BENSENVILLE
ACTIVE TRANSPORTATION PLAN

MARCH 2016

ACTIVE TRANSPORTATION ALLIANCE

ACTIVE TRANSPORTATION PLAN *for* Bensenville

Acknowledgements

ACTIVE TRANSPORTATION PLAN STEERING COMMITTEE

This plan represents the combined vision and goals of the steering committee that guided its development as well as residents and other key stakeholders. Thank you to these residents and the members of the steering committee for donating time to this project.

STEERING COMMITTEE MEMBERS:

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Todd Finner, Village of Bensenville

Rosie Garcia, Bensenville School District 2

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Kathie Pierce, Fenton High School

Rick Robbins, Bensenville Park District

Phyllis Schmidt, Bensenville Park District

Jim Stelter, Bensenville School District 2

Dan Thomas, DuPage County Department of Transportation

ABOUT B WELL BENSENVILLE:

A community-wide initiative whose goal is to encourage Bensenville's young people and families to achieve healthier lifestyles by promoting the activities and resources available within our own community.

Visit: http://www.bwellbensenville.com/

ABOUT THE CONSULTANTS

The mission of Active Transportation Alliance is to make bicycling, walking, and public transit so safe, convenient, and fun that we will achieve a significant shift from environmentally harmful, sedentary travel to clean, active travel. We advocate for transportation that encourages and promotes safety, physical activity, health, recreation, social interaction, equity, environmental stewardship, and resource conservation.

We are both Chicagoland's voice for better biking, walking, and transit and a premier consultancy. Our staff includes planning, policy, and education experts who developed many of the best practice programs and recommendations included in this plan. By partnering with us on this project, you not only get the best plan possible, you also support our mission to improve active transportation throughout the Chicagoland region.

ACTIVE TRANSPORTATION ALLIANCE PROJECT TEAM

Jacque Henrikson

Heather Schady

INTRODUCTION

Active Transportation Plan for Bensenville

Improving options for biking, walking and transit in the Village.

1

1.1 A Vision of Active Transportation

The Village of Bensenville strives to foster a spirit of active living in all of its residents through the planning, design, and implementation of an active transportation network. By improving transportation options for all residents to local and regional destinations Bensenville will help residents lead a healthier lifestyle, improve their quality of life, and enable them to access local and regional destinations on foot or by bike.

The Village of Bensenville is a vibrant, diverse, and emerging community located on the eastern edge of DuPage County. With a population of nearly 20,000, it boasts a mix of local and regional retail shopping areas, quiet residential streets, attractive parks, and industrial land uses. Recently, it has begun to focus its efforts on community wellness by creating health-focused policies, systems, and changes to the environment. As such, its recently completed streetscape project on Irving Park road has created a more attractive and inviting pedestrian environment and a shared used path that is under development on Church Road will provide better bicycle and pedestrian connectivity on the south side of town.

To build on that momentum, the Village is now looking to develop a network of bicycle and pedestrian facilities that will enable people to travel throughout the community on foot or by bike. This plan provides a framework for Bensenville planners and engineers to develop a complete network of streets and sidewalks that serve the needs of active transportation users; design recommendations for bicycle and pedestrian facilities and programs; and policies that will create and sustain a culture of walking and biking among Bensenville residents and visitors alike.

1.2 Active Transportation Plan Goals

The Bensenville Active Transportation Plan provides practical recommendations to support livability in the Village. These recommendations will help it focus transportation investments on the places that matter to the community. The plan also communicates the Village's priorities to regional and state transportation entities like the Illinois Department of Transportation (IDOT), Metra, Pace, the DuPage County Division of Transportation, and the Cook County Department of Highways and Transportation. The following goals guided the development of this plan.

EXISTING CONDITIONS

Analyze existing and planned conditions and solicit input from the community to determine the community's active transportation needs and opportunities for healthy and active living. This goal will address the following objectives:

OBJECTIVE: ONE

Review health and demographic datasets to determine opportunities for equitable transportation improvements.

OBJECTIVE: TWO

Gain insight into transportation challenges from members of the community.

OBJECTIVE: THREE

Assess existing roadway conditions to recommend safety improvements for active transportation users.

NETWORK

Identify a robust network of streets and trails that can be enhanced through infrastructure improvements to prioritize the use of active transportation and facilitate a healthier built environment. This goal will address the following objectives:

OBJECTIVE: ONE

Develop a healthy and equitable active transportation network that connects all residents to local destinations and regional trails.

OBJECTIVE: TWO

Build a bicycle network that is accessible and safe for people of all ages and abilities to encourage a healthy and active lifestyle.

OBJECTIVE: THREE

Install facilities and amenities that enhance the environment in pedestrian priority areas and complete gaps in the sidewalk network.

TOOLBOX

Develop a comprehensive list of pedestrian and bicycle infrastructure improvements necessary to create a complete active transportation network and encourage active living for all residents. This goal will address the following objectives:

OBJECTIVE: ONE

Create a context-specific, diverse, and comprehensive list of bike facilities.

OBJECTIVE: TWO

Develop a complete context-specific list of pedestrian facilities.

OBJECTIVE: THREE

Develop a list of strategies for intersection improvements that facilitate active forms of travel.

POLICIES & PROGRAMMING

Create a list of health-focused policies and programs to be implemented that facilitate and support the use of active transportation in Bensenville. This goal will address the following objectives:

OBJECTIVE: ONE

Adopt policies that support the design and development of roadways that encourage the use of active transportation.

OBJECTIVE: TWO

Adopt development and zoning code provisions that support bicycle and pedestrian friendly development patterns that are less auto-dependent.

OBJECTIVE: THREE

Create programs that educate all users of the road of their right and responsibilities.

OBJECTIVE: FOUR

Engage local residents in encouragement activities designed to get more people to walk and bike.

OBJECTIVE: FIVE

Partner with law enforcement to promote safe travel behaviors on local streets.

OBJECTIVE: SIX

Seek League of American Bicyclists “Bicycle Friendly Community” status.

OBJECTIVE: SEVEN

Adopt this plan.

IMPLEMENTATION

Construct a framework for implementing the plan that addresses project cost, complexity, partners, and phasing. This goal will address the following objectives:

OBJECTIVE: ONE

Implement network, policy, and program recommendations.

OBJECTIVE: TWO

Coordinate with agencies affected by the implementation of this plan.

OBJECTIVE: THREE

Develop a series of metrics to measure progress of the plan.

OBJECTIVE: FOUR

Strategically pursue funding for implementation of projects identified on locally controlled roads in this plan.

1.3 Benefits of Active Transportation

There are countless reasons for communities to support active transportation use.

HEALTH: Walking and biking are easy, affordable and convenient ways to not only get exercise, but also to travel. With sedentary lifestyles and obesity on the rise, promoting walking and biking is more important than ever. People are encouraged to get at least 30 minutes of physical activity per day, which can easily be achieved by substituting one short car trip with a trip on a bike or on foot.

SAFETY: Active transportation facilities have safety benefits for all roadway users. Many of the built environment changes that support biking have positive safety benefits for all roadway users by creating a safe place for cyclists, and by encouraging more cautious driver behavior though complete design.

ECONOMIC: Walking and biking are an affordable way to travel. The cost to an individual who owns, maintains and drives a car on a regular basis is about 12 times higher than transportation costs for a person who relies on biking. A complete and well-connected bicycle and pedestrian network also has a positive effect on property values and local spending.

SOCIAL: People who walk and bike have more opportunities to connect with each other. More connections encourage people to be active, happy and socially engaged.

ENVIRONMENTAL: Shifting motor vehicle trips to walking, biking or transit reduces greenhouse gas emissions and contributes to cleaner air.

TRANSPORTATION: Walking and biking are more than just recreational activities. They are transportation. For certain trips, such as travelling to a local park, biking can be faster than driving. Biking provides a transportation option for people of all ages and abilities. Approximately one third of all Americans do not drive. Older adults, children, people with disabilities, and low-income residents also need a way to get around. They depend on walking, biking and transit for their transportation needs.

BICYCLING IN BENSENVILLE

1.4 Planning Process

This plan is the result of a six-month process to create community-supported recommendations and priorities. Active Transportation Alliance and the community created the following process to ensure that the Active Transportation Plan reflects the goals and visions of Bensenville.

RESIDENTS PROVIDING VALUABLE FEEDBACK ON BICYCLING AND WALKING IN BENSENVILLE AT A COMMUNITY MEETING

1.4.1 ESTABLISHED A STEERING COMMITTEE

The B-Well Bensenville Youth Coalition, DuPage County, and the Bensenville Chamber of Commerce represented stakeholders in the community and the interests of residents, businesses, agencies, and organizations that serve the municipal community. They guided the work of the consultants as they fashioned public input, field research, and data analysis into a prioritized list of infrastructure, policy, and program recommendations. Their time, insight, and unique and informative perspectives shaped the recommendations included in this plan. A complete list of steering committee members is available in the Acknowledgements section of this plan. Steering committee members contributed to the development of the plan in the following ways:

Developed the vision and goals for the plan

Identified planned and existing bicycle and pedestrian projects.

Engaged the communities they represented in the planning process by distributing information about meetings and events for this plan, posting electronic flyers on their organization's websites, and distributing flyers and links to an online survey.

Reviewed the research and recommendations made by the consulting team to ensure that the plan was reflective of their group's priorities for bicycling.

1.4.2 ENGAGED THE PUBLIC

The consultant team also conducted an existing conditions analysis which involved creating a system of maps to analyze bicycle crashes, existing and planned bicycle and pedestrian infrastructure, roadway jurisdiction, roadway width, average daily traffic, and local and regional transportation plans. Using this analysis, the consultants developed a draft network of bicycle and pedestrian priority streets and recommended context sensitive design solutions for Bensenville to implement. Based on public engagement and Coalition feedback the project team also prepared policy, program, and implementation recommendations. The B-Well Bensenville Coalition reviewed the recommendations and provided valuable feedback that guided the final plan.

1.4.3 DEVELOPED A DEEP UNDERSTANDING OF THE COMMUNITY AND ITS TRANSPORTATION NETWORK

The consultant team also conducted an existing conditions analysis which involved creating a system of maps to analyze bicycle crashes, existing and planned bike infrastructure, roadway jurisdiction, roadway width, average daily traffic, and local and regional transportation plans. Using this analysis and a toolbox of best practices in bicycle design the consultants prepared a draft network recommendation of bicycle infrastructure in the Village. Based on public engagement and Steering Committee feedback the consultants also prepared policy, program and implementation recommendations. The Steering Committee reviewed the recommendations and provided valuable feedback that guided the final plan.

MAPPING RESULTS from tabling for the plan at a Music in the Park community event

TABLING at the Annual Walkathon to gain community insight on biking and walking in Bensenville

MEMBERS OF THE COMMUNITY Bicycling to the Walkathon

1.5 How to Use This Plan

This plan is organized into chapters based on the goals, objectives and recommendations for improving active transportation in Bensenville.

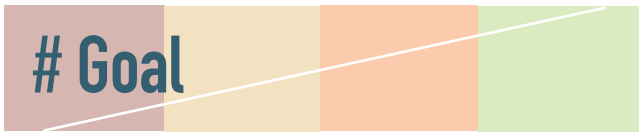
Goals to achieve a vision of active transportation in Bensenville guide the plan. Within each chapter there are several objectives that support the chapter's goal. And for each objective there are recommendations, actions or specific strategies and tools that can be used to reach it.

VISION: A statement about the future of walkability and bikeability in the community

GOALS: Areas of focus for achieving the community's vision

OBJECTIVES: Specific ways to achieve the community's vision

STRATEGIES: Projects the community can complete to achieve its goals



Objective

RECOMMENDATION/ ACTION

TOOL/STRATEGY


18

EXISTING CONDITIONS

Active Transportation in Bensenville Today

Analyze existing and planned conditions and solicit input from the community to determine the community's active transportation needs..

2

Chapter 2 Overview

To better understand the community prior to preparing recommendations the project team conducted an existing conditions analysis. This analysis identifies barriers to biking, walking and transit in the community as well as opportunities. It helps the Village identify priorities for improvements and priority populations that are most in need of better facilities.

OBJECTIVE: ONE

Review health and demographic datasets to determine opportunities for equitable transportation improvements.

OBJECTIVE: TWO

Gain insight into transportation challenges from members of the community.

OBJECTIVE: THREE

Assess existing roadway conditions to recommend safety improvements for active transportation users.

The project team used the below methodology to create the existing conditions report:

Assembled a Steering committee of community experts and stakeholders

Reviewed Village code and developer guidelines

Conducted on-bike fieldwork to gain first-hand observational on-the-ground information on what it's like to walk and bike in Bensenville

Community engagement: survey, community meetings, outreach at Village events

GIS analysis of Illinois Department of Transportation roadway and crash data

Demographic Census analysis

2.1.1 REGIONAL CONNECTIONS

Currently Bensenville does not connect to any regional trails or shared use paths. However, as displayed on the Regional Trail Connections map, there are greenways in neighboring communities that Bensenville could choose to connect to in the future. Of particular note is the Salt Creek Trail to the west. The Elgin O'Hare Western Access expansion project could provide an opportunity to connect Bensenville to this regional trail via a shared use path. An assessment of the Village's bike paths conducted in 2011 found that Bensenville doesn't have any on-street bike lanes or signed bike routes. The study recommended creating more bike paths and taking a regional approach to connecting to the large county-wide system.

2.1.2 JOURNEY TO WORK

Bensenville has a high vehicle mode split – nearly 90% of residents drive to work. Only 4% of people commute to work by public transportation, which is fairly low compared to other areas in the US. Despite the high number of people driving, according to 2009-2013 US Census data compiled by Impact DuPage, the average commute time for Bensenville residents is 27.9 minutes, which is much higher than averages reported by most U.S. counties.

Almost 6% of households in the 60106 zip code do not own cars. According to Impact DuPage, this is important because it limits residents' access to services such as grocery stores, post office, health clinics, and employment centers.

TABLE 2A JOURNEY TO WORK

Means of Transportation	Percent
Car, truck or van	88.8
Public transportation	4
Walked	4
Worked at home	2.9
Taxicab, motorcycle or other means	0.3
Bicycle	0

2.1.3 HEALTH AND PRIORITY POPULATIONS

Bensenville has a high number of priority populations, which should be considered as the Village moves forward with recommendations included in this plan. These populations are the least likely to have access to a car, and often depend on walking, biking, and transit as a primary mode of transportation.

As displayed in the table below[1]:

Four out of the five census tracts in Bensenville have 14.6% of people or greater living below the poverty level, with almost 25% for one of the tracts.

All the Census tracts have at least 32% or more Hispanic population. One of the tracts has almost 60% Hispanic population. Almost half of all residents speak a language other than English in their home.

Almost 20% of households in Bensenville have a household income below $25,000, which is the highest rate in DuPage County.

Almost half of all housing serves low-income residents in multiunit housing.

Almost half of all Bensenville residents are Hispanic

1 2010 Census, +American Community Survey 2008-2012

According to surveys, Bensenville residents are not getting sufficient physical activity.[2] In 2011, 19% of adults 20 and older self-reported no leisure-time activity. In 2014, only 22% of tenth graders reported getting the recommended 60 minutes of physical activity per day.[3]

2 CDC – National Center for Chronic Disease Prevention and Health Promotion, 2012

3 2014 Illinois Youth Survey Data

TABLE 2B PRIORITY POPULATIONS

Census Tract	Population	Percent Below Poverty Level	Percent with no High School Diploma by Age 25+	Percent Hispanic
Census Tract	Population	Pop Below the Poverty Level	Pop with no high school diploma by age 25+	Hispanic
8400	2,999	14.60%	36.30%	59.30%
8408.02	5,848	16.40%	25.10%	44.80%
8408.01	2,382	20.10%	29.30%	50.70%
8407.04	3,258	24.70%	19.50%	47.40%
8407.03	3,898	7.90%	7.70%	32%
	Average all tracts	16.74%	23.58%	46.84%

2.1.4 PREVALENT LAND USE

1,150 business are located in Bensenville and it has one of the largest industrial parks in Illinois. Almost 36% of land is zoned for industrial use.

2.1.5 DEMONSTRATED NEED

According to the B-Well Bensenville team project analysis, 37% of Blackhawk Middle School walk to school. However, within 1.5 miles of the school, there were 4 crashes involving pedestrians or cyclists and over 500 speeding violations from January 2011 to December 2013. There are dangerous pedestrian crossings along Church Road for students near this school and a demonstrated need for more sidewalk facilities.

2.1.6 DESTINATIONS

More than 200 residents and other stakeholders responded to an English and Spanish online survey, which was also provided in paper format. Top destinations that respondents reported wanting to reach by walking and biking were parks and forest preserves, Metra station, downtown/main business district and other bike facilities. A few respondents in the write-in option mentioned connections to trails in parks and forest preserves. Other key destinations mentioned by the steering committee include the ice arena, grocery stores, the library, schools and the pool.

2.1.7 PEDESTRIAN ISSUES

More than 80% of survey respondents answered that Bensenville is either "very walkable," or "moderately walkable." Sidewalk improvements are a high priority. When asked to select priorities for pedestrian improvements in Bensenville, 28% ranked install missing sidewalks as a top priority and 27% ranked repair cracked, broken or inadequate sidewalks as a top priority. Specific improvements were written in by 44 respondents as open-ended "other" options. These respondents mentioned that cars often block sidewalks by parking on them. A few also mentioned improvements in safety regarding crime. Almost 40% of respondents reported lack of sidewalks and other facilities as a barrier to walking more often in Bensenville, 17% mentioned unsafe intersections and 17% mentioned bad lighting.

2.1.8 BICYCLE ISSUES

Bensenville is moderately bikeable, according to 50% of survey participants. When asked to rank priorities for bicycle improvements, almost 30% chose installing bike paths or routes along major streets as a top priority, almost 20% said build new paths and trails in parks and forest preserves and almost 20% said install bike paths or routes through neighborhoods. Over twenty respondents selected "other," and wrote in comments about creating regional trail connections, particularly to the Salt Creek Trail. Respondents also repeatedly mentioned improving dangerous crossings such as Irving Park Road and Route 83. Over 40% of respondents noted that lack of sidewalks and other facilities are a barrier to bicycling and 25% noted unsafe intersections as a barrier. Over thirty respondents also wrote-in answers for this question. Many mentioned that broken and non-existent sidewalks are a barrier.

2.1.9 TOP STREETS FOR IMPROVEMENT

Survey respondents indicated streets that are most in need of improvements to make biking and walking safer in Bensenville. Streets often mentioned include: Church Road (39), York Road (36), Irving Park Road (22), Jefferson Street (14), Grand Avenue (13), Green Street (13), and Route 83 (11). Lack of or in poor condition sidewalks were cited as important issues almost forty times in these open-ended responses. Respondents also flagged unsafe crossings and intersections on these roadways. Several respondents mentioned a lack of sidewalks near schools, specifically Johnson School. Additionally, the steering committee recommended improved facilities on Hillside Drive between Route 83 and Church Road.


CENTRE

ACTIVE TRANSPORTATION NETWORK

3

Network Goal

Identify a robust network of streets and trails that can be enhanced through infrastructure improvements to prioritize the use of active transportation.

Chapter 3 Overview

The plan identifies a network of priority streets for the inclusion and/or enhancement of pedestrian and bicycle facilities. Once constructed, people of all ages and abilities will be able to access destinations on foot and by bike both inside and outside of the community. As the Village of Bensenville works to maintain and improve the streets in this network, this section should be referenced to ensure that, wherever possible, adequate bicycle and pedestrians facilities are constructed. See Chapter 4 for additional guidance on bicycle and pedestrian facility design.

OBJECTIVE: ONE

Develop a healthy and equitable active transportation network that connects all residents to local destinations and regional trails.

OBJECTIVE: TWO

Build a bicycle network that is accessible and safe for people of all ages and abilities to encourage a healthy and active lifestyle.

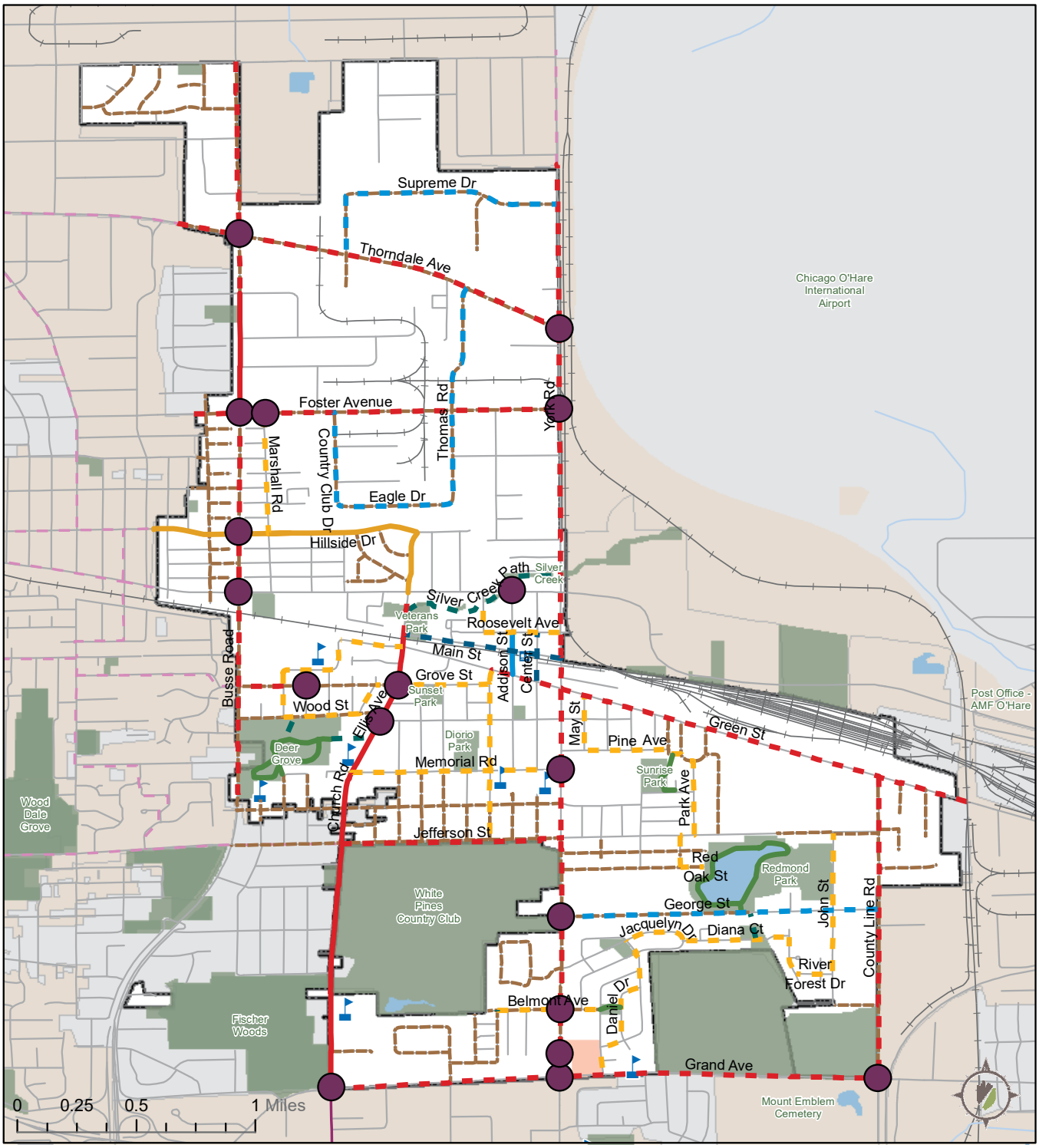
OBJECTIVE: THREE

Install facilities and amenities that enhance the environment in pedestrian priority areas and complete gaps in the sidewalk network.

3.1 Active Transportation Network

Objective: Develop a healthy and equitable active transportation network that connects all residents to local destinations and regional trails.

The proposed active transportation network for the Village of Bensenville will include on- and off-street bicycle facilities, a complete network of sidewalks, and enhanced intersections for a low-stress walking and biking experience. The map on teh following page depicts the full recommended active transportation network for the Village of Bensenville. Bicycle priority streets are those that make up the recommended bicycle network, and pedestrian priority streets are areas with high pedestrian activity that would benefit from additional enhancements or areas that are currently lacking safe accommodations for people on foot. Specific corridor recommendations are detailed in the remaining sections of this chapter.



Proposed Active Transportation Network

- CrossingImprovements
- Bike Boulevard, Programmed
- Bike Boulevard, Planned
- Bike Lane, Planned
- Marked Shared Lanes, Programmed
- Marked Shared Lanes, Planned
- Path, Existing
- Path, Planned
- Shared Use Path, Programmed
- Shared Use Path, Planned
- Sidewalk Gaps
- Bike Route, Existing
- Bike Route, Planned

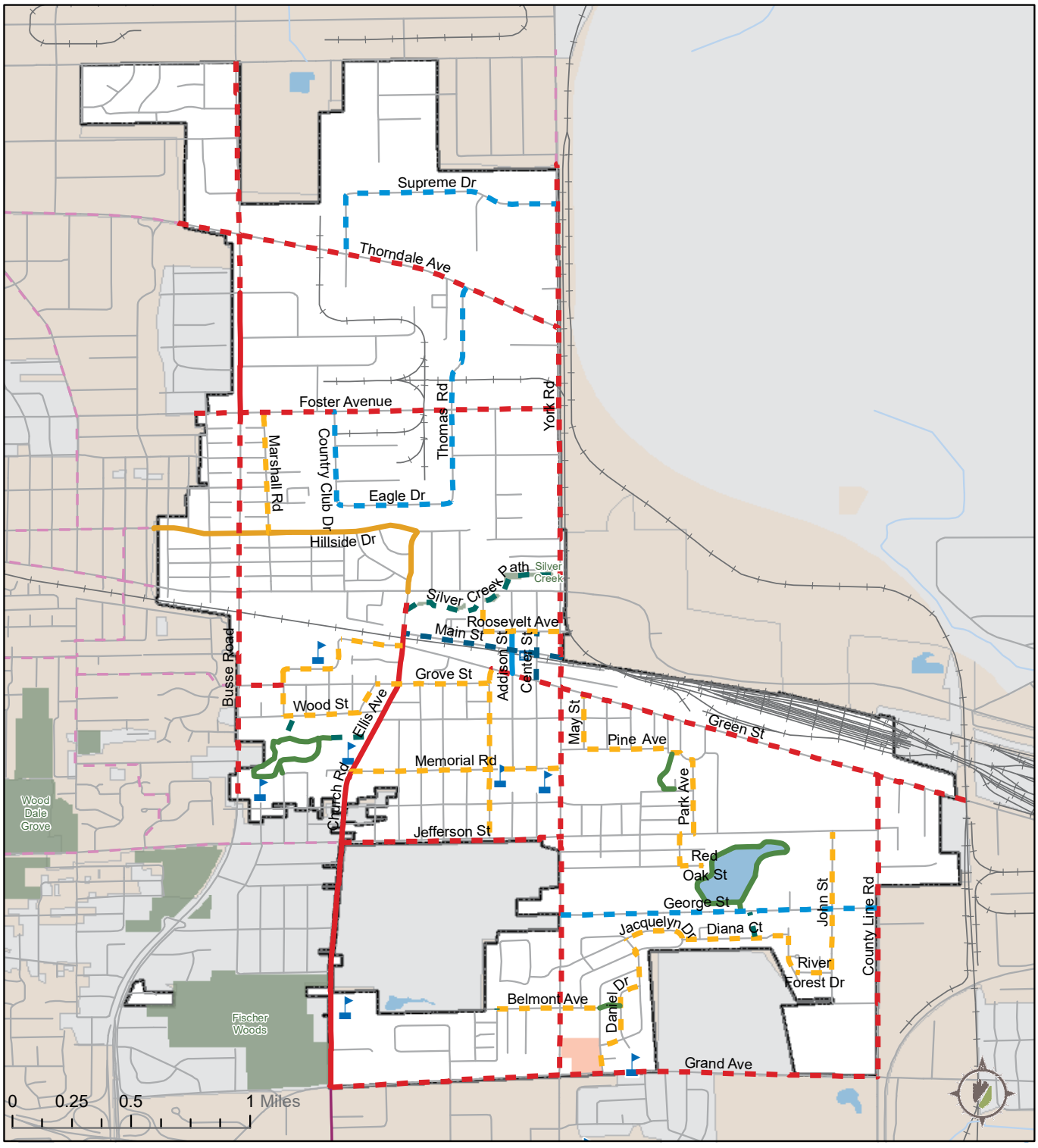
3.2 Bicycle Network

Objective: Build a bicycle network that is accessible and safe for people of all ages and abilities to encourage a healthy and active lifestyle.

Bensenville's proposed bicycle network is designed to provide a low-stress experience for people to access destinations both within and outside of the community. It features a combination of off-street shared use paths on roads with a high traffic volume, and bike lanes and bike boulevards on residential streets with a low vehicle volume. On the following page is a map of the full proposed bicycle network for Bensenville.

3.2.1 BIKEWAYS

A variety of bikeways are recommended for the Village of Bensenville, both on- and off-street. The following section breaks out the bikeways by facility type and includes maps of each. Design specifications for each facility type are included in Chapter 4.



Bike Network Recommendations

- Bike Boulevard, Programmed
- Bike Boulevard, Planned
- Bike Lane, Planned
- Marked Shared Lanes, Programmed
- Marked Shared Lanes, Planned
- Path, Existing
- Path, Planned
- Shared Use Path, Programmed
- Shared Use Path, Planned

BIKE BOULEVARDS

Bike boulevards are streets with limited vehicle traffic that prioritize bike travel through traffic calming, wayfinding, and vehicle diversion. The goal is to create a low-stress experience for cyclists riding in traffic. When completed, the network will provide bikeways through Bensenville's residential areas and create alternative routes to busier streets in the community. This plan includes recommendations for five bike boulevard routes:

ROUTE 1 (PROGRAMMED): While the majority of Church Road is recommended to include a shared use path, the road has significantly less traffic to the north of Irving Park Road. Here, the Village can install a bike boulevard that continues onto Hillside Drive. This route is programmed and will be installed sometime in 2016.

ROUTE 1 (PLANNED): Continuing Route 1 on Marshall Road from Hillside to Foster will help provide a low-stress, on-street connection to the northern part of the community.

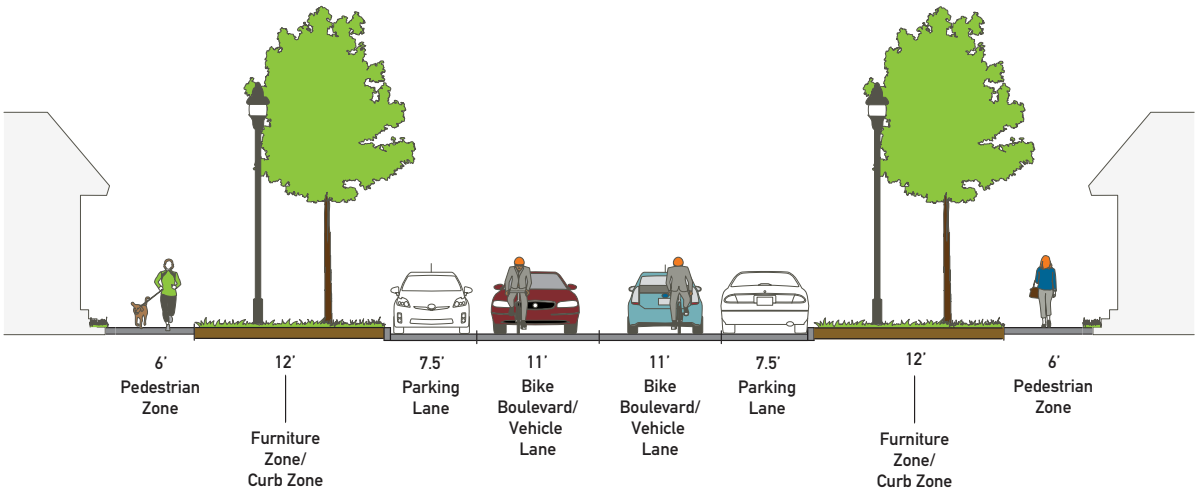
ROUTE 2: Travels through the heart of many of Bensenville's residential areas, and connects to Fenton High School and Deer Park. To implement this route, the Village will need to coordinate with Fenton High School, as part of the suggested improvements are located on its access roads. Additional study should be conducted to determine the feasibility of this recommendation.

ROUTE 3: Provides access to Sunrise Park and could be used as an alternate route to York Road. Like Route 1, it consists primarily of residential streets with multiple driveway curb cuts, with the exception of May Street, which has alleys.

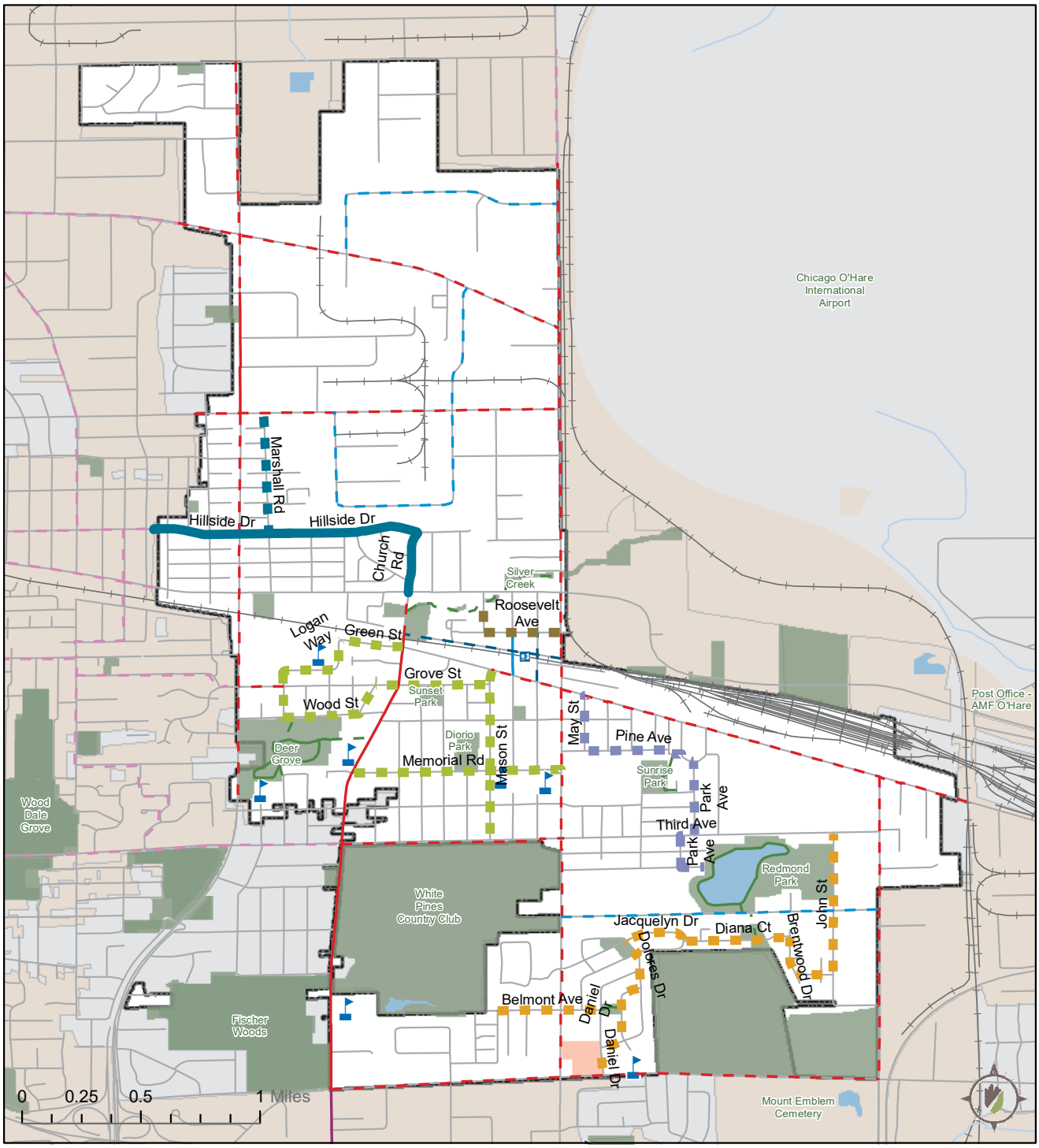
ROUTE 4: Connects the community to the new Jewel on York Road and to Redmond Park. The route consists primarily of residential streets with multiple driveway curb cuts, which may make additional traffic calming improvements difficult to install.

ROUTE 5: Creates a connection from downtown Bensenville to the proposed path along Silver Creek. It would serve as a useful alternative for cyclists who wish to visit businesses on Irving Park Road.

The Village of Bensenville should implement the routes in groups, and begin by installing wayfinding signage and marked shared lanes on these roads. As bicycle traffic increases over time, the Village should conduct a study to determine which, if any, traffic calming and diversion features can be added. Examples could include speed humps, diverters, mini- roundabouts, bump-outs, 20 mph speed limits, and choke points. Consideration should be given to the large number of residential driveways and already limited street connectivity along the recommended bike boulevards. Additional specifications are included in Chapter 4. Refer to Chapter 6 implementation recommendations for each route.



ABOVE
Example of a bike boulevard cross section on a typical Bensenville street.



Proposed Bike Boulevards

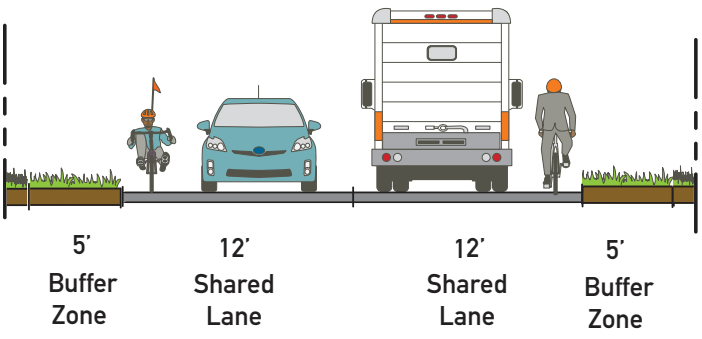
- Route 1, Planned
- Route 1, Programmed
- Route 2, Planned
- Route 3, Planned
- Route 4, Planned
- Route 5, Planned
- Bike Lane, Planned
- Marked Shared Lanes, Programmed
- Marked Shared Lanes, Planned
- Path, Planned
- Shared Use Path, Programmed
- Shared Use Path, Planned

MARKED SHARED LANES

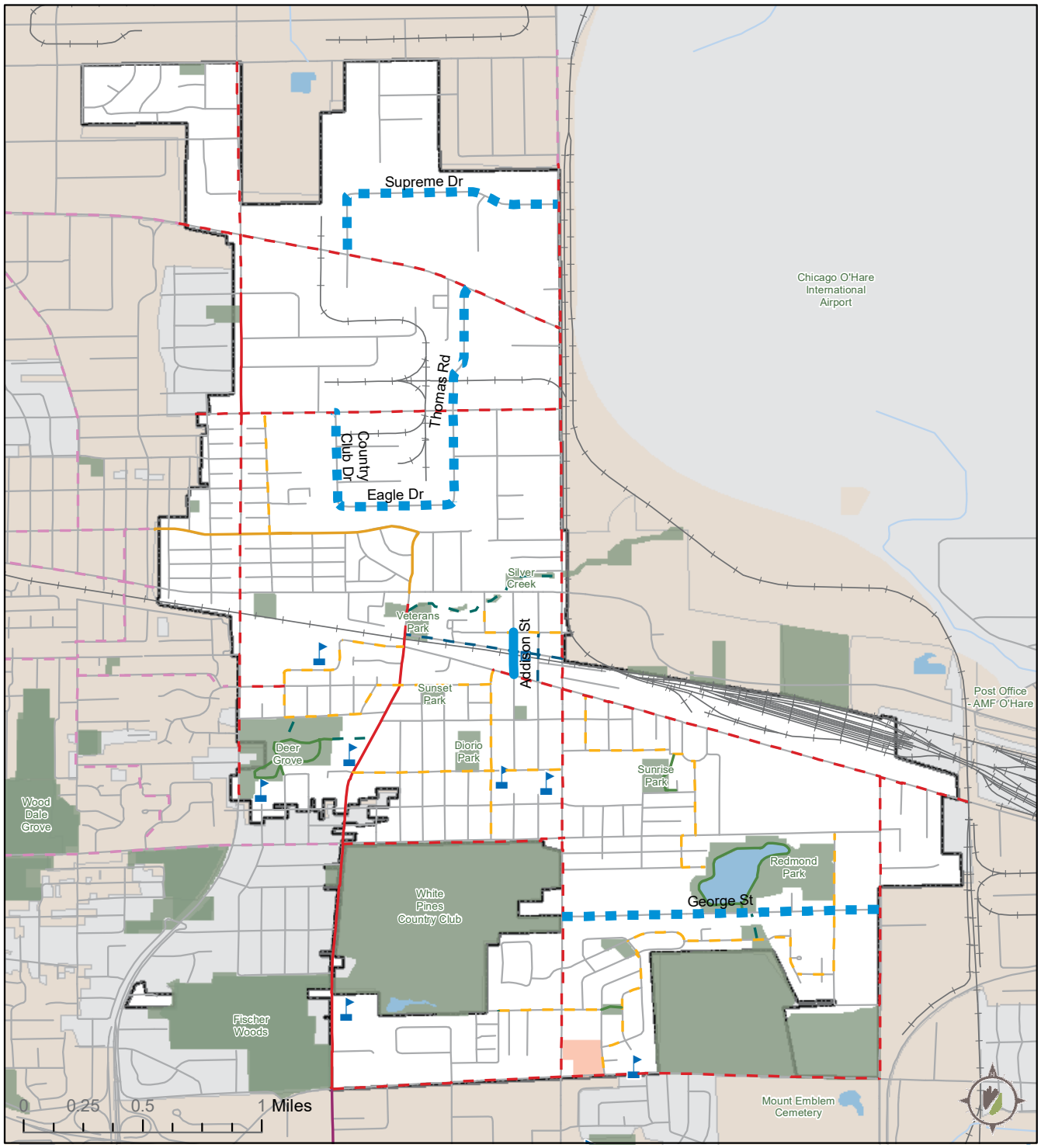
Marked shared lanes help drivers expect and accept cyclists in the street, and the markings encourage drivers to pass bicyclists with caution at an acceptable distance. For bicyclists, marked shared lanes encourage legal behavior, such as riding on the street with traffic, and raise cyclists' comfort levels, helping them ride more predictably and safely. Shared lane marking are most commonly found on streets with a minimum 13' travel lane, but can be used on narrower streets to raise awareness of cyclists.

The streets recommended for marked shared lanes in this plan are focused in the north industrial area. Installing marked shared lanes will help cyclists who bike to work in these areas and serve as a reminder to drivers that cyclists may be on the roads in the area. If future redevelopment occurs, the Village should consider installing bike lanes instead of marked shared lanes. The roads recommended for this treatment include:

- ADDISON STREET
- SUPREME DRIVE
- THOMAS ROAD
- EAGLE DRIVE
- GEORGE STREET
- COUNTRY CLUB DRIVE



ABOVE
Example of a marked shared lane cross section on a typical Bensenville street.



Proposed Marked Shared Lanes

- Marked Shared Lanes, Programmed
- Marked Shared Lanes, Planned
- Bike Boulevard, Programmed
- Bike Boulevard, Planned
- Bike Lane, Planned
- Path, Existing
- Path, Planned
- Shared Use Path, Programmed
- Shared Use Path, Planned

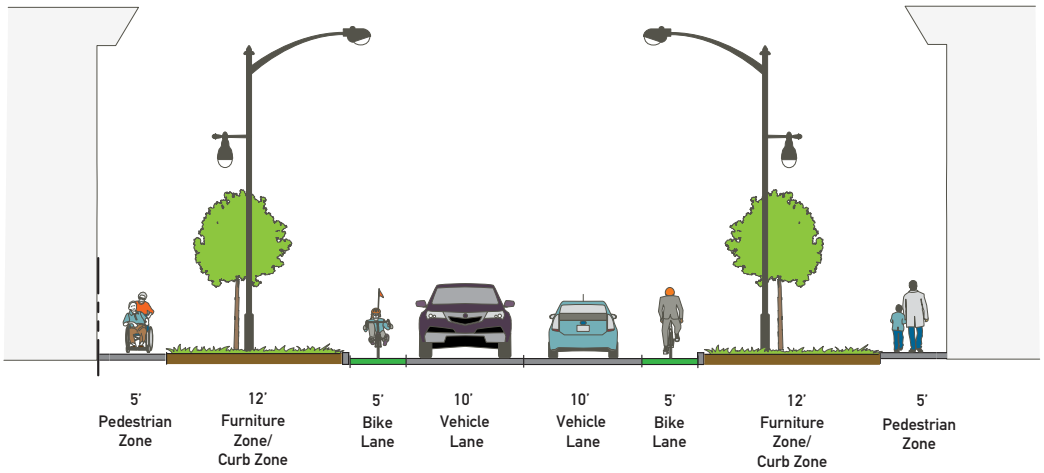
BIKE LANES

Bike lanes reinforce proper roadway etiquette, raise the visibility of cyclists, and help bicyclists and drivers behave predictably when sharing road space. They are appropriate for streets with sufficient right-of-way and higher traffic volumes. Streets with bike lanes have been found to lower motor vehicle speeds, which results in fewer crashes and lower crash severity for all users. Bicycle lanes require regular sweeping to clear road debris.

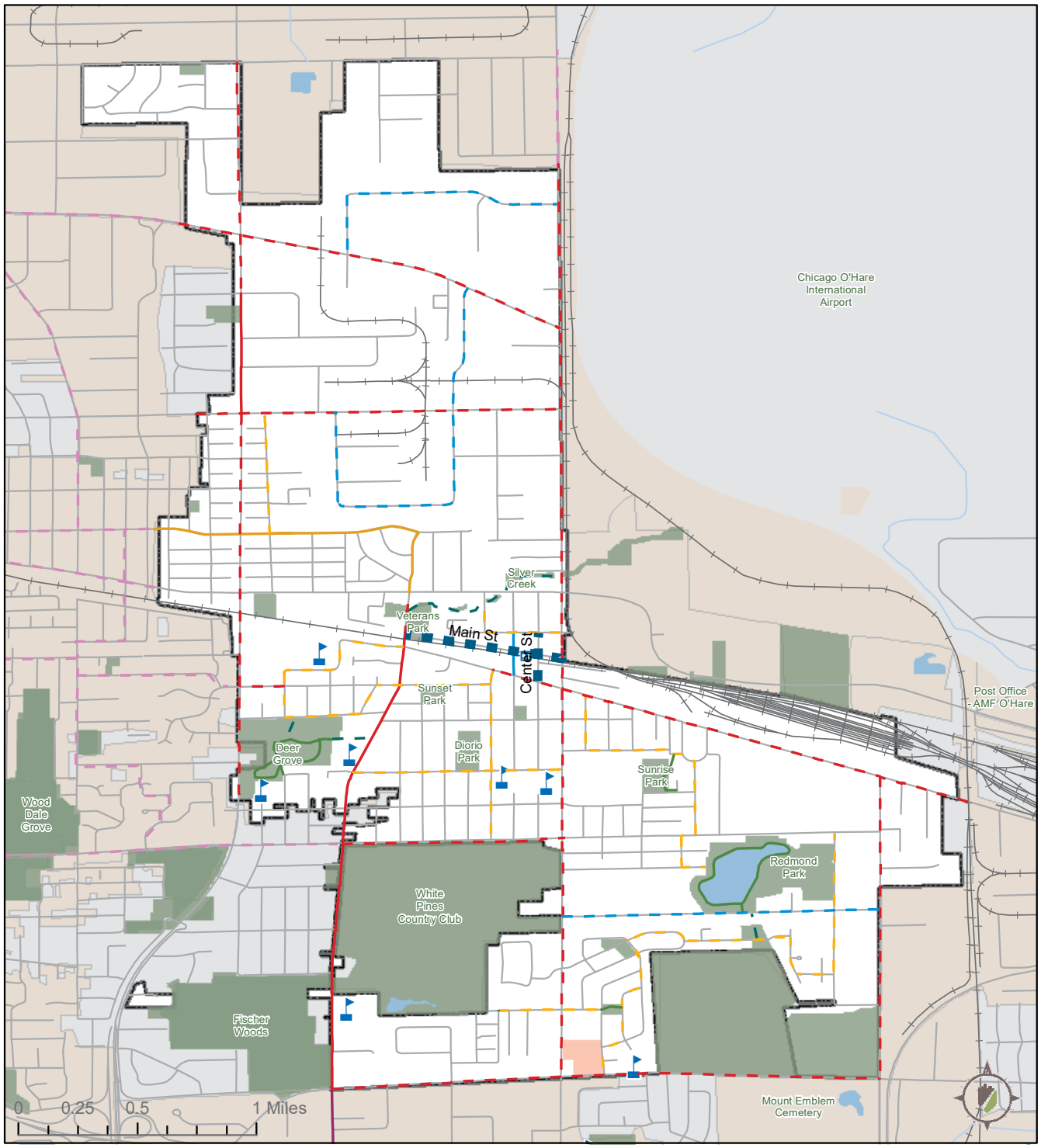
The streets recommended for bike lanes in Bensenville typically have a higher traffic volume, or are classified as collectors. Upon completion, they will provide connections between the recommended and existing network of off-street trails and bike boulevards. In some cases, parking will need to be removed to provide space for a dedicated bike lane. Additional specifications are included in Chapter 2 and bike lane design recommendations are detailed in Chapter 6.

CENTER STREET: Center Street connects to the downtown shopping area, the Metra station, and Village Hall. Previous plans called for one lane of angled parking on Center Street to be converted to parallel parking to accommodate wider sidewalks. This plan recommends converting both lanes of parking to parallel parking, which would also enable the Village to install bike lanes.

MAIN STREET: Main Street parallels the downtown shopping area and connects to Veteran's Park. Currently, there is angled parking on the south side of Main Street adjacent to the Metra station. The street has sufficient right-of-way to install a bike lane. In addition, the Village should convert the parking to back-in angle parking, which will enable drivers to better see cyclists and other vehicles as they pull out of parking spaces.



ABOVE
Example of a bike lane cross section on a typical Bensenville street.



Proposed Bike Lanes

- Bike Lane, Planned
- Bike Boulevard, Programmed
- Bike Boulevard, Planned
- Marked Shared Lanes, Programmed
- Marked Shared Lanes, Planned
- Path, Existing
- Path, Planned
- Shared Use Path, Programmed
- Shared Use Path, Planned

SHARED USE PATHS

Shared use paths provide a dedicated, off-street space for both pedestrians and cyclists. They are a good solution for corridors that have higher traffic counts, higher vehicle speeds, and few driveway entrances and curb cuts. They can provide a pleasant riding experience for a wide range of cyclists, including those with a low tolerance for sharing the road with motorized traffic, and they tie in well with regional trail networks. Driveway entrances and street intersections are particularly dangerous conflict points for cyclists; shared use path applications should minimize both, where possible. For paths with a high volume of pedestrians and cyclists, the Village should educate users about etiquette, rights, and responsibilities.

THORNDALE AVENUE: Presently, the Village of Bensenville is partnering with DuPage County, the Chicago Metropolitan Agency for Planning, and the Tollway Authority to expand the Elgin O'Hare Western Access (EOWA) project along Thorndale Avenue. This represents an opportunity for the communities along the corridor to develop a dedicated bicycle and pedestrian path parallel to the corridor. For Bensenville, the trail could ultimately provide a dedicated connection to the Salt Creek Trail and other regional destinations. At the writing of this plan, the designs for the expressway are still underway. The Village should continue to work with its partner agencies to ensure that a dedicated bicycle and pedestrian path be included in the final project plans. A shared use path is proposed along the south side of existing Thorndale Ave from IL-83 to York Rd as part of the EOWA construction in upcoming years.

YORK ROAD: There are sidewalks along one side of York Road for most of its reach across Bensenville. However, there are some gaps in the sidewalk network, and many of the existing sidewalks are too narrow to safely accommodate pedestrians and cyclists. The Village of Bensenville should install a shared use path on York Road to provide better north/south connectivity. Some of the work may be done in conjunction with the EOWA expansion.

GRAND AVENUE: Grand Avenue lies on the border of Bensenville and Elmhurst. A sidewalk was recently installed on the north side of Grand Avenue within Bensenville's boundaries. It provides good connectivity to the stores and services along the corridor, however, it is narrow and may not accommodate large numbers of pedestrians and cyclists if rates of active transportation rise in the future. Bensenville may want to coordinate with the City of Elmhurst in the future to install a shared use path on the south side of Grand Avenue.

CHURCH ROAD: The Village is working to install a shared use path along Church Road from Grand Avenue to Jefferson Street and has funding to continue the shared use path to Irving Park Road in 2017.

JEFFERSON STREET/THIRD AVENUE: This route provides a good east/west connection through the southern half of Bensenville, linking cyclists to Redmond Park and the Ice Arena. Like Church Road, there is currently insufficient right-of-way for both bike lanes and parking lanes, and the traffic volume along the road are too high for bike boulevard treatments. The Village may want to consider purchasing ROW on the north side of the street between Church and York to construct a shared use path.

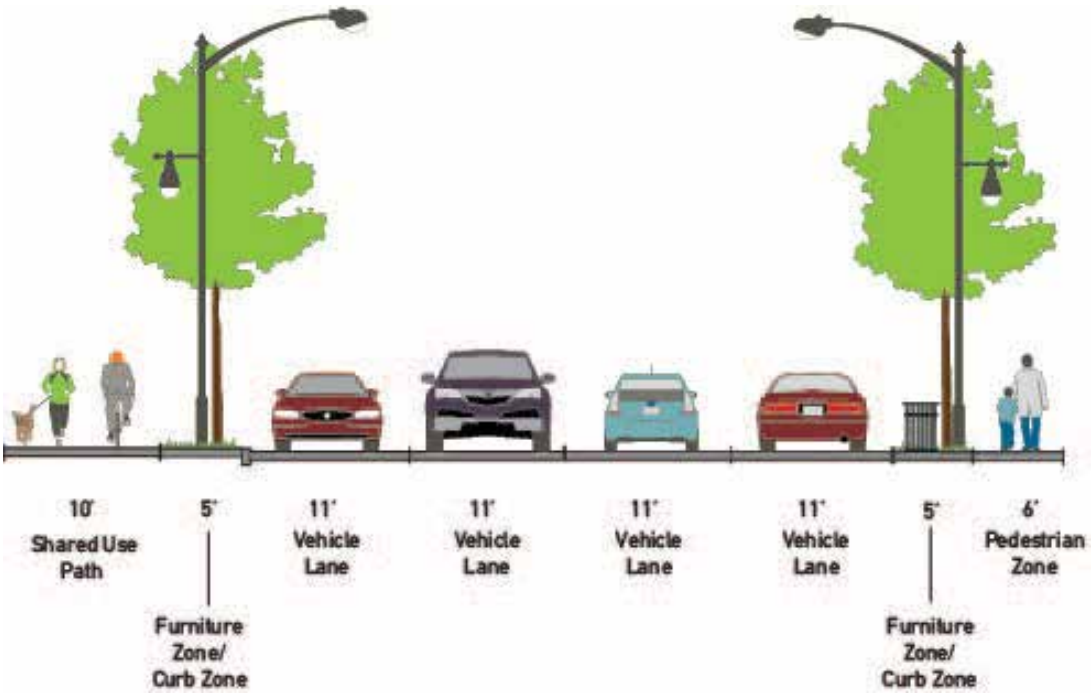
COUNTY LINE ROAD: County Line Road is a regional connector and connects to a new hotel that is being developed in Bensenville. The Village should coordinate with Cook County to develop a shared use path along County Line Road.

GREEN STREET: Green Street is the most suitable route to connect Bensenville to Franklin Park and eventually on to the City of Chicago. Additional analysis will need to be conducted to determine which segments can be constructed in conjunction with the EOWA project.

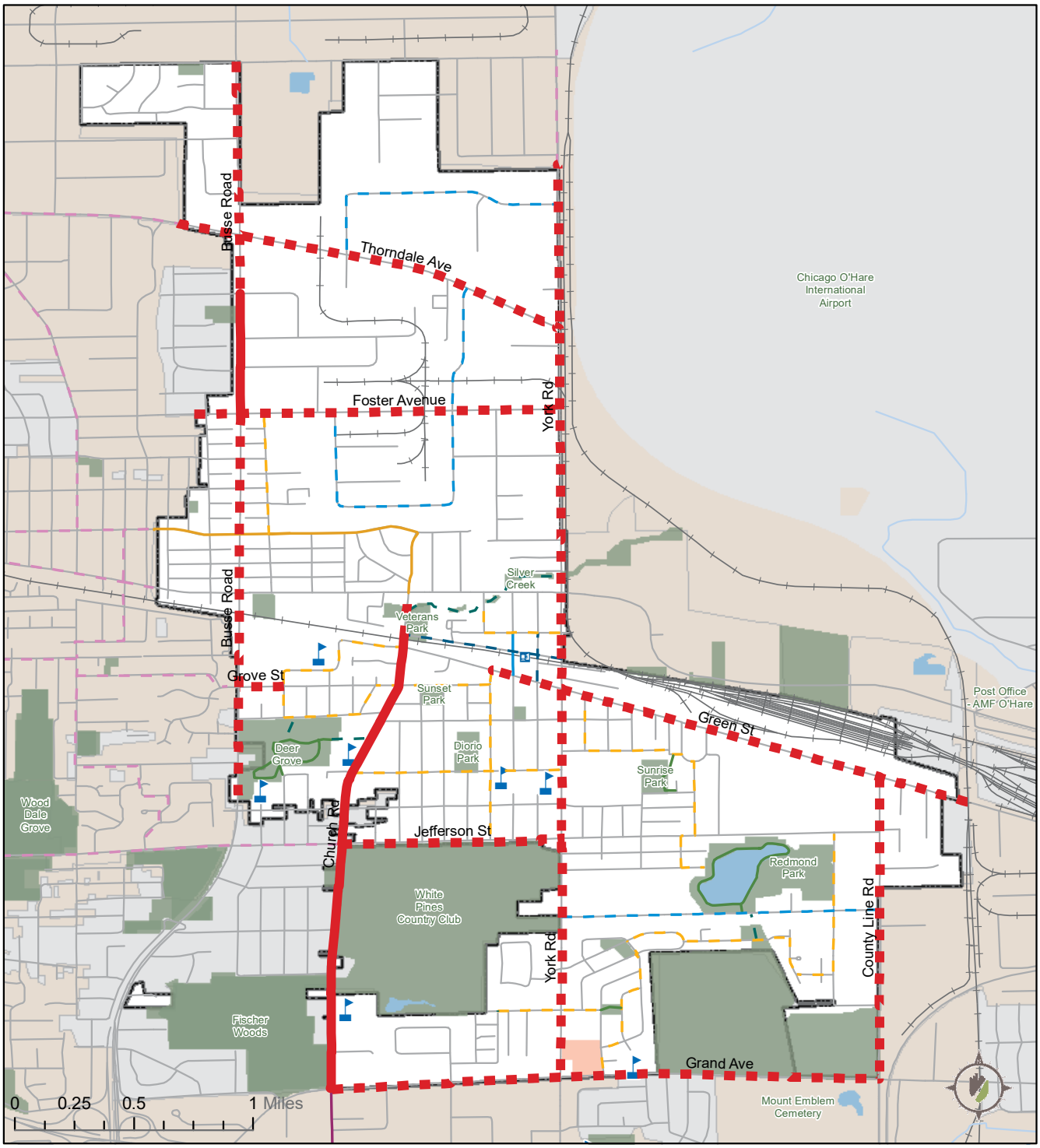
GROVE AVENUE: Grove Street to the west of Fenton High School has a high traffic volume and limited space on-street to install bike lanes. Installing a shared use path along this segment would create a safe, dedicated space for students travelling to Fenton High School from Wood Dale.

FOSTER AVENUE: Due to the large volume of truck traffic on Foster, a shared use path is the preferred facility. The path should be aligned on the north side of the street to minimize the number of commercial driveways and loading zones that cyclists and pedestrians need to cross while travelling along it.

ROUTE 83/BUSSE ROAD: Route 83 provides a second connection to the Salt Creek Trail, but its high traffic volume and fast speed limit make it an unsafe option for most cyclists in the community. The Village should coordinate with IDOT and the Villages of Wood Dale, Addison, and Elk Grove Village to install a shared use path along the roadway. The Village secured CMAQ funding to install a shared use path from Foster Avenue to Bryn Mawr. The path is proposed along IL-83 from Bryn Mawr to Thorndale Ave and on the west side from Thorndale Ave to Mark St as part of the EOWA construction in upcoming years.



ABOVE
Example of a shared use path and sidewalk cross section on a typical Bensenville street.



Proposed Shared Use Paths

- Shared Use Path, Programmed
- Shared Use Path, Planned
- Bike Boulevard, Programmed
- Bike Boulevard, Planned
- Bike Lane, Planned
- Marked Shared Lanes, Programmed
- Marked Shared Lanes, Planned
- Path, Existing
- Path, Planned

TRAILS

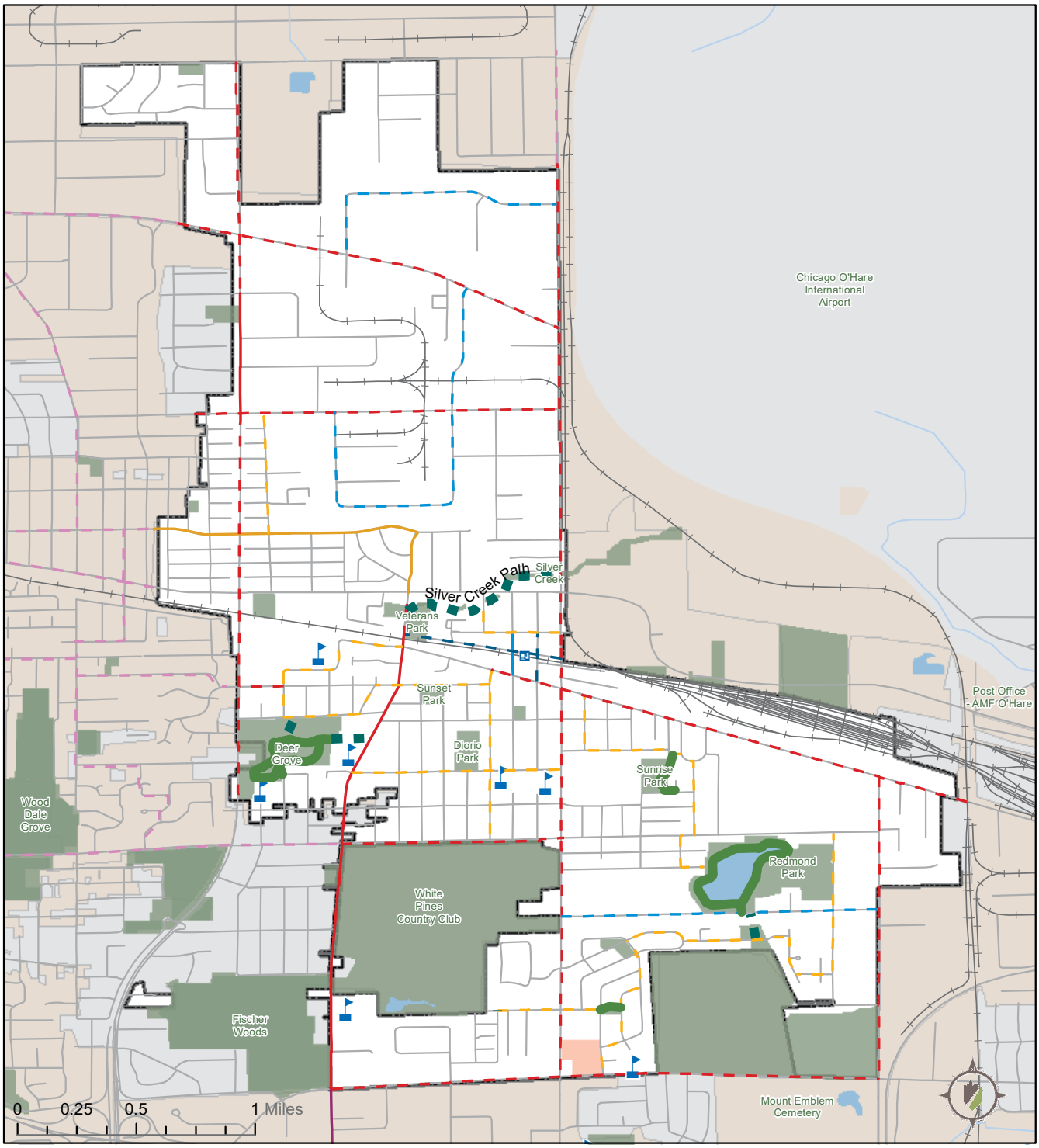
When right of way is available, a trail should be constructed to provide additional connectivity for the active transportation network. Trails can provide important connections to regional greenways and offer trail users opportunities for recreation, regional bike commuting, and other longer distance active transportation. This plan includes recommendations for increased access to existing paths and a new trail along Silver Creek.

ADDISON CREEK/BENSENVILLE DITCH COUNTY FOREST PRESERVE: Building a short path along Addison Creek that connects the bike boulevard on Diana Court to the path around the Bensenville Ditch Forest Preserve would significantly reduce the distance cyclists would have to travel to head north from this neighborhood. The Village should explore the feasibility to constructing a path here that connects to George Street from the vacant lot to the east of the Brentwood Apartments.

DEER PARK: Active Transportation users who wish to use the path in Deer Park currently must either cut through parking lots to the north or east or access the park from Washington Street/Ridgewood Avenue to the south. The Village should work with the Park District, School District, and Library District to install sidewalks that connect to the path from the Bensenville Community Public Library and the Water Park parking lots.

BOBBY/BELMONT ACCESS PATH: There is limited access for residents of the Elm Court apartments to get from their homes to Redmond Park or the Jewel-Osco. However, there is an existing fenced off gravel street that connects the two. The Village should work with the Elm Court property Management Company and residents of this area to open up a pathway for pedestrians and cyclists, which would give them more direct access to local parks and shopping areas. This recommendation may require going through private property and acquiring easements.

SILVER CREEK PATH: Bensenville's Comprehensive Plan identified a new pathway along Silver Creek. The Village recently secured a portion of the property, which will enable this recommendation to move forward. The Village should next conduct a feasibility study to determine alignment of the proposed trail.



Proposed Trails and Access Paths

- Path, Planned
- Path, Existing
- Bike Boulevard, Programmed
- Bike Boulevard, Planned
- Bike Lane, Planned
- Marked Shared Lanes, Programmed
- Marked Shared Lanes, Planned
- Shared Use Path, Programmed
- Shared Use Path, Planned

3.3 Pedestrian Priority Areas

Objective: Install facilities and amenities that enhance the environment in pedestrian priority areas and complete gaps in the sidewalk network.

Several of the gaps in the sidewalk network that were identified in this plan are located on busy corridors and are recommended shared use paths. Where possible, the Village should prioritize completion of them in conjunction with roadway reconstruction projects. The missing sidewalk Second Avenue from York Road to Route 83 received a high number of requests from residents in the public engagement process. While some of the road is located in unincorporated Bensenville, many students use it daily to get to and from school. The Village should partner with the Township to identify ways to install a sidewalk here. Safe Routes to School funding from the Illinois Department of Transportation would be a good option as it could cover 80% of the cost of the project. Finally, there are many other sidewalk gaps identified in this plan, included in the map below. While it would be difficult to install them all overnight, the Village should work to complete the network over time. A prioritization map is included in Chapter 6.

3.3.1 INTERSECTIONS

Intersections, particularly where bikeways and sidewalks intersect with arterial roadways, can be a stressful experience for non-motorized transportation users. More than 17% of respondents to the online survey mentioned unsafe intersections as a barrier to walking in Bensenville, and identified several specific challenging crossings for cyclists and pedestrians. Below is a map that highlights each of the crossings and recommended tools to improve the user experience. For additional design specifications, see Chapter 4.

Intersection improvements recommended for Bensenville are as follows:

MAJOR INTERSECTIONS

All major street crossings should include push buttons, countdown signals, and high visibility crosswalks. The following intersections should be targeted for these improvements:

GRAND AVENUE AND YORK ROAD: Install high visibility crosswalks, countdown timers, and curb ramps at pork chop islands.

GRAND AVENUE AND CHURCH ROAD: Install bicycle loop detectors, crosswalks, and countdown timers at signals.

ROUTE 83 AND HILLSIDE DRIVE: Install high visibility crosswalks and countdown timers.

ROUTE 83 AND FOSTER AVENUE: Install high visibility crosswalks and countdown timers.

YORK ROAD AND FOSTER AVENUE: Install high visibility crosswalks and countdown timers.

YORK ROAD AND BELMONT AVENUE: Study feasibility of installing a traffic signal and high visibility crosswalks.

YORK ROAD AND GEORGE STREET: Install high visibility crosswalks and countdown timers.

YORK ROAD AND MEMORIAL ROAD: Install high visibility crosswalks.

IRVING PARK ROAD AND ADDISON STREET: Install a pedestrian refuge island to provide an additional crossing opportunity for pedestrians to access the commercial area.

IRVING PARK ROAD AND ROUTE 83: Widen the sidewalk along the underpass to provide ample space for pedestrians and cyclists traveling to and from Wood Dale. Install a ramp to enable cyclists to access planned shared use path on Route 83.

THORNDALE AND ROUTE 83 AND THORNDALE AND YORK ROAD: These two intersections have been identified as future interchanges in preliminary plans for the Elgin O'Hare Western Access project. Design considerations should be made for pedestrians and cyclists to ensure their safety at these locations.

MINOR INTERSECTIONS AND MIDBLOCK CROSSINGS

A variety of additional intersections and crossings were identified through public input that would benefit from enhancements. These include:

YORK ROAD AT BRENTWOOD COMMONS: Install a pedestrian refuge island, high visibility crosswalks, and rectangular rapid flashing beacons (RRFBs) to help people access the Pace bus shelter and shopping area.

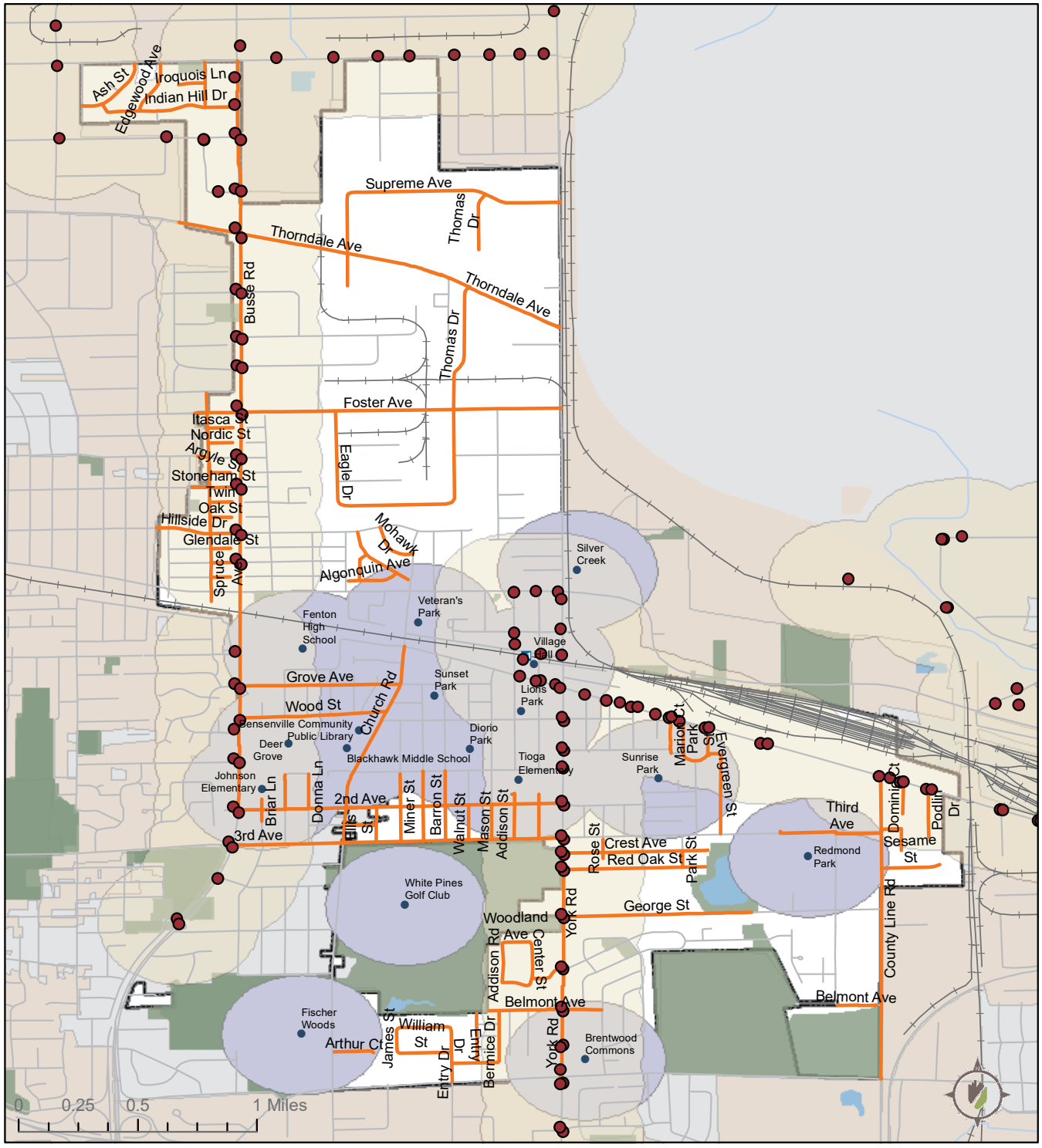
CHURCH ROAD AND WOOD STREET: Many Blackhawk Middle School students use this unmarked, uncontrolled crossing instead of the crossing at Memorial Road to avoid walking out of the way. To create a safer environment for students, the Village should consider installing high visibility crosswalks here and a RRFB.

CHURCH ROAD AND GROVE STREET: Tighten turning radii to reduce pedestrian crossing distance and slow down turning vehicles.

GROVE AVENUE AND FRANZEN STREET: This intersection is a popular crossing for Fenton High School students. Several crashes between vehicles, pedestrians, and cyclists have been reported here, mostly due to drivers failing to yield the right-of-way to the non-motorized user. RRFBs would make students crossing here more visible.

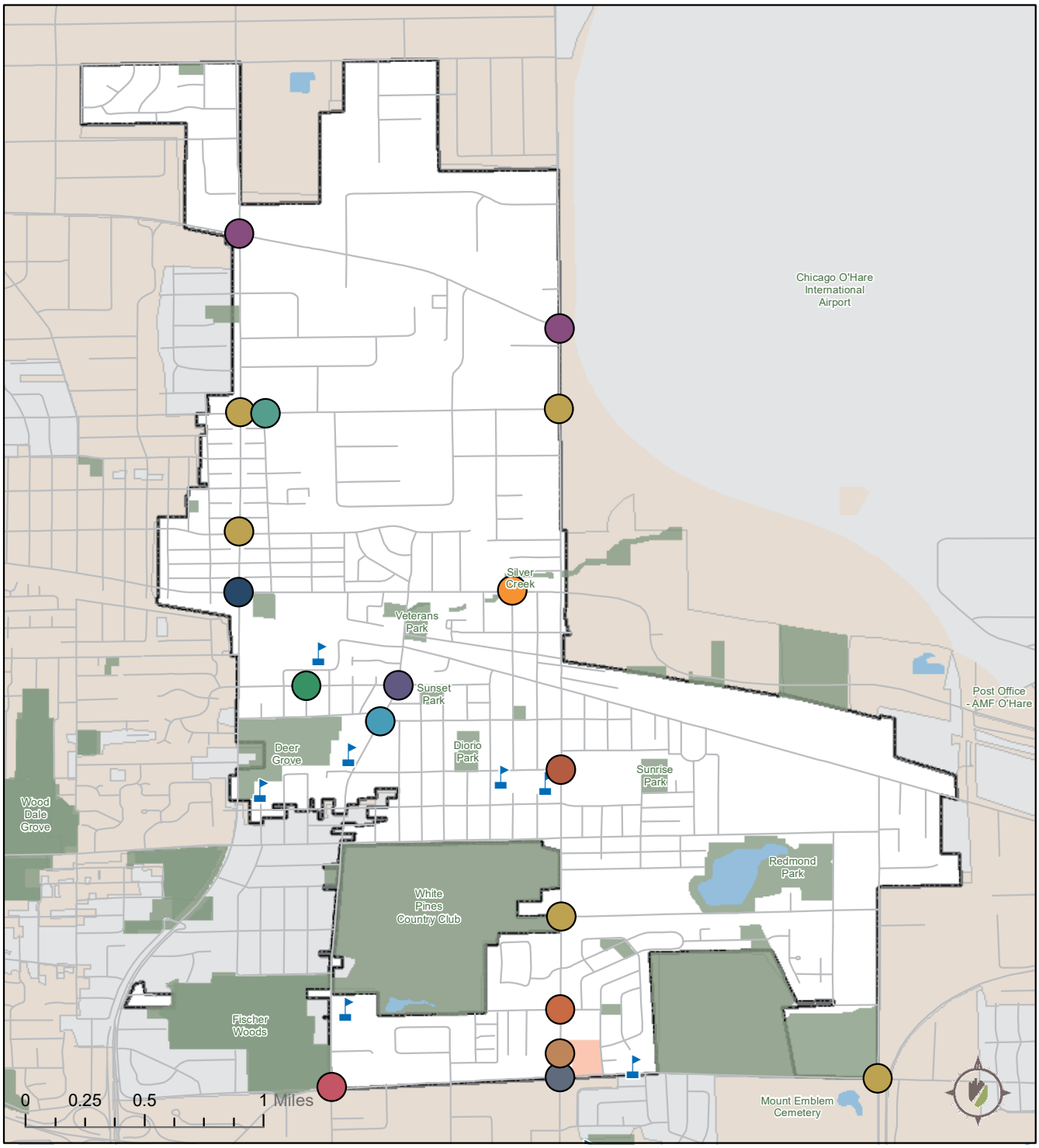
GROVE AVENUE AND HENDERSON STREET: To encourage more students to bike to Fenton High School, the Village and School District should partner to determine a safe way to access the building grounds by bike. Residents noted that the intersection of Grove Avenue and Henderson Street is difficult during to maneuver on bike during drop off and pick up times. Fenton High School District 100 may want to consider installing a mini roundabout here to reduce conflicts due to turning vehicles.

MARSHALL ROAD AND FOSTER AVENUE: Install a curb ramp that connects cyclists riding on-street to Foster Avenue.



Pedestrian Priority Areas

PaceStops
Destinations
Bus Stop Buffer
Destination Buffer
Sidewalk Gaps



Intersection Improvements

- Crosswalks, countdown timers, curb ramps
- Curb ramp at cul de sac
- Future interchange
- High visibility crosswalks
- High visibility crosswalks, countdown timers
- Loop detector, crosswalks, countdown timers
- RRFB
- RRFB, high visibility crosswalk
- Refuge Island
- Refuge island and RRFB
- Tighten Turning Radii
- Traffic Signal, Crosswalks
- Widen Underpass Sidewalk, Install Ramp

ACTIVE TRANSPORTATION TOOLBOX

4

Toolbox Goal

Develop a comprehensive list of pedestrian and bicycle infrastructure improvements necessary to create a complete active transportation network.

Chapter 4 Overview

This section presents best practices for creating bicycle and pedestrian facilities and amenities and for intersection improvements. These tools are tested, widely supported, and used throughout the country. Facility descriptions and resources are included. While most of the facilities included in this section are recommended in the previous chapter of the plan, a few additional tools have been included should future projects warrant them.

OBJECTIVE: ONE

Create a context-specific, diverse, and comprehensive list of bike facilities.

OBJECTIVE: TWO

Develop a complete context-specific list of pedestrian facilities.

OBJECTIVE: THREE

Develop a list of strategies for intersection improvements that facilitate active forms of travel.

TABLE 4A BICYCLE WAYS

Treatment Type	Dimensions			
	MIN	Target	MAX	Notes
Signed Routes	9	10	14	Can be used on shared lanes or in combination with bicycle facilities.
Shared Lanes	9	10	14	Replaces vehicle lane. Paved shoulder, marked shared lane, or bike lane is preferred.
Bike Lanes	4	5	6	Include bike lane marking.
Colored Pavement Bike Lanes	4	5	6	Pavement color should be green. Include bike lane marking and signs.
Marked Shared Lanes	10	13	14	Marking centered 11 ft. off curb with parking 4 ft. w/o. Place every 50 to 100 ft. preferred; maximum of every 250 ft. on low volume roadways. Place in center of lane if travel lane is 12 ft. or less.
Shared Use Paths	8	10	12	Replaces the pedestrian zone. Can be 6 ft. with engineering judgment. Also called side path.
Trails	8	10	12	Replaces the pedestrian zone. Can be 6 ft. with engineering judgment. Also side path.
Bike Boulevards	8	10	12	Can be 6 ft. with engineering judgment. Can be gravel or limestone.
Neighborhood Greenways	9	10	13	Replaces vehicle lane. Include bike boulevard marking.

4.1 Bicycle Tools

Objective: Create a context-specific, diverse, and comprehensive list of bike facilities.

MARKED SHARED LANE

BIKE LANE

4.1.1 SHARED LANE

Shared lanes are streets that can be used comfortably by cyclists with moderate tolerance for traffic. These are typically streets with low traffic volumes and speeds, such as most residential streets. These lanes do not require on-street bicycle markings or signs. Marked shared lanes can be further enhanced by applying a green paint border around them. This recommendation is advisable for both bike boulevards and in Bensenville's industrial areas.

4.1.2 BIKE LANE

Bike lanes are appropriate on streets with heavy traffic. Bike lanes are indicated by on-street markings, which can be supplemented with signage. At minimum, bike lanes should be 5 feet wide; where possible, 6-foot-wide lanes are preferred, as they allow cyclists to ride further away from parked cars. Bike lanes reinforce proper roadway etiquette, raise the visibility of bicyclists, and help both bicyclists and drivers behave predictably when sharing road space. They also reduce motor vehicle speeds, lowering the risk of severe crashes. Bicycle lanes require regular sweeping to remain acceptably free of road debris.

Colored pavement bike lanes improve visibility and identity, and help reduce the perceived width of the vehicular travel way. Paint can be used to mark the lanes if the roadway surface is pretreated to avoid slipperiness; colored asphalt or a thermoplastic coating provide a higher level of traction. These lanes are often used to bridge short areas where there is higher potential for vehicular conflicts; cost permitting, however, they are a viable option on an entire corridor. Green has become the standard choice for colored pavement bike lanes in the United States.

4.1.3 SHARED USE PATH

Shared use paths are off-street facilities shared with pedestrians and recreational users. These paths are a good option for high-speed, high-volume corridors with wider block spacing, providing access for users who are not comfortable riding bicycles in heavy traffic. These paths also can link regional trail networks. Shared use paths should be at least 8 feet wide; widths of 12 to 14 feet are preferred. Paths can be provided on both sides of a street; if a shared use path is on one side only, adequate crossing accommodations must be provided to access land uses on the other side of the roadway. Special care should be taken to design driveway and intersection crossings to reduce potential conflicts. Adequate separation from the curb face can be created by a tree row, shoulder, or parking lane.

SHARED USE PATH

4.1.4 TRAIL

Trails are off-street facilities that can enhance network connectivity, filling in gaps where the street network is not complete or cannot accommodate bike facilities. Trails should meet the same design criteria as shared-use paths. They function best on exclusive rights-of-way, such as along waterways, utility corridors, or railroad corridors. Although trails are more expensive to build than on-street bike facilities and generally offer only limited access points, they provide important connections to regional trail systems and great opportunities for recreational cycling.

TRAIL

4.1.5 BIKE BOULEVARD

Bike boulevards, also called neighborhood greenways, are a refinement of the shared roadway concept. They are created by modifying a local street to give priority to bicyclists while maintaining local access for automobiles. Traffic-calming measures reduce motor vehicle speeds and through trips; traffic controls limit conflicts between motorists and bicyclists, giving priority to bicyclists' through-movement. Some bike boulevards replace stop signs with mini-circles and mini-roundabouts to reduce stopping for cyclists. Bike boulevards and neighborhood greenways also include provisions for crossing intersecting arterial corridors. They are good options for low-volume, low-speed corridors. They also can play a prominent role in a bicycle network by serving as viable alternatives to major arterials, linking important community places, and connecting multiple intersecting bike routes. Additionally, these treatments can serve as places that highlight urban design and neighborhood identity. Potential Treatments include:

CHICANES: Chicanes are planted areas, curb extensions and/or medians that create horizontal deflection on roadways, requiring users to slow down to negotiate the bends in the lane. Chicanes should not be used on streets with bus transit service.

CURB BULBOUT/EXTENSION: A curb bulbout is an extension of the sidewalk into the parking lane, reducing roadway width and creating a shorter crossing distance for pedestrians. These can also be called neckdowns. Curb extensions can be used to slow vehicular traffic and increase awareness of pedestrians. All curb bulbouts on bus routes and at bus stops should be at least 40 feet long, to accommodate passenger access at both bus entrances. Bulbouts should not extend into bicycle lanes.

CURB BULBOUT/EXTENSION

BIKE BOULEVARD PAVEMENT MARKINGS

CHICANES Image Credit: Richard Durdl

SPEED HUMPS: Speed humps and speed lumps are raised pavement areas in the travel way that require drivers to slow down. Speed humps and speed lumps are most often used in pedestrian priority areas. Speed humps should be clearly marked and should be avoided in bicycle priority areas and on streets with bus transit service. Speed lumps are speed humps with gaps to accommodate the wheel base of emergency service vehicles or buses. Speed lumps can also have gaps to accommodate bicyclists.

RAISED CROSSWALKS/INTERSECTIONS: Similar to a speed hump, a raised crosswalk or intersection brings the roadway pavement to sidewalk level at pedestrian crossings to facilitate walking and reduce vehicle speeds. This technique works best in pedestrian priority areas and should be combined with complementary pedestrian infrastructure. Raised crosswalks should not be used on streets with transit service.

MINI-ROUNDABOUT: A mini-roundabout is a smaller version of the traditional modern roundabout, with a fully mountable center island that can be driven over by emergency vehicles and occasional buses or large trucks, when necessary. Mini-traffic circles are similar, small circular islands placed in the center of intersections to calm traffic.

Table 4B on the following page includes suggestions for infrastructure and design standards that can be applied across the bike boulevard system.

SPEED HUMP

RAISED CROSSWALK

MINI-ROUNDABOUT

TABLE 4B TRAFFIC CALMING/BIKE BOULEVARD TOOLS

Treatment Type		Dimensions	Design Considerations	Guideline
Narrowing Lanes		Vehicle lanes can be reduced to 8, 9, or 10 ft., depending on width of entering lanes. (See Table 3D.)	Can be accomplished with edge line striping, centerline striping, medians, or curb extensions. Can be used on bus routes and emergency routes.	ADT of ≤ 10,000 Speed limit of ≤ 35mph
Mini-roundabouts & Mini-traffic Circles		Varies, should fit easily within a typical 4-way of two 2-lane roadway intersection.	Used on neighborhood streets. Not used on bus routes.	ADT < 7500. Entering speed ≤ 25 mph.
Curbing		Typically 6 inches high with a 1 to 2 ft. drainage pan.	Curbing is usually installed with enclosed drainage systems and is an effective transitional tool from rural to suburban to urban contexts. Can be installed with new sidewalks.	Appropriate for any roadway that closed drainage or new sidewalk installations.
Curb Bulbouts		Varies, often 7 to 8 ft., when used with parallel parking, Only where curb parking exists.	Can be used on bus routes and emergency routes. Requires clear bicycle accommodations on bike routes. Also called neckdowns/chokers.	ADT < 20,000 Speed limit of ≤ 30 mph
Chicanes		20 ft. minimum length; width can be maximized based on available space. Requires an edge line with an 8:1 taper length per MUTCD.	Best on neighborhood streets. Can be used on bus routes and emergency routes. Grade ≤ 10%.	ADT of < 5000 Speed limit < 35 mph
Speed Humps/Lumps		Typically 12 ft. across with a parabolic or sinusoidal surface reaching 3.5 to 4 in. in height. Speed lumps have 2 ft. gaps to allow for emergency vehicle wheel base.	Best on neighborhood streets. Speed lumps work on bus routes, emergency routes, and are better for bicyclists. Sinusoidal surfaces are also better for bicyclists, but harder to construct. Grade ≤ 8%.	ADT of < 4000 Speed limit < 30 mph
Raised Crosswalks & Intersections	Crosswalks	Typical 34 ft. w/10 ft. table and 12 ft. approaches. Typical 6 inch curb height.	Can be used on all streets. Can be designed for emergency routes. Grade ≤ 8%.	ADT of < 7500 Speed limit < 35 mph
	Intersections	Varies based on intersection height.	Can be used on all streets. Can be designed for emergency routes. Grade ≤ 8%.	ADT of < 7500 Speed limit < 35 mph
Medians		Varies; depends on roadway constraints, minimum 4 ft. wide	Can be used on bus routes and emergency routes. Requires clear bicycle accommodations on bike routes.	ADT < 20,000 Speed limit ≤ 30 mph
Right-turn Corner Islands		Varies; depends on under utilized space between right turn lane and thru lanes. Includes a pedestrian refuge area.	Includes pedestrian refuge areas; crossings should be placed so as to shorten the crossing distance and maximize vehicle visibility. Crossings should include a stop bar placed 4 ft. from the cross walk. Can be used on bus routes and emergency routes.	Appropriate tool to retrofit any roadway that has been designed with wide turning radii and excessive pedestrian crossing distances.
Bollards and Railings		4 in. to 24 in. diameter and 3 to 4 ft. high	Adding a bollard row or railing forms a protective barrier between modes and encourages motorists to drive slower, taking note of the barrier. These can also be used to signify transitions between contexts or modal transitions.	Appropriate for any roadway. Should be considered when adequate separation between pedestrians and vehicles cannot be provided.
Utility and Lighting Posts		Varies	Changes to utility pole or lighting patterns can be used to signify transitions between contexts and elicit changes in motorist behavior	Appropriate for any roadway

The below bicycle intersection treatments are not proposed for any specific location in Bensenville, but can be applied in a variety locations in Bensenville's bicycle network.

TABLE 4C BICYCLE INTERSECTIONS

Treatment Type		Dimensions	Design Considerations	Guideline
Markings	Dashings	Minimum of 6 in. Dashed lines should be at least the same width as the line they are extending. Crossing lane width should be the same as the lane they are extending. Bicycle lane marking, or shared lane marking may be used, per MUTCD.	6 to 10 ft. wide islands with 6 ft. of raised island on each side of refuge area. Raised area should be curb height, 6 in. Refuge area should be wide enough to accommodate two bicycles.	Dashed lines should be 2 ft. long with a 2 to 6 ft. spacing. Alternatively, 14 to 20 in. squares can be spaced evenly to improve visibility.
	Colored Pavement	Same as area being designated.	Can be used in bike lanes and cycle tracks to increase visibility. Should be used in turning conflict areas or through intersections to improve visibility and demarcate unclear bicycle travel paths.	The color green shall be used to indicate bicycle facilities. Edges will be marked with solid bike lane lines or dashed lines. Coloring can be dashed in conjunction with dashed lines to minimize material use. Yield to bike signs can be used in conjunction with colored paving. Should use skid resistant and retro-reflective materials.
	Thru Bike Lanes	Lane should be 6 ft. wide, with a 4 ft. minimum. The line should be at least the same width as the line they are extending. Width of lane should be equal to lane that is being extended. Bicycle lane marking can be used, per MUTCD. The adjacent turn lane should be a minimum of 9 ft.	Through bike lanes should be used where right turn lanes conflict with through bicycle movements (or left turn lanes on one-way streets with left-side bike lanes).	Dashed lines should be 2 ft. long with a 2 to 6 ft. spacing. Dashings signifying merge area should begin 50 to 100 ft. in advance of the intersection; 100 ft. should be used for high volume and high speed corridors. Should be placed to the left of a right turn lane (or right of a left turn lane on one-way streets with a one side bike lane). Should not be used on streets with double right turn lanes.
Shared Lane Markings	Thru and directional	Same as shared lane marking per MUTCD.	Can be used at intersections with complicated turning movements to direct bicyclists to facility on other side. Should be considered on roadways with cycle tracks or bike lanes.	Can be placed in the center of a shared vehicle lane or within the center of a dashed through bicycle lane. If used to indicate two-way flow in intersection crossings of two-way cycle paths or shared use paths markings facing opposite directions, should be placed next to each other with a dashed center line separating the traffic flow.
		Same as shared lane Marking per MUTCD.	Chevrons may be oriented in the direction of travel to improve wayfinding; this practice can delineate turns in established bicycle routes and improve visibility at conflict points when cyclists are moving across vehicle travel lanes.	Place shared lane marking in the appropriate location within the vehicle lane. Rotate the chevrons to indicate the direction of travel.
Combined Bike Lane/ Turn Lanes		A 4 in. dashed line placed a minimum of 4 ft. from the outer edge of the turning lane.	Consider use when there is not enough room for a thru bike lane.	Consider use when there is not enough room for a thru bike lane.
Refuge Islands		6 to 10 ft. wide islands with 6 ft. of raised island on each side of refuge area. Raised area should be curb height, 6 in. Refuge area should be wide enough to accommodate two bicycles.	Consider using on roadways with high vehicle volumes and high speeds; particularly where there are infrequent traffic gaps, at mid-block crossings, or at shared use path crossings and cycle track crossings.	Consider using on roadways with high vehicle volumes and high speeds; particularly where there are infrequent traffic gaps, at mid-block crossings, or at shared use path crossings and cycle track crossings.

4.2 Pedestrian Tools

Objective: Develop a complete context-specific list of pedestrian facilities.

4.2.1 SIDEWALK

Sidewalks should be standard practice in residential neighborhoods. A well-designed residential sidewalk has a minimum 5-foot unobstructed width, allowing two people to walk comfortably side-by-side. A residential sidewalk should also provide separation from the street. If possible, a width of 6 to 8 feet is preferable.

COMMERCIAL SIDEWALK

RESIDENTIAL SIDEWALK

4.2.2 PEDESTRIAN SCALE LIGHTING

Pedestrian-scale lighting is essential for creating safe street environments. Conventional street lighting, designed primarily to light the vehicle way, often is inadequate for pedestrian needs, leaving unlit areas and dark shadows on walkways. Pedestrian-scale lighting is especially important in cold-weather climates with long winter nights. Pedestrian-scale lighting illuminates potential tripping hazards, helps to deter crime, and makes pedestrians more visible to drivers. Pedestrian-scale lighting also can illuminate bikeways near walking areas. Retrofits of existing streetlights and new installations should provide lighting on sidewalks and multi-use paths. Pedestrian-scale lighting should be coordinated with building and property owners to include building-mounted lighting for sidewalks, alleys, paths, and stairways where poles would obstruct the pedestrian zone. Land use context should be considered to achieve optimum lighting levels in pedestrian areas, and care must be taken to avoid light trespass into the windows of nearby residential units. Common examples of pedestrian-scale lighting include acorn, globe, and lantern lamps.

PEDESTRIAN SCALE LIGHTING

Table 4D (below) summarizes recommended sidewalk designs.

TABLE 4D PEDESTRIAN WAYS

Treatment Type	Dimensions				
	Min	MAX	TARGET		NOTES
Residential Sidewalks	Curb Zone	1	1.5	2	Clear zone for utility and Street furniture, not applicable if there is no curb.
	Furniture Zone	2	6	10	A tree lawn separation area is desired.
	Pedestrian Zone	4	5	8	Unobstructed walking area required.
Commercial Sidewalks	Curb Zone	1	1.5	2	Clear zone for utility and furnishings.
	Furniture Zone	4	5	6	Furnishing zone for benches and transit shelters etc. Ideally 6 ft. allow for 6 ft. x 6 ft. tree grates.
	Pedestrian Zone	5	5	10	Consider tree grate surfaces in pedestrian zone.
	Frontage Zone	1	5	10	Larger frontage zone allows for café seating.

4.3 Intersection Tools

Objective: Develop a list of strategies for intersection improvements that facilitate active forms of travel.

4.3.1 CROSSWALK VARIATIONS

All crosswalks not controlled by signals or stop signs should have longitudinal markings, per the 2009 manual of Uniform Traffic Control Devices (MUTCD). These markings are significantly more visible to drivers than transverse crosswalks. Crosswalks in special districts may have custom designs, but these must comply with ADA standards for smoothness and visibility. When signalized intersections include an exclusive pedestrian phase, diagonal crossing can be permitted; this is sometimes called a pedestrian scramble.

HIGH VISIBILITY CROSSWALK

STAMPED CONCRETE CROSSWALK

STANDARD CROSSWALK

4.3.2 REFUGE ISLANDS

Refuge islands or crossing islands reduce crossing distance and allow pedestrians to cross only one direction of traffic at a time. Crossing islands are most beneficial at unsignalized pedestrian crossings, but they also can be useful to shorten crossing distances at signalized intersections.

REFUGE ISLAND

4.3.4 RECTANGULAR RAPID FLASHING BEACON (RRFB)

RRFBs are extremely visible, using flashing yellow LED lights to supplement standard pedestrian crossing warning signs at mid-block and other unsignalized crossing locations. These user- activated beacons are FHWA-approved and promote increased yield rates and improved pedestrian safety.

RECTANGULAR RAPID FLASHING BEACON (RRFB)

4.3.5 ACCESSIBLE PEDESTRIAN SIGNAL (APS)

APS provides audio and vibro-tactile cues to identify the pushbutton location and indicate the WALK interval for pedestrians with visual disabilities. To ensure ease of use, these devices must be installed in accessible locations, immediately adjacent to the sidewalk at the crosswalk area.

ACCESSIBLE PEDESTRIAN SIGNAL (APS)

4.3.6 BIKE ACTUATED SIGNALS

Traditional in-pavement detector loops for demand-actuated traffic signals do not detect most bicycles. All demand-actuated signals should be designed to detect a normal bike with metal rims, through loop detectors or alternative detection methods, such as video or microwave detectors. Additionally, pavement markings should show bicyclists where to position themselves to actuate in-pavement detectors. Bicycle-actuated signals are equally effective and beneficial for motorcyclists.

BIKE ACTUATED SIGNALS Image Credit: NACTO

4.3.7 COUNTDOWN SIGNALS

Countdown pedestrian signals show how much time remains before the traffic signal changes and are designed to reduce the number of pedestrians who start crossing when there is not enough time to complete their crossing safely. Countdown pedestrian signals are now required by the MUTCD for all new and rehabbed pedestrian signal installations. Signal timings at crossings should be set at 3.5 feet per second to allow adequate time for pedestrians to cross; timings of 3 feet per second may be needed to allow safe crossings for older people and those with disabilities.

COUNTDOWN SIGNALS

TABLE 4E PEDESTRIAN INTERSECTION TREATMENTS

Treatment Type		Dimensions	Design Considerations	Guideline	Notes
Crosswalk Variations	Transverse Lines	Lines 6 to 24 in. wide. Spacing 6 ft. wide minimum. Should be as wide as approaching sidewalk.	Lines should extend across entire roadway and can connect to lines of intersecting roadways crosswalk.	Should be used at signalized and controlled intersections to indicate proper crossing location. Can be used at uncontrolled and mid-block crossings as determined by study. Markings should be located so as to center curb ramps within the crosswalk.	Edge lines are the minimal crosswalk treatment.
	Longitudinal or Diagonal Lines	Lines 12 to 24 in. wide with 12 to 60 in. gaps. Spacing 6 ft. wide minimum. Should be as wide as approaching sidewalk.	Gap between lines should not exceed 2.5 times the width of the line. Gaps should be placed to align with wheel base of vehicles.	Should be used at signalized and controlled intersections to indicate proper crossing location. Can be used at uncontrolled and mid-block crossings as determined by study. Markings should be located so as to center curb ramps within the crosswalk.	Longitudinal markings are the preferred crosswalk treatment. 24 in. wide markings do not need a supplemental edge line.
	Custom	Spacing 6 ft. wide minimum. Should be as wide as approaching sidewalk.	Crosswalks can be created with bricks, pavers, or thermoplastic.	Should be used at signalized and controlled intersections to indicate proper crossing location. Can be used at uncontrolled and mid-block crossings as determined by study. Markings should be located so as to center curb ramps within the crosswalk.	Custom designs should be supplemented with a 24 in. wide edge line to improve visibility. Line can be implied through color variations by using complementary materials.
	Pedestrian Scramble and Diagonal Crossings	Same as for transverse lines. Custom designs can be created to inscribe the entire intersection.	Interior transverse lines should not connect, but be angled at curb ramps to support the diagonal crossing movement. Inside markings and custom designs are permitted.	Signal must include an exclusive pedestrian phase timed for the longest crossing distance at 3.5 ft. per second. 3 ft. per second may be used in highly prioritized pedestrian areas.	—
Unsignalized	Stop Signs	Standard R1-1 stop sign as defined by MUTCD.	Use at unsignalized intersections within signalized areas.	Use at unsignalized intersections within signalized areas, intersections of minor roads with major roads or designated highways. Also consider on minor roads where multi-modal volumes exceed 2000 units per day, sight is limited or obstructed, and crashes are caused by failure to yield (3 within 5 yrs. or 2 within 3 yrs.).	—
	Signed	Preferred signs included R1-5b, R1-6a, and W11-15 with W16-7p and W16-9p as defined by MUTCD.	Pedestrian crossing warning signs and must stop for pedestrian signs are considered a controlled crossing. R1-5b should be placed where vehicles are expected to stop. W11-15/ W16-7p should be placed where pedestrians (and bicyclists) are expected to cross. W11-15/ W16-9p should be placed within 300 ft. of the crossing.	Use where transit routes or pedestrian destinations support crossings, or where residents have requested crossing improvements but signal or stop sign warrants/guidance has not been met.	Crosswalks are encouraged at signed crossings but not required.
Refuge Islands	Mid-Block	Same as crosswalks and/ or signed crossings.	Mid-block crossings should include crosswalks and median crossing islands on 4-lane roads. Mid-block crossings can be signed or even signalized if warrants are met.	Mid-block crossings should be used in combination with transitional infrastructure features to heighten driver awareness. They should not be used alone on 4 lane roadways where vehicle speeds exceed 40 mph and ADT exceeds 12,000 or 15,000 with a raised median/crossing island.	Engineering study should be conducted when installing. Consider number of lanes, pedestrian volumes, roadway speed, potential to accommodate crossings, medians, geometry and lighting.
	Traditional	Varies; minimum 5 to 6 ft. in width to allow for a wheel chair to sit in the island.	Can be used on bus routes. Requires clear bicycle accommodations on bike routes.	ADT < 20,000 Speed limit of ≤ 30 mph	Can be designed with offset entrances to encourage drivers and pedestrians to face each other.

TABLE 4F SIGNALS

Signal Type		Design Considerations	Guideline	Notes
Pedestrian Indicators	Pedestrian Signal Heads	Should be used to assist pedestrians in determining when to safely begin crossing.	Shall be used in conjunction with vehicle signals where the MUTCD pedestrian volume warrant (Section 4C.05) or the School Crossing Warrant is met (Section 4C06).	—
	Countdown Pedestrian Signals	Should be considered for all crossings with pedestrian signal heads.	Must be included on all pedestrian signal heads where the pedestrian change interval is more than 7 seconds.	—
	Timing	Signal timing is typically designed based on an average walking speed. Assuming a lower walking speed will accommodate more users.	Signal must be timed for the crossing distance at 3.5 ft. per second. 3 ft. per second should be used in high volume pedestrian areas.	—
HAWK Pedestrian Beacons		Should be used in conjunction with crossing signs and must include crosswalk marking. Typically used at mid-block crossings of high-volume roadways. Can be used for bicycle crossings as well.	When traffic control signals are not justified but traffic gaps do not permit safe pedestrian crossings and pedestrian volumes guidelines are met per MUTCD section 4F.02. Roadways with lower speeds (35 mph or less) must have more pedestrians per hour for consideration. The lower threshold for consideration is 20 pedestrians per hour. If being used at a pedestrian and bicycle crossing, bicycle volumes can be added to pedestrian volumes.	Engineering study should be conducted. Consider traffic volumes, speeds, crossing distances, crossing gaps, pedestrian volumes, walking speed, and pedestrian delay. Education can be conducted in conjunction with installation to improve signal compliance.
Rectangular Rapid Flash Beacons		Can be used to emphasize mid-block crossings or signed crossings. Can be used when driver compliance to stop for pedestrians (or bicyclists) at crossing location is low.	Beacons actuated by pedestrians or bicyclists are appropriate for any unsignalized crossing to provide additional warning to vehicles approaching the designated crossing. Beacons should remain dark until activated.	—
Accessible Pedestrian Signals		APS should have audible and vibrotactile indications. Push buttons should be placed in the direction of the crossing next to the curb ramps.	The accessible walk indication should last for the first 7 seconds of the walk interval but be triggered at any point when there is enough time left during the signal phase to cross safely.	Should be designed to meet the standards outlined in the MUTCD.
Bike Only Signals		Should be considered for shared use path and cycle-track crossings, especially when bicycle signal clearance times differ from ped and vehicle phases. Can be used to provide a lead bicycle interval and to signal contra-flow bike movements.	Signal must be placed to maximize visibility by bicyclists. Bicycle signals can be actuated depending on volumes. Bicycle signals are preferred over directing bicyclists to use pedestrian signals.	When a vehicle yellow signal phase is 3 seconds or less a bicycle signal can be used to provide bicyclists with a better indication of clearance times.
Bike Actuated Signals		Should be considered on bike routes where vehicle signals are actuated to assure that bicyclists can trigger the signal change. Must be combined with pavement markings and instruction signs to indicate the place in the queue area where the signal will be triggered.	Devices should be regularly tested and adjusted to assure that bicyclists are detected as intended. If a bicycle facility is provided, detection must be located within the designated facility. If a push button is provided, instruction signs should be placed in a location visible to bicyclists.	Can be used in combination with bike boxes and bicycle signals.

POLICIES & PROGRAMS

5

Goal for Policies and Programs

Create a list of health-focused policies and programs to be implemented that facilitate and support the use of active transportation in the community.

Chapter 5 Overview

Policies and programs are an important component of an active transportation plan to not only support better active transportation infrastructure, but also to change attitudes and perceptions that people within the community have on walking, bicycling and transit. Strong policies can support and empower stakeholders and local champions by giving them tools to continue advocating for complete streets. Policies can also ensure that active transportation will continue to be a priority within the transportation network as municipal staff, elected officials and local champions change over time.

OBJECTIVE: ONE

Adopt policies that support the design and development of roadways that encourage the use of active transportation.

OBJECTIVE: TWO

Adopt development and zoning code provisions that support bicycle and pedestrian friendly development patterns that are less auto-dependent.

OBJECTIVE: THREE

Create programs that educate all users of the road of their right and responsibilities.

OBJECTIVE: FOUR

Engage local residents in encouragement activities designed to get more people to walk and bike.

OBJECTIVE: FIVE

Partner with law enforcement to promote safe travel behaviors on local streets.

OBJECTIVE: SIX

Seek League of American Bicyclists "Bicycle Friendly Community" status.

OBJECTIVE: SEVEN

Adopt this plan.

5.1 Policy Recommendations

Objective: Adopt policies that support the design and development of roadways that encourage the use of active transportation.

5.1.1 DEFINE SNOW REMOVAL RESPONSIBILITIES IN THE VILLAGE CODE

More than 200 residents and other stakeholders responded to the English and Spanish online and paper format survey on walking and biking in Bensenville. Survey respondents indicated a preference for policies that make sure that sidewalks and bike routes are clear in all seasons (43%). The accumulation of snow and ice on sidewalks creates a major barrier to pedestrians, especially seniors and children. The Public Works department currently maintains sidewalks on school routes when snow is more than 3 inches. However, the Village code currently does not designate snow removal responsibilities. To ensure safety and accessibility of the whole transportation network, the Village should consider establishing snow removal responsibilities in the Village Code that require property owners to maintain sidewalks adjacent to their properties during and after a snow event within a timely manner. In addition, Bensenville could consider working with community organizations to develop a program to help people with disabilities and others who need assistance with snow clearance. For example, other communities have coordinated with local Boy Scout, Girl Scout or high school clubs in need of volunteer hours to remove snow from the sidewalks of the elderly or those with disabilities.

5.1.2 ADOPT A COMPLETE STREETS POLICY

Almost 30% of people responding to the survey suggested the need for policies that make sure all users have access to all roadways. Over 20% indicated policies that make sure new buildings and subdivisions accommodate walkers and cyclists. Following accepted best practices, the design recommendations throughout this plan are based on a Complete Streets philosophy. Complete streets are designed to enable safe access for all users of the transportation network regardless of age, ability, or travel mode. A complete street has no predefined facilities requirements, but is optimized within its surrounding context to promote safe, convenient active transportation options for the community. To ensure that these principles play a lasting role in the development of the local transportation network, the Village of Bensenville is in the process of adopting a Complete Streets policy. This means committing to the accommodation of bicyclists, pedestrians, and transit users as well as motor vehicles in all new transportation construction and maintenance projects whenever appropriate.

In fall of 2015 the Village of Bensenville began drafting a Complete Streets policy. The Complete Streets policy is based on national best practices. Simply put, it states that the Village's roads should serve as a network that is accessible to all users, regardless of age, ability, or travel mode. The primary recommendation of this section it to fully implement the new Complete Streets policy. See Appendix G for draft Complete Streets policy.

EVALUATION STANDARDS: Set general standards for how roadways should meet the new Complete Streets policy's assumed need for active transportation facilities. The Village can do this by establishing:

Goals for bicycle, pedestrian and/or multi-modal level of service scores for the various roadway typologies found in the Village.

Design standards based on the national best practices, such as the MUTCD and DuPage County Regional Bikeway Plan (See Chapter 3 for some design guidance. Additional standards are included in the Appendix).

Set overall goals for the installation of Complete Streets facilities throughout the Village within

a given timeframe. For example:

Number of miles of bike facilities installed

Number of pedestrian crossings improved

Number of bicycle parking racks installed

Linear feet of sidewalk gaps filled

Review and analyze crash data annually to identify high crash area locations. Reduce number of bicycle and pedestrian related crashes by making improvements in areas where crashes have occurred.

Number of trees planted

ASSESSMENT PROCESS: Adopt a context sensitive assessment process for all new roadway projects, measuring their compliance with the new policy based on the Village's needs. Project review criteria should address the standards and goals established in strategies by the Village and take other issues into account, including:

Achievement of strategies in the active transportation plan, and other local or regional plans

Appropriateness of designed facilities based on surrounding land use

Establishment of new connections within the Complete Streets network

Improvements in safety for all users of the roadway

5.1.3 CREATE A BICYCLE PARKING ORDINANCE

Lack of convenient and secure bicycle parking can act as a barrier to bicycling in the Village. To encourage more people to bike around the Village and ensure residents will have a secure place to store their bikes once they reach a destination, Bensenville could adopt a bicycle parking ordinance. More than 150 communities around the US have incorporated bicycle parking into law (NPLAN). To adopt this ordinance, the Village could add minimum short and long term bicycle parking standards to the criteria for new commercial and multifamily developments and other major reconstruction and renovation projects. The Village could also require parking garages and other parking facilities to provide bicycle parking. Additionally, the Village could require large-scale community events and festivals involving street closures, such as Music in the Park and LibertyFest, to provide monitored bicycle parking.

The National Policy & Legal Analysis Network (NPLAN) has developed a comprehensive model bicycle parking ordinance for municipalities pursuing this policy initiative. A downloadable fact sheet and annotated version of the model ordinance for Illinois communities are available at the ChangeLab Solutions website for free at the link below.

http://www.changelabsolutions.org/publications/bike-parking

5.1.4 REVISE VILLAGE CODE TO FILL SIDEWALK GAPS

Revise the development code to require new developers to build sidewalks. The Village code could also be amended to include a 50/50 sidewalk program. For example, the City of Bloomington, IL has a 50/50 program in which the City pays 50% of sidewalk repairs and property owners pay the rest. Alternatively, the City of Campbell, California has a Sidewalk Infill Program that allows property owners to repay the city for the cost of sidewalk construction in installments over a ten year period.

5.2 Program Recommendations

Objective: Create programs that educate all users of the road of their right and responsibilities, engage local residents in encouragement activities designed to get more people to walk and bike, and promote safe travel behaviors on local streets.

REVISE VILLAGE CODE
to fill sidewalk gaps

REQUIRE NEW DEVELOPMENTS
to include bike parking

5.2.1 EARN A BIKE PROGRAM

The Village could also consider creating an "Earn-a-Bike Program" with a local bicycle shop or a nonprofit organization similar to one created by Blackstone Bicycle Works. In this program kids can work towards a bike by helping out in a shop and learning how to repair bikes or through other community service. This would encourage youth from low income backgrounds to bike more around the Village and a means for them to attain one. The Village could also create a "recycle a bike" program in which donated or unclaimed bikes could be distributed to those in need.

EARN-A-BIKE PROGRAM
Image: Blackstone Bicycle Works

5.2.2 DEVELOP YOUTH BICYCLE AND PEDESTRIAN PROGRAMMING

The majority of respondents to the survey (62%) said that education programs for youth was a programmatic preference. The Bensenville Park District could coordinate with League Certified Bicycle Instructors to host bicycle rodeos and other safety training for students. The Village could also develop a program or work with the school district to create bicycle and pedestrian safety training curriculum in the elementary and middle schools and mobility education in Fenton High School.

5.2.3 CREATE A FAMILY BIKE RIDE

Bensenville has had great success getting families out and walking with its annual Walkathon. The Village could build on this tradition by developing a family ride centered around a theme. To help new and continuing cyclists better understand the rules of the road, the Village could work with the League of Illinois Bicyclists to enlist a local League Certified Instructor to hold a bike safety training prior to the ride.

5.2.4 WORK WITH LAW ENFORCEMENT TO EDUCATE DRIVERS, CYCLISTS, AND PEDESTRIANS ABOUT RIGHTS AND RESPONSIBILITIES

Almost 25% of survey respondents mentioned enforcement of safe travel behaviors for bicyclists and pedestrians. The Village could coordinate with the police department in training programs to ensure that police officers are aware of the rules and rights of pedestrians, bicyclists and motorists on the roadways. Using targeted enforcement strategies, the police department could issue warnings to drivers, pedestrians, and cyclists for safety violations, such as distracted driving and failing to yield the right-of-way at stop signs and signals. The Village could also implement a "caught being good" program in which children are given prizes for safe bicycling and walking.

PARTNERING AND COLLABORATING with the local police departments to provide programming

PROVIDE EASY BICYCLE PARKING at community events

GROUP RIDES are a safe way for newcomers to try bicycling on roadways

IMPLEMENTATION

6

Implementation Goal

Create a framework for implementing plan recommendations that addresses project cost, complexity, partners, and phasing.

Chapter 6 Overview

The following chapter summarizes priorities and implementation strategies for the Village of Bensenville to pursue as they advance recommendations in this plan. Implementation prioritization was determined based on a variety of factors, including the health equity analysis, access to destinations, such as transit, schools, and parks, community prioritization, jurisdiction, available right-of-way, and existing and future plans for the area.

OBJECTIVE: ONE

Implement network, policy, and program recommendations.

OBJECTIVE: TWO

Coordinate with agencies affected by the implementation of this plan.

OBJECTIVE: THREE

Develop a series of metrics to measure progress of the plan.

GOAL: FOUR

Strategically pursue funding for implementation of projects identified on locally controlled roads in this plan.

6.1 Project Implementation

Objective: Implement network, policy, and program recommendations.

Plan implementation will require coordination with Multiple Jurisdictions

6.1.1 PRIORITIZATION CRITERIA

The project prioritization and implementation timeline for bicycle, pedestrian, and intersection facilities is based on several different factors. In determining which facilities to prioritize, the project team considered various topics and asked the following questions:

DEMOGRAPHIC EQUITY: Which improvements will affect the highest percentage of priority populations? Being dependent on personal automobiles is expensive. There is a significant population in Bensenville that is below the poverty level and are touched by other factors of demographic inequity, such as low high school graduation rate and renters spending 30% of their income or more on rent. Having safe and convenient access to alternative modes of transportation can greatly impact and improve the quality of life for these traditionally underserved populations.

CRASH HISTORY: Has the area had any bicycle or pedestrian crashes in the past five years? Crashes are often an indicator of a design deficiency, which can be remedied through proven countermeasures.

CONNECTIVITY: Does the bike route connect to planned or existing regional routes? Does a proposed sidewalk fill in a gap or is it missing entirely? Having a complete and connected network will make walking and biking trips safer and more convenient for people, which will lead to more trips.

DESTINATIONS: Do these facilities take you somewhere? Routes should connect people to places. Projects that will connect to more high demand destinations, such as schools, parks, and transit, than others should be prioritized.

FEASIBILITY: Which routes are low-hanging fruit and which will be more expensive and politically challenging to implement? Factors such as jurisdiction (whether the roadway is owned and maintained by the Village, DuPage County, Addison Township or IDOT), cost, number of feasibility and engineering studies required and time it takes to build a project impact the feasibility and likelihood that a project will be easily implemented.

EXISTING AND UPCOMING OPPORTUNITIES: Are there other planning, designing or engineering projects in the works? These projects that are being planned or are already slated to happen offer an opportunity to coordinate and implement better pedestrian and bicycle facilities, such as the Elgin O'Hare Western Access project.

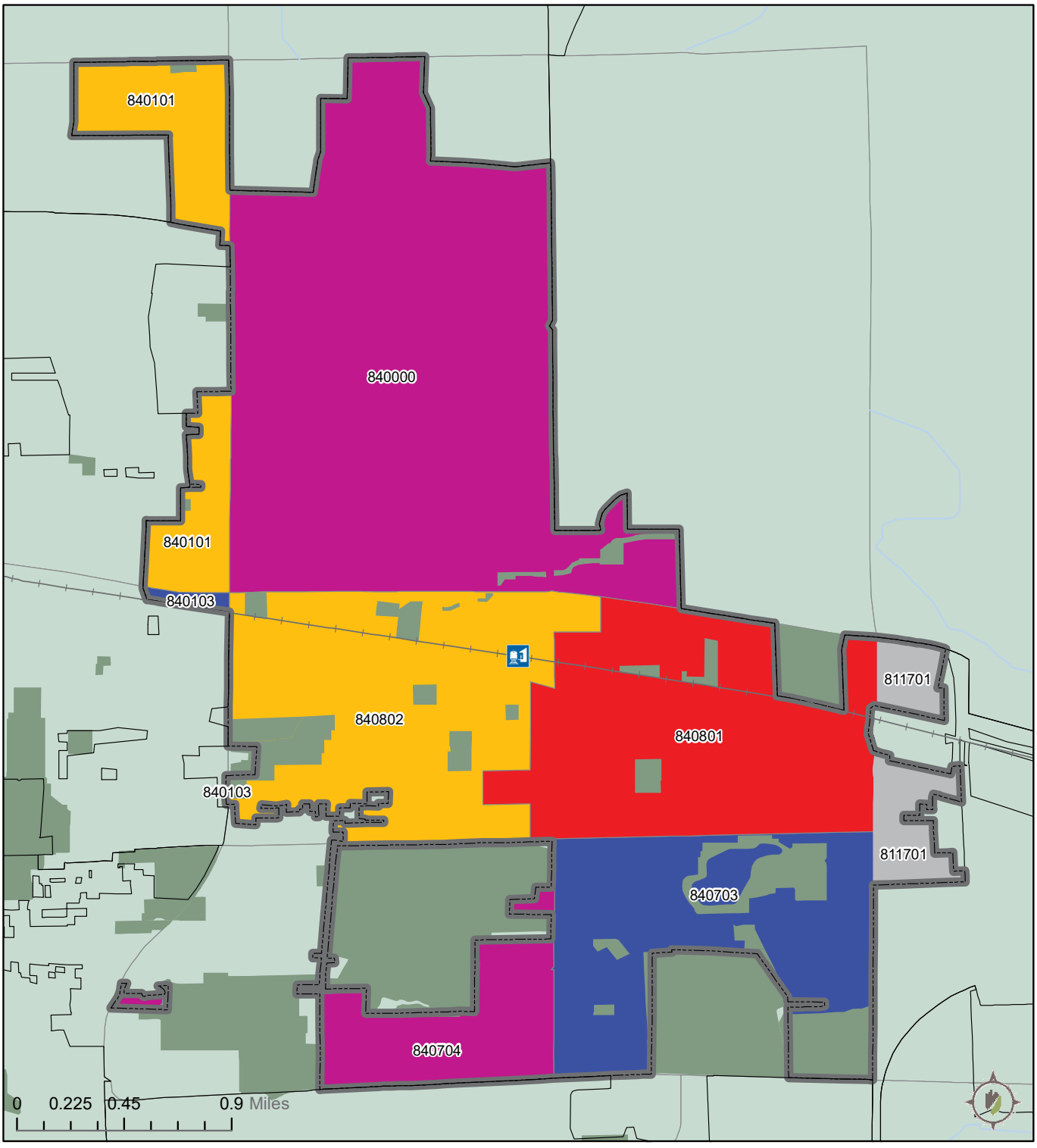
COMMUNITY INPUT AND DEMAND: Did the roadway surface as a priority during the community engagement portion of the planning process? Projects should be prioritized based on the experts of the community, residents and other stakeholders that were mentioned during the survey, public meetings, steering committee meetings, and tabling events.

6.1.2 DEMOGRAPHIC EQUITY MAPPING

The Demographic Equity map is used to prioritize the implementation of bicycle and pedestrian facilities. The map illustrates a composite score of priority populations for each DuPage County Census tract in Bensenville based on Impact DuPage data pulled from the U.S. Census 2009-2013. The variables that comprise this composite score are percent of the population: below the poverty level, with no high school diploma by age 25+, non-white, Hispanic or Latino, 65+ living below the poverty level, children living below the poverty level, renters spending 30% of income or more on rent, and households without a vehicle. The composite score is the average of all these variable percentages. In this model, all the percentages are weighted equally. However, it could be determined that different population variables have a higher weight than others, and this would shift the composite scores for each Census tract. The expense of automobile ownership most greatly impacts these priority populations. Viable walking and bicycling options and accessibility to key destinations can greatly improve quality of life for the significant priority population in Bensenville..

TABLE 6A CRITERIA FOR DEMOGRAPHIC EQUITY MAPPING

Tract	% Below the Poverty Level	% with no high school diploma by age 25+	% Non-white population	% Hispanic or Latino	% People 65+ Living below poverty level	% Children Living Below Poverty Level	% Renters spending 30% of income or more on rent	% Households without a vehicle	Composite Score
840703	6.30%	6.10%	33.90%	32.00%	7.50%	4.20%	42.90%	3.70%	17.08%
840704	24.90%	20.60%	26.90%	47.40%	2.80%	54.70%	41.10%	2.60%	27.63%
840000	12.60%	34.90%	37.90%	59.30%	3.50%	13.80%	41.40%	0.00%	25.43%
840101	13.70%	18.60%	24.40%	35.30%	1.20%	28.90%	54.40%	5.10%	22.70%
840103	9.90%	12.20%	15.20%	13.20%	4.70%	23.00%	46.60%	2.70%	15.94%
840801	18.90%	26.40%	31.00%	50.70%	23.00%	30.70%	61.70%	22.20%	33.08%
840802	15.90%	29.40%	28.70%	44.80%	0.00%	21.60%	51.10%	3.20%	24.34%
811701	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average all tracts	14.60%	21.17%	28.29%	40.39%	6.10%	25.27%	48.46%	5.64%	23.74%



Demographic Equity

Percent Vulnerable Population Composite

No Data

1% - 17%

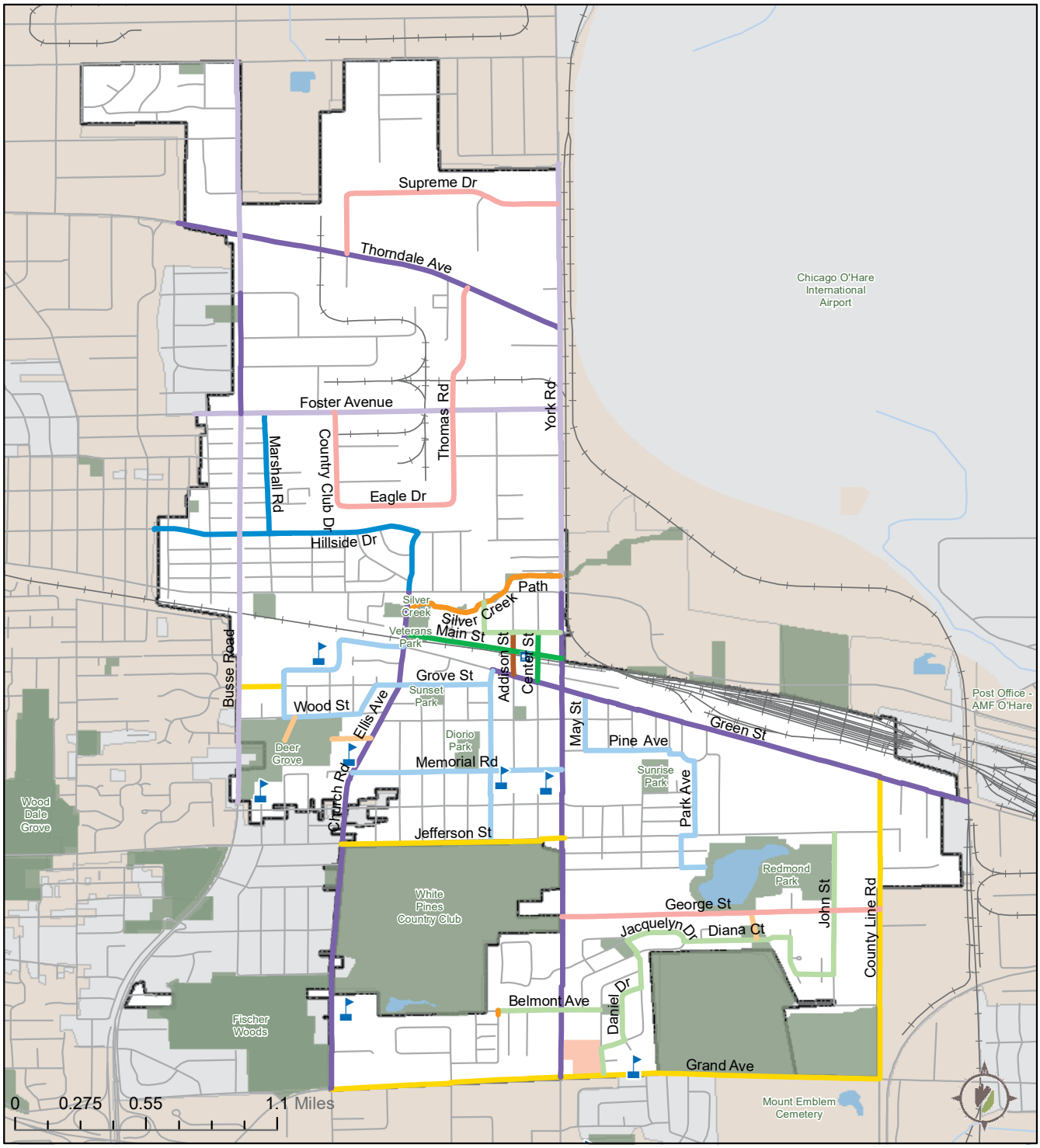
18% - 24%

25% - 28%

29% - 33%

6.1.3 PROJECT IMPLEMENTATION

Using the Demographic Equity Analysis and the other criteria summarized in section 6.1, the following maps summarize the recommended project priorities for the Village of Bensenville as it implements this plan. Detailed tables follow each of the implementation maps. In addition to the equity analysis, the bicycle facilities prioritization model was based on number and frequency of crashes, connectivity to the regional bike network, access to local destinations, project complexity, and opportunity for alignment with other projects:



Bike Network Prioritization

- Bike Boulevard, High
- Bike Boulevard, Medium
- Bike Boulevard, Low
- Bike Lane, Low
- Marked Shared Lanes, High
- Marked Shared Lanes, Low
- Path, High
- Path, Medium
- Path, Low
- Shared Use Path, High
- Shared Use Path, Medium
- Shared Use Path, Low

TABLE 6B BICYCLE BOULEVARDS IMPLEMENTATION

Street Name	From	To	Route#	Existing Conditions	Recommendations	Coordination	Priority
Hillside Dr	Pine Ln	Church Rd	Route 1	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents, Bensenville Park District, IDOT	High
Marshall Rd	Hillside Dr	Foster Ave	Route 1	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	High
Church Rd	Irving Park Rd	Hillside Dr	Route 1	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	IDOT, Residents	High
Park Ave	Jefferson St	Pine Ave	Route 3	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Bensenville Park District, Residents	Medium
Pine Ave	Evergreen St	May St	Route 3	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Bensenville Park District, Residents	Medium
May St	Pine Ave	Green St	Route 3	Residential street with alley access for most garages.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Medium
Park Ave	Third Ave	Park Ave	Route 3	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Medium
Third Ave	Park Ave	Park Ave	Route 3	Residential street with multiple driveway curb cuts.		Residents	Medium
Red Oak St	Park Ave	Redmond Park	Route 3	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Medium
Mason St	Green St	Jefferson St	Route 2	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Bensenville Park District, Residents	Medium
Grove St	Mason St	Ellis Ave	Route 2	Residential street with multiple driveway curb cuts. West of Church Road, Grove widens and has increased traffic volume.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Medium
Wood St	Ridgewood Ave	Ellis ST	Route 2	Residential street with multiple driveway curb cuts on north side.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Bensenville Park District, Residents	Medium
Ridgewood Avenue	Wood St	Logan Way	Route 2	Residential street with multiple driveway curb cuts south of Grove Street, north of Grove Street, road is an access road to Fenton High School.	"Near Term: Install shared lane markings and wayfinding signage south of Wood Street. Mid-Term: Conduct study to determine if bike boulevard and traffic calming are feasible on Ridgewood Avenue north of Wood Street and if additional elements are needed south of Wood Street."	Fenton High School District 100, Residents, Bensenville Park District	Medium
Ellis Ave	Wood St	Grove St	Route 2	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Medium
Logan Way	Green St	Ridgewood Ave	Route 2	Access road to Fenton High School.	Mid-Term: Conduct study to determine if bike boulevard and traffic calming are feasible.	Fenton High School District 100, Residents	Medium

TABLE 6B BICYCLE BOULEVARDS IMPLEMENTATION, CONTINUED

Street Name	From	To	Route#	Existing Conditions	Recommendations	Coordination	Priority
Green St	Logan Way	Church Rd	Route 2	Residential street with multiple driveway curb cuts. Access road to Fenton High School.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Fenton High School District 100, Residents	Medium
Memorial Rd	Church Rd	York Rd	Route 2	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Bensenville Park District, Residents	Medium
Belmont Ave	Bobby Dr	David Dr	Route 4	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Low
Dolores Dr	David Dr	Daniel Dr	Route 4	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Low
Daniel Dr	Grand Ave	Dolores Dr	Route 4	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Low
Diana Ct	Brentwood Dr	Jacquelyn Dr	Route 4	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Bensenville Park District, Residents	Low
Jacquelyn Dr	Dolores Dr	Diana Ct	Route 4	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Low
Daniel Dr	Dolores Dr	Dolores Dr	Route 4	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Low
Dolores Dr	Jacquelyn Dr	Daniel Dr	Route 4	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Low
Brentwood Dr	Diana Ct	River Forest Dr	Route 4	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Low
John St	Brentwood Dr	Jefferson St	Route 4	Residential street with multiple driveway curb cuts south of George Street. North of George Street, some residences with a cul de sac blocking vehicle access to Redmond Park.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed. Install separate path and curb ramp at cul de sac for cyclists to access Redmond Park."	Bensenville Park District, Residents, Township	Low
River Forest Dr	Brentwood Dr	John St	Route 4	Residential street with multiple driveway curb cuts.	"Near Term: Install shared lane markings and wayfinding signage. Mid-Term: Conduct feasibility study to determine if additional traffic calming is needed."	Residents	Low
Roosevelt Ave	Mason St	York Rd	Route 5	Residential street with multiple driveway curb cuts.	Mid-Term: Conduct feasibility study to determine if Silver Creek Path is feasible. Bike boulevard should be implemented on Roosevelt Street in conjunction with Silver Creek path construction.	Bensenville Park District, Residents	Low
Mason St	Roosevelt Ave	Silver Creek Trail	Route 5	Residential street with multiple driveway curb cuts.	Mid-Term: Conduct feasibility study to determine if Silver Creek Path is feasible. Bike boulevard should be implemented on Mason Street in conjunction with Silver Creek path construction.	Bensenville Park District, Residents	Low

TABLE 6C BIKE LANE IMPLEMENTATION

Street Name	From	To	Existing Conditions	Considerations	Coordination	Priority
Center St	Roosevelt Ave	Wood St	Road transitions from residential land uses to commercial uses north of Green Street. Provides an important connection to downtown Bensenville, Village Hall, the Metra Station,	Convert angle parking to parallel parking on both sides of the street to accommodate bike lanes.	Bensenville Chamber of Commerce, Metra, Union Pacific, Residents	Medium
Main St	Center St	Church Rd	Road parallels the downtown shopping area and provides access to Veteran's Park.	Parking on south side of main could be converted to back-in angle parking to make cyclists more visible to drivers pulling out of spots. This would result in a minor reduction in parking spaces in that area, but would improve safety for cyclists and drivers alike.	Bensenville Chamber of Commerce, Bensenville Park District, Metra, Union Pacific, Residents	Medium

TABLE 6D SHARED USE PATH IMPLEMENTATION

Street Name	From	To	Existing Conditions	Considerations	Recommendations	Coordination	Priority
Jefferson St	Church Rd	York Rd	Primarily residential street that connects the community from east to west. Provides direct access to the Bensenville Ditch, Redmond Park, and the ice arena.	There is currently insufficient right-of-way for both bike lanes and parking lanes, and the traffic volume along the road are too high for bike boulevard treatments. The Village may want to consider purchasing ROW on the north side of the street between Church and York to construct a shared use path.	Near-Term: Coordinate with residents to determine feasibility of installing a shared use path on the north side of Jefferson Street.	IDOT, Bensenville Park District, Residents	High
Thorndale Ave	Edgewood Ln	York Rd	High speed and traffic volume arterial abutting industrial land uses.	• Recommended grade separation across railroad tracks. • Southern alignment would provide better access to the Village of Bensenville. Connections to access the northern side of the Elgin O'Hare Expressway are also recommended to improve connectivity to Elk Grove Village and industrial park. However, right-of-way will be constrained once the EOWA project is constructed. • Eventually connect to Salt Creek Trail in Wood Dale. • Determine final alignments through CMAP Elgin O'Hare Bikeways study. • Address safe accommodations for cyclists and pedestrians at proposed interchanges, including Busse Highway and York Road. • Time with development of EOWA project.	Near Term: Coordinate with agencies on EOWA construction to determine appropriate alignment. Mid-Term: Construct shared use path along Thorndale Avenue."	IDOT, Village of Wood Dale, local businesses	High
Church Rd	Grand Ave	Irving Park Road	• Provides good connectivity to Blackhawk Middle School, the Bensenville Community Public Library, Fenton High School, Johnson Elementary School, and Fischer Farms, and many residences. • Shared use path currently under construction from Grand Avenue to Third Avenue on the east side of the street.	• From Third Avenue north to Main Street, the shared use path should be aligned on the west side of the street. From Main Street to Irving Park Road, path alignment should be considered on the west side of the street. North of Irving Park Road, an on-street bike lane can be built to accommodate cyclists and eventually connect to Hillside Drive (eliminate on-street parking to accommodate). • The Village will need to coordinate with residents along Church Road to obtain construction easements. Utility lines will need to be buried. There are limited trees along the proposed alignment, but consideration should be given to preserve them wherever feasible. "	Near-Term	Bensenville Park District, Bensenville School District 2, Bensenville Community Public Library, Residents, Metra, Union Pacific	High
Route 83	2nd Ave	Devon Ave	Connects to Pace bus stop, major barrier for community connections.	• Align on east side of street • Install crossing improvements at all signalized intersections	Near-Term: Construct shared use path between Foster Avenue and Bryn Mawr Avenue Long-Term: Complete remaining segments"	IDOT, Wood Dale, Forest Preserve District of DuPage County	High
York Rd	Pan Am Blvd	Grand Ave	Streetscaping elements recently were completed along York Road from Memorial Road to Irving Park Road. Sidewalks narrow north of Green Street to Railroad Avenue (adjacent to downtown Bensenville), but include pedestrian scale lighting.	• Align on west side of the street from Grand Avenue to Memorial Road. North of Memorial Road, explore the possibility of adding on-street bike lanes extending to Irving Park Road. From Irving Park Road to Pan Am Boulevard, continue the shared use path on the west side of the street. Path will need to be designed to create a safe connection around the Elgin O'Hare interchange at Irving Park Road. • Provides connectivity to Chippewa Elementary School and Tioga Elementary School. • Need to address proposed interchange at Irving Park Road. • Upgrade all signalized crossings to include countdown timers, push buttons, and high visibility crosswalks. • Install a pedestrian refuge island near Brentwood Commons and the PACE bus stop. • Large number of curb cuts along the corridor will need to be addressed.	Near-Term: Coordinate with agencies on EOWA construction to determine appropriate alignment from Pan Am Blvd to Irving Park Road. Long-Term: Seek funding for and construct remaining path from Irving Park Road to Grand Avenue."	IDOT, O'Hare Airport, local businesses	Medium

TABLE 6D SHARED USE PATH IMPLEMENTATION, CONTINUED

Street Name	From	To	Existing Conditions	Considerations	Recommendations	Coordination	Priority
Green St	Mason St	Podlin Dr	Provides good connection to City of Chicago.	Additional analysis will need to be conducted to determine which segments can be constructed in conjunction with the EOWA project.	Long-Term	Township, Local Businesses	Medium
Grove St	Ridgeway Avenue	Busse Hwy	Connects to Fenton High School.	North alignment is preferred.	Long-Term	IDOT, Fenton High School District 100, Residents	Medium
Foster Avenue	Spruce St	York Rd	Connects to North Business District.	Align sidepath on north side of the street due to fewer driveways and curb cuts.	Mid-Term	IDOT, Local Businesses	Medium
Grand Ave	Church Rd	Mt Prospect Rd	Existing sidewalk on Grand Avenue on the north side of the street, but it is too narrow to accommodate a large volumes of pedestrians and cyclists.	• Coordinate with Elmhurst to develop a shared use path on the south side of the street. • Develop recommendations for crossings at signals.	Long-Term: Partner with Elmhurst to develop a shared use path on the south side of Grand Avenue.	IDOT, City of Elmhurst	Low
County Line Road	Grand Ave	Green St	North/south connection	Align shared use path on west side of the street if feasible.	Long-Term	Township	Low

TABLE 6E PATH & TRAIL IMPLEMENTATION

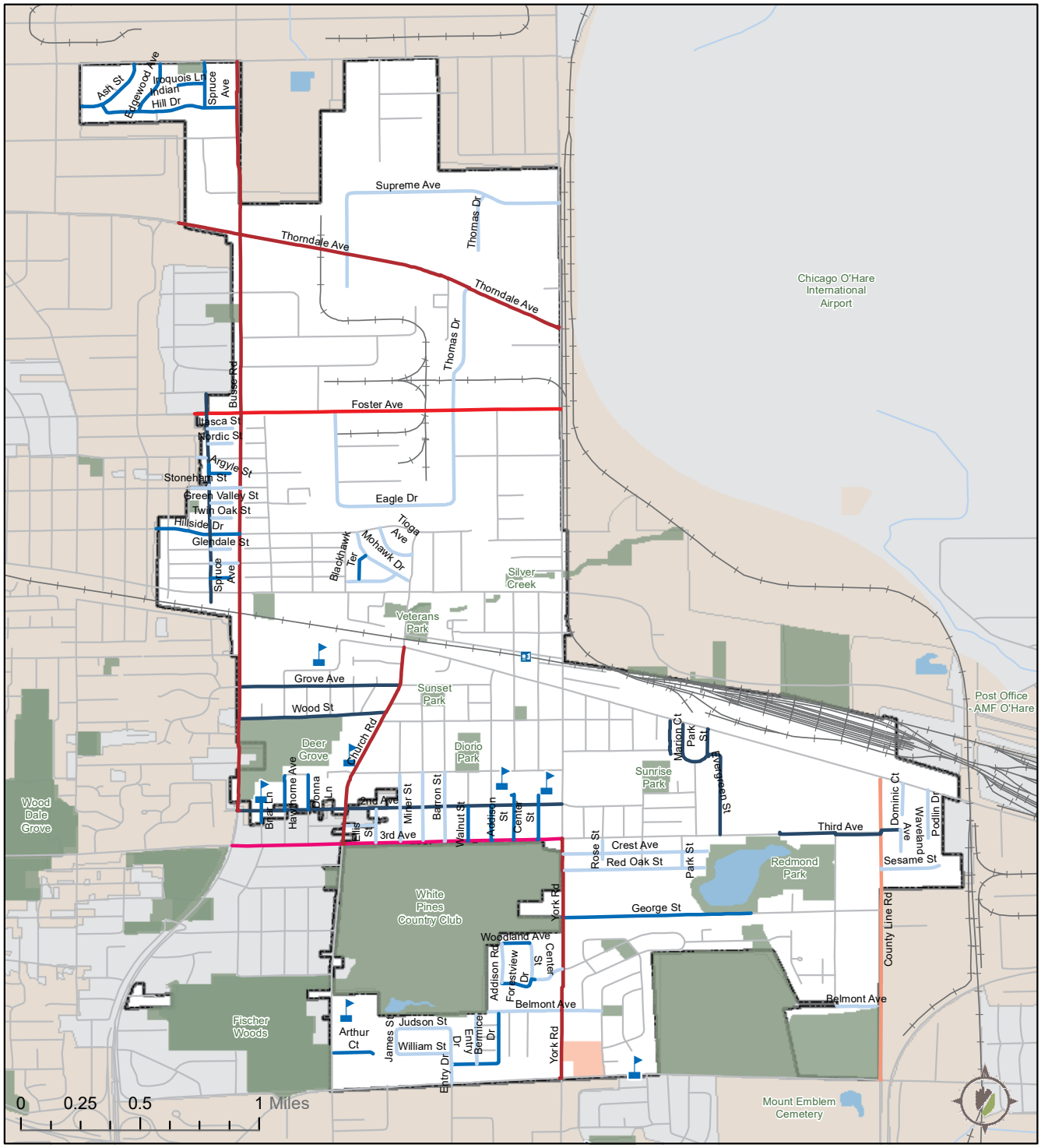
Street Name	Existing Conditions	Considerations	Coordination	Priority
Deer Park Access Path East	Parking lot	Active Transportation users who wish to use the path in Deer Park currently must either cut through parking lots to the north or east or access the park from Washington Street/Ridgewood Avenue to the south. The Village should work with the Park District, School District, and Library District to install sidewalks that connect to the path from the Bensenville Community Public Library and the Water Park parking lots.	Bensenville Park District, Residents	High
Deer Park Access Path North	Parking lot	Active Transportation users who wish to use the path in Deer Park currently must either cut through parking lots to the north or east or access the park from Washington Street/Ridgewood Avenue to the south. The Village should work with the Park District, School District, and Library District to install sidewalks that connect to the path from the Bensenville Community Public Library and the Water Park parking lots.	Bensenville Park District, Residents	High
Bobby/Belmont Access Path	Existing fenced off gravel driveway	There is limited access for residents of the Elm Court apartments to get from their homes to Redmond Park or the Jewel-Osco. However, there is an existing fenced off gravel street that connects the two.	Bensenville Park District, Elm Court Apartments, Residents	High
Silver Creek Path	Creek	Will require feasibility study	IDOT, Bensenville Park District, Local Businesses, Residents	Medium
Addison Creek Path	Creek	Building a short path along Addison Creek that connects the bike boulevard on Diana Court to the path around the Bensenville Ditch Forest Preserve would significantly reduce the distance cyclists would have to travel to head north from this neighborhood. The Village should explore the feasibility to constructing a path here that connects to George Street from the vacant lot to the east of the Brentwood Apartments.	Bensenville Park District, Residents	Low

TABLE 6F MARKED SHARED LANES IMPLEMENTATION

Street Name	From	To	Existing Conditions	Considerations	Coordination	Priority
Addison St	Roosevelt Ave	Wood St	Road transitions from residential land uses to commercial uses north of Green Street. Provides an important connection to downtown Bensenville, Village Hall, the Metra Station,		Bensenville Chamber of Commerce, Bensenville Park District, Metra, Union Pacific, Residents	High
Thomas Rd	Thorndale Ave	Eagle Dr	Located on an industrial road with high volumes of traffic.	If future redevelopment occurs, the Village should consider installing bike lanes instead of marked shared lanes.	Local Businesses	Low
Eagle Dr	Thomas Rd	Country Club Dr	Located on an industrial road with high volumes of traffic.	If future redevelopment occurs, the Village should consider installing bike lanes instead of marked shared lanes.	Local Businesses	Low
Supreme Dr	Thorndale Ave	York Rd	Located on an industrial road with high volumes of traffic.	If future redevelopment occurs, the Village should consider installing bike lanes instead of marked shared lanes.	Local Businesses	Low
George St	York Rd	Mt Prospect Rd	Primarily residential route	__	Residents	Low
Country Club Dr	Eagle Dr	Foster Ave	Located on an industrial road with high volumes of traffic.	If future redevelopment occurs, the Village should consider installing bike lanes instead of marked shared lanes.	Local Businesses	Low

6.1.4 SIDEWALK NETWORK PRIORITIZATION

The following map and tables summarize the recommended sidewalk priorities for the Village of Bensenville. The prioritization model was based on the following variables: equity analysis, crash frequency, gap type (infill, versus no sidewalk, versus sidewalk on one side), access to local destinations, project complexity, and opportunity for alignment with other projects.



Sidewalk Gap Prioritization

- High, Shared Use Path
- Medium, Shared Use Path
- Low, Shared Use Path
- High, Sidewalk
- Medium, Sidewalk
- Low, Sidewalk
- Low, Sidewalk/Sidepath

TABLE 6G SIDEWALK IMPLEMENTATION

Street	Facility Recommendation	Coordination	Priority
Wood St	Sidewalk	Residents	High
Grove Ave	Sidewalk	Residents	High
2nd Ave	Sidewalk	Addison Township, School District, Park District	High
Marion Ct	Sidewalk	Park District	High
Spruce Ave	Sidewalk	Residents	High
Thorndale Ave	Shared Use Path	IDOT, Wood Dale	High
Route 83	Shared Use Path	IDOT	High
York Rd	Shared Use Path	Residents, Local Businesses, DuPage County	High
Church Rd	Shared Use Path	Residents, School District	High
Third Ave	Sidewalk	Park District, Residents	High
Evergreen St	Sidewalk	Local businesses	High
Park St	Sidewalk	Local businesses	High
Pine Ave	Sidewalk	Local businesses	High
Ash St	Sidewalk	Residents	Medium
Indian Hill Dr	Sidewalk	Residents	Medium
Edgewood Ave	Sidewalk	Residents	Medium
Iroquois Ln	Sidewalk	Residents	Medium
Spruce Ave	Sidewalk	Residents	Medium
Blackhawk Ter	Sidewalk	Residents	Medium
George St	Sidewalk	Residents	Medium
Bernice Dr	Sidewalk	Elm Court Apartments	Medium
Bobby Dr	Sidewalk	Elm Court Apartments	Medium
Center St	Sidewalk	Residents	Medium
Addison St	Sidewalk	Residents	Medium
Mason St	Sidewalk	Residents	Medium
Walnut St	Sidewalk	Residents	Medium
Briar Ln	Sidewalk	Residents	Medium

TABLE 6G SIDEWALK IMPLEMENTATION, CONTINUED

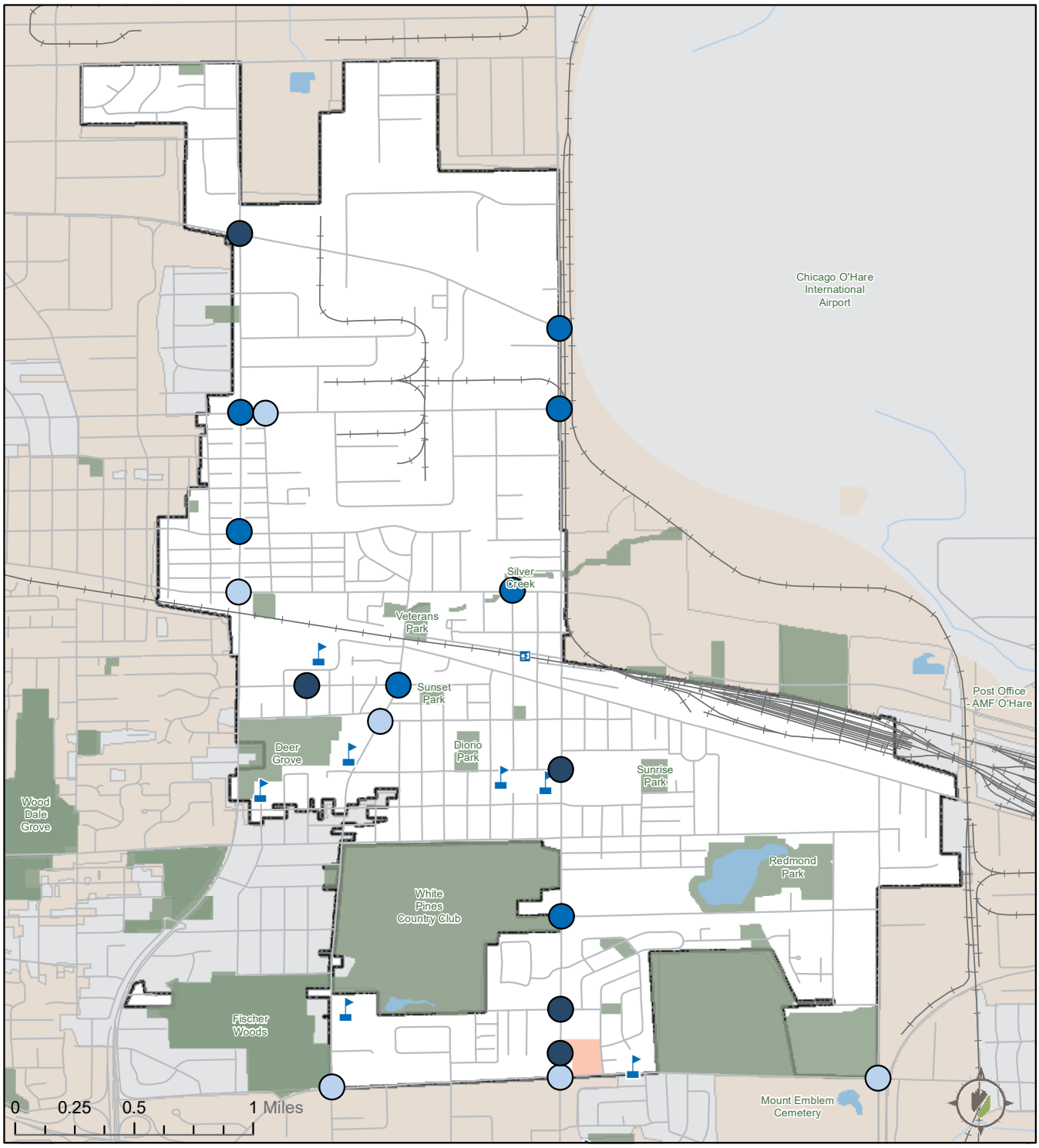
Street	Facility Recommendation	Coordination	Priority
Hawthorne Ave	Sidewalk	Residents	Medium
Donna Ln	Sidewalk	Residents	Medium
Arthur Ct	Sidewalk	Residents	Medium
Woodland Ave	Sidewalk	Residents	Medium
Forestview Dr	Sidewalk	Residents	Medium
Hillside Dr	Sidewalk	IDOT, Residents	Medium
Medinah St	Sidewalk	Residents	Medium
Argyle St	Sidewalk	Residents	Medium
Foster Ave	Shared Use Path	Businesses, IDOT	Medium
Supreme Ave	Sidewalk	Local businesses	Low
Thomas Dr	Sidewalk	Local businesses	Low
Thomas Dr	Sidewalk	Local businesses	Low
Eagle Dr	Sidewalk	Local businesses	Low
Tioga Ave	Sidewalk	Residents	Low
Mohawk Dr	Sidewalk	Residents	Low
Algonquin Ave	Sidewalk	Residents	Low
3rd Ave	Sidewalk/Shared Use Path	School District, Park District, Addison Township	Low
Belmont Ave	Sidewalk	Elm Court Apartments	Low
Entry Dr	Sidewalk	Local businesses	Low
Miner St	Sidewalk	Residents	Low
Ellis St	Sidewalk	Residents	Low
Judson St	Sidewalk	Residents	Low
Barron St	Sidewalk	Residents	Low
Second Ct	Sidewalk	Addison Township, Residents	Low
Ferrari Dr	Sidewalk	Elm Court Apartments	Low
James St	Sidewalk	Residents	Low

TABLE 6G SIDEWALK IMPLEMENTATION, CONTINUED

Street	Facility Recommendation	Coordination	Priority
William St	Sidewalk	Residents	Low
Judson St	Sidewalk	Residents	Low
Entry Dr	Sidewalk	Local businesses	Low
Forestview Dr	Sidewalk	Residents	Low
Forestview Dr	Sidewalk	Residents	Low
Center St	Sidewalk	Residents	Low
Addison Rd	Sidewalk	Residents	Low
Red Oak St	Sidewalk	Park District	Low
Crest Ave	Sidewalk	Park District	Low
Brookwood St	Sidewalk	Residents	Low
Glendale St	Sidewalk	Residents	Low
Twin Oak St	Sidewalk	Residents	Low
Green Valley St	Sidewalk	Residents	Low
Stoneham St	Sidewalk	Residents	Low
Nordic St	Sidewalk	Residents	Low
Itasca St	Sidewalk	Residents	Low
Elmhurst St	Sidewalk	Residents	Low
County Line Rd	Shared Use Path	DuPage County	Low
Waveland Ave	Sidewalk	Local businesses	Low
Dominic Ct	Sidewalk	Local businesses	Low
Podlin Dr	Sidewalk	Local businesses	Low
Sesame St	Sidewalk	Local businesses	Low
Park St	Sidewalk	Residents	Low
Rose St	Sidewalk	Residents	Low
Belmont Ave	Sidewalk	Local businesses	Low

6.1.5 INTERSECTION IMPROVEMENTS PRIORITIZATION

The following map and table summarize the recommended intersection priorities for the Village of Bensenville. The prioritization model was based on the following variables: equity analysis, crash frequency, access to local destinations, project complexity, and opportunity for alignment with other projects.



Intersection Improvement Prioritization

- High Priority Intersection Improvement
- Medium Priority Intersection Improvement
- Low Priority Intersection Improvement

TABLE 6H INTERSECTION IMPROVEMENTS IMPLEMENTATION

Intersection	Recommendation	Agencies	Priority
York Road and Brentwood Commons	Refuge island and RRFB	Residents, Local Businesses	High
York Road and Memorial Road	High visibility crosswalks	School district	High
Route 83 and Thorndale Avenue	Future interchange	IDOT	High
Grove Avenue and Franzen Street	RRFB	School district	High
York Road and Belmont Avenue	Traffic Signal, crosswalks	Residents	High
Route 83 and Hillside Drive	Mini roundabout	School district	Medium
Route 83 and Foster Avenue	High visibility crosswalks, countdown timers	IDOT	Medium
York Road and Foster Road	High visibility crosswalks, countdown timers	IDOT	Medium
Thorndale Avenue and York Road	Future interchange	IDOT	Medium
Irving Park Road and Center Street	Refuge Island	IDOT	Medium
Grove Avenue and Church Street	Tighten turning radii	Residents	Medium
Grand Avenue and York Road	Crosswalks, countdown timers, curb ramps	IDOT, Village of Elmhurst, Local Businesses	Low
Route 83 and Grand Avenue	Loop detector, crosswalks, countdown timers	IDOT, Village of Elmhurst	Low
Church Road and Wood Street	RRFB, high visibility crosswalk	School district	Low
Marshall Road and Foster Avenue	High visibility crosswalks, countdown timers	IDOT	Low
Grand Avenue and County Line Road	Curb ramp at cul de sac	Residents	Low
Irving Park Road and Route 83	Widen underpass sidewalk, install ramp	IDOT	Low

6.2 Progress Measurement

Objective: Develop a series of metrics to measure progress of the plan.

NUNBER OF MILES OF NEW BICYCLE FACILITIES IS ONE WAY TO TRACK IMPLEMENTATION OF THIS PLAN

Progress measures help communities track projects and better understand the impact of bicycle facilities on community health and travel patterns. There are many ways to track performance, some steps include:

- Miles of bicycle network implemented
- Linear feet of new pedestrian accomodations
- Number of new ADA compliant curb ramps installed along Village streets
- Annual school crossing guard walking counts
- Annual bike counts on bike routes
- Bicycle friendly policies adopted
- Educational events and encouragement opportunities offered
- Enforcement events held
- Other bicycle improvements
- Review and analyze crash data annually to identify high pedestrian and bicyclist crash area locations

6.3 Potential Funding Sources

Objective: Strategically pursue funding for implementation of projects identified on locally controlled roads in this plan.

There are multiple funding sources for transportation programs in Illinois. Most programs are both highly competitive and require a local match, but provide grant funding opportunities for the projects recommended in this plan. This section lays out the available funding sources by the agencies that administer them. A summary table is included following this section.

6.3.1 PROGRAMS ADMINISTERED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT)

MAP-21

IDOT administers federal pass-through funds for local and regional bicycle and pedestrian projects and safety initiatives, authorized by the current (as of September, 2015) federal transportation bill, Moving Ahead for Progress in the 21st Century, or MAP-21. MAP-21 combines a number of previous stand-alone pedestrian and bicycling funding programs – including Safe Routes to School, Recreational Trails and Transportation Enhancements - into a single pot of money: the Transportation Alternatives Program (TAP).

MAP-21 also contains other pedestrian and bicycling-eligible funding programs designed to improve air quality and fix traffic safety issues. It is important to note that, as of the writing of this plan, MAP-21 is operating under continuing resolutions and is set to expire in fall of 2015. The current draft transportation bill, called the DRIVE Act, may result in changes to programs and funding formulas.

ILLINOIS SAFE ROUTES TO SCHOOL PROGRAM (SRTS)

The SRTS program, uses both infrastructure and non-infrastructure approaches to improve conditions for students who walk or bike to school. The program is designed to enable and inspire children to walk and bike to school through improvements to the local active transportation network within two miles of schools and through programs and initiatives. The local match is 20%. Eligible project sponsors include schools and school districts and governmental entities. The program encourages applicants to form a local coalition of stakeholders.

ILLINOIS TRANSPORTATION ENHANCEMENT PROGRAM (ITEP)

ITEP was designed to promote and develop non-motorized transportation options, along with streetscape beautification. Since the adoption of MAP-21, IDOT has continued to maintain the ITEP website, but as of the writing of this plan, no call for projects has been announced since 2012.

Through ITEP, IDOT awards a portion of federal TAP funds competitively, and any local or state government with taxing authority is eligible to apply. Local governments are required to provide 20% matching funds and work must begin on the projects within three years of receipt of the award.

HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

The goal of the HSIP program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. It requires states to set performance measures and targets for reducing traffic-related fatalities and serious injuries for all modes of transportation. HSIP funds both infrastructure and non-infrastructure solutions (like public safety campaigns) and is administered by IDOT's Division of Traffic Safety. The program funds preliminary engineering, land acquisition, construction, and construction engineering. A minimum 10% local match is required.

SECTION 402 STATE AND COMMUNITY HIGHWAY SAFETY GRANT PROGRAM

The Section 402 program provides grants to states to improve driver behavior and reduce deaths and injuries from motor vehicle-related crashes. There are several sub-programs in IDOT's program, but the most pertinent to bicycle and pedestrian issues is the Injury Prevention Program. Section 402 funds do not support infrastructure projects. Eligible applicants include local civic organizations, schools and universities, hospitals, health departments, local governmental agencies, and nonprofit groups. 402 funds are considered seed funding and not for ongoing or sustained support. These funds are considered very limited, and no local match is required.

6.3.2 PROGRAMS ADMINISTERED BY THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES (IDNR)

IDNR offers two grant programs that fund land acquisition for trails, construction of new trails, and maintenance of existing trails. These two programs are described below.

RECREATIONAL TRAILS PROGRAM (RTP)

The Recreational Trails Program provides funding for land acquisition, development, restoration, and maintenance of trails. The program requires a 30% local match.

ILLINOIS BICYCLE PATH GRANT PROGRAM

The Illinois Bicycle Path Grant Program funds land acquisition, construction, and repairs of non-motorized bike trails. Applications are due in March when requests for proposals are released. Grants are capped at $200,000 per year and cover up to 50% of project costs.

6.3.3 PROGRAMS ADMINISTERED BY THE CHICAGO METROPOLITAN AGENCY FOR PLANNING (CMAP)

CMAP administers two federal pass-through funds that are pertinent to bicycle and pedestrian facilities – the Congestion Mitigation and Air Quality Improvement Program and the regional allocation of the Transportation Alternatives Program. Each are described below.

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM (CMAQ)

The CMAQ program is a flexible funding source that targets projects and programs to help meet the congestion mitigation and air quality reduction requirements of the federal Clean Air Act.

Bicycle and pedestrian facilities, transit improvements, and traffic flow enhancements make up some of the eligible projects. CMAP will give priority to projects that reduce ozone emissions and particulate matter. The local match is 20%.

TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

CMAP's allocation of the state TAP program has focused its funding on bicycle projects. Higher scores are assigned to projects that provide for low-stress bicycle facilities. Some eligible projects include connecting two existing trails, installing shared use paths or buffered bike lanes, and extending an existing regional trail.

For this competitive program, 50% of the funding is allocated by a formula based on population, with the other 50% being discretionary. The local match is 20%.

CMAP generally gives priority to projects that are a part of the Regional Greenways and Trails Plan, have a high population density near the trail or facility, and have a facility that is well designed. Additional points are given to projects that are "shovel ready" and that have a local match above the 20% minimum.

6.3.4 PROGRAMS ADMINISTERED BY DUPAGE COUNTY

DuPage County provides two sources of funding that may be applied to bicycle and pedestrian facilities. The Surface Transportation Program offers flexible funding for non-motorized transportation projects, and the Community Development Block Grant Program offers capital improvement funds for projects that benefit low and moderate income residential neighborhoods.

SURFACE TRANSPORTATION PROGRAM (STP)

The Surface Transportation Program provides flexible funding that may be used by States and municipalities for projects to preserve or improve conditions and performance on any Federal-aid highway, bridge projects on any public road, facilities for non-motorized transportation, transit capital projects and public bus terminals and facilities. The program is administered by the Chicago Metropolitan Agency for Planning (CMAP).

The program is administered by the DuPage County Mayors and Managers Association. DuPage County's STP program funds two categories of projects – highway projects and Transportation Control Measures (TCMs). Eligible projects must be located on Federal Aid Highway System road and must be classified as an arterial or collector. Eligible highway projects can include road widening, reconstruction, and intersection improvements, whereas TCM projects could include transit improvements and bicycle and pedestrian facilities. The DuPage County STP program provides a 70/30 percent federal/local match ratio for highway projects and a higher 75/25 percent match ratio for TCM projects. Right-of-way acquisition and engineering costs are not eligible for STP funding. All approved projects must be added to the Chicago Metropolitan Agency for Planning's Transportation Improvement Program.

COMMUNITY DEVELOPMENT BLOCK GRANTS (CDBG)

Administered by DuPage County's Community Development Commission, CDBG grants provide flexible funding for a variety of community development purposes. The Neighborhood Investment, Community-Wide Benefit, Accessibility Improvements, and Planning Projects category under the CDBG program offers capital improvement funds for several project types, including street improvements, sidewalk improvements, and accessibility improvements to public facilities. Projects eligible for funding must serve primarily residential neighborhoods with 35.83% of the population considered low- to moderate-income. A map of eligible block groups within Lombard is available at http://www.dupageco.org/Community_Services/Community_Development_Commission/1305/. The required local match varies by project type, ranging from 25% for high severity street improvement projects to 50% for accessibility projects. Accessibility projects are capped at $50,000.

TABLE 6I FUNDING SOURCES

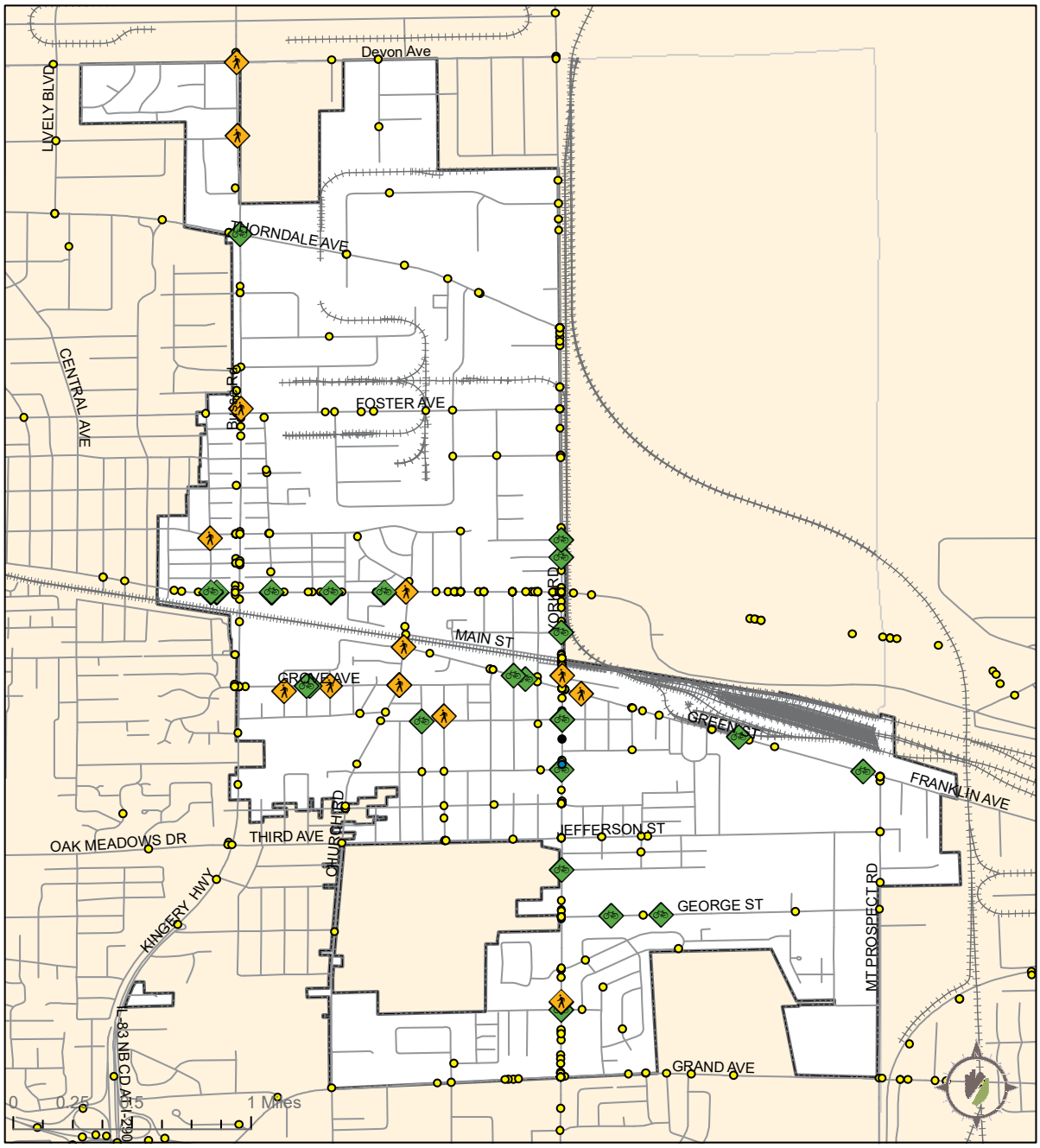
	ITEP	SRTS	HSIP	Section 402	RTP	Illinois Bicycle Path Grant Program	STP	CDBG	CMAQ
Program Purpose	To foster cultural, historic, aesthetic and environmental aspects of our transportation infrastructure	To enable and encourage children to walk and bike to school through the 5 Es.	To fund highway infrastructure safety projects aimed at reducing fatalities and serious injuries.	To create safety programs aimed at reducing traffic crashes.	To develop and maintain recreational trails and facilities for both motorized and non-motorized users.	To develop and maintain recreational trails and facilities for both motorized and non-motorized users.	To fund state and local road and transportation projects.	To fund community development projects in low- and moderate income communities.	To improve air quality and reduce traffic congestion in areas that do not meet air quality standards.
Program Administrator	IDOT	IDOT	IDOT Division of Traffic Safety	IDOT Division of Traffic Safety	IDNR	IDNR	DuPage County Mayors and Managers Association	DuPage County Community Development Commission	CMAP
Eligible Projects	Bike/ped facilities, safety education programs and encouragement incentives.	Bike/ped facilities, safety education programs and encouragement incentives.	Bike lanes, paved shoulders, Trail/Highway intersection improvements, crosswalks, signal improvement, and curb cuts as well as safety education and awareness programs.	Enforcement campaigns to improve bike/ped safety, helmet promotion, educational materials, and training.	Trails, Trail/ Highway intersection improvements, trailheads, educational materials, and training.	Trails, Trail/ Highway intersection improvements, trailheads, educational materials, and training.	Bike/ped facilities. Road projects that include sidewalks receive additional points.	Accessibility projects, sidewalk improvements, street improvements, and other neighborhood facilities.	Bike/ped facilities, safety education programs and encouragement incentives, active transportation plans, bike/ped maps, bike/ped coordinator position.
Key Project Requirements	Must relate to surface transportation.	Can only be spent within 1 ½ miles of a school.	Must address goals written in State Highway Safety Plan.	Must address goals written in State Highway Safety Plan.	30% allocated to non-motorized trail project, 30% for motorized, 40% for diversity of trail use.	Must be used for non-motorized bicycle paths.	1) Must reduce single occupancy vehicle trips and positively impact air quality. 2) Must be applied toward projects on collectors or arterials.	Must be in predominantly residential neighborhoods with at least 35.83% of the population identified as low- or moderate-income.	1) Must be spent in non-attainment and maintenance areas. 2) Will be evaluated on air quality emissions.
Application Process	Irregular schedule at call of IDOT.	Irregular schedule at call of IDOT.	Generally there is an annual update to the Plan at call of IDOT Division of Traffic Safety.	Generally each spring at call of IDOT Division of Traffic Safety.	Irregular schedules at call of Illinois Department of Natural Resources.	March application deadline, pending funding availability.	Varies depending upon sub-regional council of government	Varies, depending on funding availability.	Generally, an annual call for proposals.
Local Match Required	Typically 20%	0.2	0.1	No match required	Typically 20%, some 50%	Typically 50%	Typically 25% for bike/ped projects	25% - 50%	Typically 20%
Who Can Apply	Local governments	Any governmental entity	Any governmental entity or non-profit	Any governmental entity or non-profit	Any governmental entity or non-profit	Local governmental agencies	Local governments in DuPage County	Local governments	Local or state governmental agencies

APPENDIX

7

Appendix A: Existing Conditions.

The crash map is just one of a series of maps and information generated to inform recommendations made in this plan. Intersections and roadways with higher crash rates scored higher in the prioritization model.

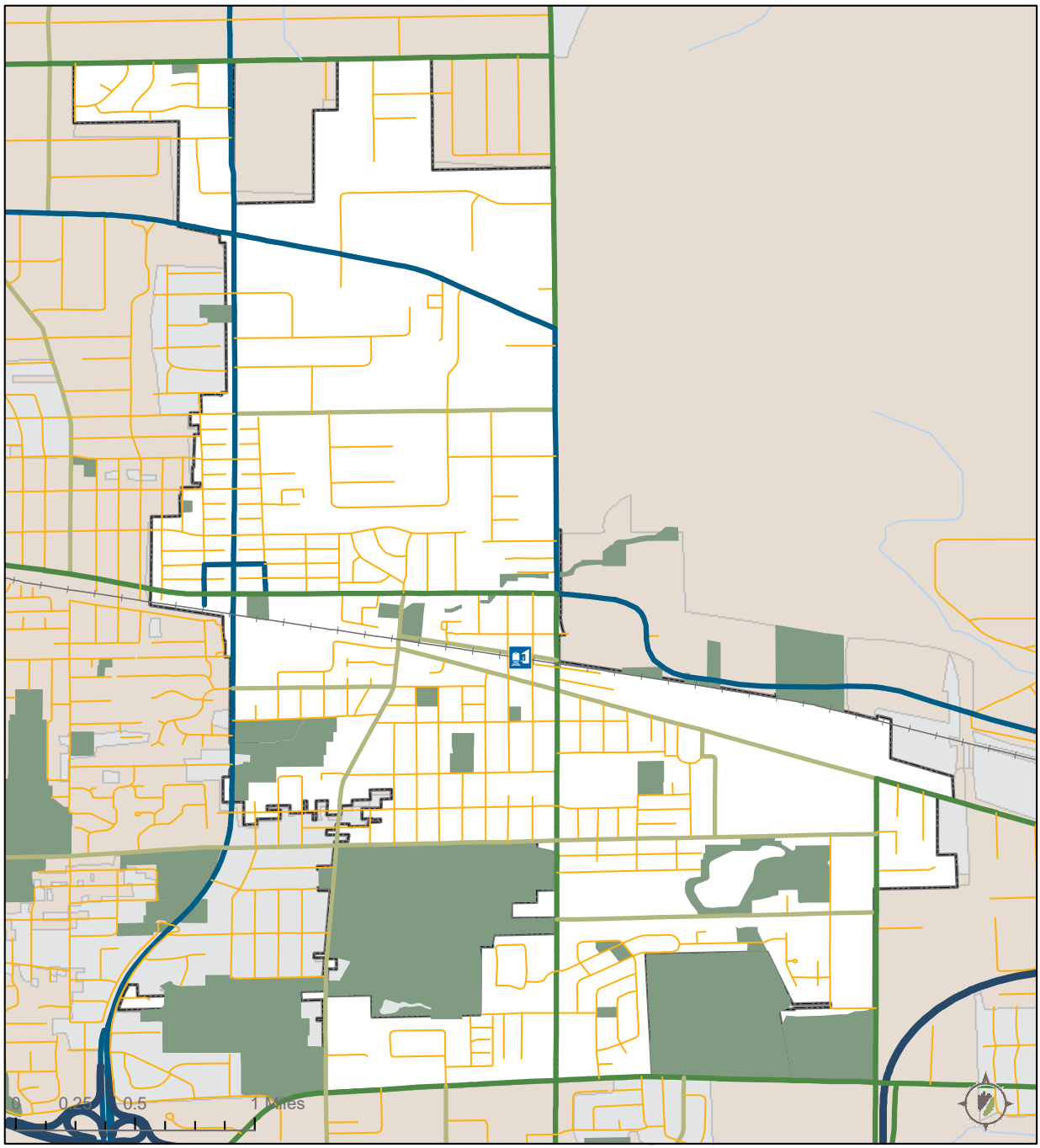


Crash History, 2009-2013

- Injury Crash Involving Pedestrian(s)
- Injury Crash Involving Cyclist(s)
- Injury Crash Involving Vehicle(s) Only
- Fatal Crash Involving Vehicle(s) Only

Appendix A: Existing Conditions

When developing the prioritization model for bikeways and sidewalks, functional classification was taken into account.

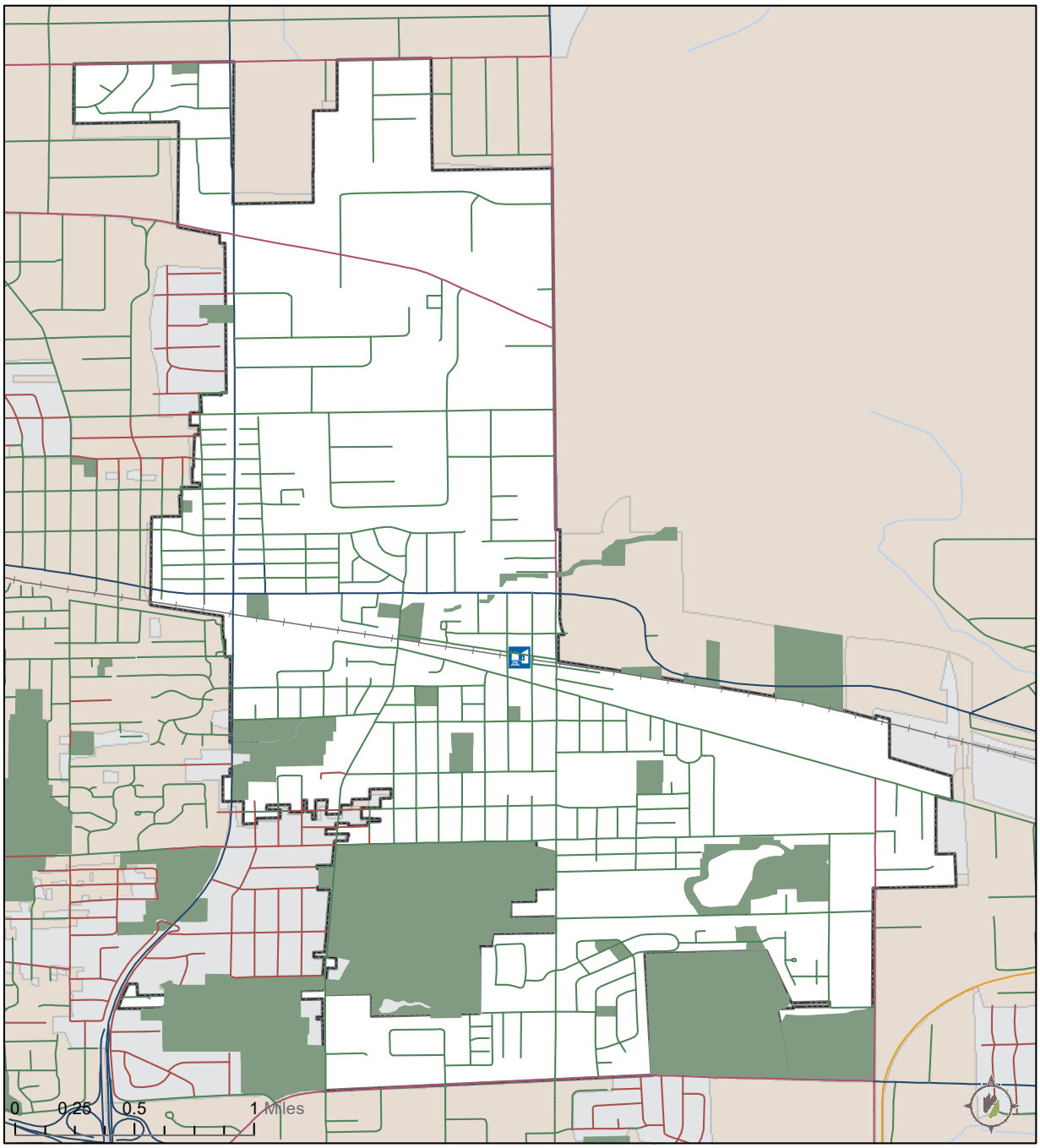


Roadway Functional Classification

Interstate
Other Principal Arterial
Minor Arterial
Major Collector
Minor Collector
Local Road or Street

Appendix A: Existing Conditions

Most of Bensenville's roadways are controlled by the Village, but a few, like Route 83, are not. This information was taken into account in the development of the plan, since each agency has its own design standards, and jurisdictional authority will impact a project's timeline.

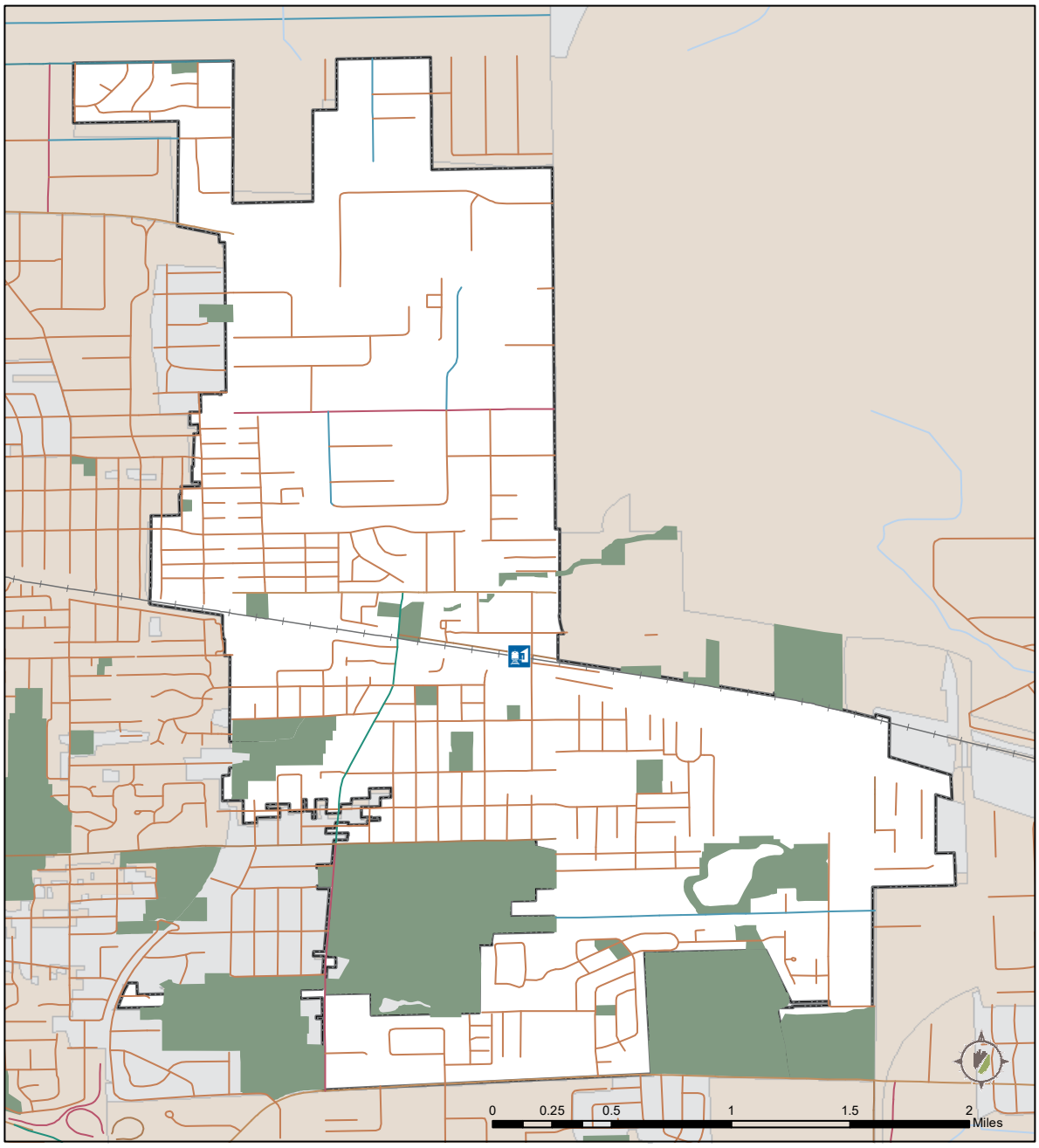


Roadway Jurisdiction

- IDOT
- Municipality
- DuPage County
- Township
- Cook County

Appendix A: Existing Conditions

Average daily traffic on roadways was used to determine appropriate bicycle facilities recommended on each road in the network.

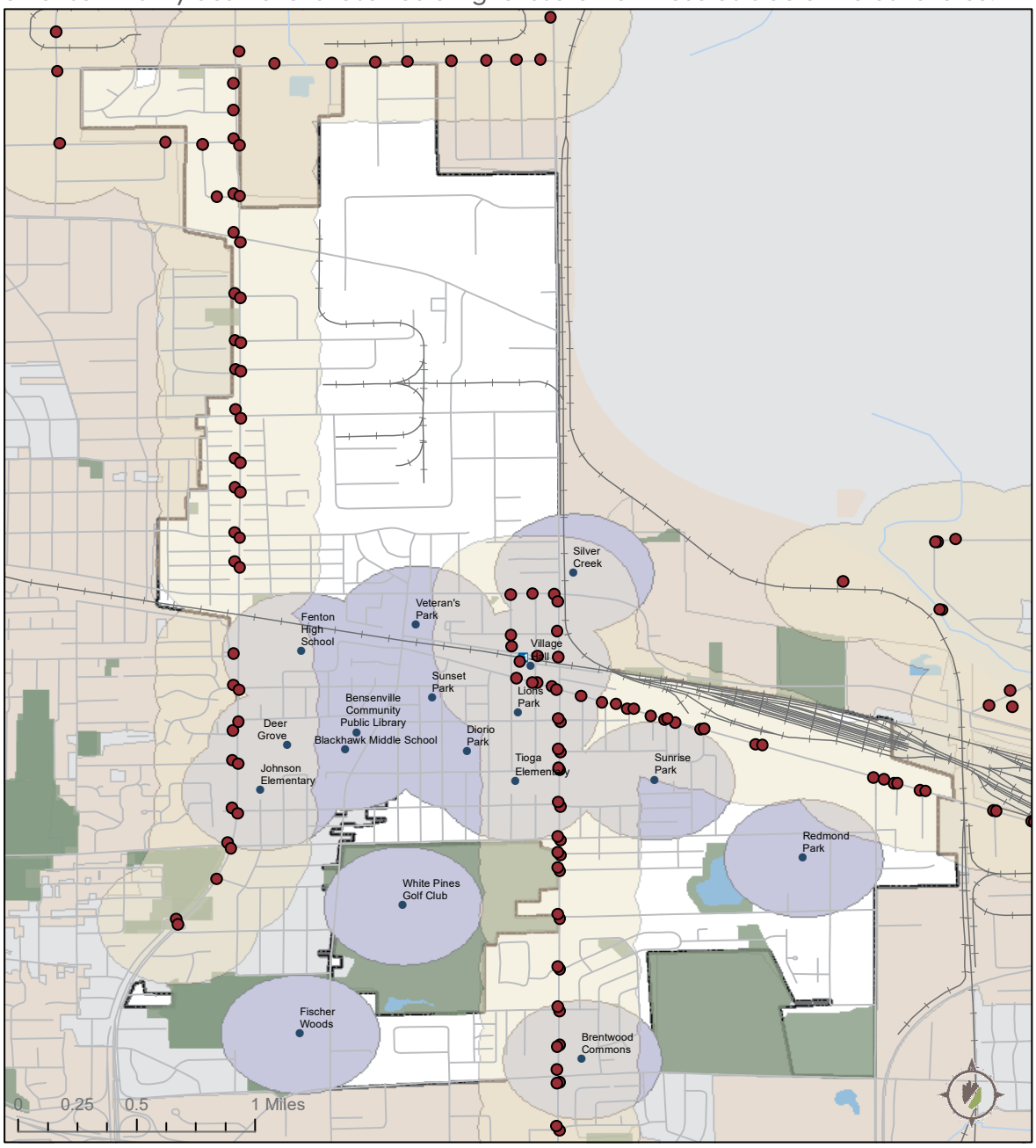


Average Daily Traffic

- 25,000+ Vehicles Per Day
- 20.000 - 24,999 Vehicles Per Day
- 15,000 0 19,999 Vehicles Per Day
- 10,000 - 14,999 Vehicles Per Day
- 5000 - 9999 Vehicles Per Day
- 3000 - 4999 Vehicles Per Day
- 1000 - 2999 Vehicles Per Day
- 0 - 999 Vehicles Per Day

Appendix A: Existing Conditions

Common destinations, such as schools, parks, and bus stops were used to inform the project prioritization recommendations. Bike routes and sidewalks adjacent to- or within a 1/4 mile buffer of parks, schools, bus stops, and other community destinations received a higher score than those outside of the buffer area.

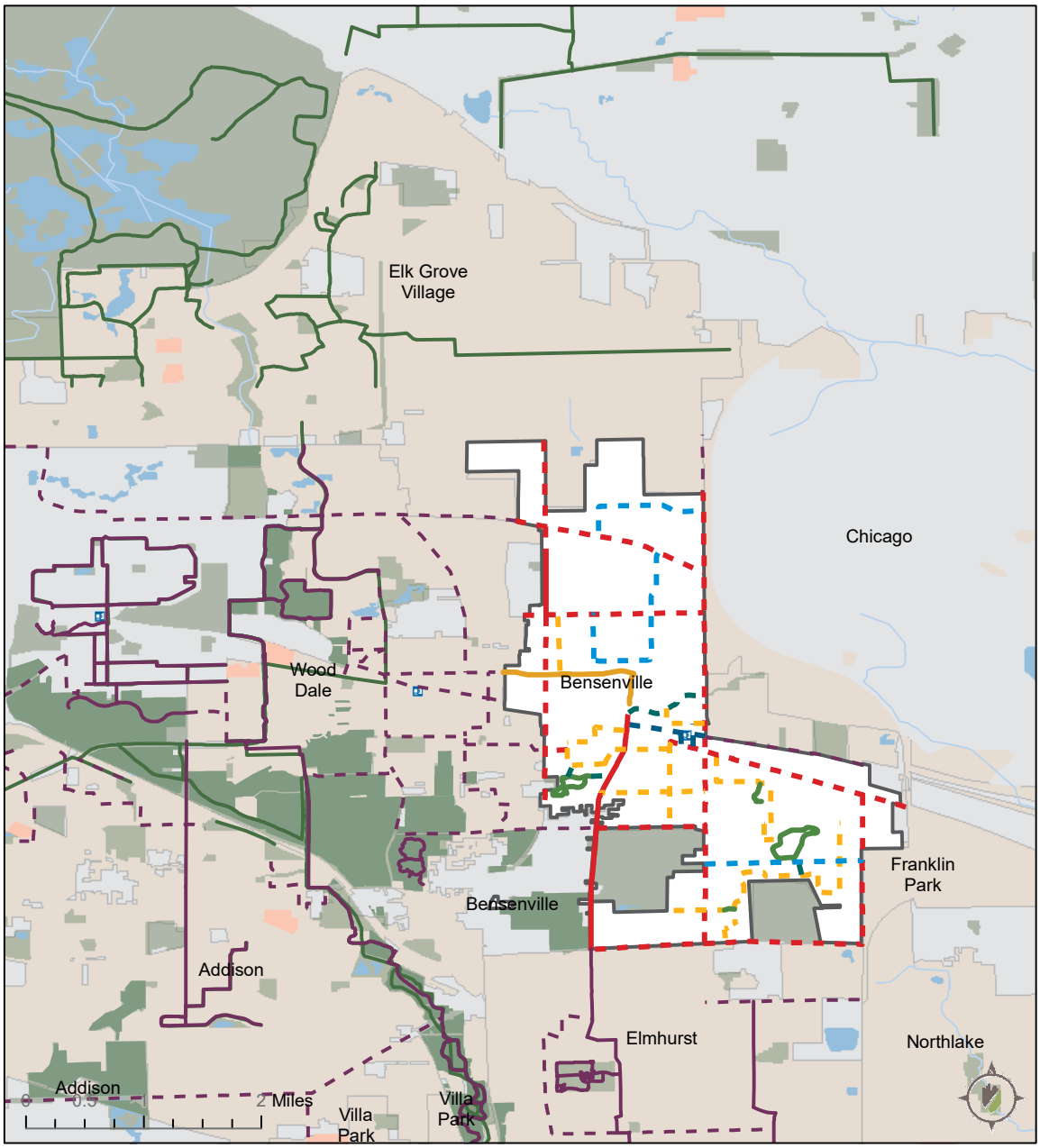


Pedestrian Priority Areas

PaceStops
Destinations
Bus Stop Buffer
Destination Buffer

Appendix A: Existing Conditions

Connections to the planned and existing regional bike network were considered in the development of Bensenville's bike network. Routes that connect to the regional network scored higher in the prioritization model.



Connections to Existing and Planned Regional Bikeways Network

- Bike Boulevard, Programmed
- Bike Boulevard, Planned
- Bike Lane, Planned
- Marked Shared Lanes, Planned
- Path, Existing
- Path, Planned
- Shared Use Path, Programmed
- Shared Use Path, Planned
- Regional Trails
- Existing Routes
- Planned Routes

Appendix B: Community Engagement

The project team surveyed results, gathered feedback from the steering committee, and tabled at Music in the Park and the annual walkathon to better understand Bensenville's opportunities and challenges for Active Transportation. The Following pages summarize the feedback from the Community.

Walking and Biking in Bensenville Survey Results

More than 200 residents and other stakeholders responded to the English and Spanish online survey, which was also provided in paper format. 96% of respondents reported living in the 60106 zip code and less than 3% of participants reported living in 60105 zip code or elsewhere. About 19% of respondents did not leave zip code information. About 80% of respondents took the English survey and 20% took the Spanish version. 37% of survey respondents were in the 50-64 age group, 29% were 35-49, 19% were 19-34, 12% were 65 or older, and only 2% were 18 and under.

Survey participants were asked to respond to a series of questions about pedestrian issues, bicycle issues, and program and policy ideas. Highlights of the results are listed below and detailed charts and tables are included in the spreadsheet.

Pedestrian Issue Results:

Walking Characteristics of Respondents:

- Most respondents walk take daily or weekly walks. Over 80% reported taking either daily or weekly walks, with 50% walking on a daily basis.
- Redmond Park and the Metra station are popular destinations. Many respondents also mentioned walking their dogs or as a form of exercise.
- Respondents also reported walking around their neighborhood or to take their children to school.

Level of Walkability:

- More than 80% of respondents answered that Bensenville is either “very walkable,” or “moderately walkable.”

Priority Improvements:

- Sidewalk improvements are a high priority. When asked to select top priorities for pedestrian improvements in Bensenville, 28% ranked install missing sidewalks as a top priority and 27% ranked repair cracked, broken or inadequate sidewalks as a top priority.
- Specific improvements were written in by 44 respondents as open-ended “other” options. These respondents mentioned that cars often block sidewalks by parking on them. A few also mentioned improvements in safety regarding crime.

Barriers:

- Almost 40% of respondents reported lack of sidewalks and other facilities as a barrier to walking more often in Bensenville, 17% mentioned unsafe intersections and 17% mentioned bad lighting.

Bicycle Issue Results

Biking Characteristics of Respondents:

- About half of respondents bike a few times per year or never - 31% reported biking weekly, 26% bike a few times per year, 25% never bike, and 11% bike daily.

- Many of the respondents bike for recreation on trails outside of Bensenville but would like to have trails in the community.
- Many respondents also reported that they bike to the parks for exercise, particularly Redmond Park. They also mentioned biking to run errands.

Level of Bikeability:

- 50% of survey participants believe that Bensenville is moderately bikeable.

Priority Improvements:

- When asked to rank top priorities for bicycle improvements in the community, almost 30% ranked installing bike paths or routes along major streets as a top priority, almost 20% said build new paths and trails in parks and forest preserves and almost 20% said install bike paths or routes through neighborhoods.
- Over twenty respondents selected "other," and wrote in comments about creating trails that connect to other trails outside the community in DuPage County, particularly the Salt Creek Trail. Respondents also repeatedly mentioned improving dangerous crossings such as Irving Park Road and Route 83.

Barriers:

- Over 40% of respondents noted that lack of sidewalks and other facilities are a barrier to bicycling. 25% also noted unsafe intersections as a barrier.
- Over thirty respondents also wrote-in answers for this question. Many mentioned that broken and non-existent sidewalks was a barrier.

Public Transportation Issue Results

Public Transportation Characteristics of Respondents:

- Very few respondents take public transit. 45% of respondents said that they take public transportation only a few times per year and almost 40% said never. Only 5% of respondents take public transit on a daily basis. However about 75% reported that it's either moderately or very easy to walk or bike to Pace or Metra.

Priority Improvements:

- As seen in other portions of the survey sidewalks were important to participants. The majority of respondents (over 60%) chose improving paths, routes and sidewalks connecting to public transit as a top priority.
- Respondents to the write-in option also mentioned poor sidewalk conditions and crime issues as points to improve.

Destination Results

Destination preferences of Respondents:

- Top destinations that respondents reported wanting to reach by walking and biking were parks and forest preserves, Metra station, downtown/main business district and other bike facilities.
- A few respondents in the write-in option mentioned connections to trails in parks and forest preserves.

Street Results

Streets in need of improvements:

- Survey respondents indicated streets that are most in need of improvements to make biking and walking safer in Bensenville.
- Streets often mentioned include: Church Street (39), York (36), Irving Park (22), Jefferson Street (14), Grand (13), Green (13), US 83 (11).
- Lack of or in poor condition sidewalks were mentioned as important issues almost forty times in these open-ended responses. Respondents also mentioned unsafe crossings and intersections on these roadways. Several respondents mentioned a lack of sidewalks near schools, specifically Johnson School.

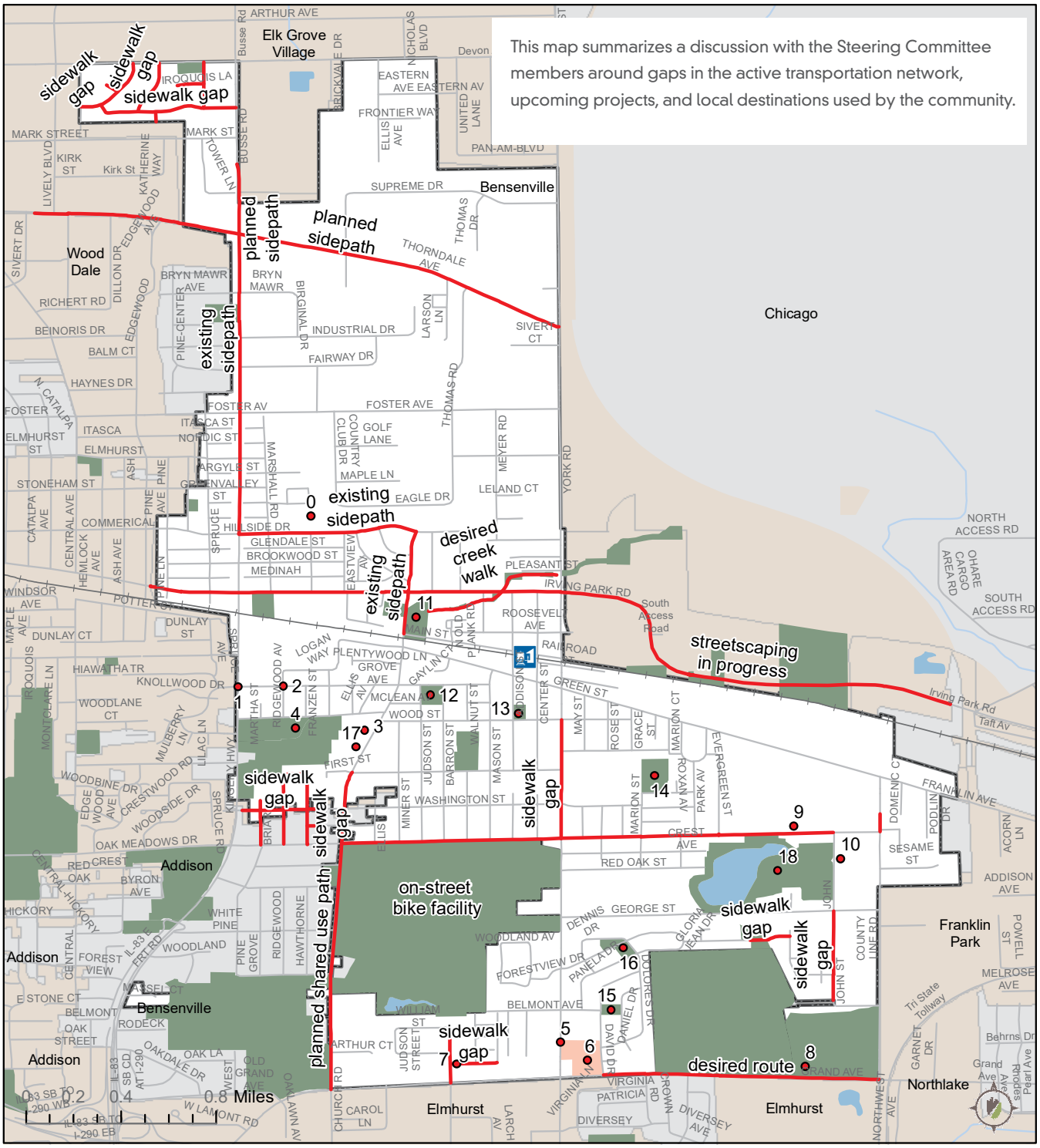
Policy and Program Results

Policies:

- Survey respondents indicated a preference for policies that make sure that sidewalks and bike routes are clear in all seasons (43%).
- Almost 30% of people responding to the policy preference question suggested the need for policies that make sure all users have access to all roadways. Over 20% indicated policies that make sure new buildings and subdivisions accommodate walkers and cyclists.
- Respondents to the write-in option mentioned improvements in lighting, particularly where children wait for the bus, to improve safety. A few respondents also mentioned the difficult homeowners have in shoveling snow and how the Village should help so people can safely walk. Another respondent mentioned that the consistency in sidewalks can change block to block. Another respondent mentioned signage to educate drivers.

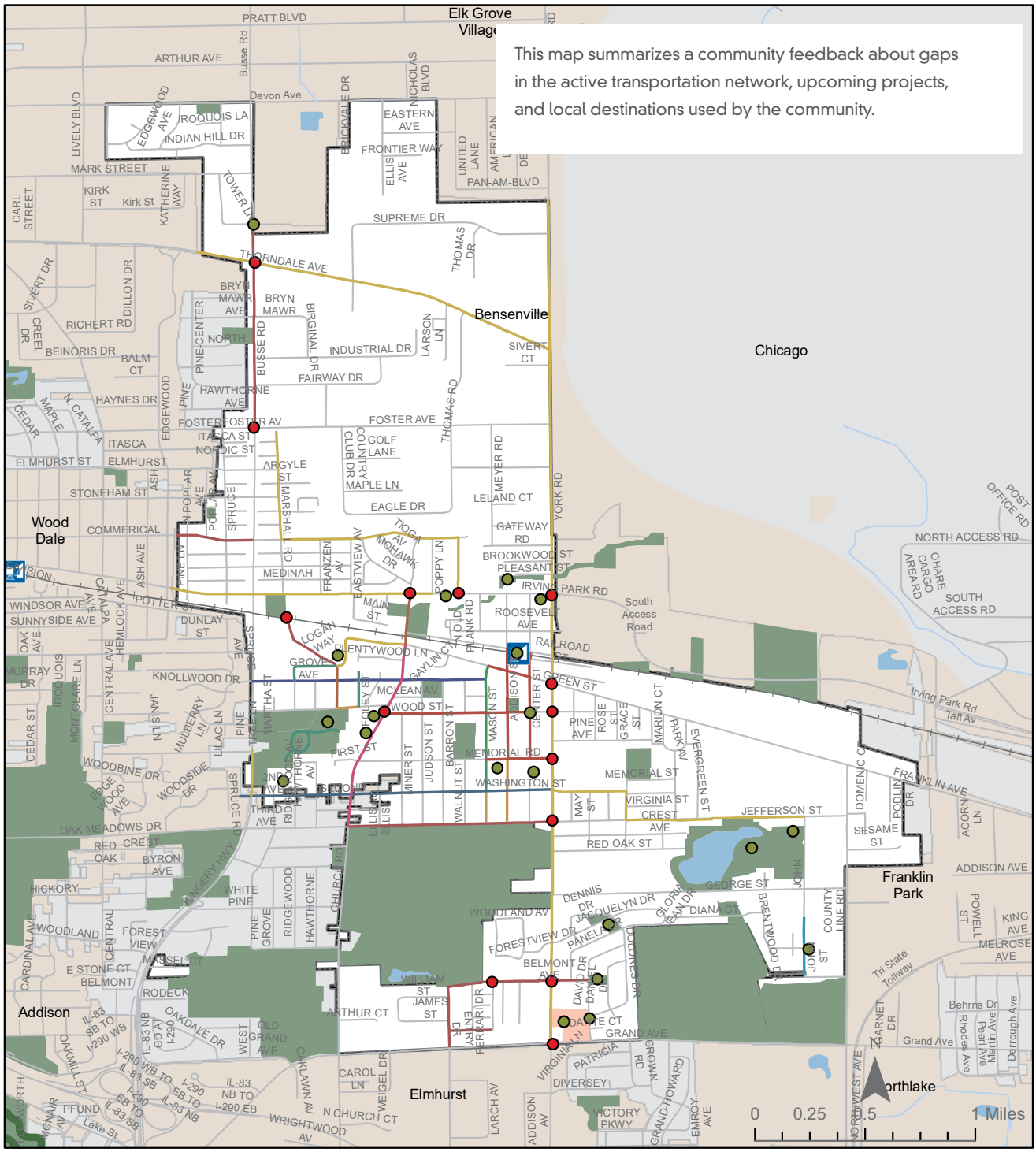
Programs:

- The majority of respondents (62%) said that education programs for youth as a preference. Almost 25% mentioned enforcement of safe travel behaviors for bicyclists and pedestrians.



Steering Committee Meeting Summary

- Places and Destinations
- Roads and Paths



Results from Tabling Events

- Destination
- Hazard/Barrier
- Biking Route - Needs Improvements
- Walking Route - Broken Sidewalks
- Walking Route - Broken Sidewalks, Biking Route - Needs Improvements
- Walking Route - No Improvements Needed
- Walking Route - No Improvements Needed, Biking Route - Needs Improvements
- Walking Route - No Sidewalks
- Walking Route - No Sidewalks, Biking Route - Needs Improvements
- Walking Route - Sidewalk Gaps
- Walking Route - Sidewalk Gaps, Biking Route - Needs Improvement
- Walking Route - Sidewalk Gaps, Biking Route - Needs Improvements
- Walking Route - Tree Overgrowth

Appendix C: Design Guidance

BIKEWAY AND PEDESTRIAN FACILITIES DESIGN

Guide for the Planning, Design, and
Operation of Pedestrian Facilities
American Association of State Highway and
Transportation Officials (AASHTO), 2004
HTTP://WWW.TRANSPORTATION.ORG

Designing Sidewalks and Trails for Access
U.S. DOT Federal Highway Administration
HTTP://WWW.FHWA.DOT.GOV/
ENVIRONMENT/SIDEWALKS/INDEX.HTM

Guide for the Development of
Bicycle Facilities, 4th Edition
American Association of State Highway and
Transportation Officials (AASHTO), 2012
HTTP://WWW.TRANSPORTATION.ORG

Urban Bikeway Design Guide
National Association of City Transportation Officials
HTTP://NACTO.ORG/CITIES-FOR-
CYCLING/DESIGN-GUIDE/

Complete Streets Complete Networks: A Manual for the
Design of Active Transportation
Active Transportation Alliance, 2012
WWW.ATPOLICY.ORG/DESIGN

BIKE PARKING

Bicycle Parking Design Guidelines
Association of Pedestrian and Bicycling Professionals
HTTP://WWW.APBP.ORG/?PAGE=PUBLICATIONS

Bike Parking for Your Business
Active Transportation Alliance, 2003
HTTP://WWW.CHICAGOBIKES.ORG/
PDF/BIKE_PARKING_BUSINESS.PDF

OTHER RESOURCES

Active Transportation Alliance
HTTP://WWW.ACTIVETRANS.ORG

National Complete Streets Coalition
HTTP://WWW.COMPLETESTREETS.ORG

Manual on Uniform Traffic Control Devices
Federal Highway Administration, 2009
HTTP://MUTCD.FHWA.DOT.GOV/

Bicycle and Pedestrian Accommodations
Bureau of Design & Environment Manual
Illinois Department of Transportation, 2011 Edition
HTTP://WWW.DOT.STATE.IL.US/DESENV/
BDE%20MANUAL/BDE/PDF/CHAPTER%2017%20
BICYCLE%20AND%20PEDESTRIAN.PDF

Safety Benefits of Raised Medians
and Pedestrian Refuge Areas
Federal Highway Administration
HTTP://SAFETY.FHWA.DOT.GOV/PED_BIKE/
TOOLS_SOLVE/MEDIANS_BROCHURE/

Safety Benefits of Walkways, Sidewalks,
and Paved Shoulders
Federal Highway Administration
HTTP://SAFETY.FHWA.DOT.GOV/PED_BIKE/
TOOLS_SOLVE/WALKWAYS_BROCHURE/

Parking Strategies to Support Livable Communities
Chicago Metropolitan Agency for Planning
HTTP://WWW.CMAP.ILLINOIS.GOV/DOCUMENTS/20583/
C224C06F-2735-4400-8281-D3C263CE5BA6

Appendix D: Funding Sources

There are numerous funding sources available to support the implementation of this plan. Most prefer funding projects contained in an active transportation plan.

TRANSPORTATION ALTERNATIVES

Transportation Alternatives is a federal grant program jointly administered by the state departments of transportation and metropolitan planning organizations in large metropolitan areas. The program funds a variety of bicycle and pedestrian improvement strategies including trail enhancements, pedestrian network improvements and bike facilities.

CONGESTION MITIGATION AND QUALITY PROGRAM (CMAQ)

The CMAQ program funds transportation projects that improve air quality. These include bicycle ways, pedestrian network improvements and transit facilities. Locally, the program is administered by the Chicago Metropolitan Agency for Planning which emphasizes projects of regional significance. CMAQ funds generally cannot be used for preliminary planning, design and engineering.

SURFACE TRANSPORTATION PROGRAM

These federal funds are distributed locally by the various councils of mayors. STP supports improvements to local roads that benefit the federal highway network. Among other uses, STP funds can be used for traffic calming, pedestrian facilities and bike routes. Each council of mayors has its own procedures for evaluation of project proposals. STP generally is one of the most flexible funding sources.

HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

The Illinois Department of Transportation provides grants to improve facilities with documented crash problems. These projects can be focused on auto crash locations, or those involving pedestrians or cyclists. HSIP generally provides 90% of the project funds with a 10% local match. Funding is usually available for all phases of the project.

GRADE CROSSING PROTECTION FUND

This fund, administered by the Illinois Commerce Commission, assists local governments in paying for improvements at highway-railroad crossings. Eligible uses include pedestrian gates, pedestrian signals and grade separations.

OTHER FEDERAL FUNDS

Federal agencies sometimes make grants available for energy efficiency, sustainability or obesity-prevention projects that could include active transportation initiatives. An up-to-date listing of all federal grants is available at www.grants.gov. The Legislative Research Unit of the Illinois General Assembly also publishes lists of state and federal grants.

COUNTY AND LOCAL FUNDING

Many federal and state funding sources require local match funds. Coalitions can be built between jurisdictions to prioritize the implementation of shared objectives. Many counties and local governments have access to motor fuel tax and other transportation revenue sources. They may also have economic development programs that can fund projects. School and park districts can also be sources of funds.

Appendix E: Policy Resources

This appendix provides resources to implement the policy recommendations in this plan.

COMPLETE STREETS POLICY RESOURCES

The materials referenced below can assist with formulating policy, structuring implementation developing performance criteria.

ACTIVE TRANSPORTATION ALLIANCE

Active Transportation Alliance has created a policy resource micro-site, WWW.ATPOLICY.ORG, with free access to Complete Streets Complete Networks: A Manual for the Design of Active Transportation, Complete Streets policy briefs, and implementation materials.

COMPLETE STREETS: BEST POLICY AND IMPLEMENTATION PRACTICES

McCann, Barbara, and Suzanne Rynne, Chicago: American Planning Association, 2010. This publication of the American Planning Association's Planning Advisory Service includes case studies, model policies, and development strategies revolving around Complete Streets.

NATIONAL COMPLETE STREETS COALITION.

NCSC has a very informative website. accessible at WWW.COMPLETESTREETS.ORG Among others, the following NCSC documents can be considered a good "jumping off" point for those unfamiliar with Complete Streets policy and design.

"Complete Streets Policy Elements." National Complete Streets Coalition. HTTP://WWW.COMPLETESTREETS.ORG/CHANGING-POLICY/POLICY-ELEMENTS/. Provides a framework by which Complete Streets policy can be designed and a basic outline of the elements of robust Complete Streets policies.

"Federal Policy Resources." National Complete Streets Coalition. HTTP://WWW.COMPLETESTREETS.ORG/FEDERAL-POLICY/FEDERAL-POLICY-RESOURCES/. Knowing the trends in national policy concerning Complete Streets can help reinforce local policy initiatives. The NCSC website details past federal activity concerning Complete Streets, features legislative language, and has tips for getting the attention of lawmakers at the federal level.

MODEL BICYCLE PARKING ORDINANCE

"MODEL BIKE PARKING ORDINANCE (WITH ANNOTATIONS)"

This annotated model policy for bike parking was developed through the Public Health Law and Policy (name changed to ChangeLab Solutions) HTTP://ACTIVETRANSPORTATIONPOLICY.ORG/NODE/121

Appendix F: Programming Resources

EDUCATION RESOURCES

There are many organizations who offer free and low-cost resources to educate people about the benefits of active transportation. These include:

ACTIVE TRANSPORTATION ALLIANCE

WWW.ACTIVETRANS.ORG/EDUCATION
Offers free curricula, professional development for educators and other resources. Active Transportation Alliance also offers educational materials on Complete Streets at www.activetrans.org/completestreets.

NATIONAL SAFE ROUTES TO SCHOOL PARTNERSHIP

WWW.SAFEROUTESPARTNERSHIP.ORG
They offer an annotated bibliography of traffic safety curricula and other educational resources.

NATIONAL COMPLETE STREETS COALITION

WWW.COMPLETESTREETS.ORG
This initiative of Smart Growth America provides resources to help educate citizens, municipal staff and elected officials on the benefits of Complete Streets.

ENCOURAGEMENT RESOURCES

Marketing and promotion efforts are essential to any successful bikeways plan. These organizations provide resources to help encourage more cycling:

LEAGUE OF AMERICAN BICYCLISTS

WWW.BIKELEAGUE.ORG
They sponsor the Bicycle Friendly Community program and offer resources for encouragement campaigns. They also certify instructors to provide bike mechanic and traffic safety skills courses.

ALLIANCE FOR BIKING AND WALKING

WWW.PEOPLEPOWEREDMOVEMENT.ORG
They offer trainings to help develop a movement for cycling in your community.

ASSOCIATION OF PEDESTRIAN & BICYCLE OFFICIALS

WWW.APBP.ORG
They offer webinars and other resources for professionals who implement education and encouragement campaigns.

DRIVE LESS LIVE MORE

WWW.DRIVELESSLIVEMORE.COM
This campaign to encourage multi-modal transportation has numerous resources to encourage use of biking, walking and transit.

ENFORCEMENT RESOURCES

Active Transportation Alliance provides training for the law enforcement community including police, judges and prosecutors. The training focuses on best law enforcement practices to ensure traffic safety and an overview of current Illinois traffic safety laws. Active Transportation Alliance also provides free support services for victims of bicycle crashes.

Appendix G: Complete Streets Policy

VILLAGE OF BENSENVILLE
12 S. CENTER STREET
BENSENVILLE, ILLINOIS 60106

Ordinance No. 9-2016

An Ordinance Adopting the Village of Bensenville Complete Streets Policy

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ADOPTED BY THE
VILLAGE BOARD OF TRUSTEES
OF THE
VILLAGE OF BENSENVILLE
THIS 22nd DAY OF MARCH, 2016

Published in pamphlet form by authority of the President and Board of Trustees of the Village of Bensenville, DuPage and Cook Counties, Illinois this 23rd day of March 2016

STATE OF ILLINOIS)
COUNTIES OF COOK)
SS AND DUPAGE)

I, Corey Williamsen, do hereby certify that I am the duly appointed Deputy Village Clerk of the Village of Bensenville, DuPage and Cook Counties, Illinois, and as such officer, I am the keeper of the records and files of said Village; I do further certify that the foregoing constitutes a full, true and correct copy of Ordinance No. 9-2016 entitled an Ordinance Adopting the Village of Bensenville Complete Streets Policy.

INWITNESS WHEREOF, I have hereunto affixed my official hand and seal on this 23rd day of March, 2016.

VILLAGE OF BENSENVILLE SEAL SEAL ILLINOIS

Corey Williamsen
Deputy Village Clerk

ORDINANCE No. 9-2016

AN ORDINANCE ADOPTING THE VILLAGE OF BENSENVILLE

COMPLETE STREETS POLICY

WHEREAS the Village will create a complete streets policy as a way to advance the unified vision of its stakeholders and citizens to improve health, livability, and economic vitality.

WHEREAS Bensenville will capitalize on its location and amenities to create more transportation options for people of all ages and abilities to travel in and around Bensenville.

WHEREAS the Village's comprehensive plan was approved in January 2015 and the plan identifies a need for improved active transportation options.

WHEREAS the Village as part of its strategic plan identifies goals to create vibrant major corridors, enrichment of the lives of residents, and a safe and beautiful village.

WHEREAS a complete streets policy provides additional guidelines and consideration of standards for transportation improvements to calm traffic, improve access, increase safety and integration of health-conscious mobility for all residents.

WHEREAS the Village will plan for, design, fund, construct, operate, and maintain a safe and efficient transportation system for all users in all street and roadway projects, including new construction, retrofit, or reconstruction projects.

WHEREAS the adoption of such a policy will generate long-term cost savings in improved public health and environmental stewardship, which in turn will create a sense of community and foster positive growth throughout.

BE IT ORDAINED by the President and Board of Trustees of the Village of Bensenville, County of DuPage and State of Illinois, as follows:

SECTION ONE (All users and modes)

The Village of Bensenville shall accommodate all users of the road, including bicyclists, pedestrians, transit users, emergency responders, and drivers of automobiles and freight vehicles, regardless of their age or ability in all roadway projects.

SECTION TWO (All phases)

Through ongoing operations and maintenance, the Village of Bensenville shall identify cost-effective opportunities to include Complete Streets practice. Planning, design, reconstruction, rehabilitation, and maintenance shall be executed in a balanced,

transparent, responsible, and equitable manner. Complete Streets principles will be integral when developing, modifying, and updating Village of Bensenville plans, manuals, programs, rules, and zoning regulations.

Review for consistency with and the potential incorporation of elements to advance the Complete Streets goals shall be applied to all roadway improvement projects, including new construction, reconstruction, street surfacing, storm water, infrastructure, grading, and water and sewer projects and into all phases of roadway projects including scoping, programming, planning, design, construction, maintenance, and operations.

SECTION THREE (Network and connectivity)

The Village of Bensenville seeks to create a comprehensive, integrated, and connected transportation network where every roadway user can travel safely and comfortably and where sustainable transportation options are available to everyone by planning, designing, operating, and maintaining a network of Complete Streets as recommended in the Bensenville Active Transportation Plan.

SECTION FOUR (Exceptions)

It is understood that there may be circumstances in which it may not be practical or feasible to apply the Policy. Such circumstances include the following:

a) The scope of the relevant project is limited to maintenance activities intended to keep the roadway in serviceable condition, AND/OR

b) There is sufficient documentation that there is no feasible way to accommodate improvements for the non-vehicular traffic with a project's scope, AND/OR

c) There is no documented current or anticipated need for accommodations of non-motorized roadway user of the road is not a current or planned transit route, AND/OR

d) The cost for a particular Complete Streets design recommendation would be excessively disproportionate to the need of that particular improvement, with due consideration given to future users, latent demand, and the social and economic value of providing a safer and more convenient transportation system for all users, AND/OR

e) Documented environmental constraints or unsafe transportation issue.

SECTION FIVE (Partnerships)

It shall be the goal of the Village of Bensenville to foster partnerships with the State of Illinois, DuPage County, Cook County, the Regional Transportation Authority, Metra, Pace, Illinois Department of Transportation, City of Chicago, local Townships, local School Districts, the Bensenville Park District, the Bensenville Community Public Library, the Bensenville Chamber of Commerce, the Fire District, B Well Bensenville Youth Coalition, and the other Bensenville stakeholders to enhance local connectivity.

SECTION SIX (Design standards)

In order to best balance the needs of all users and provide increased flexibility in design, the Village shall develop design guidelines in accordance with the most up-to-date standards, requirements and recommendations as provided by, but not limited to:

- American Association of State Highway and Transportation Officials
- *Guide for the Planning, Design and Operation of Pedestrian Facilities*
- *Guide for the Development of Bicycle Facilities*
- National Association of City Transportation Officials – *Urban Bikeway Design Guide*
- Illinois Department of Transportation – *Bureau of Design and Environment Manual*
- The Access Board – *Pedestrian Rights-of-Way Accessibility Guidelines*
- FHWA – *PEDSAFE: Pedestrian Safety Guide and Countermeasures Selection System*
- Institute of Transportation Engineers – *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*
- American Planning Association
- *U.S. Traffic Calming Manual*
- *Complete Streets: Best Policy and Implementation Practices*
- Active Transportation Alliance – *Complete Streets Complete Networks*
- Federal Highway Administration – *Manual on Uniform Traffic Control Devices*

The Village shall also reference applicable local land use regulatory documents, such as:

- Bensenville Active Transportation Plan, 2016
- DuPage County Regional Bikeway Plan
- Village Code and Zoning
- Village of Bensenville Comprehensive Plan, 2015
- Regional Transit Authority – Bensenville Transit Improvement Plan and Station Area Study, 2009
- Bensenville Comprehensive Economic Development Study
- Chicago Metropolitan Agency for Planning – Homes for a Changing Region

SECTION SEVEN (Community Context)

The Village of Bensenville shall call on its heritage to guide future development in a manner that is sensitive to local context and character by providing an interconnected

network of streets, sidewalks and trails that supports walking, bicycling and transit use. Accepted design standards and best practices shall be followed in conjunction with the construction, reconstruction, rehabilitation, or maintenance of the public right-of-way. The planning, design, and implementation for all corridors shall:

a) Include the local community and stakeholders
b) Consider the function of the roadway
c) Consider transitway alignment and station areas
d) Assess the current and future needs of the corridor users

SECTION EIGHT (Performance Standards)

In order to evaluate the Village's progress toward implementation of the Complete Streets approach, the Village will use the following performance measures:

a) Number of speeding and safety or access-related concerns received through the Staff Traffic Advisory Committee
b) Total miles of on-street bicycle routes defined by streets with clearly marked or signed bicycle accommodation
c) Linear feet of new pedestrian accommodations
d) Number of new ADA compliant curb ramps installed along Village streets
e) Annual school crossing guard walking counts
f) Annual bike counts on bike routes
g) Annual pedestrian and bicycle crash data analysis
h) Number of trees planted

The above performance measures will be incorporated in the annual reports of the Public Works and Engineering Departments and the Community & Economic Development Department, which is reported to the Village Board.

SECTION NINE (Implementation)

Implementation of Bensenville's Complete Streets policy shall be the responsibility of all Elected and Appointed Officials and Village Departments. Training on Complete Streets, active transportation policies, and non-motorized transportation options will be the responsibility of each Village of Bensenville Department, as guided by the Community & Economic Development Department.

For all proposed improvements to the public right-of-way, the Village Manager's Office shall notify Department Heads from the Village's Public Works, Community &

Economic Development Department, Police, and Finance Departments of a required pre-planning meeting with the appropriate agents or jurisdictions. Each Department may choose to attend or send a representative to provide input.

The Village of Bensenville Public Works shall have the authority to implement any improvement to the public right of way that conforms to this Complete Streets policy.

Improvements to corridors, routes, and sites prioritized by the Bensenville Active Transportation Plan shall be subject to review by the Bensenville Village Board Committee (Community & Economic Development Committee or the Infrastructure & Environment Committee) to ensure that all users are accommodated. Following their review the Committee shall make a recommendation to Village Board, which shall have final authority to implement Bensenville's Complete Streets policy.

PASSED AND APPROVED by the President and Board of Trustees of the Village of Bensenville, this 22 day of March, 2016.

Frank Soto, Village President

ATTEST:

Ilsa Rivera-Trujillo, Village Clerk

AYES: Carmona, DeSimone, Jaworska, O'Connell, Wesseler

NAYES: None

ABSENT: Janowiak

IMPROVING OPTIONS FOR BIKING, WALKING, AND TRANSIT ACCESS

ACTIVE
TRANSPORTATION
ALLIANCE