

## CITY OF ELMHURST BICYCLE AND PEDESTRIAN PLAN



PREPARED BY:



## CONTENTS

INTRODUCTION	5
Plan Purpose	6
Prior and Ongoing Efforts	8
Vision Statement	9
<b>€ COMMUNITY ENGAGEMENT</b>	11
Goals	
• Phase I Community Engagement: Results	16
•• Phase II Community Engagement Summary	
<b>Mathematical Structures Recommendations</b> .	21
•• Design Recommendations	
Pedestrian-Specific Improvements	51
<b>♦</b> INTERSECTION IMPROVEMENTS .	56
•• Intersection Treatment Toolkit	
•• Key Intersections	60
Wayfinding Signage	94

MITIATIVES
•• Existing Initiatives
• Framework Step 1: Process
• Framework Step 2: Identity
• Framework Step 3: Partnerships and Activities
IMPLEMENTATION
Project Prioritization107
Project Phasing
Funding Resources
APPENDIX 119
Detailed Prioritization Scores
Detailed Phasing Scores
Educational One-Pagers

Redestrian Discussion

8

Bicycle Discussion

A special thank you to the City of Elmhurst Bicycle and Pedestrian Plan Advisory Committee members:

- Howard Killian, Public Works Director (retired), City of Elmhurst
- Kent Johnson, City Engineer, City of Elmhurst
- Emily Egan, Assistant City Planner, City of Elmhurst
- Mike Litwin, Civil Engineer II, City of Elmhurst
- Sergeant Anthony Cuzzone, Elmhurst Police Department
- Tim Riordan, Principal, Hawthorne School
- Jennifer Barnabee, Principal, Lincoln School
- Angela Ferrentino, Director of Facilities, Elmhurst Park District
- Armaline Mirretti, Admission Event Coordinator, Elmhurst University
- Kimberly Messina, Volunteer, Elmhurst Bicycle Club
- Sid Kenyon, Senior Transportation Planner, DuPage County
- Christine Rose, Community Relations Representative, Pace
- Allison Buchwach, Senior Planner, Metra
- Demetrios Skoufis, Legislative Affairs Administrator, Metra
- Anthony Mattingly, Planning Analyst, Metra

# INTRODUCTION

The City of Elmhurst developed this bike and pedestrian plan to improve walking and biking throughout the City and improve access to destinations like transit stations, business districts, schools, parks, and recreational areas. Elmhurst streets have many different elements to balance in creating a context-sensitive pedestrian and bike plan. Uses such as on-street parking, loading zones, driveway access, sidewalk connections, turn lanes, transit stops, bicycle facilities, utilities, and trees all vary from corridor to corridor, and sometimes even block by block. Different communities and groups within the City have complex needs which influence the availability and equitable distribution of transportation resources. By creating this plan, Elmhurst can build on its existing assets and create a healthier, more sustainable and active community.

In summer of 2019, the City of Elmhurst embarked on a project to update their 2011 Bicycle Plan and add a pedestrian component. The process kicked off with an initial round of community engagement so that the project team could understand the state of walking and biking in Elmhurst, including opportunities and challenges (for more details on community engagement events and findings, see the Community Engagement chapter). While this was happening, the team conducted field visits to understand the on-the-ground experience for pedestrian and bicyclists and analyzed datasets.

Based on the findings of community engagement and data analysis, the project team developed draft recommendations to improve walking and biking on roadways across the City. At this point, it was spring/summer of 2020, and the Pandemic was in full swing, so the City utilized a variety of interactive virtual formats to better understand the community's thoughts and priorities. Based on this second round of public engagement, the recommendations were revised and presented in this plan that is in your hands (or on your computer screen) today. Infrastructure recommendations is one part, however programs, policies and an action plan for implementation are also important components to affecting change to the built environment and cultural shifts (see the Network Recommendations, Initiatives, and Implementation chapters).

#### Plan Approach



**Community Centered** 



For All Modes, Ages, and Abilities





Implementation-Focused

## **PLAN PURPOSE**

## WHY A PLAN UPDATE?

- Update the 2011 Bike Plan using modern best practices in bike facility design as well as add a pedestrian component.
- Develop an actionable roadmap to prioritize future projects when funding opportunities become available.
- Provide support to make Elmhurst a strong contender for grant funding to implement walking and biking projects.
- Identify both shovel-ready opportunities as well as conceptual design ideas that will require future study.
- Come to a consensus on community vision and goals for walking and biking.

## WHO IS THE BICYCLE & PEDESTRIAN PLAN FOR?

Transportation impacts everyone. Providing safe walking, biking and transit options is especially important for the most vulnerable users of the roadway, including: children, elderly, disabled, and low income individuals most impacted by the burden of owning cars. Some benefits of a walkable and bikefriendly community include:

#### Improves environmental and public health outcomes

Elmhurst made a commitment to improving the environmental outcomes of the City by signing the U.S. Mayor's Climate Protection Agreement in 2007, developing a Sustainability Task Force in 2014 and then adopting the Sustainability Action Plan in 2018. Transportation and Mobility was one of the key topics researched in the 2018 plan. One of the recommendations from this plan was already implemented, including the adoption of a Complete Streets resolution in 2020. The Bike and Pedestrian Plan is another important step in implementing the Sustainability Action Plan.

Providing alternative options to travel reduces reliance on single occupancy vehicles, which in turn reduces traffic congestion and improves overall air quality. According to a <u>study by the American Public Transportation</u> <u>Association</u>, if one person in a two-adult, two-car household were to replace their 20-mile round-trip car commute with public transit, they would reduce all greenhouse gases produced by their household by 10%.



An existing buffered bike lane in downtown Elmhurst on Addison Ave

Many of the recommendations in this plan help bridge those "last mile" gaps between residential neighborhoods and access to public transit, regional trails and destinations, such as schools and the Metra station. 78% of people surveyed for this plan said that they would be willing to walk one mile and 71% of people said that they would be willing to bike up to five miles to reach a destination (see Community Engagement chapter for more results).

Implementation of the whole proposed bike and pedestrian network would provide environmental benefits for the City by providing an interconnected system of sustainable transportation options that all residents across the community could reach. Improving the air quality through reduced emissions improves health. Another public health benefit is that a pedestrian and bicycle network provides more opportunities for residents to be active and incorporate movement into their daily lives in a way that is convenient, such as being able to walk or bike to run errands or access the Metra station without getting in a car. Active lifestyles can lead to a reduction in obesity, which is a way to help reduce one's risk for obesity-related diseases. According to the American Public Health Association, physical inactivity can lead to chronic diseases such as heart disease and diabetes while walking and biking as part of one's everyday travel is as effective as a structured workout. Additionally, the design recommendations provide an opportunity to further enhance sustainability initiatives with green infrastructure. For example, the York Flex Street and the York and Prairie Path Crossing improvements could be opportunities to install native plantings, bioswales and rain gardens (see more details on these recommendations in the Network Recommendation chapter).

#### Enhances economic development, equity and access to opportunities

According to multiple studies (one example being the <u>Victoria Transport</u> <u>Institute: Evaluating Active Transport Benefits and Costs</u>), property values increase and commercial centers are in higher demand when they are walkable and bikeable. Additionally, providing alternative modes of travel to the car also improves economic mobility by providing ways to reach job and school opportunities without the expense of a personal vehicle. If people can save time and money on travel expenses, they can put the time and money saved into other endeavors. Additionally, this plan proposes a complete network of safer streets for all users of the roadway, regardless of age or ability.



#### Distance willing to reach a destination?

Data Source: City of Elmhurst Bicycle and Pedestrian Plan survey in Fall 2019

## **PRIOR AND ONGOING EFFORTS**

## PAST PLANNING EFFORTS

The project team reviewed previous plans in preparation for this project and to better inform the final recommendations. Below are past planning efforts that were reviewed as a part of this plan. Bike route recommendations from these plans were considered during development of the proposed network. Some key takeaways from these past efforts are also listed in the graphic below.

#### **Key Takeaways**

- » Corridors should be friendly to pedestrians and bicyclists
- » Provide continuous sidewalks
- » Bike racks should be provided at retail zones
- » Pedestrian signals should be added
- » Marked bike route recommended
- » Decrease Vehicle Miles Traveled (VMT)
- » Work with Pace and City Centre to improve Elmhurst as an end point for shopping
- » Enhance City Centre for commuter travel
- » Promote bikes for trips two miles or less
- » Promote walking, biking and carpooling to schools
- » Implement Complete Streets policies (resolution adopted by the City in 2020)
- » Continue to implement the 2011 Bike Plan
- » Pursue outreach and engagement surrounding walking and biking
- » Assess and meet the need for bike parking
- » Support Safe Routes to School programs
- » Establish accessible and safe bike routes between north and south Elmhurst locations
- » Add bike parking to Metra station
- » Provide sheltered bike parking at key destinations including Metra Station, Elmhurst Hospital, Elmhurst College, grocery stores, major retailers, recreational facilities and parking decks.
- » Provide educational opportunities for the public on transportation and mobility issues.
- » Develop partnerships with key players to educate the community on transportation and mobility issues.
- » The City should coordinate with ComEd to construct a new pedestrian trail along its utility easement.
- » Install pedestrian bridge over IL 83 connecting Cricket Creek Forest Preserve with residential neighborhoods.

#### **Past Plans Reviewed**

- 2011 Bicycle Plan
- Downtown Plan
- North York Corridor Plan
- Sustainability Action Plan
- Subarea Plans (for commercial districts)
- Chicago Metropolitan Agency for Planning (CMAP) Greenways and Trails Plan
- DuPage County Bikeways Plan
- Bensenville Active Transportation Plan
- Lombard Bicycle & Pedestrian Plan
- Villa Park Bike Plan
- Safe Routes to School walking route maps

## **ONGOING INITIATIVES**

In addition to past planning efforts, there is already well-used on-the-ground pedestrian and bicycle infrastructure in Elmhurst that these recommendations can connect to and build on, such as two major regional trails that travel through the community (the Salt Creek Trail and the Prairie Path), an extensive sidewalk network and a buffered bike lane on Addison St.

There are also a myriad of resources and organizations that are working towards improving walking and biking in the community, such as the Elmhurst Bike Club, Cool Cities, the Elmhurst Police Department, and Safe Routes to School. These resources and allies should be leveraged as the plan is implemented. For more information on existing initiatives, see the Implementation chapter.



Crossing guard helping a family safely cross the street in Elmhurst

## **PLAN VISION**

The City worked with the Steering Committee (see Community Engagement chapter) in developing a vision and vision statement to guide implementation of the Bicycle & Pedestrian Plan.

#### **Vision Statement**

The City of Elmhurst believes in cooperative transportation accessibility for everyone that provides residents and visitors opportunities to explore the community with easy and safe access to all Elmhurst has to offer. These values are supported by our community and will result in safe and modern walkways and bike routes. The City will succeed in this vision when a modern, safe, convenient, and accessible community exists for all to enjoy. We aim to provide these continued improvements for residents and visitors by 2030.

# **COMMUNITY ENGAGEMENT**

This Plan serves as a road map for making walking and biking easier throughout the City of Elmhurst including guidance on how to design for more comfortable treatments on sidewalks, streets, trails, and at intersections. This planning-level study sought to ensure that outreach was conducted thoroughly and mindfully with the goal of clearly outlining, reflecting, and balancing the priorities articulated by the community. With this attentive approach, the outreach process aimed to give all community members – active transportation users, residents, and representatives of local institutions - the opportunity to provide feedback in a convenient format. The following chapter is based on that documented information, which shaped the overall context of the project.

## **ENGAGEMENT OVERVIEW**

## GOALS

- Obtain feedback on community goals and priorities from Elmhurst's diverse stakeholders
- Keep an open line of communication with residents and stakeholders about the plan and ensure that questions are answered and concerns are addressed
- Develop and maintain a contact list of people interested in engaging in the plan
- Document issues, challenges, concerns, ideas, and priorities
- Develop a methodology that includes community feedback into considerations that will be used to inform plan recommendations and prioritizations



Table at Elmhurst Cycling Classic, July 2019

## KEY FINDINGS THAT INFORMED THE RECOMMENDATIONS

Several themes emerged from the focus groups, responses to the online maps, feedback during the in-person and virtual community open houses, responses from the online survey, and the comments submitted to the project website. These included:

- Improve safety and accessibility for pedestrians and cyclists
- Limit negative impacts to primary stakeholders
- Create a network that can be used by people of all ages and abilities
- Connect Elmhurst's neighborhoods to one another, neighboring communities, and destinations.

## HOW PEOPLE ENGAGED IN THE PLAN

To reach a diverse audience of stakeholders, the project team led several types of engagement activities, both in-person and online.

Table at Elmhurst Cycling Classic, July 2019: Members of the project outreach team set up a table at the Classic to discuss opportunities and challenges to walking and biking in the community. The team had a map for people to mark up.

**Online, Email, and Other Written Comments:** Throughout the project, community members were invited to provide written comments on issues and challenges the project team should explore and on draft recommendations. Community members provided comments via the project website, by email to various members of the team, and by feedback sent directly to the City.

**Online Interactive Map:** Community members were invited to place dots on an online map, identifying challenging intersections, walking routes, biking routes, key destinations, and other issues that the project team should consider when identifying plan recommendations. The map was linked through bikewalkelmhurst. com and promoted via distribution lists.



**In-Person Open Houses, November 2019:** The project team hosted an inperson open house for all members of the community to attend. The event was held on November 4, 2019 and focused on identifying goals, priorities, and issues. Comment cards were provided to enable community members to document their feedback.

During the Plan's development, the COVID-19 pandemic occurred affecting how community engagement was conducted. The City and project team pivoted to an online and remote approach to ensure the safety of all involved with shaping the Plan. These opportunities still allowed residents to learn about, review, and comment on the proposed recommendations before finalizing the proposed network. The opportunities included:

Virtual Open House, May 2020: The City and project team hosted two, onehour virtual open houses to present the draft network recommendations. These occurred on Wednesday, May 27th, 2020, one at noon and one in the evening. Participants could also ask questions and take polls. Recordings of these virtual events were also continuously played on the Elmhurst TV channel to reach residents with limited or no internet access.

Virtual Interactive Story Map, Summer 2020: The project team used ESRI's StoryMap, an interactive and visual storytelling platform, as another avenue to share draft network recommendations and collect feedback from community members. This Plan's story map was built as an educational tool to help guide stakeholders and community members through the recommendations with maps, pictures, concept designs, and text. A PDF version was also made available if requested.

**Online Survey, Summer 2020:** An online survey was developed as another virtual outlet for the community to provide feedback on the draft plan recommendations. Questions focused on how the proposed designs would impact safety, comfort, and accessibility for pedestrians and bicyclists as well as implementation priorities of the community.

## Walk Bike Snap Elmhurst Sweepstakes, September 2020:

Community members were invited to explore the recommended network on their own and take pictures of their top priorities for implementation. All photo submissions were



entered into a sweepstakes and several winners were selected at random to win prizes. A few photo entries are included throughout the Plan, look for the logo pictured above to identify these community submitted photos.





Top Priority: "We love riding our bikes on the Prairie Path and would love to be able to cross over York St easier because it is a very busy intersection." Photo by Kathleen Rivera



Top Priority: "Crestview Ave & York St is currently too intimidating to cross. We don't use this intersection due to the lack of sidewalks, space to stand, and proper signals for the amount and speed of local and highway traffic, especially when crossing with young kids." Photo by Devin Bloden

## HOW RESIDENTS STAYED INFORMED

Several methods were used to notify Elmhurst residents and stakeholders about the plan and plan-related activities. These included:

**Earned Media:** Press releases were sent to area newspapers at various stages throughout the project and appeared in the DuPage Policy Journal and the Daily Herald.

**Project Website:** The project team developed a project website at the URL bikewalkelmhurst.com. The site was used as a clearinghouse for information related to the plan and as a place for people to provide comments and sign up for the email distribution list.

**City Media Outlets:** The City developed several video spots for their YouTube channel providing information about the plan and how to get involved or stay informed. Several articles were also featured in the City's Front Porch newsletter.

**Email Updates:** People who receive Elmhurst E-Newsletters and/or who signed up for emails on the bikewalkelmhurst.com website received emailed updates and notices about the plan.

**Flyers and Advertising:** The project team made event flyers for the open house and posted signs around Elmhurst in key locations prior to the open house including on Pace bus shelters and at the Metra Station. The City added a message about the project on its digital message board as well.

**Cross-Promotion:** Elmhurst Bicycle Club, DuPage County DOT, Cool Cities, Elmhurst University, and other groups cross-promoted official announcements provided by the project team.

## **STEERING COMMITTEE**

As part of the outreach process, the City and project team met with a variety of key stakeholders connected to Elmhurst to discuss and brainstorm a variety of issues and ideas to help shape the final plan. Three meetings were held in total, one in-person and two virtual due to COVID-19 safety concerns. Each meeting occurred at different stages of plan development. The Steering Committee members represented organizations with varying community focuses including:

- Elmhurst School District 205
- Elmhurst Park District
- Elmhurst University
- Elmhurst Bicycle Club
- DuPage County
- Metra
- Pace
- Elmhurst Police Department

#### Meeting 1: Existing Conditions and Network Visioning

The first meeting with the Steering Committee occurred in-person at the beginning stages of developing the plan. The discussion focused on sharing insights about the existing conditions regarding pedestrians and bicyclists throughout Elmhurst and how this Plan can help improve the bike and walking network. Topics included:

- » Why walking and biking infrastructure matters in Elmhurst
- » What challenges should the Plan address
- » What already works well in Elmhurst and what assets could be better leveraged

#### Meeting 2: Draft Network Recommendations

The second meeting was held virtually during the middle stage of planning. At this meeting, the draft network recommendations were shared and discussed before going live for the general public to review and comment. An additional topic discussed was different kinds of programs and policies that could be implemented to enhance the plan recommendations. These insights helped inform the Initiatives chapter of this plan.



Top Priority: "Because of overgrowth you cannot see bikes or people coming over the IL-83 Bridge on the Prairie Path Trail." Photo by Ted



Top Priority: "I frequently bike to FFC and love the new bike lane. It keeps bike traffic off the busy sidewalk and safe from car traffic." Photo by Martha Akre



Top Priority: "Downtown in places like Park St & Adell Pl. where people cross to and from trains and parking (e.g., Adelaide parking deck." Photo by Mary

#### Meeting 3: Vision Statement, Initiatives, and Implementation

Several topics were presented and discussed at the third Steering Committee meeting. The event was virtual and happened near the end of the project. One of the main goals of this meeting was to gather insights on why this Plan is important for the City of Elmhurst and what success looks like within the community. The project team developed and led an online, interactive activity, "Mode Libs", to foster a productive discussion among the Steering Committee. The activity was modeled after the Mad Libs word game which in this case, prompted participants to fill words into blank spots of several potential vision statements (see graphic below). Each member's vision statement was shared with the group for further discussion. The final Vision Statement for this plan was a meld of the Committee members' statements resulting in a community-inspired statement Another goal of this meeting was to hear the Committees thoughts on additional education and encouragement initiatives that should be implemented in Elmhurst and how the recommended network improvements should be implemented and phased. Members were asked to take brief online surveys during the meeting which were then discussed and ultimately used to inform the Initiatives and Implementation chapters. The Plan's final bicycle and pedestrian network recommendations were also shared which was tweaked after all public engagement opportunities were complete and comments were reviewed.



Mode Libs activity used for brainstorming a Vision Statement at the third Steering Committee meeting

## PHASE I COMMUNITY ENGAGEMENT SUMMARY

The project team's first phase of community engagement was focused on learning about the barriers and opportunities to biking and walking in Elmhurst. The team asked residents to identify the following:

- Challenging routes for walking
- Challenging routes for biking
- Difficult crossings
- Key destinations for pedestrians and cyclists

A map summarizing the findings from the community is displayed on the following page.

## DESTINATIONS

321 destinations were plotted by the Elmhurst community. In some cases, specific destinations were highlighted by more than one person, including the downtown Elmhurst, Spring Road Business District, schools, and various parks.

## **DIFFICULT CROSSINGS**

Community members dropped a virtual pin at 201 locations to represent difficult crossings. The majority of locations were at intersections in the downtown area or intersections involving major roadways like York St, North Ave, West Ave, and St Charles Rd. Concerns included fast moving traffic, difficult uncontrolled crossings, and driver behavior at intersections or crosswalks.

## CHALLENGING ROUTES FOR WALKING

Community members commented on 89 locations throughout Elmhurst that they considered to be challenging routes for walking. Commonly identified corridors include York St, North Ave, Armitage Ave, Caroline Ave. Identified difficult crossings are at Prospect Ave & St Charles Rd, Cottage Hill Ave & St Charles Rd, Addison Ave & 1st St, and Maple Ave & 1st St. Some of the flagged pedestrian routes overlapped with challenging biking routes as well. Additional comments included the desire to close the sidewalk gaps on the northwest area of Elmhurst.

## CHALLENGING ROUTES FOR BIKING

Community members dropped a virtual pin at 66 spots they considered to be challenging routes for biking. Commonly identified routes included York St, West Ave, Poplar Ave, Brush Hill Rd, Spring Rd, and St Charles Rd. Identified difficult crossings are at Prairie Path & York St, 1st St & Poplar Ave, Butterfield & York St, and the underpass at the railroad tracks near Jefferson Elementary School.

#### Top 5 factors that influence a decision to...

	walk somewnere	
sho	oveled sidewalks in snowy conditions	00%
<u> </u>	presence of sidewalks	86%
eas	se of crossing at intersections	77%
	presence of trails or paths	66%
spe	eed of traffic along my route	64%

#### bike somewhere

distance	100%
interactions with drivers	100%
comfort of crossings at intersections	- <b>78%</b>
presence of trails or paths	- 77%
condition of roads on my route	- 72%

\*Percentages reflect respondent answers that affect their decision to walk by 'a lot' more than they currently do. | Data Source: City of Elmhurst Bicycle and Pedestrian Plan survey in Fall 2019



## COMMUNITY INPUT ON BARRIERS AND OPPORTUNITIES

The data for this map was pulled from an online Wikimap where community members were invited to place dots identifying challenging intersections, walking routes, biking routes, and key destinations within Elmhurst.



- Difficult Crossings
- Destinations

## PHASE II COMMUNITY ENGAGEMENT SUMMARY

After developing draft recommendations, the project team solicited additional feedback from the community about the proposed network, intersection imporvements, and initiative solutions. Feeback was collected from an online survey with 285 total responses and other community comments via the project website or emails to the City or project team. The goal of the second wave of outreach was to further refine the recommendations and discover any additional challenges that were not captured when devising the draft network recommendations. The following is a summary of the community's feedback:

## ROUTE AND INTERSECTION IMPROVEMENTS

- Flex Street on York St: The York St flex street proposal was seen as a good opportunity for the community, especially with the need for outdoor seating.
- Spring Rd: Concerns about one of the multiple options recommendation near the Spring Road Business District that would result in the loss of parking on one side of the street.
- Cottage Hill Ave and St Charles Rd: Concerns about crossing at this intersection.
- Armitage Ave Sidewalks: Concerns about recommendation to install sidewalks on Armitage Ave west of West Ave.
- Metra Station, 1st St, and Addison Ave: Desire to reduce length of the crossing and identify additional crossing improvements opportunities.
- York St and Belden Ave: Desire for intersection improvements like converting to a four way signalized intersection rather than a right in/right out on the Belden leg.
- West Ave and St Charles Rd: Desire to clarify bicycle movement. Currently bikes are using left turn lane to go straight or making a box turn.
- Myrtle Ave and North Ave: Desire for additional safety and modernization treatments to the pedestrian underpass.
- Additional Bike Routes and Parking: North/south connection to York Community High School and more bike routes in the northeast area of Elmhurst. Increase bike parking (more racks) throughout all shopping areas.

## SAFETY AND INITIATIVES

- Desire to have safety courses for bicyclists and make helmets mandatory.
- Lack of safety knowledge and abiding by the rules by drivers, bicyclists, and pedestrians.
- Concerns about shrinking vehicle lanes and mixing cars with bikes.
- Desire to improve crossings over railroad tracks.
- Concerns about parked cars opening doors onto bicyclists.
- Desire for additional studies to be conducted prior to action.
- Confusion on differences between bike facilities (e.g., between bike boulevards, shared lanes, advisory lanes, and bike lanes).
- Varying opinions on how the aesthetics of recommendations would look in the community (e.g., usage/amount of paint or signage).

## If the recommended improvements were made, would you be more likely to walk or bike?







#### If the proposed improvements were made, who will benefit from them?

#### Which destinations would you be more likely to visit if the pedestrian and bike network were built?



# **NETWORK RECOMMENDATIONS**

This chapter covers the plan's recommended network-wide corridor improvements. The network is designed to create low-stress bicycle and pedestrian routes across the community, connecting residential areas to regional trails, key destinations, Downtown Elmhurst, schools, and other community destinations. These include routes that travel both east and west as well as north and south. The recommendations vary based on the size, traffic and land use context of the street. The designs include a mix of treatments, including sidepaths along major roadways, which are like extra wide sidewalks, sufficiently wide enough to accommodate both pedestrians and bicyclists, as well as on-street designs such as marked shared lanes and bike lanes.

The network recommendations were developed based on a robust community engagement and existing conditions analysis. Additionally, previous studies and plans were referenced when creating network recommendations. The City and project team conducted two rounds of community engagement which occurred prior to developing the final network recommendations.

The project team surveyed the community on desirable and challenging biking and walking routes, and also looked at data such as functional classification, speed, roadway width, available right-of-way, and traffic. Using this information, the project team developed a network of designs that were appropriate for the various types of streets, connected to key destinations, were desired by the community, and avoided impacts such as the removal of parking, increasing traffic congestion, and the removal of trees. More impacts are described in each of the below facility type sections.

This chapter breaks up the recommendations by design type. Each section contains a location map of the recommendation, a definition, example photos, and conceptual designs of how the recommendations could look on Elmhurst streets. The icons to the right are scattered throughout this chapter to highlight designs that were identified as a community priority or stakeholder preference during the outreach process, or contain a callout about sustainability.

#### **Green Infrastructure Considerations**

There are many opportunities to incorporate green infrastructure into the proposed network recommendations. For example, where applicable, decorative pavement areas can be built with permeable materials that allow stormwater infiltration, which conveys water back into the ground, reducing the burden on the sewer system and risk of flooded streets. In larger paved areas, pavement materials with a higher albedo (the amount of heat and light reflectivity) can be selected so that the material does not absorb as much heat, which helps to reduce the urban heat island effect.







## BIKE NETWORK RECOMMENDATION MAP

- O Intersection or Connection
- Bike Boulevard
- Marked Shared Lane
- Advisory Bike Lane
- Conventional Bike Lane
- One-Way Buffered Bike Lane
- Buffered Bike Lane
- Two-Way Protected Bike Lanes
- Large Sharrows
- Bike Wayfinding Signage
- Sidepath
- Multi-Use Path
- Flex Street
- Traffic Calming Improvements
- Multiple Options
- --- Bike Options for a NB Pairing to SB Addison Bike Lanes
  - Pedestrian Bridge Study Area
- School

## **DESIGN RECOMMENDATIONS**

The following maps and sections provide an overview of the more detailed design recommendations included in the network.

## **BIKE BOULEVARDS**

The most prevalent recommendation in the network is the bike boulevard design, which is also known in other municipalities (such as the City of Chicago) as "neighborhood greenways." Many streets in the City are lower traffic volume, lower speed residential roads that connect to important community destinations. With some minor adjustments, these roadways can be made even safer for biking for a broader range of ages and abilities. Bike boulevards have minimal impact on the surrounding area and involve few design changes to the roadway. They are a low cost and "low hanging fruit" solution to complete a bike network. Since there are complications with putting bike facilities on some of the major arterials through the City, bike boulevards are critical links in creating east/west and north/south bike connections across the community.

All of the recommended bike boulevards are within Elmhurst jurisdiction. Most of the streets are at an acceptably low traffic volume for bike boulevards. The recommended bike boulevards are also generally located on low crash history corridors. In some cases, there is a history of crashes at major intersections and further design treatments should be considered, like where Church St, Madison St, and Van Buren St intersect with York St. To provide safe travel for bicyclists along the routes, such as where intersection enhancements should be considered, see the Intersection Improvement recommendation section.

#### What are Bike Boulevards?

Bike boulevards are designated low-stress routes, often within residential neighborhoods, that direct bicyclists toward streets with low car traffic and speeds. Bike boulevards use signage, pavement markings, striping, and speed reduction to discourage high driving speeds. They are similar to marked shared lanes, but the sharrow pavement marking is bigger and generally centered in the middle of the travel lane, encouraging bicyclists to "take the lane." In some cases, to make an east/west and north/south connection across the City, the pavement markings direct bicyclists to turn onto another roadway that continue along the bike boulevard route.

Bike boulevards do not require the removal of parking or reconfiguration of the curb-to-curb roadway width. They are best installed with other design features

that slow drivers, manage traffic volume, and also benefit pedestrians such as warning signage and curb extensions.



Bike boulevard; Photo by NACTO



Bike boulevard in a residential neighborhood; Photo by People for Bikes

#### BIKE BOULEVARD LOCATION MAP



Bike Boulevards

## LOCAL EXAMPLE: BIKE BOULEVARD ON POPLAR AVENUE



**Typical Cross Section** 





#### CONCEPTUAL DESIGN ON POPLAR AVE



## MARKED SHARED LANES

Marked shared lanes are recommended on a few streets in the Elmhurst network as easy-to-implement and "low hanging fruit" options to build out the network. Multiple options on Spring Rd, including a bike lane, were originally considered for the recommended bike network. However, after receiving feedback from the Spring Road Business Association on their concerns with on-street parking and other space constraints, the ultimate recommendation is marked shared lanes along this stretch of Spring Rd.

#### What are Marked Shared Lanes?

Marked shared lanes are another design that involves bicyclists riding on-street in a shared lane with vehicles. Sharrow symbols reinforce the legitimacy of bicycle travel on a street while indicating to drivers that they need to be cautious and share the road with bicyclists. Similar to bike boulevards, they are recommended on low volume, low speed residential streets that are safer for this mixed mode situation, but feature a few minor design variations. Instead of bicyclists being encouraged to "take the lane." as is the case for narrower bike boulevards, marked shared lanes include sharrows that indicate where bicyclists should position themselves to both stay out of the parking "door zone" and allow space for drivers to safely pass, when appropriate. There is flexibility with where the sharrow is painted on the roadway (i.e. closer to the middle of the travel lane or closer to the outside of the travel lane). Further study is needed to determine the appropriate placement on a case-by-case basis. Marked share lanes typically have wider travel lanes to allow these safe vehicular passing movements, unlike narrower bike boulevards.

Marked Shared Lanes





## LOCAL EXAMPLE: MARKED SHARED LANES ON SPRING ROAD | NEAR ST CHARLES RD







Marked shared lane in Kane County, IL; Photo by Kane County Chronicle

#### MARKED SHARED LANE EXAMPLE



## **ADVISORY BIKE LANES**

There are a few corridors in Elmhurst that are important bike route connections, but due to their size and traffic volume, shared lanes are not advisable. Additionally, due to land use contexts, the removal of parking to create room for conventional bike lanes also is not an option. In these situations, advisory bike lanes are recommended to give bicyclists dedicated lanes while also maintaining the other existing functions of the roadway.

As an example, an advisory bike lane is recommended on West Ave between the Prairie Path (S) and Crocket Ave (N). West Ave is classified as a collector and is locally-controlled. It has a moderate crash history, including several bike and pedestrian injury crashes, mostly at intersections and crossings.

#### What are Advisory Bike Lanes?

Advisory bike lanes provide a dedicated lane for bicyclists that is mostly separated from the vehicular travel way. They are one foot narrower than the recommended minimum for conventional bike lanes (4' for advisory bike lanes and 5' for conventional bike lanes). Instead of having a solid white line separating the bike lane from vehicular traffic, the line is dashed. In most cases, the majority of vehicles will be able to stay in the 10' vehicle travel lane. However, the advisory bike lane line is dashed for the occasional occurrence in which larger vehicles need to merge into the bike lane, barring yielding to bicyclists.

## 

VAN BUREN ST

BRUSH HILL RD

MADISON ST

MADISON ST

0.5

ADVISORY BIKE LANE LOCATION MAP

Advisory Bike Lanes

## LOCAL EXAMPLE: ADVISORY BIKE LANES ON WEST AVENUE

## **Typical Cross Section**







Advisory bike lane in Alexandria, VA; Photo by City of Alexandria

#### ADVISORY BIKE LANE EXAMPLE



## CONVENTIONAL BIKE LANES

Bike lanes are recommended on a portion of York St, however, this segment has multiple options being considered and more information is needed to determine a preferred alternative. The bike lanes could be installed in the existing curb-to-curb right-of-way without widening the pavement, however some reworking of the space would be needed.

#### What are Conventional Bike Lanes?

Conventional bike lanes are similar to advisory bike lanes, however, instead of a dashed line separating the bicyclists from traffic, the line is solid. The bike lane is also wider. The understanding is that both the vehicular travel lanes as well as bike lanes are provided sufficient width, so both modes will rarely have to merge into the other lanes.

Conventional Bike Lanes



Conventional Bike Lane; Photo by RaleighNC.gov

#### CONVENTIONAL BIKE LANE LOCATION MAP



## LOCAL EXAMPLE: CONVENTIONAL BIKE LANES ON YORK STREET\*

**Typical Cross Section** 

#### Existing 10 ft vehicle lane 5 ft 5 ft 5 ft 10 ft 10 ft 10 ft 5 ft parkway vehicle lane vehicle lane vehicle lane parkway sidewalk sidewalk curb-to-curb: 40ft right-of-way: 60ft Proposed

\*Multiple options are proposed for this segment on York St. See the Multiple Options section in this chapter. It is recommended that a traffic study be completed to confirm that existing traffic flow can be maintained with a road diet. This study should include looking at a traffic signal at York & Madison.

10 ft

center turn lane

curb-to-curb: 40ft right-of-way: 60ft 10 ft

vehicle lane

5 ft

bike lane

5 ft

parkway

5 ft

sidewalk

5 ft parkway 5 ft

bike lane

10 ft

vehicle lane

5 ft

sidewalk



Conventional bike lane in Baldwin Park, CA; Photo by NACTO

#### CONVENTIONAL BIKE LANE EXAMPLE



### **BUFFERED BIKE LANES**

Buffered bike lanes are recommended on Addison Ave between First St and Third St. A one-way buffered bike lane already exists on Addison Ave between First St and Second St and buffered bike lanes are recommended between Second St and Third St to complement the existing one-way buffered bike lane. The bike lanes could be installed in the existing curb-to-curb right-of-way without widening the pavement, however some reworking of how the roadway functions will likely be needed.

#### What are Buffered Bike Lanes?

Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/ or parking lane. These bike lanes are suitable for streets with moderate to heavy traffic and extra space. They can increase safety for all users and reduce the likelihood of crashes and injuries.

> Planned Buffered Bike Lanes Existing One-Way Buffered Bike Lane



Buffered bike lane; Photo by LA Streetsblog





## LOCAL EXAMPLE: BUFFERED BIKE LANES ON ADDISON AVENUE (FROM 2ND ST TO 3RD ST)

## **Typical Cross Section**





Buffered bike lane in Chicago, IL; Photo by Chicago DOT

#### BUFFERED BIKE LANE EXAMPLE



### **PROTECTED BIKE LANES**

A two-way protected bike lane is recommended on the north side of Brush Hill Rd between the Salt Creek Trail and the Elmhurst Hospital driveway entrance. The existing curb-to-curb right-of-way contains a curbless shoulder of about eight feet. To ensure optimal safety for bicyclists, the project team recommends extending the curb-to-curb right-of-way by two feet to accommodate space for a bollard-protected buffer. In the longer-term, if the protected bike lanes are a success, the bollards can be replaced with a concrete barrier in the buffer for enhanced protection.

#### What are Protected Bike Lanes?

Two-way protected bike lanes (also known as a twoway cycle track or on-street bike paths) provide physical separation between bicyclists and traffic. They are a good facility to consider on higher stress roadways where more separation than conventional bike lanes is needed but there either isn't space in the parkway for a sidepath or building a sidepath would be infeasible.

Two-Way Protected Bike Lanes



Two-way protected bike lanes with bollards; Photo by Bike Newark

#### PROTECTED BIKE LANE LOCATION MAP



## LOCAL EXAMPLE: TWO-WAY PROTECTED BIKE LANES ON BRUSH HILL ROAD

## **Typical Cross Section**







Two-way protected bike lane in Jersey City, NJ; Photo by City of Jersey City

#### TWO-WAY PROTECTED BIKE LANE EXAMPLE



## **SIDEPATHS**

There are some corridors in the City that are important connectors in creating a complete bike and pedestrian network across the community, but due to higher traffic volumes, vehicle speeds, jurisdictional responsibility, functional classification, wider pavement, and other factors, the mixing of cars and bikes in the curb-tocurb space is either inadvisable or not optimal. In these instances, sidepaths are recommended. In some locations, like Butterfield Rd sidepath, further engineering study will be needed to determine navigating around utility poles.

#### What are Sidepaths?

Sidepaths are like multi-use trails alongside the road. They are completely separated from vehicular lanes and include paved space for both bicyclists and pedestrians. They look like an extra-wide 8 to 10 foot sidewalk. This increased width provides room for the mixing of those on foot and bike. In some locations sidewalks already exist, so the design would involve widening the sidewalk by a few to several feet. In other places, sidewalks do not exist.





Sidepath; photo from Parkways to Greenways





## LOCAL EXAMPLE: SIDEPATH ON ST CHARLES ROAD

## **CROSS SECTIONS**





Lane widths to accommodate safe bus operation should be evaluated before the City moves forward with implementing any designs. However, the current lane widths in the above cross section adhere to Pace's preferred lane width of 11'-12'.



#### CONCEPTUAL DESIGN ON FAY AVE

A sidepath is proposed on Fay Ave to provide connectivity to the Salt Creek Trail from the future pedestrian and bicycle bridge programmed across IL 83.



#### **EXAMPLE SIGNAGE: TURN SIGNS**

This type of sign could be placed along a sidepath to show where the bike route turns from a one street or trail to the next and could also be paired with destination names. For Fay Ave, a sign could be placed on the eastern end of the path to signal the connection to the West Ave advisory bike lanes.

## **MULTI-USE PATHS**

Several multi-use paths are recommended within the City. Most of the recommendations consist of widening existing infrastructure like sidewalks. Each shared path will enhance the overall network connecting key corridors to existing regional trails, parks, schools, or key destinations in the City. The multi-use path proposed between Schiller St and Third St will involve widening an existing sidewalk, which currently has a 7' right-of-way. Best practices in design guidance recommend that multi-use trails are 8' wide at a minimum. The City could explore options to widen the path (10' or more), which could be feasible as there are undeveloped lots to the west of the existing sidewalk.

#### What are Multi-Use Paths?

Multi-use paths (also known as trails or shared paths) are multi-purpose paths that accommodate bicyclists, pedestrians, runners and other users on a dedicated facility separated from motor vehicle traffic. Trails and shared use paths are typically the most comfortable type of facility for cyclists to use, especially for beginners and children. There are a few existing examples of multi-use paths in Elmhurst, including the Prairie Path and the Salt Creek Trail.

Multi-Use Paths



The Illinois Prairie Path is considered a multi-use path; Photo by the Daily Herald

#### MULTI-USE PATH LOCATION MAP


### LOCAL EXAMPLE: MULTI-USE PATH AROUND WILDER PARK

### **AERIAL VIEW**



### **MULTIPLE OPTIONS**

On several of the roadways in the City, it was determined during the planning process that at this level of study, multiple designs could potentially work on the roadway. For the best design to be determined, further engineering and traffic study would need to be conducted at a more granular level to determine the full impact to vehicular traffic, especially for the south York St options. While it is evident that these roadways are key corridors to creating a complete bike network, a clear best design fit is not evident at the planning-study level and several solutions should be further considered.

### Pedestrian Considerations for all Multiple Option Recommendations

Sidepaths provide the opportunity to fill gaps in the pedestrian sidewalk network. For all recommendations, it is also advisable to have and maintain sidewalks free of obstructions. These can be utilized by younger children who are not comfortable bicycling on the road, as well. Other features to couple with on-street bike facilities to increase pedestrian safety include high visibility crosswalks and pedestrian and bicycle warning signage. For descriptions and examples of these treatments, see the Pedestrian Improvements section.



### MULTIPLE OPTIONS LOCATION MAP

Multiple Options

### **Spring Road Options**

From McKinley Ave to Butterfield Rd

- Option 1: Advisory Bike Lanes
- Option 2: Marked Shared Lanes

#### Considerations

Spring Rd was identified as a bike priority street in the community engagement process. Advisory bike lanes would be ideal because of the moderate car traffic, but it currently is not wide enough for bike lanes and parking lanes. Installing advisory bike lanes would require the elimination of parking on one side of the street, whereas marked shared lanes would preserve parking but provide a less comfortable bikeway.



### **Typical Cross Section**







### **York Street Options**

#### 1. From Meister Ave to Van Buren St

- Option 1: Bike Lanes with Road Diet
- Option 2: Advisory Bike Lanes with Road Diet

#### Considerations

York St has high, faster moving car traffic. Given the tighter roadway width in this section of York, conventional bike lanes would provide a more comfortable facility for bicyclists since they allow for more room in the lane and are accompanied by a solid white stripe to demarcate the bike lane from traffic. An alternate solution is to implement advisory bike lanes to ensure that all travel lanes can accommodate the variety of vehicles operating on this segment of York, including Pace buses. However, advisory bike lanes would be less comfortable for cyclists along the corridor. Additionally, another concern is the potential for conflict between buses pulling in and out of bike lane when approaching and departing bus stops. It is recommended that a traffic study be completed to confirm that existing traffic flow can be maintained with a road diet. This study should include looking at a traffic signal at York & Madison.





### York Street Options

#### 2. From Van Buren St to Butterfield Rd

- **Option 1:** Sidepath (west side) and northbound Buffered Bike Lane
- Option 2: Sidepath Only (west side)

#### Considerations

As mentioned on the previous page, York St has high, faster moving car traffic and is not currently suitable for biking. The most comfortable bike facility would be a sidepath, but there is limited space to create one and connecting it to an on-street bike lane north of Van Buren would be difficult. A sidepath would have a low impact on traffic volume and high impact on safety. It would result in minimal impacts to the roadway configuration. The biggest impact of the sidepath would potentially be to trees and utilities. An alternate solution is to create an on-street bike lane, which would be less comfortable for bicyclists along the corridor, but would reduce the uncomfortable transition at Van Buren. The buffered bike lane would involve decreasing the median width from 8' to 6' and hence would be more expensive than sidepath installation. The outside vehicle lane widths in both options would be 11' or 12' ensuring that all vehicles operating on this segment of York could be accommodated comfortably, including Pace buses.





### **Typical Cross Section**





### Industrial Drive Options

From Grand Ave to York St

- Option 1: Buffered Bike Lanes
- Option 2: Sidepath

#### Considerations

Industrial Dr has the potential to create a key north/south connection to and from Elmhurst and connect workers to an area with jobs. This corridor poses similar trade-offs as York St. A sidepath would provide a more comfortable facility for bicyclists and pedestrians, but there is limited right-of-way space in some sections and there may be some conflicts with existing infrastructure like trees and utilities. A sidepath would have a low impact on traffic volume and high impact on safety. An alternate solution is to create on-street buffered bike lanes. The buffer would add some additional space between bicyclists and vehicular traffic to enhance safety but would likely be more uncomfortable for less experienced bicyclists. The following pages include conceptual designs of each option as compared to existing conditions and a visualization highlighting some of the other constraints along this corridor.



### **Typical Cross Section**





Only a cross section for the Buffered Bike Lanes option is shown to provide an idea of how Industrial Dr could be transformed to accommodate bikes. The sidepath option would likely not affect the configuration of the curb-to-curb roadway where vehicles travel.

### **CONCEPTUAL DESIGNS**



OPTION 1 Buffered Bike Lanes

OPTION 2 Sidepath



### CORRIDOR CONSTRAINTS MAP

The below items provide a discussion on the potential constraints along this particular corridor and should be considered before implementing any bike facility.

#### 1. Land Use, Development, and Truck Traffic

The industrial and commercial development in this corridor lends itself to land uses that attract heavier truck activity resulting in higher volumes of truck traffic. This type of activity can make a corridor less attractive for bicyclists, no matter their experience, since trucks tend to negatively impact a sense of feeling safe while on wheels. However, a bike facility could provide a more efficient connection to jobs along on this corridor as compared to existing conditions.

#### 2. Driveway Entrances

As mentioned above, this corridor is host to many businesses that line the entire extent of Industrial Dr. Each of these businesses have at least one vehicular driveway on their property, with many having multiple. This amount of driveways can become trickier for bicyclists to navigate requiring ultimate alertness and awareness at all times while riding. Depending on the amount and frequency of trucks or vehicles entering and leaving each business, this can also raise the potential for vehicle-bike conflicts.

#### 3. Crossing the Roadway | sidepath consideration

If the City's preference is to consider the sidepath option and to use the existing sidewalk for the sidepath expansion, the City will also have to consider how to best design the connection between the eastern sidepath with the western sidepath so bicyclists and pedestrians can safely navigate crossing the road.

#### 4. Sidewalk Expansion | sidepath consideration

In order to implement the sidepath option, the existing sidewalk would need to be expanded to accommodate at least an 8' sidepath, the minimum width required to be considered a sidepath. However, there seems to be limited right-of-way room to bump out the existing sidewalk, especially in the southern, east-west section of the corridor. The additional concern when expanding is the impact to existing infrastructure like trees and utilities. Further study will be needed to assess the feasibility of the sidepath in terms of space available for expansion.



### Larch Ave vs Maple Ave

#### From 1st St to 3rd St

As the existing and proposed buffered bike lane on Addison Ave in Downtown Elmhurst is southbound only, a study was conducted to determine a nearby northbound route. Two potential options are available as a northbound bicycle treatment pairing to the southbound buffered bike lane on Addison Ave between 1st St and 2nd St.

#### Maple Ave

Maple Ave is a two-way, residential street with a width of about 23 feet. Cars park on both sides of the street and many driveways line the roadway. If it is determined that traffic volume is relatively low, Maple Ave could potentially become a marked shared lane and used as a northbound pairing with the southbound Addison buffered bike lane. The recommended bike network currently has this stretch of Maple Ave slated as a bike boulevard.

#### Larch Ave

Larch Ave is a two-way, residential street with a width of about 22 feet. There is currently no direct roadway connection to 1st St but there is some green space occupying a bit of land between where Larch Ave ends southbound before reaching 1st St. A sidewalk runs through the green space connection to 1st St and could potentially be widened to become a sidepath and more accommodating for bikes.

Between 2nd St and 3rd St, there are parking restrictions from 8am-6pm on the west/SB side and 3-hour parking restrictions on the east/northbound side from 8am-5p. Between 1st St & 2nd St, parking is completely restricted on the west/southbound side and 3-hour parking restrictions are on the east/ northbound side from 8am-5p. Quite a few driveways line the street as well. If the traffic volume is relatively low and the sidepath connection to 1st St could be created, Larch Ave could potentially be a marked shared lane and used as a northbound pairing with the SB Addison protected bike lane.



### ADDITIONAL CONSIDERATIONS

MAPLE AVE		LARCH AVE	
Pro	Con	Pro	Con
<ul> <li>Part of the recommended network as a Bike Boulevard</li> <li>Provides a direct connection to cross the railroad for any bicyclist continuing southbound</li> <li>Slightly wider than Larch Ave</li> </ul>	<ul> <li>Further distance from Addison Ave southbound buffered bike lane compared to Larch Ave (750' vs 375')</li> <li>Higher traffic volume than Larch Ave since it continues south past 1st St unlike Larch which ends in a cul-de-sac</li> </ul>	<ul> <li>Closer to Addison Ave southbound buffered bike lane compared to Maple Ave (375' vs 750')</li> <li>Existing sidewalk for potential sidepath expansion is by a City-owned parking structure</li> <li>Building development owner may be open to making the green space between Larch and 1st more pedestrian and bicycle focused (e.g., potentially adding covered bicycle parking)</li> <li>Potentially less vehicular traffic</li> </ul>	<ul> <li>Would need to invest in widening the existing sidewalk by the city- owned parking structure to make the connection between Larch Ave &amp; 1st St and add a ramp to the sidewalk for a safe, accessible connection from Larch Ave to the sidewalk</li> <li>Bicyclists would need to briefly ride on 1st St to cross the railroad if continuing southbound</li> <li>Would need additional wayfinding signage</li> </ul>



Maple Ave looking south towards 1st St and railroad tracks





View of sidewalk and Larch Ave looking north from 1st St where the potential sidepath could be installed

### COMMUNITY FEEDBACK ON ROUTE RECOMMENDATIONS

The chart below displays the public survey results concerning how individuals rated the different recommended facilities in terms of importance for Elmhurst's transportation network and how comfortable they would feel riding a bike on these facilities in the City. The majority of survey respondents believed that all the facilities are "somewhat" or "very" important for the local transportation system, with greater emphasis on protected bike lanes, trails and sidepaths, sidewalks, and intersection improvements. In line with previous findings on bicycle comfortability, survey respondents perceived that they would be "somewhat" or "very" comfortable riding on facilities that have more protection (e.g., buffered and protected bike lanes, sidepaths, multi-use paths).



### Rate the importance of these types of improvements to Elmhurst's transportation system.







### PEDESTRIAN NETWORK RECOMMENDATION MAP

Many of the route recommendations on the previous pages are designs that also improve safety for pedestrians, such as sidepaths and multi-use paths. Recommendations such as bike boulevards would also include traffic calming features to enhance safety for pedestrians, as well. This map and the following pages detail additional pedestrian-focused recommendations. For example, long-term sidewalk improvements are streets that are missing sidewalks on either one or both sides. This section provides ideas for improving pedestrian connectivity and safety as the network is built out.

- O Intersection or Connection
- Priority Sidewalk Improvement
- Flex Street
- Sidepath
- Multi-Use Path
- Traffic Calming Improvements
- --- Long-Term Sidewalk Improvement
  - Pedestrian Bridge Study Area
  - School

## **PEDESTRIAN-SPECIFIC INFRASTRUCTURE IMPROVEMENTS**

# PRIORITY LOCATIONS FOR PEDESTRIAN IMPROVEMENTS

It is recommended that City targets sidewalk improvements and installations that fill gaps in areas with connections to (with half a mile of) the following community assets:

- School zones
- Parks and playgrounds
- Community centers
- Trail connections
- Transit and Metra stations

### **GENERAL PEDESTRIAN DESIGN RECOMMENDATIONS**

### **Intersection Daylighting**

The City can "daylight" intersections, e.g., prevent cars parking too close to crosswalks and thereby blocking the view of crossing pedestrians. The general guidance recommends the following:

- Prohibit parking at least 20' from crosswalks on roads with posted speed limits of less than 30 mph
- Prohibit parking at least 50' from crosswalks on roads with posted speed limits of less than 35-40mph
- Enhance street lighting for drivers' sight distance and safer pedestrian crossings

### **Utility Issues**

Utility boxes and poles can sometimes block sidewalk access. The City should coordinate with ComEd to move utilities out of the pedestrian right of way, where feasible. This consideration may also become an important factor with some of the recommendations that require expanding on existing infrastructure, e.g., Butterfield Rd sidepath.

### ADA Detectable Warning Pads

Metal pads can become corroded and are then slippery when it is wet or icy. All out-dated detectable warning past should be replaced and installed where absent, in compliance with the Americans with Disabilities Act.

### Landscaping Barriers

Attractive landscaping components can be installed on sidewalks to serve as barriers between pedestrians and traffic. These barriers can help create a feeling of a boulevard sidewalk on busy roads where sidewalks are directly adjacent to the street.

### Sidewalk Installation Policy

A continuous network of sidewalks should be provided adjacent to all schools, parks, and business districts. Where possible sidewalks should be provided on both sides of the street, if this is not feasible due to grade issues or other concerns, sidewalks should be provided on at least one side of the street.

While all sidewalk gaps throughout the City of Elmhurst (shown on the Pedestrian Network Recommendation Map as Long-Term Sidewalk Improvements) should be considered for future sidewalk installation to create a complete and cohesive sidewalk network, one location to prioritize for nearterm sidewalk installation is Van Auken St. This street is located in a residential area with connections to several schools and parks.



Image courtesy of Curbed Chicago

### Sidewalk Encroachments

Pedestrians, especially those using wheelchairs and pushing strollers, are negatively impacted by sidewalk obstructions. The City should also work with homeowners to trim and maintain landscaping adjacent to sidewalks and at intersections. Construction projects should provide ADA accessible pedestrian paths when using a sidewalk for staging. Like an anti-gridlock initiative, the City should educate homeowners and businesses on the impact that cars blocking sidewalks have on pedestrian accessibility and safety.

### Pedestrian Signal Timing

Use leading pedestrian intervals (LPIs), which give people crossing the street a head start before cars are given a green light, whenever possible at intersections already equipped with pedestrian signals. LPIs cost nothing to implement and allow citizens to move into the crosswalk before drivers, a crucial accommodation when trying to cross in front of turning cars. LPIs also allow for sufficient time for older and younger citizens, who are disproportionately represented in fatal crashes involving pedestrians, to make it all the way across the street at their own pace.

Additional commonly implemented treatments to help create a safer environment for pedestrians are listed and described in the Intersection Toolkit within the Intersection Improvement section of this chapter.



# RECOMMENDATIONS FOR MAJOR AND MINOR ARTERIALS

### Mid-Block Crossings

Create mid-block crossings where there are places pedestrians wants to go but are not serviced by a crosswalk. Midblock crossings can incorporate vertical elements such as signage or trees to help alert drivers.

### **Pedestrian Crossing Signs**

Use Rectangular Rapid Flash Beacons and/or pedestrian crossing signs to warn drivers of upcoming crossings.

### **Pocket Parks or Parklets**

Provide opportunities for pedestrian-focused areas, enhanced greenery, and public art. Create pocket parks in open or vacant spaces between buildings, or in alleys. Alleys can be converted into public space through paving and lighting, and adding canopies, plants, and street furniture.

### **Crosswalk Enforcement**

Work with the Elmhurst Police Department to conduct 5-10 annual crosswalk enforcement and compliance events. Location recommendations include heavily-traffic crosswalks and high-crash locations.

### **Green Buffers**

Use trees or potted plants to create barriers between pedestrians and traffic.

### Curb Extensions and Bump-Outs

Curb extensions and bump-outs extend the curb line into the roadway, increasing the visibility of pedestrians and shortening the crossing distance. Curb extensions are best at locations with on-street parking, schools, mid-block crossings, and on arterials and collectors that intersect with bike boulevard treatments.



Curb Extension image courtesy of NACTO



Parklet image courtesy of NACTO



Raised crosswalk image courtesy of FHWA

### **RECOMMENDATIONS FOR COLLECTOR ROADS**

### **Traffic Calming**

Support implementing traffic calming devices such as wider sidewalks, marked crosswalks, and street design to support safer and slower vehicular speeds.

### **Raised Crosswalks**

Serve as marked pedestrian crossings and provide stronger visual clues for drivers. Raised crosswalks can be constructed from brick or other textured material for enhanced visibility.

### **Street Furniture**

Enhance pedestrian-oriented spaces and commercial areas can provide shade, beautification, and safe gathering spaces. Furniture can include benches, art sculptures, banners, trees, and planters. If trees cannot be used consider planters or shrubs.

### **RECOMMENDATIONS FOR LOCAL STREETS**

### **Designated School Routes**

Mark Safe Routes to School with signage. Work with PTA groups to evaluate concerns around schools regarding walking and crossing. Implement facility improvement projects around schools such as RRFBs, pedestrian crossing signs, and crosswalks with diagonally painted lines.

### Low-Cost Pedestrian Solutions

Turn restrictions, signal timing adjustments, and creation of one-way streets can lower traffic speeds and volumes on local roads with pedestrian activity.

### Neighborhood Traffic Management

Consider speed tables or raised intersections on residential streets, and other solutions. Roadways to be targeted for these improvements should be determined in a future traffic calming policy which is included as a recommendation in the Initiatives chapter.



Image courtesy of Morgenstern Injury Lawyers



Raised intersection image courtesy of NACTO











# **INTERSECTION IMPROVEMENTS**

This section details which intersections should be considered for improvements based on community engagement findings, the preliminary pedestrian and bicycle network, and existing conditions. The intersections are shown on the map to the right. Most improvement recommendations will need further study and may require approval from the Illinois Commerce Commission, Illinois Department of Transportation, or DuPage County. Lane widths to accommodate safe bus operation should be evaluated before the City moves forward with implementing any designs as well. Pace's preferred lane width is 11'-12'. For all of the recommendations, many tools will require additional traffic studies prior to implementation. The following pages in this chapter show a selection of the recommended intersections providing more details on the improvements and concept renderings.

#### **Green Infrastructure Considerations**

There are many opportunities to incorporate green infrastructure into the proposed pedestrian and bike intersection improvements. Intersection bump-outs present opportunities to incorporate



infiltration planters and bioswales that convey and return stormwater back into the ground, reducing the burden on the urban sewer system and hence reduce flooded streets. Infiltration planters can also become a showcase for native plants, which can often survive in the Northeastern Illinois climate without the need for additional irrigation, have reduced maintenance requirements and can include plants that attract pollinators which are an essential part of the local ecosystem.





### INTERSECTION TOOLKIT DESCRIPTIONS

The images below show the potential tools the City of Elmhurst could use to improve crossings and are utilized in the renderings of proposed intersection improvements. These tools should be considered as the active transportation network is constructed. In many cases, additional study and approval will be needed to implement any of the recommendations.



#### **Sidewalk Connections**

The presence of sidewalks allow for safer pedestrian movement, enhance connectivity, and encourage walking. A well-connected sidewalk network consists of infrastructure that provides direct routing, accessibility, few dead-ends, and minimal physical barriers. Increased levels of connectivity can also help activate a community socially and economically.



Median refuge islands buffer and protect pedestrians and cyclists crossing wide or busy streets, enabling them to cross in two stages.



#### High Visibility Crosswalks, Curb Ramps, & Detectable Warning Pads

High visibility crosswalks increase awareness of pedestrian crossing paths and discourage drivers from encroaching into crosswalks. Curb ramps enable people in wheel chairs to cross streets and detectable warning pads direct people with visual impairments through an intersection at a crosswalk.



#### Bump-outs provide shorter crossing distances for pedestrians and improve sightlines for both drivers and pedestrians. They can slow the speed of turning traffic. They are most appropriate for

use on local roads where they intersect arterial

Curb Bump-Outs (or Extensions)

and collector streets. Image Source: NACTO

### Intersection Markings

Intersection crossing markings indicate the proper lane position for a cyclist through an intersection. These types of markings are useful at large intersections, or at those where the lane positions shift. They can also be used where a bikeway turns from one street to another.









#### **Bicycle/Pedestrian Crossing Signs**

Pedestrian and/or bicycle crossing signs warn drivers that a school, pedestrian or bicycle crossing is ahead. "Must stop for pedestrians in crosswalk" signage can also be used.

Image Source: NACTO

#### **Countdown Signals**

Countdown pedestrian signals show the amount of time that remains before a traffic signal changes from walk to don't walk. They are designed to reduce the number of pedestrians who start crossing when there is not enough time to complete their crossing safely.

#### **Rectangular Rapid Flashing Beacon**

Rectangular rapid flash beacons (RRFBs) are highly visible, using flashing yellow LED lights to supplement standard pedestrian crossing warning signs at mid-block and other unsignalized crossing locations.

#### Wayfinding Decision Signage

Wayfinding signage helps cyclists and pedestrians navigate to key destinations along preferred routes. Decision signage is typically placed at the junction of multiple destinations. Signage should provide distance, destination, and directional information.

#### **Bicycle Crosswalks** Bicycle crosswalks are placed adjacent to pedestrian crosswalks where trails, sidepaths, and protected bike lanes intersect streets. They





#### Mini Traffic Circles

**Reduced Corner Radii** 

Mini traffic circles direct users through intersections in a predictable manner. They can help reduce the severity of crashes and can calm traffic on residential streets. They are most effective when grouped in a series of three. They can be designed with mountable curbs to allow large vehicles to travel through an intersection.



#### **Corner Island and Right-Turn Slip Lane** Improvements

The size of the corner relates to the length of

a crosswalk and the speed of turning traffic.

Reducing curb radii create a shorter crossing

to slow down when making right turns.

distance for pedestrians and encourage drivers

Corner islands ("pork chop" islands) are triangular raised islands placed at an intersection between a right-turn slip lane and through-travel lanes. Welldesigned right-turn slip lanes provide pedestrians with refuges and a right-turn lane designed to optimize the right turning motorist's view of the pedestrian and of vehicles to their left. . Image Source: CMAP

#### **Raised Crosswalks**

Image Source: NACTO

Raised crosswalks typically serve as a tool for traffic calming by bringing the level of the roadway to that of the sidewalk (e.g., roadway flush with the height of the curb). These crosswalks force vehicles to slow down before passing over the crosswalk while also providing a level pedestrian or bicyclist path of travel from curb to curb.

#### **Bike Boxes**

A bike box is a designated area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of gueuing traffic during the red signal phase. They are intended to increase bicyclist visibility and prevent conflicts with turning vehicles at the start of a green signal phase.







### 2013-2017 ILLINOIS DEPARTMENT OF TRANSPORTATION CRASH DATA | CITY OF ELMHURST

A crash analysis and the results helped inform key intersections to consider for pedestrian and bicyclist improvements, though was not the only contributing factor. This section provides an overview of design solutions and recommended treatments that will promote safety and mitigate common challenges for a variety of key intersections along corridors with major conflicts between motorists and bicycle or pedestrian traffic. Many of these intersections will benefit from traffic calming devices, ADAaccessible ramps, crosswalk upgrades, and visibility improvements.



CRASHES INVOLVING AN INJURY | ALL MODES



### COMMUNITY FEEDBACK ON INTERSECTION IMPROVEMENTS

The chart below displays the public survey results concerning how individuals thought the proposed intersection design improvements would impact pedestrian and bicycle safety at select locations. The majority of survey respondents believed the improvements at each location would make the intersection "somewhat" or "extremely" safer for pedestrians and bicyclists.

### On a scale of 1 to 5 (5 being the highest), how would the proposed design impact pedestrian and bicycle safety?



# 1. BRUSH HILL ROAD & SALT CREEK TRAIL

A two-way protected bike lane is proposed on Brush Hill Rd to connect the Salt Creek Trail to the hospital and other destinations in southern Elmhurst. The proposed switchback ramp would provide this connection, enhancing trail access. Signage and other elements to slow bicyclists and prevent conflicts with pedestrians would be needed. A sidewalk on the north side of Brush Hill should also be installed in conjunction with the switchback ramp.









### Improvements

1) Connection to new sidewalk along north side of Brush Hill Rd

2) Two-way protected bike lane

3) Separated pedestrian path on existing bridge deck

4) Extension of existing bridge deck to accommodate shared-use connection

5) Switchback Ramp: at a less than 5% slope to connect to bridge

6) Modified Retaining Wall Extension

### 2. BUTTERFIELD ROAD & SPRING ROAD

This intersection provides regional connections to key destinations including the planned Butterfield Rd sidepath which will connect workers to Elmhurst Hospital, a spur that connects to the Salt Creek Trail, and the Spring Rd bike facilities which connects to York Community High School.





### Improvements

1) High visibility pedestrian crosswalks

2) Bike wayfinding signage including the "3 D's": distance, destination and direction

3) Sidepath

4) Salt Creek Trail spur connections



### 3. BUTTERFIELD ROAD & YORK STREET

This intersection creates a difficult environment for pedestrians and bicyclists due to its large width and angled crosswalks. Since bicycle and pedestrian facilities along Butterfield Rd and York St are proposed to meet at this intersection, improved crossings will help to provide safer connections between these facilities.







### Improvements

- 1) Straightened with added high visibility pedestrian crosswalks
- 2) Enhanced pedestrian refuge island crossings
- 3) Sidepaths



# 4. CAYUGA AVE & WILSON AVE & POPLAR AVE

Multiple streets converge at this location creating a large intersection with a pedestrian and bicycle trail connecting Poplar Ave under the railroad tracks. The bike boulevard on Poplar Ave coupled with the connection to Jefferson Elementary School necessitates improved treatments to this intersection.







### Improvements

1) Mountable traffic circle

2) Extended curbs

3) High visibility pedestrian crosswalks

4) Bike boulevard pavement markings

5) Bike wayfinding signage including the "3 D's": distance, destination and direction.

6) Specific pedestrian and bike pavement markings to help prevent collisions on sidewalks

# 5. YORK STREET & PRAIRIE PATH

The intersection of York St and the Prairie Path was a common cause of concern mentioned during community engagement. Various studies have proposed recommendations at this location over the past several years. These two proposed alternatives are a culmination of ideas from previous studies and other innovative solutions to improve visibility of pedestrians and bicyclists. A preferred alternative would need to be determined in future feasibility studies.









### ALTERNATIVE A

### Improvements

1) Raised Crosswalk: This recommendation includes a gradual slope that raises the crosswalk so that it is flush with the curb. It is less steep and abrupt of an incline than a usual speed bump, making this design easier for maintenance and emergency vehicles to pass through. The idea is to raise the trail users so they are more visible to drivers and the slight incline encourages drivers to slow down.

2) White chevron pavement markings on the raised crosswalk to help alert drivers of the raised crosswalk and resulting incline.

2) Colorful Pavement: Red brick or stamped concrete pavement differentiates the crossing and alerts drivers to the presence of the crosswalk.

3) Rectangular Rapid Flashing Beacons: These are already at the intersection. Trail users can push the button and drivers are alerted by the flashing sign.

4) Chicanes: Bicyclists are encouraged to slow down before entering the York sidewalk and crosswalk with physical barriers and signage.

### **ALTERNATIVE A**

### Improvements

1) Raised Crosswalk: This recommendation includes a gradual slope that raises the crosswalk so that it is flush with the curb. It is less steep and abrupt of an incline than a usual speed bump, making this design easier for maintenance and emergency vehicles to pass through. The idea is to raise the trail users so they are more visible to drivers and the slight incline encourages drivers to slow down.

2) Colorful Pavement: Red brick or stamped concrete pavement differentiates the crossing and alerts drivers to the presence of the crosswalk.

3) Rectangular Rapid Flashing Beacons: These are already at the intersection. Trail users can push the button and drivers are alerted by the flashing sign.

4) Chicanes: Bicyclists are encouraged to slow down before entering the York sidewalk and crosswalk with physical barriers and signage.



### STREET VIEW



### ALTERNATIVE B

### Improvements

Alternative B has the same features as Alternative A (as shown on the previous page), except instead of the chicanes at the trail approaches, the proposal would be to:

6) Realign Crossing: The crossing would be moved to the north and the Prairie Path trail users would be slowed down with fencing and landscaping before entering the crossing. The bike paths would also be reconfigured so that they gradually curve to meet the new crosswalk. This would help alleviate the tight, 90 degree turning movements that would otherwise be needed to access the new northern crossing location.

### 6. ST CHARLES ROAD & BERKLEY AVENUE

This is a major school crossing for York Community High School. There is a planned sidepath on the north side of St Charles Rd that would connect the Spring Rd and Berkley bike boulevards to the high school. School bus turning movements would need to be further assessed in a future feasibility study, as well as vetted by Elmhurst Police and Fire Departments to ensure accessibility for emergency vehicles that maintain proper response times.





### Improvements

1) Median pedestrian refuge island with bollards to provide protective barrier

2) High visibility crosswalks



# 7. CHURCH STREET & YORK STREET

This intersection will be the crossing of two bike facilities, including the planned York St bike lanes and the Church St bike boulevard. The crossing is uncontrolled for those crossing York to continue on the Church bike boulevard. Green bike boxes are a design innovation to provide bicyclists a high visibility designated place to wait as they cross at an intersection where northbound and southbound traffic does not stop.






1) Bike boxes

2) Church St bike boulevard

3) York St bike lanes

4) High visibility crosswalks

5) Enhanced crosswalk on the south side of York St

6) Signage at all four legs of intersection

### 8. ROBERT T PALMER DRIVE AND YORK STREET

Pedestrian safety is the focus for the proposed improvements at this intersection. Robert Palmer St is a roadway for vehicles to take that are bypassing downtown. The recommendations will maintain the flow of traffic while improving the visibility and crossing distances for those on foot. However, additional study is needed to ensure that the traffic flow would not be reduced with the recommended change to the turning radius in the southeast corner.







1) Reconfigure southeast corner: remove island (also known as "pork chop") and extend curb. This will reduce the speed of right-turning vehicles and improve the visibility of pedestrians crossing at the intersection

2) Shorten and install high visibility pedestrian crosswalks

\* Dedicated right turn lane would remain.

### 9. YORK STREET & FIRST STREET/SCHILLER STREET

A flex street, also known as a "woonerf," is a Dutch concept that allows for greater flexibility in its use. A flex street still functions as it currently does for pedestrians, buses, bicyclists, and cars, but it can also be easily converted for pedestrian-only special events. These shared streets are coupled with other traffic calming measures so that vehicles operate at lower speeds and pedestrian safety is increased. They still permit easy loading and unloading for trucks at designated hours. Additionally, this design is still compatible with all current and future bus routes with the ability to maintain higher levels of service needed for Arterial Rapid Transit (ART) implementation.

Vehicle lanes and parking spaces would be maintained with the proposed design. However, the flexible design allows for the repurposing of roadway space as needed, for example a parking space or two could be converted into outdoor café seating during the summer. As the commercial heart of the vibrant downtown, York St from 2nd St to Adelaide St could be an excellent candidate for a flex street, especially because faster through traffic is diverted onto Palmer Dr. There are two regional examples of flex streets - downtown Batavia and Argyle St in Chicago.







1) Place-Making Elements:

- A. Festoon lighting over roadway
- B. Gateway arch over the roadway

2) Flexible Street Design:

- A. Pavers across roadway
- B. Flush curbs: sends a cue to all users of the roadway that the space is shared and allows for flexible repurposing of the street for community events

3) Updated decorative crosswalks

4) Flexible space: can be converted from parking to café/festival use as desired

5) Street furniture: additional planters and bollards

\*This depiction of the flex street is from Schiller St and looking north. However, similar designs and treatments could be applied south of the railroad tracks on York St in downtown Elmhurst (i.e. from Park Ave to Adelaide St).



Green Infrastructure Considerations: Within the flex street area, decorative pavement areas can be built with permeable materials that allow stormwater infiltration and reduce the amount of heat absorbed, which helps to reduce the urban heat island effect. Additionally, large trees can provide shade canopy that further reduces the urban heat island effect. Large trees also perform a critical role in reducing urban stormwater runoff by slowing down rainfall, and providing evapotranspiration from their root systems. To ensure that large and healthy trees can survive within an urban environment, suspended pavement designs will be incorporated to provide sufficient soil volume. These suspended pavement designs also can further slow down and divert runoff from the municipal sewer system.

### 10. POPLAR AVENUE & FIRST STREET

Poplar Ave and First St was indicated as a difficult crossing for kids walking to school during community engagement because northbound cars crossing the tracks do not have a stop sign. It is not feasible to have cars stopping on tracks, so installing one is not feasible here. For this reason, we are proposing improved crosswalks and sidewalks that direct pedestrians away from the crossing here and to Avon and First.





- 1) New sidewalk connection
- 2) High visibility pedestrian crosswalks
- 3) Bike boulevard pavement markings
- 4) Decreased turning radius



### 11. CAROLINE AVENUE & THIRD STREET

This area sees a lot of pedestrian and bicycle activity due to the nearby park and recreation center. However, the geometry of the roadway allows for cars to zip around the bend on Caroline Ave, increasing the potential for crashes. For this reason, we are proposing improved pedestrian and bicycle treatments that reduce automobile speeds and increase pedestrian and bicycle safety.







1) Raised crosswalks

2) Rectangular Rapid Flash Beacons (RRFBs)

3) Bike boulevard pavement markings

4) Bike wayfinding signage that includes the "3 D's": distance, destination, and direction.

5) Additional bike racks

# 12. NORTH AVENUE & EMROY AVENUE

A few streets converge at this intersection, resulting in wide pavement south of North Ave. Improvements are proposed to improve visibility and shorten crossing distances for kids walking to Field Elementary School. Additionally, at-grade crossing improvements are proposed across North Ave.

While the pedestrian tunnels are great options for school travel times when there are high volumes of kids trying to cross, it is important to have safe street-level crossings for pedestrians and bicyclists, as well. Many individuals do not feel comfortable traveling in a darkened tunnel alone, especially past daylight. Additionally, the tunnels are not easy for someone on their bike to navigate. As the recommended bike boulevard is implemented on Emroy, it will be important to provide a safe crossing for bicyclists here.









1) New raised paver street design with reconfigured crosswalks

2) Mountable curb

3) High visibility crosswalks that are at-grade

4) Curb extensions to reduce the speed of right-turning vehicles and shorten pedestrian crossing distance (southwest and southeast corners)



### 13. CRESTVIEW AVENUE & YORK STREET

The improvements at Crestview and York focus on pedestrian safety to facilitate crossings to the commercial centers. A concurrent engineering feasibility study is also underway at this location and the recommendations devised in this plan will be compatible.







1) High visibility crosswalks

2) Sidewalk installation

3) Reconfigured pedestrian-friendly corner island (also known as "pork chop")

4) Curb extensions to reduce the speed of right-turning vehicles and shorten pedestrian crossing distance (southeast corner)

# 14. LAKE STREET & WALNUT STREET

The improvements proposed for Lake and Walnut will connect bicyclists and pedestrians to Berens Park to the south as well as residential and retail areas on either side of Lake. The Walnut St bike boulevard crosses Lake at this intersection.







1) New sidewalk

2) High visibility pedestrian crosswalks

3) Push button added for crossing pedestrians

4) Walnut St bike boulevard and pavement markings

5) Bike box and loop detectors to help with bike crossing and safety

6) Curb extensions to reduce the speed of right-turning vehicles and shorten pedestrian crossing distance (southwest and southeast corners)

# 15. ST CHARLES ROAD & COTTAGE HILL AVENUE

The improvements proposed for St Charles and Cottage Hill will improve the safety and accessibility for pedestrians and bicyclists when crossing at this intersection. The east/west St Charles sidepath on the north side ends at Cottage Hill but allows for a bicycle connection to the Cottage Hill bike boulevard and pedestrian connections to the nearby sidewalk network.







1) Straightened and high visibility pedestrian crosswalks

2) Rectangular Rapid Flash Beacons (RRFBs) at all four legs of intersection\*

\* RRFBs in this location, and other locations as proposed by this plan, can be installed using local Elmhurst policy and engineering judgment. Since a RRFB is not a traffic signal, warrants are not needed to install. Justifications for installing the RRFB at this specific location include: A) The RRFB is standard and will replace an existing non-compliant warning device, and B) Schools are nearby, including Immaculate Conception Catholic School to the north and York Community High School to the west, which leads to a considerable volume of children crossing here.

# **ADDITIONAL LOCATIONS FOR IMPROVEMENT**

### 16. IL-83, E FRONTAGE ROAD, & RIVERSIDE DRIVE

The current path to the walk button on the east side is a combination of gravel and grass, and pedestrians must navigate stepping over a raised curb. To enhance safety and accessibility, paved access and ADA-compliant infrastructure is needed.

### **17. YORK STREET & VAN BUREN STREET**

This location is at the intersection of two bike facilities, the Van Buren St bike boulevard and a potential bike facility on York St (multiple options). The Van Buren St bike boulevard also acts as a connector between two community recreation spaces: the Salt Creek Trail (west end) and Butterfield Park (east end). Pedestrian and bike improvements should be considered here and could be modeled after similar treatments proposed at Church St and York St.

### **18. YORK STREET & VALLETTE STREET**

The Vallette Business District intersects this location which has a concentration of neighborhood businesses and is surrounded by residential homes as well as several parks and close access to the Prairie Path Trail. The Elmhurst Sub-Area Plan recommends future developments in this area to include higher-density, mixed uses which further highlights the importance for improved pedestrian and bicycle treatments at this intersection. Potential improvements could include: higher visibility and wider crosswalk striping (e.g., zebra striping) or colored crosswalks, curb extensions, raised intersection, or widening the sidewalks on York St and Vallette St.

### **19. SPRING ROAD & MONTROSE AVENUE**

The Spring Road Business District is at the heart of this intersection. The existing conditions make it a tough area for pedestrians and bicyclists given the offset intersection, limited striped and faded crosswalks, and lack of traffic signal or crossing signals. Potential improvements could include: higher visibility and wider crosswalk striping (e.g., zebra striping) or colored crosswalks, curb extensions, raised crosswalks, or pedestrian refuge islands.

### 20. ST CHARLES ROAD & WEST AVE

This location is at the intersection of two bike facilities, the St Charles Rd sidepath and advisory bike lanes on West Ave. Crossing improvements should be prioritized at this location in order to facilitate a safe bicycle connection.

### 21. ST CHARLES ROAD & PROSPECT AVE

This location is an offset intersection and where two bike facilities converge, the St Charles Rd sidepath and Prospect Ave bike boulevard. Safe crossing for pedestrians and bicyclists is a priority at this intersection and could be modeled after the treatments recommended for St Charles & Cottage Hill. Clear signage should be added to help bicyclist navigate the bike network.

### 22. WEST AVENUE & RAILROAD TRACKS

The main bike facility at this location is advisory bike lanes on West Ave. However, the bike facility turns into marked shared lanes where the roadway briefly narrows as each side of the street approaches the tracks. To increase driver awareness that bicyclists may be traveling on the roadway, "Shared Lanes Yield to Bikes" signage should be added.

### 23. NORTH AVENUE & MYRTLE STREET

The main improvement at this location is to modernize the underpass. Improvements include: matching the cameras at with those installed at North & Emroy, updating the lighting from yellow to white LED, and retrofitting the stairs to include a bike channel.



Bike channel in Chicago; Photo by Hawaii Bicycling League

### 24. 1ST STREET & MAPLE AVENUE / PROSPECT AVENUE

This intersection is located in the downtown area near the Metra station and parking lot as well other commercial businesses. Maple Ave / Prospect Ave cross the railroad tracks near this location and is also where a bike boulevard is recommended. Given this location's potential to attract pedestrian and bicycle activity, treatments to increase safety and accessibility for all modes is a priority, such as higher visibility and wider crosswalk striping, bump outs, and signage / safety measures for crossing the railroad tracks.



### 25. 1ST STREET, ADDISON AVENUE, & COTTAGE HILL ROAD

This is a key downtown area as it contains a mixture of amenities including the Metra Train Station, commercial and retail businesses, and mixed-use developments. The Addison St buffered bike lanes also reach this intersection. Potential safety treatments include: shortening crossing distances, reducing driving speeds, pedestrian refuge islands, bump outs, or landscaping / street furniture.

### 26. GRANTLEY AVENUE & YORK STREET

The recommended Grantley Ave bike boulevard requires bicyclists to cross York to continue riding east or west. York St sees high volumes of vehicular traffic and the intersection is slightly offset which requires improvements to ensure safety for bicyclists and pedestrians wanting to cross. Treatments at this intersection could potentially mirror recommendations at York St & Church St, such as bike boxes, high visibility crosswalks, and signage at all four legs of intersection.

### 27. BELDEN AVENUE, INDUSTRIAL DRIVE, & YORK STREET

This location is at the intersection of two bike facilities, the Belden Ave bike boulevard and a potential bike facility on Industrial Dr (multiple options). In order to maintain continuity between the two facilities and facilitate safe crossing through York St, the intersection would need to be reconfigured. Currently, vehicles on Belden Ave approaching York St westbound can not cross York rather only turn right onto York which raises the need for a solution to continue traffic, especially bike traffic, straight onto Industrial Drive.

Potential considerations include: reassessing the need for the dual right turn lane on eastbound Industrial Dr, convert the pork chop island at Belden and York to a storage area for westbound bikes waiting at the signal (e.g., protected bike box), restrict York St northbound and southbound right turns on red since those drivers are not accustomed to looking left for approaching traffic, and extend median islands on York St to increase pedestrian safety. However, further study is needed to see if these solutions are feasible.

#### Additional Intersection Improvement Locations



### 28. LEXINGTON STREET & YORK STREET

This intersection is located near the southern jurisdictional border of the City and situated just south of the major intersection of York and Butterfield. Enhancements to this location can help provide an additional and safer east-west connection and serve as an alternative crossing opportunity south of Butterfield, especially for residents in nearby residential areas. Potential treatments to consider for improving the crossing experience include higher visibility and wider crosswalk striping, curb extensions to reduce the speed of right-turning vehicles and shorten pedestrian crossing distances, and extending the concrete median to allow for a pedestrian refuge island on the north leg.

# **WAYFINDING SIGNAGE**

A comprehensive bicycle wayfinding signage network helps cyclists navigate to key destinations along preferred bicycle routes. When placed on streets, they remind drivers to look out for cyclists and help cyclists stick to designated routes. When placed along trails, they help cyclists connect between two systems and find their way when trails turn or transition from off- to on-street. There are three primary types of wayfinding signs: confirmation signs, decision signs, and navigational or turn signs, each described in more detail on the next page. See Section 9B.01 and 9B.20 of the Manual for Uniform Traffic Control Devices (MUTCD) for placement standards.



Figure 9B-4; https://mutcd.fhwa.dot.gov/htm/2009/part9/fig9b\_04\_1\_longdesc.htm

Figure 9B-4; https://mutcd.fhwa.dot.gov/htm/2009/part9/fig9b\_04\_2\_longdesc.htm



### **TURN SIGNS**

These signs show where a bike route turns from a one street or trail to the next. These signs may be labeled with destination names and directional arrows.



### **DECISION SIGNS**

These signs are placed at the junction of multiple destinations. Signage should provide distance, destination, and direction information.



### CONFIRMATION SIGNS

These signs signal to cyclists that they are on the correct street, path, or route to reach their destination.



# INITIATIVES

Beyond infrastructure, pedestrian and bicycle friendly policies and programs play a key role in building a culture of walking and biking. Between the City and other local organizations, the community already benefits from many initiatives that promote responsible walking and biking. This chapter highlights those initiatives and offers insights on ways to build upon these existing efforts and introduce new ideas to incorporate into the community.

# **EXISTING INITIATIVES**

Elmhurst and many community partners already offer numerous initiatives that promote responsible walking and biking.

Existing Initiative	Implementer		Existing Initiative	Implementer
Learn to walk or ride classes	Elmhurst Bike Club, Safety Town, Elmhurst Police Department	•	Bike Share or City Bike Fleet	Elmhurst University Bluejay Bike Program, City of Elmhurst
Traffic laws and rules of the road	Elmhurst Police Community Speeding Education		Complete Streets Policy	City of Elmhurst
Community and charity walks and rides	Olympic Chiropractic Family Fun Bike Parade, Dan Gibbons Turkey Trot, Canine Care Walk, Elmhurst Garden Walk & Faire, City Bike Parade, Booti-ful Saturday	•	Walking, Biking, Health, and Sustainability Groups	Elmhurst Bike Club, Cool Cities, Elmhurst YMCA, Illinois Prairie Path, The Abbey, Elmhurst Running Club, Elmhurst Access Sports
Trail clean-ups	Prairie Path Clean-Up	•	Mobile Patrol Unit	Elmhurst Police Department
Triathlons and bicycle races	Elmhurst Cycling Classic		Traffic Safety and Crash Analysis	Elmhurst Police Department and Engineering
Bicycle-themed festivals/parades/ shows	Bike Parade	•	Bike Registration	Elmhurst Police Department
Trail Maps	Elmhurst Park District, Bike to Metra, DuPage County	•	School Walking Route Maps	Elmhurst School District

# **RECOMMENDED INITIATIVES**

In addition to the existing initiatives, there are many more ways to strengthen Elmhurst's efforts to build a walking and biking friendly community. Below are recommended "Framework for Success" steps that the City can take to move the needle in shifting attitudes, encouraging walking and biking, and implementing the recommendations as shown in this plan.

### FRAMEWORK FOR SUCCESS



### Process

Develop and formalize a structure for implementing this plan through stakeholder engagement and policy efforts.



### Identity

Create branding that unifies walking and biking projects, policies, and programs throughout the city.



### **Partnerships & Activities**

Build relationships with local groups and institutions to offer consistent, year-round education and encouragement activities that fall under the Walk Bike Elmhurst brand.

Recommendations for each of these steps are spelled out on the following pages.



Elmhurst Bike Club members gather for a parade; Photo by Elmhurst Bike Club



Safety Town in Elmhurst; Photo By: Elmhurst Park District



# PROCESS:

Develop and formalize a structure for implementing this plan through stakeholder engagement and policy efforts.

Transportation intersects with many City functions, including public works, engineering, public safety, and planning and development. It is vital for all city departments to coordinate and engage in projects and to ensure that projects, plans, and policies are working in concert with this plan. Elmhurst can improve transportation outcomes on all projects by:

- Identifying a staff member(s) to serve as the Pedestrian and Bicycle Coordinator that manages plan implementation across City departments and with community partners that:
  - » Convenes meetings between planning, public works, public safety, communications, and other departments to establish annual priorities and review studies and projects for consistency with this plan.
  - » Builds and strengthens partnerships with agencies, institutions, and organizations to support, promote, and educate the community about walking and biking for transportation, including the Elmhurst School District, Elmhurst Park District, Elmhurst Chamber of Commerce, Elmhurst Library, Elmhurst University, Elmhurst Hospital, YMCA, Elmhurst Bicycle Club, and Cool Cities.
  - » Serves as a liaison to the community on pedestrian and bicycle issues and requests.
  - » Launches a citizen advisory group to vet projects and ensure consistency with implementation of this plan.
- Formalizing a process for identifying and funding sidewalk improvements in high priority areas, such as streets adjacent to schools, parks, business districts, and other key destinations .
- Establishing a Safe Park Zones policy that sets 20 mph speed limits on streets adjacent to parks that is consistent with Section 11-605.3 of the Illinois Vehicle Code. Refer to Active Transportation Alliance's "Creating Safe Park Zones for Communities in Illinois," guide, included in the appendix for next steps in implementation. Prior to establishing the policy, the City may also wish to consult with other Illinois municipalities to learn best practices, including Riverside, Lemont, Midlothian, and Oak Park. For more general guidance on speed limit reduction, refer to

NACTO's City Limits: Setting Safe Speed Limits on Urban Streets, which includes tips on how to define specific slow zones (e.g., parks and schools) and at the corridor level. The guide advocates for using a target speed approach rather than an 85th percentile approach. It also includes steps for conducting a speed setting study, which it recommends for corridors.

- Creating a policy that clarifies the process and requirements for installing raised crosswalks and other traffic calming tools.
- Developing clear policies on maintenance responsibilities for facilities, including snow clearance, sweeping, inspection, restriping, resurfacing, and repairs.
- Establishing a public process for evaluating and reporting on plan implementation (e.g., annual report on sidewalk and bikeway construction, intersection improvements, people educated, and events held) and making revisions as needed. The report can include benchmark metrics to measure progress and targets (e.g. blocks of sidewalk constructed, miles of bike routes installed, and number of people reached through bike training programming).



Guidebook for Developing Pedestrian & Bicycle Performance Measures; Photo by FHWA



# **PROCESS**:

Develop and formalize a structure for implementing this plan through stakeholder engagement and policy efforts.

- Adopting regional, state, and local best practices to reference when designing bicycle and pedestrian facilities. The City's 2019 Complete Streets Policy lists several recommended manuals, including IDOT's BDE and BLR, AASHTO, and the MUTCD. This list could be expanded to include NACTO's Urban Bikeway Design Guide, NACTO's Urban Street Design Guide, Pace's Transit Supportive Guidelines, and others.
- Establishing policies and programs that increase the amount of bike parking available around the City by:
  - » Developing a system for residents to request bike racks on City sidewalks.
  - » Identifying design and siting standards for bike racks and other bike parking in public areas.
  - » Establishing bike parking requirements for private development.
  - » Encouraging existing businesses to install bike racks by offering grants or reducing business license fees if a business agrees to install one.

MARCH 2013



Transit Supportive Guidelines



Transit Support Guidelines; Photo by PACE

Bike rack installation



# **IDENTITY:** Create branding that unifies walking and biking projects, policies, and programs throughout the city.

Elmhurst and its partners are already implementing many aspects of this plan. By developing a brand identity for pedestrian and bicycle initiatives and providing a one-stop shop for residents and visitors to find out about them, the City can foster and grow support for this plan. This plan recommends that the City:

- Develop branding for walking and biking-focused initiatives, studies, and infrastructure projects undertaken by the City of Elmhurst, the Elmhurst School District, the Elmhurst Park District, and community partners.
- Create a page on the City's website dedicated to pedestrian and bicycle initiatives. Include links to this plan, updates on projects and studies, events, education resources, local and regional maps, and performance tracking.



Bike to Metra pamphlet with map; Photo by City of Elmhurst



# **PARTNERSHIPS & ACTIVITIES:**

Build relationships with local groups and institutions to offer consistent, year-round education and encouragement activities and special events that fall under the Walk Bike Elmhurst brand.



The Front Porch Newsletter Cover; Photo by City of Elmhurst





Complete Street demonstration; Photo by Monadnock Alliance for Sustainable Transportation

# **EDUCATION ACTIVITIES**

### what the City can do

- Publish quarterly stories in the Front Porch newsletter about walking, bicycling, and driving safety. To keep things fresh and relevant, stories could be seasonally focused (winter walking and biking tips or keeping cool in the summer), personal (e.g., why I walk to school or bike to work), or they could highlight new projects on the horizon.
- Share public service announcements on pedestrian, bicycle, and driver safety on social media.
- Create fact sheets and materials to educate residents about pedestrian and bicycle projects and policies. These can be focused on new projects (e.g., here is how to use a bike box) or on ongoing concerns, (e.g., how to keep sidewalks clear of snow and leaves or landscaping maintenance to keep sidewalks clear).
- Hold walks or rides with members of City Council and residents to get a first-hand look at pedestrian and bicycle problem areas, discuss upcoming projects, or celebrate new infrastructure.
- Host demonstration projects to test out new project ideas before making them permanent. Use the projects to gather community input and refine designs before making a permanent investment.
- Make Bike Safety Quiz postcards available at City Hall, pass them out at special events, and equip Mobile Patrol Unit (on bike) officers with it to distribute in the field.

# PARTNERSHIPS & ACTIVITIES

Build relationships with local groups and institutions to offer consistent, year-round education and encouragement activities and special events that fall under the Walk Bike Elmhurst brand.



## **EDUCATION ACTIVITIES**

### what Community Partners can do

- Elmhurst Police Department: Continue to coordinate with partners to provide bike rodeos, offer bike registration, and raffle off helmets and bike locks.
- K-8 Schools:
  - » Provide annual, age-appropriate pedestrian and bicycle education to students. Instruction can take a variety of forms, including in class, on bike, or on-foot.
  - » Continue to educate parents on walking, biking, and driving awareness during arrival and dismissal.
- High Schools: Offer an incentive to students enrolled in health or driver's ed to take and pass Ride Illinois' bike safety quiz.
- Elmhurst University: Share links to educational opportunities and resources with students via social media and in new student handouts.
- Elmhurst Bicycle Club and Other Partners:
  - » Offer a mentoring program for new riders or new bike commuters.
  - » Offer instructional trainings, such as how to fit a bike, how to secure a bike, how to bike in the winter, or how to commute by bike.
- Everyone: Promote educational opportunities on social media platforms and share opportunities hosted by others. Partner on initiatives to build additional support.



Bike Rodeo



Friday Bike Club



Bike Safety Quiz; Photo by Ride Illinois





# **PARTNERSHIPS & ACTIVITIES:**

Build relationships with local groups and institutions to offer consistent, year-round education and encouragement activities and special events that fall under the Walk Bike Elmhurst brand.

## **ENCOURAGEMENT ACTIVITIES**

### what the **City** can do

- Distribute electronic and/or paper maps of walking and biking routes. This could be an existing map, such as Elmhurst's Safe Routes to School Maps, Bike to Metra Guide or DuPage County's Trails map, or a new map as Elmhurst develops its pedestrian and bicycle network.
- Participate in Bike Week and Walk to Work Day.

### what the City can do with its Community Partners

- Host a community-wide walking and biking challenge and offer prizes to those who log the most miles or make the most trips. This could be focused on a specific trip (walk/bike to school or work or shop by bike) or applied to all trips.
- Offer incentives for walking and biking to events and destinations. Examples include providing discounts to people that walk or bike to a business.







# **PARTNERSHIPS & ACTIVITIES:**

Build relationships with local groups and institutions to offer consistent, year-round education and encouragement activities and special events that fall under the Walk Bike Elmhurst brand.

### **EVENTS**

Events can get people of all ages comfortable and familiar with walking and biking. The City and its partners can promote existing walking and biking events as highlighted above and identify new events to introduce new people to walking and biking for transportation.

### what the City can do

- Host Open Streets events by closing a local street to vehicles and opening it for walking, biking, and informal play. These events can take place throughout the warmer months on the Flex Street or along other commercial corridors.
- Promote existing international and national walking and biking celebrations and days of observance.

Calendar of National and International Walking and Biking Events									
	Apr	May	Jun	Aug	Sep	Oct	Nov		
Walk to Work Day	<b>Å</b>								
National Bike Month	<b>A</b>								
Bike to School Day		ক্ত							
Crossing Guard Appreciation Day		Ŕ							
World Bicycle Day			ক্ত						
Trails Day (hiking, biking)			<b>∱♂</b> ⊘						
Chicago Bike Week & Bike Commuter Challenge			ক্ত						
ADA Anniversary			ଔ						
Stop on Red Week				¥					
PARK(ing) Day					<b>∱ ॐ</b>				
Carfree Day					1300 ₺	_			
National Pedestrian Safety month						Ŕ			
Distracted Driving Awareness Month						\$ ॐ			
International Walk to School Day						Ŕ			
World Day of Remembrance for Road Traffic Victims							<b>₹</b> ⊅⁄o		

### what Community Partners can do

- Hold regular (monthly or quarterly) family-friendly rides, such as Kidical Mass, where parents and children can ride together on low-traffic residential streets.
- Offer bike valet at all community events.
- Offer low- or no-cost bike tune-ups at community events.
- Distribute walking and biking safety supplies like reflective or blinking tags, bike lights, or helmets.





# IMPLEMENTATION

The goal of the Bike and Pedestrian Plan is to have a fully built out network so that every resident and commuter across the community has access to safe bike routes and sidewalks, with all recommendations as described in previous chapters in place. However, building out the complete network will take time, funding, and further study to determine the best solution, in some instances. As it can't all happen at once, this section provides recommendations for pursuing projects based on community priorities, needs, and feasibility. The following prioritization and phasing plan will help the community determine recommendations to pursue first for grant funding and include in upcoming budgets. The goal of prioritization and phasing is to create an active plan that sets realistic timelines and does not sit on the shelf!

# PRIORITIZATION

### PRIORITIZATION SCORING PROCESS FOR ROUTES

Each recommendation was given a Prioritization Score. This score can help Elmhurst determine what the top recommendations are to implement, especially in regards to pursuing grant funding for bigger-scale projects. This score is based on community feedback and is data driven. It is a composite of the following criteria (Y=1, N=0):

### Connections

Does the route recommendation connect to:

- Existing trails and other bike routes?
- Transit, including Pace Bus routes and the Metra Station?
- Business districts?
- Downtown Elmhurst?

### Key Prioritization Considerations



Connectivity







Fills Sidewalk Gaps



Feasibility

### Safety

- Is the route near a school?
- Would the recommendation address safety issues where there have been pedestrian and bike related crashes?
- Would the recommendation address safety issues in an area with a high concentration of fatal and serious injury car crashes?

### **Community Priorities**

- Is the recommendation located on one of the top three roads to improve (as shown in the Draft Recommendations Survey results)? The top three roads mentioned were Spring, Butterfield and York.
- Is the recommendation one of the top-mentioned, most needed facilities (as shown in the Draft Recommendations Survey Results), including sidewalks and bike lanes?
- Did the majority of survey respondents (70% or more) rate the improvement type as somewhat or very important?
- Did the majority of survey respondents (60% or more) say that they would feel comfortable or very comfortable walking or biking along the improvement type?

### Low-Hanging Fruit

Is the recommendation relatively low cost and easy to implement, including:

- On a local jurisdiction road?
- Could be implemented with just signage and pavement markings (e.g. a major reconstruction of the road wouldn't be necessary to implement)?
- Is there a preferred recommendation in this plan or would further study need to be conducted to determine the optimal design (e.g., is it listed as "multiple options" in the plan)?

### **Previous Studies**

- Was the recommendation included in the 2011 Bike Plan?
- Was the recommendation or roadway included in another relevant plan (Downtown Plan, CMAP Greenways & Trails, DuPage County Bikeways Plan)?

Based on the above criteria, each recommendation was given a composite score (12 points possible) with all of the above criteria weighted equally. A complete list of how every recommendation scored for the above criteria and overall can be seen in the Appendix and is illustrated on the map on the next page.

# PRIORITIZATION SCORING PROCESS FOR INTERSECTIONS

Intersections were given prioritization scores in a similar process to routes, with a composite of the following criteria (Y=1, N=0):

### Connections

Does the intersection recommendation connect to:

- Existing trails and other bike routes?
- Transit, including Pace Bus routes and the Metra Station?
- Business districts?
- Downtown Elmhurst?

### Safety

- Is the intersection near a school?
- Would the recommendation address safety issues where there have been pedestrian and bike related crashes?
- Would the recommendation address safety issues in an area with a high concentration of fatal and serious injury car crashes?

### **Community Priorities**

- Is the intersection one of the top three to improve (as shown in the Draft Recommendations Survey results)? The top three intersections mentioned were Second/Palmer/York, Prairie Path/York, and York/Butterfield.
- Did the majority of survey respondents (60% or more) say that they would feel somewhat or very safe crossing the intersection on foot or by bike with the improvement?

Based on the above criteria, each intersection was given a composite score (9 points possible) with all of the above criteria weighted equally. A complete list of how every recommendation scored for the above criteria and overall can be seen in the Appendix and is illustrated on the map on the next page.



ROUTE AND INTERSECTION PRIORITIZATION MAP

Based on this scoring, the top priority route recommendations include:

- 1. Addison Ave Buffered Bike Lanes: Connecting to and extending the existing bike lanes from 2nd St to 3rd St | pgs 32-33
- 2. S York St Bike Corridor | pg 42
- 3. Spring Rd Bike Corridor | pgs 26-27
- 4. West Ave Advisory Bike Lanes | pgs 28-29
- 5. Butterfield Rd Sidepath | pg 36
- 6. Church/Walnut/Myrtle Bike Boulevard | pgs 23-25
- 7. Cottage Hill Ave Bike Boulevard | pgs 23-25
- 8. Poplar Ave Bike Corridor | pgs 23-25
- 9. 3rd St Bike Boulevard | pgs 23-25
- 10. Madison St Bike Boulevard | pgs 23-25

#### Route Prioritization Score

1	2	3	4	5	6	7	8	9	10	11	12
LOW	Medium								High		

Based on this scoring, the <u>top intersection priority recommendations</u> include:

- 1. 2nd St/Palmer Dr & York St (Flex Street) | pg 79
- 2. Butterfield Rd & York St | pg 65
- 3. Prairie Path & York St | pgs 68-71
- 4. Belden Ave & York St | pg 93
- 5. Church St & York St | pg 75
- 6. North Ave & Emroy Ave | pg 85
- 7. Palmer Dr & York St (S) | pg 77
- 8. St Charles Rd & Berkley Ave (N) | similar to St Charles/ Cottage Hill, pg 91
- 9. St Charles Rd & Berkley Ave (S) | similar to St Charles/ Cottage Hill, pg 91

### Intersection Prioritization Score

1	2	3			
Low		Ν	1ediur	n	Higl

### ADDITIONAL PRIORITIZATION CONSIDERATIONS

The Steering Committee provided feedback that overall, it is more important to prioritize recommendations that provide a missing link in the bike and pedestrian network over recommendations that are more robust and protected, such as a sidepaths or trails. During community engagement surveying, respondents said that they prioritized recommendations that provide traffic calming to improve pedestrian safety. The top lists mentioned on the previous page supports this feedback, as the majority of these routes involve easier to implement solutions that fill in gaps and provide network connectivity, such as pavement markings and signage. And many of the route recommendations on that top list are bike boulevards, which involve traffic calming features that are also beneficial to both bicyclists and pedestrians. Additionally, all of the intersection recommendations will create safer environments for pedestrians and bicyclists.

# PHASING

# IMPLEMENTATION PHASING FOR ROUTES AND INTERSECTIONS

The phasing score focuses more on low-hanging fruit recommendations that are easier to implement in the short term, but are still overall priorities based on data and community feedback and will therefore have a positive impact on network connectivity. Recommendations listed for near or mid-term implementation are strong candidates to consider for Capital Improvement Plans, upcoming City budgets, and/or inclusion in resurfacing projects.

Near-term routes and intersections are recommended to be implemented in the next 1-3 years, mid-term are recommended in the next 4-5 years, and long-term are recommended to study and/or implement within the next 10 years and would result in a complete pedestrian and bicycle network.

While there is some overlap, the phasing score process differs from the prioritization score in that the near-term routes are relatively easier to implement (whereas the top priority score routes include recommendations that could require further study and grant funding due to cost, however they were identified as priorities by the community).

Near-term projects are categorized as "low-hanging fruit" and are top scoring recommendations overall for prioritization (including top 25% of routes). Mid-

term projects are either "low-hanging fruit" or top scoring recommendations for prioritization. The rest of the recommendations are long-term.

These phasing recommendations are intended to be a guide, but as the City explores options and pursues projects further, they may find that some of the short and mid-term recommendations may require extensive further study, significant grant funding, and/or coordination with other agencies. In these specials cases, they may become long-term implementation recommendations.

The routes listed for short-term implementation include (in alphabetical order):

- Addison Ave Buffered Bike Lanes: Connecting to and extending the existing bike lanes from 2nd St to 3rd St. | pg 33
- Church/Walnut/Myrtle Bike Boulevard | pg 24
- Cottage Hill Ave Bike Boulevard | pg 24
- Poplar Ave Bike Corridor | pg 25
- Spring Rd Bike Corridor | pg 27
- 3rd St Bike Boulevard | pg 24
- West Ave Advisory Bike Lanes | pg 29

Note: All of the above projects are also on the high priority list for routes.

The intersection phasing score is based on if the recommendation is located along a short, medium or long term route (and would be implemented in conjunction with the route recommendation) and is one of the top scoring intersections in the overall prioritization score. The intersections listed for short-term implementation include (in alphabetical order):

- Benton St/Crescent Ave & Poplar Ave | pg 67
- Butterfield Rd & York St | pg 65
- Church St & York St | pg 75
- Poplar Ave & 1st St | pg 81
- North Ave & Emroy Ave | pg 85
- St Charles Rd & Berkley Ave (S) | similar to St Charles/Cottage Hill, pg 91
- St Charles Rd & Cottage Hill Ave | pg 91
- 3rd St & Willow St | similar to North/Emroy, pg 85
- West Ave & Railroad Tracks | pg 92



### ROUTE AND INTERSECTION PHASING MAP



# **FUNDING RESOURCES**

There are multiple funding sources for transportation programs in DuPage County that are applicable to Elmhurst. Most programs are both highly competitive and require a local match but provide grant funding opportunities for active transportation projects. Many federal transportation funds can be used for pedestrian and bicycle projects.

This section provides information and guidance on the following funding sources:

- Programs Administered by the Illinois Department of Transportation (IDOT)
- Program Administered by the Illinois Department of Natural Resources (IDNR)
- Programs Administered by the Chicago Metropolitan Agency for Planning (CMAP)
- Programs Administered by the DuPage Mayors and Managers Conference (DMMC)
- Nonprofit Organization Grants and Foundation Grants
- Summary chart of larger agency grants

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

Most federal funds are controlled at the state DOT level and distributed as block grants. IDOT administers these federal pass-through funds for local and regional bicycle and pedestrian projects and safety initiatives. The funds are authorized by the current federal transportation bill passed in December 2015, Fixing America's Surface Transportation Act, or FAST Act. FAST Act maintains a lot of the changes from MAP-21, the previous bill. MAP-21 combined several previously stand-alone pedestrian and bicycle funding programs (including Safe Routes to School, Recreational Trails and Transportation Enhancements) into a single pot of money: The Transportation Alternatives Program (TAP). With the passing of FAST Act, the TAP funding was moved within the Surface Transportation Block Grant Program (STBG), as a set-aside. However, the structure, competitive process, and flexibility of the program remains the same as TAP.

### Statewide Planning & Research (SPR)

Statewide Planning & Research (SPR) funds are used to support planning and research activities. The funds are used to establish a cooperative, continuous, and comprehensive framework for making transportation investment decisions and to carryout transportation planning and research activities throughout the State. Eligible activities include:

- Planning studies
- Data purchase, collection, and/or analysis
- Program development activities
- Performance management activities
- Coordination/outreach activities

A 20% match is required to use these funds. However, a match greater than 20% will be considered positively when prioritizing projects.

### Illinois Safe Routes to School Program (SRTS)

The SRTS program, administered by the IDOT Bureau of Safety Engineering, uses both infrastructure and noninfrastructure approaches to improve conditions for students who walk or bike to school. The program is designed to enable and inspire children to walk and bike to school through improvements to the local active transportation network within two miles of schools and through programs and initiatives. The local match is typically 20%. Eligible project sponsors include schools, school districts, and governmental entities.



The program encourages applicants to form a local coalition of stakeholders. Eligible infrastructure projects include Sidewalk Improvements, Traffic Calming/ Speed Reduction Improvements, Traffic Control Devices, Pedestrian and Bicycle Crossing Improvements, On-Street Bicycle Facilities, Off-Street Bicycle Facilities, and Secure Bicycle Parking Facilities. Eligible non-infrastructure projects include events, equipment, and supplies that help to address areas of Education, Enforcement, Encouragement, and Evaluation.
#### Illinois Transportation Enhancement Program (ITEP)

ITEP was designed to promote and develop non-motorized transportation options and streetscape beautification. Through ITEP, IDOT awards a portion of federal STBG set- aside funds competitively and an additional \$50 million in dedicated state funding. Any local or state government with taxing authority is eligible to apply. Local governments are required to provide matching funds. The required 20% local match is the responsibility of the project sponsor unless the project qualifies for state matching funds based on high-need criteria. Once all applications are submitted, the local match will be calculated based on the Community Score and set on a sliding scale of 0, 10, or 20%; 50% is required for ROW allocation. Communities should be prepared to commit to expending the highest match amount when possible. Work must begin on the projects within three years of receipt of the award. This program is administered by the IDOT Bureau of Programming in the Office of Planning and Programming.

#### Highway Safety Improvement Program (HSIP)

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

#### Section 402 State and Community Highway Safety Grant Program

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

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

Recreational Trails Program (RTP) and Illinois Bicycle Path (Bike Path) Grant Programs

The Recreational Trails Program provides funding to assist government agencies and trail groups in the rehabilitation, development, maintenance, and acquisition of recreational trails and related facilities. The Illinois Bicycle Path Grant Program provides financial assistance to eligible local units of government to assist them with the acquisition, construction, and rehabilitation of public off-road, non-motorized bicycle paths and directly related support facilities In the 2019 grant cycle, the program covered 80% of project funding and up to \$200,000 for development projects and no maximum for acquisition grants.

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

CMAP administers federal pass-through money that funds bicycle and pedestrian facilities: the Congestion Mitigation and Air Quality Improvement Program and the regional allocation of the Surface Transportation Block Grant (STBG) program set-aside (formerly Transportation Alternatives Program or TAP). The STBG funds are programmed in two ways: through CMAP for regional projects and through the Councils of Mayors (COMs) for local surface transportation projects. For their allocation, CMAP funds bike facilities that provide regional connections. CMAP will typically only program pedestrian facilities if they provide access to transit. The other allocation of funding is divided amongst the COMs. The COMs will program these funds to more local and granular pedestrian and bike projects.

#### Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The CMAQ program is a flexible funding source that targets projects and programs to help meet the congestion mitigation and air quality reduction requirements of the federal Clean Air Act. Bicycle and pedestrian facilities, transit improvements, and traffic flow enhancements make up some of the eligible projects. CMAP will give priority to projects that reduce ozone emissions and particulate matter. The local match is 20%.

Greenways

Trails

Program

#### Surface Transportation Block Grant Program (STBG) (previously Transportation Alternatives Program, TAP)

Under FAST Act, the Transportation Alternatives Program is a suballocation within the Surface Transportation Block Grant (STBG) program, with programming authority by the regional Councils of Mayors and City of Chicago. The STP Shared Fund is focused on larger-scale, multijurisdictional and regional projects that address ONTO 2050 goals (the CMAP regional comprehensive plan).

#### Local Technical Assistance Program (LTA)

This program provides free planning assistance to communities in the CMAP region. Applicable projects include feasibility studies, parking studies, and comprehensive plans. The call for proposals is typically announced in late spring.

### PROGRAMMED BY THE DUPAGE MAYORS AND MANAGERS CONFERENCE (DMMC)

The Surface Transportation Program (STP) Local Program funding is a setaside within the Surface Transportation Block Grant Program (STBG) program. This program provides flexible funding that may be used by municipalities for projects to preserve or improve conditions and performance on any Federalaid highway, bridge projects on any public road, facilities for non-motorized transportation, transit capital projects, and public bus terminals and facilities. CMAP approves the allocation of this funding to each of the subregional Council of Mayors (COMs), and the COMs administer the local programs. The DuPage Council of Mayors/DuPage Mayors and Manager Conference administers the STP Local Program for Elmhurst.



One of the DuPage STP categories, which accounts for about 25% of overall funding, focuses on Transportation Control Measures (TCM), which are projects to reduce single occupancy automobile travel and have a positive net impact on air quality. Eligible projects as relevant to this plan include on-street pedestrian/bicycle facilities and trail projects. The remainder of the funding is focused on State routes, and as related to this plan could include intersection improvements. The local match for highway projects is 70%/30% federal/local match and for TCM projects is 75%/25% federal/local match. Safety need score as calculated using IDOT's Safer Road Index (SRI), project readiness (status of Phase I Engineering and ROW acquisition), traffic volumes, pavement conditions, local need (years since a community won STP funding), financial commitment, Complete Streets Planning Factor (Elmhurst would be awarded points for having an adopted Complete Streets policy), Green Infrastructure Planning Factor, and Freight Planning Factor are all criteria for roadway projects. There is specific scoring criteria for trail projects, which includes project connectivity, market for facility, project readiness, local needs (years since a community won STP funding), financial commitment, consistency with adopted plans, Complete Streets Planning Factor (Elmhurst would be awarded points for having an adopted Complete Streets policy), Inclusive Growth Planning Factor (low to moderate income residents in block group), and Transit Supportive Land Use (proximity to transit).

# NONPROFIT ORGANIZATION AND FOUNDATION GRANTS

There are various local and national NPOs and private sector foundations dedicated to improving walking, biking and access to transit. The call for applications can vary year-to-year, however some programs to look out for include:

#### Community Change Grant Award (America Walks)

In 2018, this foundational-based grant program awarded communities \$1,500 stipends for projects related to creating healthy, active, and engaged places to live, work, and play.

#### People for Bikes Community Grant

Eligible projects for funding (up to \$10,000, must have at least a 50% match) include bike paths and rail trails, as well as mountain bike trails, bike parks, BMX facilities, and large-scale bicycle advocacy initiatives.

#### Rails to Trails, Doppelt Family Development Grant

RTC launched a new grant program in 2015 to support organizations and local governments that are implementing projects to build and improve multi-use trails. Under the Doppelt Family Trail Development Fund, RTC will award approximately \$85,000 per year, distributed among several qualifying projects, through a competitive process. No local match required.

#### ComEd Green Region, in partnership with Openlands

This grant program can be used for the planning, acquisition and improvements to local parks, natural areas, and recreation resources. In the 2019 grant cycle, grants of up to \$10,000 were awarded. Eligible Applicants are municipalities, townships, counties, park districts, conservation districts and forest preserve districts within ComEd's service territory. The grantee must have matching funds either secured or another pending application.

#### American Association of Retired Persons (AARP) Community Challenge Grants

This program is intended to help communities make immediate improvements and jump-start long-term progress in support of residents of all ages.

Link: https://www.aarp.org/livable-communities/community-challenge/

#### **DuPage Foundation**

Funds initiatives in DuPage County that are focused on arts, the environment, health and human services, and education. First-time applicants are encouraged to reach out to the vice president for programs to determine project eligibility.

#### Action for Healthy Schools

Funding for schools and parent-led groups to improve or introduce new nutrition and physical activity programs. Link: http://www.actionforhealthykids.org/tools-for-schools/apply-for-grants



Top Priority: "Safety for children walking and biking to school and to the park in the Crestview Area."; Photo by Meredith Rathert





Application Process	Transportation Enhancements (ITEP)	Safe Routes to School (SRTS)	Highway Safety Improvement Program (HSIP)	Section 402- State and Community Highway Safety Grant Program
Program Purpose	To foster cultural, historic, aesthetic and environmental aspects of our transportation infrastructure	To enable and encourage children to walk and bike to school through the 5 Es	To fund highway infrastructure safety projects aimed at reducing fatalities and serious injuries	To create safety programs aimed at reducing traffic crashes
Program Administrator	IDOT	IDOT	IDOT Division of Traffic Safety	IDOT Division of Traffic Safety
Eligible Projects	<ul> <li>Pedestrian/Bicycle Facilities</li> <li>Streetscapes</li> <li>Conversion of Abandoned Railroad Corridors to Trails</li> <li>Historic Preservation/Rehabilitation of Historic Transportation Facilities</li> <li>Vegetation Management in Transportation Rights-of-Way</li> <li>Archaeological Activities Relating to Impacts from Transportation Projects</li> <li>Storm Water Management and Water Pollution Prevention Related to Highway Construction or Runoff</li> <li>Reduce Vehicle-Caused Wildlife Mortality or Restore Habitat Connectivity</li> <li>Construction of Turnouts, Overlooks, and Viewing Areas</li> </ul>	<ul> <li>Bike/ped facilities</li> <li>Safety education programs</li> <li>Encouragement incentives</li> </ul>	<ul> <li>Bike lanes</li> <li>Paved shoulders</li> <li>Trail/Highway intersection improvements</li> <li>Crosswalks</li> <li>Signal improvements</li> <li>Curb cuts</li> <li>Safety education and awareness programs</li> </ul>	<ul> <li>Enforcement campaigns to improve bike/ped safety</li> <li>Helmet promotion</li> <li>Educational materials</li> <li>Training</li> </ul>
Key Project Requirements	Must relate to surface transportation	Can only be spent within 1 1/2 miles of a school	Must address goals written in State Highway Safety Plan	Must address goals written in State Highway Safety Plan
Application Process	Next anticipated call for projects Fall 2021	Irregular schedule at call of IDOT	Generally there is an annual update to the Plan at call of IDOT Division of Traffic Safety	Generally each spring at call of IDOT Division of Traffic Safety
Local Match Required	Typically 20%	20%	10%	No match required
Eligible Applicants	Local governments	Any governmental entity	Any governmental entity or non-profit	Any governmental entity or non-profit

Application Process	Recreational Trails Program (RTP)	Surface Transportation Block Grant Program (STBG)	Congestion Mitigation and Air Quality (CMAQ)	STBG Program Set-Aside (formerly TAP)
Program Purpose	To develop and maintain recreational trails and facilities for both motorized and non-motorized users	To fund state roads and trail projects	To improve air quality and reduce traffic congestion in areas that do not meet air quality standards.	To support non-motorized modes of transportation
Program Administrator	IDNR	DuPage Mayors and Managers Conference	СМАР	СМАР
Eligible Projects	<ul> <li>Trails,</li> <li>Trail/highway intersection improvements</li> <li>Trailheads</li> <li>Educational materials</li> <li>Training</li> </ul>	<ul> <li>State roads</li> <li>Trails</li> </ul>	<ul> <li>Bike/ped facilities</li> <li>Safety education programs and encouragement incentives</li> <li>Active transportation plans</li> <li>Bike/ped maps</li> <li>Bike/ped coordinator position</li> </ul>	Bicycle and pedestrian facilities, streetscaping
Key Project Requirements	30% allocated to non- motorized trail project, 30% for motorized, 40% for diversity of trail use	<ol> <li>Must reduce single occupancy vehicle trips and positively impact air quality</li> <li>Can be used for trails. If funding a roadway project, must be on a state route</li> </ol>	<ol> <li>Must be spent in non- attainment and maintenance areas</li> <li>Will be evaluated on air quality emissions</li> </ol>	<ol> <li>Phase I engineering must be nearly complete</li> <li>Project must be included in a local, sub-regional or regional plan that was formally adopted</li> </ol>
Application Process	Irregular schedules at call of Illinois Department of Natural Resources	Annual call for projects	Generally an annual call for proposals	Generally an annual call for proposals in tandem with CMAQ announcement
Local Match Required	Typically 20%	25% for trail projects	Minimum 20%	20%
Eligible Applicants	Any governmental entity or non-profit	Local governments in DuPage County	Local or state governmental agencies	Local governments



The following is included in the Appendix:

- Detailed Prioritization Score Matrices: Displays additional characteristics and scores for each of the categories that feed into the overall prioritization score by roadway segment and intersection (refer to the Implementation chapter for detailed descriptions of the different scoring criteria).
- Detailed Phasing Score Matrices: Displays additional characteristics and scores for each of the categories that feed into the overall phasing score by roadway segment and intersection (refer to the Implementation chapter for detailed descriptions of the different scoring criteria).
- Educational One-Pagers: These one-pagers provide overviews for the different bike facilities, traffic calming tools, and bicycle-friendly intersection tools recommended throughout the Elmhurst Bicycle and Pedestrian Plan. They can be used as stand-alone documents as needed.

## PRIORITIZATION MATRIX FOR ROUTES: CATEGORY SCORES (PAGE 1)

			FACILITY DETAILS				
Street Name	From	То	Facility Name	Facility Type	Jurisdiction	Miles	Feet
Addison Ave	Second St	Third St	Addison Buffered Bike Lanes	Buffered Bike Lanes	Municipal	0.13	680
Spring Rd	Vallette St	Prairie Path	Spring Bike Corridor	Marked Shared Lanes	Municipal	0.18	927
West Ave	Randolph St	Alexander Blvd	West Ave Advisory Bike Lanes	Advisory Bike Lanes	Municipal	0.76	3,995
York St	Van Buren St	Meister Ave	S York Bike Corridor	Multiple Options	Municipal	0.75	3,972
York St	Butterfield Rd	Van Buren St	S York Bike Corridor	Multiple Options	Municipal	0.11	591
Butterfield Rd	Spring Rd	York St	Butterfield Sidepath	Sidepath (S)	IDOT	0.81	4,254
Church Rd	Grand Ave	Fischer Farm Rd	Church/Walnut/Myrtle Bike Boulevard	Sidepath (E)	Municipal	0.75	3,945
Butterfield Rd	York St	High St/Caldwell Ave	Butterfield Sidepath	Sidepath (S)	IDOT	0.74	3,911
Cottage Hill Ave	Seminole Ave/Prairie Path	Church St	Cottage Hill Ave Bike Boulevard	Bike Boulevard	Municipal	0.78	4,098
Emroy Ave	Third St	Lake St	Poplar Bike Corridor	Bike Boulevard	Municipal	0.45	2,378
Fischer Farm Rd	Church Rd	Walnut St	Church/Walnut/Myrtle Bike Boulevard	Bike Boulevard	Municipal	0.19	980
Poplar Ave	Poplar Ave Trail	Park Ave	Poplar Bike Corridor	Bike Boulevard	Municipal	1.31	6,920
Spring Rd	Prairie Path	St. Charles Rd	Spring Bike Corridor	Marked Shared Lanes	Municipal	0.35	1,834
Spring Rd	Butterfield Rd	McKinley Ave	Spring Bike Corridor	Multiple Options	Municipal	0.95	5,003
Third St	Addison Ave	Berteau Ave	Third Bike Boulevard	Bike Boulevard	Municipal	0.63	3,333
Third St	Myrtle Ave	Addison Ave	Third Bike Boulevard	Bike Boulevard	Municipal	0.38	2,002
Addison Ave	First St	Second St	Addison Buffered Bike Lanes	One-Way Buffered Bike Lane	Municipal	0.15	791
Madison St	Prospect Ave	Poplar Ave	Madison Bike Boulevard	Bike Boulevard	Municipal	0.75	3,982
Myrtle Ave	Grantley Ave	Alexander Blvd	Church/Walnut/Myrtle Bike Boulevard	Bike Boulevard	Municipal	0.71	3,755
St. Charles Rd	West Ave	Cottage Hill Ave	St. Charles Sidepath	Sidepath (N)	Municipal	0.87	4,589
Third St	West Ave	Myrtle Ave	Third Bike Boulevard	Bike Boulevard	Municipal	0.53	2,790
Van Buren St	Euclid Ave	York St	Van Buren Bike Boulevard	Bike Boulevard	Municipal	0.24	1,286
Van Buren St	York St	Poplar Ave	Van Buren Bike Boulevard	Bike Boulevard	Municipal	0.28	1,468
Wilder Park Trail	Church St/Prospect Ave	Alexander Blvd//Prospect Ave	Wilder Park Trails	Trail	Municipal	0.24	1,274
York St	Second St/Palmer Dr	Adelaide St	York Flex Street	Flex Street	Municipal	0.25	1,309
Alexander Blvd	West Ave	Rex Blvd	Alexander Bike Boulevard	Bike Boulevard	Municipal	0.06	325
Belden Ave	York St	Emroy Ave/Crestview Park	Belden Ave Bike Boulevard	Bike Boulevard	Municipal	0.51	2,694
Berkley Ave	St. Charles Rd	Salt Creek Trail	Berkley Bike Boulevard	Bike Boulevard	Municipal	1.09	5,776

					•	PRIORIT	IZATION SCC	RING DET	AILS					
Overall		Co	nnects to	)		Nearby crash	nes involve	Adds o	or ls a	Con	nmunity ranking	on	Mentione	d in
Prioritization Score	Business District	Existing Facility	Transit	Schools	Down- town	Ped or Bike	Serious Auto	Bike Lane or Sidewalk	Low- Hanging Fruit	Priority Segment	Importance of Improvement	Improves Comfort	Previous Ped/Bike Plan (2011)	Other Plan
12	1	1	1	1	1	1	1	1	1	0	0	1	1	1
11	1	1	0	1	1	1	1	0	1	1	1	1	1	0
11	1	1	1	1	1	1	1	1	1	0	0	0	1	1
11	1	0	1	1	1	1	1	1	0	1	1	1	0	1
11	1	0	1	1	1	1	1	1	0	1	1	1	0	1
10	1	1	1	1	1	1	1	0	0	1	1	1	0	0
10	1	1	0	1	1	1	1	0	0	0	1	1	1	1
9	1	0	1	1	1	1	1	0	0	1	1	1	0	0
9	0	1	1	1	1	1	1	0	1	0	0	0	1	1
9	0	1	1	1	1	1	1	0	1	0	0	0	1	1
9	1	1	0	1	1	1	1	0	1	0	0	0	1	1
9	0	1	1	1	1	1	1	0	1	0	0	0	1	1
9	1	1	1	1	1	1	1	0	1	1	0	0	0	0
9	1	1	0	1	1	1	1	1	0	1	0	0	1	0
9	0	1	1	1	1	1	1	0	1	0	0	0	1	1
9	0	1	1	1	1	1	1	0	1	0	0	0	1	1
8	1	1	1	0	0	0	0	1	1	0	0	1	1	1
8	0	0	1	1	1	1	1	0	1	0	0	0	1	1
8	0	1	0	1	1	1	1	0	1	0	0	0	1	1
8	1	0	1	1	1	1	1	0	0	0	1	1	0	0
8	1	0	0	1	1	1	1	0	1	0	0	0	1	1
8	0	0	1	1	1	1	1	0	1	0	0	0	1	1
8	0	0	1	1	1	1	1	0	1	0	0	0	1	1
8	0	1	1	1	1	1	1	0	0	0	1	1	0	0
8	1	0	1	1	1	1	1	0	0	1	0	0	0	1
7	0	1	0	1	1	1	1	0	1	0	0	0	0	1
7	1	0	1	1	1	1	1	0	1	0	0	0	0	0
7	0	1	1	1	1	1	1	0	1	0	0	0	0	0

## PRIORITIZATION MATRIX FOR ROUTES: CATEGORY SCORES (PAGE 2)

			FACILITY DETAILS				
Street Name	From	То	Facility Name	Facility Type	Jurisdiction	Miles	Feet
Church St	Prospect Ave	Poplar Ave	Church Bike Boulevard	Bike Boulevard	Municipal	0.76	3,993
Industrial Dr	Grand Ave	York St	Industrial Dr Corridor	Multiple Options	Municipal	1.10	5,829
Prospect Ave	Seminole Ave/Prairie Path	St. Charles Rd	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.33	1,767
Spring Rd	McKinley Ave	Vallette St	Spring Bike Corridor	Marked Shared Lanes	Municipal	0.22	1,148
West Ave	Alexander Blvd	First St	West Ave Advisory Bike Lanes	Large Sharrows	Municipal	0.07	376
Wilder Park Trail	Prospect Ave/Church St	Cottage Hill Ave//Church St	Wilder Park Trails	Trail	Municipal	0.11	583
Grace Ave	Alexander Blvd	St Charles Rd	Grace Ave Bike Boulevard	Bike Boulevard	Municipal	0.58	3,083
Lake St	Emroy Ave	Van Aucken St	Poplar Bike Corridor	Sidepath (N)	Municipal	0.15	794
Prospect Ave	St. Charles Rd	Park Ave	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.64	3,390
Elm Park Ave	West Ave	Prospect Ave	Elm Park Ave Bike Boulevard	Bike Boulevard	Municipal	0.79	4,149
Pioneer Park Trail	Meister Ave	Prairie Path/Prairie Path Ln	Pioneer Park Trail	Trail	Municipal	0.18	963
Salt Creek Connection	Salt Creek Path	Brush Hill Road	Salt Creek Path/Brush Hill Rd Connection	Sidepath	Municipal	0.04	231
Stratford Ave	Butterfield Rd	Madison St	Stratford Bike Boulevard	Bike Boulevard	Municipal	0.28	1,502
Van Aucken St	Lake St	Wrightwood Ave	Poplar Bike Corridor	Bike Boulevard	Municipal	0.93	4,894
Walnut St	Fischer Farm Rd	Fremont Ave	Church/Walnut/Myrtle Bike Boulevard	Bike Boulevard	Municipal	0.65	3,427
West Ave	First St	Crockett Ave	West Ave Advisory Bike Lanes	Advisory Bike Lanes	Municipal	1.27	6,689
Alexander Blvd	Rex Blvd	Myrtle Ave	Alexander Bike Boulevard	Bike Boulevard	Municipal	0.46	2,451
Berteau Ave	First St	North Ave	Poplar Bike Corridor	Bike Boulevard	Municipal	0.38	1,988
Brush Hill Rd	Salt Creek Trail	Hospital	Brush Hill Cycle Track	Two-Way Cycle Track (N)	Municipal	0.69	3,649
ComEd ROW	Parker St	York Rd	ComEd ROW Trail	Trail	Other	0.76	4,024
Emroy Ave	Lake St	Crestview Park	Poplar Bike Corridor	Bike Boulevard	Municipal	0.44	2,318
Euclid Ave	Harvard St	Brush Hill Rd	Euclid Bike Corridor	Sidepath (E)	Municipal	0.26	1,354
Euclid Ave	Lexington St	Harvard St	Euclid Bike Corridor	Sidepath (E)	Municipal	0.08	420
Grantley Ave	Myrtle Ave	Emroy Ave	Grantley Bike Boulevard	Bike Boulevard	Municipal	0.92	4,850
Mitchell Ave	Prairie Path Ln	Madison St	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.61	3,207
Poplar Ave	Madison St	Cayuga Ave	Poplar Bike Corridor	Bike Boulevard	Municipal	0.14	746
Poplar Ave Trail	Cayuga Ave	Poplar Ave Trail	Poplar Bike Corridor	Trail	Municipal	0.08	418
Prospect Ave	Brush Hill Rd	Van Buren St	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.64	3,374

						PRIORIT	IZATION SCC		AILS					
Overall		Co	nnects to	)		Nearby crash	nes involve	Adds o	or ls a	Con	nmunity ranking	on	Mentione	d in
Prioritization Score	Business District	Existing Facility	Transit	Schools	Down- town	Ped or Bike	Serious Auto	Bike Lane or Sidewalk	Low- Hanging Fruit	Priority Segment	Importance of Improvement	Improves Comfort	Previous Ped/Bike Plan (2011)	Other Plan
7	0	0	1	1	1	1	1	0	1	0	0	0	0	1
7	1	0	1	1	1	1	1	1	0	0	0	0	0	0
7	0	1	1	1	1	1	1	0	1	0	0	0	0	0
7	1	0	0	1	1	1	1	0	0	1	0	0	1	0
7	0	0	0	1	1	1	1	0	1	0	0	0	1	1
7	0	1	0	1	1	1	1	0	0	0	1	1	0	0
6	0	0	1	1	1	1	1	0	1	0	0	0	0	0
6	0	1	1	0	0	0	0	0	0	0	1	1	1	1
6	0	0	1	1	1	1	1	0	1	0	0	0	0	0
5	0	0	0	1	1	1	1	0	1	0	0	0	0	0
5	1	1	0	0	0	0	0	0	0	0	1	1	1	0
5	1	1	0	0	0	0	0	1	0	0	1	1	0	0
5	0	1	1	0	0	0	0	0	1	0	0	0	1	1
5	0	1	0	0	0	0	0	1	1	0	0	0	1	1
5	1	1	0	0	0	0	0	0	1	0	0	0	1	1
5	1	0	0	0	0	0	0	1	1	0	0	0	1	1
4	0	1	0	0	0	0	0	0	1	0	0	0	1	1
4	0	1	0	0	0	0	0	0	1	0	0	0	1	1
4	1	1	0	0	0	0	0	0	0	0	0	1	1	0
4	1	0	1	0	0	0	0	0	0	0	1	1	0	0
4	0	1	1	0	0	0	0	0	1	0	0	0	0	1
4	1	0	0	0	0	0	0	0	0	0	1	1	1	0
4	1	0	0	0	0	0	0	0	0	0	1	1	1	0
4	0	0	1	0	0	0	0	0	1	0	0	0	1	1
4	0	1	0	0	0	0	0	0	1	0	0	0	1	1
4	0	1	0	0	0	0	0	0	1	0	0	0	1	1
4	0	1	0	0	0	0	0	0	0	0	1	1	1	0
4	1	1	0	0	0	0	0	0	1	0	0	0	1	0

## PRIORITIZATION MATRIX FOR ROUTES: CATEGORY SCORES (PAGE 3)

FACILITY DETAILS								
Street Name	From	То	Facility Name	Facility Type	Jurisdiction	Miles	Feet	
Walnut St	Fremont Ave	Grantley Ave	Church/Walnut/Myrtle Bike Boulevard	Bike Boulevard	Municipal	0.13	696	
Wilder Park Trail	Church St/Cottage Hill Ave	Cottage Hill Ave/Adelaide St	Wilder Park Trails	Trail	Municipal	0.27	1,433	
Alexander Blvd	Myrtle Ave	Prospect Ave	Alexander Bike Boulevard	Bike Boulevard	Municipal	0.22	1,166	
Euclid Ave	Butterfield Rd	Lexington St	Euclid Bike Corridor	Marked Shared Lanes	Municipal	0.13	711	
Fremont Ave	Walnut St	Walnut St	Church/Walnut/Myrtle Bike Boulevard	Bike Boulevard	Municipal	0.04	199	
Grantley Ave	Walnut St	Myrtle Ave	Grantley Bike Boulevard	Bike Boulevard	Municipal	0.08	402	
Grantley Ave	West Ave	Walnut St	Grantley Bike Boulevard	Bike Boulevard	Municipal	0.42	2,193	
Madison St	Poplar Ave	Stratford Ave	Madison Bike Boulevard	Bike Boulevard	Municipal	0.40	2,086	
Madison St	Fairview Ave	Mitchell Ave	Madison Bike Boulevard	Bike Boulevard	Municipal	0.51	2,671	
Madison St	Mitchell Ave	Prospect Ave	Madison Bike Boulevard	Bike Boulevard	Municipal	0.05	270	
Meister Ave	York St	Valette St	S York Bike Corridor	Bike Boulevard	Municipal	0.19	1,005	
Poplar Ave	Van Buren St	Madison St	Poplar Bike Corridor	Bike Boulevard	Municipal	0.26	1,360	
Third St	Berteau Ave	Madison Ct	Third Bike Boulevard	Bike Boulevard	Municipal	0.28	1,474	
Wilder Park Trail	Prospect Ave/Alexander Blvd	Cottage Hill Ave/Adelaide St	Wilder Park Trails	Trail	Municipal	0.13	678	
Avon Rd Sidewalk	Schiller St	Third St	Poplar Bike Corridor	Trail	Municipal	0.19	1,016	
Fairfield Ave	Van Buren St	Salt Creek Trail	Van Buren Bike Boulevard	Bike Boulevard	Municipal	0.12	650	
First St	Poplar Ave	Avon Rd	Poplar Bike Corridor	Bike Wayfiding Signage	Municipal	0.03	184	
Larch Ave	First St	Third St	NB Addision Bike Lane Pairing	Marked Shared Lane	Municipal	0.28	1,484	
Maple Ave	Third St	Park Ave	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.31	1,611	
Schiller St	Avon Rd	Avon Rd sidwalk	Poplar Bike Corridor	Bike Wayfinding Signage	Municipal	0.03	173	
Third St	Avon Rd Sidewalk	Emroy Ave	Poplar Bike Corridor	Bike Wayfinding Signage	Municipal	0.01	70	
Van Buren St	Poplar Ave	Butterfield Park	Poplar Bike Boulevard	Bike Boulevard	Municipal	0.09	498	
Van Buren St	Fairfield Ave	Euclid Ave	Van Buren Bike Boulevard	Bike Boulevard	Municipal	0.63	3,331	
Avon Rd	First St	Schiller St	Poplar Bike Corridor	Bike Boulevard	Municipal	0.17	906	
Fay Ave	Garden Ave	West Ave	Fay Ave Sidepath (S)	Sidepath (S)	Municipal	0.34	1,785	
Prospect Ave	Van Buren St	Madison St	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.38	1,986	

						PRIORIT	IZATION SCC		AILS			,		
Overall		Co	nnects to	)		Nearby crasl	nes involve	Adds o	or ls a	Con	nmunity ranking	on	Mentione	d in
Prioritization Score	Business District	Existing Facility	Transit	Schools	Down- town	Ped or Bike	Serious Auto	Bike Lane or Sidewalk	Low- Hanging Fruit	Priority Segment	Importance of Improvement	Improves Comfort	Previous Ped/Bike Plan (2011)	Other Plan
4	0	1	0	0	0	0	0	0	1	0	0	0	1	1
4	0	1	1	0	0	0	0	0	0	0	1	1	0	0
3	0	0	1	0	0	0	0	0	1	0	0	0	0	1
3	1	0	0	0	0	0	0	0	1	0	0	0	1	0
3	0	1	0	0	0	0	0	0	1	0	0	0	1	0
3	0	0	0	0	0	0	0	0	1	0	0	0	1	1
3	0	0	0	0	0	0	0	0	1	0	0	0	1	1
3	0	0	0	0	0	0	0	0	1	0	0	0	1	1
3	0	0	0	0	0	0	0	0	1	0	0	0	1	1
3	0	0	0	0	0	0	0	0	1	0	0	0	1	1
3	1	0	1	0	0	0	0	0	1	0	0	0	0	0
3	0	0	0	0	0	0	0	0	1	0	0	0	1	1
3	0	0	0	0	0	0	0	0	1	0	0	0	1	1
3	0	0	1	0	0	0	0	0	0	0	1	1	0	0
2	0	0	0	0	0	0	0	0	0	0	1	1	0	0
2	0	1	0	0	0	0	0	0	1	0	0	0	0	0
2	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2	0	0	1	0	0	0	0	0	1	0	0	0	0	0
2	0	0	1	0	0	0	0	0	1	0	0	0	0	0
2	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	1	0	0	0	0	0

### **PRIORITIZATION MATRIX FOR INTERSECTIONS: CATEGORY SCORES**

		PRIORITIZATION SCORING DETAILS								
	Overall		Connec	ts to or is	in a		Nearby cras	nes involve	Community	ranking on
Intersection Name	Prioritization Score	Business District	Existing or Planned Route	Transit	Schools	Down- town	Ped or Bike	Serious Auto	Priority Intersection	Perceived Safety
Prairie Path & York St	7	1	1	1	0	1	1	0	1	1
Belden Ave & York St	6	1	1	1	0	0	1	0	1	1
Church St & York St	6	1	1	1	0	0	1	0	1	1
North Ave & Emroy Ave	5	1	1	1	0	0	1	1	0	0
Palmer Dr & York St (S)	5	0	1	1	1	0	0	1	0	1
St Charles Rd & Berkley Ave (North)	5	0	1	1	1	0	1	0	0	1
St Charles Rd & Berkley Ave (South)	5	1	1	0	1	1	0	0	0	1
Crestview Ave & York Rd	5	0	1	1	1	0	0	1	0	1
First St & Addison Ave & Cottage Hill	5	0	1	1	1	0	1	0	0	1
St Charles Rd & Cottage Hill Ave	4	1	1	0	0	0	0	1	0	1
St Charles Rd & West Ave	4	1	1	0	1	1	0	0	0	0
Van Buren St & York St	4	0	1	1	0	0	1	1	0	0
Benton St/Crescent Ave & Poplar Ave	4	1	1	1	0	0	1	0	0	0
Brush Hill Rd & Salt Creek Trail	4	1	1	1	0	0	1	0	0	0
Butterfield Rd & Spring Rd	3	0	0	1	1	0	0	0	0	1

		PRIORITIZATION SCORING DETAILS								
	Overall		Connec	ts to or is	in a		Nearby crashes involve Community ranking on			ranking on
Intersection Name	Prioritization Score	Business District	Existing or Planned Route	Transit	Schools	Down- town	Ped or Bike	Serious Auto	Priority Intersection	Perceived Safety
Brush Hill Rd & Salt Creek Trail	3	0	0	1	0	0	0	1	0	1
Butterfield Rd & Spring Rd	3	1	0	1	0	0	0	0	0	1
First St & Maple Ave/Prospect Ave	3	0	1	1	0	1	0	0	0	0
Grantley Ave & York St	3	1	1	1	0	0	0	0	0	0
Lake St & Walnut St	3	1	0	1	0	0	0	0	0	1
Spring Rd & Montrose Ave	3	1	0	1	1	0	0	0	0	0
St. Charles Rd & Prospect Ave	3	0	1	1	0	0	1	0	0	0
York St & Vallette St	3	1	1	0	0	0	1	0	0	0
Caroline Ave & Third	2	0	0	1	0	0	0	0	0	1
First St & Poplar Ave	2	0	0	1	0	0	0	0	0	1
Rivierside Dr, E Frontage Rd, & Rt 83	2	1	1	0	0	0	0	0	0	0
Third St & Willow St	2	0	0	1	1	0	0	0	0	0
West Ave & Railroad Tracks	2	0	0	1	0	0	0	1	0	0
North Ave & Myrtle St	1	0	0	1	0	0	0	0	0	0

### PHASING MATRIX FOR ROUTES: CATEGORY SCORES (PAGE 1)

			FACILITY DETAILS				
Street Name	From	То	Facility Name	Facility Type	Jurisdiction	Miles	Feet
Addison Ave	Second St	Third St	Addison Buffered Bike Lanes	Buffered Bike Lanes	Municipal	0.13	680
Cottage Hill Ave	Seminole Ave/Prairie Path	Church St	Cottage Hill Ave Bike Boulevard	Bike Boulevard	Municipal	0.78	4,098
Emroy Ave	Third St	Lake St	Poplar Bike Corridor	Bike Boulevard	Municipal	0.45	2,378
Fischer Farm Rd	Church Rd	Walnut St	Church/Walnut/Myrtle Bike Boulevard	Bike Boulevard	Municipal	0.19	980
Poplar Ave	Poplar Ave Trail	Park Ave	Poplar Bike Corridor	Bike Boulevard	Municipal	1.31	6,920
Spring Rd	Vallette St	Prairie Path	Spring Bike Corridor	Marked Shared Lanes	Municipal	0.18	927
Spring Rd	Prairie Path	St. Charles Rd	Spring Bike Corridor	Marked Shared Lanes	Municipal	0.35	1,834
Third St	Addison Ave	Berteau Ave	Third Bike Boulevard	Bike Boulevard	Municipal	0.63	3,333
Third St	Myrtle Ave	Addison Ave	Third Bike Boulevard	Bike Boulevard	Municipal	0.38	2,002
West Ave	Randolph St	Alexander Blvd	West Ave Advisory Bike Lanes	Advisory Bike Lanes	Municipal	0.76	3,995
Addison Ave	First St	Second St	Addison Buffered Bike Lanes	One-Way Buffered Bike Lane	Municipal	0.15	791
Alexander Blvd	West Ave	Rex Blvd	Alexander Bike Boulevard	Bike Boulevard	Municipal	0.06	325
Alexander Blvd	Rex Blvd	Myrtle Ave	Alexander Bike Boulevard	Bike Boulevard	Municipal	0.46	2,451
Alexander Blvd	Myrtle Ave	Prospect Ave	Alexander Bike Boulevard	Bike Boulevard	Municipal	0.22	1,166
Avon Rd	First St	Schiller St	Poplar Bike Corridor	Bike Boulevard	Municipal	0.17	906
Belden Ave	York St	Emroy Ave/Crestview Park	Belden Ave Bike Boulevard	Bike Boulevard	Municipal	0.51	2,694
Berkley Ave	St. Charles Rd	Salt Creek Trail	Berkley Bike Boulevard	Bike Boulevard	Municipal	1.09	5,776
Berteau Ave	First St	North Ave	Poplar Bike Corridor	Bike Boulevard	Municipal	0.38	1,988
Butterfield Rd	Spring Rd	York St	Butterfield Sidepath	Sidepath (S)	IDOT	0.81	4,254
Butterfield Rd	York St	High St/Caldwell Ave	Butterfield Sidepath	Sidepath (S)	IDOT	0.74	3,911
Church Rd	Grand Ave	Fischer Farm Rd	Church/Walnut/Myrtle Bike Boulevard	Sidepath (E)	Municipal	0.75	3,945
Church St	Prospect Ave	Poplar Ave	Church Bike Boulevard	Bike Boulevard	Municipal	0.76	3,993
Elm Park Ave	West Ave	Prospect Ave	Elm Park Ave Bike Boulevard	Bike Boulevard	Municipal	0.79	4,149
Emroy Ave	Lake St	Crestview Park	Poplar Bike Corridor	Bike Boulevard	Municipal	0.44	2,318
Euclid Ave	Butterfield Rd	Lexington St	Euclid Bike Corridor	Marked Shared Lanes	Municipal	0.13	711
Fairfield Ave	Van Buren St	Salt Creek Trail	Van Buren Bike Boulevard	Bike Boulevard	Municipal	0.12	650
First St	Poplar Ave	Avon Rd	Poplar Bike Corridor	Bike Wayfiding Signage	Municipal	0.03	184
Fremont Ave	Walnut St	Walnut St	Church/Walnut/Myrtle Bike Boulevard	Bike Boulevard	Municipal	0.04	199

	PHASING SCORING DETAILS						
Overall Phasing Score	Low-Hanging Fruit	Top Scoring Recommendation for Prioritization					
Near-Term	1	1					
Near-Term	1	1					
Near-Term	1	1					
Near-Term	1	1					
Near-Term	1	1					
Near-Term	1	1					
Near-Term	1	1					
Near-Term	1	1					
Near-Term	1	1					
Near-Term	1	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	1	0					
Mid-Term	1	0					
Mid-Term	1	0					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					
Mid-Term	0	1					

### PHASING MATRIX FOR ROUTES: CATEGORY SCORES (PAGE 2)

FACILITY DETAILS							
Street Name	From	То	Facility Name	Facility Type	Jurisdiction	Miles	Feet
Grace Ave	Alexander Blvd	St Charles Rd	Grace Ave Bike Boulevard	Bike Boulevard	Municipal	0.58	3,083
Grantley Ave	Myrtle Ave	Emroy Ave	Grantley Bike Boulevard	Bike Boulevard	Municipal	0.92	4,850
Grantley Ave	Walnut St	Myrtle Ave	Grantley Bike Boulevard	Bike Boulevard	Municipal	0.08	402
Grantley Ave	West Ave	Walnut St	Grantley Bike Boulevard	Bike Boulevard	Municipal	0.42	2,193
Larch Ave	First St	Third St	NB Addision Bike Lane Pairing	Marked Shared Lane	Municipal	0.28	1,484
Madison St	Prospect Ave	Poplar Ave	Madison Bike Boulevard	Bike Boulevard	Municipal	0.75	3,982
Madison St	Poplar Ave	Stratford Ave	Madison Bike Boulevard	Bike Boulevard	Municipal	0.40	2,086
Madison St	Fairview Ave	Mitchell Ave	Madison Bike Boulevard	Bike Boulevard	Municipal	0.51	2,671
Madison St	Mitchell Ave	Prospect Ave	Madison Bike Boulevard	Bike Boulevard	Municipal	0.05	270
Maple Ave	Third St	Park Ave	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.31	1,611
Meister Ave	York St	Valette St	S York Bike Corridor	Bike Boulevard	Municipal	0.19	1,005
Mitchell Ave	Prairie Path Ln	Madison St	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.61	3,207
Myrtle Ave	Grantley Ave	Alexander Blvd	Church/Walnut/Myrtle Bike Boulevard	Bike Boulevard	Municipal	0.71	3,755
Poplar Ave	Madison St	Cayuga Ave	Poplar Bike Corridor	Bike Boulevard	Municipal	0.14	746
Poplar Ave	Van Buren St	Madison St	Poplar Bike Corridor	Bike Boulevard	Municipal	0.26	1,360
Prospect Ave	Seminole Ave/Prairie Path	St. Charles Rd	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.33	1,767
Prospect Ave	St. Charles Rd	Park Ave	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.64	3,390
Prospect Ave	Brush Hill Rd	Van Buren St	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.64	3,374
Prospect Ave	Van Buren St	Madison St	Prospect Bike Boulevard	Bike Boulevard	Municipal	0.38	1,986
Schiller St	Avon Rd	Avon Rd sidwalk	Poplar Bike Corridor	Bike Wayfinding Signage	Municipal	0.03	173
Spring Rd	Butterfield Rd	McKinley Ave	Spring Bike Corridor	Multiple Options	Municipal	0.95	5,003
Stratford Ave	Butterfield Rd	Madison St	Stratford Bike Boulevard	Bike Boulevard	Municipal	0.28	1,502
Third St	West Ave	Myrtle Ave	Third Bike Boulevard	Bike Boulevard	Municipal	0.53	2,790
Third St	Berteau Ave	Madison Ct	Third Bike Boulevard	Bike Boulevard	Municipal	0.28	1,474
Third St	Avon Rd Sidewalk	Emroy Ave	Poplar Bike Corridor	Bike Wayfinding Signage	Municipal	0.01	70
Van Aucken St	Lake St	Wrightwood Ave	Poplar Bike Corridor	Bike Boulevard	Municipal	0.93	4,894
Van Buren St	Euclid Ave	York St	Van Buren Bike Boulevard	Bike Boulevard	Municipal	0.24	1,286
Van Buren St	York St	Poplar Ave	Van Buren Bike Boulevard	Bike Boulevard	Municipal	0.28	1,468

	PHASING SCORING DETAILS		
Overall Phasing Score	Low-Hanging Fruit	Top Scoring Recommendation for Prioritization	
Mid-Term	0	1	
Mid-Term	1	0	
Mid-Term	0	1	

## PHASING MATRIX FOR ROUTES: CATEGORY SCORES (PAGE 3)

FACILITY DETAILS							
Street Name	From	То	Facility Name	Facility Type	Jurisdiction	Miles	Feet
Van Buren St	Poplar Ave	Butterfield Park	Poplar Bike Boulevard	Bike Boulevard	Municipal	0.09	498
Van Buren St	Fairfield Ave	Euclid Ave	Van Buren Bike Boulevard	Bike Boulevard	Municipal	0.63	3,331
Walnut St	Fischer Farm Rd	Fremont Ave	Church/Walnut/Myrtle Bike Boulevard	Bike Boulevard	Municipal	0.65	3,427
Walnut St	Fremont Ave	Grantley Ave	Church/Walnut/Myrtle Bike Boulevard	Bike Boulevard	Municipal	0.13	696
West Ave	Alexander Blvd	First St	West Ave Advisory Bike Lanes	Large Sharrows	Municipal	0.07	376
West Ave	First St	Crockett Ave	West Ave Advisory Bike Lanes	Advisory Bike Lanes	Municipal	1.27	6,689
York St	Van Buren St	Meister Ave	S York Bike Corridor	Multiple Options	Municipal	0.75	3,972
York St	Butterfield Rd	Van Buren St	S York Bike Corridor	Multiple Options	Municipal	0.11	591
Avon Rd Sidewalk	Schiller St	Third St	Poplar Bike Corridor	Trail	Municipal	0.19	1,016
Brush Hill Rd	Salt Creek Trail	Hospital	Brush Hill Cycle Track	Two-Way Cycle Track (N)	Municipal	0.69	3,649
ComEd ROW	Parker St	York Rd	ComEd ROW Trail	Trail	Other	0.76	4,024
Euclid Ave	Harvard St	Brush Hill Rd	Euclid Bike Corridor	Sidepath (E)	Municipal	0.26	1,354
Euclid Ave	Lexington St	Harvard St	Euclid Bike Corridor	Sidepath (E)	Municipal	0.08	420
Fay Ave	Garden Ave	West Ave	Fay Ave Sidepath (S)	Sidepath (S)	Municipal	0.34	1,785
Industrial Dr	Grand Ave	York St	Industrial Dr Corridor	Multiple Options	Municipal	1.10	5,829
Lake St	Emroy Ave	Van Aucken St	Poplar Bike Corridor	Sidepath (N)	Municipal	0.15	794
Pioneer Park Trail	Meister Ave	Prairie Path/Prairie Path Ln	Pioneer Park Trail	Trail	Municipal	0.18	963
Poplar Ave Trail	Cayuga Ave	Poplar Ave Trail	Poplar Bike Corridor	Trail	Municipal	0.08	418
Salt Creek Connection	Salt Creek Path	Brush Hill Road	Salt Creek Path/Brush Hill Rd Connection	Sidepath	Municipal	0.04	231
Spring Rd	McKinley Ave	Vallette St	Spring Bike Corridor	Marked Shared Lanes	Municipal	0.22	1,148
St. Charles Rd	West Ave	Cottage Hill Ave	St. Charles Sidepath	Sidepath (N)	Municipal	0.87	4,589
Wilder Park Trail	Church St/Prospect Ave	Alexander Blvd//Prospect Ave	Wilder Park Trails	Trail	Municipal	0.24	1,274
Wilder Park Trail	Prospect Ave/Church St	Cottage Hill Ave//Church St	Wilder Park Trails	Trail	Municipal	0.11	583
Wilder Park Trail	Church St/Cottage Hill Ave	Cottage Hill Ave/Adelaide St	Wilder Park Trails	Trail	Municipal	0.27	1,433
Wilder Park Trail	Prospect Ave/Alexander	Cottage Hill Ave/Adelaide St	Wilder Park Trails	Trail	Municipal	0.13	678
York St	Second St/Palmer Dr	Adelaide St	York Flex Street	Flex Street	Municipal	0.25	1,309

	PHASING SCORING DETAILS		
Overall Phasing Score	Low-Hanging Fruit	Top Scoring Recommendation for Prioritization	
Mid-Term	0	1	
Mid-Term	1	0	
Mid-Term	1	0	
Long-Term	0	0	

### **PHASING MATRIX FOR INTERSECTIONS: CATEGORY SCORES**

		PHASING SCORING DETAILS		
Intersection Name	Overall Phasing Score	Route Phasing*	Top Scoring Recommendation for Prioritization**	Intersect
Benton St/Crescent Ave & Poplar Ave	Near-Term	2	1	North Ave
Butterfield Rd & York St	Near-Term	2	1	Second St
Church St & York St	Near-Term	2	1	Spring Rd
First St & Poplar Ave	Near-Term	2	1	St Charles
North Ave & Emroy Ave	Near-Term	2	1	St. Charles
St Charles Rd & Berkley Ave (South)	Near-Term	2	1	Van Buren
St Charles Rd & Cottage Hill Ave	Near-Term	2	1	Belden Av
Third St & Willow St	Near-Term	2	1	Brush Hill
West Ave & Railroad Tracks	Near-Term	2	1	Crestview
Butterfield Rd & Spring Rd	Mid-Term	1	0	Palmer Dr
Caroline Ave & Third	Mid-Term	1	0	Prairie Pat
First St & Addison Ave & Cottage Hill	Mid-Term	1	0	Rivierside
First St & Maple Ave/Prospect Ave	Mid-Term	1	0	St Charles
Grantley Ave & York St	Mid-Term	1	0	York St & \
Lake St & Walnut St	Mid-Term	1	0	Lake St &

		PHASING SCORING DETAILS		
Intersection Name	Overall Phasing Score	Route Phasing*	Top Scoring Recommendation for Prioritization**	
North Ave & Myrtle St	Mid-Term	1	0	
Second St/Palmer Dr & York Rd	Mid-Term	1	0	
Spring Rd & Montrose Ave	Mid-Term	1	0	
St Charles Rd & Berkley Ave (North)	Mid-Term	1	0	
St. Charles Rd & Prospect Ave	Mid-Term	1	0	
Van Buren St & York St	Mid-Term	1	0	
Belden Ave & York St	Long-Term	0	0	
Brush Hill Rd & Salt Creek Trail	Long-Term	0	0	
Crestview Ave & York Rd	Long-Term	0	0	
Palmer Dr & York St (S)	Long-Term	0	0	
Prairie Path & York St	Long-Term	0	0	
Rivierside Dr, E Frontage Rd, & Rt 83	Long-Term	0	0	
St Charles Rd & West Ave	Long-Term	0	0	
York St & Vallette St	Long-Term	0	0	
Lake St & Walnut St	Mid-Term	1	0	

\*Where 2 = "On a near-term route", 1 = "On a mid-term route", and 0 = "On a long-term route"



## PLANNED ELMHURST BIKEWAYS

The 2021 Elmhurst Bicycle and Pedestrian Plan includes several different bikeways to be built on streets throughout town. This guide provides a brief overview of the different types and where you'll find them.



Narrow, low speed, low traffic residential streets shared by cyclists and drivers. Each lane has a large "sharrow" in its center and "Bikes May Use Full Lane" signs are on the curb line.



Narrow, moderate traffic commercial streets. The right side of each lane is marked with a "sharrow" outside of the "door zone." "Shared Lane" signs are on the curb line.



Narrow, moderate traffic commercial streets. The right side of each lane is marked with a dashed line next to a narrower travel lane. Because travel lanes are narrow, drivers permitted to merge into the advisory bike lane when necessary.



Moderate traffic streets with a portion of the roadway designated exclusively for cycling with striping, signs, and pavement markings. Drivers may merge into bike lanes when parking or turning.



Moderate traffic streets with a portion of the roadway designated exclusively for cycling with striping, signs, and pavement markings. A striped buffer is provided on either the travel lane side or the parking lane side to provide additional comfort and separation. Drivers may merge into bike lanes when parking or turning.



Moderate to high traffic streets with a portion of the roadway physically separated from traffic for two-way cycling.



Wide, paved paths that are separated from the road and marked for use by people walking and biking.

Paved paths separated from the road and marked for use by people walking, cycling, running, or skating.



## **BIKE BOULEVARDS**

The 2021 Elmhurst Bicycle and Pedestrian Plan includes Bike boulevards on many residential streets. This fact sheet provides information on Bike boulevards for cyclists and drivers.

### WHAT ARE BIKE BOULEVARDS?

Bike boulevards are designated low-stress bike routes that use signs, markings, striping, and speed reduction to discourage high driving speeds. They are similar to marked shared lanes, but the sharrow pavement marking is bigger and generally centered in the middle of the travel lane, encouraging bicyclists to "take the lane."





CONCEPTUAL DESIGN ON POPLAR





Bike Boulevards

#### Q: Where will I find bike boulevards?

Bike boulevards are typically found on residential streets with low traffic volumes. In some cases, to make an east/ west and north/south connection across the City, the markings on the street will direct bicyclists to turn onto another roadway that continue along the bike boulevard route.

## Q. Are the rules of the road different in locations with bike boulevards?

No, cyclists and drivers must still follow the traffic rules and regulations.

#### Q. Why create bike boulevards?

- Assist cyclists in lane positioning
- Alert drivers to the presence of cyclists
- Help cyclists find a low stress street

#### Q. What do bike boulevards mean for drivers?

- Expect to see cyclists of all ages in the street
- Give cyclists at least 3' of space when passing
- Check before opening a door when parking on a bike boulevard



## **MARKED SHARED LANES**

The 2021 Elmhurst Bicycle and Pedestrian Plan includes marked shared lanes or "sharrows" on parts of Spring Road. This fact sheet provides information on marked shared lanes for cyclists and drivers.

### WHAT ARE MARKED SHARED LANES?

Marked shared lanes shared streets with bike symbols placed on the road to guide cyclists to the best place to ride within a lane. Similar to bike boulevards, they are recommended on low volume, low speed streets, with some differences. Instead of bicyclists being encouraged to "take the lane," as is the case for narrower bike boulevards, marked shared lanes include sharrows that indicate where bicyclists should position themselves to both stay out of the parking "door zone" and allow space for drivers to safely pass, when appropriate.







Marked shared lane in Kane County, IL; Photo by Kane County Chronicle MARKED SHARED LANE EXAMPLE





Marked Shared Lanes

#### Q: Where will I find marked shared lanes?

Like bike boulevards they are found on streets with lower speeds and traffic volumes.

## Q. Are the rules of the road different in locations with marked shared lanes?

No, cyclists and drivers must still follow the traffic rules and regulations.

#### Q. Why create marked shared lanes?

- Assist cyclists in lane positioning
- Alert drivers to the presence of cyclists
- Encourage slow passing of cyclists by drivers

#### Q. What do marked shared lanes mean for drivers?

- Expect to see cyclists of all ages in the street
- Give cyclists at least 3' of space when passing
- Check before opening a door when parking on a marked shared lane



## **ADVISORY BIKE LANES**

The 2021 Elmhurst Bicycle and Pedestrian Plan includes advisory bike lanes on West Avenue. This fact sheet provides information on advisory bike lanes for cyclists and drivers.

### WHAT ARE ADVISORY BIKE LANES?

Advisory bike lanes provide a dedicated lane for bicyclists that is mostly separated from the vehicular travel way. They are one foot narrower than the recommended minimum for conventional bike lanes and marked by a dashed, not solid line, which allows larger vehicles to cross the line when needed.





Advisory bike lane in Alexandria, VA; Photo by City of Alexandria ADVISORY BIKE LANE EXAMPLE





Advisory Bike Lanes

#### Q: Where will I find advisory bike lanes?

Advisory bike lanes will be found on West Avenue, where the traffic volumes are higher but there is not enough space on the street to stripe a standard bike lane. Advisory bike lanes are recommended to give bicyclists dedicated lanes while also maintaining the other existing functions of the roadway.

## Q. Are the rules of the road different in locations with advisory bike lanes?

No, cyclists and drivers must still follow the traffic rules and regulations.

#### Q. Why create advisory bike lanes?

- Provide a dedicated space for cyclists on a popular cycling route
- Alert drivers to the presence of cyclists
- Calm traffic
- Provide access to local destinations

#### Q. What do advisory bike lanes mean for drivers?

- Expect to see a narrower driving lane
- Merge slowly into the Advisory Lane when needed. Look for cyclists. If one is in the lane, wait for them to pass you before proceeding
- Look for cyclists when turning



### **BIKE LANES**

The 2021 Elmhurst Bicycle and Pedestrian Plan includes bike lanes on York St. This fact sheet provides information on bike lanes for cyclists and drivers.

### WHAT ARE BIKE LANES?

Bike lanes provide a dedicated space for cyclists to travel along a street. They are typically 5'-6' wide and are marked with a solid white line. Drivers may not merge into bike lanes unless they are pulling into or out of a parking space or driveway.





#### Q: Where will I find bike lanes?

Bike lanes will be located on York Rd, pending future study. York Road was identified as a high-priority thoroughfare that is uncomfortable for many cyclists. The bike lanes could be installed in the existing street without widening it, however it would require some modifications to lanes.

#### Q. How will the road change?

The bike lanes could be installed in the existing street without widening it, however it would require some modifications to lanes.

#### Q. Why create bike lanes?

- Create a dedicated, comfortable space for cycling on a highly requested route
- Assist cyclists in lane positioning and predictability
- Alert drivers to the presence of cyclists
- Calm traffic
- Provide access to employers and destinations

#### Q. What do bike Lanes mean for drivers?

- Expect to see a new traffic pattern
- Look for cyclists when turning



Conventional bike lane in Baldwin Park, CA; Photo by NACTO BIKE LANE EXAMPLE





## **BUFFERED BIKE LANES**

The 2021 Elmhurst Bicycle and Pedestrian Plan includes buffered bike lanes on Addison Avenue. This fact sheet provides information on buffered bike lanes for cyclists and drivers.

### WHAT ARE BUFFERED BIKE LANES?

Buffered bike lanes are conventional bicycle lanes paired with a double, hash-marked lane providing more space between the bike lane and vehicle or parking lane. These bike lanes are suitable for streets with moderate to heavy traffic and extra space.





- Planı Exist
  - Planned Buffered Bike Lanes Existing One-Way Buffered Bike Lane



Buffered bike lane in Chicago, IL; Photo by Chicago DOT BUFFERED BIKE LANE EXAMPLE



#### Q: Where will I find buffered bike lanes?

Buffered bike lanes will be found on Addison Avenue. The City installed a buffered bike lane in 2019 and will extend it to Third Street.

#### Q. How will the road change?

The lanes will be narrowed 11.5 feet, which is considered a standard width. Parking will remain.

#### Q. Why create buffered bike lanes?

- Provide a safe, dedicated space for cyclists with access to the Metra Station and downtown
- Alert drivers to the presence of cyclists
- Calm traffic and reduce crash risks

#### Q. What do buffered bike lanes mean for drivers?

- Expect to see a narrower driving lane
- Merge slowly into the buffered bike lane when parking
- Look for cyclists when turning



## **PROTECTED BIKE LANES**

The 2021 Elmhurst Bicycle and Pedestrian Plan includes protected bike lanes on Brush Hill Road. This fact sheet provides information on protected bike lanes for cyclists and drivers.

### WHAT ARE PROTECTED BIKE LANES?

Two-way protected bike lanes (also known as a twoway cycle track or on-street bike paths) provide physical separation between bicyclists and traffic. They are a recommended on higher stress roadways where more separation than conventional bike lanes is needed but there either isn't space in the parkway for a sidepath or building a sidepath would be infeasible.







Two-way protected bike lane in Jersey City, NJ; Photo by City of Jersey City TWO-WAY PROTECTED BIKE LANE EXAMPLE









Two-Way Protected Bike Lanes

#### Q: Where will I find protected bike lanes?

A two-way protected bike lane is recommended on the north side of Brush Hill Rd between the Salt Creek Trail and the Elmhurst Hospital driveway entrance.

#### Q. How will the road change?

The existing curb-to-curb right-of-way contains a curb-less shoulder of about eight feet. To ensure optimal safety for bicyclists, the project team recommends extending the curb-to-curb right-of-way by two feet to accommodate space for a bollard-protected buffer.

#### Q. Why create protected bike lanes?

- Create a dedicated, car-free space for cycling
- Provide access to a regional employer and trails
- Calm traffic

#### Q. What do protected bike lanes mean for drivers?

- Expect to see a new road configuration
- Look for cyclists traveling in both directions when turning



### SIDEPATHS

The 2021 Elmhurst Bicycle and Pedestrian Plan includes sidepaths on several streets. This fact sheet provides information on sidepaths for cyclists and drivers.

### WHAT ARE SIDEPATHS?

Sidepaths are similar to multi-use trails alongside the road. They are completely separate from car traffic and are shared by pedestrians and bicyclists. They are double the size of a sidewalk to accommodate walking and biking.





CONCEPTUAL DESIGN ON FAY AVE



This type of sign could be placed along a sidepath to show where the bike route turns from a one street or trail to the next and could also be paired with destination names. For Fay Ave, a sign could be placed on the eastern end of the path to signal the connection to the West Ave advisory bike lanes.



#### Q: Where will I find sidepaths?

Throughout the city on high traffic, high speed corridors. In these instances, sidepaths are recommended. In some locations, like Butterfield Rd sidepath, further engineering study will be needed to determine navigating around utility poles.

#### Q. How should pedestrians and bicyclists use sidepaths?

- Cyclists should keep to the right and yield to pedestrians, except when passing
- Pedestrians should be aware of passing cyclists and share the trail
- Pedestrians and cyclists should use caution when crossing streets. Pedestrians have the right of way over vehicles, cyclists do not.

#### Q. What are the benefits to sidepaths?

- Provide a separated space for walkers and bikers on busy roads
- Fill in sidewalk gaps
- Connect to many destinations and routes



## **TRAFFIC CALMING TOOLS**

The 2021 Elmhurst Bicycle and Pedestrian Plan includes several traffic calming tools at intersections and along blocks, which are designed to reduce speeding, reduce crashes, and improve pedestrian visibility at crossings.

Image Source: NACTO	What are bump-outs? Bump-outs extend sidewalks into a parking or non-vehicle lane. They are most appropriate on local roads with wide crossings where they intersect arterial and collector streets.	Where should bump-outs be used? They are most appropriate on local roads with wide crossings where they intersect arterial and collector streets.	<ul> <li>What are the benefits of bump-outs?</li> <li>Reduce turning speed</li> <li>Reduce pedestrian crossing distance</li> <li>Increase pedestrian visibility</li> <li>Increase pedestrian sight-lines</li> <li>Increase waiting space on narrow corners</li> </ul>
Image Source: NACTO	What are mini-traffic circles? Mini traffic circles direct users predictably through intersections. They can be designed with mountable curbs to allow large vehicles to travel through an intersection.	Where should mini-traffic circles be used? They are recommended for use at complex residential intersections near schools and parks.	<ul> <li>What are the benefits of mini-traffic circles?</li> <li>Reduce crash severity</li> <li>Reduce speeding</li> <li>Eliminate need for stop signs</li> </ul>
Image Source: FHWA	What are raised intersections and crossings? Raise a crosswalk or intersection to curb level to increase visibility and reduce vehicle speeds. They can be constructed of brick or other textured material.	Where should raised intersections and crossings be used? Select crossings adjacent to parks and trails with high pedestrian and bicycle volumes.	<ul> <li>What are the benefits of raised intersections and crossings?</li> <li>Reduce vehicle speed</li> <li>Reduce crash severity</li> <li>Call attention to a pedestrian crossing</li> </ul>
Image Source: NACTO	What are reduced corner radii? The size of the corner relates to the length of a crosswalk and the speed of turning traffic. Reducing curb radii create a shorter crossing distance for pedestrians and encourage drivers to slow down when making right turns.	Where should reduced corner radii be used? Arterial and collector streets with wide radii and long crossing distances. Like mini- traffic circles, they can be designed with mountable curbs to allow large vehicles to travel through an intersection.	<ul> <li>What are the benefits of corner radii?</li> <li>Reduce crash severity</li> <li>Reduce speeding</li> <li>Reduce pedestrian crossing distance</li> <li>Increase pedestrian visibility</li> <li>Increase waiting space on narrow corners</li> </ul>
Image Source: CMAP	<b>Corner Island and Right- Turn Slip Lanes</b> Corner islands ("pork chop" islands) are triangular raised islands placed at an intersection between a right-turn slip lane and through-travel lanes.	Where should corner islands be used? Arterial streets with right-turn lanes and wide crossings.	<ul> <li>What are the benefits of corner islands?</li> <li>Reduce crash severity</li> <li>Reduce speeding</li> <li>Reduce pedestrian crossing distance</li> <li>Increase pedestrian visibility</li> </ul>



## **BIKE FRIENDLY INTERSECTIONS**

The 2021 Elmhurst Bicycle and Pedestrian Plan includes several recommendations for bicycle friendly intersections. These recommendations will increase cyclist visibility and clarify their intended path of travel.



## What are intersection markings?

Intersection crossing markings indicate the proper lane position for a cyclist through an intersection. They are typically denoted with dashed white lines, a bike symbol, and white arrows. The symbol and arrows may be highlighted in green paint on non-federal aid roads.

## Where should intersection markings be used?

Large intersections, or at those where the lane positions shift. They can also be used where a bikeway turns from one street to another.

## What are the benefits of intersection markings?

- Increased visibility of cyclists at intersections
- More predictable cyclist behavior



## What are bicycle crosswalks?

Bicycle crosswalks indicate a the correct lane position for a cyclist through an intersection, separate from the pedestrian crossing. They can be highlighted in green to increase visibility on non-federal aid roads.

## Where should bicycle crosswalks be used?

Adjacent to pedestrian crosswalks where trails, sidepaths, and protected bike lanes intersect streets.

## What are the benefits of bicycle crosswalks?

- Increased visibility of cyclists at intersections
- Widened crosswalks at high volume locations
- Separate crossing lane for pedestrians and cyclists



### What are bike boxes?

A bike box is a designated area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase. They are intended to increase bicyclist visibility and prevent conflicts with turning vehicles at the start of a green signal phase. They may be highlighted in green paint on non-federal aid roads.

## Where should bike boxes be used?

At signalized intersections on arterials or collectors along the bike network.

## What are the benefits of bike boxes?

- Increased visibility of cyclists at intersections
- Reduced bike/vehicle conflicts at the start of a green signal

