SHOREWOOD PEDESTRIAN & BICYCLE MASTER PLAN

Shorewood's Ten-Year Strategic Mobility Plan

Adopted March 3, 2025

Village of Shorewood, Wisconsin
3930 North Murray Avenue
Shorewood, WI 53211

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Table of Contents

Forward

It has been said that the twin gods of "smooth, fast traffic" and "ample, free parking" have turned our downtowns and commercial districts into places that "are easy to get to, but not worth arriving at."[1]

We want Shorewood to be a place "worth arriving at." A place where people want to be, live, visit, and own and grow a business.

Ensuring that Shorewood remains a highly walkable and bikeable community, is essential to the above.

How a community's overall transportation network is designed and built dramatically contributes to what a community will be like. Transportation networks in urban and suburban areas that are overly car-centric in their design, and which therefore promote overly-car-dependent lifestyles:

- are bad for individual physical and emotional health;
- promote social isolation;
- locally, are bad for air quality and crime deterrence; and
- globally, profusely fund repressive petro-autocracies, and contribute to climate change (and rising levels of destruction caused by extreme weather events).

There are many places in Southeast Wisconsin where those who desire to live a car-centric lifestyle can choose to live or own a business – but few places that have had the foresight to create walkable and bikeable communities. Given Shorewood's history and location, having vibrant, safe, walkable and bikeable streetscapes is (and can continue to be) one of Shorewood's long-term, sustainable advantages over its competitors.

By adopting this plan, Shorewood commits itself to developing a transportation network and transportation policies that enhance Shorewood as a highly walkable and bikeable community. One where it is safe and comfortable to choose to live active lifestyles, and where residents and visitors have a variety of high-quality transportation options.

No matter how good this plan may be, it is meaningless unless the people of Shorewood, our elected officials, and our other local officials proceed actually to implement it. As Wisconsin's motto says, "Forward."

-- *Alexander "Sandie" Pendleton (Chair, Shorewood Pedestrian & Bicycle Safety Subcommittee)*

[1] Jeff Speck, *Walkable City* (North Point Press 2013).

1.0 Village Organization

Shorewood, Wisconsin was incorporated as a village in the metro Milwaukee region in 1900. It is an urban, inner-ring suburb, bordered by Lake Michigan to the east, the Milwaukee River to the west, the city of Milwaukee to the south, and the Village of Whitefish Bay to the north. As of 2020, Shorewood had a population of 13,859 within approximately 1.6 square miles. Developed as a streetcar suburb, its residential density of approximately 8,700 people per square mile (13.6 people per acre) is the highest in the state, in part based on its small land area. The municipality is governed by a 7-person Board of Trustees (Village Board) with a Village President. Numerous appointed and volunteer committees and boards support the work of the Village Board, including for the purpose of this plan the Public Works Standing Committee of the Village Board and the Pedestrian and Bicycle Safety Subcommittee.

The Pedestrian and Bicycle Safety Subcommittee, which is a component of the Parks and Public Spaces Committee, is comprised of four (4) members who are residents of the village appointed by the Village President and approved by the Village Board. The Subcommittee creates and recommends implementation of pedestrian and bicycle safety initiatives and educational programs to maintain and promote Shorewood's status as a walkable and bikeable community. Staff liaison responsibilities to the subcommittee are provided by the Assistant Village Manager.

Administration of the Village is led by a Village Manager who oversees the Village's budget and activities of all departments, including for the purposes of this plan the Department of Public Works, Planning & Development Department and Police Department. Engineering services for the Village are provided by a contractor, who at the time of this plan's development was Strand Associates, Inc.

The Village Manager's Office, Department of Public Works, Planning and Development Department, Police Department and volunteers from the Pedestrian and Bicycle Safety Subcommittee will have a large role to play in continuing Shorewood's tradition of being a well-maintained, highly walkable and bikeable community. Unlike larger municipalities, the Village does not have dedicated staff specifically responsible for the oversight and implementation of pedestrian, bicycle and other mobility issues, so understanding current processes, roles and responsibilities, and coordinating efforts of various entities will be critical toward achieving the vision and goals of this plan.

2.0 Introduction, Plan History & Planning Process

2.1 Introduction

Simple, accessible, inexpensive, and environmentally friendly forms of transportation continue to be a pivotal component in the Village of Shorewood's vision for an active citizenry, vibrant economy, and engaging street life. Every day, residents and visitors of all ages choose to walk, bike or use other mobility devices or options to manage errands, commute to work or school, visit friends and neighbors, and maintain a healthy lifestyle. It is vital to the future of the Village that residents can safely walk, bike, or utilize other transportation options as a cost-efficient, viable alternative to vehicular ownership or usage. Being a highly walkable and bikeable community is one of the ways that Shorewood can differentiate itself from

other communities. An active pedestrian and bicycle culture has been a key factor in attracting residents and businesses on which the Village of Shorewood relies on to succeed. Throughout the country, individuals and businesses are choosing to locate in areas where multi-modal transportation options are abundant, convenient and safe. The Village of Shorewood and its partner organizations strive to provide these options to those who live, work, learn, shop, and visit within our region.

The Village of Shorewood Pedestrian & Bicycle Master Plan provides a comprehensive, strategic pathway to improve Shorewood's roadways to make them better and safer for all users, including pedestrians, bicyclists, other mobility device users and transit riders. Where necessary and productive, that will involve Shorewood working with other local, regional, state and national partners to achieve that goal. Working together, public, private and non-profit entities can help lead Shorewood to having a more equitable, sustainable and diverse transportation network.

The plan is divided into sections related to topics or types of infrastructure. A narrative overview of these areas is provided for context along with general requirements or regulations. If applicable, specific recommendations related to these items are called out after each section.

2.2 Plan History

The Village of Shorewood has previously engaged in strategic planning efforts regarding pedestrian, bicycle and transit safety issues. These efforts included studies, audits and surveys ranging back to 2005, which thereafter led to the adoption of the Village's first Pedestrian and Bicycle Master Plan in 2015. This plan was subsequently incorporated into the Village's Comprehensive Plan 2040 as a guiding reference. As with all plans, the useful life of the former plan was waning, so in 2023 the Village identified that an update was needed. The proposed update was identified to be a priority project in 2024 alongside an update to the Village's Comprehensive Outdoor Recreation Plan and a Concept Plan for Atwater Park Hardscape and Pathway Maintenance.

2.3 Planning Process

Developed by Village staff with review from volunteers of the Pedestrian and Bicycle Safety Subcommittee and the Village's Parks and Public Spaces Committee, this 2025 update to the Pedestrian & Bicycle Master Plan was drafted utilizing the Village's 2015 plan as its base. The update also incorporates information learned through other planning efforts, including the Village's Transportation and Parking Analysis (2020), which recommended the adoption of a Complete Streets Policy.

Public input was solicited and received throughout the planning process to ensure that the contents of the plan aligned with expectations of Shorewood's stakeholders, including neighboring and regional partners, and the context of the village's land use. The first

of these efforts took place through a public engagement meeting held on April 4, 2024 with an open house format to solicit feedback on the plan's Vision and Goals. Comments pertaining to plan elements, including areas of concern or appreciation, pedestrian and bicycle components, transit, accessibility, scooters, traffic calming, education and engagement, and enforcement and encouragement were gathered. These early comments were used to guide additional discussion and eventual recommendations.

A second public engagement meeting was held on June 6, 2024 at which participants viewed displays with sample questions related to various elements to be addressed within the plan's recommendations. The topics and questions were intended to be more specific in gathering input from residents on possible improvements. Additional comments were solicited online after the meeting. All comments from both public engagement efforts have been retained on file.

A draft of the plan update, including contents and recommendations, was shared with members of the Pedestrian and Bicycle Safety Subcommittee in August for discussion at the Parks and Public Spaces Committee meeting in September. Initial comments were reviewed and incorporated into a second draft which was shared with the Committee in October. Additional comments were once again reviewed and utilized to develop a Public Review Draft, which was finalized in November in preparation for a third public engagement meeting on December 12, 2024. Based on feedback provided from the public at that meeting, as well as the Pedestrian and Bicycle Safety Subcommittee and the Parks and Public Spaces Committee as a whole, an updated plan was prepared for recommendation to the Village Board. The updated plan was recommended for approval by the Parks and Public Spaces Committee on February 11, 2025, and the Village Board considered and adopted the plan on March 3, 2025.

This document will serve as the Village's main source of information and reference pertaining not only to pedestrian and bicycle concerns, but also other forms of alternative transportation and mobility, so that Shorewood's transportation system and policies going forward become more balanced. The plan was written with implementation in mind with an emphasis on incorporating the concepts and ideas found within into the Village's standard operating procedures. As with any plan, updates are expected to be needed from time to time as conditions and expectations change. To that point, it is recommended that this plan be revisited approximately every 10 years.

3.0 Purpose, Vision and Goals

3.1 Purpose

The purpose of the Pedestrian and Bicycle Master Plan is to document opportunities and recommendations related to pedestrian, bicycle and other transportation or mobility issues or infrastructure within Shorewood that align with the community's vision into one resource. Goals and recommendations have been outlined to guide and assess implementation efforts. Through adoption by the Village Board, this plan will replace the former plan and be incorporated into the Village's official Comprehensive Plan. It is recognized that the recommendations herein do not exist in a vacuum. When opportunities arise for changes in policies or roadway designs, the Village Board will need to weigh the recommendations within this plan with other competing interests, particularly when it comes to those changes that require budgetary allocations. While some of the plans' recommendations are phrased in terms of "evaluate" or "consider," due to the need for further research, approval or budgetary needs, the use of those terms should not be interpreted as making only mild recommendations, or this plan calling for a slow approach to change.

3.2 Vision

The following vision statement has guided this plan update:

> Multi-modal transportation in Shorewood is a fundamental part of the Village's identity and key to its long-term success. Shorewood will be a safe and comfortable place to walk, bike or utilize other legal modes of transportation and mobility for persons of all ages and abilities. Its transportation network will be well-connected both internally and to the region and will promote and encourage healthy transportation and active lifestyles for the benefit of people and the environment alike.

This statement should be referenced during future discussions of policy development and implementation. Notably absent from this vision are matters related to travel time and cost, which can often conflict with a desire for better transportation and mobility options. While those components should not be overlooked, they are not intended to be prioritized over safety and the community's quality of life.

This plan also incorporates the values outlined in the Village's Equity Statement which states:

> The Village of Shorewood is a safe, fair, and inclusive community where individuals are valued for their diverse experiences, perspectives, and cultural backgrounds and afforded opportunities to fully participate in community life.

3.3 Goals

A goal is an overarching principle that should be referenced during related decision-making activities, such as project, policy or program prioritization, budgeting, design and implementation. Goals are future-focused and define expected outcomes. The following goals were identified for this plan:

High-quality, multi-modal transportation **infrastructure** that prioritizes safety within local context is designed and maintained utilizing a data-driven process that allows all interested stakeholders an opportunity to provide input during the design process.

Opportunities for community **education and encouragement** related to multiple types of transportation options are routinely provided consistent with the community's desire for an active, healthy, environmentally responsible, person-focused culture.

Transportation choice and behavior are considered within policy and project implementation decisions, and expectations pertaining to **enforcement** are understood and shared by all users.

4.0 Shorewood's Transportation Network

The first step in developing a successful transportation plan and related policies is to classify the transportation networks that will be affected. Shorewood's pedestrian and bicycle networks are discussed first, but all elements shall be understood in the context of the whole network, which also includes classified roadways. Since 2015, Shorewood has made progress in designing and constructing its overall transportation network so that the components thereof have become safer and more comfortable for all users, but there are still multiple areas in which progress can be made.

It is also worth noting that transportation networks exist within the context of current and proposed land uses. The purpose, vision, goals and recommendations within this plan are intended to support those land uses and where applicable should be used in reference to review desired or requested changes.

Recommendations

- ☐ Review proposed land use modifications in conjunction with the plan's purpose, vision, goals and recommendations.

4.1 Pedestrian Transportation Network

Shorewood's pedestrian network is comprised of sidewalks and crosswalks, as well as connections to Milwaukee County's multiuse Oak Leaf Trail. This network exists primarily for the use of pedestrians but also provides a dedicated space for certain bicyclists and other mobility device users. The village has a complete network of approximately 60 miles of sidewalks to complement its network of roadways. This network was built alongside the walkable land use patterns developed in Shorewood as a "streetcar suburb." The sidewalk network provides pedestrians and users of mobility devices, such as wheelchairs and strollers, access to both commercial corridors and residential neighborhoods. Sidewalks also grant significant space for social interaction and recreational activities, provide access to regional transit, and enable residents and students to choose environmentally friendly ways to get around the village. This network should be maintained in its complete state and any obstacles or areas of discontinuity should be corrected.

Shorewood's sidewalks are intersected by driveways, alleys and roadways, and it is at those intersections where pedestrians and other sidewalk users are at the greatest risk of being struck by a motor vehicle. Crosswalks facilitate the movement of pedestrians across

roadways. Some marked crosswalks are located at traffic signals with dedicated pedestrian crossing signals, and some marked crosswalks (notably, some on Capitol and some on Oakland) have Rectangular Rapid Flashing Beacon systems to warn drivers of the presence of pedestrians. Safety at some crosswalks is also enhanced by the use of curb extensions. As of yet, the Village has not created any raised sidewalks (or raised intersections).

Like its sidewalks, the multiuse trails within Shorewood provide significant space for social interactions and recreational activities between and among pedestrian users. The multiuse trails within the village include the Oak Leaf Trail and pathways within Estabrook Park, which are both owned and maintained by Milwaukee County. Major infrastructure related to the Oak Leaf Trail in Shorewood includes the bridge over E. Capitol Drive, which records over 330,000 bike and pedestrian crossings each year. The Village also maintains pathways within its local parks, including the River Riparian Trail within Hubbard Park.

Recommendations

- ☐ Maintain the village's sidewalk network in conjunction with a formalized Sidewalk Program.
- ☐ Encourage Milwaukee County to improve and maintain the Oak Leaf Trail within Shorewood, including pavement replacement and widening, and adding an adjacent natural-surface path.
- ☐ Work with Milwaukee County on providing education regarding a share-the-trail approach on the Oak Leaf Trail.
- ☐ Consider the installation of signage at entry/exit points that would encourage safe and courteous use of the Oak Leaf Trail.
- ☐ Formalize an entry/exit to the Oak Leaf Trail from Hubbard Park and through any future redevelopment of the Department of Public Works Yard to N. Morris Blvd.
- ☐ Work with Milwaukee County and the City of Milwaukee on the connection from the Oak Leaf Trail to E. Edgewood Ave.
- ☐ Encourage Milwaukee County and the Public Arts Committee to include seating and art along the Oak Leaf Trail, including possible gateway features, and pedestrian and bicycle count displays.
- ☐ Work with partnerships to perform pedestrian safety and walking audits focusing on different areas of the Village each year as necessary.

4.2 Bicycle Transportation Network

There are no roadways in Shorewood where bicycle use is prohibited. In recent decades, the design of certain roadways has been modified so that bicyclists can feel more comfortable and use them in a safer way. In order to do that, urban transportation professionals have emphasized the

importance of communities developing their bicycle facilities into a connected network. Bicycle facility networks share characteristics with pedestrian and road networks in that they are designed, maintained and safe to use for their particular users. The National Association of City Transportation Officials (NACTO) has published an Urban Bikeway Design Guide to help local municipalities understand options to do so. This plan calls for the Village to follow those recommendations, and over time to develop such a high-quality connected network of bicycle routes.

As the Village defines and constructs its bicycle facility network, most residential "local streets" (as the term is defined below) will not be altered. In contrast, arterial and collector roads with higher traffic volumes and higher traffic speeds will need to be designated and included within the network to clarify what part of the public right of way is dedicated or prioritized for different types of users. As to bicycles, often that clarity will be achieved by adding bicycle lanes to a roadway or changing the overall design of a street into a neighborhood greenway or bicycle route to protect and prioritize their presence.

A high-quality bicycle facility network provides dedicated space separated from other travel modes or successfully integrates the use of bicycles into the roadway, features complete connections, has safe intersections with clearly defined routes of passage, and is served by policies that ensure that roadways are well maintained both in terms of the pavement and pavement markings, and in how debris, snow and ice are removed.

Shorewood's existing bicycle facilities are primarily located within its roadway network and include connections to Milwaukee County's multi-use Oak Leaf Trail. The complete spectrum of facilities includes off-street trails, painted bicycle lanes and accommodations, and shared local streets. With just a few exceptions, bicycle riding on Shorewood sidewalks is prohibited (see Village Code § 207-5(C) and Wis. State Stats. § 346.94(1)).

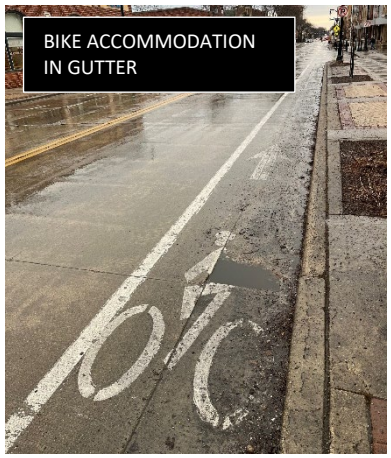
As of this plan's publication, generally complete painted bicycle lanes with adequate width and markings exist on:

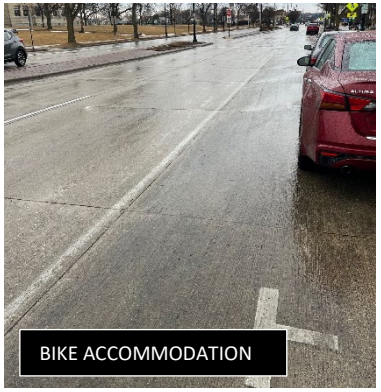
- N. Wilson Dr.;
- N. Downer Ave. (south of E. Capitol Dr.);
- E. Capitol Dr. (west of N. Wilson Dr. and east of N. Downer Ave. to N. Harcourt Pl.); and,
- N. Oakland Ave. (from north of E. Menlo Blvd. to E. Shorewood Blvd. and E. Wood Pl. to E. Glendale Blvd.).

Painted bicycle lanes will also be installed on both sides of N. Lake Dr. as part of its 2025 rehabilitation.

Currently, painted bicycle lanes do not extend through intersections, and Shorewood has not chosen to install any solid green marked bicycle lanes.

Additionally, a mix of bicycle lanes and accommodations are featured along W. Capitol Dr. (east of N. Wilson Dr. to N. Downer Ave.) and on N. Oakland Ave. (from E. Edgewood Ave. to north of E. Menlo Blvd., and E. Capitol Dr. to E. Wood Pl.) These installations are interrupted by areas where adequate space has not been reserved for a bicycle lane; or intersections, curb extensions, turn lanes, parking or bus stops conflict with its continuity.





This plan recommends that these interruptions be remedied to create a high-quality interconnected bicycle facility network. This plan also recommends that more progressive infrastructure, such as protected bicycle lanes, traffic calming measures and more visible colored paint, be introduced within the network when possible.

This plan identifies a Future Bicycle Facilities Map that highlights the proposed network and defines recommended improvements within it, including off-street trails, bicycle lanes, neighborhood greenways or routes, and future opportunities. These types of facilities are described in detail in the following sections.

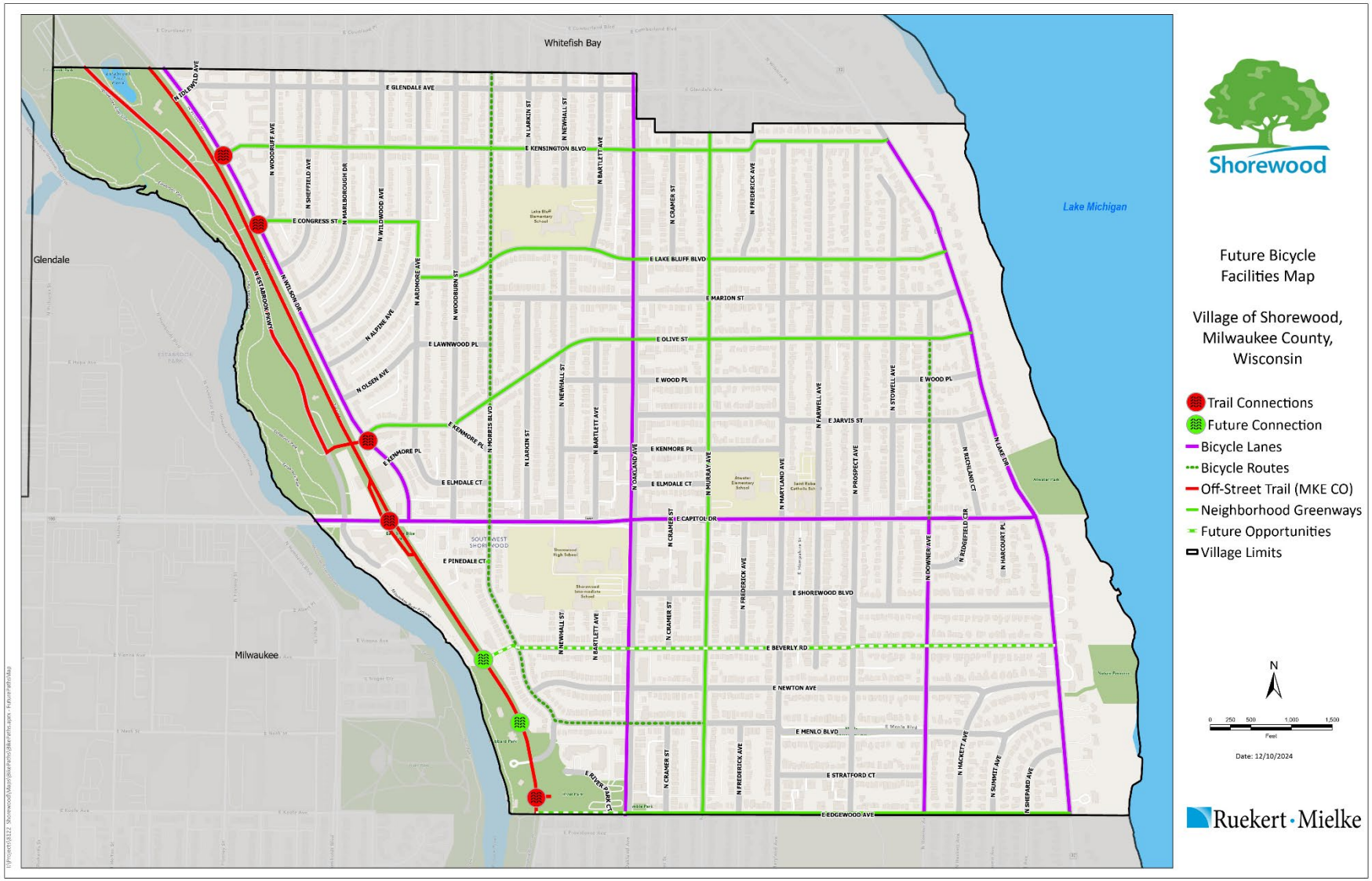
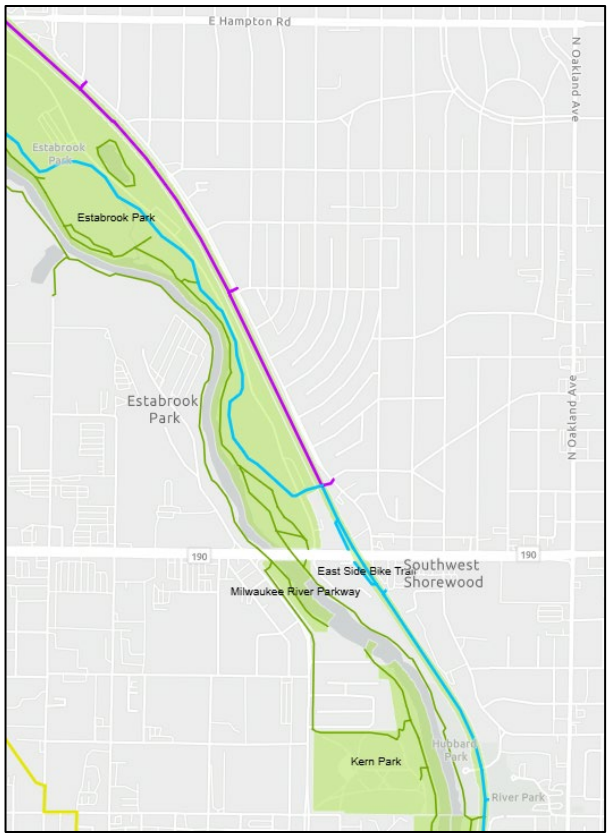


Figure 5.1 Future Bicycle Facilities Map

4.2.1 Off-Street Trails

Off-Street trails and shared-use paths offer opportunities for recreational activity and commuting that differs qualitatively from public sidewalks or on-street bicycle riding. They tend to attract bicyclists and other mobility users with a wide range of skill levels, including young children. In recent years, the increasing use of electric bikes (e-bikes), which can travel at speeds upwards of 20 mph, has also impacted user experience. Special care must therefore be taken in the planning and design of such paths to provide a satisfactory experience for all users and safe sharing of the facility with a variety of users of differing speeds and abilities. Recognizing the limitations of enforcement and posted signs, a share-the-trail approach is typically expected and puts the onus on users to respect their surroundings.



Shorewood is fortunate to have within its borders over a mile and a half of the Oak Leaf Trail, which is owned and maintained by Milwaukee County. This multi-purpose trail system features over 125 miles of both on- and off-street accommodations throughout Milwaukee County providing walking, bicycling and other recreational opportunities for residents, employees, customers and visitors of the region. Portions of two Oak Leaf Trail pathways run through Shorewood: the Milwaukee River Trail (shown in teal) and the Zip Line (shown in purple).

The Milwaukee River Trail runs along the Milwaukee River through Estabrook Park and has direct access points to streets and parks within the village, at River Park, and E. Capitol Dr. Informal access is also currently provided to Hubbard Park and attempts to formalize that connection should be considered. This plan also identifies an additional desired connection through the property where the Village's Department of Public Works Yard is currently located, should operations be wound down there, or redevelopment of the site take place. This connection would provide critical access on the village's south side and serve both the Shorewood Intermediate School and High School.

The Zip Line branches off the Milwaukee River Trail just north of E. Capitol Dr. and runs north up to Brown Deer Park. The Zip Line has several formal access points along N. Wilson Dr. at E. Olive St., E. Congress St. and E. Kensington Blvd., some of which also connect into Estabrook Park.

The Milwaukee River Trail and the Zip Line provide a vital, beautiful and safe connection to downtown Milwaukee for bicycle commuters living in Shorewood and other northern suburbs.

Recommendations

- ☐ Encourage Milwaukee County to improve and maintain the Oak Leaf Trail within Shorewood, including pavement replacement and widening.

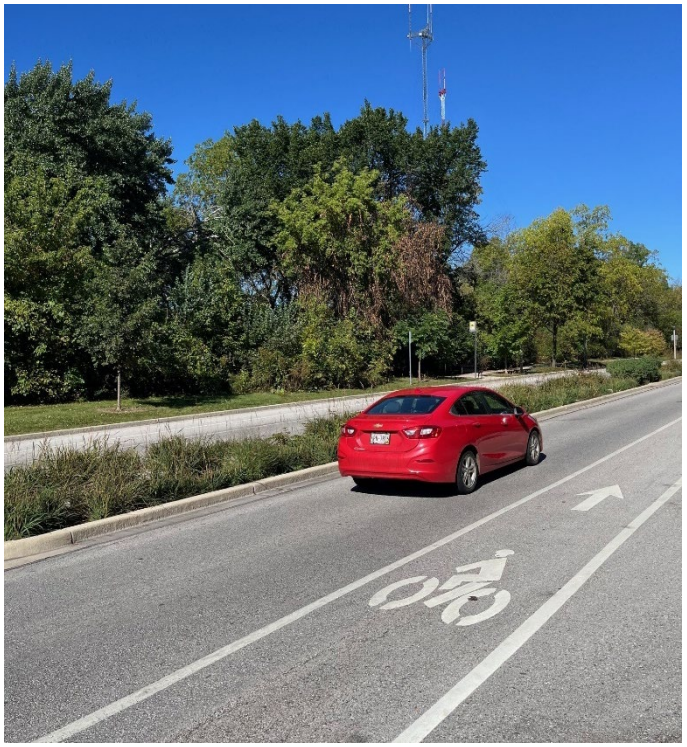
- ☐ Work with Milwaukee County on providing education regarding a share-the-trail approach on the Oak Leaf Trail.
- ☐ Consider the installation of signage at entry/exit points that would encourage safe and courteous use of the Oak Leaf Trail.
- ☐ Formalize entry/exit points to the Oak Leaf Trail from Hubbard Park, and also from N. Morris Blvd. through the Department of Public Works Yard once operations wind down there and/or when the property is redeveloped.
- ☐ Work with Milwaukee County and the City of Milwaukee on the connection from the Oak Leaf Trail to E. Edgewood Ave.

4.2.2 Bicycle Facilities within the Roadway

Shorewood has taken several steps to make its roadway bicycle transportation network safer and more comfortable ranging from creating painted bicycle lanes (such as on N. Oakland north of E. Capitol, and on Downer Ave. south of Capitol), creating advisory bike lanes (on E. Edgewood), and creating "bicycle accommodations" (such as on Lake Drive, and on portions of E. Capitol). There are also certain types of bike-friendly infrastructure or street designs that Shorewood has not yet tried/deployed. For example, Milwaukee and other communities in Wisconsin have built what are referred to as "protected" or "buffered" bike lanes and designated "neighborhood greenways," which prioritize pedestrian and bicycle use, safety and comfort.

4.2.2a Bicycle Lanes and Accommodations

Bicycle lanes indicate a preferential or exclusive space for bicycle travel within the roadway. In recognition of their width, traffic capacity, regional connectivity and the need to provide safety and comfort to bicyclists, principal and minor arterial roadways should include bicycle lanes. Bicycle lanes are typically a minimum of 5 feet wide and are designated by striping and symbols placed within the lane.



Unless designed with two-way travel in mind, bicycle lanes are used for one-way travel and are normally provided on both sides on two-way roadways. Bicycle lanes are usually designated to the left of parking or right turn lanes but may be placed against the curb. When placed next to the curb, such bicycle lanes may either be next to the vehicle travel lane or between the curb and a parking lane.

In order to increase the real and perceived safety of bicyclists, additional separation and protection of bicycle lanes should be explored. Protected bicycle lanes provide the greatest degree of safety for all users and are becoming more common in urban areas. Separation or protection can be accomplished in various ways. Physical buffers, such as concrete or plastic barriers, vertical posts, low curbs, or on-street parking can provide additional separation and increase bicyclists' safety and sense of comfort. Using buffers between the bicycle and motor vehicle travel lanes can also be used to visually narrow a wide roadway, thus promoting traffic calming and enhancing safety for all users of the street. Ideally bicycle lanes could be fully

separated from automobile traffic by raising the lane above the roadway surface or moving the bicycle lane out of the roadway. When protected bicycle lanes are being considered for a particular street, careful thought needs to be given as to how maintenance services will be provided in an around the lanes, including how refuse collection, leaf collection, and snow removal will be accomplished.

When the required amount of space for a standard bicycle lane is not available or has not been prioritized, a solid line has been be painted to provide "bicycle accommodations" and designate shared space for bicyclists and on-street parking. Moving forward, these types of accommodations should be transitioned to actual bicycle lanes. Advisory bicycle lanes, which identify preferential space for bicyclists and shared space for motorists without formally dedicating space to either's exclusive use, may also be considered and were installed on E. Edgewood Ave. in 2023.

Recommendations

- ☐ Develop an interconnected network of high-quality bicycle facilities throughout the village.
- ☐ Install and routinely maintain bicycle lanes and accommodations on arterial roads.
- ☐ Reevaluate opportunities to transition bicycle accommodations into painted bicycle lanes, and/or painted bicycle lanes into protected bicycle lanes, particularly on E. Capitol Dr.
- ☐ Consider bicycle lanes on collector roads, if adequate roadway width is available.
- ☐ Identify and evaluate opportunities for paint enhancements to existing bicycle lanes, including additional separation, paint through intersections and bicycle boxes.
- ☐ Identify and evaluate opportunities for separation and protection of bicycle lanes from automobile traffic.

4.2.2b Neighborhood Greenways and Bicycle Routes

Neighborhood greenways, formerly referred to as bicycle boulevards in prior planning efforts, are streets that are designed to prioritize people walking, bicycling or using other micro-mobility devices. Proposed neighborhood greenways in the bicycle facilities network have been designated on specific low-traffic volume, low-speed local streets, often parallel to major roads, to provide longer routes of safety, comfort and connectivity within the village. These greenways are intended to be upgraded in their design over time to accommodate and encourage users of all ages and abilities.

While many local residential streets are already favorable to most pedestrians and bicyclists, a neighborhood greenway goes the extra step to provide safe crossings at major streets and other design elements that naturally lead to motorists traveling at lower speeds. When traffic is calmed, crossing intersections is safer and walking and bicycling on these roadways is generally more pleasant. A well-designed greenway often improves travel times for bicyclists and naturally encourages drivers to travel in a more attentive way. Neighborhood greenways can be valuable for a community because they promote active transportation, lower the stress of getting around, connect people to key locations, and promote local economic activity. Making accommodations for bicycles within the roadway should also diminish enforcement issues the Village has faced with bicyclists riding on the sidewalks impeding pedestrian travel and safety. The "green" in the term neighborhood greenway refers to this type of design being "green" in that it encourages environmentally responsible means of transportation, and also to the enhanced "green" landscaping elements that may be added, as a street is modified to become a neighborhood greenway.

Design elements of a neighborhood greenway may range from signage, roadway markings and painted or protected bike lanes, to traffic calming or diverting infrastructure, such as traffic circles, medians, chicanes, narrows, curb extensions or partial closures. Utilizing the proposed neighborhood greenways identified on the Future Bicycle Facilities Map, this plan recommends that a multi-disciplinary design process be undertaken to identify the appropriate infrastructure and required budget to implement the development of neighborhood greenways in Shorewood. An incremental approach utilizing temporary infrastructure may be required. Opportunities to connect these greenways to Milwaukee and Whitefish Bay should also be explored.

Designed to complement off-street trails and the Village's proposed network of bicycle lanes and neighborhood greenways, bicycle routes provide additional connectivity to local streets and destinations. These routes, which are typically located on collector roads that do not have the space for dedicated bicycle lanes, acknowledge the need for bicycle accommodation within the roadway to create visibility and increase safety. Accommodations may include:

- signage and pavement markings to highlight the expected presence of bicyclists,
- wayfinding signage to guide bicyclists to destinations and through the network,
- traffic calming measures, such as speed tables or curb extensions, or
- improvements at intersections to increase the safety of all users.

The pros and cons of allowing on-street parking, which is known to slow overall traffic speeds when present, should be discussed on these roadways, in exchange for bicycle accommodations. Lessons learned from the installation of advisory bicycle lanes on E. Edgewood Ave. should be discussed and assessed for consideration of future use.

Recommendations

- ☐ Develop an interconnected network of high-quality bicycle routes throughout the village.

- ☐ Working with a traffic engineer and applicable partners, facilitate a public planning process and develop recommendations and budgetary figures for the installation of Neighborhood Greenway infrastructure on identified roadways.
- ☐ Implement neighborhood greenway designs as opportunities arise within the Capital Improvements of the Long Range Financial Plan.
- ☐ Consider the addition of E. Beverly Rd. as a neighborhood greenway, if an entrance to the Oak Leaf Trail can be developed near the intersection of E. Beverly Rd. and N. Morris Blvd.
- ☐ Develop and install signage to identify and direct bicyclists within Shorewood's bicycle facility network using the City of Milwaukee's manual and template for consistency.
- ☐ Identify opportunities for bicycle accommodation or traffic calming infrastructure along bicycle routes, particularly at intersections.

4.2.2c Local Streets

While all streets must accommodate bicyclists and other mobility device users, not all streets can accommodate or should have additional infrastructure designed specifically for their use. Utilizing a Complete Streets approach, local streets should be designed and maintained, and function in a way that provides safe access for all users. This often includes narrow roadways and the presence of on-street parking, which slows traffic and requires users to be mindful of each other and yield when passing. Permitting parking on both sides of local streets, or where it is not possible adopting a different pattern of street parking regulation, can contribute to traffic calming. When the width of a street, or its pattern of parking, fails to slow traffic, the addition of other traffic calming devices should be considered.

Recommendations

- ☐ Identify areas where local streets do not naturally create slow traffic and consider design modifications, updated parking regulations, or traffic calming infrastructure.

4.3 Motor-Vehicle Transportation Network

Shorewood's motor-vehicle transportation network is intended to perform several functions, including enabling motor vehicle users to move around Shorewood safely and reasonably efficiently, and to connect to other roadways in the region. The Wisconsin Department of Transportation's (WisDOT) *Functional Classification Criteria and Procedures* identifies three major roadway classifications present in Shorewood: arterial roads, collector roads and local streets. These classifications are determined by the functions that the roadways primarily serve, which impact their design.

A road generally connects travelers between two further apart destinations, whereas a street provides direct access to adjacent land uses along its route. While all of Shorewood's roadways feature adjacent land uses, the typical user of the roadway helps define whether it is classified as a road or street.

Roadway Classification	Functions
Arterial Road	Provides mobility so people can move from one place to another safely and reasonably efficiently
Collector Road	Provides links between arterial roads and local streets and balances mobility and safe access
Local Street	Provides access to homes, businesses and other private property

It is important to understand these classifications when discussing and designing the roadways within Shorewood for various users. In general, due to their higher vehicle volumes and travel speeds, the design of arterial and collector roads should provide greater clarity for different types of users, including separation when possible. Clarity and separation may be accomplished through marked crosswalks, centerlines, medians or dedicated bike lanes. In contrast, local streets are usually designed with shared space without center lines or marked bike lanes, and users of the street take a "shared use approach." The lower speeds and traffic volumes on local streets allow for such a design to be feasible.

It is important to understand that these classifications evolved over time and that just because a roadway is classified one way now does not mean that it will be classified the same way in the future. It is equally important to understand that every roadway in Shorewood is used by a variety of users.

Recommendations

- ☐ Maintain the village's roadways in conjunction with a formalized Pavement Management Program.
- ☐ Review existing roadway classifications and identify potential changes so that future projects, regulations and policy changes are appropriately designed, including so as to address "stroad" conditions as such may exist on E. Capitol Dr. (west of N. Oakland Ave.) and N. Oakland Ave. (south of E. Capitol Dr.).

4.3.1 Arterial Roads

WisDOT notes that arterial roads tend to focus on providing efficient travel over longer distances, generally limiting entry and exit points, and allowing for higher travel speeds. These roads typically carry traffic volumes of at least 6,000 vehicles per day, are designed to accommodate through traffic, carry both local and regional traffic, and often feature turn lanes at major intersections. This does not mean that pedestrians, bicyclists and users of other alternate modes of transportation should not be safely accommodated and considered within their design and construction. In fact, one could argue that they need to be more purposefully accommodated so that all users can best coexist.

Arterial roads, when inadequately designed, are sometimes referred to as "stroads." ("Stroads" is a term coined by Charles Marohn, a traffic engineer and the founder of Strong Towns). According to Marohn: A "stroad" is a bad combination of two types of vehicular pathways: streets and roads. Streets are supposed to be "a complex environment where life in a city happens, with pedestrians, cars, buildings close to the sidewalk for easy accessibility, with many (property) entrances/exits to and from the street, and with spaces for temporary parking and delivery vehicles. The design of streets tends naturally to encourage safer traffic speeds, to promote in-person interactions, and to serve as a platform for growing community wealth and health. (An example of a street in Shorewood, would be N. Oakland Ave. north of E. Capitol Dr.). In contrast, roads are supposed to be a "high-speed connection between two destinations," which generally have multiple wide lanes and limited entrances and exits, and which are generally

straight or which have gentle curves, and which generally provide minimal pedestrian or bicycle infrastructure, or if such exists, the infrastructure is perceived as unsafe and is minimally used. An example of a road in our area would be not only I-43, but major arterial roadways such as Lincoln Memorial Drive in Milwaukee, or N. Port Washington Rd. in Mequon. According to Marohn, "stroads" are expensive to build and maintain, and generate less wealth on their adjacent land uses. Within Shorewood, E. Capitol Dr. (west of N. Oakland Ave.) and N. Oakland Ave. (south of E. Capitol Dr.) exhibit some characteristics of "stroads." It is recommended that the roadway and streetscape be modified along those corridors, so those become less "stroad-like" and more street-like. As such occurs, careful consideration should be given to the Village's zoning code as well.

Arterial roads are further classified by WisDOT into principal and minor categories. Principal arterial roads carry highest traffic volumes, satisfy demand for longer trips and connect commercial districts to residential areas. Shorewood has three principal arterial roads within village limits:

- N. Lake Dr. (Highway 32), which has a posted speed limits of 30 mph
- E. Capitol Dr. (Highway 190), which has a posted speed limit of 30 mph between the Milwaukee River and N. Oakland Ave., and 25 mph between N. Oakland Ave. and N. Lake Dr.
- N. Oakland Ave. south of E. Capitol Dr., which has a posted speed limit of 25 mph

N. Lake Dr. and E. Capitol Dr. are under the jurisdiction of WisDOT, whereas the section of N. Oakland Ave. that is designated as a principal arterial road is governed by the Village.

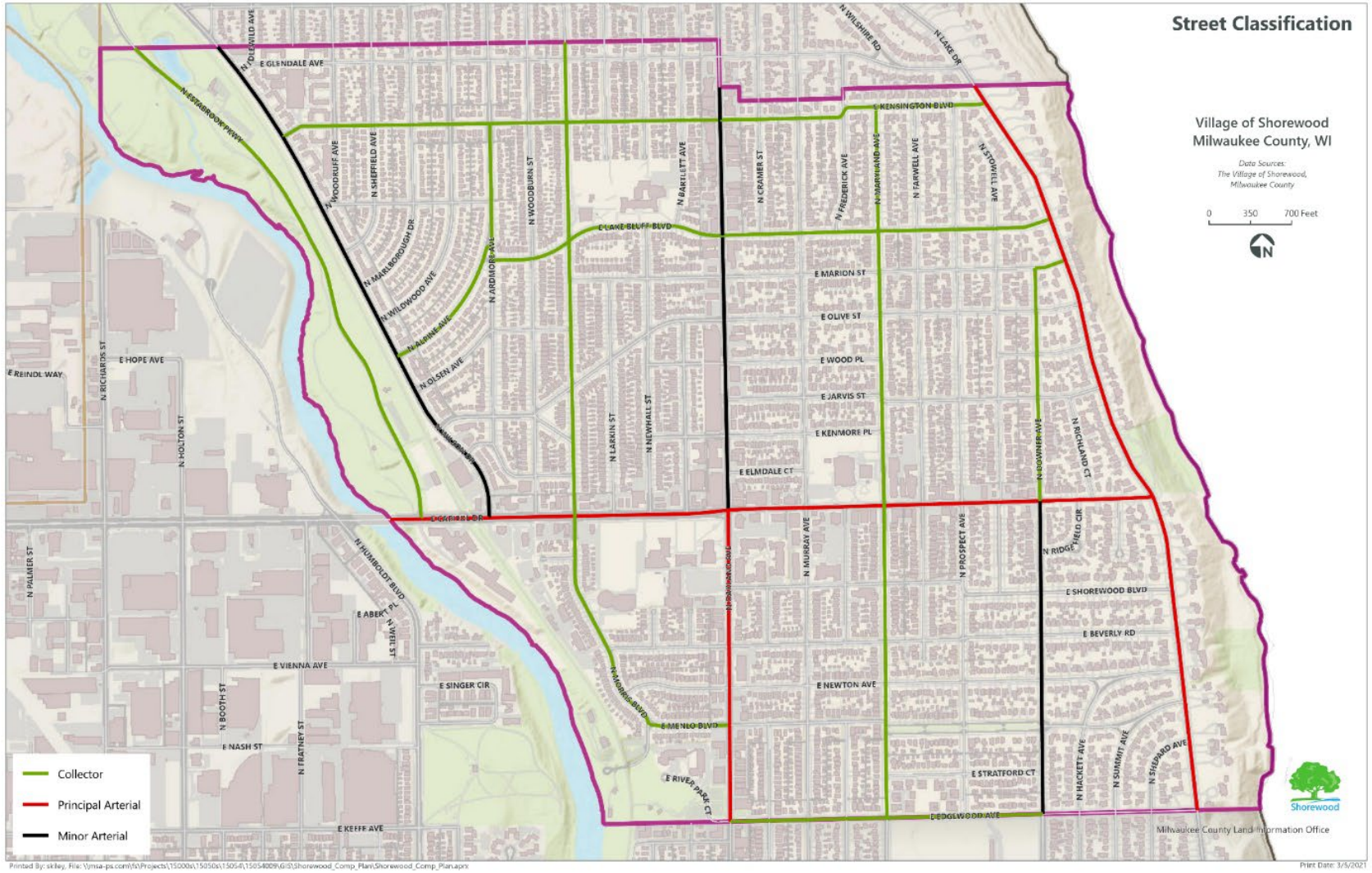


Figure 5.2 Shorewood Roadway Classifications

Minor arterial roads connect principal arterial roads and generally serve trips of moderate length. There are three minor arterials within Shorewood, all of which are under local jurisdiction:

- N. Oakland Ave. - north of E. Capitol Dr., which has a posted speed limit of 25 mph
- N. Wilson Dr., which has a posted speed limit of 30 mph
- N. Downer Ave. - south of E. Capitol Dr., which has a posted speed limit of 30 mph

All of the above indicated posted speed limits on arterial roads do not take into account the presence of school zone speed limits.

4.3.2 Collector Roads

Collector roads give equal access priority to local properties and local through traffic, while simultaneously serving as a connection from the local streets to the arterial roads. Daily volumes typically range from 1,500 to 6,000 vehicles per day. WisDOT has classified the following roadways as "collector roads": N. Alpine Ave., N. Ardmore Ave. (from E. Lake Bluff Blvd. to E. Kensington Blvd.), Estabrook Parkway (north of E. Capitol Dr.), E. Kensington Blvd., E. Lake Bluff Blvd., N. Morris Blvd., E. Menlo Blvd. (from N. Morris Blvd. to E. Capitol Dr.), N. Maryland Ave., N. Downer Ave. (north of E. Capitol Dr.), and E. Edgewood Ave. (from N. Oakland Ave. to E. Downer. Ave.). Only two of these collector roads are not under Village jurisdiction: Estabrook Parkway, which is under the jurisdiction of Milwaukee County, and E. Edgewood Ave., which is shared with the City of Milwaukee. The speed limit on all of these roads is the Village's current default of 25 mph.

4.3.3 Local Streets

Local streets give priority of access to local properties and carry less through traffic. All roadways within the village limits that are not classified as either an arterial road or collector road are classified as local streets. Local streets tend to provide refuge from disturbances such as loud or continuous traffic noise, high traffic volumes and high vehicle speeds. Loal streets represent the majority of the Village's roadways. All are under local jurisdiction and are subject to the Village's current default speed limit of 25 mph.

4.3.4 Alleys

In addition to the Village's roadway network, some private lots are also served by alleys, which serve a primary function of access and utility, including refuse collection, but also lend themselves to opportunities for recreational activities. The majority of the alleys are located in the northwest and south-central sections of Shorewood with residential lots that have parking garages on the alley. Alleys are beneficial to pedestrians, bicyclists and users of other mobility devices in that they concentrate motor-vehicle activity to the rear of the lot and minimize conflict with driveways intersecting the primary roadway and sidewalk network. Care should be taken to ensure that visibility at entrances/exits to alleys is clear. Vision triangles, the lines of which extend from established distances along the right of way from the intersection to create the connecting points of a triangle, should be maintained free of obstructions to ensure that drivers can see pedestrians, bicyclists and cross traffic.

Recommendations

- ☐ Maintain the village's alleys in conjunction with a formalized Pavement Management Program.
- ☐ Review and consider updates to the Village's "vision triangle" regulations around alley entrances and exits to enhance pedestrian safety and make it less likely that pedestrians and other sidewalk users will be struck by vehicles.

5.0 Components of the Public Right of Way

The public right-of-way refers to the land in a community that is primarily dedicated to allowing travel through and within a community, but also includes space dedicated for public and private utilities, which are often located underground. In Shorewood, public right of way typically begins a few feet behind the sidewalk on the side of private property, which allows for the construction and maintenance of public infrastructure. In addition to the sidewalk, landscaped parkways or hardscaped terraces occupy space between the edge of the right of way and the roadway curb. This area can also include street lighting, utility cabinets, fire hydrants, signs, traffic controls and other street furniture. Within the roadway itself, elements such as pavement with marked travel lanes and other street markings, on-street parking, planted medians and other vertical elements, and utility access infrastructure like storm drains and manhole covers occupy the space.

Successful planning for the public right of way includes input from multiple governmental agencies, as well as the community, including but not limited to adjacent landowners. Tasks involve project identification, prioritization, budgeting, design, construction and maintenance. By adopting this plan, the Village is reconfirming its commitment to developing and operating its public right of ways with safe access for all users regardless of age, ability, or mode of transportation.

There is no singular design prescription for how the Village of Shorewood should design the area in the public right of way, as each roadway is unique. Every project must be addressed in its own context and in relation to others. Neighborhood density and the available width of a particular right of way can provide challenges to implement best practices, so planning and design efforts should seek to incorporate a "right fit" approach where possible and practical for the community.

This section addresses components of the right of way that relate to the walkability, bikeability and general mobility within Shorewood. The discussion is broken into two areas: off-street components and components within the roadway.

5.1 Components Not Within the Roadway

5.1.1 Public Sidewalks and Pathways, Curb Ramps, and Driveway Approaches

The presence, location and design of public sidewalks and intersecting components affect the quality of the pedestrian experience. Public sidewalks represent the primary component of pedestrian infrastructure in the village. Curb ramps facilitate the accessible connection of sidewalks through crosswalks traversing the roadway. Driveway approaches provide vehicular access to private land adjacent to the right of way over sidewalks and present conflicts to sidewalk users.

5.1.1a Public Sidewalks and Pathways

There are approximately 60 miles of public sidewalk pavement within the village. The general minimum width of sidewalks in Shorewood should be five feet, which allows two people to pass comfortably or walk side-by-side. Wider sidewalks should be considered near schools, at transit stops, in the business district, or anywhere high concentrations of pedestrians exist. Larger design widths can accommodate more pedestrians, improve ease of access and are necessary if including amenities such as street furniture. Sidewalks should be continuous along both sides of a roadway and should be fully accessible to all pedestrians, including those in wheelchairs or using other mobility devices.

Public sidewalks terminate into the roadway with curb ramps that provide accessible paths to crosswalks, both marked and unmarked. In order to maintain the physical condition of public sidewalks, the Village has adopted a policy with established criteria related to concrete replacement to mitigate trip hazards on public sidewalks (Policy 42). As of 2023, the cost of replacing failed public sidewalks is no longer assessed to abutting property owners.

Recommendations

- ☐ Evaluate sidewalk and pathway width and design to maximize pedestrian travel with all new infrastructure, development and redevelopment projects.

5.1.1b Curb Ramps

Curb ramps provide sloped access between the public sidewalk and roadway and are of particular importance for people using wheelchairs, strollers, walkers, crutches, bicycles, or who have mobility restrictions that make it difficult to step up and down curbs. Properly placed and sloped, curb ramps allow pedestrians to safely navigate through intersections. Curb ramps must be installed at all intersections and midblock locations where there are pedestrian crossings, as mandated by federal legislation (1973 Rehabilitation Act and ADA 1990).

Separate curb ramps (Type 1) for each crosswalk at an intersection should be provided rather than a single curb ramp (Type 2) placed diagonally at a corner for both crosswalks. The separate curb ramps improve orientation for visually impaired pedestrians by directing them toward the correct crosswalk. Similarly, tactile warnings alert pedestrians to the sidewalk and street edge and can help pedestrians find their footing on the ramps, especially in inclement weather.

All newly constructed and altered roadway projects shall include curb ramps. In addition, all existing facilities should be upgraded if they do not

currently comply. The Village has installed tread plates with detectable warnings at many of the curb ramps throughout the community and will continue to do so with all new road construction projects.

Recommendations

- ☐ Ensure that all curb ramps are compliant with ADA standards within any infrastructure, development or redevelopment projects.
- ☐ Consider the addition of mid-block curb ramps where demand is present and intersections are distant.

5.1.1c Driveway Approaches

Where alleys do not exist, private driveways intersect the village's public sidewalk network. These driveways are accessed from driveway approaches that slope from the roadway to the public sidewalk. Driveway approaches increase conflict points between public sidewalk users and motorists, and their design and installation should be carefully considered, particularly to commercial or civic/institutional properties that feature greater volumes of traffic. Ideally, over time, the number of driveway approaches on arterial streets should be decreased, so as to reduce the opportunity for vehicle crashes and to make the addition of protected bicycle lanes more feasible and safer. "Vision triangle" regulations that limit the placement of vertical obstructions, including landscaping, should be reevaluated and enforced.

Although located within the public right of way, driveway approaches are maintained by the abutting property owner to which it provides access. The Village has an adopted policy regulating the installation of driveway approaches (Policy 9). Additional regulation of driveway approaches should be considered that limit quantity, width or placement.

Recommendations

- ☐ Review and consider updates to the Village's "vision triangle" regulations around driveway approaches to enhance pedestrian safety and make it less likely that pedestrians and other sidewalk users will be struck by vehicles.
- ☐ Review and consider updates to Village policies and regulations with respect to driveway approaches, including placement, width and quantity.

5.1.2 Sidewalk Buffers, Parkways and Terraces

The space between the sidewalk and the closest lane of moving traffic is known as the sidewalk buffer. A sidewalk buffer zone of at least 4 to 6 feet is desirable. The buffer zone will vary according to the roadway type. The buffer zone can contain a landscaped parkway or hardscaped terrace.

- Landscaped Parkways: a planting strip area, usually containing grass and trees. This is the preferred buffer in residential areas as it provides a more pleasant and shaded environment in which to walk.
- Hardscaped Terraces: a paved area, often with street furniture. This is the preferred buffer in commercial areas as it is more durable, and it encourages pedestrian activity and social interactions.

The careful use of landscaping and hardscaping along a roadway can provide desirable separation between moving traffic and pedestrians, reduce the visual width of the roadway (which can help to reduce vehicle speeds), and provide a more pleasant environment. The most significant issue with any landscaping or hardscaping scheme is ongoing maintenance. In residential areas, property owners are generally required to maintain the parkway, with the noted exception of street trees, which are planted and trimmed by the Village's Forestry Division. In commercial areas, hardscaping components within the terrace, including pavement and street furniture, are generally maintained by the Village.

The Village Code also allows the placement of certain privately-owned landscaping features or street furniture in the sidewalk buffer area, provided prior approval of a special privilege is obtained. Special privileges may also be granted for things such as outdoor dining, parklets, and bike corrals. These elements can play a significant role in revitalizing, beautifying and humanizing streets, creating space for in-person interactions, supporting the success of local businesses, and promoting traffic calming. Applications for special privileges are required to be reviewed by staff and then presented to the Village Board for consideration, approval or other action. As part of the application's consideration, Village staff review the request to make sure that the proposed installation does not conflict with maintenance, utilities or visibility. Special privileges should be routinely inspected and either removed or maintained if they interfere.

Recommendations

- ☐ Monitor parkways and terraces for maintenance and obstructions, and enforce the removal of obstructions as necessary.
- ☐ Continue to process and review applications for special privilege approval with mobility users in mind.

5.1.3 Street Furniture

Street furniture, including but not limited to benches, planters, bicycle parking racks and public art, is generally expected within commercial areas and near civic or institutional uses, such as schools or places of worship that generate increased pedestrian activity. Street furniture provides an

opportunity for public space engagement and can improve the aesthetics of its environment. Its placement should be carefully planned to increase the pedestrian experience. Unless approved through a special privilege, this infrastructure is generally owned and maintained by the Village. In the commercial district, the Shorewood Business Improvement District should be consulted on needs and considered as a partner for improvements and maintenance. Persons wanting to make a donation so that public street furniture may be obtained and installed should reference the Village's Donations Policy No. 45.

Recommendations

- ☐ Review the placement and provision of street furniture to ensure that it supports a vibrant pedestrian experience.
- ☐ Identify opportunities for donations relating to street furniture within the village.

5.1.4 Bicycle Parking

The availability of adequate bicycle parking is important, as it both encourages riding, and helps to ensure sidewalks and buffer areas maintain an up-to-date and uncluttered appearance. Public bicycle parking should be provided at all public buildings, parks, schools and throughout the business district. Private developments should also provide adequate bicycle parking for their residents or customers. Bicycle racks should be located as close to building entrances as possible. Bicycle racks should be designed to accommodate multiple bikes and hold up to weather conditions. There should be a default public bike rack design in Shorewood, but the existence of that design should not preclude the Village from accepting a donation for the installation of bike racks that are unique or artistic. If off-street facilities cannot be installed, consideration of on-street bicycle rack corrals should be considered.

Recommendations

- ☐ Develop, adopt and enforce bicycle parking standards for all types of land uses within the village.
- ☐ Perform an audit of public buildings, parks, schools and the business district to identify deficiencies of bicycle parking and encourage corresponding stakeholders to install additional facilities.
- ☐ Identify funds whereby additional bicycle racks may be purchased or maintain an inventory of bicycle racks that can be installed, as needed.

5.1.5 Curb Extensions

Curb extension, also known as "bump-outs," extend the sidewalk or curb line into the parking lane, which effectively reduces the width of the roadway. Curb extensions significantly improve pedestrian crossings by reducing the crossing distance, visually and physically narrowing the roadway, improving the ability of pedestrians and motorists to see each other, reducing the time that pedestrians are in the street, and allowing space for the installation of a curb ramp. Curb extensions can also provide a location for green space, which can help to beatify an intersection, and provide some

additional protection to pedestrians.

Curb extensions placed at an intersection prevent motorists from parking too close or blocking a crosswalk or curb ramp. Motor vehicles parked too close to corners present a threat to pedestrian safety, since they block sightlines, obscure visibility of pedestrians, bicyclists, and other vehicles, and make turning particularly difficult for emergency vehicles and trucks. The restricted street width produced by curb extensions encourages motorists to travel more slowly at intersections or mid-block locations. Turning speeds at intersections with curb extensions are also reduced due to tight curb radii.

Curb extensions are only appropriate when there is an on-street parking lane. They should be considered in areas with higher pedestrian activity, such as the business district or adjacent to parks or schools. Curb extensions must not extend into travel lanes, or bicycle lanes. The turning needs of larger vehicles, such as buses, must be considered in curb extension design and as to the placement of stop lines or signage. Drainage and other street maintenance operations should be taken into consideration when planning for curb extensions. Vertical posts or painted curb/pavement may be considered as temporary measures to prohibit or discourage parking or turning movements near intersections.

When combined with a transit stop, curb extensions can be designed as “bus bulbs,” which allow busses to load and unload within the traffic lane, prioritizing their use and not requiring them to yield back into traffic. If present, bicycle lanes should be placed on the interior of the “bus bulb.”

Recommendations

- ☐ Evaluate the potential inclusion of curb extensions with all new infrastructure, development and redevelopment projects.
- ☐ Consider the installation of temporary curb extensions to calm traffic, enhance pedestrian safety and test street operations and neighborhood support for permanent improvements.
- ☐ Utilize added space created by curb extensions for green space, bicycle parking, sidewalk furniture or any combination of these to maximize the positive effects of the space.

5.1.6 Signs and Signals

5.1.6a Signs

In addition to necessary traffic control and general regulations, signs provide important information that can improve roadway safety. By providing people directions or letting them know what to expect, there is a greater chance that they will react and behave appropriately. Giving motorists advance warning of an upcoming pedestrian crossing or that they are entering a school zone will alert them to the potential of pedestrians crossing the roadway and remind them to reduce their speed. Advance pedestrian warning signs should be used where pedestrian crossings may not be expected by motorists, especially if there are many motorists who are unfamiliar with the area. Bicycle route signage may be used to identify the likely presence of bicyclists within the roadway.

However, signs should be used judiciously, as overuse may breed noncompliance and disrespect. Too many signs may also create visual clutter, which diminishes their visibility and effectiveness. As to stop signs, the Village should generally resist the impulse or request to try to promote traffic calming on a roadway by adding four-way stop signs to an intersection. Streets with too many stop signs often just have higher rates of driver and bicyclist non-compliance. Also, too many stop signs discourage bike riding as a means of transportation. Roadway design improvements, either temporary, interim or permanent, should be considered as an alternative to trying to influence behavior through signage.

All signs should be periodically checked to make sure that they are in good condition, free from graffiti, retro-reflective at night, and continue to serve the intended purpose.

Recommendations

- ☐ Evaluate the use and condition of signs along the roadway to ensure that they are providing adequate messaging without cluttering the right of way.
- ☐ Consider opportunities to increase the visibility of signage, such as lighting, particularly near pedestrian generating land uses and detours.
- ☐ Consider the removal of signs that represent overregulation, such as four-way stops, when better alternatives to achieve desired outcomes exist.
- ☐ Finalize the replacement of street-name signs with the larger, branded and more reflective version.

5.1.6b Signals

Traffic signals are used to control circulation at intersections with higher volumes of vehicular traffic where motorists might otherwise experience unreasonable levels of delay or an inability to reasonably perform turning movements. Traffic signals may also include lights and phasing specific to bicycle movements, although the Village currently does not deploy any such signals. Traffic engineering standards must be used to determine the necessity of installing or keeping traffic signals at a particular intersection. When possible, traffic signals should be coordinated along the length of a corridor to control the speed of motor vehicles. However, the installation or continuance of traffic signals should be avoided when signs or roadway design can better achieve desired outcomes.

Shorewood currently has 12 traffic signals, all of which are located along either E. Capitol Dr. or N. Oakland Ave. The traffic signals on N. Oakland Ave., except at E. Capitol Dr., are under Village jurisdiction. The signal at E. Edgewood Ave. and N. Oakland Ave. is owned and maintained by the City of Milwaukee. The remaining seven signals on E. Capitol Dr. are controlled by WisDOT.

Ideally, traffic signals create gaps in the flow of vehicular traffic, which can be beneficial to pedestrians seeking to cross the roadway. Pedestrian signals, such as Rectangular Rapid Flashing Beacons (RRFB), may also be installed where pedestrians experience difficulties or safety issues crossing the street. Pedestrian signals are important when signal phasing is complex (e.g., there is a dedicated left-turn signal for motorists), within established school zones, when a particular pedestrian interval is necessary, and on wide roadways. Pedestrian signals should be clearly visible to the pedestrian at all times when in the crosswalk or waiting on the far side of the street.

Various intersection types require different types of signalization. When pedestrian traffic is significant throughout the day, fixed-time signals should be used to consistently allow crossing opportunities. When pedestrians are required to wait a long time for a pedestrian interval, many will simply choose to ignore the signal and cross during a gap in traffic, negating the potential safety benefits of the exclusive signal. Shorter signal cycle lengths and longer walk intervals provide better service to pedestrians and encourage better signal compliance. Leading Pedestrian Intervals give pedestrians an advanced walk signal before motorists are provided with a green light. These intervals make pedestrians more visible to motorists and motorists more likely to yield to them. Pedestrian actuation should only be used when pedestrian crossings are intermittent, and devices should be made accessible to pedestrians of all abilities. Accessible pedestrian signals, which are devices that communicate information about the WALK and DON'T WALK intervals in non-visual formats are preferred.

Alternatives to the maintenance or installation of new traffic signals should be explored when safer, more pedestrian-oriented designs can be accomplished. Solutions include roundabouts or traffic circles that slow traffic, increase driver alertness and the visibility of pedestrians and bicyclists, decrease the number and severity of vehicle crashes, reduce maintenance costs and provide opportunity for improved aesthetics or landscaping.

Recommendations

- ☐ Evaluate opportunities to install additional flashing beacons or signage, including message boards, near high-traffic crosswalks.
- ☐ Evaluate traffic and pedestrian signals, and their timing, on a regular basis and when projects are designed to confirm need or consider alternatives, such as roundabouts, where appropriate, and to ensure smooth traffic flow with changing conditions, and pedestrian and accessibility needs.
- ☐ Consider opportunities to increase the visibility of signals, such as painted borders, particularly near pedestrian generating land uses.
- ☐ Consider the inclusion of bicycle traffic signals at areas of expected or desired bicycle traffic volumes, such as N. Oakland Ave. and E. Edgewood Ave.
- ☐ Consider the installation of Leading Pedestrian Intervals at major intersections.

5.1.7 Lighting

Appropriate quality and placement of lighting can enhance an environment as well as increase comfort and safety. Without sufficient overhead lighting, motorists may not be able to see pedestrians in time to stop. Streetlights and building lights can enhance the ambiance of an area and improve the visibility of pedestrians by motorists. It is best to place streetlights along both sides of the roadway to provide a consistent level of lighting. In the business district, additional pedestrian-level lighting may be placed over the sidewalks to improve comfort, security, and safety.

The majority of Shorewood's streetlight system was installed in the early 1970s, and the system has reached the end of its useful life. Approximately 1,500 fixtures light the Village's roadways, parks and municipal parking lots. Multiple reoccurring outages in recent years have prompted planning for the replacement of the residential streetlight system. In the spring of 2023, a Street Lighting System Replacement Plan was developed by the Village's municipal engineering firm. Acting upon the recommendations of this report, the Village solicited a comprehensive system replacement design and implementation plan. The plan's recommended implementation schedule has been incorporated into the Village's Long Range Financial Plan with construction proposed over five phases beginning in 2025 and concluding in 2029.

Recommendations

- ☐ Implement the recommendations within the Street Lighting System Replacement Plan to improve street lighting conditions throughout

the village.

- ☐ Encourage private property owners, particularly within the business improvement district, to install appropriate pedestrian-oriented lighting on their buildings and in public areas.

5.2 Components within the Roadway

5.2.1 Pavement

The Village of Shorewood maintains approximately 28 miles of roadway within the public right of way. Pavement is typically asphalt or concrete and extends from the curb and gutter where runoff is diverted to storm sewer drain gates. To meet WisDOT's requirements, all roadways are rated on a biennial basis, in odd calendar years. Road condition ratings are used to allocate resources and plan for major (reconstruction, mill and overlay) and minor (large area patching, crack filling) maintenance. Major maintenance is funded through the Village's Capital Budget and is often done in conjunction with large utility-driven infrastructure projects. In order to comprehensively plan improvement and maintenance activities, and to maximize the useful life of existing pavement, the Village has adopted a Pavement Management Plan.

An effective pavement management plan evaluates existing roadway conditions and formulates a plan to address and improve deteriorating infrastructure. Pavement management recognizes that a municipality is never "done" maintaining its roads and therefore must implement a long-term strategy to anticipate roadway improvements and budget accordingly. The Department of Public Works is charged with the review of the plan on a regular basis to ensure the goals, objectives and long-term project plans are current and applicable.

In addition to resurfacing and reconstruction, the Village also performs routine maintenance on its roadways in the form of street sweeping, snow removal, crack and pothole filling, and paint markings. Well swept roadways are essential for bicyclists' safety and comfort. These maintenance activities are funded annually through the Public Works Department operating budget. The majority of the Village's pavement markings are a paint product, which are re-marked annually; the remaining epoxy markings are replaced every 3-5 years. Street sweeping is a required maintenance activity of the Village's municipal separate storm sewer system discharge permit; all Village streets are swept at least monthly in the spring, summer, and fall. Winter maintenance operations include salting and plowing of streets and alleys and all sidewalks adjacent to public property. Removal of snow from intersections and the business district is performed as snow accumulations require and time and staff capacity permits.

Recommendations

- ☐ Continue to maintain clean and clear pavement surfaces through routine maintenance, including street sweeping, snow removal, crack and pothole filling, and paint and epoxy markings.

- ☐ Design pavement and perform maintenance operations with all road users in mind, filling cracks and avoiding the placement of joints and patches where bicyclists are likely to travel.

5.2.2 Pavement Markings

5.2.2a Crosswalks

Crosswalks are part of the pedestrian network and provide designated space for pedestrians between curb ramps on opposite sides of the roadway, typically at intersections. They may be unmarked or marked with paint or special pavement. Most crosswalks in the village are unmarked, except for those located within the business district, on collector or arterial roads, or adjacent to parks and schools. Although several styles of marked crosswalks are used, the Village's recent Transportation and Parking Analysis recommended that the ladder-style painted crosswalk should be used when necessary. The analysis also noted that:

> Crosswalks should not be used indiscriminately. An engineering study should be performed before a marked crosswalk is installed at a location away from a traffic control signal or [away from] an approach controlled by a STOP or YIELD sign. The engineering study should consider the number of lanes, the presence of a median, the distance from adjacent signalized intersections, the pedestrian volumes and delays, the average daily traffic (ADT), the posted or statutory speed limit or 85th-percentile speed, the geometry of the location, the possible consolidation of multiple crossing points, the availability of street lighting, and other appropriate factors.

In conjunction with other measures, marked crosswalks are desirable at some high pedestrian volume locations, such as around schools or parks, to guide pedestrians along a preferred walking path. In some cases, they may be raised and should be installed alongside other enhancements such as reflective materials that physically reinforce their presence or reduce vehicle speeds. It can be useful to supplement crosswalk markings with warning signs or beacons, such as rectangular rapid flashing beacon (RRFB) systems, or pedestrian hybrid beacon systems. Where non-compliance with a standard RRFB system is poor, performance can be enhanced by adding CROSSWALK HEAD signage.

Pedestrians are sensitive to out-of-the-way travel, and reasonable accommodation should be made to make crossings both convenient and safe at locations with adequate visibility. At signalized intersections, this means that all four legs of the intersection should have crosswalks. If installing midblock crossings, the Village should make sure to accompany them with signs or markings that alert motorists of the upcoming crosswalk, because motorists generally do not expect midblock crossings. Beacon systems, such as RRFB or pedestrian hybrid beacons, should also be considered to alert motorists of pedestrians in the crosswalk.

It is preferable to create safe crossings where there are clear pedestrian destinations. In unusual cases, signs may be used in addition with other roadway design elements to prohibit pedestrian crossings at an undesirable location and re-route them to a safer crossing location. Signs may also warn pedestrians of unexpected driver maneuvers. If unexpected driving maneuvers occur at what is an otherwise legal pedestrian crossing, an evaluation should be done to find ways to remedy or prevent the unsafe conditions.

Recommendations

- ☐ Maintain the visibility of existing marked crosswalks by painting them regularly.
- ☐ Redesign crosswalks into the recommended ladder-style, when opportunities arise.
- ☐ Evaluate the placement of additional marked crosswalks, including corresponding curb extensions or raised crosswalks or intersections, where pedestrian safety and traffic calming are desired.
- ☐ Evaluate opportunities to install additional flashing beacons or signage, including message boards, near high-traffic crosswalks.
- ☐ Consider the addition of refuge islands or pedestrian crossing signage within the roadway to enhance crosswalks.

5.2.2b Traffic and Turn Lanes

Traffic lanes represent the area of the roadway's paved surface dedicated to travel, including both motor vehicles and bicycles. Pavement markings indicating traffic lanes for motor vehicles are generally installed on arterial and collector roadways. Travel lanes on local streets are not marked, as these roadways generally act as "yield streets" that require drivers traveling in opposite direction to slow down and yield to each other when passing.

Excessively wide travel lanes are known to result in increased travel speeds and should be avoided. Research shows that (1) 10-foot lane widths are safer in urban areas and can reduce the number of collisions; (2) 12-foot lanes can have up to 1.5 times more non-intersection collisions than 9-foot lanes; and (3) lane widths between 10 and 12 feet have similar saturation flow rates, so narrowing lanes from 12 to 10 feet doesn't measurably decrease traffic capacity.[2]

At some intersections with higher volumes of traffic, one or more traffic lanes exclusively dedicated to turning movements have been designated. These lanes should be used judiciously and carefully designed with other users and needs in mind, including bicyclists, pedestrians and on-street parking.

[2] See John Hopkins Bloomberg School of Public Health, *A National Investigation on the Impacts of Lane Width on Traffic Safety: Narrowing Travel Lanes as a Opportunity to Promote Biking and Pedestrian Facilities Within the Existing Roadway Infrastructure* (Nov. 2023).

Bicycle lanes indicate a preferential or exclusive space for bicycle travel within the roadway. Bicycle lanes provide more consistent separation between bicyclists and passing motorists than shared travel lanes. The presence of the painted stripe has also been shown from research to result in fewer erratic motor vehicle driver maneuvers, more predictable bicyclist riding behavior, and enhanced comfort levels for both motorists and bicyclists. Opportunities to separate bicycle lanes from auto traffic, which provides the highest level of safety through on-street barriers or raised pavement, should be considered, taking into consideration turning conflicts, drainage and street maintenance responsibilities.

Painted bicycle lanes, which require routine maintenance, are typically not painted through intersections. Colored skid-resistant paint, usually green in color, can be used to distinguish bicycle lanes from the motor vehicle traffic lanes and increase the visibility of bicyclists, particularly at or within intersections. Bicycle boxes, which are designated areas at the head of a traffic lane at a controlled intersection that provides bicyclists with a safe and visible way of getting ahead of queuing traffic, may be considered to facilitate turning movements. There are currently no bicycle boxes within the village.

[See Section 4.2.2a for more information on bicycle lanes.]

Recommendations

- ☐ Maintain the visibility of marked travel lanes, including bicycle lanes, by painting them regularly.
- ☐ Reevaluate the width of traffic lanes within any street reconstruction project and prioritize where possible narrower traffic lanes to contribute to traffic calming, more space for bicycle lanes, and decreased levels of non-intersection collisions.
- ☐ Reevaluate the presence of exclusive turn lanes, particularly along E. Capitol Dr. and N. Oakland Ave., with all users and needs in mind.
- ☐ Evaluate opportunities for enhancements to existing bicycle lanes, including colored paint, separation or elevation.

5.2.3 On-Street Parking and Loading Zones

5.2.3a On-Street Parking

On-street parking of motor vehicles can be both a benefit and a detriment to pedestrians and bicyclists. On-street motor vehicle parking increases positive friction along a roadway and can narrow the effective crossing width for pedestrians, both of which encourage slower speeds. This type of parking can also provide a buffer between moving motor vehicle traffic and pedestrians along a sidewalk or bicyclists in a protected bicycle lane. In addition, businesses that rely on on-street parking, as opposed to parking lots, are more geared toward pedestrian access, and they are more likely to orient their building to the sidewalk. This attention can foster a more vibrant pedestrian commercial environment. Accessible on-street motor vehicle parking spaces are also sometimes the only option to provide ADA-compliant parking adjacent to destinations, including the commercial district and parks.

On the other hand, on-street motor vehicle parking can create a visual barrier between motor vehicle traffic and crossing pedestrians, especially children and people using wheelchairs. Village code prohibits parking within 15 feet of an intersection; however, constant enforcement of this prohibition is not always feasible. Therefore, where on-street parking is provided, curb extensions or other infrastructure that disallows or dissuades vehicles from parking too close to the intersection should be considered where pedestrians are expected to cross the road. Additionally, permitting on-street parking on one or both sides of a street can mean there is insufficient space on the street for bicycle lanes.

A bicycle corral is an area of the parking lane that has been designed and reserved for bicycle parking in the roadway. Barriers are typically provided on both ends of the corral to prohibit vehicles from parking in the space. This type of infrastructure is most often located in commercial districts or areas where increased bicycle parking is expected but cannot be accommodated off-street.

Recommendations

- ☐ Explore opportunities for the placement ADA-compliant on-street parking spaces within the village.
- ☐ Consider the pros and cons of removing on-street parking for possible bicycle accommodations within the roadway.
- ☐ Identify areas where on-street parking interferes with visibility at intersections and consider design modifications to prohibit or deter such conflicts.
- ☐ Explore the need for and consider the installation of bicycle corrals, particularly within the business district.

5.2.3b Loading Zones

The Village allows for the installation of loading zones within the on-street parking lane of the roadway as a special privilege for private business needs and accessible parking. Loading zones can reduce the likelihood of double-parking and blocking traffic or bicycle lanes. Loading zones should not be approved in locations that conflict with bicycle or pedestrian visibility or needs, including transit stops.

Recommendations

- ☐ Continue to review applications for special privilege approvals related to loading zones with respect to the needs of all roadway users.

5.2.4 Traffic Calming

Drivers tend to drive at a speed at which they perceive to be comfortable to them given the “street view” they see through their windshield regardless of the posted speed limit. Wide, straight roadways signal to drivers that they can drive faster. These conditions induce reckless driving, which beyond speeding includes erratic behaviors that endanger all users around them. In contrast, narrower roadways with smaller travel lanes that are less straight or have elements that “narrow” them along the way, such as parked cars, or traffic calming devices, tend to promote slower driving speeds and increase driver attentiveness, which makes a street safer for all users.

As noted in the Village's Transportation and Parking Analysis, traffic calming devices – such as speed humps, diverters, traffic circles, raised intersections, bump outs, and speed tables – are a commonly utilized means of guiding traffic within the roadway network. These devices, which can either be constructed in place or prefabricated, are generally employed in order to reduce vehicle speeds. There are two general types of traffic calming devices: vertical devices, which raise portions of the roadway, or horizontal devices, which narrow or restrict the roadway. Horizontal devices, such as curb extensions, medians or traffic circles, are typically most effective at intersections or on wider roadways, such as arterial and collector roads. Vertical devices, such as speed humps, are best deployed on already-narrow roadways, such as local streets. However, the installation of any type of traffic calming device should be evaluated within its own context.

In 2025, the Village will be deploying demonstration traffic calming devices, likely to include traffic circles, vertical post curb extensions and speed tables, to evaluate their effectiveness. Utilizing the results found from those demonstrations, permanent installations should be discussed.

The Village should consider the installation of traffic calming devices on roadways that experience traffic traveling at higher-than-expected rates of speed or cut-through traffic, or on roadways designated as neighborhood greenways or bicycle routes where multi-modal traffic is expected. Because these devices require engineering and budgetary allocations, they are currently not included within the Village's Traffic and Parking Regulation Request Program (Policy 43).

Recommendations

- ☐ Deploy and evaluate the effectiveness of temporary traffic calming devices prior to constructing permanent installations.
- ☐ Include traffic calming measures within the roadway design, particularly at busy intersections and within neighborhood greenways and bicycle routes.
- ☐ Consider the development of a Traffic Calming Program to consider requests for the installation of temporary and/or permanent infrastructure to enhance safety for all users.

6.0 School Zones

Any roadway located adjacent to a school is designated as a school zone. Two of Shorewood's principal arterials (Capitol and Oakland) and two of its collectors (Morris and Lake Bluff) have school zones on them. Currently, the school zone on N. Oakland Ave. adjacent to the Shorewood High School does not have signage identifying it as a school zone. Speed limits within school zones in Shorewood are posted as 15 mph when children are present, except on E. Capitol Dr. where they are posted at 20 mph.

Given the current design of the roadways adjacent to Shorewood High School and the Shorewood Intermediate School, particularly on E. Capitol Dr., driver compliance with posted school zone speed limits is known to be poor. The current design of roadways that are wide and straight with multiple lanes of travel for vehicles encourages a sense of entitlement by some drivers, and a sense by some drivers that speed limits of 15 mph or even 20 mph on such streets are unreasonably low. To diminish some of the risks that irresponsible motor vehicle drivers pose to Shorewood students and families, Shorewood has taken several steps, including:

- Hiring crossing guards to be present at key intersections during typical student commute times.
- Bringing the RRFB crossing system up to code at the intersection of Capitol and Newhall.

Community service officers from the Shorewood Police Department are also typically present around schools during this time to enforce posted regulations regarding dropping-off and picking-up students. As a result, both groups have a great deal of knowledge on how the process works, including frustrations and difficulties with undesired behavior and compliance to posted regulations. In order to alleviate these issues, the Village should work with the School District on identifying ways to encourage better practices and design improvements within school zones that would prohibit opportunities for undesired behaviors.

Recommendations

- ☐ Confirm that all school zones are properly identified and posted with signage.
- ☐ Evaluate the addition of another "crosswalk ahead" sign and beacon approximately 100 ft. ahead of the current signs and beacons at E. Capitol Dr. and N. Newhall St.
- ☐ Consider installing "over the street" school zone electronic message boards on E. Capitol Dr. and N. Oakland Blvd.
- ☐ Consider installing traffic calming features within school zones, particularly on N. Morris Blvd. adjacent to the Shorewood Intermediate School.
- ☐ Establish an annual connection with school zone stakeholders, including representatives from the school district and St. Robert's, parent teacher organizations, crossing guards, police department and Village staff, to identify issues and opportunities for improvements that discourage and reduce car drop-offs and pick-ups.
- ☐ Consider the use of technologies, such as pole-mounted or body cameras, to assist prosecution of drivers who endanger students and/or crossing guards.
- ☐ Reevaluate the use of the Safe Routes to Schools program.

7.0 Public Transportation and Micro-Mobility Providers

This plan seeks to ensure that people will have a variety of options when it comes to transportation, including public transit and micromobility options, such as access to bike share services and scooter options.

7.1 Public Transportation

Milwaukee County provides regional bus transit services within Shorewood via Milwaukee County Transit System (MCTS). MCTS currently operates three regular bus lines through the village: Green Line (north-south on N. Oakland Ave. from the Bayshore mall to the Airport), Red Line (east-west on E. Capitol Dr. from UWM to 128th Street) and 14 (north-south on N. Wilson Dr. from the Bayshore mall to Downtown). All of these routes are operated with busses equipped with a front-loading bicycle rack which enables bicyclists to combine their travel options.

Riders access bus services through curbside bus stops that are generally 2-3 blocks apart. Bus stops should be located at intervals that are convenient for passengers but not too close that they diminish the effectiveness of travel by causing the bus to stop too frequently. Bus stops should be located in highly visible, well-lit areas generally near intersections that pedestrians can reach easily. Poorly designed and/or poorly maintained bus stops

discourage use and detract from a streetscape's aesthetic appeal.

At intersections, far-side placement is generally preferred; however, location selection should be done on a site-by-site basis in conjunction with adjacent roadway design and land uses. Placing bus stops on the near side of intersections or crosswalks may block the pedestrians' view of on-coming traffic, and approaching motorists may be unable to stop in time when a pedestrian steps from in front of a stopped bus to cross vehicle travel lanes. Advantages of locating stops on the far-side of an intersection include encouraging pedestrians to cross the street behind the bus where they are more visible to approaching traffic, reduced delay for buses, and minimizing conflicts between buses and right turning motor vehicles.

To accommodate wheelchairs, sidewalk connections to bus stops should be a minimum of 5 feet wide and equipped with curb ramps at all street crossings. Other crossing improvements within the vicinity of transit stops may include marked crosswalks and pedestrian signals at intersections. When adequate space is available, street furniture, including bus shelters, benches and garbage receptacles should be considered.

Recommendations

- ☐ Continually work with MCTS to ensure proper number, placement, design and access to MCTS bus stops.
- ☐ Evaluate opportunities for improved transit stops, including benches, bus shelters and lighting.
- ☐ Advocate for MCTS service and system preservation, including the addition of bus rapid transit to the North Shore.

7.2 Bike Share

Bike share services allow people to pay a membership or usage fee to check-out bikes from stations, ride them around, and then return them to any other station in the system. The popularity of such systems has grown, and many systems have expanded to include electric bikes. Bike share services have benefits for individual users as they enable them to choose an active and environmentally friendly mode of transportation, and avoid the higher costs usually associated with the use of privately-owned motor vehicles, taxis, or ride-share services. Communities can also benefit from having bike share services, in that they can reduce traffic congestion and demand for parking and increase patronage at local businesses.

Bublr Bikes is a local, non-profit bike share service that currently operates within the cities of Milwaukee, Wauwatosa and West Allis. The service has multiple stations on the UWM campus and Milwaukee's east side, but currently none in Shorewood. In 2014, Shorewood obtained a grant to install up to nine bike share locations within the village, which were installed and operational in 2017. Based on a subsequent unexpected request for annual operating expenses from Bublr Bikes, the Village of Shorewood decided to no longer

participate in the system and requested that Bublr Bikes remove its docking stations that had operated in Shorewood for approximately four years. Moving forward, the Village should remain open to rejoining the regional bike share system and explore opportunities to fund any required operating expenses.

Recommendations

- ☐ Working with the Parks and Public Spaces Committee, and partners such as the Shorewood BID and Shorewood Foundation, explore opportunities with Bublr Bikes to reestablish bike share service in the Shorewood.

7.3 Scooters

Scooters are typically light-weight, two-wheeled mobility devices consisting of a footboard and long steering handle propelled either by foot or battery power (e-scooters). Riders stand upright on the footboard and steer the scooter with handles and handbrakes similar to a bicycle. Other configurations also exist that provide additional accessibility features.

Scooters have become increasingly popular in urban areas, including Milwaukee, and can provide additional opportunities for door-to-door and "last mile" mobility. The use of scooters is especially popular among young people, including UWM students. Like bikes and bike share services, scooters and e-scooter share services can provide benefits to individuals and communities, but such devices and services are not without downsides and opponents.

After several years of pilot programs, the City of Milwaukee recently adopted regulations that allow commercial operators of battery powered dockless e-scooters to establish operations within the city. Based on its proximity to those operations, Shorewood should reevaluate the pros and cons of allowing similar operations within the village, including opportunities to regulate their use on sidewalks or roadways with higher operating speeds, and restrictions on scooter parking and commercial operations, understanding the possible difficulties of enforcement. Even if commercial operations are prohibited, private scooters will continue to provide additional mobility to people within Shorewood and associated education and regulation of their use should be explored.

Recommendations

- ☐ Working with the Parks and Public Spaces Committee, evaluate and consider possible regulations related to scooters, including the pros and cons of allowing commercial operations.

8.0 Legislation, Regulations, and Funding Programs

8.1 Legislation and Regulations

Legislation and regulation in the context of this plan involves various governmental units ranging from the Village of Shorewood itself to state and federal governments. Each of these entities adopts various codes, policies, programs, statutes and laws that have impacts on Shorewood's walkability and bikeability.

The Village has adopted codes and policies that impact pedestrian and bicycle safety, including but not limited to, traffic regulations, parking requirements, and snow removal and landscape maintenance. Provided such is not preempted or precluded by federal or state law, it is within the Village's control to review, and update or repeal any regulations that do not support the vision and goals of this plan. Likewise, the Village may also choose to adopt new regulations or policies that improve local conditions for walking, biking and other mobility devices, including a Complete Streets Policy. While not directly within its control, local officials and administration should be cognizant of laws and programs at the county, state and federal level that impact this plan.

Recommendations

- ☐ Review the existing Village Code for possible updates to traffic regulations that support the vision and goals of this plan, including those related to default speed limits, reckless driving, and riding bicycles on sidewalks.
- ☐ Review and recommend possible updates to the allowance of recreational uses within alleys (Village Code § 466-30).
- ☐ Working with the Parks and Public Spaces Committee, review Village Code § 207-5, including to ensure it is consistent with ADA requirements, especially in regards to teens or adults who have disabilities.
- ☐ Review and consider updates to the Village's "vision triangle" regulations around alley entrances and exits, and driveway approaches to enhance pedestrian safety, and make it less likely that pedestrians and other sidewalk users will be struck by vehicles.
- ☐ Review and update the Village's special privilege regulations, including policies related to parklets, outdoor seating and bicycle corrals.
- ☐ Develop, adopt and enforce bicycle parking standards for all types of land uses within the village.
- ☐ Evaluate adoption of a "No Right Turn" when pedestrians are present ordinance for signal-controlled intersections within the Village.
- ☐ Finalize and adopt a Complete Streets Policy as a primary recommendation of the Transportation and Parking Analysis and necessary component of this plan's implementation.
- ☐ Working with the Parks and Public Spaces Committee, research, advocate for and/or consider the deployment of additional types of Automated Enforcement Systems, such as redlight camera systems, noise camera systems, and non-radar-based speed camera systems, particularly within school zones.

8.2 Funding Programs

One of the most cost-effective and efficient ways of improving conditions for pedestrians, bicyclists and other mobility device users is to incorporate associated improvements into larger reconstruction, new construction and/or repaving projects. Bicycle and pedestrian projects are often eligible for funding from state and federal programs. It is important to be aware of locally desired improvements and available programs when prioritizing

projects and developing budgets. Programs through the Federal Highway Administration and WisDOT, such as Transportation Alternatives Program or Safe Routes to Schools, should be continually monitored for opportunities to help fund local needs. Funding from local organizations, including the Shorewood Foundation, should also be considered.

Recommendations

- ☐ When implementing plan recommendations, research and attempt to secure funding from all possible sources.

9.0 Partnerships

Community partnerships can be a powerful way to effect change within the village. Galvanizing multiple organizations within Shorewood to share their resources toward the common goal of a more walkable and bikeable community can help to realize these goals with greater speed. The Village government and staff will strive to enact changes to improve transportation within the village through this plan and others, but the Shorewood School District, Business Improvement District and other civic clubs and organizations, should also be approached as allies in the implementation of this plan. Increased support and assistance from within the community will lead to greater opportunities for education, implementation and enforcement, so identifying and cultivating partnerships will be a key element to propel this plan forward.

9.1 Shorewood School District

The Shorewood School District is a significant and valuable member of the Shorewood community. With an enrollment of over 2,000 students attending four schools, the school district represents a major percentage of the Village's transportation system users whose population is well-aligned with pedestrian and bicycle needs. Similar needs also exist for those enrolled at Shorewood's private school, St. Robert. Issues relating to the education aspects of this plan will need to be disseminated to students, faculty, staff and parents. In addition, user experiences from these stakeholder groups should be solicited and referenced when identifying and prioritizing improvements to the transportation network. Reevaluation of the Safe Routes to School program should be considered to determine how its use could be impactful within Shorewood. In order to do any of these activities, it is important that a strong connection with the school district (and St. Robert School) be established and maintained with respect to pedestrian and bicycle issues.

The Shorewood School District also administers the facilities and programs of the Shorewood Recreation Department. One of the annual programs held by the Shorewood Recreation Department, along with the Shorewood Police Department, North Shore Health Department and North Shore Fire & Rescue is the First Ride & Bike Rodeo. This program provides instruction to children ages 3 and up on bike safety, traffic rules and more.

Crossing guards are contracted by the Village to help ensure the safe travel of children to-and-from schools within Shorewood. The contractor is responsible for providing training to all guards along with the necessary equipment to carry out their duties. The Village Police Department has been delegated the responsibility of administering this contract and half of the costs are paid for by the school district. The guards are on duty throughout the school year weekdays from 7:30- 8:30 a.m. and again from 2:30-3:30 p.m. While not able to issue citations to enforce while on duty, these guards

can be utilized in reporting incidents with training provided through their employer (the contractor) if coordinated by the Police Department.

Recommendations

- ☐ Identify the appropriate person(s) within the School District and St. Robert School to invite to regular meetings of the Parks and Public Spaces Committee and maintain that relationship on a routine basis.
- ☐ Encourage the School District to create a program to encourage more students to walk or bike to school.
- ☐ Routinely measure the percentage of students who use active means of transportation to get to and from school and set goals to increase that percentage over time.
- ☐ Reevaluate the Safe Routes to School program.
- ☐ Continue to partner with the Shorewood Recreation Department to hold an annual First Ride & Bike Rodeo event.
- ☐ Continue to work with the school district on the administration of future crossing guard contracts to ensure their presence within Shorewood.

9.2 Senior Resource Center

The Senior Resource Center (SRC) promotes safe, healthy and enriching lifestyles for Shorewood residents age 60 and older. The SRC is widely utilized and has numerous programs for older adults within the village, including Shorewood Connects and Welcome New Neighbors. These programs enhance resident experiences and seek to connect people within the community. In order to continue the Village's efforts to remain friendly to multi-generations, the SRC should continue to be utilized for the education of senior residents and possible programs to assist these residents' abilities to better use the transportation system. In part to facilitate those needs, the SRC's Shorewood Connects program has periodically performed walk-audits utilizing AARP's Walk Audit Tool Kit to provide a baseline of conditions within the community and recommendations for improvements. Suggestions from their most recent audit in 2022 have been incorporated into this plan.

Recommendations

- ☐ Continue to utilize the Senior Resource Center and its programs to identify ways to improve mobility in Shorewood's senior community.

9.3 Shorewood Business Improvement District

The Shorewood Business Improvement District (BID) was established by commercial property owners and the Village of Shorewood in 1999 to promote the commercial district as a destination for retail and service businesses to locate and thrive. The BID has been instrumental in education, beautification, development and redevelopment efforts within the Village. With its extensive business relationships, the BID can serve as a valuable liaison with businesses to fulfill the vision of this plan. This plan will likely not be successful if the business and commercial property owners fail to see how the vision and goals set forth in this plan will ultimately lead to greater prosperity.

Recommendations

- ☐ Maintain a strong relationship with the BID and its membership.
- ☐ Work with the BID to promote Shorewood as a walking and biking destination.
- ☐ Work with local businesses to ensure optimal pedestrian safety and access.
- ☐ Work with local businesses to ensure ample bicycle parking for customers and employees throughout the Village.

9.4 Local Bike Advocacy Organizations

The Wisconsin Bike Fed is a non-profit organization dedicated to advocating for bicycle riders across the state of Wisconsin. Their mission is to cultivate, motivate, and unite residents, communities, businesses, and political leaders to move bicycling forward in Wisconsin through education, legislation, and involvement. The Bike Fed advocates at the state and national level for bike-friendly laws and budgets. It also partners with local communities on projects, teaches kids how to ride bikes safely, seeks to enrich the lives of people of all ages through biking and creates special events that promote biking as a positive activity.

On a more local level, Greater Shorewood Bikers, Inc. (along with the Shorewood Complete Streets Coalition) seeks to promote more routine, everyday bike riding, and advocates for safer streets and better pedestrian and bike infrastructure.

Recommendations

- ☐ Develop a relationship with local bike advocacy organizations and utilize their knowledge, connections and services to advance the local vision and goals of this plan.

9.5 University of Wisconsin-Milwaukee

The University of Wisconsin-Milwaukee (UWM) is located adjacent to Shorewood's southern border on E. Edgewood Ave. Many students and staff live in the village on both a temporary and permanent basis and visit Shorewood businesses. This adds to the age diversity in Shorewood as well as its vitality. The university provides a positive environment for pedestrian and bicycle activity. The university has a Bicycle Advisory Task Force that provides recommendations to encourage and support biking to campus. Programs and faculty at UWM can also provide a valuable source of information for local efforts.

Recommendations

- ☐ Develop and maintain a relationship with the University of Wisconsin-Milwaukee and their advocacy groups.
- ☐ Identify opportunities for pedestrian and bicycle safety initiatives in high traffic areas between the village and campus, especially along the E. Edgewood Ave. corridor.
- ☐ Promote Shorewood businesses to UWM staff and students and encourage them to ride bicycles or walk when visiting.

10.0 Education and Encouragement

In order for the vision and the goals of this plan to be achieved, educational and encouragement activities will need to be undertaken. Educating the community will require a concerted effort from various Village entities including the Parks and Public Spaces Committee, School District, Police Department and many more. Education efforts relating to this plan and the recommended actions within should be disseminated to the public in innovative ways, including those that are personal and relatable to everyday life. It should also be recognized that sometimes the best encouragement may require making driving less convenient, whether that be through roadway design, regulations, the configuration around school zones or decreasing the amount of free parking, both on and off-street.

10.1 Responsibilities and Opportunities

As identified within their purpose, the Pedestrian and Bicycle Safety Subcommittee of the Village's Parks and Public Spaces Committee is primarily responsible for educational activities related to the vision and goals of this plan, including advocating for recommendations. They should seek to identify innovative methods to bring entities together for the improvement of Shorewood's walkability, bikeability and safety. They should utilize Village staff and the identified partners within this plan, including the school district, Senior Resource Center, BID and others, to assist their efforts. Using general marketing materials from broader organizations, such as the Wisconsin Bike Fed, should also be considered. When needed, requests for budgetary assistance should be directed to the Village Board through established processes.

Opportunities for education include using a variety of media formats and outlets. Through established resources such as the *Shorewood Today* magazine, Village of Shorewood Website, Weekly Manager's Memo, and the Village's Facebook Page, the Subcommittee can successfully inform members of the public who regularly follow news from the Village, but other methods will likely be necessary to reach a greater audience. Marketing methods designated to broaden the scope to as many residents, businesses and visitors as possible will need to be considered.

Recommendations

- ☐ Develop a marketing campaign related to education and encouragement of pedestrians and bicycle riders consistent with this plan that will be recognizable and can be utilized consistently through various media formats and outlets, possibly to include a map.
- ☐ Develop and utilize existing relationships to distribute messaging.
- ☐ Identify opportunities to increase the Village's status level as Bicycle Friendly Community and advocate for their implementation.

10.2 Special Events

Special events provide a valuable opportunity to offer education and encouragement to Shorewood's pedestrian, bicycle and alternate mobility stakeholders. Events may be organized internally by the Village, through its various partners or by local citizen advocates. One of the more established events related to bicycle promotion and advocacy is the Tour of America's Dairyland, a competitive cycling tour, which organizes a race in Shorewood as part of the tour each summer. The bike race and a related one-mile running race are hosted by the Shorewood BID. Featuring world class cycling, this event brings hundreds of people to the village and offers residents and spectators opportunities to be involved, including a popular kids race. The locally co-sponsored First Ride & Bike Rodeo also provide opportunities for youth engagement and education. The Shorewood Farmers Market is a popular activity that invites pedestrians to shop local vendors in Estabrook Park.

Other events, which could be organized using resources from national or state agencies or local bike advocacy organizations include National Bike Month, Bike to Work Days or the Santa Cycle Rampage. The School District could be engaged to organize Bike to School activities or neighborhood bike buses. Local advocates, including the Greater Shorewood Bikers and the Gentlemen of Shorewood, currently organize events such as an annual Koningsdag Ride and the Shorewood 12. All of these events could be used to increase awareness of pedestrian and bicycle related issues within the village and should be considered as opportunities for engagement.

Recommendations

- ☐ Continue to develop and promote activities within Shorewood that highlight and promote pedestrian, bicycle and other mobility activities.

11.0 Enforcement

11.1 Overview, Responsibilities and Capacity

Traffic laws that regulate pedestrians, bicyclists, motorists, and other transportation system users are integral in ensuring a safe and healthy environment. Enforcement programs should be used as a form of education for transportation users regarding the traffic laws that govern them; serve as periodic reminders to obey traffic rules; encourage safer behaviors; and monitor and protect public spaces. These also help to reinforce and support other educational efforts and messages. It is critical that effective procedures are in place for handling violators and for training law enforcement officers.

The term "enforcement" is not limited to police officers issuing citations. Enforcement activities can involve a variety of "carrots and sticks" to encourage certain behaviors and deter others. Enforcement activities can be carried out by many different community groups, from parents and employers to neighborhood associations to law enforcement agencies. Working with the Police Department is a key component of a successful and lasting enforcement program.

Common requests for enforcement deal with obeying traffic laws, teens or adults riding bikes on sidewalks, and the removal of snow and ice in the winter season. All of these come with challenges of capacity. With that understanding in mind, education and encouragement campaigns should be used to help alleviate the need for enforcement.

Many police officers enjoy discussing safety with residents of all ages and may be happy to take part in pedestrian or bicycle safety speaking engagements at schools, offices, or other locations. However, these brief, one-time lectures or events are usually not enough to generate permanent changes in people's attitudes or behaviors related to pedestrian or bicycle safety, and they are no substitute for concentrated and sustained enforcement. Those involved in an enforcement program must be aware of the importance of long-term commitment in order for the enforcement to be effective and successful.

Recommendations

- ☐ Design and construct infrastructure that naturally leads to higher levels of traffic regulation compliance.
- ☐ Working with the Parks and Public Spaces Committee, research, advocate for and/or consider the deployment of additional types of Automated Enforcement Systems, such as redlight camera systems, noise camera systems, and non-radar-based speed camera systems, particularly within school zones.
- ☐ Continue to invite the Police Department to Parks and Public Space Committee meetings (at least annually) to discuss pedestrian and bicycle-related issues.
- ☐ Forward Police Reports related to complaints or crashes involving pedestrians or bicycle riders to the Parks and Public Spaces Committee for its review and consideration of possible improvements or education efforts.
- ☐ Perform periodic concentrated enforcement of issues that impact mobility concerns, such as traffic control, pro-actively and as requested.
- ☐ Provide education and marketing materials to officers regarding pedestrian and bicycle safety legislation and best practices.

11.2 Snow Removal

Per Village Code (§ 466-27), private property owners/occupants are required to remove snow and ice on public sidewalks and curb ramps within 12 hours after the end of a snow event. The Village's Department of Public Works is responsible for removing snow and ice from the roadway. If public sidewalks are not cleared, the Police Department is charged with notifying property owners/occupants by placing notice on the property reminding them of the requirement. The notice also states that if the snow or ice is not removed within a certain follow-up time, that the Police Department may issue a citation and will send in a contractor to perform the removal. The cost of that removal is then paid by the homeowner or assessed as a charge to their tax bill. This process was established recognizing that after snow events the Department of Public Works is busy removing snow and ice from roadways and public property.

This has proven to be an effective deterrent to Village property owners who would otherwise leave their sidewalks untouched after inclement weather. In turn, most sidewalks throughout the Village are well cleared and safe for pedestrian travel during the winter months.

Recommendations

- ☐ Regularly use Village marketing materials and outlets to educate the public regarding the clearing of sidewalks and its direct impact on pedestrian safety.
- ☐ Ensure that sidewalks and pathways are reasonably and promptly cleared of snow and ice and that enforcement actions are taken against property owners who fail to do so.
- ☐ Ensure the Village has sufficient and appropriate equipment and staffing levels (or contractual arrangements) to ensure that snow and ice removal is accomplished for all users including bicyclists and pedestrians, not just motor vehicles.
- ☐ Ensure that the Village's senior community is given the proper assistance after inclement weather either by offering volunteer services or a list of local contractors.

11.3 Bicycles on Sidewalks

Section 207-5(B) of the Village Code currently states that no bicycle shall be operated on any public sidewalk, unless an exception has been provided for within § 207-5(C). Two of the exceptions in § 207-5(C) indicate that "children 12 years of age or less may be permitted to operate a bicycle on public sidewalks" and "disabled persons may be permitted to operate a bicycle on a public sidewalk, while accompanied by a responsible adult." Additionally, § 207-5 provides that anyone operating a bicycle on a sidewalk must "exercise due care" for pedestrians and others using the sidewalk.

Currently, compliance with § 207-5 is not as high as it should be. This may be due to several reasons, including that many riders feel it is safer to ride on the sidewalk, than on the street where they would be more exposed to vehicle traffic. On the one hand, seeing people biking on sidewalks is often identified as a signal that the design of a community's streets is failing to provide the sense of safety and comfort, that leads to higher levels of bike riding. On the other hand, it is also undoubtedly true that people of any age riding bicycles anywhere close to pedestrians is of concern to many persons in Shorewood, in particular those with disabilities or mobility concerns.

The Village often receives complaints from residents who report they "were almost hit" or "were almost knocked down" by a bike rider who rode too close to them. Irresponsible riding on sidewalks raises stress levels for pedestrians and can deter residents getting around Shorewood via walking.
The Village has taken several steps to discourage irresponsible riding on sidewalks, and to raise awareness regarding the risk that such poses. These steps include painting signs on sidewalks at several places in the commercial district urging people to walk their bikes and publicizing the problems that sidewalk riding causes through various Village media channels. Recently, the Village has put more emphasis on a "risk reduction" message. That message seeks to educate bike riders regarding the risks that sidewalk riding poses to pedestrians.

Recommendations

- ☐ Work with partnerships to provide periodic education on the rules related to riding bicycles on sidewalks and the risks posed by doing so.
- ☐ Enhance the visibility of existing painted sidewalk signs through regular maintenance or consider more effective placements or designs.

12.0 Village Processes

Understanding the Village's standard programs, polices and processes is critical to moving the vision, goals and recommendations outlined in this plan forward. Many of the recommendations require Village resources of either staff time or budget, which is not always immediately available. Therefore, it is sometimes necessary to utilize valuable partnerships and volunteers to facilitate progress.

In order to ensure that the resources necessary to carry out certain aspects of this plan are made available, those responsible for implementing the

recommendations in this plan need to be cognizant of the Village's annual budget and initiatives process. Currently, volunteer committees are asked to provide the Village Board annual reports and identify proposed for future initiatives early in the year, so that the Village Board may contemplate their requests in relation to other needs during their budget and work plan discussions, which take place in the late summer and fall. As the primary stakeholder group associated with this plan, the Parks and Public Spaces Committee should review this plan as part of its annual report preparation process, so as to identify recommendations in this plan that are appropriate to be included as proposed initiatives in its annual report. Other stakeholder groups associated with this plan and the Village's projected Complete Streets Policy should do likewise.

All stakeholders should also remain familiar with Village codes and policies to understand how requests for improvements, modifications or enforcement should be submitted. Advocates often need to submit their requests or applications for review and recommendation of various committees before actions may take place. If improvements to these processes are desired, the Village should be open to modifications that improve their performance.

This plan cannot be expected to cover all pedestrian, bicycle or mobility issues that the Village has or will face. It is important to acknowledge that other ideas or issues will come up during the 10-year lifespan of this plan, and this plan should not be used as a reason for why other concepts should not be considered. Similarly, as land uses and behaviors change, additional site-specific needs may be found. The Village should remain open to those ideas and develop a process to solicit regular feedback from the community. When evaluating ideas, guidelines from groups such as the National Association of City Transportation Officials (NACTO), and other similar professional urban design groups, should be utilized.

Recommendations

- ☐ Perform annual reviews of this plan to identify and prioritize projects within budgets and work plans.
- ☐ Finalize and adopt a Complete Streets Policy as a primary recommendation of the Transportation and Parking Analysis and necessary component of this plan's implementation.
- ☐ Review and update Policy 43 Traffic and Parking Regulation Request Program with respect to the vision, goals and recommendations outlined in this plan.
- ☐ Consider the development of a Traffic Calming Program to consider requests for the installation of temporary and/or permanent infrastructure to enhance safety for all users.
- ☐ Develop a system, such as an online map or comment form, where concerns related to pedestrian, bicycle or mobility needs can be submitted and reviewed periodically.

13.0 Recommended Improvements at Specific Locations

Content and recommendations within prior sections of this plan are largely general or "high level" in nature, but collectively will have impacts to various places throughout the village. As part of the public engagement and planning process, specific locations where improvements were desired were noted. This plan addresses these locations by calling attention to them and developing an understanding of the various components that should be reviewed and possibly improved within them.

Some of the recommendations below involve complex considerations and will require working with other jurisdictions or agencies. While some of the below recommendations are phrased in terms of "evaluate" or "consider," the use of those terms should not be interpreted as this plan making only tepid recommendations, or this plan calling for a glacial approach to change.

In no particular order, the following recommendations are made regarding the following specific streets, intersections or locations:

13.1 Intersection of E. Capitol Dr. and N. Oakland Dr., with particular attention to pedestrian, bicycle and mobility issues

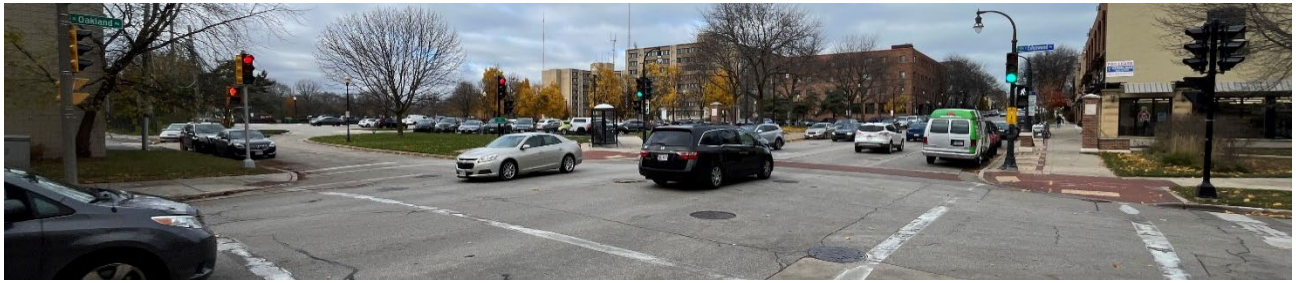
This intersection is considered by many to be the center of the village. However, its current design and function is automobile traffic oriented, which results in it serving as more of a barrier than a connection. Attention to the safety of all users, including pedestrians, bicyclists and mobility device users should be re-evaluated and integrated into the roadway design. Opportunities to reduce pavement and slow traffic through travel or turn lane reductions, and the introduction of landscaping to beautify the area should be sought.

Recommendations

- ☐ Work with WisDOT to redesign the intersection to be less car centric.
- ☐ Work with WisDOT to evaluate the possible elimination of excessive travel and turn lanes, including the southbound slip lane.
- ☐ Work with WisDOT to evaluate opportunities for better protecting pedestrians and bicyclists through this intersection, including a possible protected or "Dutch-style" intersection or roundabout.

13.2 Intersection of N. Oakland Dr. and E. Edgewood Ave., which is jointly controlled with the City of Milwaukee

This intersection is one of the primary southern gateways to Shorewood. It provides access to River Park and the Oak Leaf Trail on the west and connects the area to UWM on the east. The intersection is well-used by pedestrians, bicyclists, transit riders and automobile drivers. Opportunities to increase the safety of vulnerable users by slowing traffic and designing space and traffic regulations to provide clarity for all users should be explored.



Recommendations

- ☐ Work with the City of Milwaukee to design and construct high-quality bicycle and pedestrian infrastructure at the intersection, including traffic calming devices.
- ☐ Work with the City of Milwaukee, Milwaukee County Parks and the Parks and Public Spaces Committee to identify and design preferred pathway to guide pedestrians, bicyclists and other mobility device users from E. Edgewood Ave. to the Oak Leaf Trail.
- ☐ Working with the Parks and Public Spaces Committee, consider the removal of excess surface and on-street parking to prioritize pedestrians, bicyclists, other mobility device users, and transit riders.
- ☐ Evaluate the potential for bicycle signals, signage and high-quality pavement markings at and within the intersection.
- ☐ Work with MCTS to evaluate bus stop locations within this intersection and confirm if "far-side" transit stops are preferred.

13.2 School Zones

When school is in session, School Zones witness dynamic periods of high-intensity use with some of the village's most vulnerable and pedestrian-oriented traffic. The drop-off and pick-up of students dramatically changes how the roadways within the area are used. As noted within prior sections of this plan, protecting vulnerable users through improved street design, traffic calming, updated regulations and strengthened enforcement, and encouraging behaviors that reduce congestion within the area should be sought.

Recommendations

- ☐ Consider the installation of curb extensions (namely at E. Capitol Dr. and N. Morris Blvd., and N. Oakland Ave. and E. Shorewood Blvd.), raised intersections and possible turning or travel restrictions at intersections within school zones.
- ☐ Evaluate options related to restricting vehicular and pedestrian access at non-signalized intersections, as well as median barriers, such as low fencing, and traffic calming or road diet possibilities.
- ☐ Ensure all school zones are properly signed, including N. Oakland Ave.
- ☐ Evaluate the addition of another crosswalk ahead sign and beacon approximately 100 ft. ahead of the current signs and beacons at E. Capitol Dr. and N. Newhall St.

13.3 "West Capitol" – E. Capitol Dr. from the Milwaukee River to N. Oakland Ave.

This area of roadway, commonly referred to as "West Capitol Drive" is one of the busiest and most complex roadways within Shorewood. Drivers speeding in this area, which is adjacent to two schools and auto-oriented commercial businesses, is known to be a problem, as is the accommodation and safety of other users. The design of the roadway facilitates these behaviors and the inability to constantly enforce the corridor results in frustrations. Working with WisDOT, a holistic, long-term approach should be taken to address the area.

Recommendations

- ☐ Consider traffic calming and road diet interventions, as well as improved bicycle facilities.
- ☐ Evaluate the addition of another crosswalk ahead sign and beacon approximately 100 ft. ahead of the current signs and beacons at E. Capitol Dr. and N. Estabrook Pkwy.
- ☐ Work with owners of Culver's to slow vehicles exiting the property and increase the visibility and safety of pedestrians and bicyclists.

13.5 Metro Market

The relatively recent redevelopment of the big box grocery store and its adjacent parking structure has changed how N. Oakland Ave. from E. Kenmore Place to E. Wood Place functions. Continued opportunities to improve traffic circulation and support the pedestrian nature of the Village's "Main Street" corridor should be explored in partnership with the private property owner.

Recommendations

- ☐ Evaluate opportunities to better incorporate the big box store into the pedestrian environment of the business district.
- ☐ Evaluate the addition of another crosswalk ahead sign and beacon approximately 100 ft. ahead of the current signs and beacons at N. Oakland Ave. and E. Jarvis St.
- ☐ Consider the addition of median refuge islands within adjacent crosswalks, as well as "state law, yield to pedestrians" signage within the roadway.
- ☐ Continue to evaluate opportunities to reduce conflicts at both the north and south entrances to the Metro Market parking structure.
- ☐ Working with the Parks and Public Spaces Committee, encourage the Metro Market to better activate their storefront to create a more vibrant and pedestrian-friendly environment, including re-activating the mid-block entrance/exit, adding an entrance/exit at the corner of N. Oakland Ave. and E. Kenmore Place, and working to create a lively outdoor dining and drinking space.

14.0 Implementation

This implementation section compiles the recommendations identified within the plan and identifies proposed responsible parties and projected time frames for action. The projected time frames range from part of routine or annual operations to long-term projects (5+ years). Periodic time frames relate to activities that are performed somewhat regularly, but on defined schedules, such as every 2-3 years. Opportunistic recommendations relate to activities that could occur as part of other projects or reviews as they take place, or as programs or budgets are identified. Short-term projects should generally occur within 1-3 years, and mid-term projects are estimated to be accomplished within 3-5 years.

The specific inclusion (or exclusion) of activities that support the purpose, goals and vision of this plan should not be rigidly contemplated solely by the stakeholders or the time frames identified, particularly if conditions change or new ideas are advanced. While some of the plans' recommendations are phrased in terms of "evaluate" or "consider," due to the need for further research, approval or budgetary needs, the use of those terms should not be interpreted as making only mild recommendations, or this plan calling for a slow approach to change.

4.0 Shorewood's Transportation Network

Section	Recommendation	Responsible Parties	Time Frame
	Review proposed land use modifications in conjunction with the plan's purpose, vision, goals and recommendations.	Planning and Development Department; Plan Commission; Village Board	Opportunistic
4.1	**Pedestrian Transportation Network**		
	Maintain the village's sidewalk network in conjunction with a formalized Sidewalk Program.	Department of Public Works	Routinely
	Encourage Milwaukee County to improve and maintain the Oak Leaf Trail within Shorewood, including pavement replacement and widening, and adding an adjacent natural-surface path.	Village Board	Routinely
	Work with Milwaukee County on providing education regarding a share-the-trail approach on the Oak Leaf Trail.	Parks and Public Spaces Committee	Short-Term
	Consider the installation of signage at entry/exit points that would encourage safe and courteous use of the Oak Leaf Trail.	Department of Public Works; Parks and Public Spaces Committee	Short-Term
	Formalize an entry/exit to the Oak Leaf Trail from Hubbard Park and through any future redevelopment of the Department of Public Works Yard to N. Morris Blvd.	Planning and Development Department	Short-Term; Opportunistic

	Work with Milwaukee County and the City of Milwaukee on the connection from the Oak Leaf Trail to E. Edgewood Ave.	Planning and Development Department; Department of Public Works	Mid-Term
	Encourage Milwaukee County and the Public Arts Committee to include seating and art along the Oak Leaf Trail, including possible gateway features, and pedestrian and bicycle count displays.	Parks and Public Spaces Committee	Long-Term
	Work with partnerships to perform pedestrian safety and walking audits focusing on different areas of the Village each year as necessary.	Parks and Public Spaces Committee	Periodic

Section	Recommendation	Responsible Parties	Time Frame
4.2	**Bicycle Transportation Network**		
4.2.1	Off-Street Trails		
	Encourage Milwaukee County to improve and maintain the Oak Leaf Trail within Shorewood, including pavement replacement and widening.	Village Board	Routinely
	Work with Milwaukee County on providing education regarding a share-the-trail approach on the Oak Leaf Trail.	Parks and Public Spaces Committee	Short-Term
	Consider the installation of signage at entry/exit points that would encourage safe and courteous use of the trail.	Department of Public Works; Parks and Public Spaces Committee	Short-Term
	Formalize entry/exit points to the Oak Leaf Trail from Hubbard Park, and also from N. Morris Blvd. through the Department of Public Works Yard once operations wind down there and/or when the property is redeveloped.	Planning and Development Department	Short-Term; Opportunistic
	Work with Milwaukee County and the City of Milwaukee on the connection from the Oak Leaf Trail to E. Edgewood Ave.	Planning and Development Department; Department of Public Works	Mid-Term
4.2.2	Bicycle Facilities Within the Roadway		
4.2.2a	Bicycle Lanes and Accommodations		
	Develop an interconnected network of high-quality bicycle facilities throughout the village.	Planning and Development Department; Public Works	Opportunistic; Long-Term

	Install and routinely maintain bicycle lanes and accommodations on arterial roads.	Department of Public Works	Periodic
	Reevaluate opportunities to transition bicycle accommodations into painted or protected bicycle lanes, particularly on E. Capitol Dr.	Planning and Development Department; Department of Public Works	Opportunistic
	Consider bicycle lanes on collector roads, if adequate roadway width is available.	Planning and Development Department; Department of Public Works	Opportunistic
	Identify and evaluate opportunities for paint enhancements to existing bicycle lanes, including additional separation, paint through intersections and bicycle boxes.	Department of Public Works	Opportunistic
	Identify and evaluate opportunities for separation and protection of bicycle lanes from automobile traffic.	Planning and Development Department; Department of Public Works	Opportunistic
4.2.2b	Neighborhood Greenways and Bicycle Routes		
	Develop an interconnected network of high-quality bicycle routes throughout the village.	Planning and Development Department; Public Works	Opportunistic; Long-Term
	Working with a traffic engineer and applicable partners, facilitate a public planning process and develop recommendations and budgetary figures for the installation of Neighborhood Greenway infrastructure on identified roadways.	Planning and Development Department; Public Works	Short-Term
	Implement neighborhood greenway designs as opportunities arise within the Capital Improvements of the Long Range Financial Plan.	Department of Public Works	Opportunistic
	Consider the addition of E. Beverly Rd. as a neighborhood greenway, if an entrance to the Oak Leaf Trail can be developed near the intersection of E. Beverly Rd. and N. Morris Blvd.	Planning and Development Department; Department of Public Works	Opportunistic
	Develop and install signage to identify and direct bicyclists within Shorewood's bicycle facility network using the City of Milwaukee's manual and template for consistency.	Planning and Development Department; Parks and Public Spaces Committee	Short-Term

	Identify opportunities for bicycle accommodation or traffic calming infrastructure along bicycle routes, particularly at intersections.	Planning and Development Department; Department of Public Works	Short-Term
4.2.2c	Local Streets		
	Identify areas where local streets do not naturally create slow traffic and consider design modifications, updated parking regulations, or traffic calming infrastructure.	Police Department; Planning and Development Department; Department of Public Works; Residents	Annually

Section	Recommendation	Responsible Parties	Time Frame
4.3	**Motor-Vehicle Transportation Network**		
	Review existing roadway classifications and identify potential changes so that future projects, regulations and policy changes are appropriately designed, including so as to address "stroad" conditions as such may exist on E. Capitol Dr. (west of N. Oakland Ave.) and N. Oakland Ave. (south of E. Capitol Dr.).	Village Engineer; Department of Public Works	Annually
	Maintain the village's roadways in conjunction with a formalized Pavement Management Program.	Department of Public Works	Periodic
4.3.4	Alleys		
	Maintain the village's alleys in conjunction with a formalized Pavement Management Program.	Department of Public Works	Periodic
	Review and consider updates to the Village's "vision triangle" regulations around alley entrances and exits to enhance pedestrian safety and make it less likely that pedestrians and other sidewalk users will be struck by vehicles.	Planning and Development Department; Department of Public Works	Short-Term

5.0 Components of the Public Right of Way

Section	Recommendation	Responsible Parties	Time Frame
5.1	**Components Not Within the Roadway**		
5.1.1	Public Sidewalks and Pathways, Curb Ramps and Driveway Approaches		
5.1.1a	Public Sidewalks and Pathways		
	Evaluate sidewalk and pathway width and design to maximize pedestrian travel with all new infrastructure, development and redevelopment projects	Planning and Development Department; Department of Public Works	Opportunistic
5.1.1b	Curb Ramps		
	Ensure that all curb ramps are compliant with ADA standards within any infrastructure, development or redevelopment projects.	Department of Public Works	Opportunistic
	Consider the addition of mid-block curb ramps where demand is present and intersections are distant.	Planning and Development Department; Department of Public Works	Opportunistic
5.1.1c	Driveway Approaches		
	Review and consider updates to the Village's "vision triangle" regulations around driveway approaches to enhance pedestrian safety and make it less likely that pedestrians and other sidewalk users will be struck by vehicles.	Planning and Development Department; Department of Public Works	Short-Term
	Review and consider updates to Village policies and regulations with respect to driveway approaches, including placement, width and quantity.	Planning and Development Department; Department of Public Works	Mid-Term
5.1.2	Sidewalk Buffers, Parkways and Terraces		
	Monitor parkways and terraces for maintenance and obstructions, and enforce the removal of obstructions as necessary.	Planning and Development Department; Department of Public Works	On-going
	Continue to process and review applications for special privilege approval with mobility users in mind	Village Board; Planning and Development Department	On-going

5.1.3	Street Furniture		
	Review the placement and provision of street furniture to ensure that it supports a vibrant pedestrian experience.	Department of Public Works	On-going
	Identify opportunities for donations relating to street furniture within the village.	Village Manger's Office; Parks and Public Spaces Committee	Short-Term
5.1.4	Bicycle Parking		
	Perform an audit of public buildings, parks, schools and the business district to identify deficiencies of bicycle parking and encourage corresponding stakeholders to install additional facilities.	Parks and Public Spaces Committee	Mid-Term
	Identify funds whereby additional bicycle racks may be purchased or maintain an inventory of bicycle racks that can be installed, as needed.	Village Manager's Office; Department of Public Works	Mid-Term
5.1.5	Curb Extensions		
	Evaluate the potential inclusion of curb extensions with all new infrastructure, development and redevelopment projects.	Planning and Development Department; Department of Public Works	Opportunistic
	Utilize added space created by curb extensions for greenspace, bicycle parking, sidewalk furniture or any combination of these to maximize the positive effects of the space.	Department of Public Works	Opportunistic
5.1.6	Signs and Signals		
5.1.6a	Signs		
	Evaluate the use and condition of signs along the roadway to ensure that they are providing adequate messaging without cluttering the right of way.	Department of Public Works	Annually
	Consider opportunities to increase the visibility of signage, such as lighting, particularly near pedestrian generating land uses and detours.	Department of Public Works	Routinely
	Consider the removal of signs that represent overregulation, such as four-way stops, when better alternatives to achieve desired outcomes exist.	Village Engineer; Village Board; Department of Public Works	Routinely

	Finalize the replacement of street-name signs with the larger, branded and more reflective version.	Department of Public Works	Long-Range
5.1.6b	Signals		
	Evaluate opportunities to install additional flashing beacons or signage, including message boards, near high-traffic crosswalks.	Department of Public Works	Short-Term
	Evaluate traffic and pedestrian signals, and their timing, on a regular basis and when projects are designed to confirm need or consider alternatives, such as roundabouts, where appropriate, and to ensure smooth traffic flow with changing conditions, and pedestrian and accessibility needs.	Village Engineer; Department of Public Works	Periodic; Opportunistic
	Consider opportunities to increase the visibility of signals, such as painted borders, particularly near pedestrian generating land uses.	Department of Public Works	Short-Term
	Consider the inclusion of bicycle traffic signals at areas of expected or desired bicycle traffic volumes, such as N. Oakland Ave. and E. Edgewood Ave.	Village Engineer; Department of Public Works	Long-Term
	Consider the installation of Leading Pedestrian Intervals at major intersections.	Village Engineer; Department of Public Works	Long-Term
5.1.7	Lighting		
	Implement the recommendations within the Street Lighting System Replacement Plan to improve street lighting conditions throughout the village.	Department of Public Works	Mid-Term
	Encourage private property owners, particularly within the business improvement district, to install appropriate pedestrian-oriented lighting on their buildings and in public areas.	Parks and Public Spaces Committee; Business Improvement District	Periodic

5.2.1	**Pavement**		
	Continue to maintain clean and clear pavement surfaces through routine maintenance, including street sweeping, snow removal, crack and pothole filling, and paint and epoxy markings.	Department of Public Works	Annual
	Design pavement and perform maintenance operations with all road users in mind, filling cracks and avoiding the placement of joints and patches where bicyclists are likely to travel.	Department of Public Works	Ongoing
5.2.2a	Crosswalks		
	Maintain the visibility of existing marked crosswalks by painting them regularly.	Department of Public Works	Periodic
	Redesign crosswalks into the recommended ladder-style, when opportunities arise.	Department of Public Works	Opportunistic
	Evaluate the placement of additional marked crosswalks, including corresponding curb extensions or raised crosswalks or intersections, where pedestrian safety and traffic calming are desired.	Village Engineer; Department of Public Works	Periodic
	Evaluate opportunities to install additional flashing beacons or signage, including message boards, near high-traffic crosswalks.	Department of Public Works	Short-Term
	Consider the addition of refuge islands or pedestrian crossing signage within the roadway to enhance crosswalks.	Village Engineer; Department of Public Works	Periodic
5.2.2b	Traffic and Turn Lanes		
	Maintain the visibility of marked travel lanes, including bicycle lanes, by painting them regularly.	Department of Public Works	Routinely
	Reevaluate the width of traffic lanes within any street reconstruction project and prioritize where possible narrower traffic lanes to contribute to traffic calming, more space for bicycle lanes, and decreased levels of non-intersection collisions.	Village Engineer; Department of Public Works	Opportunistic

	Reevaluate the presence of exclusive turn lanes, particularly along E. Capitol Dr. and N. Oakland Ave., with all users and needs in mind.	Village Engineer; WisDOT	Periodic
5.2.3a	On-Street Parking		
	Explore opportunities for the placement ADA-compliant on-street parking spaces within the village.	Police Department; Planning and Development Department	Routinely
	Consider the pros and cons of removing on-street parking for possible bicycle accommodations within the roadway.	Village Engineer; Department of Public Works; Planning and Development Department	Opportunistic
	Identify areas where on-street parking interferes with visibility at intersections and consider design modifications to prohibit or deter such conflicts.	Village Engineer; Department of Public Works; Planning and Development Department	Opportunistic
	Explore the need for and consider the installation of bicycle corrals, particularly within the business district.	Planning and Development Department; Business Improvement District; Parks and Public Spaces Committee	Mid-Term
	Develop parameters and adopt regulations to allow the installation of bicycle corrals as a special privilege.	Planning and Development Department	Short-Term
5.2.3b	Loading Zones		
	Continue to review applications for special privilege approvals related to loading zones with respect to the needs of all roadway users.	Planning and Development Department	Ongoing
5.2.4	Traffic Calming		
	Deploy and evaluate the effectiveness of temporary traffic calming devices prior to constructing permanent installations.	Department of Public Works	Opportunistic
	Include traffic calming measures within the roadway design, particularly at busy intersections and within neighborhood greenways and bicycle routes.	Village Engineer; Department of Public Works	Opportunistic
	Consider the development of a Traffic Calming Program to consider requests for the installation of temporary and/or permanent infrastructure to enhance safety for all users.	Planning and Development Department; Department of Public Works	Mid-Term

6.0 School Zones

Section	Recommendation	Responsible Parties	Time Frame
	Confirm that all school zones are properly identified and posted with signage.	Department of Public Works	Short-Term
	Evaluate the addition of another "crosswalk ahead" sign and beacon approximately 100 ft. ahead of the current signs and beacons at E. Capitol Dr. and N. Newhall St.	Village Engineer; WisDOT; Department of Public Works;	Short-Term
	Consider installing "over the street" school zone electronic message boards on E. Capitol Dr. and N. Oakland Blvd.	Village Engineer; WisDOT; Department of Public Works	Short-Term
	Consider installing traffic calming features within school zones, particularly on N. Morris Blvd. adjacent to the Shorewood Intermediate School.	Village Engineer; WisDOT Department of Public Works	Opportunistic
	Establish an annual connection with school zone stakeholders, including representatives from the school district and St. Robert's, parent teacher organizations, crossing guards, police department and Village staff, to identify issues and opportunities for improvements that discourage and reduce car drop-offs and pick-ups.	Police Department	Annual
	Consider the use of technologies, such as pole-mounted or body cameras, to assist prosecution of drivers who endanger students and/or crossing guards.	Police Department	Mid-Term
	Reevaluate the use of the Safe Routes to Schools program	Parks and Public Spaces Committee; School District	Mid-Term

7.0 Public Transportation and Micro-Mobility Providers

Section	Recommendation	Responsible Parties	Time Frame
7.1	Public Transportation		
	Continually work with MCTS to ensure proper number, placement, design and access to MCTS bus stops.	Planning and Development; Department of Public Works	Routinely
	Evaluate opportunities for improved transit stops, including benches, bus shelters and lighting.	Department of Public Works	Opportunistic

	Advocate for MCTS service and system preservation, including the addition of bus rapid transit to the North Shore.	Village Board	Routinely
7.2	Bike Share		
	Working with the Parks and Public Spaces Committee, and partners such as the Shorewood BID and Shorewood Foundation, explore opportunities with Bublr Bikes to reestablish bike share service in the Shorewood.	Village Manager's Office	Mid-Term
7.3	Scooters		
	Working with the Parks and Public Spaces Committee, evaluate and consider possible regulations related to scooters, including the pros and cons of allowing commercial operations.	Planning and Development; Police Department	Short-Term

8.0 Legislation, Regulation and Funding Programs

Section	Recommendation	Responsible Parties	Time Frame
8.1	Legislation and Regulation		
	Review the existing Village Code for possible updates to traffic regulations that support the vision and goals of this plan, including those related to default speed limits, reckless driving, and riding bicycles on sidewalks.	Police Department; Parks and Public Spaces Committee	Short-Term
	Review and recommend possible updates to the allowance of recreational uses within alleys (Village Code § 466-30).	Parks and Public Spaces Committee	Short-Term
	Working with the Parks and Public Spaces Committee, review Village Code § 207-5, including to ensure it is consistent with ADA requirements, especially in regards to teens or adults who have disabilities.	Village Attorney	Short-Term
	Review and consider updates to the Village's "vision triangle" regulations around alley entrances and exits, and driveway approaches to enhance pedestrian safety, and make it less likely that pedestrians and other sidewalk users	Planning and Development Department	Short-Term

	will be struck by vehicles.		
	Review and update the Village's special privilege regulations, including policies related to parklets, outdoor seating and bicycle corrals.	Planning and Development Department	Short-Term
	Develop, adopt and enforce bicycle parking standards for all types of land uses within the village.	Planning and Development Department	Mid-Term
	Evaluate adoption of a "No Right Turn" when pedestrians are present ordinance for signal-controlled intersections within the Village.	Police Department	Short-Term
	Finalize and adopt a Complete Streets Policy as a primary recommendation of the Transportation and Parking Analysis and necessary component of this plan's implementation.	Planning and Development Department; Department of Public Works	Short-Term
	Working with the Parks and Public Spaces Committee, research, advocate for and/or consider the deployment of additional types of Automated Enforcement Systems, such as redlight camera systems, noise camera systems, and non-radar-based speed camera systems, particularly within school zones.	Police Department; Village Attorney; Village Board;	Short-Term
8.2	Funding Programs		
	When implementing plan recommendations, research and attempt to secure funding from all possible sources.	All	Routinely

9.0 Partnerships

Section	Recommendation	Responsible Parties	Time Frame
9.1	**Shorewood School District**		
	Identify the appropriate person(s) within the School District and St. Robert School to invite to regular meetings of the Parks and Public Spaces Committee and maintain that relationship on a routine basis.	Village Manager's Office	Short-Term; Routinely

	Encourage the School District to create a program to encourage more students to walk or bike to school.	Parks and Public Spaces Committee; School District	Short-Term
	Routinely measure the percentage of students who use active means of transportation to get to and from school and set goals to increase that percentage over time.	School District	Short-Term
	Reevaluate the Safe Routes to School program.	Parks and Public Spaces Committee; School District	Mid-Term
	Continue to partner with the Shorewood Recreation Department to hold an annual First Ride & Bike Rodeo event.	Police Department	Annually
	Continue to work with the school district on the administration of future crossing guard contracts to ensure their presence within Shorewood.	Police Department	Routinely
9.2	**Senior Resource Center**		
	Continue to utilize the Senior Resource Center and its programs to identify ways to improve mobility in Shorewood's senior community.	Parks and Public Spaces Committee	Routinely
9.3	**Shorewood Business Improvement District**		
	Maintain a strong relationship with the BID and its membership.	All	Routinely
	Work with the BID to promote Shorewood as a walking and biking destination.	Parks and Public Spaces Committee	Routinely
	Work with local businesses to ensure optimal pedestrian safety and access.	Planning and Development Department	Routinely
	Work with local businesses to ensure ample bicycle parking for customers and employees throughout the Village.	Planning and Development Department	Routinely
9.4	**Local Bike Advocacy Organizations**		
	Develop a relationship with local bike advocacy organizations and utilize their knowledge, connections and services to advance the local vision and goals of this plan.	Parks and Public Spaces Committee	Routinely

9.5	**University of Wisconsin-Milwaukee**		
	Develop and maintain a relationship with the University of Wisconsin-Milwaukee and their advocacy groups.	All	Routinely
	Identify opportunities for pedestrian and bicycle safety initiatives in high traffic areas between the village and campus, especially along the E. Edgewood Ave. corridor.	Planning and Development Department; Department of Public Works	Short-Term
	Promote Shorewood businesses to UWM staff and students and encourage them to ride bicycles or walk when visiting.	Parks and Public Spaces Committee, Shorewood Business Improvement District	Routinely

10.0 Education and Encouragement

Section	Recommendation	Responsible Parties	Time Frame
10.1	**Responsibilities and Opportunities**		
	Develop a marketing campaign related to education and encouragement of pedestrians and bicycle riders consistent with this plan that will be recognizable and can be utilized consistently through various media formats and outlets, possibly including a map.	Parks and Public Spaces Committee	Mid-Term
	Develop and utilize existing relationships to distribute messaging.	Parks and Public Spaces Committee	Short-Term; Routinely
	Identify opportunities to increase the Village's status level as Bicycle Friendly Community and advocate for their implementation.	Parks and Public Spaces Committee	Short-Term
10.2	**Special Events**		
	Continue to develop and promote activities within Shorewood that highlight and promote pedestrian, bicycle and other mobility activities.	Shorewood Business Improvement District; Police Department; School District; Parks and Public Spaces Committee	Routinely

11.0 Enforcement

Section	Recommendation	Responsible Parties	Time Frame
11.1	**Overview, Responsibilities and Capacity**		
	Design and construct infrastructure that naturally leads to higher levels of traffic regulation compliance.	Village Engineer; Public Works Department	Routinely
	Working with the Parks and Public Spaces Committee, research, advocate for and/or consider the deployment of additional types of Automated Enforcement Systems, such as redlight camera systems, noise camera systems, and non-radar-based speed camera systems, particularly within school zones.	Police Department; Village Attorney; Village Board	Short-Term
	Continue to invite the Police Department to Parks and Public Space Committee meetings (at least annually) to discuss pedestrian and bicycle-related issues.	Parks and Public Spaces Committee Staff Liaison	Routinely
	Forward Police Reports related to complaints or crashes involving pedestrians or bicycle riders to the Parks and Public Spaces Committee for its review and consideration of possible improvements or education efforts.	Police Department; Parks and Public Spaces Committee Staff Liaison	Routinely
	Perform periodic concentrated enforcement of issues that impact mobility concerns, such as traffic control, pro-actively and as requested.	Police Department	Opportunistic
	Provide education and marketing materials to officers regarding pedestrian and bicycle safety legislation and best practices.	Police Department	Routinely
11.2	**Snow Removal**		
	Regularly use Village marketing materials and outlets to educate the public regarding the clearing of sidewalks and its direct impact on pedestrian safety.	Police Department; Village Manager's Office	Routinely
	Ensure that sidewalks and pathways are reasonably and promptly cleared of snow and ice and that enforcement actions are taken against property owners who fail to do so.	Police Department	Routinely

	Ensure the Village has sufficient and appropriate equipment and staffing levels (or contractual arrangements) to ensure that snow and ice removal is accomplished for all users including bicyclists and pedestrians, not just motor vehicles.	Department of Public Works; Village Board	Annually
	Ensure that the Village's senior community is given the proper assistance after inclement weather either by offering volunteer services or a list of local contractors.	Senior Resource Center	Routinely
11.3	**Bicycles on Sidewalks**		
	Work with partnerships to provide periodic education on the rules related to riding bicycles on sidewalks and the risks posed by doing so.	Parks and Public Spaces Committee	Periodic
	Enhance the visibility of existing painted sidewalk signs through regular maintenance or consider more effective placements or designs.	Department of Public Works; Parks and Public Spaces Committee	Periodic

12.0 Village Processes

Section	Recommendation	Responsible Parties	Time Frame
	Perform annual reviews of this plan to identify and prioritize projects within budgets and work plans.	Village Manager's Office; Department of Public Works; Planning and Development Department; Police Department; Parks and Public Spaces Committee	Annually
	Finalize and adopt a Complete Streets Policy as a primary recommendation of the Transportation and Parking Analysis and necessary component of this plan's implementation.	Planning and Development Department; Public Works; Village Board	Short-Term
	Review and update Policy 43 Traffic and Parking Regulation Request Program with respect to the vision, goals and recommendations outlined in this plan.	Planning and Development Department; Public Works; Village Board	Short-Term
	Develop a Traffic Calming Program to consider the installation of temporary and/or permanent infrastructure to enhance safety for all users.	Planning and Development Department; Department of Public Works	Mid-Term

	Develop a system, such as an online map or comment form, where concerns related to pedestrian, bicycle or mobility needs can be submitted and reviewed periodically.	Planning and Development Department; Public Works	Mid-Term

13.0 Recommended Improvements at Site Specific Locations

Section	Recommendation	Responsible Parties	Time Frame
13.1	**Intersection of E. Capitol Dr. and N. Oakland Ave., with particular attention to pedestrian, bicycle and mobility issues**		
	Work with WisDOT to redesign the intersection to be less car centric.	Village Engineer; Department of Public Works	Mid-Term
	Work with WisDOT to evaluate the possible elimination of excessive travel and turn lanes, including the southbound slip lane.	Village Engineer; Department of Public Works	Mid-Term
	Work with WisDOT to evaluate opportunities for better protecting pedestrians and bicyclists through this intersection, including a possible protected or "Dutch-style" intersection or roundabout.	Village Engineer; Department of Public Works	Long-Term
13.2	**Intersection of N. Oakland Ave. and E. Edgewood Ave., which is jointly controlled with the City of Milwaukee**		
	Work with the City of Milwaukee to design and construct high-quality bicycle and pedestrian infrastructure at the intersection, including traffic calming devices.	Village Engineer; Department of Public Works	Long-Term
	Work with the City of Milwaukee, Milwaukee County Parks and the Parks and Public Spaces Committee to identify and design preferred pathway to guide pedestrians, bicyclists and other mobility device users from E. Edgewood Ave. to the Oak Leaf Trail.	Village Engineer; Department of Public Works	Mid-Term
	Working with the Parks and Public Spaces Committee, consider the removal of excess surface and on-street parking to prioritize pedestrians, bicyclists, other mobility device users, and transit riders.	Village Engineer; Department of Public Works	Mid-Term
	Evaluate the potential for bicycle signals, signage and high-quality pavement markings at and within the intersection.	Village Engineer; Department of Public Works	Long-Term

	Work with MCTS to evaluate bus stop locations within this intersection and confirm if "far-side" transit stops are preferred.	Village Engineer; Department of Public Works	Short-Term
13.3	**School Zones adjacent to Shorewood High School and Shorewood Intermediate School**		
	Consider the installation of curb extensions (namely at E. Capitol Dr. and N. Morris Blvd., and N. Oakland Ave. and E. Shorewood Blvd.), raised intersections and possible turning or travel restrictions at intersections within school zones.	Village Engineer; WisDOT; Department of Public Works	Mid-Term
	Evaluate options related to restricting vehicular and pedestrian access at non-signalized intersections, as well as median barriers, such as low fencing, and traffic calming or road diet possibilities.	Village Engineer; WisDOT; Department of Public Works	Mid-Term
	Ensure all school zones are properly signed, including N. Oakland Ave.	Department of Public Works	Short-Term
	Evaluate the addition of another crosswalk ahead sign and beacon approximately 100 ft. ahead of the current signs and beacons at E. Capitol Dr. and N. Newhall St.	Department of Public Works	Short-Term
	Consider installing "over the street" school zone electronic message boards on E. Capitol Dr. and N. Oakland Blvd.	Village Engineer; WisDOT; Department of Public Works	Short-Term
13.4	**"West Capitol" – E. Capitol Dr. from the Milwaukee River to N. Oakland Ave.**		
	Consider traffic calming and road diet interventions, as well as improved bicycle facilities.	Village Engineer; WisDOT; Department of Public Works	Long-Term
	Evaluate the addition of another crosswalk ahead sign and beacon approximately 100 ft. ahead of the current signs and beacons at E. Capitol Dr. and N. Estabrook Pkwy.	Department of Public Works	Short-Term
	Work with owners of Culver's to slow vehicles exiting the property and increase the visibility and safety of pedestrians and bicyclists.	Planning and Development Department	Short-Term
13.5	**Metro Market**		
	Evaluate opportunities to better incorporate the big box store into the pedestrian environment of the business district.	Planning and Development Department	Short-Term

	Evaluate the addition of another crosswalk ahead sign and beacon approximately 100 ft. ahead of the current signs and beacons at N. Oakland Ave. and E. Jarvis St.	Village Engineer; Department of Public Works	Short-Term
	Consider the addition of a median refuge islands within adjacent crosswalks, as well as “state law, yield to pedestrians” signage within the roadway.	Village Engineer; Department of Public Works	Short-Term
	Continue to evaluate opportunities to reduce conflicts at both the north and south entrances to the Metro Market parking structure.	Village Engineer; Department of Public Works; Planning and Development Department	Routinely
	Working with the Parks and Public Spaces Committee, encourage the Metro Market to better activate their storefront to create a more vibrant and pedestrian-friendly environment, including re-activating the mid-block entrance/exit, adding an entrance/exit at the corner of N. Oakland Ave. and E. Kenmore Place, and working to create a lively outdoor dining and drinking space.	Planning and Development Department	Short-Term