

Bartlett & Streamwood

Bicycle and Pedestrian Plan

FINAL REPORT

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Chicago Metropolitan
Agency for Planning



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Table of Contents

1	Plan Overview
13	Plan Process
21	Key Recommendations
71	Key Projects
85	Policies & Programs
99	Implementation

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Project Funding

This project was prepared by the Chicago Metropolitan Agency for Planning (CMAP) Local Technical Assistance (LTA) program.

PLAN OVERVIEW

The Villages of Bartlett and Streamwood partnered with the Chicago Metropolitan Agency for Planning (CMAP) to develop the Bartlett & Streamwood Bicycle and Pedestrian Plan. The process to develop the plan spanned three phases:

- 1. Getting to Know the Communities:** The project team engaged with community members and stakeholders and collected and analyzed a wide range of data to identify the opportunities and challenges for people walking and biking in Bartlett and Streamwood.
- 2. Visioning:** The project team collaborated with CMAP and Village staff to develop preliminary recommendations to address the issues and opportunities identified in the first phase. These recommendations

were further refined based on input from community members and the steering committee.

- 3. Plan Development:** The project team identified priorities based on community and stakeholder input to help craft a set of actionable recommendations and roadmap for plan implementation.

The Bartlett & Streamwood Bicycle and Pedestrian Plan will benefit all Bartlett and Streamwood residents and focuses specifically on improving safety, access, and connectivity for people walking and biking, seniors, children, and people with disabilities. It builds on the communities' existing assets and supports the goals in Streamwood's Comprehensive Plan, the Village of Bartlett's Strategic Plan, and CMAP's ON TO 2050 plan.

Objectives of the Plan



Evaluate existing and planned bicycle and key pedestrian facilities.



Identify a complete, connected network of bikeways that will allow Bartlett and Streamwood residents to access key destinations easily and safely by bicycle.



Identify key pedestrian improvements and strategies to increase pedestrian safety, comfort, and convenience.

Village Context

The Villages of Bartlett and Streamwood are located roughly 30 miles northwest of downtown Chicago. Streamwood lies within Cook County, while portions of Bartlett are within Cook, DuPage, and Kane Counties. Both Villages have about 40,000 residents (41,120 in Bartlett and 39,809 in Streamwood) and have become increasingly diverse over the past decade (see the following page for more information on demographics). There are more than 15,500 combined jobs in Bartlett and Streamwood.

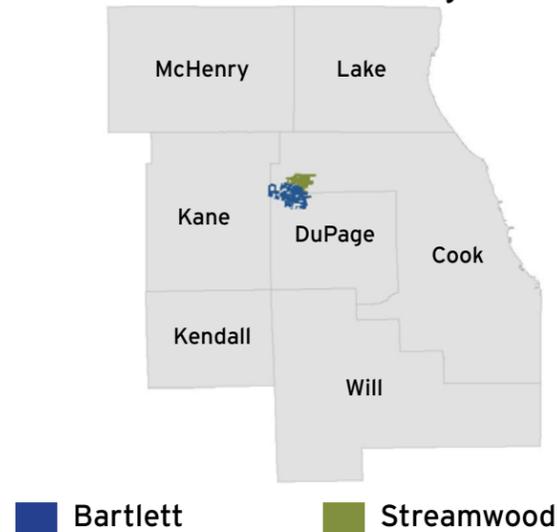
Both Villages' proximity and access to parks and forest preserves are key amenities for the communities. Residents in both Villages have significantly greater access to parks than the average resident across the CMAP region.

While most residents have access to parks, more than 20% of residents in both Bartlett and Streamwood are physically inactive and more than 25% are obese. Residents also have greater than average exposure to air pollution and the resulting health risks.

Transportation Network

Bartlett and Streamwood have limited public transit service, and a lower share of residents

Location within the CMAP Region



live in areas with moderate to high transit availability than the region overall. Because of the lack of alternatives, Bartlett and Streamwood residents drive more than the average resident in the CMAP region, leading to higher transportation costs for households.

Biking and Walking

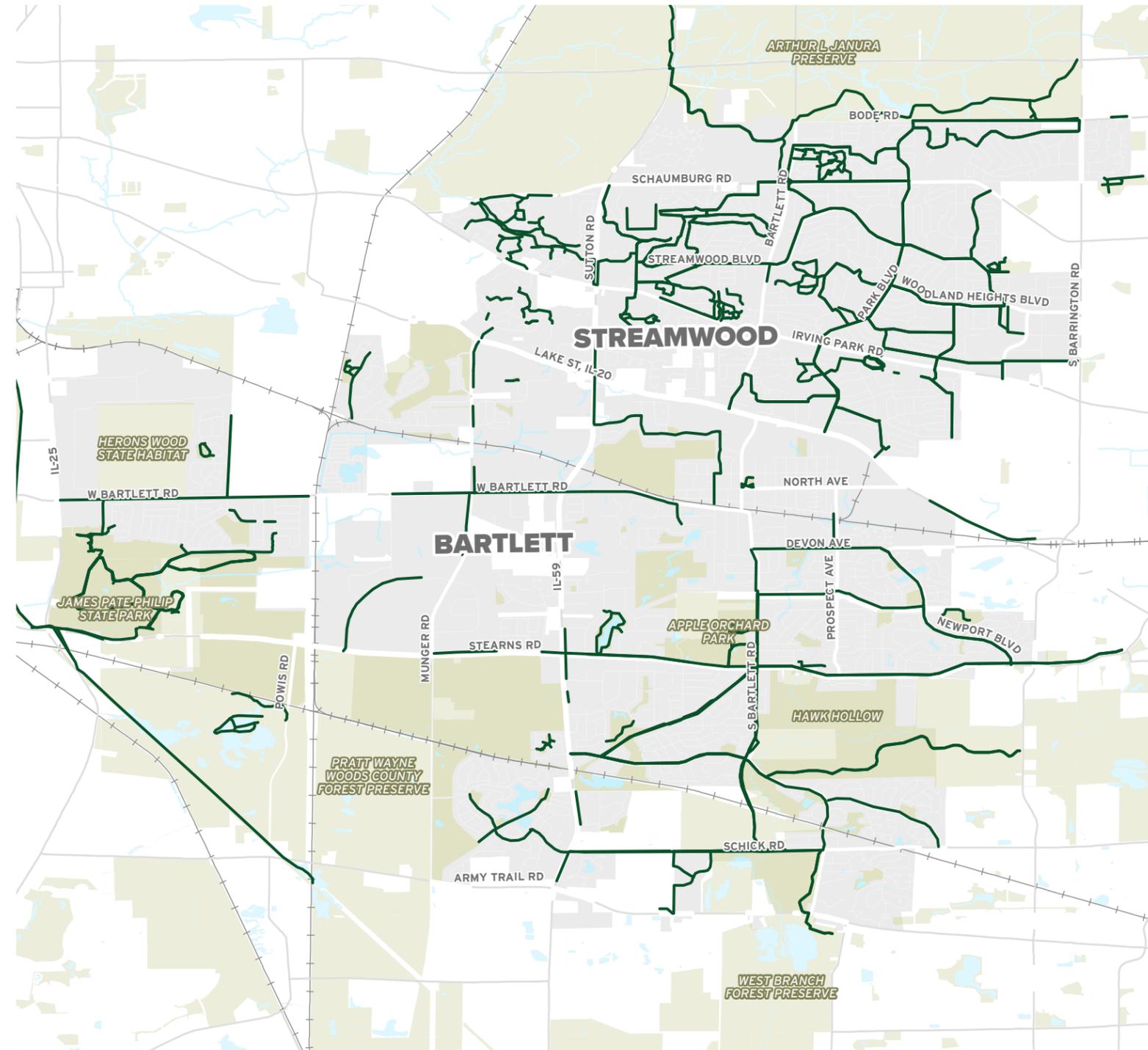
Together, Bartlett and Streamwood have over 100 miles of existing bikeways. The Villages' existing bike networks mainly consist of shared use paths and off-street trails and provide connections to regional trails like the Illinois Prairie Path, N Central DuPage Regional Trail, and the Poplar Creek Trail.

Across both Villages, about two-thirds of all streets have sidewalks on both sides of the street. No portions of either Village are rated as highly walkable according to CMAP. In both Villages, people walking and biking account for a disproportionate share of people seriously injured or killed in traffic crashes.

Building off the Villages' existing assets to create complete, connected, and safe networks for people walking and biking will yield a multitude of benefits. Investing in walking and biking can make streets safer for all users while also providing an alternative to driving and increasing access to transit and other important destinations.

Making it easier and more enjoyable to walk and bike provides more opportunities for physical activity, can help address existing health and environmental challenges, lower household transportation costs, and increase retail activity and economic development. These benefits are particularly important for lower-income households and disconnected or disinvested communities.

Existing Bikeways in Bartlett and Streamwood



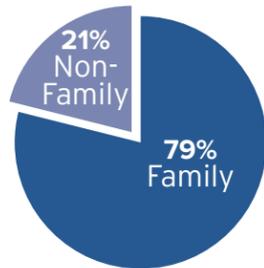
Village Profile—Bartlett

Population



41,120 residents live in Bartlett. The Village's population has remained flat over the past decade.

Households



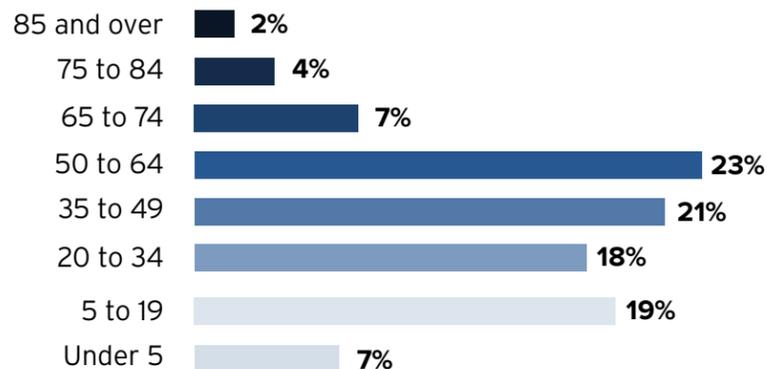
79% of households in Bartlett are families with children, compared to 65% across the CMAP region.

Access to a Vehicle



4% of Bartlett households (540 households) don't have access to a vehicle. The share of households without access to a vehicle has grown by **23%** since 2010.

Age



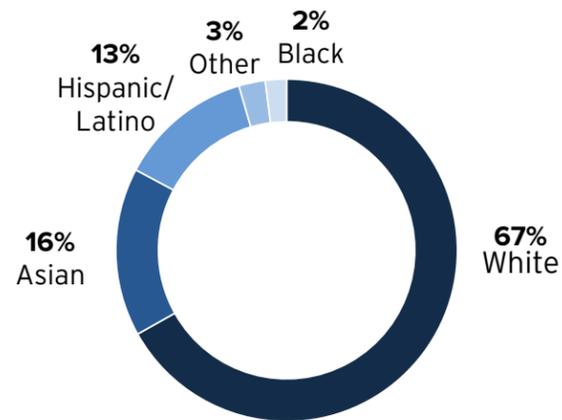
Over 65

13% of Bartlett residents are over the age of 65. The share of residents over 65 has more than doubled since 2000.

19 and Under

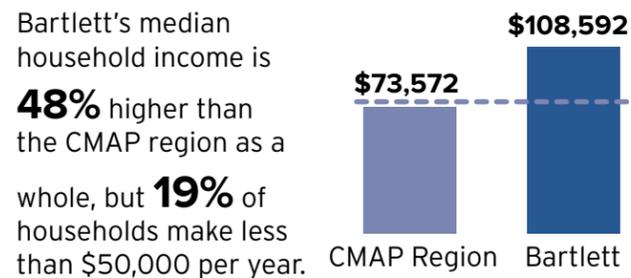
26% of Bartlett residents are age 19 or younger. The share of residents 19 and under has declined since 2000, when it was 33%.

Race and Ethnicity



Bartlett has become increasingly diverse over the past two decades. The share of residents who identify as non-white more than doubled from 2000 to 2019, increasing from **16% to 33%**.

Income



Bartlett's median household income is **48%** higher than the CMAP region as a whole, but **19%** of households make less than \$50,000 per year.

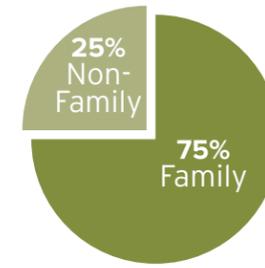
Village Profile—Streamwood

Population



39,809 residents live in Streamwood. The Village's population has remained flat over the past decade.

Households



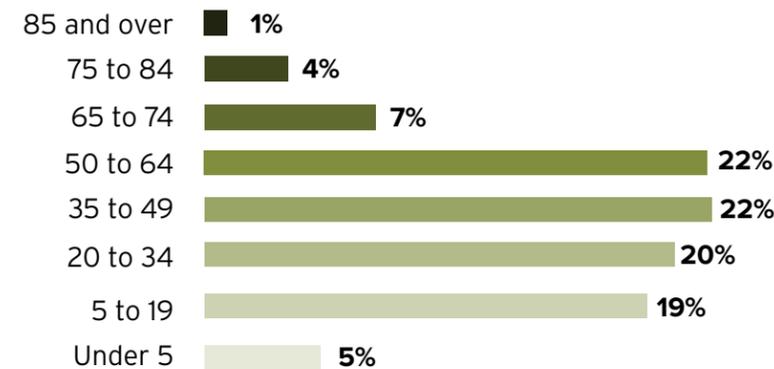
75% of households in Streamwood are families with children, compared to 65% across the CMAP region.

Access to a Vehicle



3% of Streamwood households (403 households) don't have access to a vehicle. The share of households without access to a vehicle has grown by **207%** since 2010.

Age



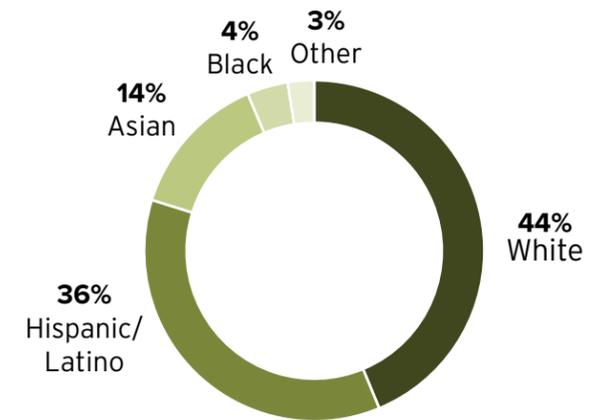
Over 65

12% of Streamwood residents are over the age of 65. The share of residents over 65 has doubled since 2000.

19 and Under

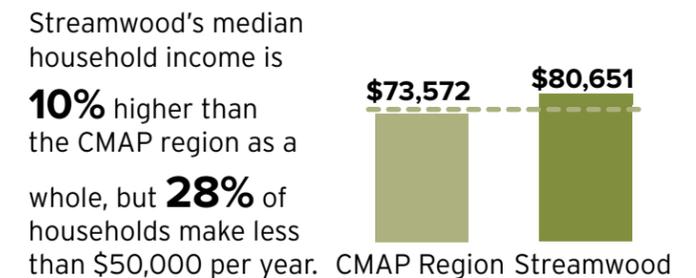
24% of Streamwood residents are age 19 or younger. The share of residents 19 and under has declined since 2000, when it was 31%.

Race and Ethnicity



Streamwood has become increasingly diverse over the past two decades. The share of residents who identify as non-white grew from **31% to 56%** from 2000 to 2019.

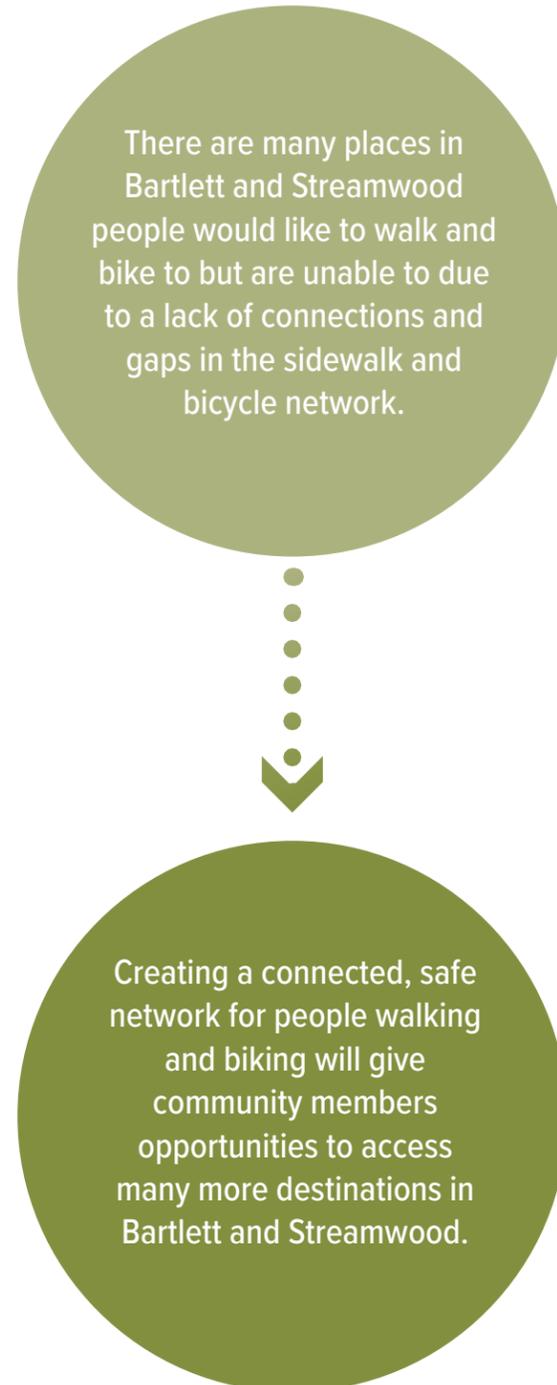
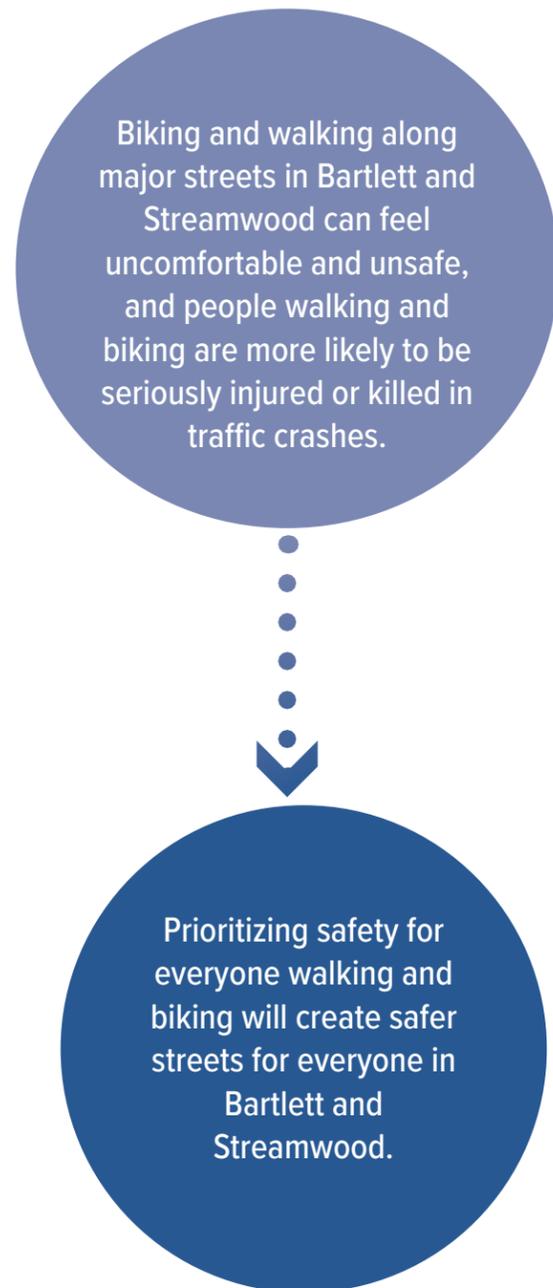
Income



Streamwood's median household income is **10%** higher than the CMAP region as a whole, but **28%** of households make less than \$50,000 per year.

Opportunities and Challenges

During the Getting to Know the Communities phase of the project, the project team identified the following key opportunities and challenges through conversations with community members and stakeholders and an analysis of the existing conditions in both Villages. Additional information is available in the Existing Conditions Report.



Recommendations at a Glance— Biking

The Bartlett and Streamwood Bicycle and Pedestrian Plan calls for a complete, connected network of bikeways designed to be safe and comfortable for the residents of Bartlett and Streamwood, as well as workers and visitors. Delivering on this vision will require significant investments to enhance existing bikeways and create new ones that link together existing routes and community destinations.

Based on input from community members and stakeholders, this plan emphasizes designing and implementing bikeways that are safe and comfortable for people of all ages and abilities. Most of the new bikeways in both Villages are either low-stress connections on neighborhood streets that will be accompanied by traffic calming to reinforce safe driving behavior or facilities that are physically separated from cars, such as off-street trails and shared use paths along major streets. More information on the types of bikeways that are proposed is on page 25.

Three main types of routes make up the network:

- 1. Off-Street Trails:** Trails in parks, forest preserves, and other locations outside the street right-of-way provide comfortable experiences for people of all ages and abilities.
- 2. Low Stress Local Routes:** Local streets typically have low speed limits and traffic volumes. When accompanied by additional traffic calming measures to keep vehicle speeds safe and volumes low, along with additional signage and wayfinding, local streets can become high-quality bikeways.

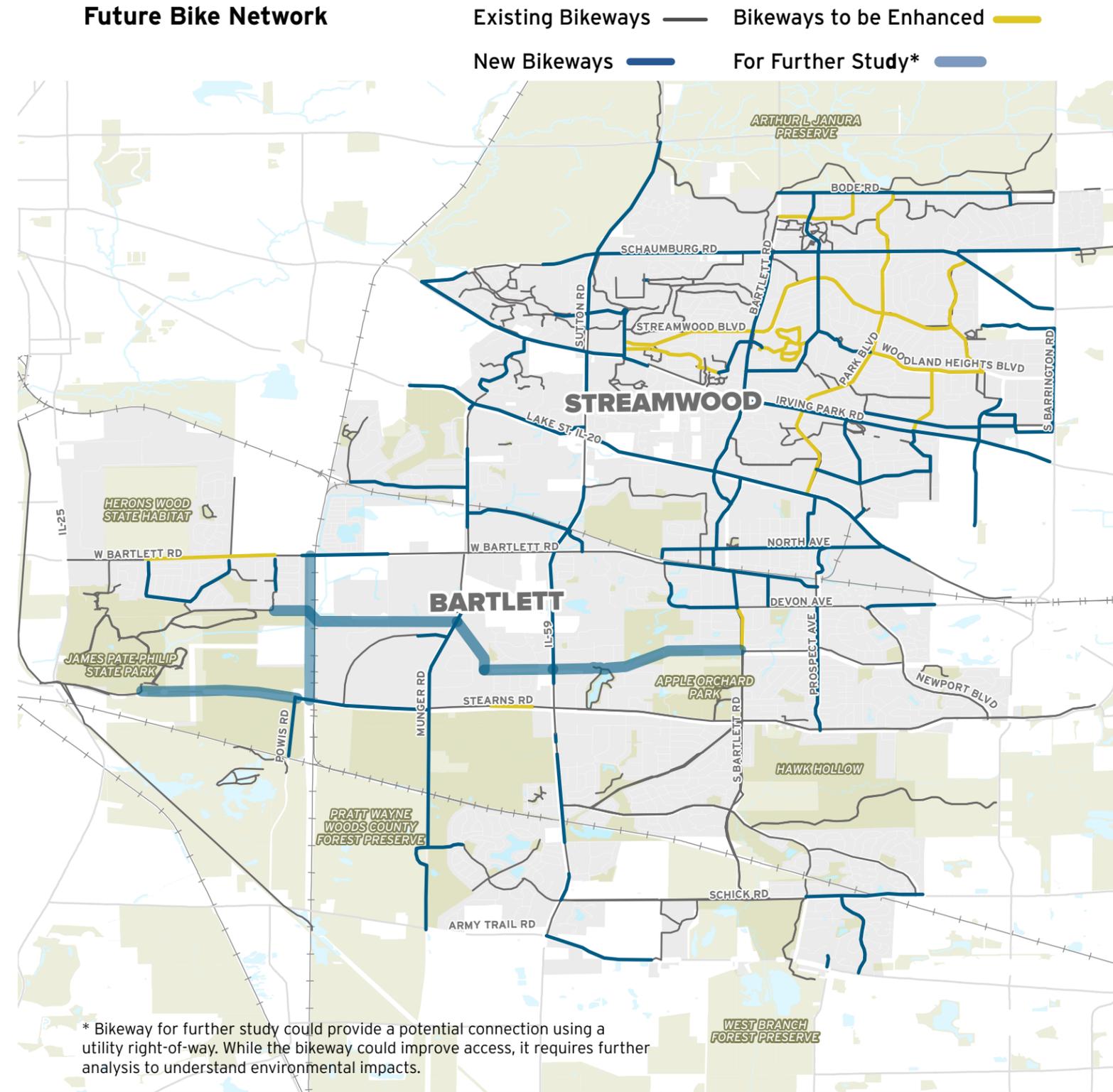
- 3. Separated Routes on Major Streets:** In both Villages, many important destinations are located along major streets. Major streets often provide the most direct connections and connections across and between Bartlett and Streamwood. These streets, though, often have higher speed limits and traffic volumes, and, thus, require bikeways that are protected or separated from traffic.

The future bike network (shown in the map to the right) entails a more than 50% increase in the total miles of bikeways in both Bartlett and Streamwood. **In Bartlett, the future bike network includes 34 miles of new bikeways and 4 miles of enhancements to existing routes. In Streamwood, the future bike network includes 23 miles of new bikeways and 13 miles of enhancements to existing routes.**

When completed, the vast majority of residents in both communities—85% in Bartlett and 97% in Streamwood—would live within a quarter-mile of the network, enabling access to destinations across both Villages.

To help prioritize the Villages' investments, the plan identifies the highest priority bikeways that can help create a more connected network in the near-term. In Bartlett 15 miles of routes were identified as Tier 1 bikeways. In Streamwood, 16 miles of routes were identified as Tier 1 bikeways. More information on bikeways prioritization is on page 31.

Future Bike Network



Recommendations at a Glance— Walking

Community members in Bartlett and Streamwood walk to work, school, and to access transit. People walk to access parks and recreation, for errands and shopping, and to socialize with friends and family. Community members voiced many needs, though, to make walking safer, more comfortable, and convenient—more paths and trails, more and better maintained crosswalks, better sidewalks, and many other safety improvements.

Both Bartlett and Streamwood have extensive sidewalk systems, but filling existing gaps will be critical to achieving this plan's objectives. **In Bartlett, 7 miles of sidewalk gaps were identified as the highest priority to address ("Tier 1 gaps") and an additional 26 miles were identified as medium-term priorities ("Tier 2 gaps"). In Streamwood, 14 miles of sidewalk gaps were identified as the highest priority and 10 miles were identified as medium-term priorities.**

The plan also highlights "pedestrian focus areas," which are locations within Bartlett and Streamwood with high pedestrian activity or the potential for greater levels of pedestrian activity based on surrounding land uses and densities. More information on the pedestrian focus areas is on page 35.

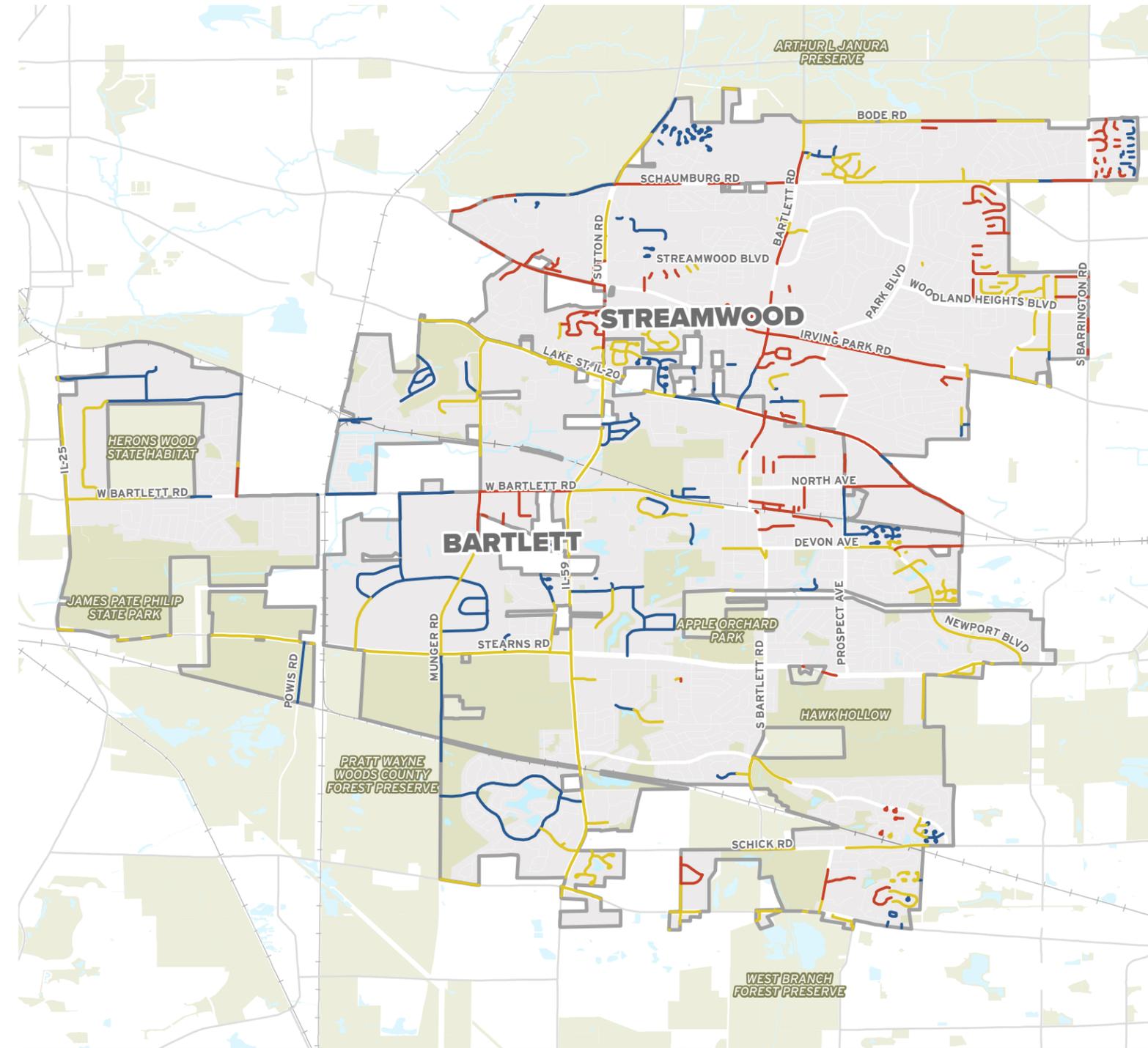
To improve walking in these locations and encourage more people to walk, the Villages should implement targeted physical interventions and policy changes in the pedestrian focus areas. The street design toolbox on page 39 includes information on a range of traffic calming measures and other safety tools that can be applied throughout the pedestrian focus areas.

Additional actions to improve safety and increase walking in the pedestrian focus areas include:

- Setting safe speed limits.
- Installing and maintaining marked crosswalks at intersections.
- Implementing leading pedestrian intervals, which improve visibility and safety by giving pedestrians a walk signal before drivers receive a green signal, at all signalized intersections.
- Implementing turning restrictions (e.g., eliminating right turns on red) to reduce conflicts with people walking in crosswalks.
- Converting on-street parking to curb extensions at intersections to decrease pedestrian crossing distance and improve visibility.
- Installing mid-block crossings to provide direct connections to community destinations.

Sidewalk Gap Prioritization

Tier 1 Gaps — Tier 2 Gaps — Tier 3 Gaps —



PLAN PROCESS



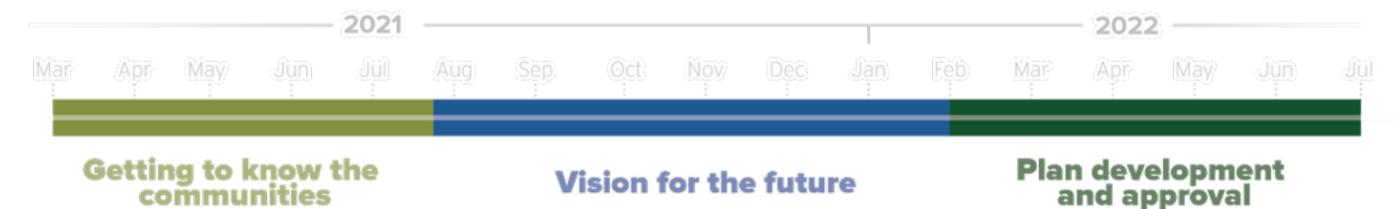
The process to develop the Bartlett and Streamwood Bicycle and Pedestrian Plan spanned three phases over the course of 2021 and 2022.

- 1. Getting to Know the Communities:** The project team engaged with community members and stakeholders and collected and analyzed a wide range of data to identify the opportunities and challenges for people walking and biking in Bartlett and Streamwood. This phase concluded with the development of the Existing Conditions Report.
- 2. Visioning:** The project team collaborated with CMAP and Village staff to develop preliminary recommendations to address the issues and opportunities identified in the first phase. These recommendations were further refined based on input from community members and the steering committee. This phase concluded with the development of the Key Recommendations Memo.

- 3. Plan Development:** The project team identified priorities based on community and stakeholder input to help craft a set of actionable recommendations and roadmap for plan implementation. The analysis, findings, community input, and recommendations were then compiled into this final plan document.

Community engagement and input was a foundational component of each stage of the planning process and the recommendations presented in this plan. The plan's recommendations were also guided by the project Steering Committee, which included Village staff and representatives from partner agencies, community organizations, and neighboring municipalities. The Steering Committee met four times across the planning process, once at the outset of the project to help shape the work plan and once during each phase of the project to provide direction and review preliminary findings and recommendations.

Bartlett and Streamwood Bicycle and Pedestrian Plan Project Timeline



Community Engagement

Engaging the Bartlett and Streamwood communities was a priority for the planning process. A variety of engagement opportunities were used to seek input from community members to inform the project team's understanding of issues and opportunities and develop recommendations that respond to the unique context within the Villages.

Public Meeting #1

Due to the COVID-19 pandemic, the first public meeting was virtual. The meeting took place on June 24, 2021 from 6:00 - 8:00 PM online via Zoom. The public meeting introduced the Plan to the public, discussed the goals and objectives, and sought feedback from the public in two "breakout rooms"; one for the Bartlett community and one for the Streamwood community. Mentimeter, an online tool for interactive live polling, was used to gather public input in each of the breakout rooms. Attendees answered polls regarding walking and bicycling in their respective community.

Key Takeaways from Public Meeting #1

- *There are many destinations* throughout both communities – parks, forest preserves, stores, and community centers – *where people would like to walk/bike to but are unable* to due to a lack of connections.

What kinds of improvements should there be for biking in Streamwood? (Write in your top 3).



- *Most participants would walk and/or bike more if safety weren't an issue.* Community members raised concerns about driver behavior (i.e., speeding, distracted driving, and drivers not yielding to people walking), gaps in the sidewalk and trail/bike network, and challenges crossing major streets.
- *Nearly all of the participants shared that they are not at all comfortable or only somewhat comfortable with children walking/biking to school.* Focusing walking and biking improvements around schools and along key routes to schools should be a major focus of the Plan.
- Community members' ideas to improve walking and biking include: filling gaps in the sidewalk and trail/bike network, creating safer street crossings for people walking and biking, improving signage and wayfinding, lowering speed limits, and improving lighting along streets and trails. Many participants would also like to see more community awareness, education, and outreach about walking and biking.

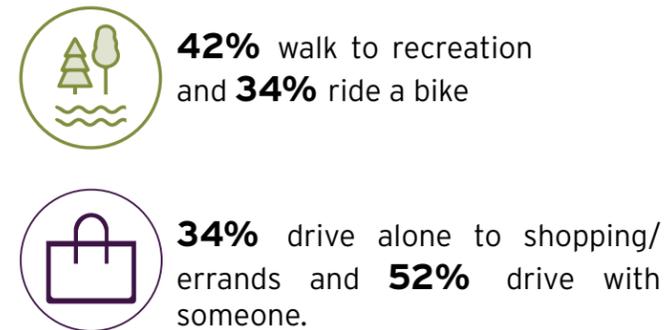
What kinds of improvements should there be for walking in Bartlett? (Write in your top 3).



Community Travel Survey

The Community Travel Survey survey was available online through the project website. The survey was aimed towards community members to learn how people prefer to move around Bartlett and Streamwood. The survey was available from June through July 2021 and 272 community members completed it.

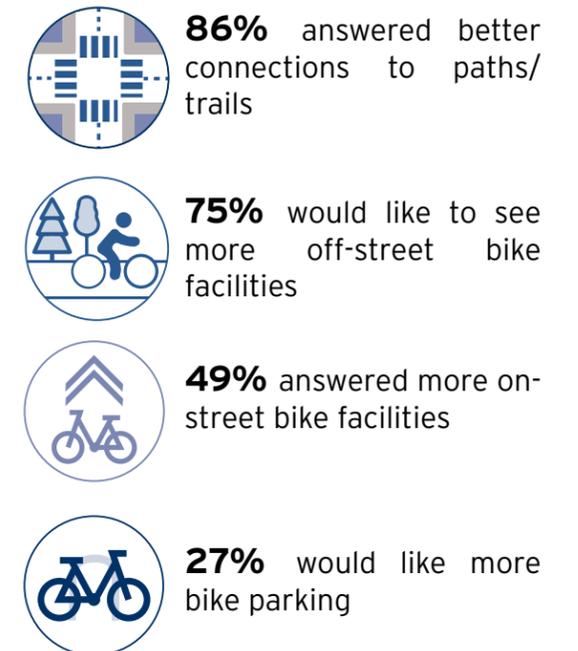
Travel to Destinations - Responses



What Would Improve Walking - Responses



What Would Improve Biking - Responses



Stakeholder Interviews

The project team is in process of conducting interviews with stakeholders identified by the Villages of Bartlett and Streamwood. During the month of July, six individual stakeholder interviews were completed. While stakeholders provided unique perspectives, there were a common themes among the conversations including:

- Improve connectivity between existing trails and paths.
- Connect the gaps within the sidewalk system.
- Enhance key intersections and crossings particularly at major streets, such as Route 59.
- Build upon wayfinding and communication efforts surrounding the pedestrian and bicycle network.

Community Engagement

Interactive Map

An interactive map allowed residents and community members to document where they consider challenges and potential opportunities for walking and bicycling. Individuals that utilized the map could select a “pin” and then place it on the map along with a comment.

A total of 160 pins were placed on the map by the public. Responses included discussion about existing conditions of paths and trails, difficulty crossing at specific intersections, sidewalk gaps, recommendations for bicycle links, and other challenges and opportunities. These locations were evaluated and taken into consideration when developing recommendations for the Plan.

A few particular locations garnered several comments including:

- **Route 59/ S Sutton Rd:** Participants identified several opportunities for bicycling and walking, as well as the need for safer crossings.
- **E Schaumburg Rd:** Participants highlighted the challenges of the gaps in the sidewalk network.
- **W Bartlett Rd:** Participants identified opportunities for extending, connecting, and improving the path for pedestrians and bicyclists.
- **Railroad Ave:** Participants pinpointed opportunities for bicycle parking as well as challenges crossing the railroad tracks for people walking, biking, and driving.

Student Engagement

In order to engage students in the planning process, the project team met with the Principal Student Advisory Groups from both Bartlett and Streamwood High Schools to provide information on the plan, gather input, and spread the word to a new audience. The project team also developed online activities specifically geared towards students and their families, including a survey and interactive mapping exercise. 135 students responded to the survey. Through this engagement, the project team identified several key findings.

How survey respondents typically get to school:

- Bus, 32%
- Drive alone, 25%
- Carpool, 24%
- Drop off/pick up, 14%
- Walk/bike, 5%

54% Share of students who would bike to school more if there were a safe, convenient, comfortable route.

48% Share of students who would walk to school more if there were a safe, convenient, comfortable route.

Survey—How comfortable are you biking on these streets?

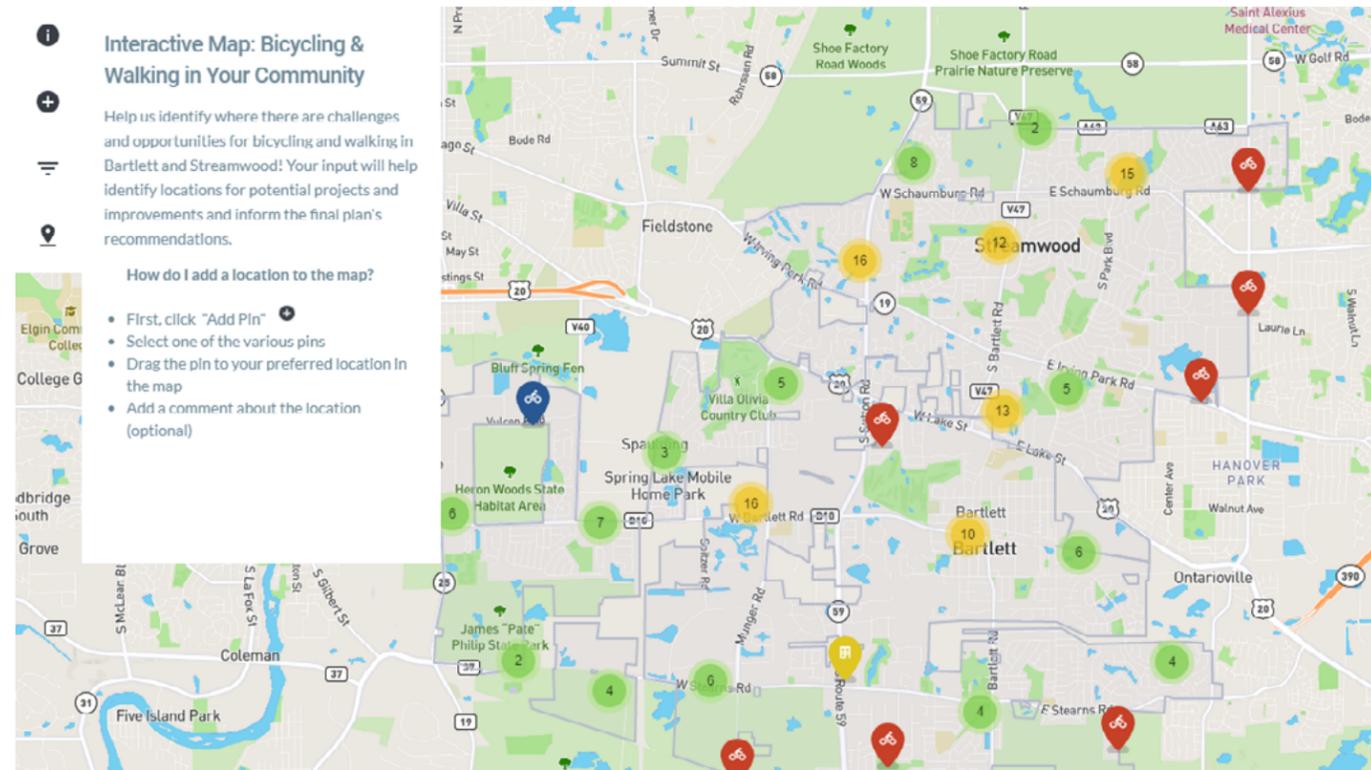
The project team developed a visual preference survey where respondents rated their level of comfort biking on different types of streets with different types of bikeways. Seventy-four respondents completed the survey, which directly informed the development of the bikeway selection criteria (see page 26). The survey also gathered input on the types of improvements that would make walking and biking more comfortable at intersections.



More than 75% of respondents were comfortable biking on local streets, regardless of the presence of parking or any dedicated bike facilities.



The majority of respondents were **uncomfortable or very uncomfortable biking on major streets that lacked dedicated bike infrastructure.**



Community Engagement

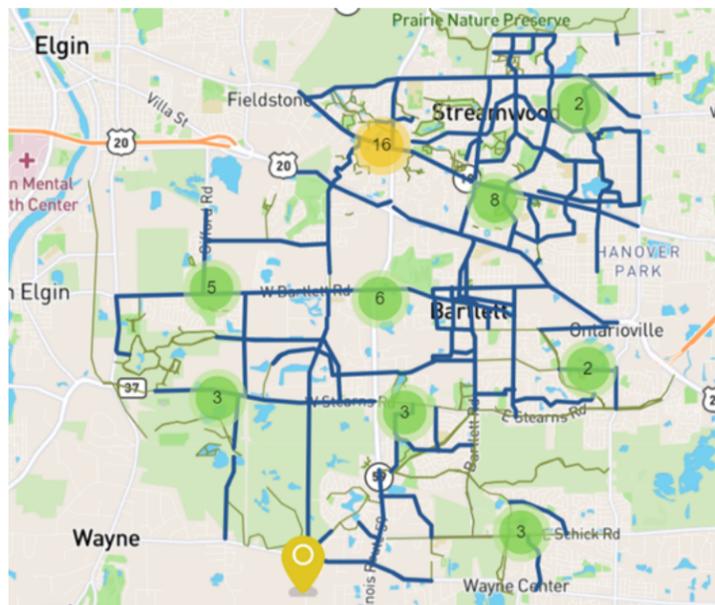
Survey—Prioritizing Sidewalk Investments

The project team gathered input from the community on how and where to prioritize addressing existing sidewalk gaps. Forty-six respondents shared their input, with gaps near schools, along major streets, and near transit rated as the highest priorities to address.



Interactive Map—Preliminary Bike Network and Pedestrian Focus Areas

The project team developed interactive mapping exercises to gather input from the community on the preliminary bike network and pedestrian focus areas. Community members shared 91 comments through the map which helped refine both elements of the plan.



Streamwood Environmental Education Day Pop-Up Event

Members of the project team set up a table at the Streamwood Environmental Education Day event on April 30, 2022 to share information about the project. The event provided an opportunity to engage new community members and raise awareness about the project. Community members also gave input on the future bike network and completed a participatory budgeting exercise.

Public Meeting #2

Based on the success of the first virtual public meeting, the Villages decided to conduct the second public meeting virtually as well. The meeting was held online via Zoom on May 24, 2022 from 6:00 - 8:00 PM. The meeting provided an overview of the planning process to-date and the plan's key recommendations, including the future bike network, pedestrian focus areas, and sidewalk gap prioritization.

In order to enable deeper discussion, participants were invited to join one of two "breakout groups," one focused on

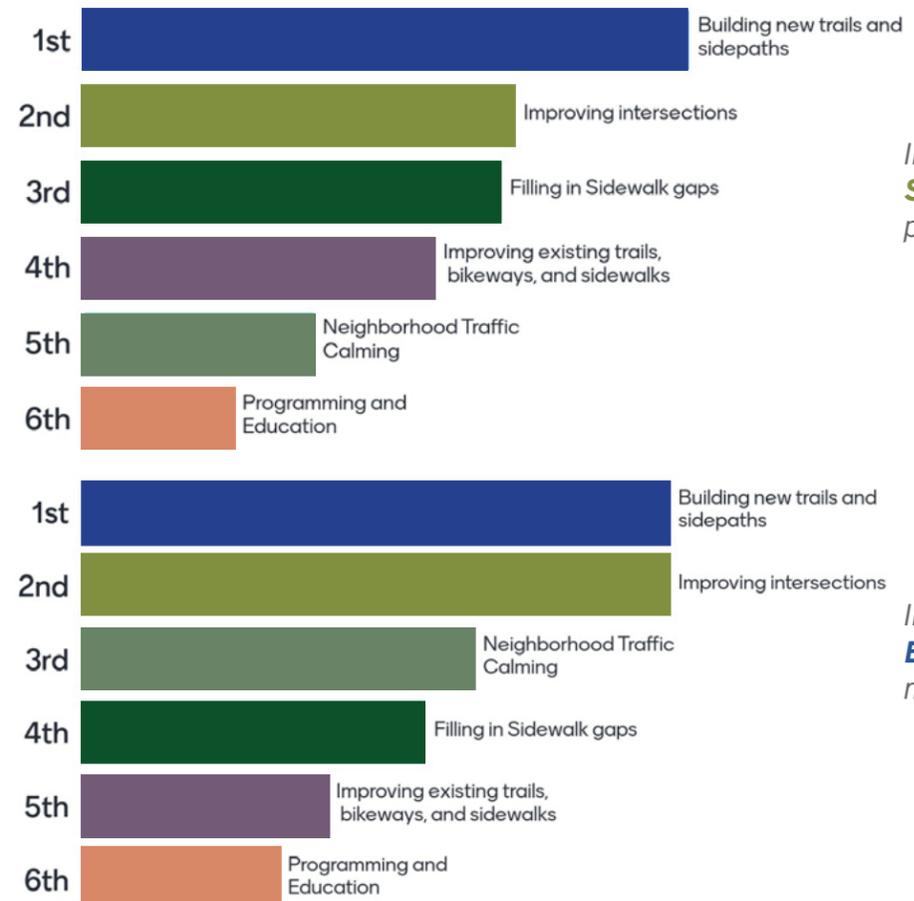
Bartlett and one focused on Streamwood. Within the breakout groups, community members completed an interactive mapping exercise to identify key projects, ranked their priorities across different categories of investments (building new trails and sidepaths, improving intersections, filling in sidewalk gaps, improving existing trails/bikeways/sidewalks, neighborhood traffic calming, and programming and education). Similar exercises were also posted to the project website for additional community input.

Key Takeaways from Public Meeting #2

- Community members emphasized the need for bike improvements on major streets to provide access to key destinations as well as on neighborhood streets to provide

local connections. They recognized that improvements on major streets outside the Village's control may take more time, so highlighted the need for shorter-term improvements on local streets.

- Key projects community members emphasized included Schaumburg Rd. and Bartlett Rd. in Streamwood and W. Bartlett Rd. and Stearns Rd. in Bartlett.
- Community members also emphasized the importance of wayfinding and bike parking, in addition to investments in bikeways.
- In both Bartlett and Streamwood, building new bikeways and improving intersections were the highest priority investment categories.



Investment priorities in **Streamwood**, based on public meeting feedback.

Investment priorities in **Bartlett**, based on public meeting feedback.

Key Takeaways

Barrier: Several barriers were identified including W Bartlett Rd, Sutton Rd, and Irving Park Rd. The barriers related to need for safer crossings and off street paths due to high speed traffic.

Missing Route: Many of the missing route points called out routes already proposed or outside of Village boundaries. Identified need for connection to Fair Oaks Rd Bike Path.

I would use this route: There were several points throughout the villages including Schaumburg Rd, Park Blvd, Irving Park Rd, Mayflower Ln, Stearns Rd

KEY RECOMMENDATIONS

The recommendations within the Bartlett and Streamwood Bicycle and Pedestrian Plan were developed to address the issues and opportunities identified through community engagement and data collection and analysis and achieve the plan's goal to create complete, connected, and safe networks for people walking and biking. These recommendations were developed iteratively, with multiple rounds of feedback from the community, stakeholder input, and additional analysis informing additional refinement and adjustments.

This section of the plan focuses on recommendations related to physical infrastructure (supporting recommendations related to policies and programs begin on page 85).

The key recommendations are divided into four sections:

- 1. Biking Recommendations:** Recommendations related to biking, including the future bike network and recommended types of improvements.
- 2. Walking Recommendations:** Recommendations related to walking, including sidewalk gaps and locations for targeted safety improvements.
- 3. Intersections and Crossings:** Important locations for additional improvements at signalized intersections, unsignalized crossings, and trail crossings.
- 4. Safety Design Toolbox:** Detailed information on tools that can be used to improve safety and comfort for people walking and biking.

Interactive Community Mapping Exercise

Interactive Map: Cycling & Walking in Your Community

Help us identify where there are challenges and opportunities for bicycling and walking in Bartlett and Streamwood! Your input will help identify locations for potential projects and improvements and inform the final plan's recommendations.

How do I add a location to the map?

- First, click "Add Pin"
- Select one of the various pins
- Drag the pin to your preferred location in the map
- Add a comment about the location (optional)

Future Bike Network

The future bike network in Bartlett and Streamwood creates a complete, connected network designed to be safe and comfortable for the residents of Bartlett and Streamwood, as well as workers and visitors.

The future bike network builds off the Villages' existing networks and planned/proposed projects as a foundation. Gaps in the existing network were identified based on community input, analysis of access to important destinations, and evaluation of barriers and crash hot spots. New routes were proposed to address these issues and were refined with community and stakeholder feedback.

Three main types of routes make up the network:

- 1. Off-Street Trails:** Trails in parks, forest preserves, and other locations outside the street right of way provide comfortable experiences for people of all ages and abilities.
- 2. Low Stress Local Routes:** Local streets typically have low speed limits and traffic volumes. When accompanied by additional traffic calming measures to keep vehicle speeds safe and volumes low, along with additional signage and wayfinding, local streets can become high-quality bikeways.
- 3. Separated Routes on Major Streets:** In both Villages, many important destinations are located along major streets. Major streets also often provide the most direct connections and routes between Bartlett and Streamwood. These streets, though, often have higher speed limits and traffic volumes, and, thus, require bikeways that are protected or separated from traffic.

The map on the right divides the future bike network into three categories: existing bikeways, bikeways to be enhanced, and new bikeways. Bikeways to be enhanced refers to routes that already exist but require additional enhancement to deliver a safe, comfortable experience. Examples include widening existing sidepaths to meet current best practices or installing traffic calming features to transform a signed bike route into a truly low-stress route.

Bartlett's Future Bike Network

65 miles

Existing Bikeways

4 miles

Bikeways to be Enhanced

34 miles

New Bikeways (includes bikeways for further study)

85%

Share of the Village within 0.25 miles of the Future Bike Network

Streamwood's Future Bike Network

66 miles

Existing Bikeways

13 miles

Bikeways to be Enhanced

23 miles

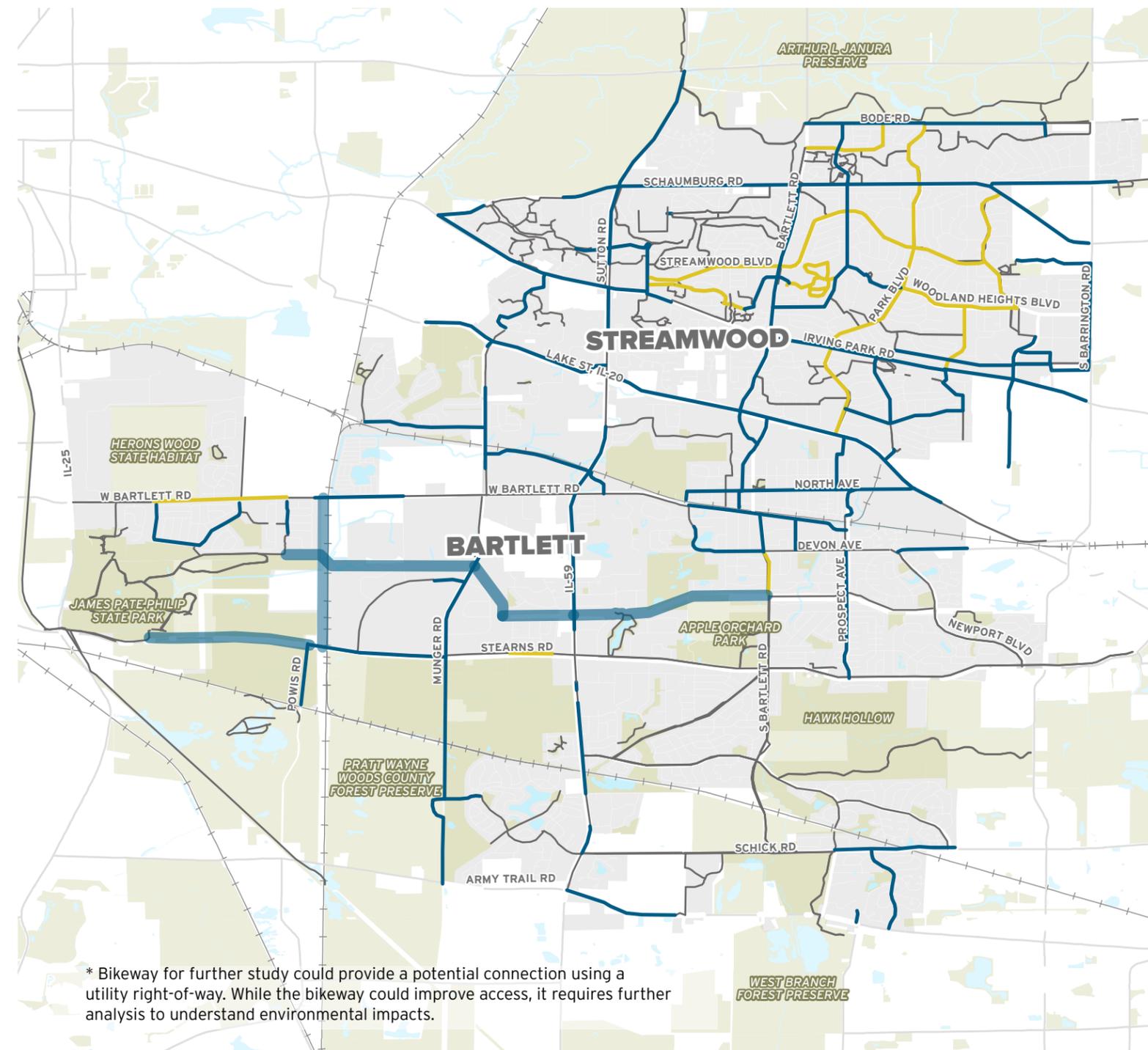
New Bikeways

97%

Share of the Village within 0.25 miles of the Future Bike Network

Future Bike Network

Existing Bikeways — Bikeways to be Enhanced —
New Bikeways — For Further Study* —



* Bikeway for further study could provide a potential connection using a utility right-of-way. While the bikeway could improve access, it requires further analysis to understand environmental impacts.



Types of Bikeways

The level of comfort someone experiences while biking is a major determinant of how much and where they are willing to bike. Research illustrates that people who are interested in biking but less experienced and confident are much more comfortable biking when they are separated from fast-moving vehicles and/or high volumes of vehicles.

An online survey conducted during the project found that over half of the 74 respondents (52%) said they are comfortable sharing the road with cars, but prefer to ride in bike facilities. Approximately a third of respondents (34%) indicated they are not comfortable sharing the road with cars but are still interested in riding a bicycle, suggesting separated facilities or shared use paths may make the rider more comfortable.



New shared use path in Streamwood.

To plan and deliver a bike network that is safe, comfortable, and reliable to a wide range of potential cyclists (including children and older adults), it is important to follow criteria that guide what is the most appropriate bike facility for a given street, based on factors such as speed limit, the amount of vehicle traffic, and on-street parking.

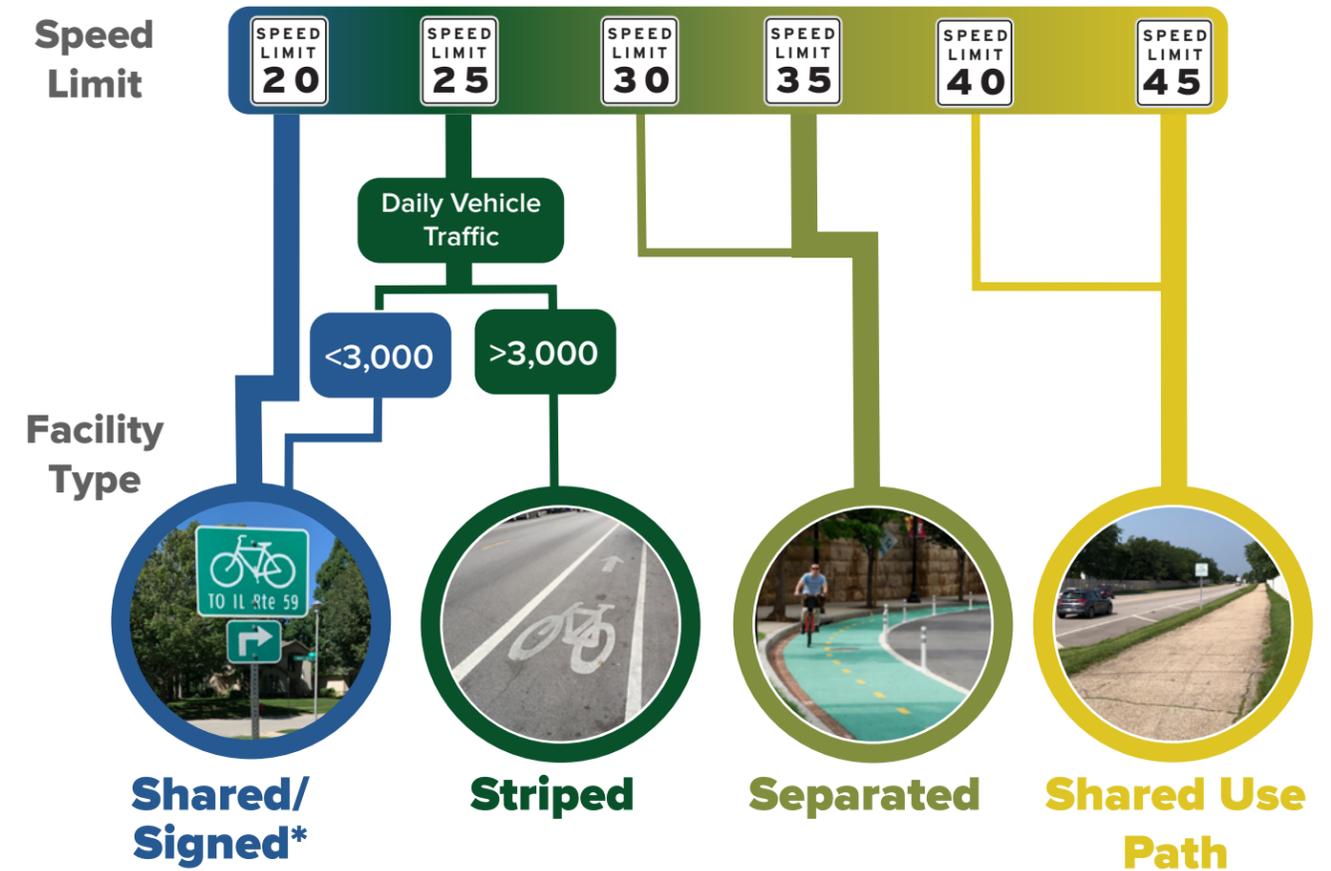
Bartlett and Streamwood both have a wide array of street types with varying speed limits and traffic volumes. Applying the criteria illustrated below (adapted from the National Association of City Transportation Officials' Contextual Guidance for All Ages and Abilities Bikeways) can help the Villages determine which type of facility will best create for a low-stress, comfortable environment.

The criteria includes a street's speed limit and daily vehicle traffic volumes to determine what type of bike facility may be appropriate. However, given a roadway's environment, such as available right-of-way or community interest, a bike facility type can always be upgraded to be a higher-level facility. The guidance identifies four types of bike facilities: shared/signed on-street facilities (marked shared lane, signed route, or neighborhood greenway), striped bike lane, separated bike lane, and shared use path.

Wayfinding should be installed at predictable intervals along all bikeways to help people confirm they are on a designated route and at turns or decision points along the route. Signs should indicate the direction people should follow and the distance to important destinations. The Villages should provide strategic wayfinding signage at key locations, such as the Metra station and forest preserves.

In addition to wayfinding, green infrastructure should be incorporated throughout the bikeway network, where appropriate. Integrating green infrastructure and public art into projects can transform a bikeway into a community asset, further calm traffic, and provide additional health and environmental benefits.

Minimum Accommodations of Facility Type by Speed Limit



*Must be accompanied by traffic calming infrastructure

Bike Facility Selection Criteria for On-Street Bikeways

Shared/Signed On-Street Facility (Mark Shared Lane, Signed Route or Neighborhood Greenway)

On on-street shared/signed facilities, people biking share the same street space with cars. Because shared facilities do not provide separate space for people biking, they should only be used on low-volume (fewer than 3,000 vehicles per day), slow streets (speed limit of 25 mph or less). Roadway configuration, such as the number of travel lanes and presence of on-street parking, should also be considered when determining whether a shared facility is appropriate. Shared or signed facilities should not be installed on streets with more than two lanes and should always be accompanied by traffic calming measures to encourage safe speeds.

Neighborhood greenways, sometimes also referred to as bike boulevards, are shared facilities on low-volume, low-speed neighborhood streets that give people biking travel priority. Using pavement markings, wayfinding signage, and traffic calming measures, neighborhood greenways encourage safe and comfortable bicycling for people of all ages and abilities. They can also incorporate additional features such as green infrastructure and enhanced landscaping. Neighborhood greenways require careful route planning that connects bicyclists to destinations and other safe, comfortable bike facilities. Neighborhood greenways should always be accompanied by robust traffic calming measures to encourage safe speeds and discourage vehicular through trips.

Types of Bikeways

Standards and Guidance

- On non-local streets, green-backed shared lane markings should be installed in the direction of travel. Marking should be a minimum of four feet from the face of curb on streets without on-street parking and 11 feet from face of curb with streets with on-street parking.
- On local streets, shared lane markings should be placed at intersections with non-local streets to assist with wayfinding and travel path through the intersection.
- For both local and non-local streets, signed and shared facilities should be accompanied by traffic calming measures, low speed limits, and pavement treatments that reinforce safe behaviors for all users.



A shared lane in a Northwest suburb.

Striped Bike Lane

A striped bike lane demarcates the right-of-way that is designated for people biking. The addition of green paint can be used to draw additional attention to the bicycle lane or specific conflict points. Striped bike lanes are most appropriate on streets with low to moderate travel volumes and speeds. If space is available, marking a buffer can increase comfort for people biking.

Standards and Guidance

- Striped bike lanes should be six feet in width when adjacent to a curb, and five feet when next to a parking lane, unless there is additional space available for a painted buffer.
- A 3-foot wide painted buffer is desired when next to on-street parking to prevent door collisions.
- “No Parking” signage should be installed along lanes adjacent to the curb to discourage parking in the bike lane.
- Utility covers should be flush with the ground with any grates oriented perpendicular to the direction of travel to prevent bicycle tires getting caught.



A striped bike lane in Evanston.

Separated Bike Lane

Separated bike lanes, or protected bike lanes, are physically separated from vehicle traffic. Physical separation can be achieved through various options, including a painted buffer with flexible delineators or bollards, parking lanes, curbs or concrete medians, or planters with landscaping. Separation can also be achieved by placing the bike lane at sidewalk-

level or an intermediate level between the roadbed and sidewalk. Special attention should be given to safely designing areas where the separated facility intersects with vehicular or pedestrian traffic.

Two-way separated bike facilities allow bicycle travel in both directions on one side of the road. These facilities should be limited to streets with few driveways or other turning conflicts across the bike facility.

Standards and Guidance

- A one-way separated bike lane should have a minimum width of five feet along with a minimum desired buffer of three feet between the bike lane and vehicle traffic or parking.
- A two-way separated bike lane should be a minimum of 12-feet wide (six feet in either direction). A minimum width of eight feet is permitted if physically constrained.
- Physical separation may include a painted buffer with flexible delineators or bollards, curb or concrete medians, planters, or parking lanes.
- Conflict markings should be installed where the bicycle path of travel intersects with vehicle path of travel (e.g., intersections, transit stops, driveways).
- Intersections and driveways should be examined for potential visibility and sight distance issues and other safety conflicts.
- Utility covers should be flush with the ground and oriented perpendicular to the direction of travel to prevent bicycle tires getting caught.
- Careful evaluation of intersections (particularly for two-way separate bike lanes) should be conducted.



A separated bike lane in Aurora.

Shared Use Path

A shared use path, also referred to as a sidepath, is a shared bicycle and pedestrian path that is physically separated from vehicular traffic by an open space or barrier and can be either within the street right-of-way or an independent right-of-way. Shared use paths are recommended for corridors with high vehicle speeds and/or volumes. In areas with high pedestrian volumes, it may be necessary to designate separate space for people walking and biking. Shared use paths that are outside of the street right-of-way are off-street trails.

Types of Bikeways

Standards and Guidance

- The desired width for a shared use path is 10 - 14 feet. A minimum width of eight feet is permitted if physically constrained.
- A physical separation of six feet is recommended between the path and street. A minimum of two feet is acceptable when physically constrained.
- When truck volumes exceed 5% of the traffic mix, additional space beyond six feet should be provided.
- Intersections and driveways should be examined for potential visibility and sight distance issues and other safety conflicts.



An off-street trail in Streamwood.

Recommended Bikeway Types

Applying the bike facility selection criteria shown on page 26, the project team identified recommended bike facilities for the proposed network (all new bikeways and those to be enhanced). Survey findings illustrated that 87% of community members are comfortable riding a bicycle on a neighborhood street and 75% of respondents shared they are comfortable riding on a sidepath. This aligns with the proposed network where shared use paths are recommended for major streets and shared facilities for neighborhood streets.

Bartlett's Future Bike Network

6 miles

Shared/Signed Facility

1 mile

Striped Bike Lane

3 miles

Separated Bike Lane

20 miles

Shared Use Path

8 miles

Off-Street Trail

Streamwood's Future Bike Network

10 miles

Shared/Signed Facility

4 miles

Striped Bike Lane

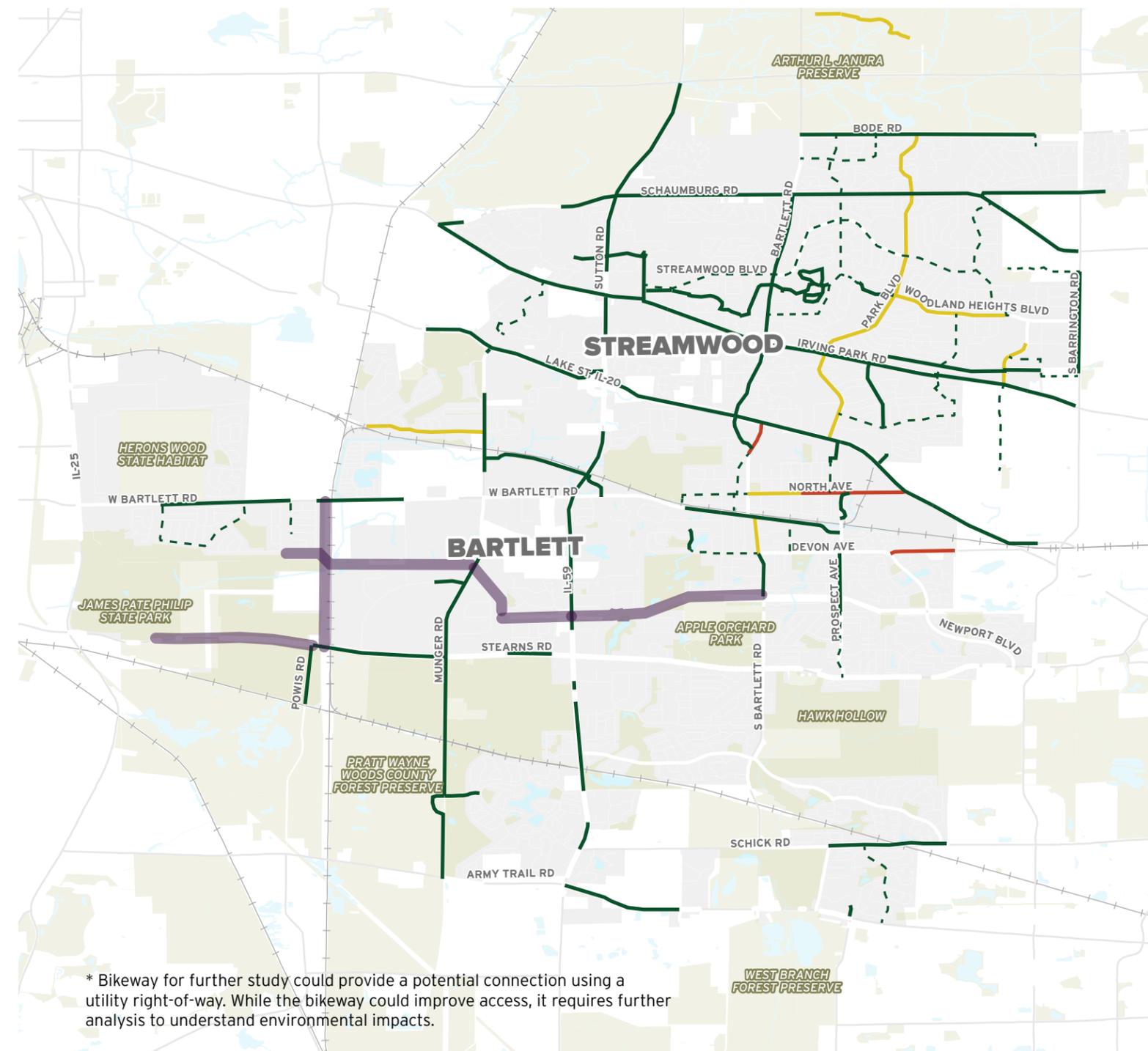
17 miles

Shared Use Path

5 miles

Off-Street Trail

Recommend Bikeway Types Shared/Signed Striped Separated
 Shared Use Path/Off-Street Trail *For Further Study



* Bikeway for further study could provide a potential connection using a utility right-of-way. While the bikeway could improve access, it requires further analysis to understand environmental impacts.



Bikeway Prioritization

This plan calls for Bartlett and Streamwood to expand their existing bike networks by more than 50%, adding or enhancing a total of 72 miles of bikeways across both Villages. In order to target investments towards projects with the greatest potential impact, proposed routes were prioritized through analysis and community and stakeholder input.

For the analysis component, six criteria were used to prioritize bikeways:

1. Equity (economically disconnected/disinvested areas from CMAP),
2. Destinations (count of community destinations within 1/8 mile),
3. Connectivity (ratio of proposed route distance: distance of existing facilities route intersects),
4. Safety (count of people walking/biking injured or killed in traffic crashes along the route),
5. Community input (count of interactive map comments along the route),
6. Barriers (count of intersecting barriers along the route).

Bikeways that scored the highest through this evaluation were categorized as Tier 1 and all other projects were categorized as Tier 2. Additional adjustments were made based on community and stakeholder feedback.

The Villages plan to work with neighboring communities to encourage the implementation of the bikeway network outside of Bartlett and Streamwood jurisdiction.

Bartlett's Future Bike Network

15 miles

Tier 1 Bikeways

23 miles

Tier 2 Bikeways

List of Tier 1 Bikeways (Jurisdiction)

- Spaulding Rd. (Village)
- Naperville Rd. (Cook County)
- S. Bartlett Rd. (DuPage County)
- W. Bartlett Rd. (Cook County)
- Main St. (Village)
- Munger Rd. (DuPage County)
- Oak Ave. (Village)
- Hickory Ave. (Village)
- Devon Ave. (Village)
- IL 59 (IDOT)
- Railroad Ave. (Village)
- Lake St. (IDOT)
- Stearns Rd. (DuPage County)
- Prospect Ave. (Village)
- Schick Rd. (Village)
- Grasslands Trail (Naperville Rd. to IL 59) (Private)
- Fairfax Ln. (Village)

Streamwood's Future Bike Network

16 miles

Tier 1 Bikeways

20 miles

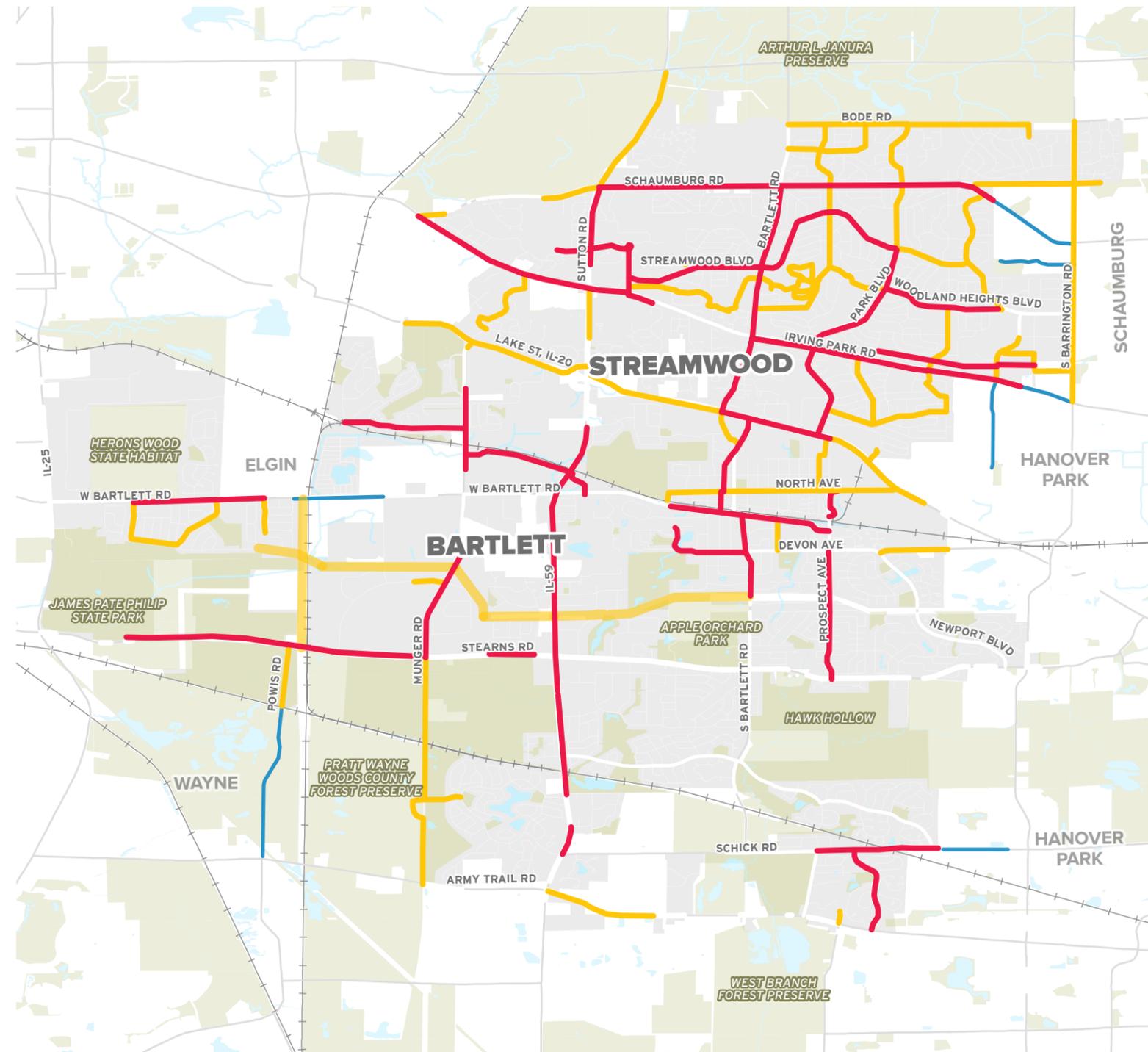
Tier 2 Bikeways

List of Tier 1 Bikeways (Jurisdiction)

- Park Blvd. (Village)
- Irving Park Rd. (IDOT)
- Woodland Heights Blvd. (Village)
- Trail connecting over Sutton Rd. (Village)
- Streamwood Blvd. (Village)
- Bartlett Rd. (Cook County)
- Trail from Vine to St. Frances Ave. (Village)
- Madison Dr. (Village)
- Schaumburg Rd. (Cook County)
- Sutton Rd. (IDOT)

Bikeway Prioritization

Tier 1 Bikeways — Tier 2 Bikeways — Other Municipalities —

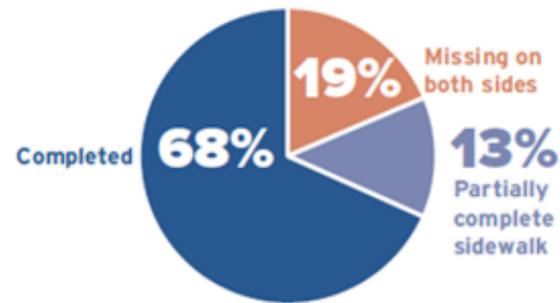


Sidewalk Gaps

Sidewalks are critical to creating Bartlett and Streamwood's pedestrian network, providing people with safe places to walk. While both Bartlett and Streamwood have extensive sidewalk systems, the Villages each have gaps within their networks.

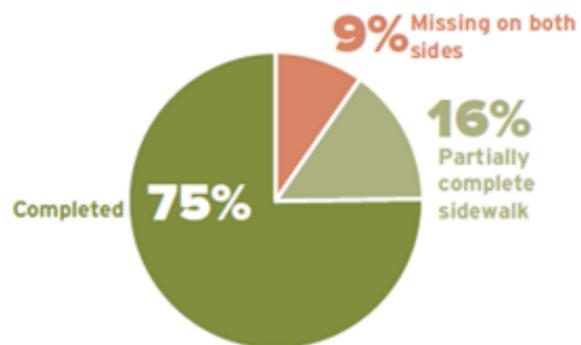
In Bartlett, approximately 68% of streets have sidewalks on both sides of the streets, 13% have sidewalks on one side of the street, and 19% of streets have sidewalks missing from both sides. There are a total of 52 miles of sidewalk gaps in Bartlett.

Sidewalks in Bartlett



In Streamwood, approximately 75% of streets have sidewalks on both sides of the streets, 16% have sidewalks on one side of the street, and 9% of streets have sidewalks missing from both sides. There are 28 total miles of sidewalk gaps in Streamwood.

Sidewalks in Streamwood



Based on community and stakeholder feedback, the most impactful sidewalk gaps in the sidewalk network have been prioritized to help focus the Villages' resources. Sidewalk gaps were grouped into three tiers, from highest to lowest priority.

- **Tier 1 Gaps**—Sidewalk gaps near schools and transit were identified as highest priority. Filling in these gaps will enable people to walk to school, the bus, or the train.
- **Tier 2 Gaps**—Include sidewalk gaps near libraries and community centers, parks and forest preserves, gaps along major streets, and any gaps located in pedestrian focus areas (explained on the following page).
- **Tier 3 Gaps**—All remaining sidewalk gaps.

Sidewalk Gaps in Bartlett

7 miles

Tier 1 Gaps

26 miles

Tier 2 Gaps

19 miles

Tier 3 Gaps

Sidewalk Gaps in Streamwood

14 miles

Tier 1 Gaps

10 miles

Tier 2 Gaps

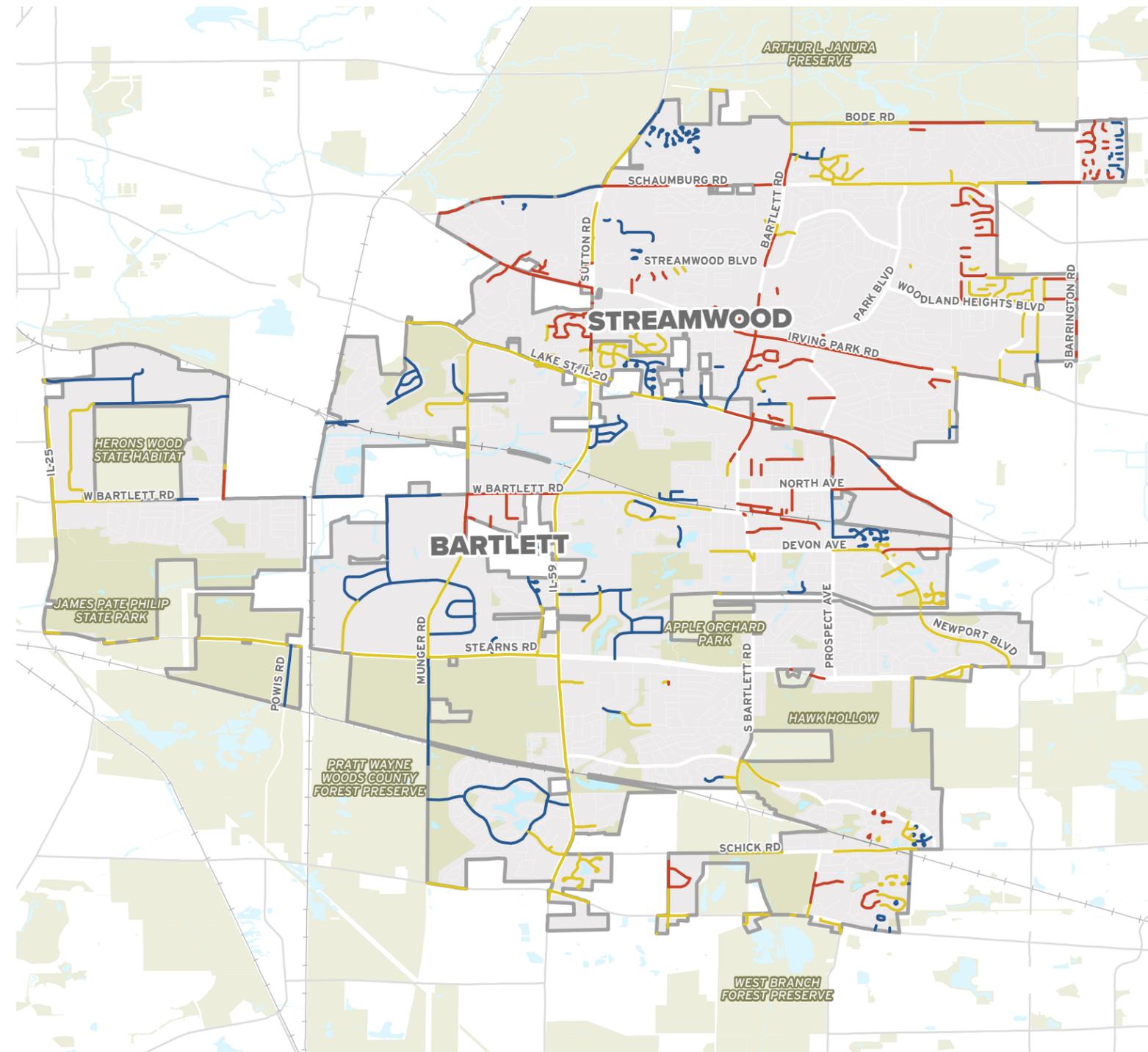
5 miles

Tier 3 Gaps

Sidewalks and crossings must be in compliance with the Americans with Disabilities Act (ADA). Visit the Villages' Public Right-of-Way Transition Plans for more information.

Sidewalk Gap Prioritization

Tier 1 Gaps — Tier 2 Gaps — Tier 3 Gaps —



0 0.5 1 2 Miles

Pedestrian Focus Areas

Pedestrian focus areas are areas with high pedestrian activity or the potential for greater levels of pedestrian activity based on surrounding land uses and densities (as well as potential future changes to land use and densities). The focus areas were identified by applying a quarter-mile buffer around community destinations, such as schools, community centers, transit stations, commercial centers, and major entry points to parks/forest preserves. The pedestrian focus areas were refined based on feedback from the community and stakeholders.

To improve walking in these locations and encourage more people to walk, the Villages should implement targeted physical interventions and policy changes within the pedestrian focus areas. The street safety design toolbox on page 39 includes detailed information on a range of traffic calming measures and other safety tools that can be applied throughout the pedestrian focus areas.

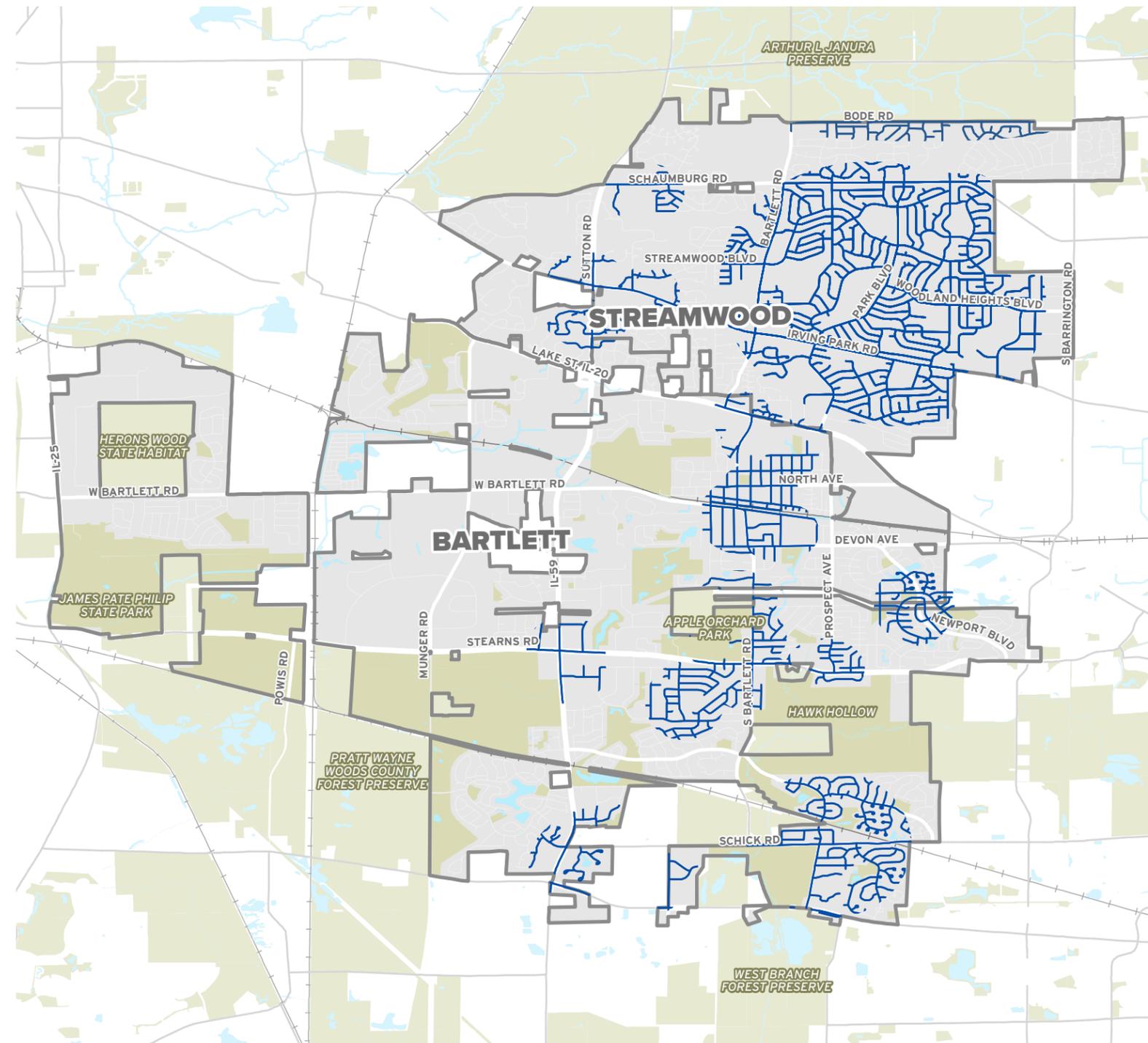


Newly painted crosswalks in Bartlett.

Additional actions to improve safety and increase walking in the pedestrian focus areas include:

- Setting safe speed limits (targeting 20-25 miles per hour on Village-controlled streets).
- Installing and maintaining marked crosswalks at intersections. Install high-visibility crosswalks at intersections with major streets and in locations with high levels of pedestrian activity. Include stop bars at traffic signal or controlled intersection markings to indicate to the driver where to stop. Evaluate raised crosswalks and intersections at major destinations to further improve safety.
- Implementing leading pedestrian intervals, which improve visibility and safety by giving pedestrians a walk signal before drivers receive a green signal, at all signalized intersections.
- Implementing turning restrictions (e.g., eliminating right turns on red) to reduce conflicts with people walking in crosswalks.
- At intersections, converting on-street parking to curb extensions to decrease pedestrian crossing distance and improve visibility.
- Installing mid-block crossings at major pedestrian generators, especially where the nearest traffic signal or controlled intersection is >600 feet away.
- Updating signals for an automated pedestrian phase.

Pedestrian Focus Areas



Intersection and Crossing Recommendations

Intersections and crossings are essential elements in creating safe, connected networks for people walking and biking. Intersections and crossings can create major barriers for people walking and biking and can break up what would otherwise be a connected route.

In gathering community input throughout the project, numerous intersections and crossings were highlighted—including improvements to existing locations as well as locations in need of new crossings. This feedback was combined with a detailed analysis of crash data (crash data was provided by Illinois Department of Transportation [IDOT] for 2015 - 2019) to identify key intersections and crossings requiring improvements.

The following map shows key intersections and crossings for improvements. The intersections and crossings shown on the map are organized into three categories, each of which involve different types of improvements from the street safety design toolbox beginning on page 39:

Signalized Intersections – intersections with a traffic signal (7 in Bartlett, 13 in Streamwood).

Unsignalized Locations – locations without a traffic signal, often located mid-block to provide a direct connection to a key destination or where a trail crosses a street (11 in Bartlett, 9 in Streamwood). IDOT has published guidance on safety measures at uncontrolled locations.

Grade-Separated Crossings – on streets with very high traffic volumes and speeds, providing a grade-separated crossing for people walking and biking (e.g., a bridge) may be the most comfortable option (1 in Bartlett, 2 in Streamwood).

The following street design toolbox provides detailed information on safety tools and improvements that can be implemented at key intersections and crossings as well as other locations throughout the Villages.

What physical improvements would make you feel safer crossing an intersection while biking?



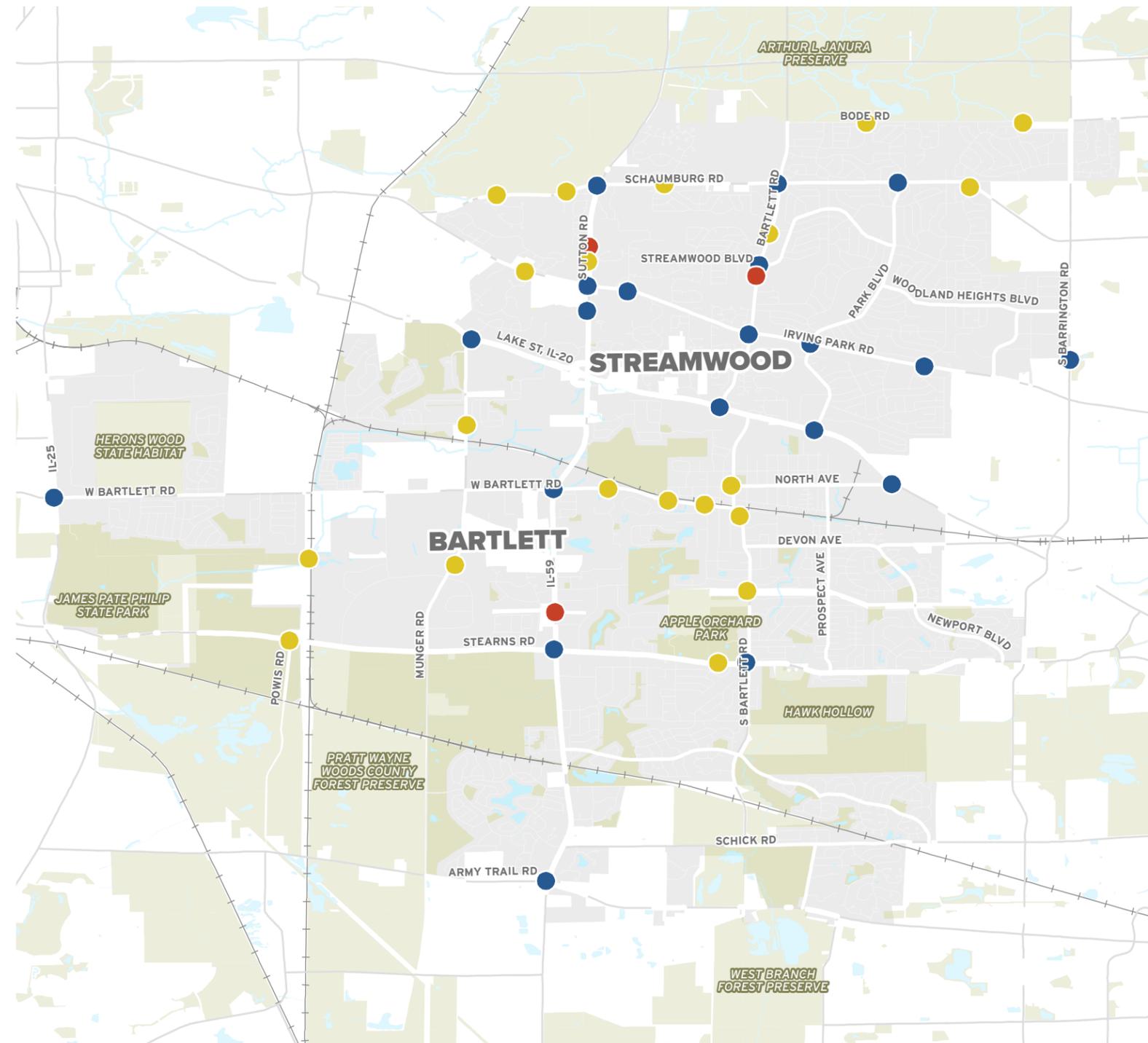
What physical improvements would make you feel safer crossing an intersection while walking?



Results from a community survey on desired improvements at intersections and crossings.

Key Intersections and Crossings

Signalized Intersections ● **Unsignalized Locations** ● **Grade-Separated Crossings** ●



Street Safety Design Toolbox

Implementing improvements to make streets and intersections safer and more comfortable for people walking and biking will greatly benefit those who already walk and bike, encourage more people to walk and bike, and enable a multitude of co-benefits that come from more walking and biking.

Throughout the planning process community members raised concerns about safety while walking and biking. The items within the toolbox will all help to address these concerns and build off community members' and stakeholders' ideas. The Street Safety Design Toolbox provides guidance to help inform the decision-making process.

How to Use The Toolbox

Each tool includes a description and information on the cost, timeline, and location for implementing the tool.

Cost

Planning level unit cost estimates were determined for each tool and are denoted by dollars signs. The ranges shown in the table are associated with per lane mile, per intersection, or per instance costs.

- \$\$\$\$ Less than \$10,000
- \$\$\$\$ \$10,000 to \$100,000
- \$\$\$\$ \$100,000 to \$1 million
- \$\$\$\$ Greater than \$1 million

Timeline

The timeline reflects the time for design and construction for the tool.

-  Limited engineering design and construction time required
-  Some engineering design and a construction season required
-  Long-term planning necessary with comprehensive design and approvals required. Construction requires more than one season or must be coordinated as part of another project.

Location

Each tool specifies whether it is intended for use on minor, major, or all streets.

Street Safety Design Tools

Tools for Biking at Intersections

- Bike Boxes
- Two-Stage Turn Queue Box
- Protect Intersection
- Conflict Markings
- Intersection Crossing Markings
- Bike Signals

Tools for Intersections

- High Visibility Crosswalk and Signage
- ADA Curb Ramps
- In-Street Pedestrian Crosswalk Sign
- Raised Crossing
- Raised Intersection
- Pedestrian Refuge Island
- Grade Separated Crossing
- Turn Restrictions
- Speed Feedback Signs
- Curb Extensions
- Mid-Block Crossings
- Hardened Centerline
- Reduce Curb Radii
- Slow Turn Wedge
- Intersection Visibility and Sight Distance
- Enhanced Lighting
- Landscaping

Tools for Trail Crossings

- Vehicle Warning signs and markings
- Bike/Pedestrian warning signs and markings
- Pedestrian Hybrid Beacon (PHB)
- Rectangular Rapid Flashing Beacon (RRFB)
- Signalization
- Grade Separated Crossings
- Crossing Design
- Warning signs or markings ahead of rail crossing
- Minimize Flange opening

Tools for Traffic Calming

- Right Sizing
- Narrow Travel Lanes
- Access Management
- Slip Lane Removal
- Turn Restrictions
- Signal Progression
- Speed/Red Light Cameras
- Gateway Treatment
- Leading Pedestrian Interval (LPI)
- Lagging Left Turn Phase
- Pedestrian Countdown Signal
- Diverters
- Chokers
- Chicanes
- Pavement Treatments

Tools for Biking: At Intersections



cost **\$\$\$**

timeline **■ ■ ■**

location **all streets**

Bike Boxes

A bike box is a designated area between the vehicle stop bar and the crosswalk, marked or painted to give bicyclists a safe space to stop at an intersection. Bike boxes bring visibility to bicyclists at intersections and give bicyclists a jump on the next green light to help prevent collisions with turning vehicles.



cost **\$\$\$**

timeline **■ ■ ■**

location **major streets**

Two-Stage Turn Queue Box

Two-stage turn queue boxes provide a safer way for bicyclists to make a left-turn on multi-lane signalized streets. In a two-stage turn, a person biking crosses into the intersection where they are provided a space to wait and turn their bicycle 90 degrees so that they can then proceed straight when the street they just crossed receives a green light.

Tools for Biking: At Intersections



cost **\$\$\$**

timeline **■ ■ ■**

location **major streets**

Protected Intersection

Protected intersections separate people biking from motor vehicle traffic by setting back the bikeway from turning cars and using corner islands to encourage slower turns. Protected intersections improve visibility of people biking and create clearer expectations for all users' behavior through the use of signs, paint, and pavement markings.



cost **\$\$\$**

timeline **■ ■ ■**

location **all streets**

Conflict Markings

Conflict markings can be applied at driveways and other curb cuts to alert drivers to the presence of bicyclists. Dashed green paint is typically used to draw attention to potential conflicts.

Tools for Biking: At Intersections



cost **\$\$\$**

timeline

location **all streets**

Intersection Crossing Markings
 Bicyclists crossing at intersections are especially vulnerable to drivers making turns. Bicycle intersection striping demarcates space for people biking through intersections. Paint and prominent striping let drivers know they are crossing the bicycle right-of-way and must yield when making turns. Similar to crosswalks, striping through an intersection guides bicyclists along an intended path. White dashed markings are typically used and can be supplemented by green paint to increase visibility and draw attention to potential conflicts.



cost **\$\$\$**

timeline

location **major streets**

Bike Signals
 Bicycle signals are bicycle-specific traffic signals installed at signalized intersections to indicate when people biking can enter an intersection and restricts conflicting vehicles. At most intersections, bicyclists will be required to follow vehicular signals. However, bicycle-specific signals may improve a particularly busy or dangerous intersections.

Bicycle-specific signals look like standard traffic signals, but typically feature a cut-out shape of a bicycle in front of the light, similar to pedestrian signals with the silhouette of a person or hand. These signals may be used to give bicyclists a leading start on vehicular traffic, stop bicycles while vehicles are given turning permissions, or signal bicycle-specific permissions in a situation such as a contra-flow bicycle lane that goes against one-way vehicle traffic.

Tools for Intersections



cost **\$\$\$**

timeline

location **major streets**

High Visibility Crosswalk and Signage
 High visibility crosswalks are more visible to drivers than standard parallel crosswalk lines, alerting them to the presence of pedestrians. Crosswalks must be repainted when the paint begins to fade.

High visibility crosswalks vary in style, however, the crosswalk type should be consistent throughout a community and apply a continental crosswalk, wide painted bars in line with traffic flow.

In addition to the painted crosswalk, the tool should be paired with the appropriate signage. When at a controlled stop, a painted stop bar should be painted before the crosswalk. Stop bars indicate to the driver to stop before the crosswalk. When at an uncontrolled stop, crosswalk warning signs and advanced warning signs in accordance with the Manual on Uniform Traffic Control Device (MUTCD) should be included. Depending on the number of lanes and speed and volume of traffic, additional safety measures may be needed.



cost **\$\$\$**

timeline

location **all streets**

ADA Curb Ramps
 ADA curb ramps are required by law at crossings to allow people with mobility limitations to safely and comfortably cross. Curb ramps must include detectable warning tiles to indicate to visually impaired pedestrians they are leaving or entering the street. Curb ramps also benefit sidewalk users with strollers and people wheeling objects.

Tools for Intersections



cost **\$\$\$**

timeline **■ ■ ■**

location **major streets**

In-Street Pedestrian Crosswalk Sign
 In-Street pedestrian crosswalk signs are temporary or permanent signs placed in the street, adjacent to crosswalks, to alert motorists to the presence of a crossing. In-street pedestrian crosswalk signs have proven more effective than signs outside of the curb-to-curb, particularly because an obstacle in the road can increase motorist caution, increase awareness of a crossing and decrease speed as a result. Creating a gateway of in-street signs paired with curb extensions has proven particularly effective at increasing motorist yielding.



cost **\$\$\$**

timeline **■ ■ ■**

location **major streets**

Raised Crossings
 A raised crossing maintains the level of the sidewalk through the intersection, or mid-block crossing. Raised crossings reinforce slow speeds and encourage drivers to yield to pedestrians. Raised crossings may require reconfiguring current drainage engineering.

Tools for Intersections



cost **\$\$\$**

timeline **■ ■ ■**

location **major streets**

Raised Intersection
 Raised intersections raise the entire area of an intersection, including the crossings, to the level of the sidewalk. This encourages drivers to drive with caution and gives pedestrians more visibility. Raised intersections may require reconfiguring current drainage engineering.



cost **\$\$\$**

timeline **■ ■ ■**

location **major streets**

Pedestrian Refuge Island
 Pedestrian refuge islands provide a protected space in the middle of the street to help people walking safely cross the street. On wide streets, refuge islands can make a long crossing distance safer by providing a safe waiting space for people and increase driver attention. Refuge islands can be installed at signalized and non-signalized locations.

Tools for Intersections



cost **\$\$\$**

timeline **■■■**

location **major streets**

Grade Separated Crossing
Grade separated crossings, such as overpasses or underpasses, give pedestrians and bicyclists a safe way to cross street with high vehicle speeds and/or volumes.



cost **\$\$\$**

timeline **■■■**

location **major streets**

Turn Restriction
Turn restrictions are restrictions that prevent vehicle movements at an intersection, such as restricting a right turn. Turn restrictions can be used to reduce key pedestrian conflicts. Due to restricted movements, an assessment of resulting traffic flow may be necessary.

Tools for Intersections



cost **\$\$\$**

timeline **■■■**

location **major streets**

Speed Feedback Signs
Speed feedback signs provide drivers feedback about their speed in relation to the posted speed limit. Speed feedback signs can be an effective method for reducing speeds at a specific location and typically most effective for a limited period of time.



cost **\$\$\$**

timeline **■■■**

location **all streets**

Curb Extensions
Curb extensions, or bump-outs, extend the sidewalk and align with the parking lane. Curb extensions can also be implemented at mid-block crossings. Curb extensions reduce crossing distances, slow turning vehicles, and improve pedestrian visibility. In the short-term, curb extensions can be installed using paint, bollards, and/or planters. When installed permanently, curb extensions require rebuilding the curb and sidewalk.

Tools for Intersections



cost **\$\$\$**

timeline

location **major streets**

Mid-Block Crossings
 Mid-block crossings are those that are outside of an intersection. They are appropriate along long blocks or blocks with high pedestrian activity. They are also appropriate where a trail crosses a street outside of an intersection. Mid-block crossings can benefit from curb extensions, or chokers, and should feature parking restrictions within 20 feet of crossings to ensure driver visibility of pedestrians and bicyclists. Crossings should be paired with a high visibility crosswalk and appropriate signage.



cost **\$\$\$**

timeline

location **major streets**

Hardened Centerline
 Hardened Centerlines are low plastic barriers and flexible delineators on top of centerlines at intersections. They discourage left-turning vehicles from crossing over the centerline of the receiving street, forcing a tighter and slower turn.

Tools for Intersections



cost **\$\$\$**

timeline

location **major streets**

Reduce Curb Radii
 A smaller curb radius requires drivers to slow down before making their turn. A slower turn provides more reaction time to the driver to look for pedestrians and requires a shorter stopping distance. A reduced curb radii can be installed in the short-term using paint and flexible delineators or made permanent through reconstructing the curb.



cost **\$\$\$**

timeline

location **major streets**

Slow-Turn Wedge
 A slow-turn wedge uses paint, low plastic barriers and plastic flexible delineators to create a tighter turn radius. Slow-turn wedges are an appropriate short-term solution before permanent curb work can be completed or can be a long-term solution that allows emergency vehicles, buses and garbage trucks to still make a turn.

Tools for Intersections



cost	\$\$\$
timeline	■ ■ ■
location	all streets

Intersection Daylighting
Daylight intersections create clear, visible sight lines between people driving and people crossing a street, often by removing barriers near a crosswalk or intersection. Daylighting usually restricts parking within 20-25 feet of crossing to ensure proper pedestrian sightlines and clears the intersection of unnecessary signage.

Tools for Intersections



cost	\$\$\$
timeline	■ ■ ■
location	all streets

Enhanced Lighting
Enhanced lighting provides additional lighting where it is insufficient or nonexistent. Enhanced lighting should be installed at transit stops and along paths that lead from nearby destinations to the stop.



cost	\$\$\$
timeline	■ ■ ■
location	all streets

Landscaping
Landscaping is the use of trees and vegetation in the public right-of-way to create a more pleasing environment and to provide physical separation from pedestrians and bicyclists from vehicular traffic. Sightlines at intersections should be considered when planting vegetation, particularly trees.

Tools for Trail Crossings



cost **\$\$\$**

timeline **■ ■ ■**

location **all streets**

Vehicle Warning Signs & Markings
 Vehicle warning and markings alert motorists when they are approaching crossings with off-street paths. Signage may also provide additional bicycle awareness, such as “State Law: 3 Feet Min to Pass Bicycles” for bicycles on roadways.



cost **\$\$\$**

timeline **■ ■ ■**

location **all streets**

Bike/Pedestrian Warning Signs & Markings
 Bicycle/pedestrian warning and markings alert trail users to upcoming vehicular traffic. Light rumble strips can be used to further alert bicyclists.

Tools for Trail Crossings



cost **\$\$\$**

timeline **■ ■ ■**

location **all streets**

Pedestrian Hybrid Beacon (PHB)
 Pedestrian hybrid beacons are overhead, pedestrian-activated signals placed at uncontrolled, marked crosswalks that, when activated, stop motor vehicle traffic and allow pedestrians and/or people biking to safely cross the roadway. Pedestrian hybrid beacons are often installed at locations where pedestrians need to cross the street and vehicle speeds and/or volumes are high, but traffic signal warrants are not met.



cost **\$\$\$**

timeline **■ ■ ■**

location **all streets**

Rectangular Rapid Flashing Beacon (RRFB)
 Rectangular Rapid Flashing Beacons (RRFB) are user-activated warning lights. Bicyclists and pedestrians push a button to activate the warning lights before attempting to cross the roadway. The unique flashing pattern of the RRFBs have been shown to induce vehicle yielding at a much higher rate than traditional warning lights. Care should be taken to ensure that the button used to activate the RRFB is easy to reach for a bicyclist without dismounting the bicycle, children, and for people in wheelchairs. Roadway geometry should be taken into consideration.

Tools for Trail Crossings



cost \$\$\$

timeline ■■■

location all streets

Signalization
 Traditional signalized intersections create gaps in traffic flow and allow pedestrians or bicyclists to cross the street. As a pedestrian tool, traffic signals are appropriate at locations where a significant number of pedestrians are crossing and would otherwise experience excessive delay or safety issues. The installation of traffic signals is governed by Warrants in the Manual of Uniform Traffic Control Devices (MUTCD) and are generally based on the number of pedestrians and vehicles crossing the intersection, among other conditions. Traffic signals should automatically provide a walk signal to pedestrians, rather than require people walking to activate the signal.

cost \$\$\$

timeline ■■■

location all streets

Crossing Design
 The desirable path alignment at a street crossing is 90-degrees or perpendicular to the crossing street, as to minimize the exposure of crossing trail users and maximize sightlines.

At rail crossings, it is safest to cross the tracks on bike at a 90-degree angle.

cost \$\$\$

timeline ■■■

location all streets

Warning Signs or Markings Ahead of Rail Crossings
 Warning signage indicates to bicyclist of an upcoming railroad crossing.

cost \$\$\$

timeline ■■■

location all streets

Minimize Flange Opening
 Flange openings and gaps along the rail should be kept to a minimum to prevent any bicycle wheels from getting caught. Additionally, the rail crossing should be a smooth surface.

Tools for Traffic Calming



cost \$\$\$

timeline ■■■

location major streets

Right Sizing
 Right sizing streets involves reducing the overall number and/or size of travel lanes on a street and re-purposing that space for other uses, such as bicycle facilities, dedicated transit facilities, or public space. Right sizing has demonstrated safety benefits, often reducing vehicle speeds and making it easier and safer for people walking to cross the street. Because many right sizing projects include a center left turn lane, these benefits can often be achieved with minimal impact on vehicle travel times. Traffic analysis will be required to determine if a right sizing project is appropriate.



cost \$\$\$

timeline ■■■

location all streets

Narrow Travel Lanes
 Vehicle speeds are influenced by how fast a driver feels they can safely travel. Narrow(er) travel lanes require greater caution to maintain the lane and avoid conflicts and may lead to lower vehicle speeds and improved safety.

Tools for Traffic Calming



cost **\$\$\$**

timeline **■■■**

location **major streets**

Access Management
 Driveway access interrupts sidewalk continuity and introduces pedestrian and vehicle conflict points. Access management as a policy controls the location, spacing and design of driveways.

Good access management practices limit the presence of driveways, particularly redundant ones, to maintain safety.



cost **\$\$\$**

timeline **■■■**

location **all streets**

Slip Lane Removal
 Slip turn lanes allow vehicles to make right-hand turns at high speeds, resulting in dangerous conditions for crossing pedestrians and bicyclists. Removing slip lanes requires all vehicles to make a full stop at the intersection. In the short-term, slip lanes can be closed using planters, flexible delineators, paint, and other materials. Additional evaluation can identify and assess the implications of slip lane removal.

Tools for Traffic Calming



cost **\$\$\$**

timeline **■■■**

location **major streets**

Signal Progression
 Signal progression is traffic signal adjustment along a stretch of street so that it is timed for a desired vehicle speed. For example, if a street has a speed limit of 25 mph but the signal timing requires cars to travel 30 mph in order to make every green light, drivers are incentivized to travel at 30 mph. Proper signal timing can reinforce posted traffic speeds and increase safety.



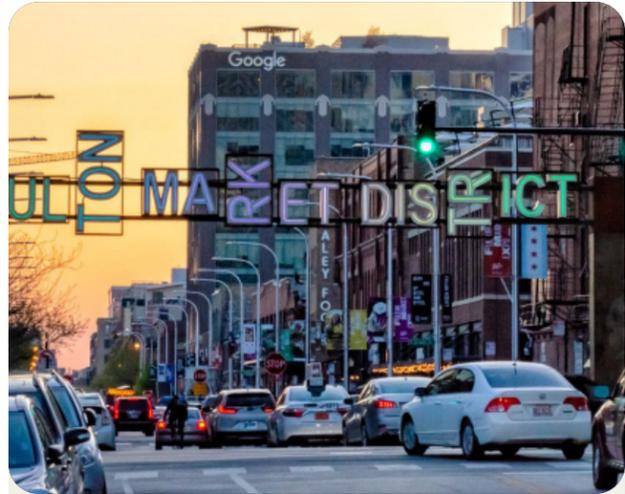
cost **\$\$\$**

timeline **■■■**

location **major streets**

Speed / Red Light Cameras
 Speed and red-light cameras are examples of automated enforcement. Speed cameras can be an effective tool for reducing vehicle speeds on streets with a high number of serious or fatal injury crashes. Red-light cameras can be effective at reducing vehicle crashes at intersections with a high number of serious or fatal injury crashes resulting from drivers failing to yield for a red traffic signal. Automated enforcement programming should be carefully placed and provide appropriate warning signage. Additionally, locations should be identified using crash data analyses and regularly evaluated.

Tools for Traffic Calming



cost	\$\$\$
timeline	■ ■ ■
location	major streets

Gateway Treatment

A gateway treatment uses vertical features along or over a street to signal the entrance to a neighborhood or business district. In addition to creating a sense of place, gateway treatments may indicate the change in vehicle speed through the neighborhood or district.

Tools for Traffic Calming



cost	\$\$\$
timeline	■ ■ ■
location	all streets

Leading Pedestrian Interval (LPI)

LPIs are signals that allow pedestrians to start crossing the street before vehicular traffic in the same direction is given the green light. The walk signal is lit before the vehicle signal which gives the pedestrians a head-start in crossing the street.



cost	\$\$\$
timeline	■ ■ ■
location	major streets

Lagging Left Turn Phase

A lagging left turn phase holds left-turning cars until through traffic has passed; the left turn phase comes after through traffic. This signal phasing removes potential pedestrian conflict with turning vehicles by allowing pedestrians to cross first.



cost	\$\$\$
timeline	■ ■ ■
location	all streets

Pedestrian Countdown Signal

Pedestrian countdown signals indicate how much time pedestrians have to complete crossing a street. This can inform the pedestrian how much time is left and prevent them from being stranded in the middle of traffic when the signal phase ends. Countdown signals inform other road users as well.

The MUTCD requires countdown signals to be installed whenever pedestrian signal heads are warranted.

Tools for Traffic Calming



cost **\$\$\$**

timeline **■ ■ ■**

location **minor streets**

Diverters
 A diverter is a barrier that blocks through vehicle movements along a street but allows bicycles and pedestrians to continue traveling through. Diverters are usually built at intersections, requiring vehicles to turn left or right. Diverters help disrupt lengthy vehicle straightaways that can lead to high speeds and volumes on neighborhood streets and allowing for low-stress walking and biking routes.



cost **\$\$\$**

timeline **■ ■ ■**

location **all streets**

Chokers
 Chokers are mid-block curb extensions that work to narrow the street and slow down vehicle speeds. The curb extension can include landscaping and provide a good opportunity for a mid-block crosswalk.

Tools for Traffic Calming



cost **\$\$\$**

timeline **■ ■ ■**

location **minor streets**

Chicanes
 Chicanes feature offset curb extensions on alternating sides of a street that require drivers to navigate in a nonlinear fashion. The slight deviation encourages slower speeds and more attention. Chicanes can be created temporarily with paint and bollards or more permanently with concrete curb extensions.



cost **\$\$\$**

timeline **■ ■ ■**

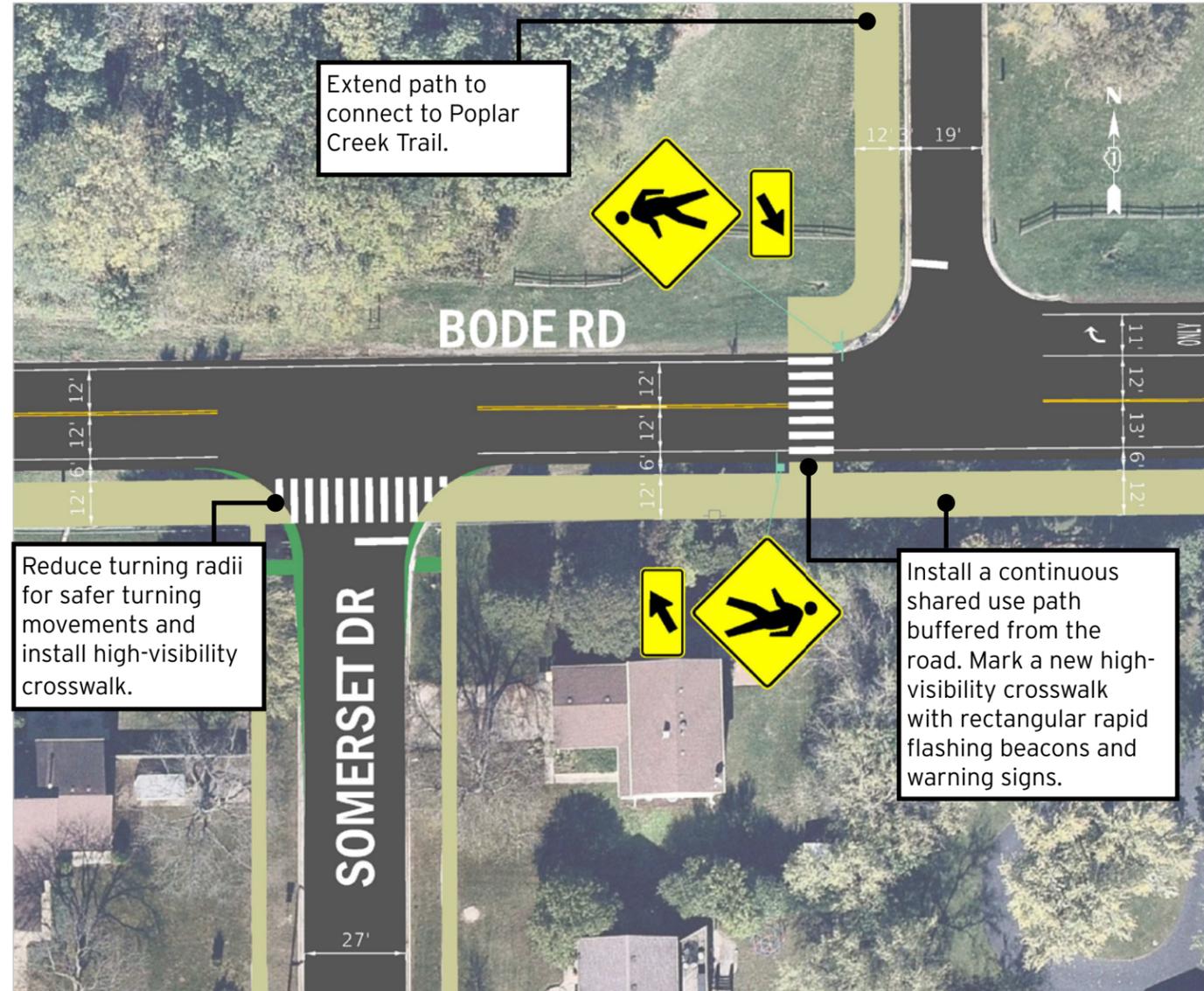
location **all streets**

Pavement Treatments
 Pavement treatments are unique crosswalks that apply a stamped concrete or concrete paver to bring additional attention to a marked crosswalk. Pavement treatments can be applied with different colored paint and/or designs and be paired with other tools, such as raised crosswalks or intersections.

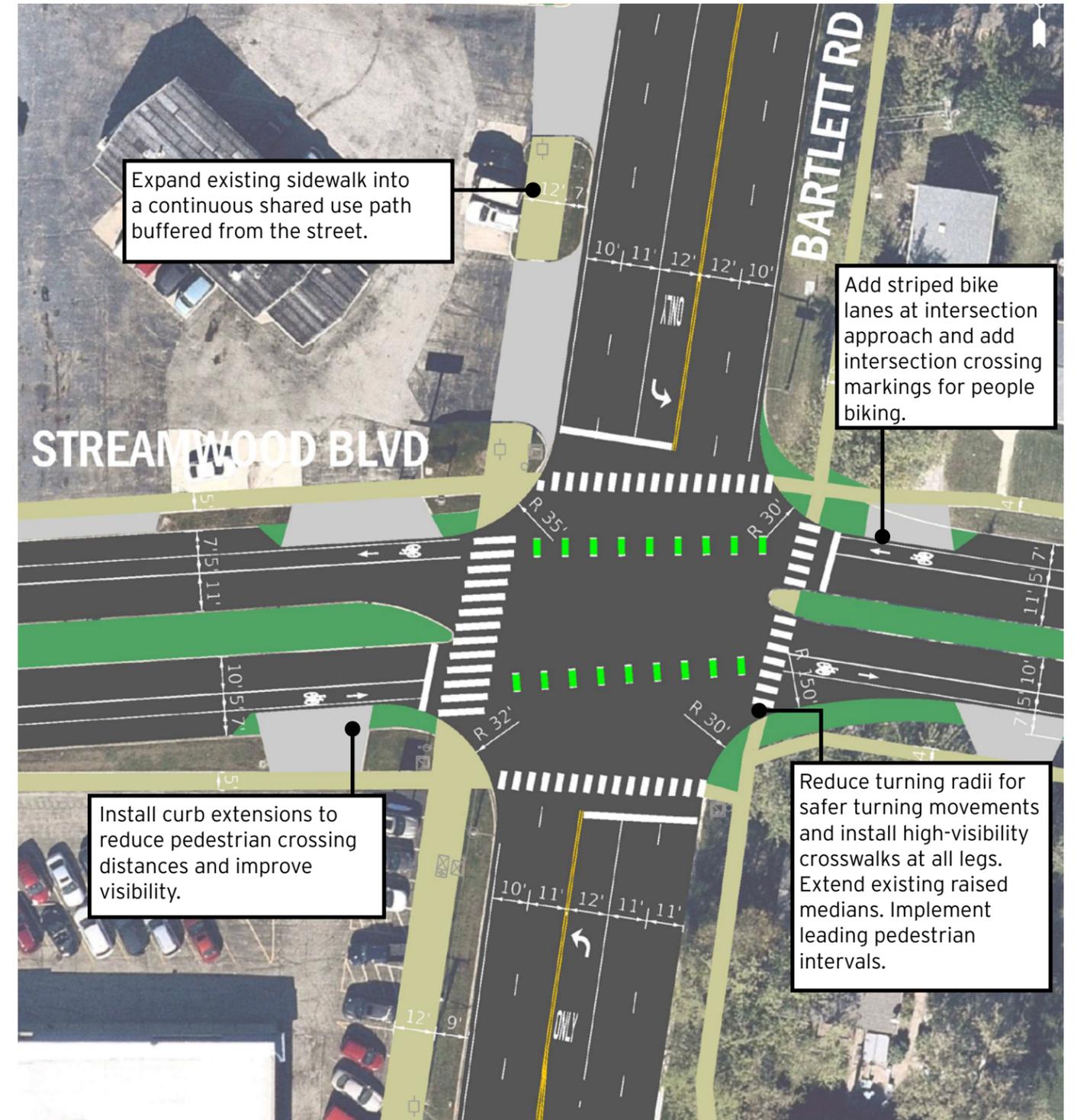
Applying the Toolbox

The examples on the following pages demonstrate how the design tools detailed in the toolbox can be applied to improve safety and comfort at important locations throughout Bartlett and Streamwood. These are conceptual designs which require additional investigation and due diligence, as well as engagement with community members and stakeholders, before advancing.

Trail Crossing at Bode Rd.

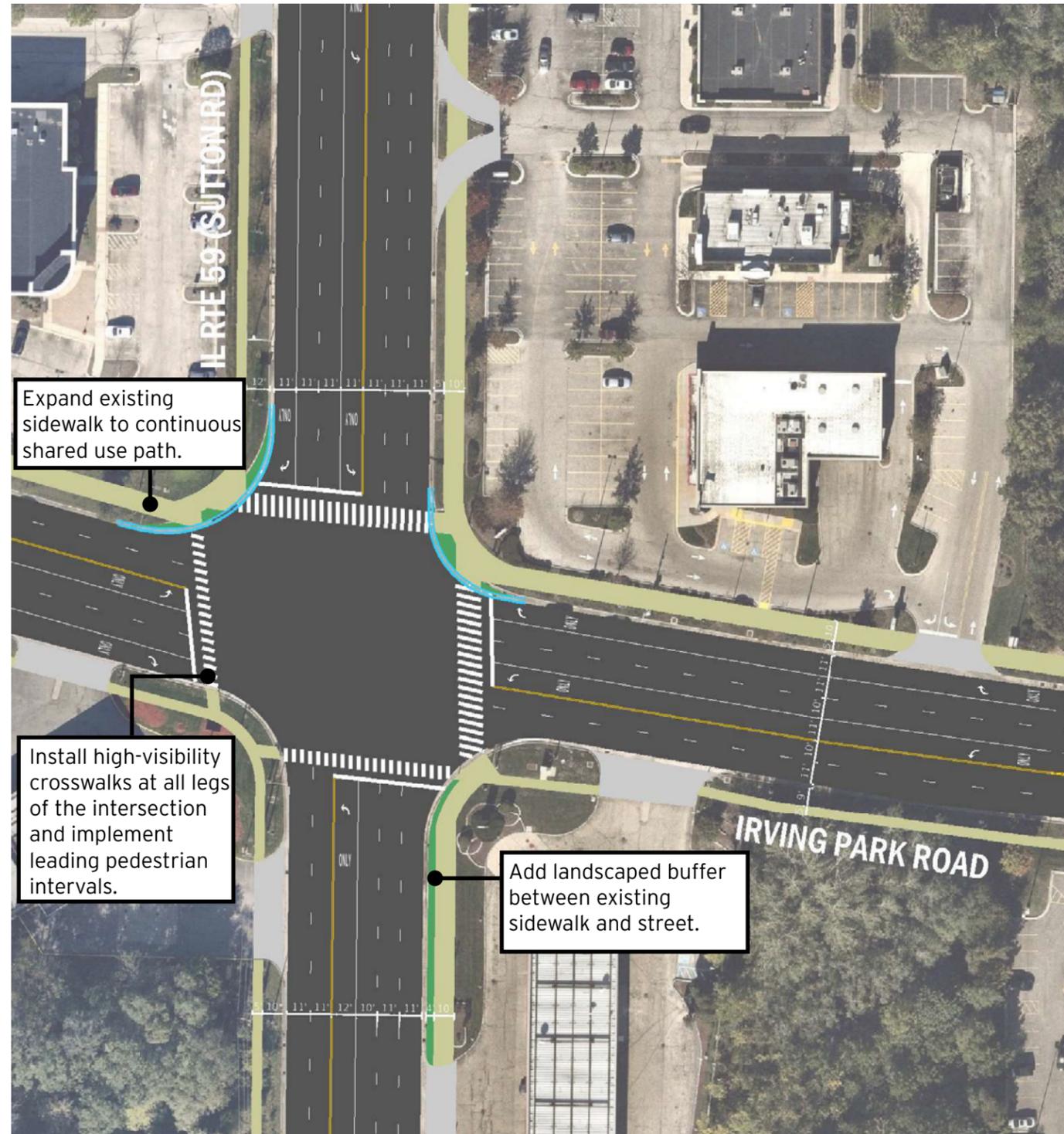


Signalized Intersection at Bartlett Rd. and Streamwood Blvd.

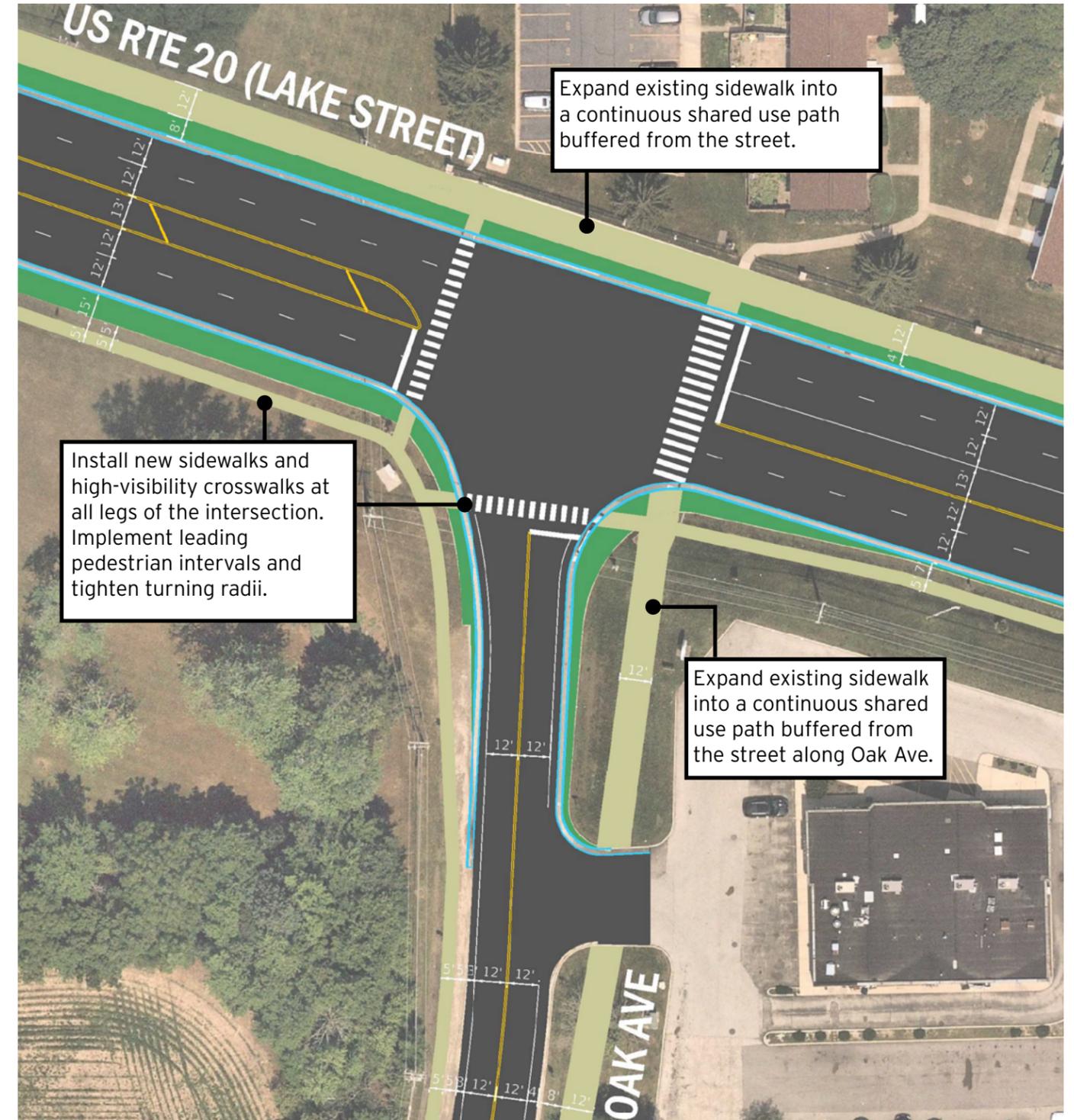


Applying the Toolbox

Signalized Intersection at Irving Park Rd. and Sutton Rd.

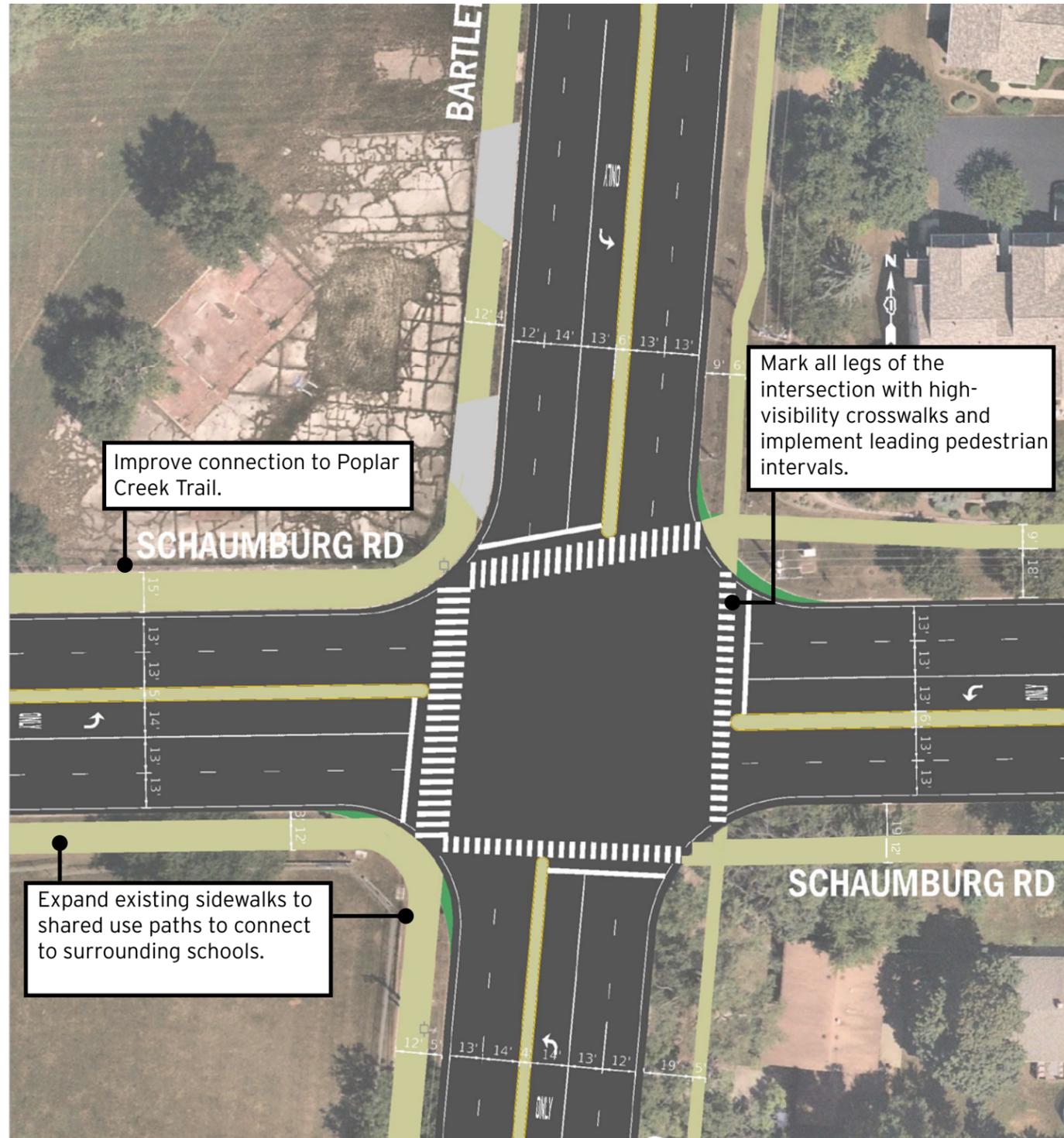


Signalized Intersection at Lake St. and Oak Ave.

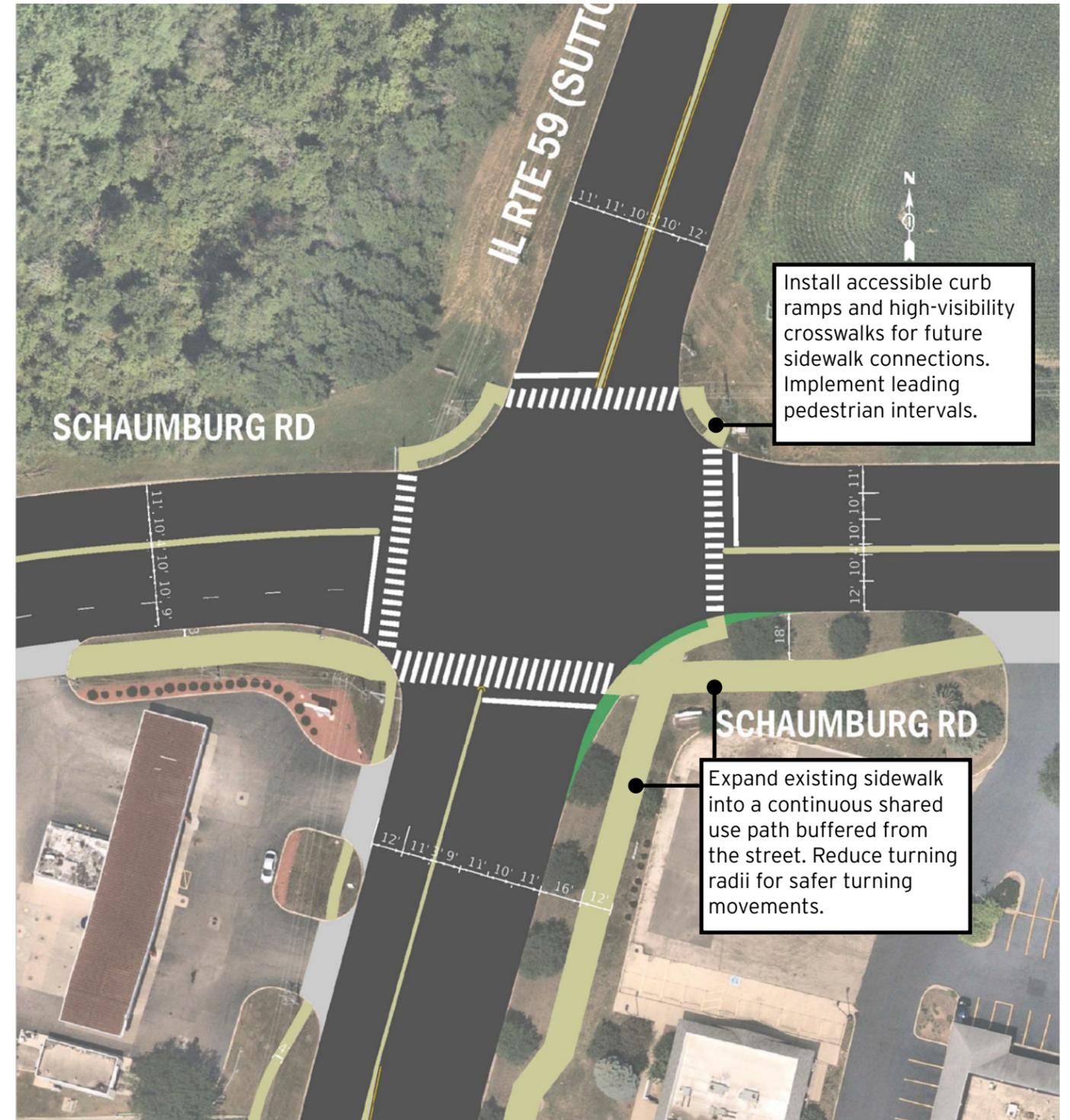


Applying the Toolbox

Signalized Intersection at Schaumburg Rd. and Bartlett Rd.

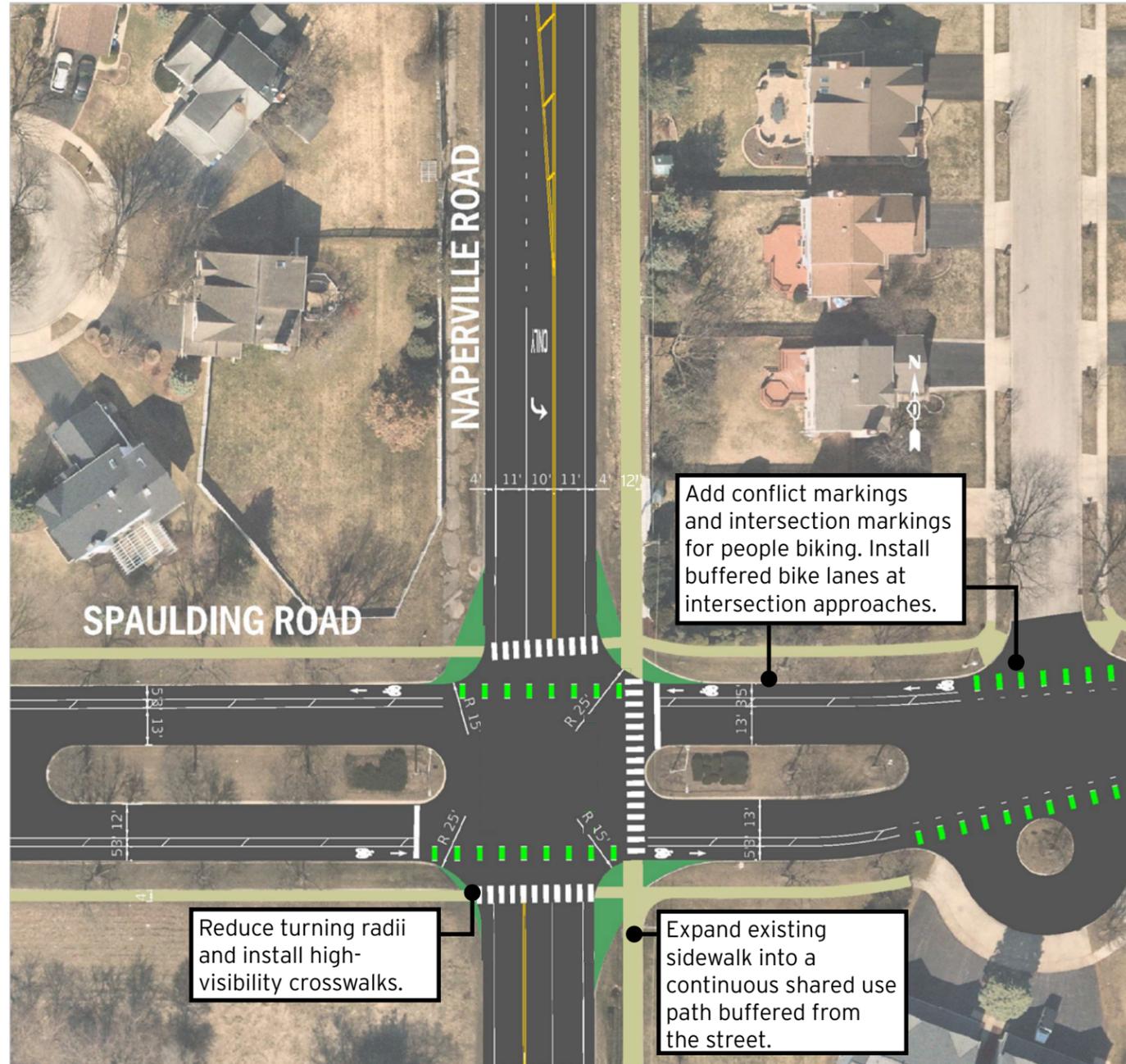


Signalized Intersection at Schaumburg Rd. and Sutton Rd.



Applying the Toolbox

Unsignalized Intersection at Naperville Rd. and Spaulding Rd.



KEY PROJECTS



The Bartlett and Streamwood Bicycle and Pedestrian Plan prioritizes recommendations within individual categories for bikeways and sidewalk gaps, but it is also important to look holistically across individual categories of improvements to identify areas of overlap where multiple needs could be addressed simultaneously through a single project. Coordinating improvements is cost-effective, saves time, and limits disruptions for the public.

The project team gathered information from Village staff, key stakeholders, and the community to identify 12 key projects, six in each Village, where multiple needs for people walking and biking overlapped. The following section provides additional detail on these key projects which the Villages can work to garner outside funding to support (for more information on grants see page 107).

Bartlett–Key Projects

- Munger Rd. (Stearns Rd. to Sayer Rd.)
- W. Bartlett Rd. (Bennington Ln. to West Ridge Blvd.)
- Naperville Rd. (W. Bartlett Rd. to Timberline Dr.)
- Spaulding Rd. (Naperville Rd. to Lambert Ln.)
- Stearns Rd. (Munger Rd. to James Philip State Park)
- IL 59 (Schick Rd. to Gulf Stream Dr.)

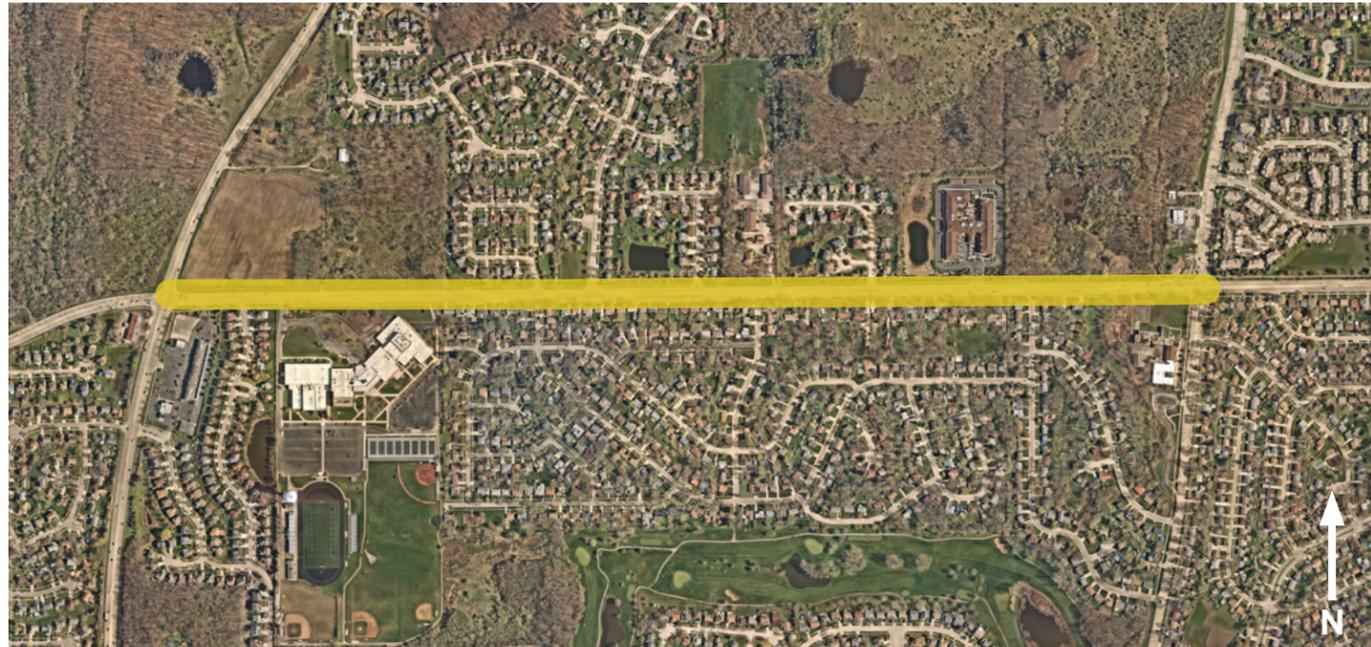
Streamwood–Key Projects

- Schaumburg Rd. (Sutton Rd. to Bartlett Rd.)
- Schaumburg Rd. (Bartlett Rd. to Old Church Rd.)
- Bartlett Rd. (Schaumburg Rd. to Streamwood Blvd.)
- Bartlett Rd. (Streamwood Blvd. to Lake St.)
- Irving Park Rd. (Sutton Rd. to Schaumburg Rd.)
- Irving Park Rd. (Bartlett Rd. to East Ave.)

Interactive Community Mapping Exercise

Community members and stakeholders identified key projects through this interactive mapping activity.

Schaumburg Road (from Sutton Rd. to Bartlett Rd.)



Village: Streamwood **Street Jurisdiction:** Cook County
Project Length: 1.1 miles **Bike Improvements:** Shared Use Path, Tier 1
Sidewalk Gaps: 0.7 miles, Tier 1 **Key Intersections/Crossings:** 2 signalized, 1 unsignalized
Population and Jobs (within 0.5 miles): 13,046 people and 435 jobs
Crash History (2015 - 2019): 1 serious pedestrian injury

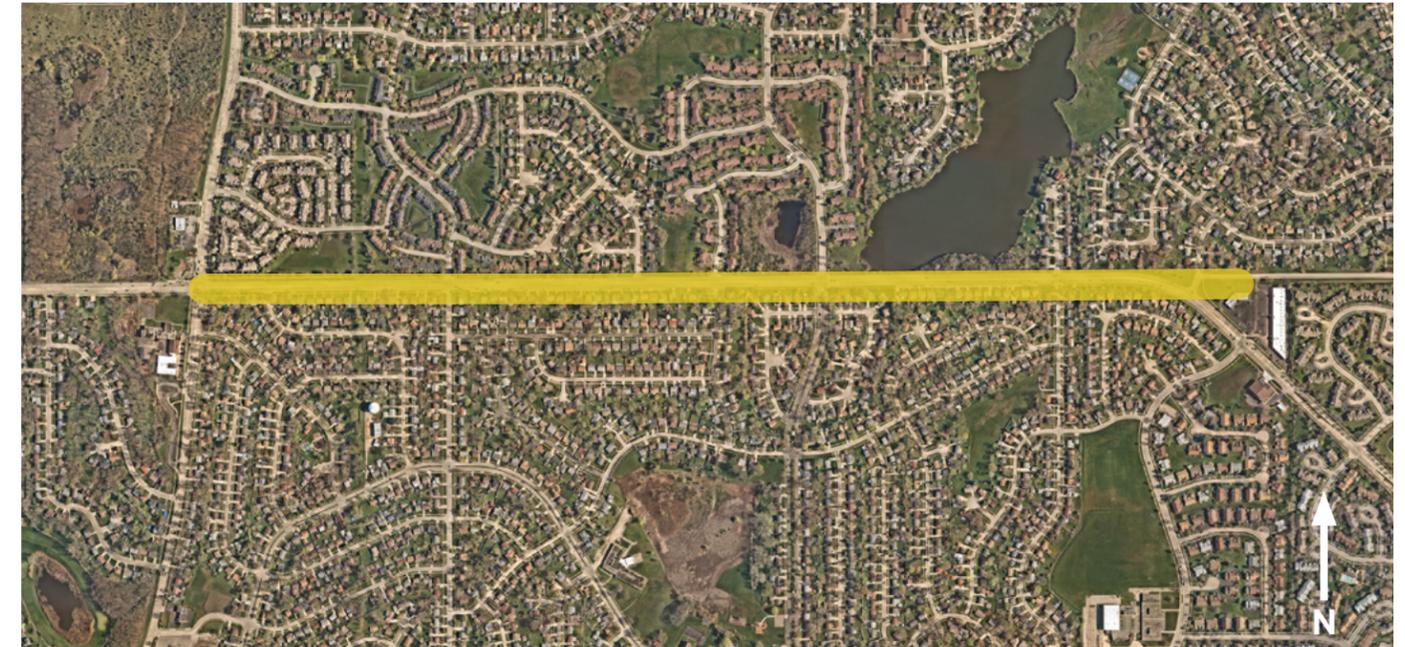
Project Description

Schaumburg Road (from Sutton Rd. to Bartlett Rd.) in the Village of Streamwood is an important connection for people walking and biking. Two schools are located along the corridor, including Streamwood High School, which has an enrollment of over 1,700 students. The corridor also connects to the Poplar Creek Trail to the north, which is included in CMAP's Regional Trails and Greenways Plan. To improve safety and connectivity, this project would expand the existing sidewalk on the south side of the street to a shared use path for people walking and biking. The project would also fill existing sidewalk gaps on the north side of the street and include safety improvements at the intersections of Sutton Road and Bartlett Road, as well as upgrades to the existing unsignalized crossing at Walnut Drive. The project also serves an Economically Disinvested Area, as identified by CMAP in the ON TO 2050 plan. Input from community members throughout the planning process, including engagement with students at Streamwood High School, highlighted this corridor as an opportunity and priority.

Anticipated Benefits

This project would make it safer and more attractive for students to walk and bike to school. In a survey of District U-46 students, 54% of respondents said they would bike to school more often if there were a safe, comfortable, and convenient route. The project would also increase access to the Poplar Creek Trail, forest preserves, and the commercial area at the intersection of Schaumburg and Sutton Roads. It would also address safety issues located at major intersections and crossings.

Schaumburg Road (from Bartlett Rd. to Old Church Rd.)



Village: Streamwood **Street Jurisdiction:** Cook County
Project Length: 1.2 miles **Bike Improvements:** Shared Use Path, Tier 1 Route
Sidewalk Gaps: 0.5 miles, Tier 2 **Key Intersections/Crossings:** 2 signalized, 1 unsignalized
Population and Jobs (within 0.5 miles): 21,617 people and 394 jobs
Crash History (2015 - 2019): 1 serious bicycle injury

Project Description

Schaumburg Road (from Bartlett Rd. to Old Church Rd.) in the Village of Streamwood is a continuation of the connection from Sutton Road to Bartlett Road and provides an important link to reach commercial areas along Barrington Road and connect to Schaumburg. The project will also improve connections between the neighborhoods on either side of Schaumburg Road and improve access to a number of parks. To improve safety and connectivity, this project would expand the existing sidewalk on the south-side of the street to a shared use path for people walking and biking. This project will also fill existing sidewalk gaps on the north-side of the street and include safety improvements at the intersections of Bartlett Road and Park Boulevard. There is also a need for additional mid-block crossings to reduce the distance people walking must travel to access a crosswalk. The project serves an Economically Disinvested Area, as identified by CMAP in the ON TO 2050 plan.

Anticipated Benefits

This project would make it safer and more attractive for students to walk and bike to school and for community members to access parks along the corridor. It would also improve access to commercial areas and address safety issues at major intersections and crossings. A number of comments from community members highlighted the need for sidewalks and bicycle facilities along the corridor, and implementing these improvements would encourage more walking and biking.

Bartlett Road (from Schaumburg Rd. to Streamwood Blvd)



Village: Streamwood

Street Jurisdiction: Cook County

Project Length: 0.7 miles

Bike Improvements: Shared Use Path, Tier 1 Route

Sidewalk Gaps: 0.1 miles, Tier 1
0.1 miles Tier 2

Key Intersections/Crossings: 2 signalized, 1 unsignalized

Population and Jobs (within 0.5 miles): 15,857 people and 554 jobs

Crash History (2015 - 2019): None

Project Description

Bartlett Road (from Schaumburg Rd. to Streamwood Blvd) in the Village of Streamwood is an important corridor for providing north-south connectivity across the Village. The Hanover Countryside Elementary School is located along this section of Bartlett Road. Implementing a shared use path would provide a connection for people biking and address several important sidewalk gaps. The project also provides a connection to the commercial area at the intersection of Streamwood Boulevard and Bartlett Road and could have a catalytic impact on plans for future development centered at the intersection. There is also an opportunity to improve access to the trail around Streamwood Oaks Golf Course and implement an important mid-block crossing at Cypress Drive (which community members raised the need for). The project serves an Economically Disinvested Area, as identified by CMAP in the ON TO 2050 plan.

Anticipated Benefits

This project would make it safer and more attractive for students to walk and bike to school. In a survey of District U-46 students, 54% of respondents said they would bike to school more often if there were a safe, comfortable, and convenient route. The project would also increase access to the commercial area at the intersection of Streamwood Boulevard and Bartlett Road and address safety issues at major intersections and crossings.

Bartlett Road (from Streamwood Blvd. to Lake St.)



Village: Streamwood

Street Jurisdiction: Cook County

Project Length: 1.2 miles

Bike Improvements: Shared Use Path, Tier 1 Route

Sidewalk Gaps: 0.5 miles, Tier 1
0.1 miles, Tier 3

Key Intersections and Crossings: 2 signalized

Population and Jobs (within 0.5 miles): 13,427 people and 1,297 jobs

Crash History (2015 - 2019): 1 serious pedestrian injury

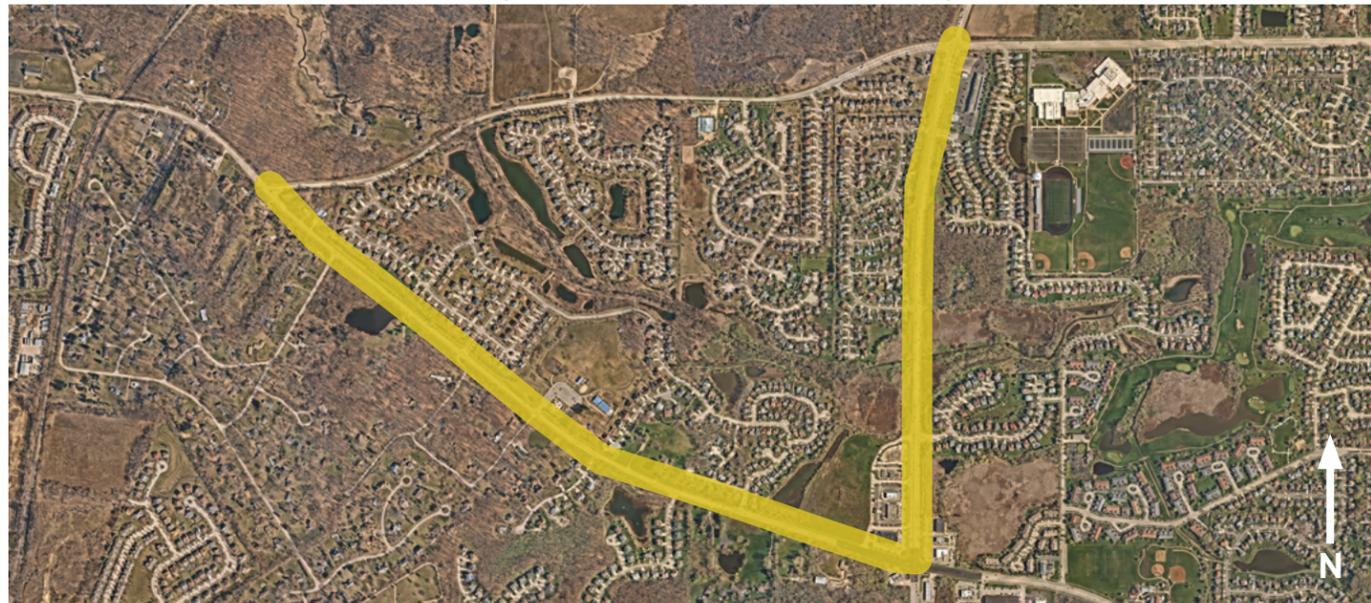
Project Description

Bartlett Road (from Streamwood Blvd. to Lake St.) connects several parks and provides access to the Streamwood Community Center, several religious institutions, and commercial areas and jobs. The project would address major missing sidewalk gaps, which impede access for people walking to these community destinations, and provide important connections for people biking. Streamwood envisions the area around Bartlett Road and Streamwood Boulevard as a future walkable, mixed-use center for the Village, and this project could help catalyze future development. The project would also address safety issues at the intersections of Streamwood Boulevard and Irving Park Road, where a pedestrian was seriously injured in 2015. The project also serves an Economically Disinvested Area, as identified by CMAP in the ON TO 2050 plan. Input from community members throughout the planning process, including engagement with students at Streamwood High School, highlighted this corridor as an opportunity and priority.

Anticipated Benefits

This project would make it safer and more attractive for families, students, and community members to walk and bike to a range of important community destinations by providing safe, comfortable, and convenient walking and biking routes. The project area has a history of crashes with a serious pedestrian injury and improvements would help to improve the safety along this corridor.

Irving Park Rd (from Sutton Rd. to Schaumburg Rd.) & Sutton Rd (from Irving Park Rd. to Schaumburg Rd.)



Village: Streamwood

Street Jurisdiction: IDOT

Project Length: 1.2 miles (Irving Park Rd) & 0.85 miles (Sutton Rd)

Bike Improvements: Shared Use Paths, Tier 1 Route

Sidewalk Gaps: 0.5 miles, Tier 1; 0.5 miles, Tier 2

Key Intersections / Crossings: 2 signalized, 2 unsignalized, 1 overpass

Population and Jobs (within 0.5 miles): 11,734 people and 1,561 jobs

Crash History (2015 - 2019): 1 serious pedestrian injury

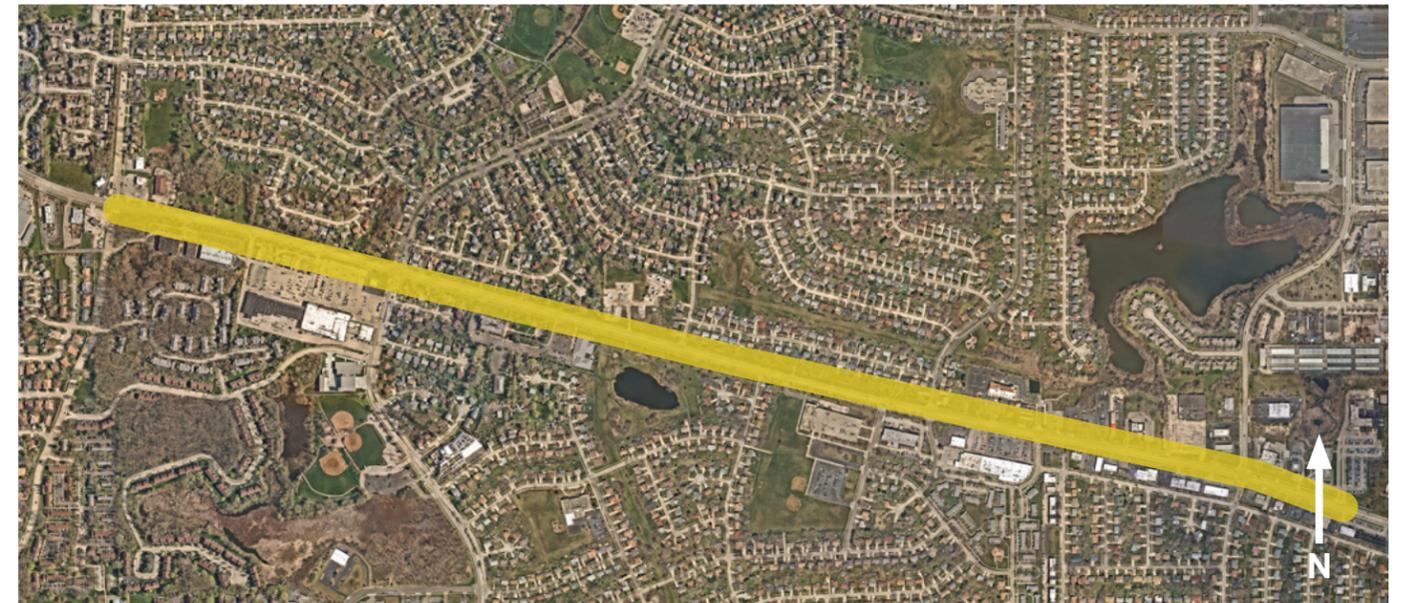
Project Description

Irving Park Road (from Sutton Rd. to Schaumburg Rd.) and Sutton Road (from Irving Park Rd. to Schaumburg Rd.) in the Village of Streamwood are both important opportunities to improve connectivity for people walking and biking and set the stage for future development at the node of Sutton and Irving Park Roads. This project provides access to several parks and an important commercial hub. Providing a shared use path and addressing sidewalk gaps would enable people to walk and bike for more trips. Improvements at the intersection with Sutton Road and a new mid-block crossing at Blue Ridge Drive would improve safety and create connections between the neighborhoods on the north and south sides of the street. Irving Park Road is also a key regional route included in CMAP's Regional Trails and Greenways Plan and the Northwest Municipal Conference's Multimodal Transportation Plan. The Village has plans for new trail connections at Irving Park Road at Sutton Road. Plans include a bridge across Sutton Road which would allow pedestrians and bicyclists to safely travel over the busy road from the existing trail west of Sutton Road to a new shared use path east to Madison Drive. The bridge and trail plans are in the beginning of Phase 2 Design Engineering and Permitting.

Anticipated Benefits

This project would further regional connections for people biking while also improving local access to parks and commercial areas (for both people walking and biking). Addressing sidewalk gaps, improving intersections, providing a shared use path, and new mid-block crossing would all improve safety for people walking and biking.

Irving Park Rd (from Bartlett Rd. to East Ave.)



Village: Streamwood

Street Jurisdiction: IDOT

Project Length: 1.6 miles

Bike Improvements: Shared Use Path, Tier 1 Route

Sidewalk Gaps: 1.1 miles, Tier 1

Key Intersections and Crossings: 3 signalized

Population and Jobs (within 0.5 miles): 16,316 people and 2,382 jobs

Crash History (2015 - 2019): 1 pedestrian fatality, 3 serious pedestrian injury, 1 serious bicyclist injury

Project Description

Irving Park Road (from Bartlett Rd to East Ave) in the Village of Streamwood connects a number of commercial areas, the Village's municipal center, parks, and schools. At the intersection of Irving Park Road and Bartlett Road there is a commercial node including the Post Office and Jewel-Osco Grocery Store. In the middle of this corridor is Kollar Park and TEFFT Middle School along with an ALDI and a key commercial area with restaurants and shops. This corridor has a history of bicycle and pedestrian crashes resulting in serious injury or fatality. Safety improvements to this area are vital. The project would include a continuous shared use path, fill existing sidewalk gaps, and safety improvements at intersections with Bartlett Road, Park Boulevard, and East Avenue. Irving Park Road is also a key regional route included in CMAP's Regional Trails and Greenways Plan and the Northwest Municipal Conference's Multimodal Transportation Plan. Streamwood envisions the area around Irving Park Road and Park Boulevard as a future walkable civic core, and this project could help catalyze future development.

Anticipated Benefits

This project would result in a safer, more convenient and more comfortable corridor for residents, families, and students. Improvements to the signalized intersections along the roadway segment would improve overall safety and access to jobs, schools, and other community destinations.

Munger Road (from Stearns Rd. to Sayer Rd.)



Village: Bartlett

Street Jurisdiction: DuPage County

Project Length: 1.1 miles

Bike Improvements: Shared Use Path, Tier 1 Route

Sidewalk Gaps: 0.3 miles, Tier 1
0.4 miles, Tier 2

Key Intersections and Crossings: none

Population and Jobs (within 0.5 miles): 7,146 people and 1,185 jobs

Crash History (2015 - 2019): none

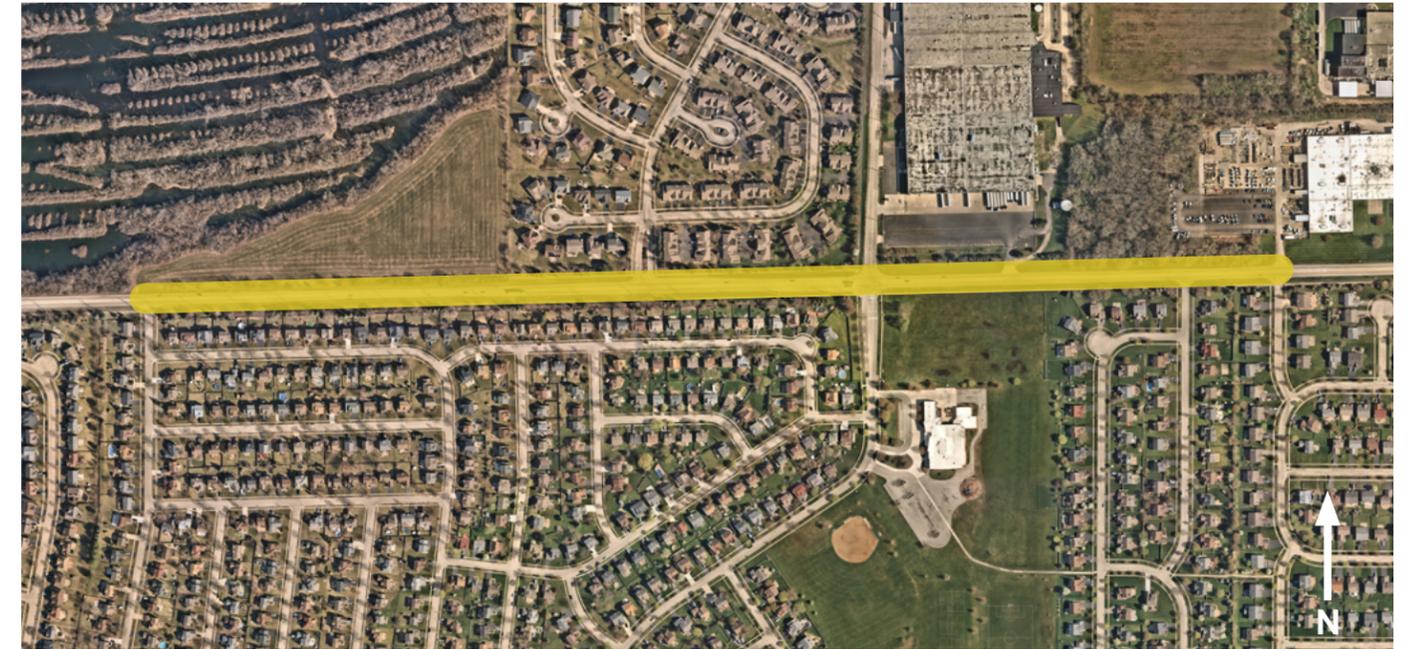
Project Description

Munger Road (from Stearns Rd. to Sayer Rd) in the Village of Bartlett provides access to the Brewster Creek Business Park and connects to Liberty Elementary School and Pratt's Wayne Woods further south. Addressing sidewalk gaps and constructing a shared use path would improve connections for people walking and biking. A new connection on Munger Road would link to existing bike routes on W. Bartlett Road and Stearns Road, providing a major boost to connectivity in the Village. Input from community members and stakeholders highlighted this segment of Munger Road as an area in need of improvements for people walking and biking.

Anticipated Benefits

Improving walking and biking facilities along Munger Road would increase access to thousands of jobs and encourage more biking by addressing an important gap in the Village's network. The project would also provide safer access to Liberty Elementary School and to the forest preserve further south.

West Bartlett Road (from Bennington Ln. to Westridge Blvd.)



Village: Bartlett

Street Jurisdiction: Cook County

Project Length: 0.8 miles

Bike Improvements: Shared Use Path, Tier 1 Route

Sidewalk Gaps: 0.3 miles, Tier 2
0.1 miles, Tier 3

Key Intersections and Crossings: 1 signalized

Population and Jobs (within 0.5 miles): 8,472 people and 974 jobs

Crash History (2015 - 2019): none

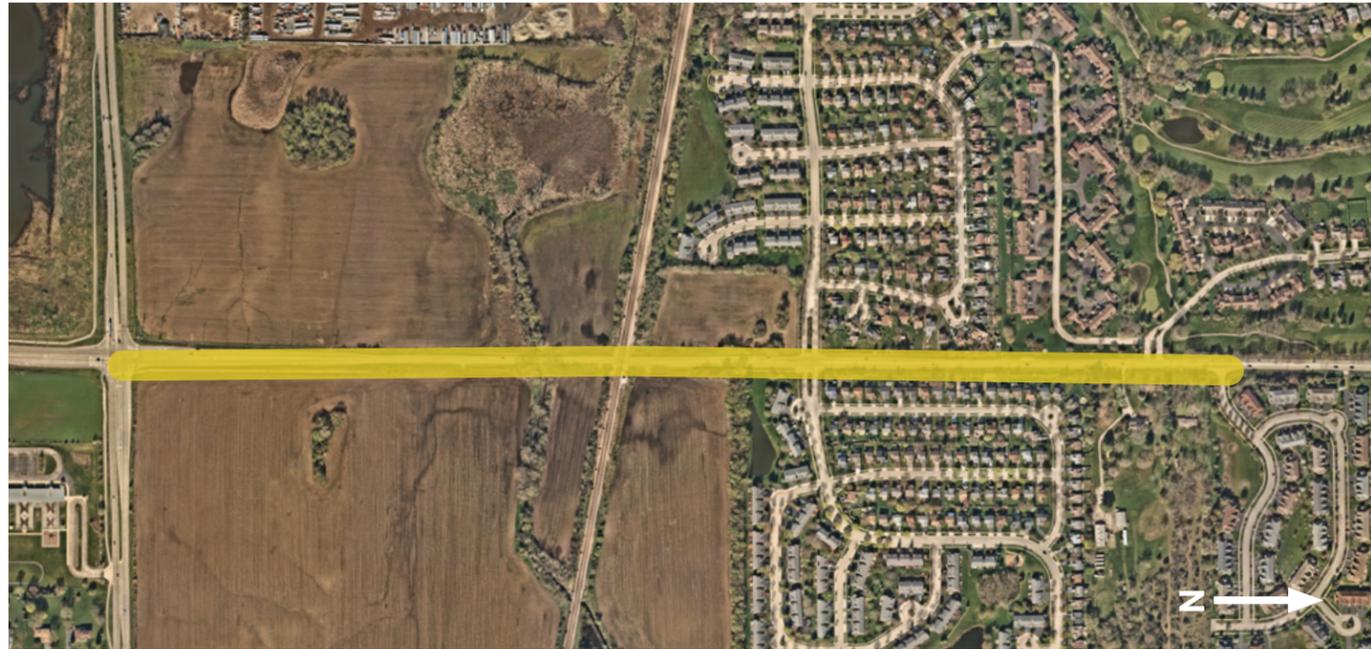
Project Description

West Bartlett Road (from Bennington Ln. to Westridge Blvd) in the Village of Bartlett is an important connection for people walking and biking. Expanding the existing sidewalk to create a shared use path would create a continuous connection for people biking and there are several sidewalk gaps on the north side of the street. The corridor connects to multiple parks and schools and could be an important regional connection to access James "Pate" Philip State Park. West Bartlett Road is included in CMAP's Regional Trails and Greenways Plan. Improvements to the intersection at IL 25 would enhance safety and connectivity west to South Elgin High School. Community input throughout the process emphasized the need for a safe, continuous connection along West Bartlett Road. This project also serves an Economically Disconnected Area as defined by CMAP in the ON TO 2050 plan.

Anticipated Benefits

This project would make it safer and more attractive for students to walk and bike to school. The project would increase local access to the parks along the segment, while also providing a regional connection for people biking.

Naperville Road (from W. Bartlett Rd. to Timberline Dr.)



Village: Bartlett

Street Jurisdiction: Cook County

Project Length: 0.7 miles

Bike Improvements: Shared Use Path, Tier 1 Route

Sidewalk Gaps: 0.5 miles, Tier 2

Key Intersections and Crossings: 1 unsignalized

Population and Jobs (within 0.5 miles): 8,571 people and 451 jobs

Crash History (2015 - 2019): none

Project Description

Naperville Road (from W. Bartlett Rd. to Timberline Dr.) in the Village of Bartlett is an important connection to improve access between the Villages of Bartlett and Streamwood. Naperville Road is included in CMAP's Regional Trails and Greenways Plan. This segment has an existing half-mile sidewalk gap that disconnects the neighborhoods from Spaulding Road and north from the land uses at West Bartlett Road. Closing this gap and constructing a shared use path would open up opportunities for residents and visitors to make connections to existing trails and the commercial and educational land uses around West Bartlett Road. Community input throughout the process emphasized the need for a safe, continuous connection along Naperville Road.

At the northeast corner of Naperville Road and West Bartlett Road, The Grasslands subdivision was approved for development. The development construction will include a bike path along Naperville Road, stretching the subdivision limits.

Anticipated Benefits

The project would make it safer and more attractive for individuals of all ages and abilities to bike and walk between Bartlett and Streamwood while improving local access to several parks and recreational facilities.

Spaulding Road (from Naperville Rd. to Lambert Ln.)



Village: Bartlett

Street Jurisdiction: Bartlett

Project Length: 0.8 miles

Bike Improvements: Shared Use Path, Tier 1 Route

Sidewalk Gaps: 0.1 miles, Tier 3

Key Intersections and Crossings: 1 unsignalized

Population and Jobs (within 0.5 miles): 4,472 people and 75 jobs

Crash History (2015 - 2019): none

Project Description

Spaulding Road (from Naperville Rd. to Lambert Ln) is an important local connection for several neighborhoods. Addressing sidewalk gaps and creating a new bikeway along Spaulding Road would make biking and walking more feasible to an area that is currently disconnected from the network. This project connects to Naperville Road, which is an important regional route identified in CMAP's Regional Trails and Greenways Plan. Improvements at the intersection with Naperville Road would improve connections between neighborhoods and address safety concerns voiced during the planning process.

Anticipated Benefits

The project would greatly enhance walking and biking access for several neighborhoods that are currently disconnected, opening up new connections to the Village's overall network and access to new opportunities. Improvements at the intersection with Naperville Road would increase safety and comfort for people walking and biking.

Stearns Road (from Munger Rd. to James Philip State Park)



Village: Bartlett

Street Jurisdiction: DuPage County

Project Length: 1.7 miles

Bike Improvements: Shared Use Path, Tier 1 Route

Sidewalk Gaps: 0.9 miles, Tier 2

Key Intersections and Crossings: 1 unsignalized

Population and Jobs (within 0.5 miles): 3,047 people and 2,221 jobs

Crash History (2015 - 2019): none

Project Description

Stearns Road (from Munger Rd. to James Philip State Park) in the Village of Bartlett is an important connection to the amenities and trails at James "Pate" Philip State Park, as well as Pratt's Wayne Woods to the south. Extending the existing shared use path is a high priority for Bartlett residents. Doing so would provide a safe, convenient and comfortable route for those looking to visit the park and create a continuous east-west connection across the Village. There is also the need for a trail crossing at the intersection with Powis Road to enable access to Pratt's Wayne Woods. Stearns Road is an important regional connection identified in both CMAP's Regional Trails and Greenways Plan and the DuPage Trails Plan.

Anticipated Benefits

While there is no existing crash history in this area, improvements to these facilities would provide safer connections for people walking and biking alike. The project would create a continuous east-west connection for people biking across Bartlett and enhance regional connectivity to important recreational destinations.

IL 59 (from Schick Rd. to Gulf Stream Dr.)



Village: Bartlett

Street Jurisdiction: IDOT

Project Length: 0.25 miles

Bike Improvements: Shared Use Path, Tier 1 Route

Sidewalk Gaps: 0.25 miles, Tier 2

Key Intersections and Crossings: 1 signalized

Population and Jobs (within 0.5 miles): 8,406 people and 210 jobs

Crash History (2015 - 2019): none

Project Description

IL 59 (from Schick Rd. to Gulf Stream Dr.) in the Village of Bartlett provides access to several important commercial areas as well as Bartlett High School. This project would address existing sidewalk gaps, continue the shared use path that currently ends at Gulf Stream Drive to Schick Road, and enhance the existing path south of Schick Road to provide additional space between the street and path. The project would also include safety improvements at the intersection with Army Trail Road where there are a number of shops and restaurants. Engagement with students at Bartlett High School, as well as general community engagement, specifically highlighted the need for these improvements. IL 59 is also an important regional connection and is included in the DuPage Trails Plan.

Anticipated Benefits

This project would address several important gaps in Bartlett's walking and biking networks, improving connectivity and enabling more people to make trips via walking and biking. The project would also make it safer and more attractive for students to walk and bike to Bartlett High School. In a survey of District U-46 students, 54% of respondents said they would bike to school more often if there were a safe, comfortable, and convenient route. Lastly, safety improvements at the intersection with Army Trail Road would make walking and biking to stores and restaurants a more feasible option.

POLICIES & PROGRAMS

Policies

Complete Streets Policy

According to the National Complete Streets Coalition there are ten elements to a comprehensive Complete Streets policy: vision and intent; diverse users; commitment in all projects and phases; clear, accountable exceptions; jurisdiction; design; land use and context sensitivity; performance measures; project selection criteria; and implementation steps. A thorough and updated Complete Streets policy is important because it enables communities to regularly improve multi-modal transportation at all available opportunities. Bartlett and Streamwood both have existing Complete Streets policies which can be strengthened and made more effective with several additions and updates.

Bartlett and Streamwood's policies should be updated to provide measurable definitions of priority groups and places, include requirements that ensure private development projects abide by the Complete Streets policy, provide specific performance measures to evaluate the success of implementation, include an equity component, and recommend the training of municipal staff.

Bartlett and Streamwood's policies include exemptions for certain situations and types of projects. While not every project can or needs to incorporate a full range of multimodal improvements, Bartlett and Streamwood should update the exemptions listed in their policies to have narrower and more specific definitions.

Example:

The City of Des Plaines' Complete Streets Policy very clearly explains what types of projects fall under the policy (City of Des Plaines projects, other public agency projects, and private development) and how the City applies the policy for each project type. It also has very narrowly defined exceptions, "Exceptions to such applicability of the Complete Streets policy are: a) Projects occurring on a roadway where specified users are prohibited by law, such as within interstate highway corridors. b) The cost for a particular Complete Street 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."

Bartlett and Streamwood's policies should incorporate checklists to serve as a guide for Village staff. Many communities have developed Complete Streets checklists that are incorporated into their policies. These tools can help effectively standardize the incorporation of Complete Streets considerations into the project development and design phases.

Example:

The City of Evanston's Complete and Green Streets Policy includes a detailed checklist to guide staff through project scoping and design.

Policies

Example:

Another resource for the development of an updated policy overall is the New Jersey Department of Transportation Complete & Green Streets for All: Model Complete Streets Policy & Guide published in July of 2019. This document provides a sample policy for implementation at the County and Municipal level. The sample policy includes all ten components recommended by the Complete Streets Coalition and further includes recommendations for the implementation of green infrastructure. It is recommended that Bartlett and Streamwood look to this guide as they update their complete streets policies.

Subdivision Ordinance

Providing clearly stated requirements for bicycle and pedestrian facilities within subdivision ordinances is beneficial to municipalities to encourage new developments to be bicycle and pedestrian friendly.

Bartlett and Streamwood should conduct a thorough review of their subdivision ordinances to ensure development sites will support walking and biking by requiring continuous sidewalk connections between public sidewalk and building entries, as well as connections to trails or subdivisions.

The ordinances should set design and infrastructure best practice standards for subdivision and private developments as well as a trail connection requirement where applicable. The existing subdivision ordinance for Bartlett does outline specific design guidance for their sidewalks and bicycle paths, however the existing Streamwood ordinance does not.

Bicycle Parking Ordinance

Bicycle parking can create an active transportation environment that is simpler and more convenient. It is important to ensure that bicycle parking is placed directly adjacent to the building's main entrance. It is recommended that Bartlett and Streamwood develop ordinances that require bicycle parking (short term and long term) be installed with new or amended developments.

The ordinances should include a requirement of short-term bicycle parking at all public buildings as well as long-term bicycle parking at places of employment, multi-unit residential buildings and transit stations. The table below outlines recommendations of bicycle parking requirements for different land use types provided in the Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines.

This ordinance should also dictate standards for good bike parking that is safe, secure, and easy to use. These design standards should include specific approved bicycle rack styles as well as specific rack placement guidelines.



Well-Located Bike Parking at the Target on Irving Park Rd. in Streamwood

Bike parking at transit stations is also an important consideration in enabling more people to bike to transit. Installing secure, covered bike parking creates the best experience for users.

Policies

Proposed Bicycle Requirement by Land Use Type

Land Use	Type of Activity	Long-Term Bicycle Parking Requirement	Short-Term Bicycle Parking Requirement
Residential	<i>Single Family Dwelling</i>	None	None
	<i>Multi Family Dwelling</i> a. With private garage for each unit b. Without private garage for each unit c. Senior housing	None 0.5 space per bedroom (minimum of 2)	0.05 spaces per bedroom (minimum of 2)
Civic: Cultural / Recreational	<i>Non-assembly cultural (library, governmental building etc.)</i>	1 space per 10 employees (minimum of 2)	1 space for each 10,000 s.f. of floor area (minimum of 2)
	<i>Assembly (church, theaters, parks, etc)</i>	1 space per 20 employees (minimum of 2)	Spaces for 2% of maximum expected daily attendance
	<i>Healthcare / hospitals</i>	1 space per 20 employees or one space for each 70,000 s.f. of floor area (minimum of 2)	1 space for each 20,000 s.f. of floor area (minimum of 2)
	<i>Education</i> a. Public, parochial, and private day-care of 15+ children b. Public parochial, and private nursery/kindergartens, and elementary schools c. Public, parochial, elementary, junior high and high schools d. Colleges and universities	1 space per 20 employees (minimum of 2) 1 space per 10 employees (minimum of 2) 1 space per 10 employees plus 1 space per 20 students of planned capacity (minimum of 2) 1 space per 10 employees plus 1 space per 10 students of planned capacity; or 1 space for each 20,000 s.f. of floor area whichever is greater	1 space per 20 students of planned capacity (minimum of 2) 1 space per 20 students of planned capacity (minimum of 2) 1 space per 10 students of planned capacity (minimum of 2)
	<i>Rail/bus terminals and stations/airports</i>	Spaces for 5% of projects a.m. peak period daily ridership	Space for 1.5% of a.m.
Commercial	<i>Retail</i> General Food sales or groceries General retail Office	1 space for each 12,000 s.f. of floor area (minimum of 2) 1 space for each 10,000 s.f. of floor area (minimum of 2)	1 space for each 2,000 s.f. of floor area (minimum of 2) 1 space for each 5,000 s.f. of floor area (minimum of 2) 1 space for each 20,000 s.f. of floor area (minimum of 2)
	<i>Auto Related</i> Automotive sales, rental, and delivery, automotive servicing Off-street parking lots and garages available to the general public	1 space for each 12,000 s.f. of floor area (minimum of 2) 1 space per 20 automobile spaces (minimum of 2)	1 space for each 20,000 s.f. of floor area (minimum of 2) minimum of 6 spaces of 1 per 20 auto spaces. unattended surface lots excepted.
Industrial	<i>Manufacturing and production</i>	1 space for each 15,000 s.f. of floor area (minimum of 2)	number of spaces TBD by municipality. Consider a minimum of 2 per public building entrance.

Education

Driver & Traffic Safety Education

Driver safety education provides training for people working to gain their driver's license. Typical instruction includes educating community members on driver and traffic safety issues, including speed laws, sharing the road, and rules of the road. It is important education courses should include bicycle and pedestrian safety, as well as safe driver behavior.

The Villages of Bartlett and Streamwood should partner with District U-46 to promote pedestrian and bicycle safety in district high school driver's education programs. Additionally, the Villages can work with private driving schools to support pedestrian- and bicycle-friendly curriculum.

To encourage safe driving behaviors within the Villages, Bartlett and Streamwood should promote pedestrian and bicycle safety education for staff that drive municipal vehicles. Recently, the Village of Bartlett promoted Ride Illinois' free bicycle-friendly driver course. Continuing to promote this type of education will help encourage a safer street environment!

In 2018, the Bicycle Safety and the Dutch Reach amendment (Illinois HB5143) updated the Illinois Vehicle Code to add information about bike safety to the state's Rule of the Road manual and driver's license exam. Bike safety information, such as the Dutch Reach, should continue to be shared throughout Bartlett and Streamwood.

Walking and Biking Safety Education in Schools

In a survey with District U-46 students, 5% of respondents said they walk or bike to school, however nearly half of respondents (48%) would walk or bike to school more if there were a safer, more connected network. Youth-focused walking and biking safety education in schools provides a space to teach students about road safety and safe walking and biking behaviors. Teaching students about road safety and safe walking and biking behaviors provides valuable life skills that they can use throughout their lives, including for when they drive in the future.

In 2018, new state legislation (Biking and Walking in Schools, Illinois HB4799) requires school boards to adopt policies for educating K-8 students about biking and walking safety. In 2019, District U-46 School Code was updated to include language that "students in grades kindergarten through 8 shall receive instruction on the effective methods of preventing and avoiding traffic injuries related to walking and bicycling". The Villages should partner with District U-46 to understand existing and future walk/bike safety education.

Currently, District U-46 offers Walking for Wellness Physical Education classes at the high school level. Additionally, students develop a walking path in their neighborhood and a safety plan when walking outside.

In District U-46, bike safety is included in health classes at two Hanover Park Elementary Schools. The District plans to add bike safety information as health classes are expanded in elementary schools.

Education

Example:

The City of Batavia and its Batavia Bike Commission have worked with schools to teach bike education to third graders. Additionally, the Villages can support District U-46 schools in bike/walk education efforts, such as Walk or Ride Your Bike to School Days.

The Villages can partner with Park Districts and Police Departments to provide annual "bike rodeos", workshops to teach children bicycle safety skills.

Example:

The City of Berwyn and Village of Riverside are examples of municipalities that have put together bike rodeos for children to teach about the importance of wearing a helmet and bike safety skills. The bike rodeos did helmet fittings and had a helmet giveaway.



Neighborhood sidewalk in Streamwood

Education and Outreach along with New Facilities

Providing education and outreach materials is an important step in promoting newly installed bike facilities, informing community members about how they can bike in the Village(s), and educating community members on safe bicycling routes. Education and outreach can be conducted both online and on-the-ground, through marketing materials and opportunities. It is important to engage and share materials with traditionally underrepresented voices.

The Villages should provide online resources with new bike facilities and provide additional bike facility education, such as the types of routes and infrastructures and how to use them. Outreach not only promotes bicycling as a mode of transportation, but also educates community members on road safety. The Villages can partner with the Park Districts and the Poplar Creek Library District to share materials and information.

The Villages should support skills and safety training programs for adults, such as offering pedestrian and bicycle training for adults (e.g., safety classes, learn-to-ride classes, or basic bike mechanics classes). The Villages can partner with the Poplar Creek Library District to organize classes. Additionally, there is the opportunity to partner with local bike shops to teach about basic bike mechanics.

Example:

The Village of Schaumburg enlists the help of their Transportation & Bicycle Safety Interns to distribute bike materials, promote existing facilities, and educate the community on bicycle safety.

Programming

Safe Routes to School

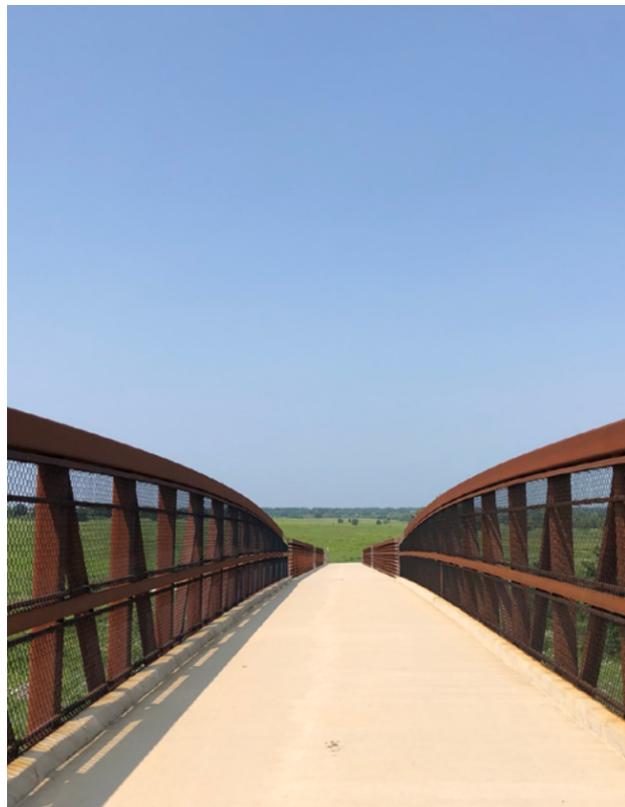
Throughout the community engagement for the Bartlett and Streamwood Bicycle and Pedestrian Plan, residents and students have raised the need for better conditions to make it possible for more students to walk and bike to school. Safe Routes to School (SRTS) is a federally funded program with the goal of making it safer for students, including those with disabilities, to walk and bike to school (<https://www.saferoutesinfo.org/>). Establishing a formal Safe Routes to School Program in Bartlett and Streamwood, in concert with District U-46, would set up a system to address these needs. The National Center for Safe Routes to School has developed a menu of online and in-person training and technical assistance options for the purposes of building consensus, identifying issues and solutions, supporting equity and prioritizing needs.

It is recommended that Bartlett and Streamwood partner with District U-46 schools, students, and families to identify a network of Safe Routes to walk and bike to local schools. A safe routes network is a grouping of designated streets and routes for walking and biking to all district schools along with the recommendation and implementation of improvements to those areas.

Safe Routes for Seniors

Both Bartlett and Streamwood have seen a significant increase in the share of their populations that are over age 65. Thirteen percent of Bartlett residents and 12% of Streamwood residents are over 65 years. A Safe Routes for Seniors Program takes the regulations of the Americans with Disabilities Act (ADA) one step further to accommodate sensory changes that occur as people age.

Surrounding communities targeted to older adults, a Safe Routes for Seniors Program would focus traffic calming efforts and programming within those areas. Pedestrian safety improvement could be developed and implemented in these areas. Some example spaces would include senior centers, hospitals, and community centers.



N Central DuPage Regional Trail pedestrian bridge

Programming

Neighborhood Traffic Calming Program

Neighborhood traffic calming programs identify speeding, safety, and cut through traffic issues on neighborhood streets, often relying on resident requests, and install improvements to reduce vehicle speeds and volumes and improve safety.

Bartlett and Streamwood should develop neighborhood traffic calming programs. The program would include a process for residents to submit traffic safety concerns to the villages and for staff to review and prioritize requests.

As part of the program, the villages should establish a set of standard traffic calming tools that can be implemented through the program and create a dedicated, recurring source of funding for neighborhood traffic calming.

Examples:

The Villages of Mount Prospect and Oak Park both have successful neighborhood traffic calming programs that enable residents to make requests for traffic calming improvements on residential streets.

Bike Lending Program at Libraries

In several areas across the country libraries are developing and managing bike lending programs. Bike lending programs provide the opportunity for library card holders to check out bikes and bike-related equipment, such as tools, helmets, and locks. Programs like these help expand access to bikes and can help to improve the overall health, wellbeing, and happiness of communities.

It is recommended that Bartlett and Streamwood coordinate with the Poplar Creek Public Library to gauge interest and provide support in starting a bike lending program. Coordination with local bike shops and potential in-kind donations should also be explored.

Bike lending programs can also provide access to new or specific types of bikes, such as electric bikes and cargo bikes. Bartlett and Streamwood should work with the community to gauge levels of interest in these types of bikes.



Bike parking at the Bartlett Metra Station

Maintenance

Biking and Walking Infrastructure Maintenance

Maintaining biking and walking infrastructure—including trails, paths, sidewalks, bike facilities, signage, and markings—is essential to create a comfortable environment for people walking and biking, particularly for people with disabilities and younger or older residents. Biking and walking infrastructure requires regular upkeep and preventative maintenance—activities like sweeping, trash removal, mowing, trimming, sign and marking upkeep, and minor surface repair that are conducted weekly, monthly, or at least once a year—as well as major maintenance, repair, and replacement—things like surface rehab or reconstruction, sign replacement, and replacing markings—that may only be required every few years.

Bartlett and Streamwood should establish a regular inspection schedule and standards for all walking and biking infrastructure, along with a system for documenting and tracking maintenance needs. Maintenance needs should be prioritized based on established criteria.

Example:

The Village of Schaumburg conducts a village-wide sidewalk, bikeway, and trail inspection every three years. The Village established specific criteria to guide inspections and ensure consistency so that the Village's transportation and bicycle safety interns are able to conduct inspections.

Example:

The Village of Hoffman Estates includes sidewalks and bikeways as part of its annual streets assessment program. Identified maintenance needs are then programmed through the Village's road improvement fund.

Across the region, many maintenance issues can be traced back to unclear responsibilities across different entities and agencies. Both Bartlett and Streamwood should map maintenance responsibilities for all biking and walking infrastructure and work to develop joint standards with partner agencies.

Maintaining walking and biking infrastructure in a state of good repair requires regular, dedicated funding. Bartlett and Streamwood should evaluate existing maintenance funding against identified needs, while also evaluating longer term needs as both Villages expand their walking and biking networks.

Maintenance

Snow Clearance and Winter Maintenance

For walking and biking to be reliable, year-round transportation options for Bartlett and Streamwood residents facilities must be well-maintained, usable, and safe during the winter.

Both Bartlett and Streamwood should establish clear regulations for snow removal on sidewalks. If sidewalks are the responsibility of residents/property owners, regulations should specify the time frame for clearing all snow and ice and the required clear path width (ideally five feet).

Bartlett and Streamwood should consider designating priority winter walking and biking routes where the Village will lead snow removal and prioritize clearing routes quickly and regularly.

Maintaining Walking and Biking Access during Construction

It is important that safe, continuous access for people walking and biking is maintained during construction activity and through work zones. Disruptions caused by construction can severely limit access for people walking and biking and create unsafe situations.

Bartlett and Streamwood should establish checklists that include requirements for maintaining bicycle and pedestrian access as part of all temporary traffic control plans.

Villages should conduct regular inspections of private construction activity and levy fines when access is not maintained for people walking and biking.



Columbia Park in Streamwood

Walking and Biking Promotion

Walk and Bike to School Day

Walk and Bike to School Day is one of the most fundamental strategies for encouraging younger residents to walk or bicycle. Although sometimes referred to as “Walk and Roll to School Day” this event has been popularized in the past as “Walk to School Day,” and the typical focus has been on encouraging walking and biking to school.

The Villages of Bartlett and Streamwood should work with the school district to promote the events and provide resources and support to local schools and community groups.

Walking and Biking Events

A great way to increase awareness and excitement towards walking and biking in the community is to support events that allow residents to participate in the activity. Example events could include: the development of walking groups, organized bike rides, open streets events, and promoting Bike to Work Day. Open streets events involve shutting down a roadway or roadways for a day and hosting a variety of activities along the now closed space. It also provides residents and visitors the opportunity to see what a “car free” roadway looks and feels like and can boost the confidence of those that are not avid walkers or bikers to feel comfortable doing so.

Bartlett and Streamwood should develop resources and dedicated funding and supplies to help community groups to organize and lead walking and biking events. This support could include micro-grants for community groups and supplies such as traffic barricades and traffic cones. Additionally, it would be beneficial for the Villages to develop a checklist

to simplify the process for community groups. This checklist would provide a step-by-step guide for organizing and hosting these events, especially for required permitting and approvals.

The Village should promote the program and conduct outreach to community groups to raise awareness of the funding and resources available.

Walking, Biking and Trail Programming Calendar

Bartlett and Streamwood should work with surrounding municipalities and agency partners to develop a comprehensive online calendar advertising trail events, bike rides or other walking and biking community events in the immediate region.

Regional Bike Map

Bartlett and Streamwood should work with surrounding municipalities and agency partners to develop a regional bicycle map showing trails and bike facilities throughout the region. This map should also show the type of facility (Shared or striped lanes, shared use paths etc.) and highlight low-stress routes. A map such as this would help community members identify routes that are within their level of expertise and within their comfort zone. The map could be posted online and be available in print formats at a variety of locations, such as local bike shops, trailheads, libraries, and community centers.

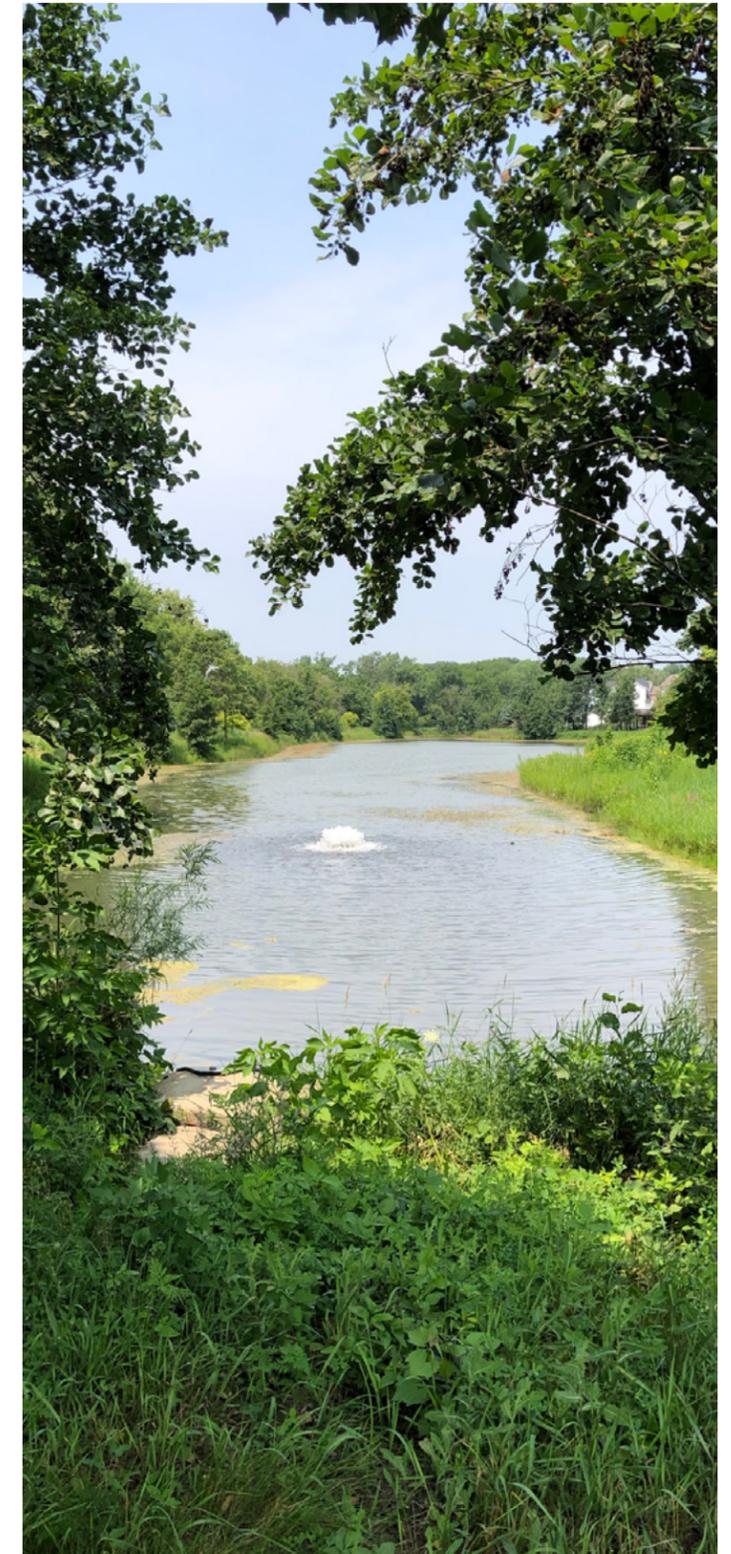
Reporting

Reporting System Expansion

Currently both Villages maintain an online system for residents and community members to report issues, problems, or concerns. Integrated into the reporting systems should be the opportunity to provide input on locations for bicycle parking. This would allow members of the community to voice where bicycle parking would be the most helpful. It provides the opportunity for community members to have a voice and it assists the villages in identifying where there is a need. This could be in the form of an interactive map or a survey that asks for an address or point of interest.

Bike plan Implementation, Monitoring, and Reporting

Throughout the implementation of this plan Bartlett and Streamwood should monitor and report to the communities on progress each year. The Villages could track the number of recommendations installed, the miles of bike lanes or sidewalk installed, and/or the reduction in bicycle and pedestrian crashes per year. This is an important step towards accountability and community buy in throughout the process.



A view in Streamwood

Coordination

Implementing the Bicycle and Pedestrian Plan's recommendations will require coordination between Village staff, county and state agencies, private utility companies, and neighboring municipalities. Several major roads in both Bartlett and Streamwood fall under state/county jurisdiction and these corridors are important links for creating a connected network that provides access to important destinations for people walking and biking. Similarly, coordination with county forest preserves and neighboring municipalities will enable the development of a regional, contiguous bike network that enables access to a wider array of destinations for Bartlett and Streamwood residents.

Establish designated liaisons with key agency partners and regular processes for receiving and providing updates and tracking all planned work on corridors within the Villages but not under their jurisdiction.

Establish a formal bike and pedestrian coordinating committee with staff from Bartlett, Streamwood, Hanover Park, Hoffman Estates, Schaumburg, Elgin, South Elgin, and Wayne Township. Meet on a regular basis to coordinate bike and pedestrian improvements projects with the goal of enhancing regional connectivity.



IMPLEMENTATION

Cost Estimates

Delivering on the Bartlett and Streamwood communities' vision for safe, connected, and convenient networks for people walking and biking will require significant investment. Planning-level cost estimates were developed to identify and plan for the funding needed to implement this plan's recommendations.

Bartlett–Bikeways

Tier 1 Projects

Facility Type	Miles	Cost Estimate
Shared Facility (neighborhood greenways)	1.5	\$150,000
Bike Lane	1.0	\$25,000
Separated Bike Lane	0.3	\$95,000
Shared Use Path/Trails	11.6	\$3.4 million
Total	14.4	\$3.7 million

Tier 2 Projects

Facility Type	Miles	Cost Estimate
Shared Facility (neighborhood greenways)	4.8	\$460,000
Bike Lane	0.3	\$8,000
Separated Bike Lane	2.4	\$850,000
Shared Use Path/Trails	16.2	\$4.6 million
Total	23.7	\$5.5 million

Full Network—38.0 miles, \$9.1 million

Bartlett–Sidewalk Gaps

Tier	Miles	Cost Estimate
1	7	\$2.1 million
2	26	\$7.8 million
3	19	\$5.7 million
Total	52	\$15.6 million

Cost Estimates

Bartlett—Intersections and Crossings

Category	#	Cost Estimate
Unsignalized Crossings (trails/mid-block)	11	\$190,000
Signalized Intersections	7	\$525,000
Bicycle/Pedestrian Bridges	1	\$4.6 million
Total	19	\$5.3 million

Bartlett—Total Costs

Category	Cost Estimate
Tier 1 Bikeways	\$3.7 million
Tier 2 Bikeways	\$5.5 million
Tier 1 Sidewalks	\$2.1 million
Tier 2 Sidewalks	\$7.8 million
Tier 3 Sidewalks	\$5.7 million
Intersections + Crossings	\$5.3 million
Total	\$29.8 million
<i>Tier 1 Bikeways + Sidewalks Total</i>	<i>\$5.8 million</i>

Streamwood—Bikeways

Tier 1 Projects

Facility Type	Miles	Cost Estimate
Shared Facility (neighborhood greenways)	2.5	\$250,000
Bike Lane	2.6	\$60,000
Shared Use Path/Trails	11.0	\$3.2 million
Total	16.1	\$3.6 million

Tier 2 Projects

Facility Type	Miles	Cost Estimate
Shared Facility (neighborhood greenways)	7.4	\$740,000
Bike Lane	1.5	\$35,000
Shared Use Path/Trails	11.0	\$3.2 million
Total	19.9	\$4.0 million

Full Network—36.0 miles, \$7.5 million

Streamwood—Sidewalk Gaps

Tier	Miles	Cost Estimate
1	14	\$4.2 million
2	10	\$3.0 million
3	5	\$1.5 million
Total	29	\$8.7 million

Cost Estimates

Streamwood–Intersections and Crossings

Category	#	Cost Estimate
Unsignalized Crossings (trails/mid-block)	9	\$155,000
Signalized Intersections	13	\$975,000
Bicycle/Pedestrian Bridges	2	\$9.2
Total	24	\$10.3 million

Streamwood–Total Costs

Category	Cost Estimate
Tier 1 Bikeways	\$3.6 million
Tier 2 Bikeways	\$4.0 million
Tier 1 Sidewalks	\$4.2 million
Tier 2 Sidewalks	\$3.0 million
Tier 3 Sidewalks	\$1.5 million
Intersections + Crossings	\$10.3 million
Total	\$26.6 million
<i>Tier 1 Bikeways + Sidewalks Total</i>	<i>\$7.8 million</i>

Funding

A variety of local, state, federal, and private funding sources can be used to support the design and construction of walking and bicycling infrastructure and provide financial resources for programming and marketing initiatives. Implementation of this plan will leverage local, state, and federal grants whenever feasible.

New grants and funding sources have recently been developed as part of the Infrastructure Investment and Jobs Act (IIJA) creating even more opportunities for funding of these types of improvements. The IIJA also will increase funding for many existing programs that fund walking, biking, and safety improvements in Illinois, including the Congestion Mitigation and Air Quality Program, the Surface Transportation Program, Transportation Alternatives Program.

There have also been several recent legislative changes at the state level that may help to fund many of this plan's recommendations.

- **Illinois House Bill 270: Bicycle and Pedestrian Ways**—Amends the Illinois Highway Code and requires the state to fund 100% of the costs of walking and biking infrastructure when constructing, reconstructing, or making any changes to any state transportation facility. This bill eliminates the previous requirement that local municipalities had to fund 20% of the costs of requested walking and biking infrastructure.
- **Illinois House Bill 2950: Sidewalks and Shared Use Paths**—Amends the Illinois Counties Code and provides that, in the counties of DuPage, Kane, Lake, Will, and McHenry, proceeds from the County

Motor Fuel Tax Law may also be used for operating, constructing, improving, and acquiring land for shared use paths for nonvehicular public travel, sidewalks, and bike paths. The bill also amends the Illinois Highway Code so that “highway” includes shared use paths for nonvehicular public travel, sidewalks, and bike paths.

The following section provides additional information on key grant funding sources, detailing the administering agency, typical award, purpose, eligibility, and any local match requirements.

Key Grants

Congestion Mitigation and Air Quality Program (CMAQ)

Agency: CMAP
Typical Award: \$16-30 Million
Website: <https://www.cmap.illinois.gov/mobility/strategic-investment/cmaq>

Purpose: Fund projects that help CMAP meet the National Ambient Air Quality Standards of the Clean Air Act. This includes projects that help to reduce congestion, and encourage a shift to more sustainable modes of transportation including walking, bicycling, and the use of transit.

Eligibility: Local governments with projects that are included in the state's Transportation Improvement Program (TIP)

Local Match: The grant covers 80% of a project and requires a 20% local match. Projects must be programmed into the region's Transportation Improvement Program (TIP). High need local communities have no local match requirement. Phase I Engineering should be substantially complete to be considered.

Candidate Projects: Regional trail connections, new bicycling and walking facilities, improving transit, or adding multimodal improvements along regional corridors. Joint agency projects that involve multiple jurisdictions, access to transit projects, implementation of regional transit transfers, and connectivity improvements.

Surface Transportation Program (STP-L)

Agency: CMAP
Typical Award: \$150,000 to \$4 Million
Website: <https://www.cmap.illinois.gov/committees/advisory/council-of-mayors/stp>

Purpose: Shared fund of surface transportation to support the implementation of large-scale regional projects to improve local transportation and support regional objectives of ON TO 2050. Major projects including bridge construction, grade-separated crossing, transit station rehabilitation, and transit speed and reliability improvements. Funding is competitive among municipalities within the same council of mayors.

Eligibility: Government entities

Local Match: The grant covers 80% of a project and requires a local match on a need-based sliding scale. High need local communities have no local match requirement. Phase I Engineering should be substantially complete to be considered.

Candidate Projects: Trail overpasses, grade separations, regional trails, transit infrastructure.

Transportation Alternative Program (TAP-L)

Agency: CMAP
Typical Award: \$100,000 - \$1 Million
Website: <https://www.cmap.illinois.gov/mobility/strategic-investment/>

Purpose: Projects that help CMAP implement the Regional Greenways and Trails Plan

Eligibility: Local governments, non-profit organizations

Local Match: The grant covers 80% of a project and requires a 20% local match. High-need local communities have no local match requirement. Phase I Engineering should be substantially complete for a project to be considered eligible for TAP funding.

Candidate Projects: Regional trail connections, connecting two ends of a trail network, builds new segments of regionally-significant trails.

Local Highway Safety Improvement Program (HSIP)

Agency: IDOT
Typical Award: \$2-5 Million
Website: <https://idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/funding-opportunities/highway-safety-improvement-program>

Purpose: Projects that are intended to produce a measurable reduction in fatal and serious injury crashes on public roads. A data-drive program seeking to reduce the frequency and occurrence of these types of crashes.

Eligibility: Government Entities

Local Match: The grant covers 90% of a project and requires a 10% local match.

Candidate Projects: Corridor improvement projects with a documented safety concern, may include signal coordination and timing improvements, and projects to reduce roadway deficiencies such as inadequate sight distance, guardrail issues, and projects to improve pedestrian safety. Projects must be able to calculate a benefit/cost ratio to compare effectiveness against other projects in this category.

Key Grants

Illinois Transportation Enhancements Program (ITEP)

Agency: IDOT
Typical Award: \$2 Million
Website: <http://www.idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/funding-opportunities/ITEP>

Purpose: Projects that enhance the existing transportation system to support and encourage walking and bicycling

Eligibility: Local governments, regional transportation agencies, transit agencies, natural resource and public land agencies, school districts, non-profits responsible for transportation safety programs.

Local Match: Local match requirements are based on a sliding scale of 20%, 10%, or 0% determined by poverty level, community size, median income, and total property tax base. The grant sets aside 25% of funds for high need communities. Phase 1 Engineering is eligible to receive funds.

Candidate Projects: Pedestrian, bicycle, and trail projects that enhance the transportation network. Roadway resurfacing projects and parking lots are not eligible.

Illinois Bicycle Path Grant Program

Agency: IDNR
Typical Award: \$100,000 - \$200,000
Website: <https://www2.illinois.gov/dnr/grants/Pages/BikePathProgram.aspx>

Purpose: To assist local government agencies in the acquisition, rehabilitation, and construction of public non-motorized bicycle facilities.

Eligibility: Government organizations (must be able to purchase and own property, school districts not eligible).

Local Match: The grant covers 50% of the capital cost of a project, requiring a 50% local match.

Candidate Projects: Sidepath or trail projects on property owned by the local agency (not on IDOT or LCDOT right of way).

Recreational Trails Program

Agency: IDNR
Typical Award: \$200,000
Website: <https://www2.illinois.gov/dnr/grants/Pages/PARC-Grant.aspx>

Purpose: To provide funding for acquisition, development, construction, and maintenance of motorized and nonmotorized trails. Must be open to the public.

Eligibility: Government entities (municipalities, park districts), non-profit organizations, for-profit organizations, businesses, and individuals.

Local Match: The grant covers 80% of a project and requires a 20% local match. 30% of the program is committed to nonmotorized trails, 30% to motorized trails, and 40% to trails that accommodate both.

Candidate Projects: Trail projects that have a motorized and non-motorized component, public/private partnerships.

Access to Transit for Small-Scale Capital Projects (RTA)

Agency: RTA
Typical Award: \$150,000 - \$1 Million
Website: <https://www.rtachicago.org/plans-programs/access-transit-program>

Purpose: Projects that help to improve access to transit by: (1) increasing transit ridership, (2) improving first-and-last mile connections to transit infrastructure, which includes making it easier to walk and bicycle to transit, (3) reducing demand for parking, (4) promoting pedestrian-friendly neighborhoods to be better served by transit, and/or (5) supporting the development of transit oriented development (TOD).

Eligibility: Government entities who have completed or are in the process of completing a project funded in part by the RTA Community Planning Program, CMAP LTA Program, or other relevant planning effort that aligns with ON TO 2050. Projects may cover the cost for projects costing less than \$1 Million for which Phase I engineering has already been completed or may pay for the cost of preparing preliminary (Phase I) Engineering up to \$50,000.

Local Match: The grant covers 80% of a project and requires a 20% local match.

Candidate Projects: Mobility Improvement Area (MIA) Projects, bicycle parking, sidewalk connections that are missing. Phase I engineering for a larger trail (so long as Phase I doesn't cost more than \$50,000).

Key Grants

Safe Routes to School Grants (SRTS)

Agency: IDOT

Typical Award: \$25,000 to \$200,000 for infrastructure and \$2,500 to \$50,000 for non-infrastructure applications.

Website: <https://idot.illinois.gov/transportation-system/local-transportation-partners/>

Purpose: Enable and encourage children to walk and bicycle to school

Eligibility: Government agencies, transit agencies, school districts

Local Match: At least 20% local match required.

Safe Streets and Roads for All SS4A

Agency: USDOT

Typical Award: N/A

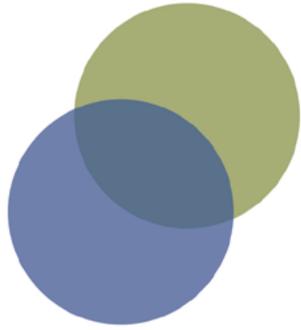
Website: <https://www.transportation.gov/grants/SS4A>

Purpose: Projects that prevent roadway deaths and serious injuries. Program supports the Secretary of Transportation National Roadway Safety Strategy and Departments goal of zero deaths and serious injuries on the nations roadways.

Eligibility: Metropolitan Planning organizations; counties, cities, towns, and transit agencies; federally recognized tribal governments; multi-jurisdictional groups

Local Match: N/A

Candidate Projects: development or update of an Action Plan, conducting planning, design, and development activities to support an Action Plan, carry out projects and strategies identified in an Action Plan.



Bartlett & Streamwood

Bicycle and Pedestrian Plan