive Plan by ordinance.

SECTION III – PUBLIC PARTICIPATION
The Common Council of the City of Rhinelander has adopted written procedures designed to foster public participation in every stage of the preparation of a comprehensive plan as required by s. 66.1001 (4) (a), Wisconsin Statutes.

SECTION IV – CITY PLAN COMMISSION RECOMMENDATION
The Plan Commission of the City of Rhinelander, by a majority vote of the entire commission, recorded in its official minutes, has adopted a resolution recommending to the Common Council the adoption of the City of Rhinelander Bicycle and Pedestrian Plan, 2019 as an amendment to the City Comprehensive Plan.

SECTION V – PUBLIC HEARING
The City of Rhinelander, has held a public hearing on this ordinance, with notice in compliance with the requirements of section 66.1001 (4) (d), Wisconsin Statutes.

SECTION VI – ADOPTION OF UPDATE
The City of Rhinelander, by this ordinance, enacted on proper notice with a quorum and roll call vote by a majority of the Common Council present and voting, formally adopts the document entitled City of Rhinelander Bicycle and Pedestrian Plan 2019 as an amendment to its Comprehensive Plan.

SECTION VII – SEVERABILITY
If any provision of this ordinance or its application to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of this ordinance that can be given effect without the invalid provision of application, and to this end, the provisions of this ordinance are severable.

SECTION VIII – EFFECTIVE DATE
This ordinance is effective on publication. The City Clerk shall properly publish this ordinance as required by law.

Passed and *Adopted* by the Council on this 14th day of October 2019.

CITY OF RHINELANDER, a Municipal Corporation of the State of Wisconsin.

By: Chris Frederickson
Its Mayor

ATTEST:
By: Daniel Guild
Its City Administrator

CERTIFICATE

STATE OF WISCONSIN)
) ss.
COUNTY OF ONEIDA)

I, Valerie Foley, City Clerk of the City of Rhinelander, do hereby certify that the foregoing ordinance was duly adopted at a meeting of the Common Council of the City of Rhinelander, held at City Hall on the 14 of October 2019 at 6:00 p.m., the vote on the ordinance being 7 Aye, 0 Nay, 1 Absent.

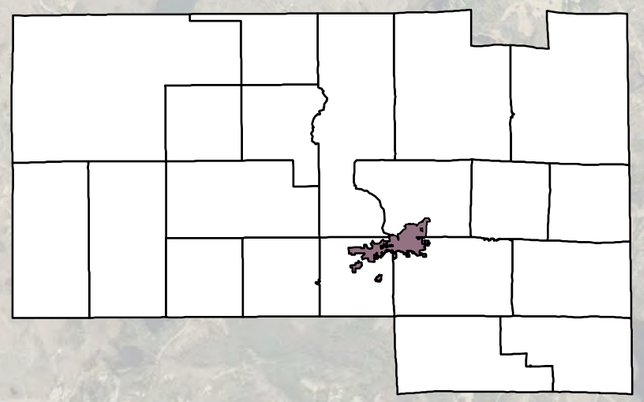
ATTEST:
By: Valerie Foley
Its City Clerk

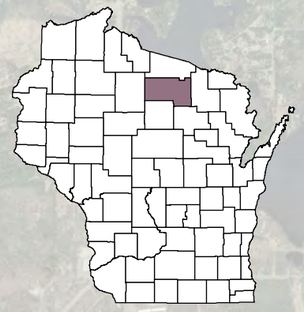
Maps

THIS PAGE LEFT BLANK, INTENTIONALLY.

City of Rhinelander, Wisconsin

Map 1 - Location





Source: NCWRPC, WI DNR, WI DOT

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.

N
W E
S

Prepared By:
North Central Wisconsin Regional Planning Commission
210 McClellan St., Suite 210, Wausau, WI 54403
715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org

Map 2
WikiMapping Information
City of Rhinelander, Wisconsin

Legend

- Bike Parking Needed
- Conflict Area
- I Want a Path Here
- Route I Like to Walk
- Route Needs Bike Improvement
- Route Needs Walk Improvement
- U.S. Highways
- State Highways
- County Highways
- Local Roads
- Private Roads
- Forest Roads
- Water

N, W, E, S

0 0.25 0.5 1 Miles

Source: NCWRPC, WI DNR, WI DOT

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.

Prepared By:
North Central Wisconsin Regional Planning Commission
NCWRPC
210 McClellan St., Suite 210, Wausau, WI 54403
715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org

Map 3
Existing Bicycle Facilities
City of Rhinelander, Wisconsin

Legend

- City Hall
- Court House
- Health Services
- Hospital
- Library
- Museum
- Post Office
- School
- Parks
- Existing Off Road Trail
- Existing On Road Route
- U.S. Highways
- State Highways
- County Highways
- Local Roads
- Private Roads
- Forest Roads
- Water

N W E S

0 0.25 0.5 1 Miles

Source: NCWRPC, WI DNR, WI DOT

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.

Prepared By:
North Central Wisconsin Regional Planning Commission
210 McClellan St., Suite 210, Wausau, WI 54403
715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org

Map 4
Sidewalk Inventory
City of Rhinelander, Wisconsin

Legend

Sidewalk Location

- Both Sides
- East Side
- North Side
- South Side
- West Side

- U.S. Highways
- State Highways
- County Highways
- Local Roads
- Private Roads
- Forest Roads

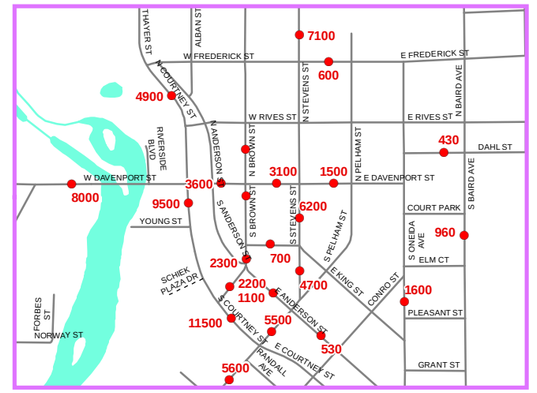
- City Hall
- Court House
- Health Services
- Hospital
- Library
- Museum
- Post Office
- School
- Water

0 0.25 0.5 1 Miles

Source: NCWRPC, WI DNR, WI DOT

Prepared By:
North Central Wisconsin Regional Planning Commission
210 McClellan St., Suite 210, Wausau, WI 54403
715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org

Map 5
Traffic Counts
City of Rhinelander, Wisconsin



Legend

- Traffic Count Location
- U.S. Highways
- State Highways
- County Highways
- Local Roads
- Private Roads
- Forest Roads
- Water

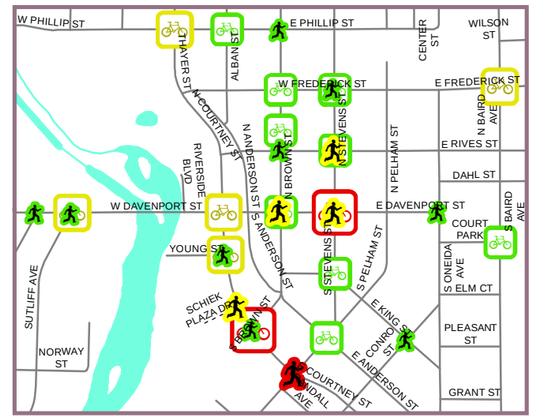
0 0.25 0.5 1 Miles

Source: NCWRPC, WI DNR, WI DOT

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.

Prepared By:
North Central Wisconsin Regional Planning Commission
210 McClellan St., Suite 210, Wausau, WI 54403
715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org

Map 6
Crash Locations
City of Rhinelander, Wisconsin



Legend

Pedestrian Crash

- 1 Crash
- 2-3 Crashes
- 4-5 Crashes

Bicycle Crash

- 1 Crash
- 2-3 Crashes
- 4-5 Crashes

- U.S. Highways
- State Highways
- County Highways
- Local Roads
- Private Roads
- Forest Roads
- Water

0 0.25 0.5 1 Miles

Source: NCWRPC, WI DNR, WI DOT

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.

Prepared By:
North Central Wisconsin Regional Planning Commission
210 McClellan St., Suite 210, Wausau, WI 54403
715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org

Map 7

Proposed Corridors

City of Rhinelander, Wisconsin

Legend

- Alternate Route
- Existing Route
- Proposed Off Road
- Proposed On Road
- U.S. Highways
- State Highways
- County Highways
- Local Roads
- Private Roads
- Forest Roads
- Water

0 0.25 0.5 1 Miles

Source: NCWRPC, WI DNR, WI DOT

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.

Prepared By:
North Central Wisconsin Regional Planning Commission
210 McClellan St., Suite 210, Wausau, WI 54403
715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org