NORTHERN LAKESHORE

TRAIL CONNECTIVITY PLAN

SEPTEMBER 2020

CONNECTING THE COMMUNITIES OF WINTHROP HARBOR, ZION, BEACH PARK, WAUKEGAN, AND NORTH CHICAGO

ACKNOWLEDGEMENTS

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**While Jon and Leisa are no longer with the Village of Beach Park, the project team is extremely grateful for their leadership and support during the development of this plan.*

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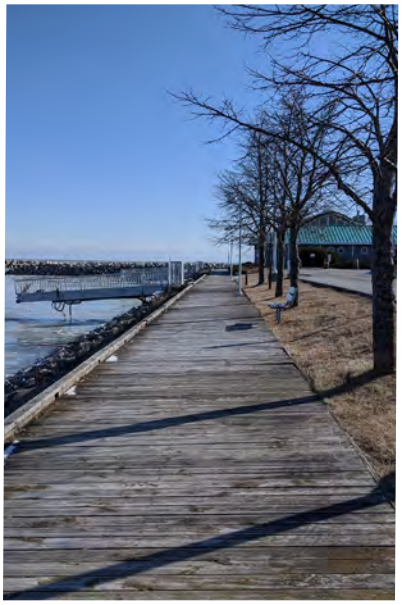


1. OVERVIEW

A CONNECTED NORTHERN LAKESHORE OPEN ALL YEAR

As stated in the **Existing Conditions Report**, this plan envisions a connected network of trails for walking and bicycling that is **safe & accessible, healthy, connected**, and **growing**. This will be realized by the Northern Lakeshore communities in a robust network of infrastructure to support walking and bicycling for people of all ages and abilities.

Supported by a calendar of year-round activities, recommendations contained within this plan establish a network of more than 100 miles of improved walking and bicycling infrastructure. These improvements will further connect the communities of Winthrop Harbor, Zion, Beach Park, Waukegan, and North Chicago and the region's key partner in open space and natural resource conservation: Illinois Beach State Park managed by the Illinois Department of Natural Resources (IDNR).

As the managing agency for the Coastal Management Program, Recreational Trails Program, and Illinois Nature Preserves Commission, and several other programs, IDNR holds the unique position of supporting improved access to open space, the lakefront, and recreational opportunities while also leading conservation and preservation efforts.

Together, IDNR and the Northern Lakeshore communities have established a plan to advance regional trail connectivity goals, track implementation of the plan, and align with the objectives of **ON TO 2050**, the regional comprehensive plan for the Chicago metropolitan region prepared by CMAP.

Figure 1.1 Plan Benchmarks

	Baseline	Target
Safe & Accessible		
• Reduce crashes involving people walking	155 crashes	0 crashes
• Reduce crashes involving people bicycling	238 crashes	0 crashes
• Increase share of population living within 1/4 mile of a trail	52.9%	75.0%
Healthy		
• Increase share of people who walk and bicycle to work	2.0 - 8.0%	10 - 20%
• Increase share of people who walk and bicycle to Metra	4.4 - 9.1 %	20%
• Reduce obesity rates	24 - 35%	10 - 15%
Connected		
• Eliminate sidewalk gaps within 1/4 mile of all schools and parks	88 miles	0 miles
Growing		
• Increase Metra ridership (Weekday / Saturday / Sunday)*	1,365 / 2,120 / 978*	2% annual increase
• Reduce transportation costs as a share of household spending	19.8 - 23.8%	15 - 20%

**Source: Metra Weekend ridership counts 2010, weekday ridership counts 2018)*

Figure 1.1 shows the proposed plan benchmarks to serve as aspirational targets for implementation, and reflect values representative of Walk Friendly Communities and Bicycle Friendly Communities as defined by the League of American Bicyclists.

While these targets may be influenced by changing land use and development patterns over time, two indicators represent outcomes that municipalities have the direct ability to influence through construction: share of population living within a quarter-mile of a trail and the elimination of gaps near parks and schools.

For example, by requiring sidewalks with new construction and closing gaps in key locations, these two factors have a direct impact on creating a more connected network.

Bicyclists consulting a network map.
Source: Active Transportation Alliance.

Figure 1.2 Recommendations at a Glance

2. DESIGN GUIDELINES

PRINCIPLES

Creating a safe, connected, healthy, accessible, and growing network for walking and bicycling is made possible by the latest design guidance. Drawing on nationally-recognized best publications for bicycle, pedestrian, and multimodal facility design, this section provides an overview of design guidance and a review of facility types. The key to a successful project is knowing what design options are available, and how best to implement them.

When presented with a variety of potential design applications, it is important to consider three main principles:

1. User Needs

Who is the user? People of all ages and abilities have different needs. **Families** walking and bicycling together travel at slower speeds and require additional space to navigate. **Adult bicyclists** who are confident commuting by bicycle prefer direct routes with few interruptions or detours. **All users** seek to minimize conflicts with motorized vehicles and prefer facilities that make everyone feel welcome and supported.

Stakeholders implementing this plan should consider for whom the facility is intended and seek to maximize the comfort and safety of the most vulnerable user.

2. Context Sensitivity

Many walking and bicycling corridors are located along roadways, and the comfort and safety of everyone depends on how these corridors operate. Roadway context is a function of traffic **speed**, amount of traffic **volume**, adjacent **land use**, and the number and width of **travel lanes.** These are the primary inputs used to calculate Levels of Traffic Stress in the Existing Conditions Report.

In the presence of higher speeds and higher volumes of traffic, people walking and bicycling need greater separation from moving traffic to feel comfortable and to mitigate potential conflicts. People driving and operating transit vehicles also benefit, as this provides space for everyone to operate in a way that is visible and predictable.

3. Selection + Application

User needs and context sensitivity help identify how much space different users need and thus, which type of facility to select. Whenever possible, networks should be designed to accommodate users of all ages and abilities. While not every roadway or corridor can be navigated by children, adults, and seniors alike, the selection of facilities should consider all of these groups as potential users and select facilities accordingly.

Once a facility is selected, application varies slightly based on context, available space, and other factors such as available width (e.g. building a sidewalk along a roadway with open drainage may involve relocating the drainage swale or installing a storm sewer to create space).

Guidance Structure

The design guidelines in this section present a brief introduction to each potential treatment with general guidance on design and application.

Design guidance draws upon best practices in facility planning and design developed by the American Association of State Highway and Transportation Officials (**AASHTO**) and the Federal Highway Administration (**FHWA**), the agency responsible for the publication of the Manual on Uniform Traffic Control Devices (**MUTCD**).

Supplemental guidance that promotes flexibility and provides support for innovation comes from the National Association of City Transportation Officials (**NACTO**) and the Institute of Transportation Engineers (**ITE**).

Additional guidance is taken into context for specific application within Illinois. IDOT manuals include the Bureau of Design and Environment (**BDE**) for state highway and IDOT-managed projects, and Bureau of Local Roads and Streets (**BLRS**) manual for locally-managed projects. While the BDE and BLRS are similar in most areas, minor differences apply in terms of bicycle and pedestrian facility design based on the agency having jurisdiction over the roadway. The use of IDOT manuals are the most commonly used manuals in Illinois, as these must be referenced as primary guidance when implementing projects on state-owned roads or when federal funds are used for design or construction (regardless of which agency owns or maintains the roadway).

Stakeholders responsible for implementing this plan should use these guidelines as a starting point for considering potential treatments to improve walking and bicycling.

Crossing markings for a bike lane through an intersection. Source: NACTO.

Corridor Facilities

Corridor facility recommendations consist of facilities designed to accommodate walking and bicycling based on the speed, volume, travel lanes, and land use described in the context sensitivity overview. Feelings of comfort and safety are significantly impacted by how much space users are given, particularly when traveling at different speeds. Facilities fall into one of three categories:

- **Shared roadway** environments consisting only of pavement markings and signs;
- **Visually separated facilities**, where pavement markings and physical distance are used to separate roadway users;
- **Physical separation**, where a physical buffer, curb, parkway, streetscape, or other barrier separates motorized traffic from all other users.

Recommendations include:

1. Sidewalk
2. Trail + Sidepath
3. Signed Bike Route
4. Marked Shared Lane
5. Bike Lane
6. Buffered Bike Lane
7. Separated Bike Lane
8. Advisory Bike Lane, Advisory Shoulder
9. Bike Boulevard
10. Custom Roadway Reconfiguration

Application of corridor facilities may vary based on roadway posted speed and average daily traffic. This in turn impacts how comfortable each facility may be. General considerations for facility applications are summarized in **Figure 2.1 Facility Selection Index** on the following page.

Intersection + Midblock Treatments

Intersection, midblock, and spot treatments include a variety of treatments aimed at improving conditions where trails and sidewalks intersect roadways, railroads, network gaps, or other barriers.

Mobility Improvement Areas

Mobility Improvement Areas (MIA) include more site-specific recommendations around key destinations, including Metra stations, areas with concentrations of Pace bus ridership activity, and other areas based on discussions with project stakeholders.

MIA recommendations include bike parking, wayfinding signage, and intersection improvements to improve comfort, safety, and to encourage walking and bicycling. MIA recommendations are:

1. Bike Parking
2. Bus Stop Pad + Shelter Improvements
3. Intersection Curb Radius or Ramp Improvements
4. Marked Crosswalk
5. Midblock Crossing
6. Traffic Signal Improvements
7. Wayfinding / Directional Signage
8. New Bridge or Railroad Overpass

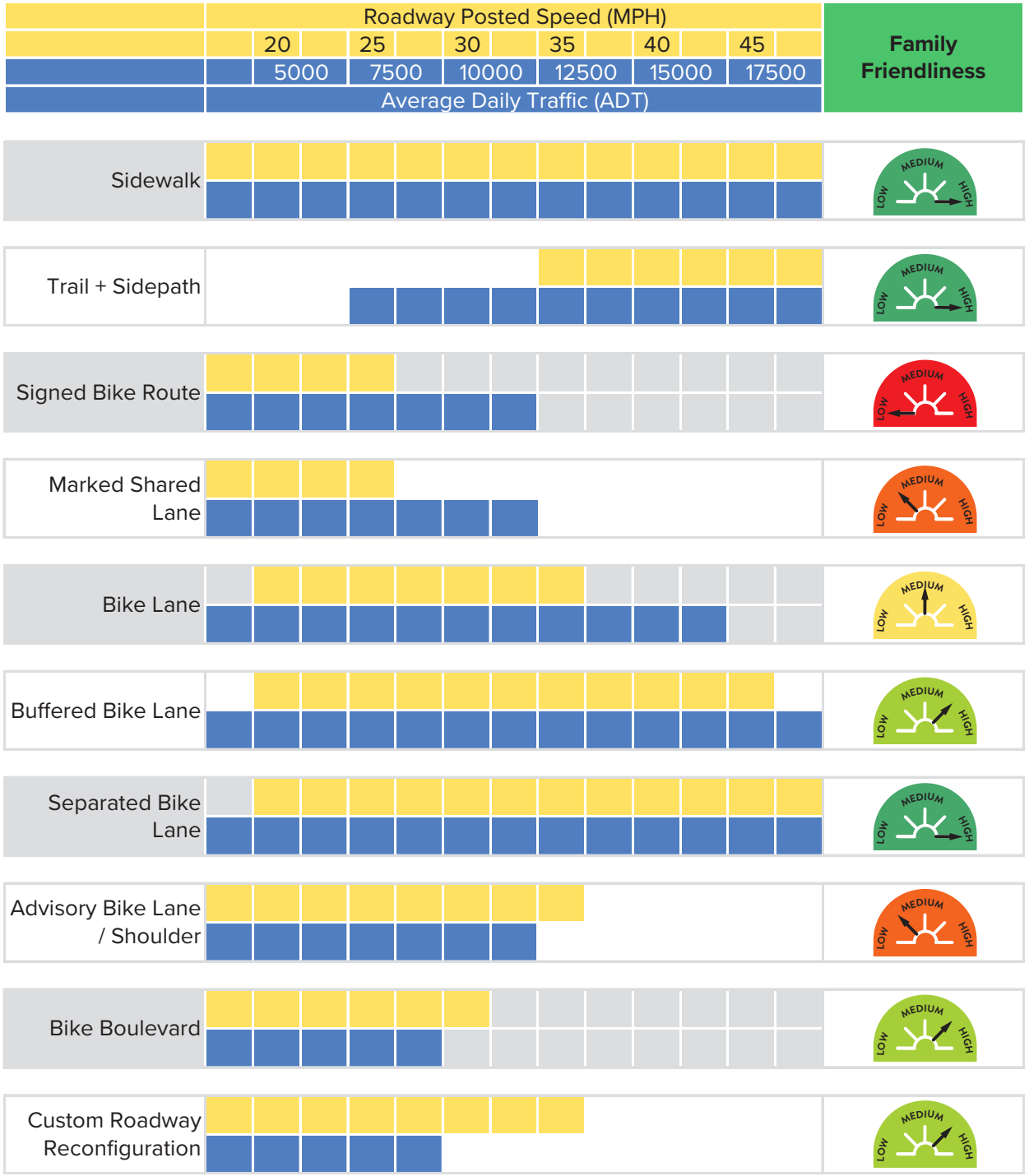
Wherever space permits, pedestrian and bicycle facilities - and the separation between these users and motorists - should be made as wide as feasible to protect the Northern Lakeshore region's most vulnerable users:

people walking and bicycling.

Facility Selection Index

Figure 2.1: Facility Selection Index

How "comfortable" a walking or bicycling facility feels is a function of how much space is provided between the facility and motorized traffic, as well as the speed and volume of that traffic. Generally, facilities are viewed as more "family-friendly" when users are well separated from traffic, or when traffic volumes are low and speeds are calm.



Corridor Facility Design Guidelines

Sidewalk

Sidewalks are among the most basic yet important type of walking infrastructure. Gaps - even short ones - can render a block or a location inaccessible and discourage walking, particularly for people using wheelchairs, pushing strollers, or walking with carts.

Basics: Sidewalk design is governed primarily by the Americans with Disabilities Act (ADA) Accessibility Guidelines and the Draft Public Rights of Way Access Guidelines (PROWAG).

Wider is better: Sidewalks should be a minimum of 5-feet wide and should be constructed of concrete. Sidewalks 6-feet or wider are recommended in central business districts, near schools, churches, transit stops, and anywhere else where pedestrian activity is frequent or desired.

Sidewalks should be separated from the roadway by a 5-foot grass or landscaped parkway, or streetscape in commercial districts. This provides a buffer from pedestrian traffic, adjacent vehicular traffic, and creates space for curb ramps at intersections. In constrained areas where there is no space for a buffer, sidewalks must be at least 7-feet wide.

Note: Bicycling on sidewalks is typically not permitted for adults, but is acceptable for children under the age of 12.

Figure 2.2 Nautical-themed sidewalks in Winthrop Harbor.

Shared Use Path + Sidepath

Shared Use Paths and sidepaths are regarded as some of the most comfortable and desirable bicycling facilities, and accommodate walking, running, and bicycling in a shared space.

Basics: Paved shared use paths are specifically preferred in most conditions, as they can be maintained for year-round use. They should be a minimum of 10-feet wide with a 2-foot shoulder and a 3-foot clear zone on both sides kept free of branches, signs, and obstructions.

Shared Use Path vs. Sidepath: When shared use paths are located along a roadway, they are called sidepaths, as their design includes additional considerations for how to approach side streets and driveway crossings.

Unpaved Trails: IDNR and LCDOT maintain a network of unpaved trails, which may be lower cost and can be beneficial in sensitive areas or where bicycle use is not year-round. These make up a large share of the region's trail network. Unpaved trails can be ADA accessible as long as their surface material is regularly maintained to be "firm and stable."

Figure 2.3 (Top), Shared use path in the Lake County Forest Preserve. (Bottom) Sidepath in Beach Park.

Signed Bike Route

A signed bike route is one or more roadways that have been identified as preferable corridors for bicycling. The addition of signage to a bike route is a low-cost strategy for identifying where networks of streets suitable for bicycling are located.

Basics: Green directional signs (D-Series) are most commonly used to communicate distance, direction, and destination to roadway users. Signed bike routes are best suited for low-speed (25 mph or slower), shared roadways, but these signs may also be added on more robust facilities such as sidepaths or bike lanes.

Yellow warning (W-Series), and white regulatory (R-Series) signs also are recommended to communicate traffic laws and remind roadway users of the presence of bicyclists in a shared roadway environment.

Use Strategically: Bike routes that consist *only* of signs should be reserved for low-speed, low volume roadways where little else is needed to accommodate bicycling. Without more robust infrastructure, signed routes alone may not be viewed as "family-friendly" or comfortable for people of all ages and abilities.

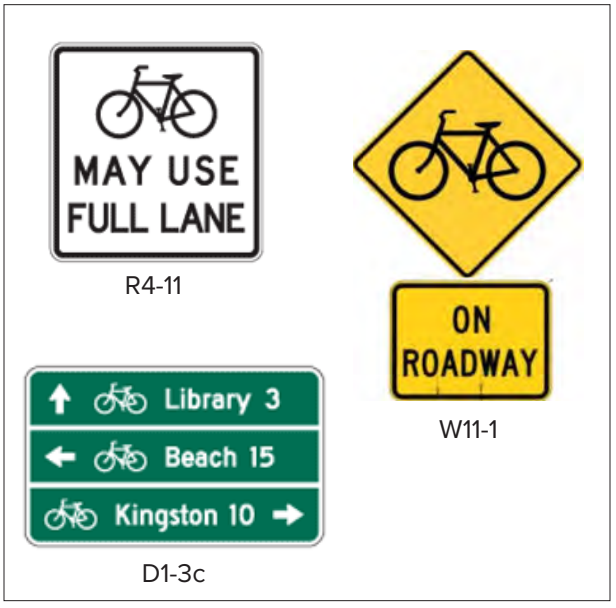


Figure 2.4 Examples of directional (D), warning (W), and regulatory (R) signs from the MUTCD.

Marked Shared Lane

When additional guidance is desired to accommodate bicyclists in low-speed (25 mph or slower) shared roadway conditions, marked shared lanes help identify bicycling networks with the help of pavement markings to show the expected location and path of bicyclists.

Basics: Referred to sometimes as "sharrows," marked shared lanes consist of a chevron pattern and bike symbol, and are placed at the beginning of each block on which they are installed, and then every 250 feet thereafter.

Shared lane markings should be placed 4 feet from the face of the curb or (edge of pavement on roads with no curb), and 11 feet from the face or curb on streets with on-street parking. Marked shared lanes can (and should) be used to supplement signed bike routes where applicable.

Prioritize Bicyclists in Select Locations: On narrow roadways, bike boulevards, or other shared lanes where it is desirable to give bicyclists priority movement, and discourage motorists from overtaking bicyclists (for short distances), shared lane markings may be placed in the center of a travel lane.

Figure 2.5 Shared lane marking on a suburban roadway. Source: CMAP

Bike Lanes

Bike lanes are facilities that create space for *exclusive* use by bicyclists. They provide more comfort than shared lanes and are among the most common bike facility types.

Basics: Bike lanes consist of a lane line separating the bike lane from automobile traffic, a bike symbol with an arrow pointing in the direction of travel, and a lane adjacent to the curb, edge of pavement, or parking lane. Bike lanes should be at least 5 feet wide, but 6 feet is strongly recommended on roadways with on-street parking, where trucks are present, or on roadways with more than 10,000 vehicles per day.

Customize: Bike lanes may be accompanied by bike lane signs (R-Series), and are usually designed so bicyclists travel in the same direction as other traffic. Bike lanes can be placed on the left side of one-way streets if it helps accommodate left turns or avoid conflicts with transit vehicles, and contra-flow bike lanes may be used if there is a need to accommodate bicycling in both directions on one-way streets.

Roadway space for bike lanes often is created through the narrowing of existing wide lanes, or roadway reconfigurations, though this is not necessarily required.

Figure 2.6 Bike lane in Richton Park.
Source: Active Transportation Alliance

Buffered Bike Lanes

Buffered bike lanes improve comfort for bicyclists and all other roadway users by pairing a conventional bike lane with a buffer between one or more lanes. Whenever there is available roadway space, it should be filled with buffers that favor more vulnerable users.

Basics: Buffered bike lanes consist of a 4- to 6-foot bike lane and buffer that is 2-feet or wider, resulting in a total width of at least 6-feet. Buffers may be placed adjacent to parking lanes, travel lanes, or both, depending on which lanes present a hazard worth mitigating. Buffers wider than 2-feet should be marked with consistent interior diagonal cross-hatching. All other pavement marking and signage design guidance that applies to conventional bike lanes also applies to buffered bike lanes.

Better Than Conventional: Buffered bike lanes are good at organizing roadway space, as the buffer helps align users to avoid conflicts. Buffers help keep car doors from opening into the bike lane, help keep truck and bus mirrors from encroaching in other lanes, and help calm traffic and discourage speeding by narrowing wide automobile travel lanes.

Figure 2.7 Buffered bike lane in Chicago.
Source: Active Transportation Alliance.

Separated Bike Lanes

Separated bike lanes are for exclusive use by bicyclists, are located adjacent to the roadway and are separated from other traffic through the use of a physical vertical element. These could be curbs, vertical delineators ("flexposts"), planters, a row of parked vehicles, or may even be constructed at sidewalk level and separated from pedestrians.

Separated bike lanes often are called cycle tracks, and provide much more comfort than conventional or buffered bike lanes due to the presence of a physical barrier between bicyclists and other roadway users.

Basics: Separated bike lanes require at least 5 feet of width for each direction of travel, with a total clear width between barriers of 7 feet (the minimum width required to plow snow). A minimum buffer width of 3 feet is recommended, resulting in a total facility width of at least 8 feet.

Two-Way: Sometimes it is desirable to keep all bicyclists on one side of the street to connect to a trail or sidepath. In this case, both directions of separated bike lanes are placed together on one side of the roadway, and a single buffer is used to separate both bike lanes from all other traffic lanes.

Figure 2.8 Two-way separated bike lane. Source: Chicago Department of Transportation.

Advisory Shoulders (Advisory Bike Lanes)

An advisory shoulder delineates a shared space at the roadway edge on roadways too narrow for bike lanes. The FHWA refers to these as "dashed bike lanes" or "advisory shoulders," as they may function as a shoulder and are not just for use by bicyclists.

Advisory bike lanes are an experimental treatment. Installation is encouraged, but requires prior approval from FHWA.

Basics: Each advisory shoulder is marked with a broken lane line. Motorists may use this space when no bicyclists are present and must exit the shoulder to pass. They are intended for low speed (25 mph), low volume roadways and should be at least 4 feet wide (6 feet preferred) on either side of the roadway, and the remaining space in the center of the roadway reserved for two-way travel should be at least 10 feet wide (16 feet preferred to avoid encroachment).

Public Education is Important: Advisory shoulders may require motorists to *share* the center lane for two-way travel. This is uncommon, so education is recommended to bring awareness to this novel roadway condition.

Figure 2.9 Advisory shoulders shown installed on a street with on-street parking. Source: FHWA.

Bike Parking

Bike parking infrastructure is simple and low-cost, yet critically important to support bicycling. Whether installing single racks on a main street in a business district or large covered bike parking corrals at Metra Stations, the installation of visible and high quality bike parking can encourage bicycling by providing secure parking options.

Basics: Bike parking should be located in highly visible locations, close to building entrances, and adjacent and connected to pedestrian walkways for easy access.

“Post and ring” and “inverted U” racks are the most common and preferred style of bike parking as they allow the bicycle to be locked at two points in an upright position.

Cover + Corral: Assembly of several bike racks together is referred to as a corral and helps improve visibility and security by attracting multiple users to a single location. Covered bike parking also encourages year-round bicycling as it affords additional protection from rain and snow.

Figure 2.10 Covered bike parking at the Wilmette Metra Station. Source: RTA

Bus Stop + Shelter Improvements

Improvements to bus stops can help encourage and support transit ridership.

Basics: Typical bus stop and shelter improvements may include installing a concrete pad at the bus stop to facilitate boarding and alighting, and provide additional room for people using wheelchairs or pushing carts or strollers. In order to be made accessible to all persons, the bus stop pad should be attached to both the curb and the sidewalk for a continuous pathway for boarding and alighting.

Shelter + Inform: In addition to an accessible bus stop, bus stop shelters provide protection from wind and weather, and help to make the bus stop more visible to transit vehicle operators, motorists, and transit users. Pace’s bus shelter program provides guidelines for ad-free shelters as well as strict advertising standards for ad-supported shelters.

Transit information, including maps, arrival times, and connection information is also helpful at bus stops, as well as where Pace bus routes meet Metra stations. At these locations, the RTA Interagency Sign Design Manual is recommended for standardized wayfinding signage related specifically to transit transfer locations.

Figure 2.11 Covered bike parking at the Lake Forest Metra Station. Source: Daily North Shore JWC Media.

Bike Boulevard

A bike boulevard is a combination of traffic calming treatments combined with select pavement markings and signage to create a shared roadway where bicycle travel is prioritized.

Basics: Bike boulevards combine **speed management** strategies (speed humps, mini traffic circles, roadway narrowing) with **volume management** strategies (cul de sacs, barrier medians or partial closures with bicycle-size cut-throughs) to create a roadway where automobile travel is welcome, but speeding and excessive cut-through traffic are discouraged.

Shared lane markings or bike boulevard symbols are installed in the center of the travel lane, making clear that the space is intended for bicycling, and that motorists must change lanes to pass when space is available.

Mix and Match: When designing a bike boulevard, there is no one-size-fits-all, but generally they are designed with families in mind. Good roadway candidates include low-speed (25 mph preferred) roadways that are located near commercial corridors. Bike boulevards are more casual and family-friendly than traveling in a bike lane on a major road with on-street parking.

Figure 2.12 Bike boulevard in Berkeley, California. Source: NACTO.

Custom Roadway Reconfiguration

There are some locations where environmental or right of way constraints create challenges for accommodating bicycling in the Northern Lakeshore study area. Preservation of natural habitat is of primary importance, and roadway widening is not feasible.

When roadway widening or expansion is not an option, it may be feasible to combine design guideline elements to create room for walking and bicycling while maintaining existing pavement width.

These examples are referred to as “custom roadway reconfigurations.” While improved walking and bicycling is desired in these locations, further study is needed before selecting a recommended facility type.

Possible approaches may involve reallocating existing pavement width while leaving the actual pavement width unchanged. Using this approach, traffic is calmed, and walking and bicycling facilities are created. Flexible delineator posts, like those shown below, are one potential way of separating roadway users without inserting a fixed object that poses a crash hazard.

Figure 2.13 Flexible delineator posts near a pedestrian crossing. Source: Tactical Urbanist’s Guide.

Intersection Radius + Ramp Improvements

Intersection turning radii design guidelines are largely influenced by the types of vehicles that must be able to make turns, as larger vehicles require larger turning radii to complete a turn. However, in the presence of large radii, smaller vehicles can complete turns at higher speeds and may be less likely to see and yield to pedestrians and bicyclists in a crossing.

Basics: If large vehicle movements are infrequent or not permitted, reducing the turning radius can improve walking and bicycling by reducing the speed at which vehicles can turn and reduce the length of the crossing, thereby reducing the length of time a person is exposed to traffic.

More Room for Ramps: Reducing corner radii provides more room at crosswalks for the installation of accessible curb ramps. These ramps help align pedestrian crossings to the shortest intended path of travel and reduce the length of time users are exposed to potential conflicts.

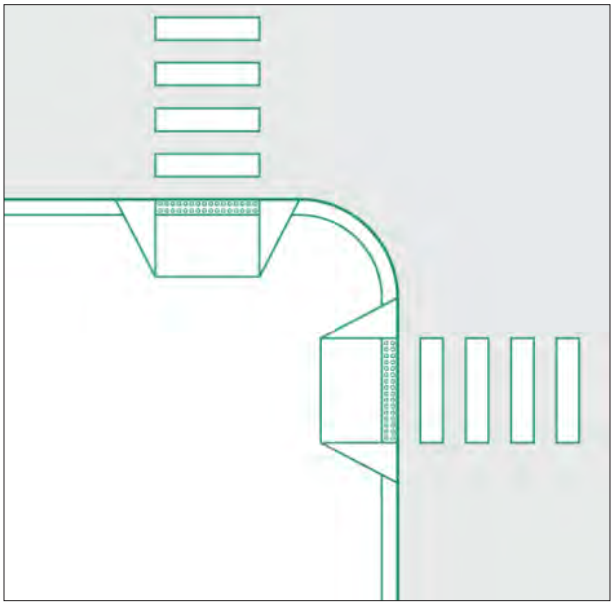


Figure 2.14 Small corner radius provides more room for curb ramps at intersections. Source: NACTO.

Marked Crosswalk

While crosswalks do not need to be marked to be considered legal, marked crosswalks provide helpful information on intended crossing locations at intersections. They also provide a visual indicator to approaching motorists.

Basics: Transverse lines like those shown below are referred to as high visibility or continental crosswalks, and are the preferred standard for any marked crosswalk at an unsignalized location, near schools, parks, places of worship, and anywhere pedestrian crossing activity is expected to be common. Markings are installed in this direction to be as visible as possible to approaching motorists.

Placement: Typical pavement markings for market crosswalks may be 1 or 2 feet wide and 6 feet long, with 1 or 2-foot gaps between each (1-foot line = 1-foot gap, 1-foot line = 2-foot gap). Where possible warning signage (MUTCD sign S1-1, W16-9P, and W16-7P) should be installed in advance of the crosswalk (300- to 500-feet in advance depending on posted speed).

These may be supplemented with in-street signs (MUTCD R1-6a and supplemented with S4-3P in school zones).

2.15 Marked crosswalk with in-road Must Stop for Pedestrian sign on 9th Street at Russell Avenue near Westfield School in Winthrop Harbor.

Midblock Crossings

Midblock crossings utilize the same design guidelines as marked crosswalks at intersections.

Basics: Midblock crossings should be placed no closer than 500 feet from the nearest signalized intersection and should utilize high visibility crosswalk markings, and warning signage in advance of the crossing as well as at the crossing location. They are recommended on roadways with posted speeds of 35 mph or lower. In-street signs may be installed at crossing locations to further improve visibility from a distance.

Mitigating Width, Volume + Speed: When midblock locations are located on roadways with posted speeds above 35 mph, roadways with more than 2 travel lanes, or on roadways with more than 15,000 daily vehicles, additional treatments should be considered.

Median refuge islands installed in the center of the roadway help to split the crossing into two smaller movements and provide a place for pedestrians or bicyclists to wait for a gap in traffic. Pedestrian hybrid beacons (PHB) may be considered for the crossing and function like railroad crossing lights when activated.

Figure 2.16 Midblock crossing with refuge island and hybrid beacon. Source: Atlanta Journal-Constitution.

Traffic Signal

Traffic signals are the most common method for assigning right of way at intersections and are among the most well understood. However, they are also among the most expensive.

Basics: Signalized intersections may be installed if they satisfy the criteria outlined in one or more warrants in the MUTCD. If warranted, signals should include signal phases to accommodate each movement and user group, including pedestrian crossings.

Equity + Function: Bicyclists and pedestrians should be able to cross during each signal cycle unless it is well documented that there is no current or future need. Crossings may be facilitated by providing a pedestrian phase by default or through the installation of pedestrian push buttons. Push buttons should be located where they are accessible from the sidewalk and should comply with ADA accessibility guidelines.

Bike signals may be provided, but are only necessary if bicyclists are traveling on a facility separated from automobile lanes or pedestrian traffic. On sidepaths, bicyclists would cross at the same time as pedestrians.

Figure 2.17 Signalized intersection on Sheridan Road and Wadsworth Road in Beach Park.

Wayfinding + Directional Signage

Wayfinding signage provides helpful information to inform roadway users on the location of key destinations, which roads are most desirable for walking and bicycling, and the best way to avoid crossing at unsignalized or otherwise uncomfortable locations. They provide helpful information in Mobility Improvement Areas, facilitating the first and last mile of nonmotorized trips.

Basics: Basic wayfinding signage consists of green signs (MUTCD D-series) that convey distance, destination, and direction information. These signs are intended to be read by people walking and bicycling, as well as motorized traffic traveling at slow speeds.

Branding Opportunity: Wayfinding signage may also be customized, which is a helpful way to brand a particular route, district, or region and allows municipalities to create a sense of place, as well as encourage and support recreation and tourism. For example, by branding a route or trail system, custom wayfinding signage helps users feel more comfortable navigating an area with which they may be unfamiliar. For wayfinding concepts developed for this plan, refer to the Appendix.

Figure 2.18 Example of a branded Northern Lakeshore directional sign concept.

Bridge or Railroad Overpass

There are some locations where a full grade separation is needed to safely accommodate trail crossings or to close gaps in the network. In these cases, at-grade crossings are particularly challenging to upgrade or widen, and an overpass is sometimes the most feasible option.

Basics: Bridges over railroads must provide adequate vertical clearance, which ranges from 22-30 feet above the top of rail. Bridges over other roadways must meet vertical clearance requirements for trucks on most routes, which ranges from 14-15 feet above the roadway. Trails approaching these heights must rise at a slope that is accessible to all users, which is approximately 4-5% with regularly spaced flat landings.

Gateway Opportunity: Since roadway bridges and railroad overpasses are costly, there is incentive to treat them as gateways, welcoming users to a new municipality, region, or trail network. Strategically placed overpasses have the potential to reorient primary pathways into Illinois Beach State Park or help make lakefront areas accessible that previously were out of reach to most people walking or bicycling.

Figure 2.19 Robert McClory trail with significant vertical clearance over IL 173 in Zion. Source: Google.

3. PROPOSED NETWORK

GROWING THE NETWORK

The Northern Lakeshore Trail Connectivity Network Plan recommends 109 miles of proposed walking and bicycling facilities and infrastructure improvements at more than 30 intersections, 11 midblock locations, along with wayfinding signage at 152 locations and other spot treatments.

Figures 3.1 and **3.2** show existing, programmed, and proposed improvements at the regional level. Recommendations consist of corridor improvements and spot improvements at intersections, midblock locations, and infrastructure associated with Mobility Improvement Areas (MIA).

The Northern Lakeshore Trail Connectivity Plan envisions a connected walking and bicycling network between the Des Plaines River Trail and Lake Michigan. However, to be consistent with project limits, cost estimates were developed only for recommendations within the study area boundary.

How to Read These Maps

Existing corridor facilities are displayed as solid lines. **Proposed** improvements include are shown in dashed lines. Projects that were already in the planning stages during this planning process are shown as proposed.

There are two overview maps for the entire study area (everything east of Green Bay Road) and two or more maps for each municipality and Illinois Beach State Park.

Maps show the proposed network, crossing improvements and enhancements to Mobility Improvement Areas (MIA). MIA infrastructure includes curb ramps, recommended changes to intersection geometry, additional marked crosswalks, traffic signals, enhanced bus stops with shelters, wayfinding and directional signage, and bike parking. These items are shown in municipal maps on two or more maps for each municipality and Illinois Beach State Park in **Figures 3.3** through **3.25**.

Please note: Water trail access points are shown to reflect work being done as part of a planning project with the Illinois Department of Natural Resources Coastal Management Program to identify publicly accessible canoe and kayak launch locations.

For more information, visit: https://www2.illinois.gov/dnr/cmp/Pages/Lake-Michigan-Water-Trail.aspx.

Figure 3.1. Recommendations Overview Map North

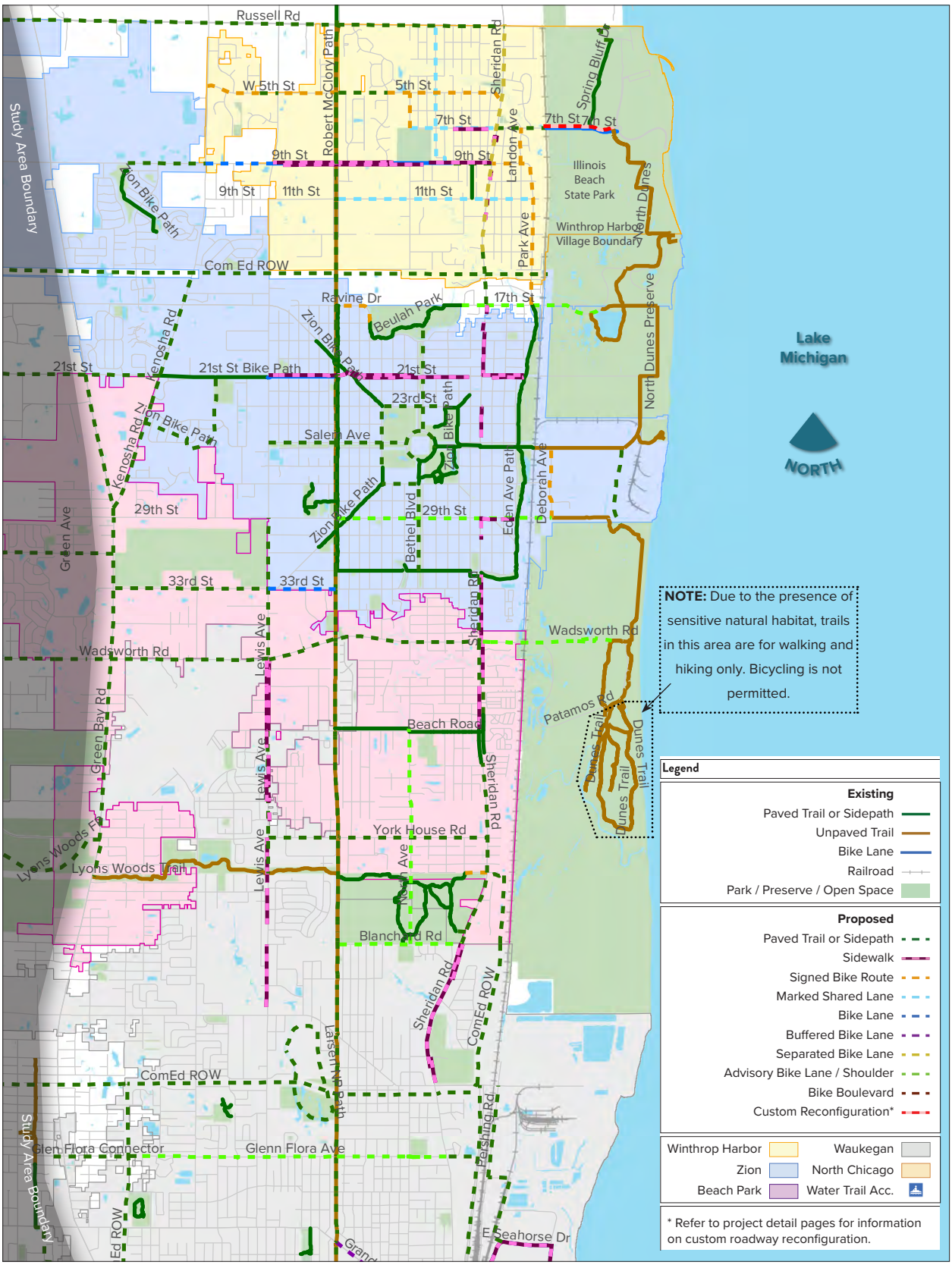


Figure 3.2. Recommendations Overview Map South

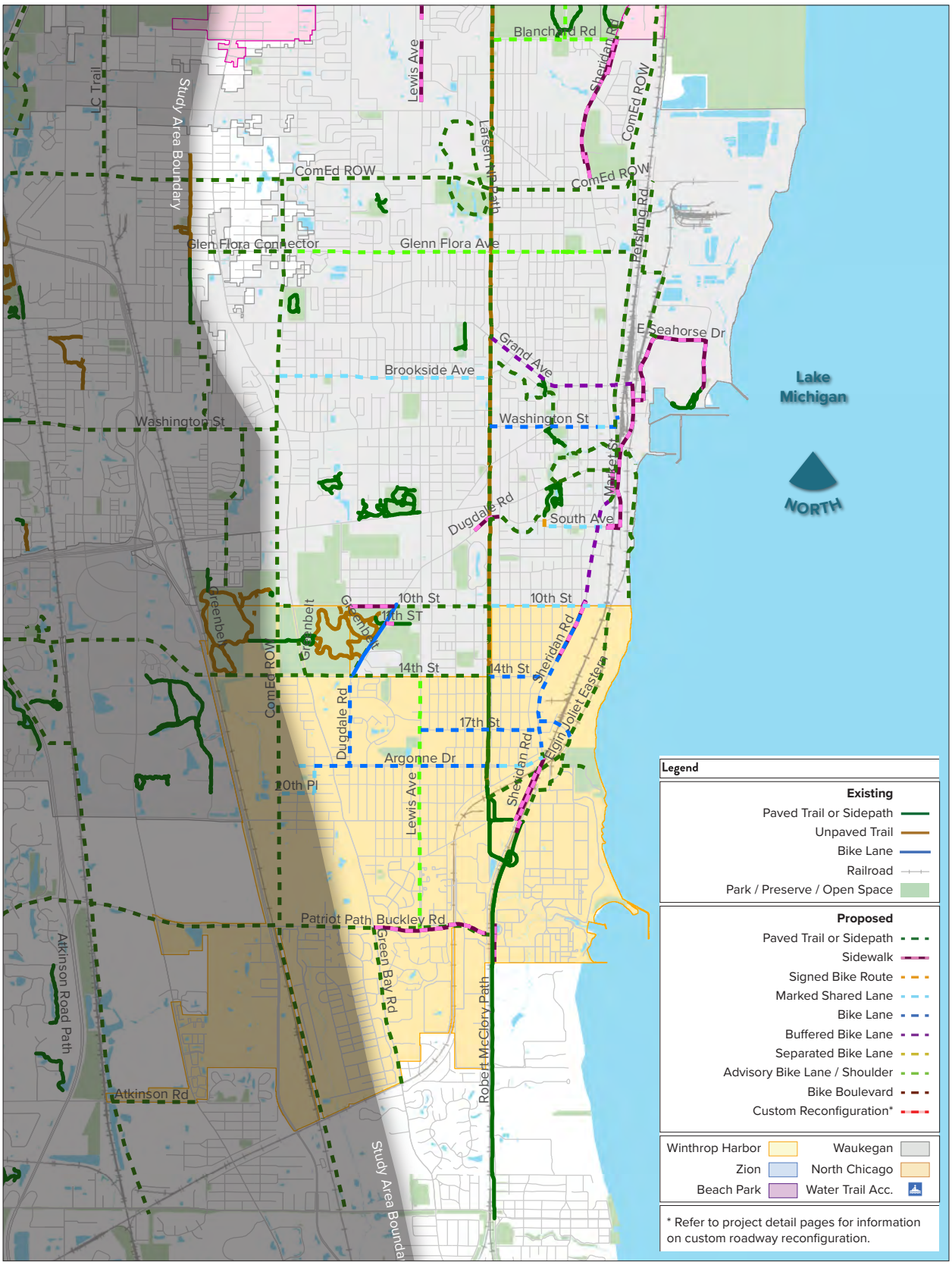
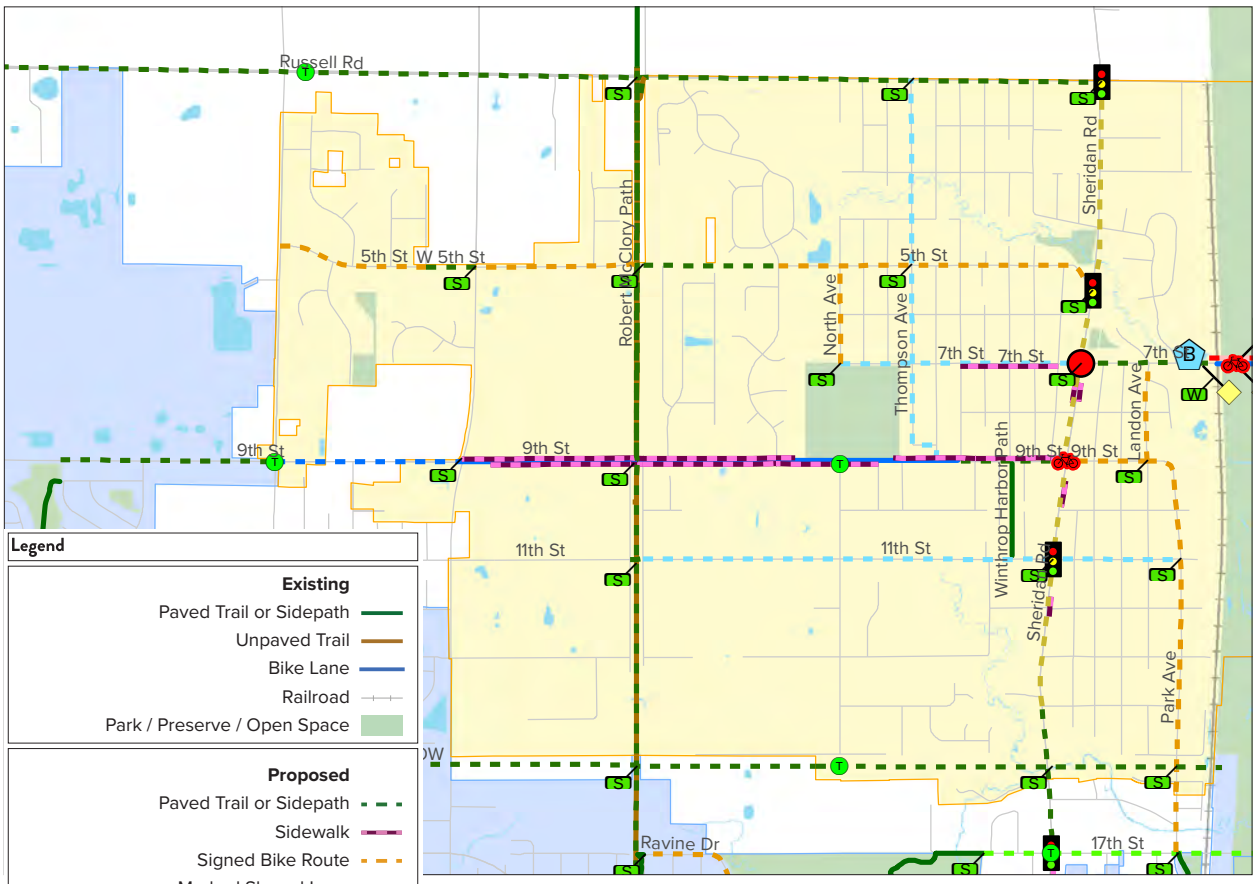


Figure 3.3. Winthrop Harbor West



Legend

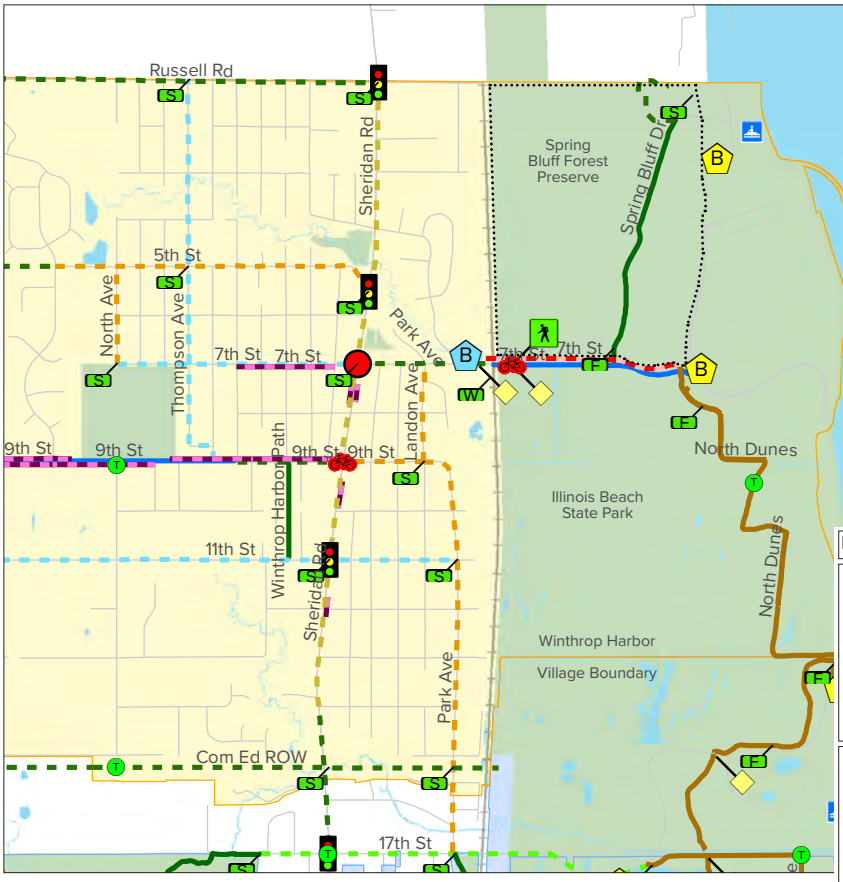
Existing
- Paved Trail or Sidepath
- Unpaved Trail
- Bike Lane
- Railroad
- Park / Preserve / Open Space

Proposed
- Paved Trail or Sidepath
- Sidewalk
- Signed Bike Route
- Marked Shared Lane
- Bike Lane
- Buffered Bike Lane
- Separated Bike Lane
- Advisory Bike Lane / Shoulder
- Bike Boulevard
- Custom Reconfiguration*
- Bus + Shelter Upgrade
- Bike Rack
- Covered Bike Parking
- Reduce Turning Radius
- Improved Crosswalk + Curb Ramps
- Midblock Crossing
- Trail or Pedestrian Crossing Sign
- New Traffic Signal
- Trail Bridge over Railroad
- Ramp or Bike Facility Transition
- Directional Street Sign
- Directional Wall Sign
- Freestanding Sign
- Trail Marker Sign

- Winthrop Harbor
- Zion
- Beach Park
- Waukegan
- North Chicago
- Water Trail Acc.

* Refer to project detail pages for information on custom roadway reconfiguration.

Figure 3.4. Winthrop Harbor East



Legend

Existing
- Paved Trail or Sidepath
- Unpaved Trail
- Bike Lane
- Railroad
- Park / Preserve / Open Space

Proposed
- Paved Trail or Sidepath
- Sidewalk
- Signed Bike Route
- Marked Shared Lane
- Bike Lane
- Buffered Bike Lane
- Separated Bike Lane
- Advisory Bike Lane / Shoulder
- Bike Boulevard
- Custom Reconfiguration*
- Bus + Shelter Upgrade
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- Directional Street Sign
- Directional Wall Sign
- Freestanding Sign
- Trail Marker Sign

- Winthrop Harbor
- Waukegan
- Zion
- North Chicago
- Beach Park
- Water Trail Acc.

* Refer to project detail pages for information on custom roadway reconfiguration.

Figure 3.5. Winthrop Harbor + IDNR Custom Roadway Reconfiguration

7th Street

To improve connections between Metra and North Point Marina, a sidepath is recommended on the north side of 7th Street between the Metra Station and North Point Drive at North Point Marina. East of the tracks, existing roadway width includes bike lanes, but no pedestrian accommodation. Due to sensitive habitat, a sidewalk or sidepath that accommodates walking is recommended, but further study is needed to determine a roadway configuration that is accessible to users of all modes.

Wisconsin Connection

A connection is proposed to connect to trails and the Chiwaukee Preserve in Pleasant Prairie, Wisconsin. Currently, many visitors travel ***through*** the center of boat storage yard, which is a safety hazard. To mitigate this, a path is proposed around the ***outside*** edge of this property owned by IDNR, which would provide access to Wisconsin and mitigate potential trail impacts to the adjacent Spring Bluff Forest Preserve maintained by the Lake County Forest Preserve District.

Figure 3.6. Winthrop Harbor Recommendations Summary

NETWORK RECOMMENDATIONS	LENGTH (MI)	COST
RAISED BIKE LANES	1.61	$ 3,906,000
SHARED LANES	3.02	$ 16,000
SIDEPATH	2.58	$ 5,954,500
SIDEWALK	2.54	$ 2,815,000
SIGNED ROUTE	3.40	$ 39,500
TRAIL	0.03	$ 30,500
UNPAVED TRAIL	1.51	$ 557,000
NETWORK SUBTOTAL	14.69	**$ 13,318,500**

INTERSECTION + MIDBLOCK		COST
BIKE TRANSITION		$ 10,000
REVISE TURNING RADIUS		$ 6,000
SIGN, CROSSWALK		$ 5,000
TRAFFIC SIGNAL		$ 1,185,000
INTERSECTION + MIDBLOCK SUBTOTAL		**$ 1,206,000**

MOBILITY IMPROVEMENTS		COST
BIKE RACKS		$ 4,000
COVERED BIKE PARKING		$ 6,000
MOBILITY IMPROVEMENT SUBTOTAL		**$ 10,000**

WINTHROP HARBOR TOTAL		$ 14,534,500

Figure 3.7. Zion West

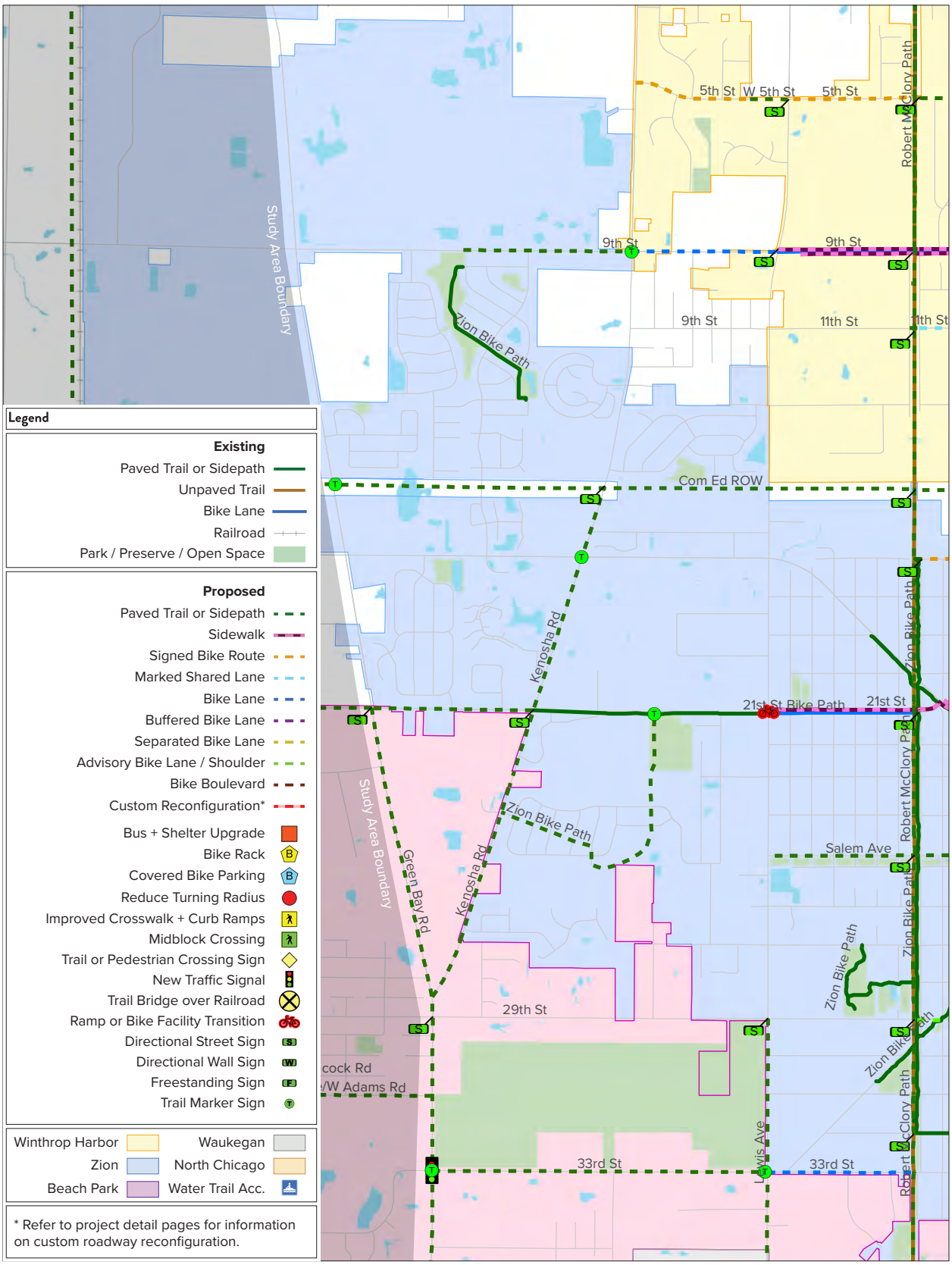


Figure 3.8. Zion East

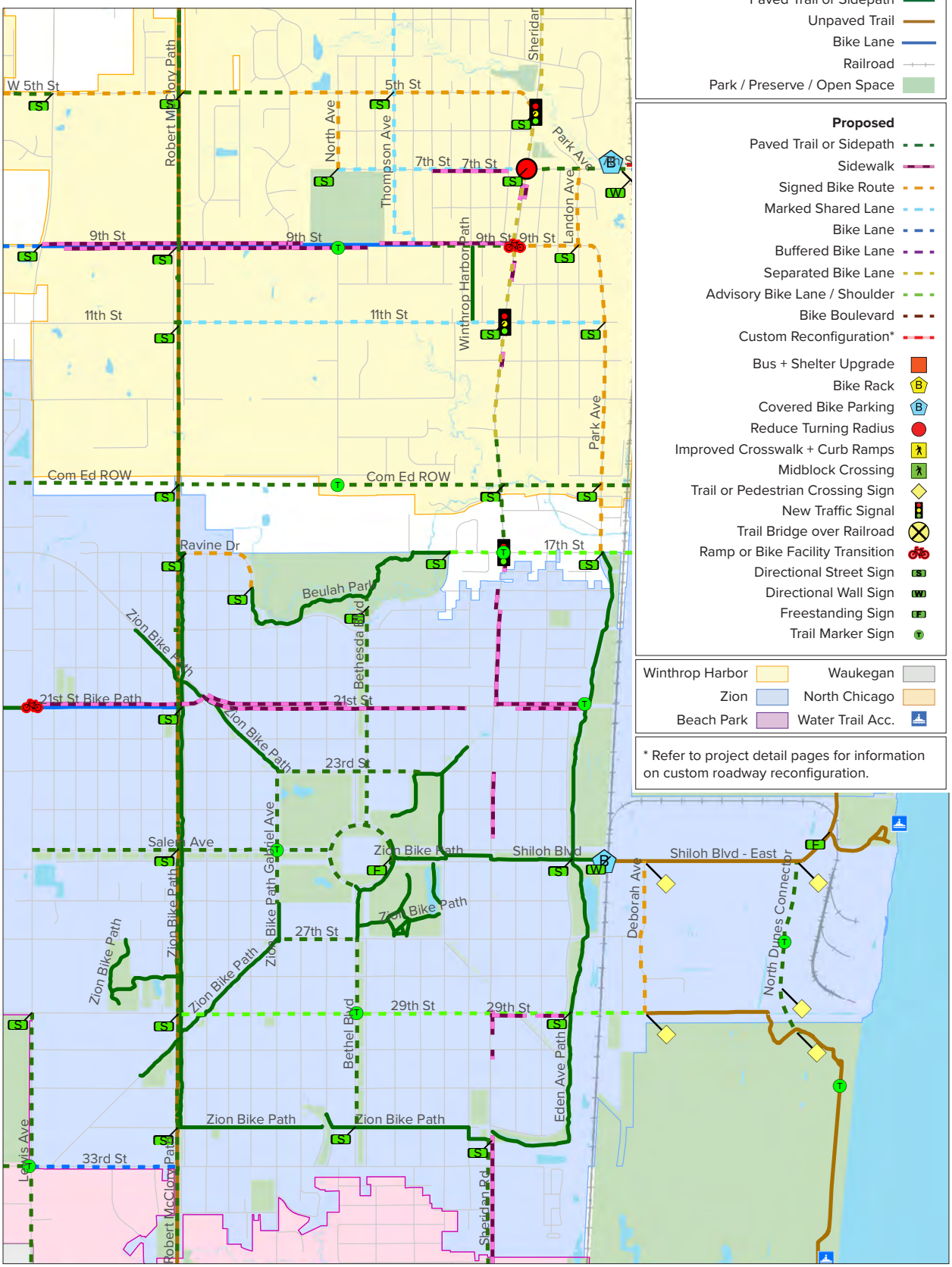


Figure 3.9. Zion Recommendations Summary

NETWORK RECOMMENDATIONS	LENGTH (MI)	COST
ADVISORY LANES	1.68	$ 546,500
BIKE LANES	0.48	$ 155,000
SIDEPATH	4.50	$ 4,277,000
SIDEWALK	3.86	$ 4,281,000
SIGNED ROUTE	1.85	$ 23,000
TRAIL	4.98	$ 6,348,000
UNPAVED TRAIL	2.93	$ 1,084,000
NETWORK SUBTOTAL	20.28	**$ 16,714,500**
INTERSECTION + MIDBLOCK		COST
ACCESS RAMP		$ 50,000
BIKE TRANSITION		$ 10,000
DETECTIBLE WARNING		$ 38,000
SIGN		$ 2,000
SIGN, FENCE		$ 50,000
SIGN, CROSSWALK		$ 10,000
TRAFFIC SIGNAL		$ 395,000
INTERSECTION + MIDBLOCK SUBTOTAL		**$ 555,000**

MOBILITY IMPROVEMENTS		COST
BIKE RACKS		$ 2,000
COVERED BIKE PARKING		$ 6,000
MOBILITY IMPROVEMENT SUBTOTAL		**$ 8,000**

ZION TOTAL		**$ 17,277,500**


AHEAD

Figure 3.10. Beach Park West

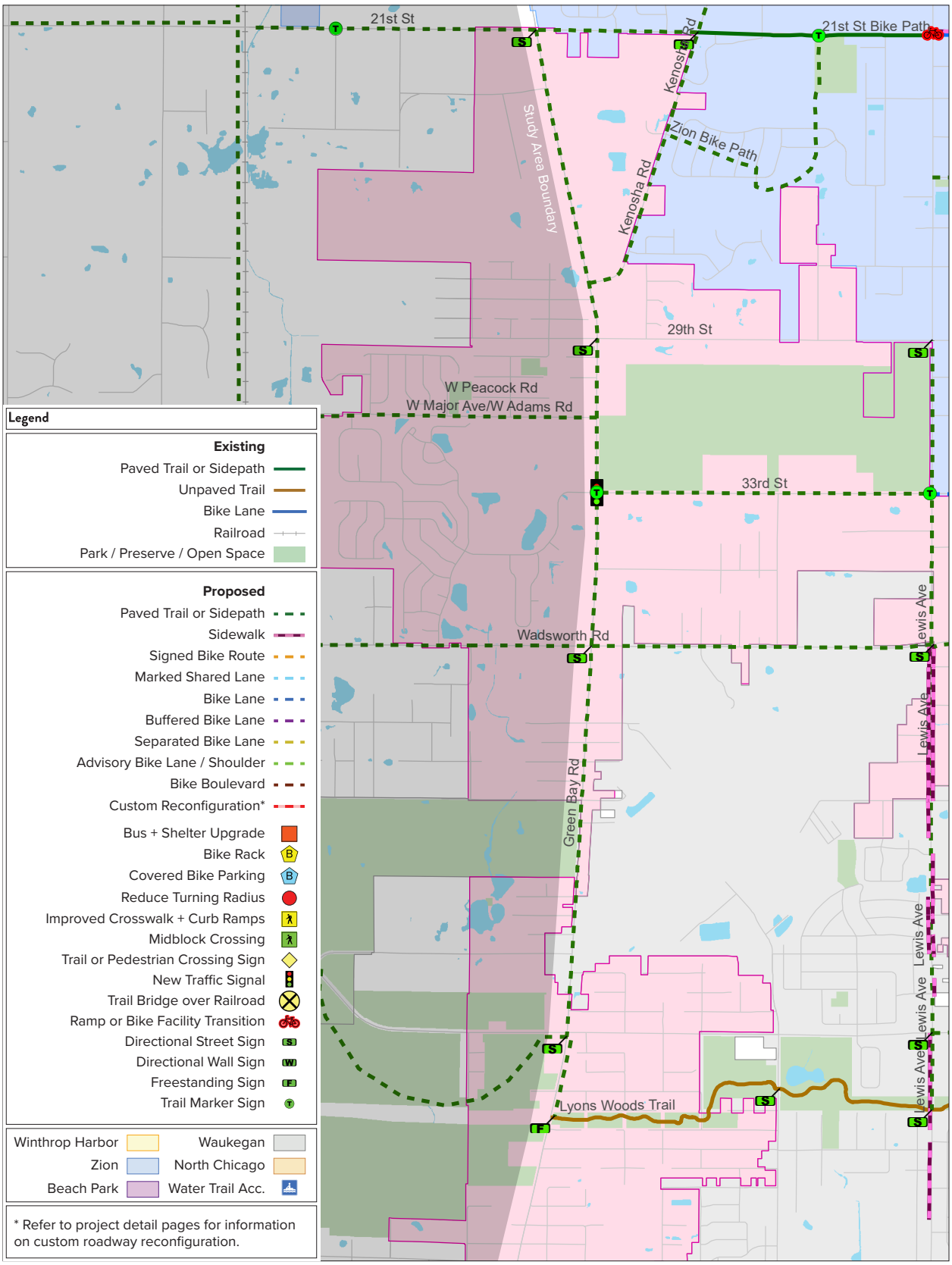


Figure 3.11. Beach Park East

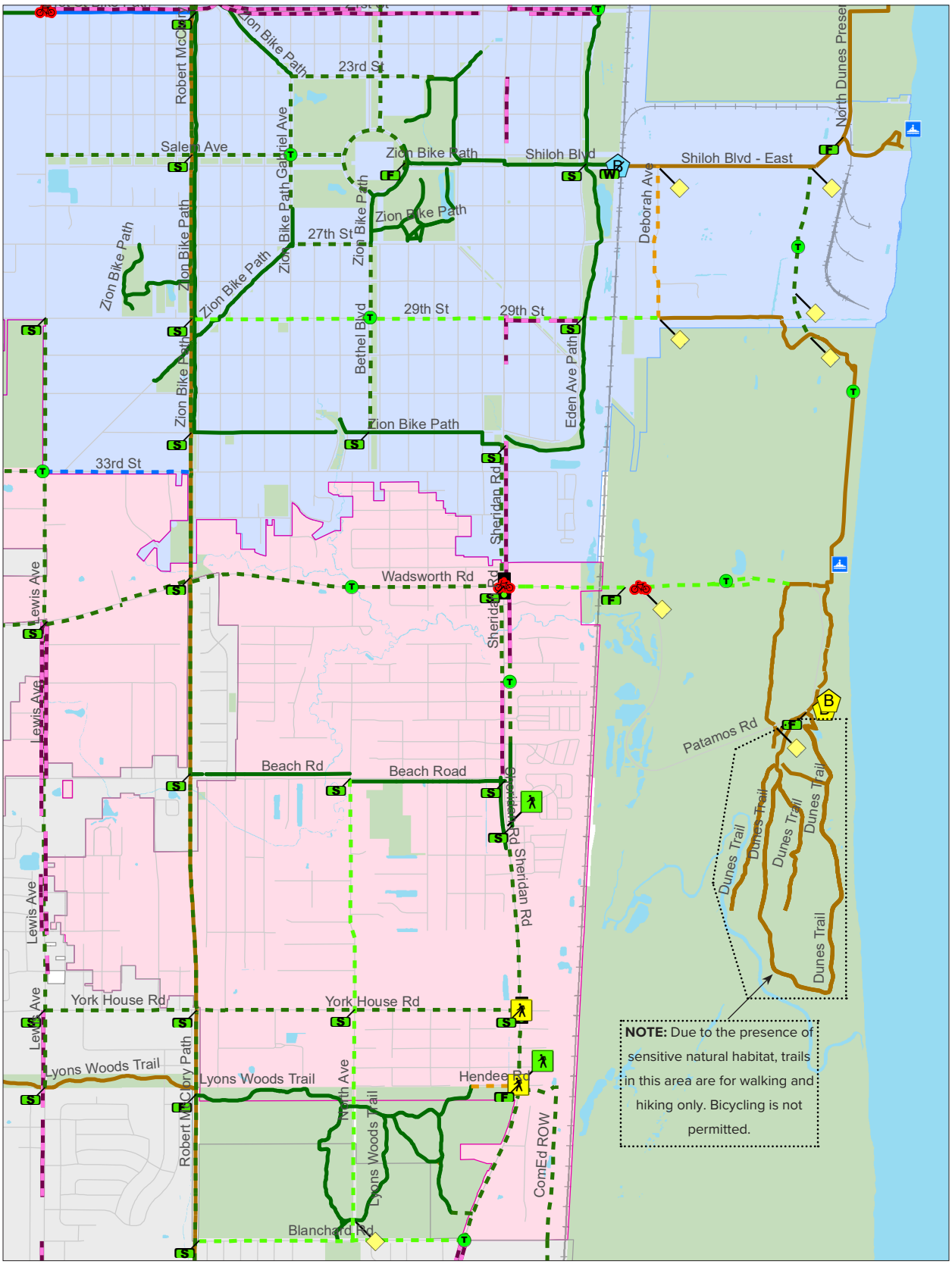


Figure 3.12. Beach Park + IDNR Custom Roadway Reconfiguration

Detail map of Wadsworth Road + Patomos Avenue reconfigurations to accommodate walking and bicycling.

Wadsworth Road + "Old Wadsworth Road"
Wadsworth Road is the primary entrance to Illinois Beach State Park (South Section). As discussed in the Existing Conditions Report, the entrance drive (Patomos Avenue) is a two-mile loop road and includes no accommodation for walking and bicycling.

To shorten the distance to the lakefront and provide better guidance for people walking and bicycling, a roadway reconfiguration is recommended that converts the east-west running campground access drive into a facility that also accommodates walking and bicycling, possibly through the use of an advisory shoulder.

Pavement markings and signage would be used to establish this arrangement at regular intervals to discourage automobiles from entering the non-motorized side of the roadway, and would not require roadway widening, which minimizes impacts to environmentally-sensitive areas in the park.

Figure 3.13. Beach Park Recommendations Summary

NETWORK RECOMMENDATIONS	LENGTH (MI)	COST
ADVISORY LANES	1.59	$ 517,500
BIKE LANES	0.48	$ 155,500
SIDEPATH	13.04	$ 12,390,500
SIDEWALK	2.24	$ 2,481,500
SIGNED ROUTE	0.15	$ 2,000
UNPAVED TRAIL	0.63	$ 234,000
NETWORK SUBTOTAL	18.13	**$ 15,781,000**
INTERSECTION + MIDBLOCK		**COST**
ACCESS RAMP		$ 50,000
MIDBLOCK CROSSING, CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 25,000
TRAFFIC SIGNAL		$ 395,000
TRAFFIC SIGNAL, BIKE TRANSITION, CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 442,000
TRAFFIC SIGNAL, CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 408,000
INTERSECTION + MIDBLOCK SUBTOTAL		**$ 1,320,000**

BEACH PARK TOTAL		**$ 17,101,000**

Figure 3.14. Waukegan Northwest

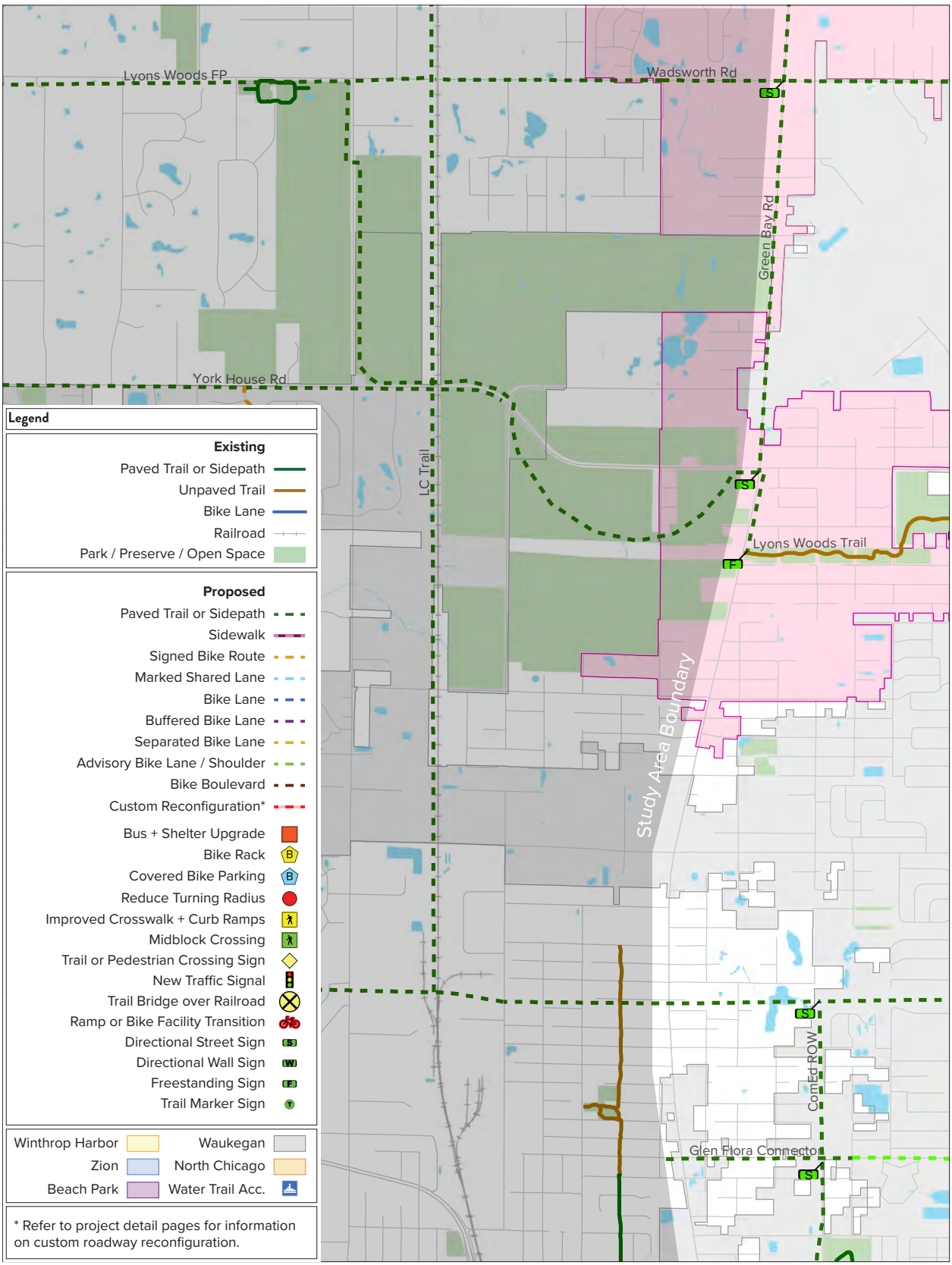


Figure 3.15. Waukegan Northeast

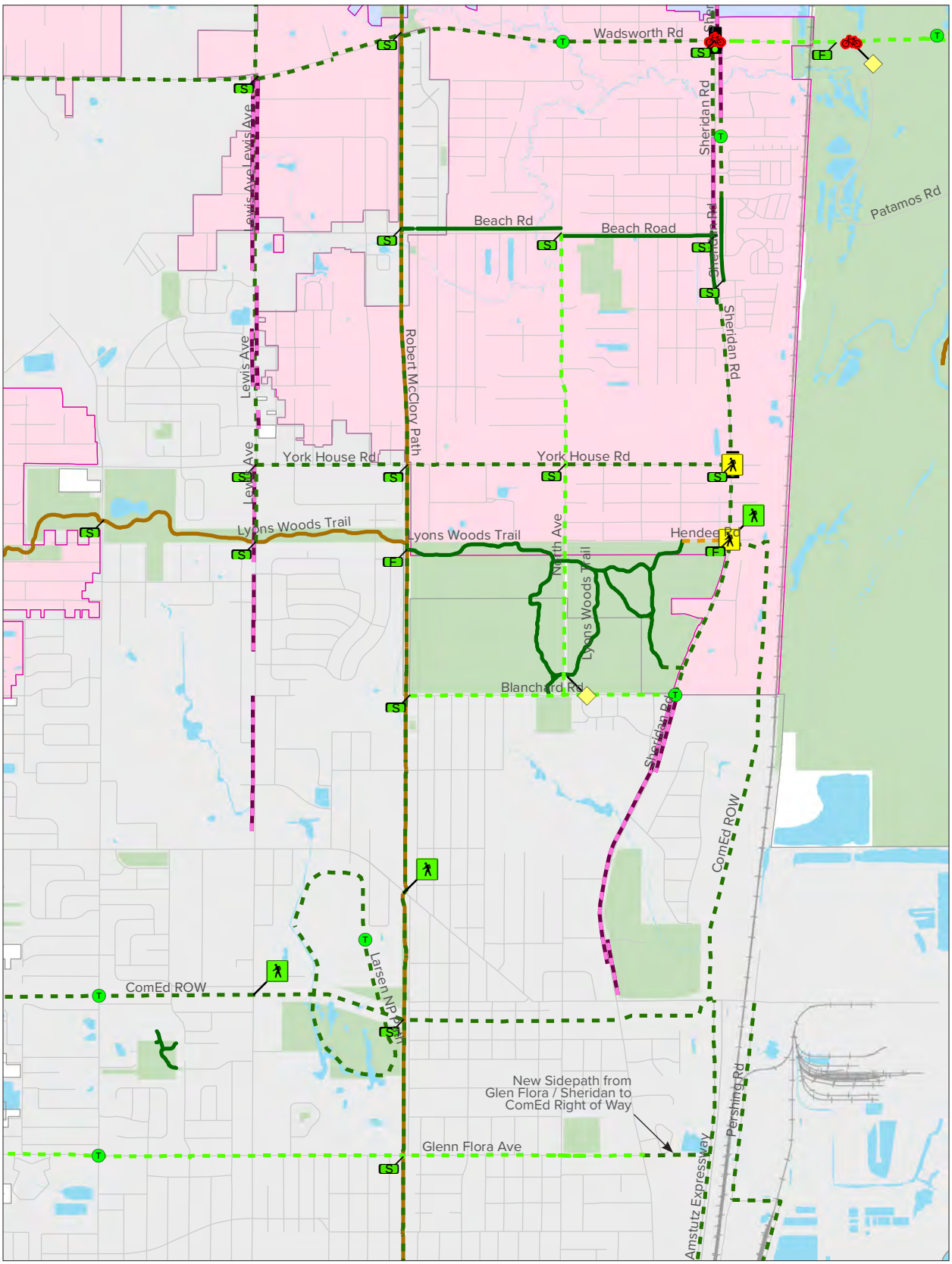


Figure 3.16. Waukegan Southwest

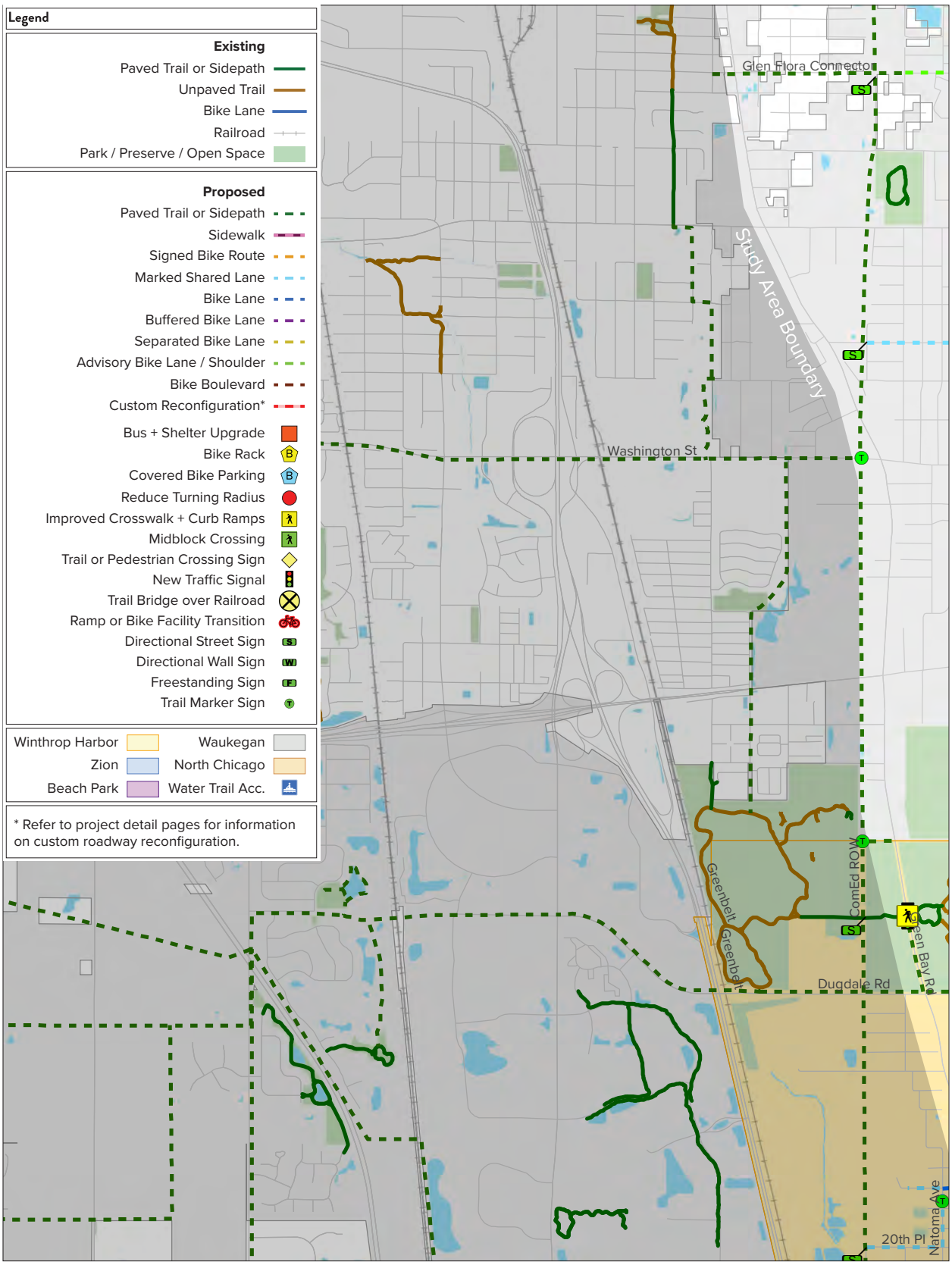


Figure 3.17. Waukegan Southeast

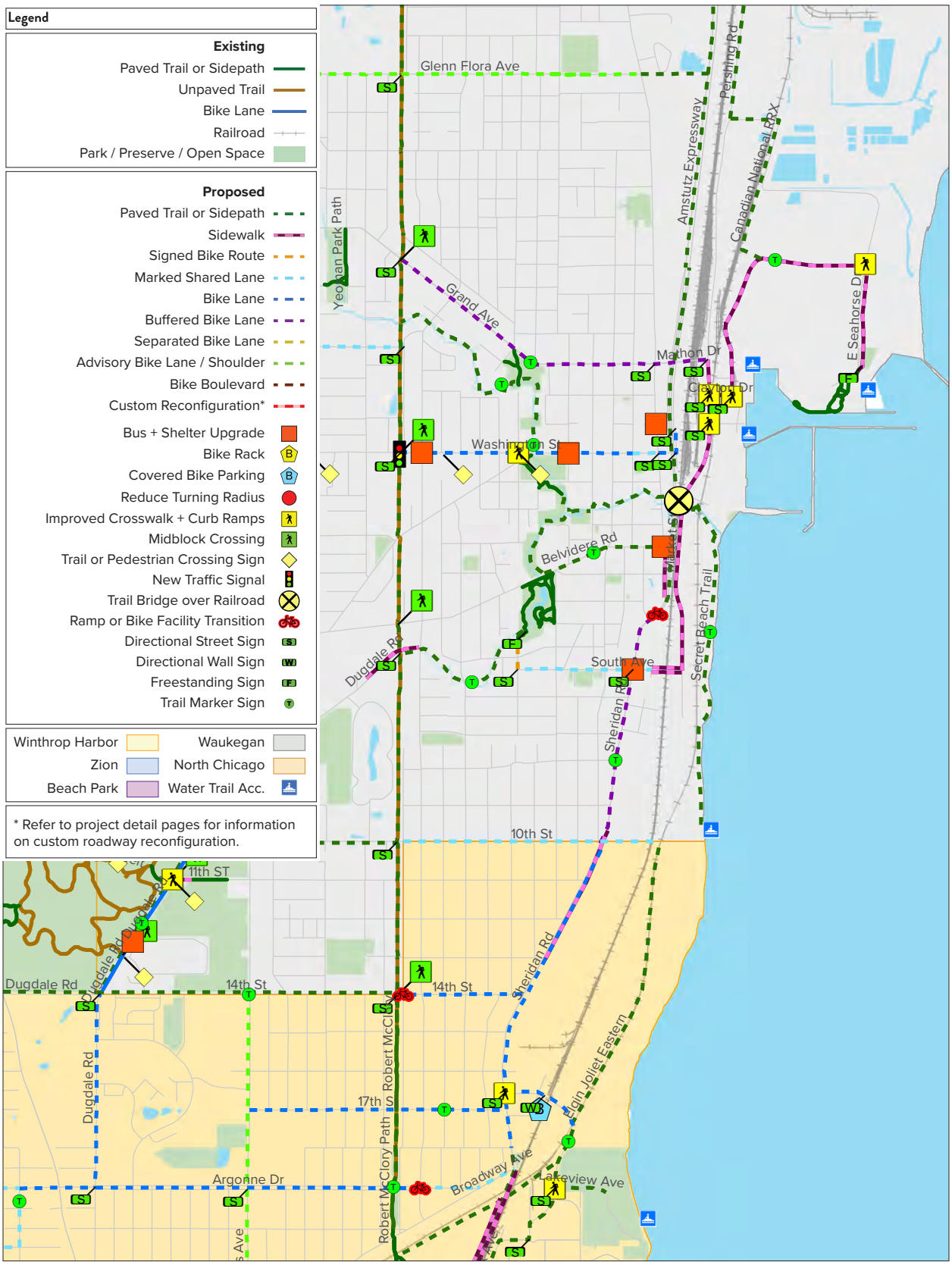


Figure 3.18. Waukegan Recommendations Summary

NETWORK RECOMMENDATIONS	LENGTH (MI)	COST
ADVISORY LANES	3.28	$ 1,064,000
BIKE LANES	2.14	$ 695,500
BUFFERED BIKE LANES	1.90	$ 684,000
SHARED LANES	3.16	$ 17,000
SIDEPATH	7.11	$ 6,996,000
SIDEWALK	7.23	$ 8,022,500
SIGNED ROUTE	0.08	$ 1,000
TRAIL	8.83	$ 8,392,000
UNPAVED TRAIL	6.55	$ 5,933,000
NETWORK SUBTOTAL	40.28	**$ 31,805,000**
INTERSECTION + MIDBLOCK		COST
ACCESS RAMP		$ 100,000
BIKE TRANSITION		$ 10,000
CROSSWALK, CURB RAMP		$ 23,000
CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 65,000
MIDBLOCK CROSSING		$ 40,000
RAILROAD OVERPASS		$ 5,250,000
SIGN		$ 3,000
SIGN, CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 45,000
SIGN, CROSSWALK, DETECTIBLE WARNING, CURB RAMP, RRFB		$ 46,000
SIGN, MIDBLOCK CROSSING, RRFB		$ 72,000
SIGN, MIDBLOCK CROSSING, CROSSWALK, DETECTIBLE WARNING, CURB RAMP, RRFB		$ 56,000
TRAFFIC SIGNAL, MIDBLOCK CROSSING		$ 405,000
TRAFFIC SIGNAL, CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 410,000
INTERSECTION + MIDBLOCK SUBTOTAL		**$ 6,525,000**

MOBILITY IMPROVEMENTS		COST
BUS SHELTERS & BUS PAD		$ 218,000
MOBILITY IMPROVEMENT SUBTOTAL		**$ 218,000**

WAUKEGAN TOTAL		**$ 38,548,000**

Figure 3.19. North Chicago West

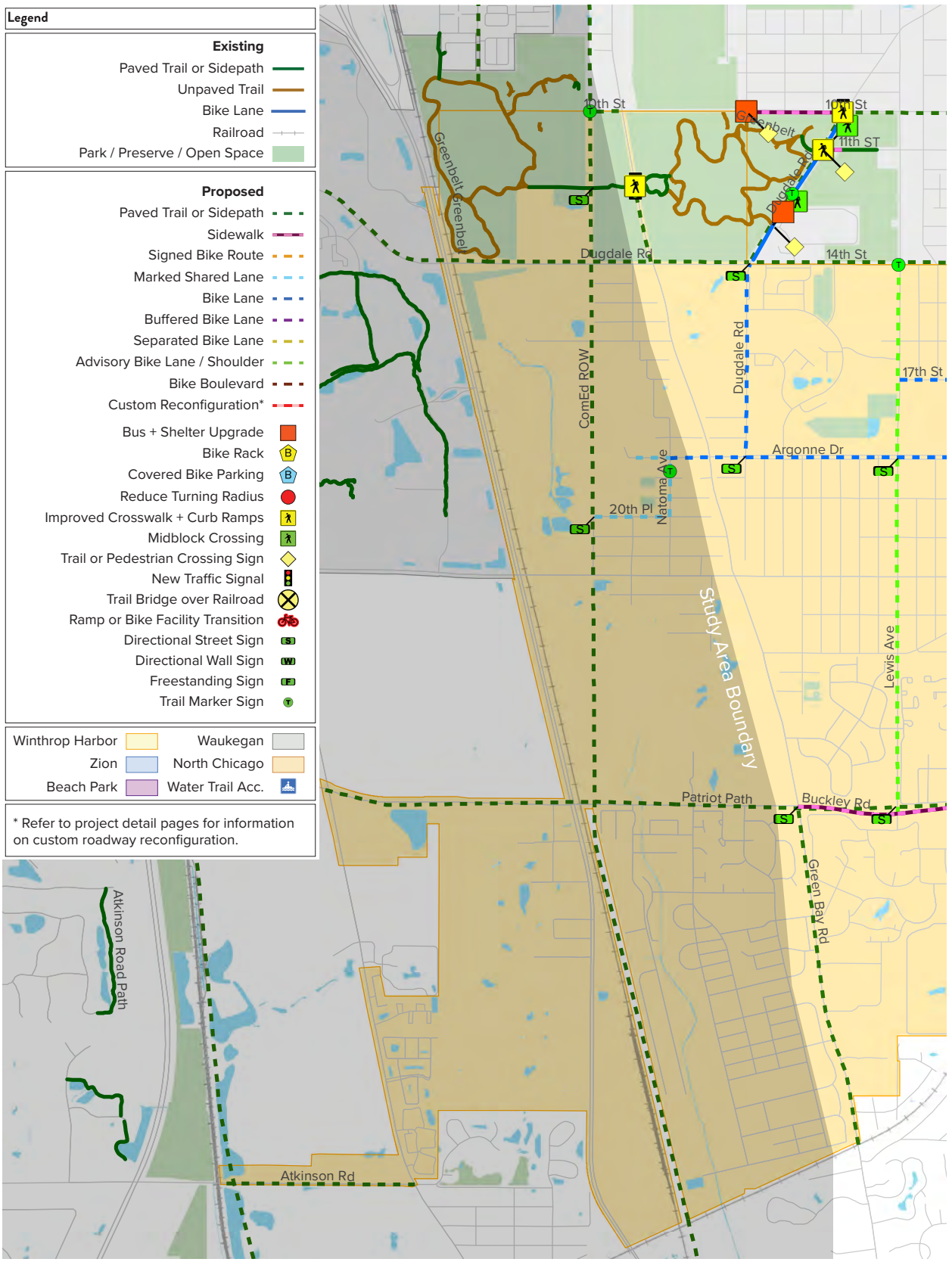


Figure 3.20. North Chicago East

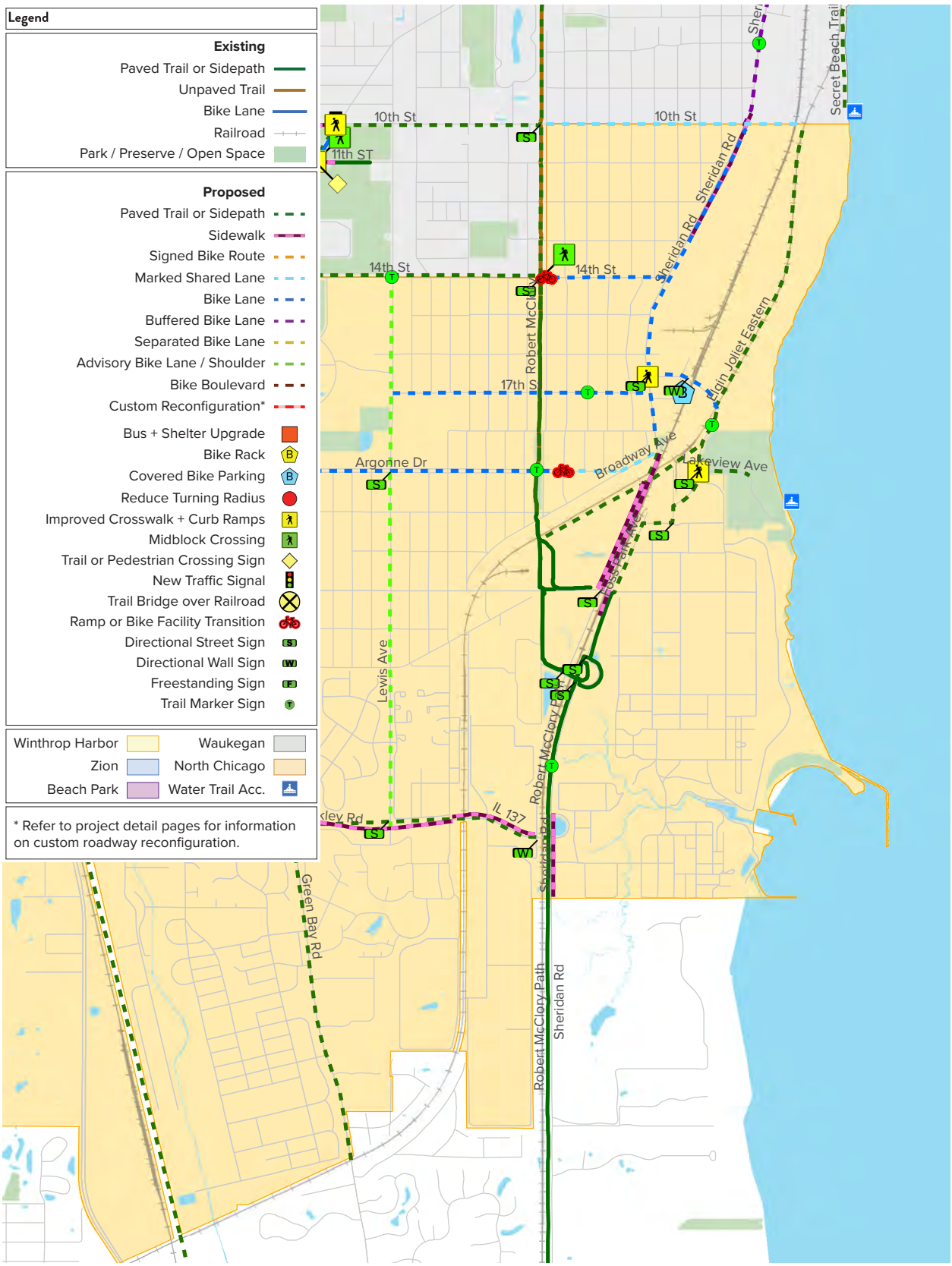


Figure 3.21. North Chicago Recommendations Summary

NETWORK RECOMMENDATIONS	LENGTH (MI)	COST
ADVISORY LANES	1.79	$ 582,500
BIKE LANES	4.50	$ 1,463,000
SHARED LANES	1.72	$ 9,500
SIDEPATH	4.67	$ 4,437,500
SIDEWALK	2.50	$ 2,771,000
TRAIL	2.85	$ 2,756,000
UNPAVED TRAIL	1.53	$ 565,500
NETWORK SUBTOTAL	19.56	**$ 12,585,000**
INTERSECTION + MIDBLOCK		**COST**
BIKE TRANSITION		$ 20,000
MIDBLOCK CROSSING		$ 10,000
CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 42,000
TRAFFIC SIGNAL, CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 410,000
INTERSECTION + MIDBLOCK SUBTOTAL		**$ 482,000**

MOBILITY IMPROVEMENTS		COST
BUS SHELTERS & BUS PAD		$ 22,000
COVERED BIKE PARKING		$ 6,000
MOBILITY IMPROVEMENT SUBTOTAL		**$ 28,000**

NORTH CHICAGO TOTAL		**$ 13,095,000**

Figure 3.22. Illinois Beach State Park, North Unit

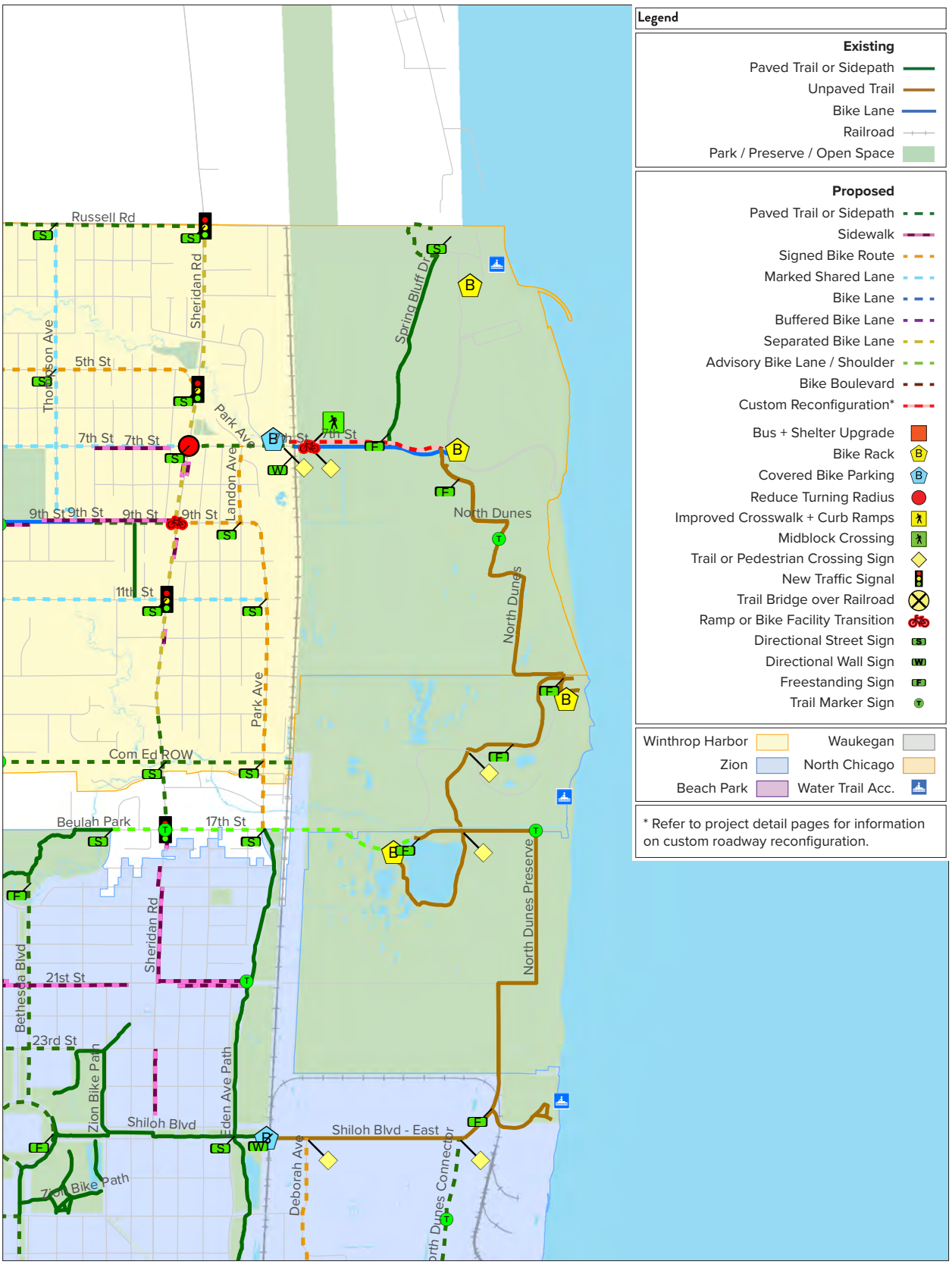


Figure 3.23. Illinois Beach State Park, South Unit

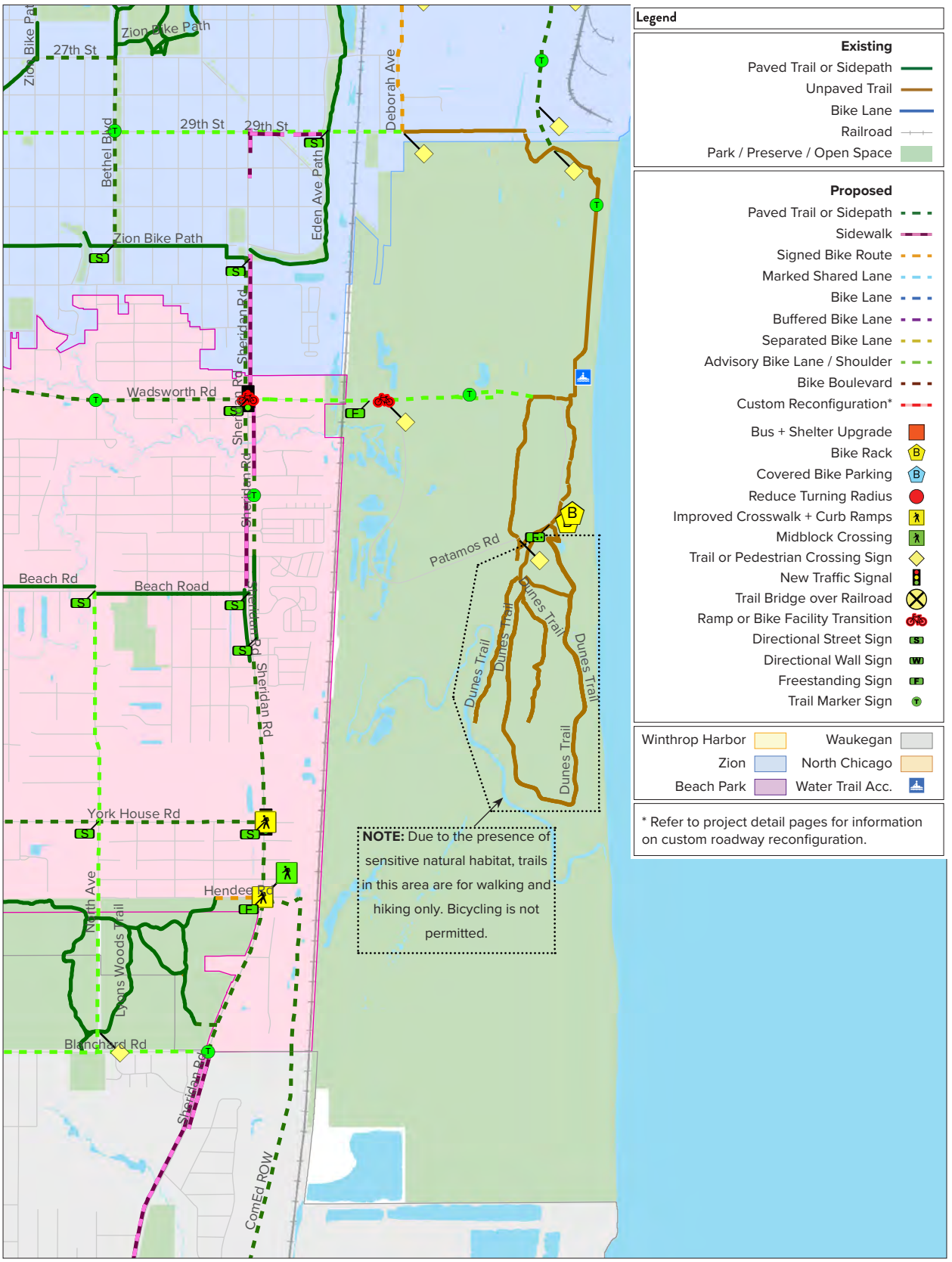


Figure 3.24. IDNR Recommendations Summary

NETWORK RECOMMENDATIONS	LENGTH (MI)	COST
ADVISORY LANES	1.86	$ 605,500
CUSTOM ROADWAY RECONFIGURATION	0.77	$ 208,500
NETWORK SUBTOTAL	2.62	**$ 814,000**
INTERSECTION + MIDBLOCK		**COST**
CROSSWALK		$ 6,000
SIGN, CROSSWALK		$ 19,000
SIGN, BIKE TRANSITION		$ 14,000
SIGN, BIKE TRANSITION, MIDBLOCK CROSSING		$ 21,000
INTERSECTION + MIDBLOCK SUBTOTAL		**$ 60,000**

MOBILITY IMPROVEMENTS		COST
BIKE RACKS		$ 6,000
MOBILITY IMPROVEMENT SUBTOTAL		**$ 6,000**

IDNR TOTAL		$ 880,000

Figure 3.25. Northern Lakeshore Recommendations Summary

NETWORK RECOMMENDATIONS	LENGTH (MI)	COST
ADVISORY LANES	10.20	$ 3,315,000
BIKE LANES	7.60	$ 2,468,500
BUFFERED BIKE LANES	1.90	$ 684,000
RAISED BIKE LANES	1.61	$ 3,906,000
CUSTOM ROADWAY RECONFIGURATION	0.77	$ 208,500
SHARED LANES	7.89	$ 42,000
SIDEPATH	31.90	$ 34,054,500
SIDEWALK	18.37	$ 20,370,000
SIGNED ROUTE	5.48	$ 65,000
TRAIL	16.95	$ 17,773,500
UNPAVED TRAIL	13.15	$ 8,372,500
NETWORK SUBTOTAL	115.82	**$ 91,259,500**
INTERSECTION + MIDBLOCK		COST
ACCESS RAMP		$ 200,000
BIKE TRANSITION		$ 50,000
CROSSWALK		$ 6,000
CROSSWALK, CURB RAMP		$ 23,000
CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 107,000
DETECTIBLE WARNING		$ 38,000
MIDBLOCK CROSSING, CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 25,000
MIDBLOCK CROSSING		$ 50,000
RAILROAD OVERPASS		$ 5,250,000
REVISE TURNING RADIUS		$ 6,000
SIGN		$ 5,000
SIGN, BIKE TRANSITION		$ 14,000
SIGN, BIKE TRANSITION, MIDBLOCK CROSSING		$ 21,000
SIGN, CROSSWALK		$ 34,000
SIGN, CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 45,000
SIGN, CROSSWALK, DETECTIBLE WARNING, CURB RAMP,		$ 46,000
SIGN, FENCE		$ 50,000
SIGN, MIDBLOCK CROSSING, RRFB		$ 72,000
SIGN, MIDBLOCK CROSSING, CROSSWALK, DETECTIBLE WARNING, CURB RAMP, RRFB		$ 56,000
TRAFFIC SIGNAL		$ 1,975,000

(Summary table continues on the following page)

TRAFFIC SIGNAL, BIKE TRANSITION, CROSSWALK, DETECTIBLE WARNING, CURB RAMP		$ 442,000
TRAFFIC SIGNAL, MIDBLOCK CROSSING		$ 405,000
TRAFFIC SIGNAL, CROSSWALK, DETECTIBLE WARNING, CURB		$ 1,228,000
INTERSECTION + MIDBLOCK SUBTOTAL		**$ 10,148,000**

MOBILITY IMPROVEMENTS		COST
BUS SHELTERS & BUS PAD		$ 218,000
BIKE RACKS		$ 12,000
COVERED BIKE PARKING		$ 17,000
MOBILITY IMPROVEMENT SUBTOTAL		**$ 247,000**

NORTHERN LAKESHORE PLAN TOTAL		**$ 101,654,500**

4. POLICIES + PROGRAMS

BEYOND INFRASTRUCTURE

Policies and programs help create a supportive and welcoming environment for pedestrians and bicyclists and provide near-term steps that can be taken in advance of infrastructure improvements. Each program or policy contains various steps that can be undertaken by one or more stakeholders and should be implemented to empower and provide leadership for the implementation of this plan. A brief overview is provided for each recommendation on the following pages.

More detailed information about each recommendation along with community examples and websites for further information is provided in the **Appendix.**

Adopt or Update Complete Streets Policies

As part of this plan, each municipality has been provided with the opportunity to develop or update its Complete Streets Policy to guide the accommodation of pedestrians, bicyclists, transit users, and motor vehicles.

This policy should be incorporated into all new transportation construction and maintenance projects whenever appropriate. Communities with a Complete Streets Policy are better positioned to take advantage of transportation funding opportunities.

Establish A Complete Streets Coordination Committee

Establish a Complete Streets Coordination Committee to guide implementation of complete streets, support interagency coordination, develop policies and programs, and evaluate progress made on plan implementation. The Committee should meet monthly or quarterly and be tasked with the following responsibilities:

- Review transportation projects
- Coordinate with IDOT
- Coordinate on funding
- Activate the community
- Address plan recommendations
- Evaluate progress

Education

Engaging educational activities and resources can be designed to promote safe travel behavior on local streets, help build more community support, and can foster an interest in walking, bicycling, and transit. The following educational programs and resources can be coordinated by the Complete Streets Coordination Committee and local municipalities:

Pedestrian & Bicycle Training
Offer pedestrian and bicycle training for adults, teens, and youth such as safety classes, bike mechanics workshops, and on-bike education classes.

Youth Bike Mechanics
Youth can learn to assemble bikes, ride safely, and use their knowledge to create a "pop-up" bike repair shop.

Regional Bike Map
Produce and distribute a free active transportation network map of the Northern Lakeshore region that includes safe bicycling and walking routes to key places and safety tips.

Walk and Bicycling Education Campaign
Distribute information about pedestrian and cycling safety and the transportation network through local media, newspapers, social media, community partners, the private sector, and health providers.


Helmet fitting. Source: Active Transportation Alliance.

Driver Safety Education
Regularly educate residents on cell phone use, speeding laws, sharing the road, and rules of the road.

Community-Centered Public Safety Alternatives
A community task force should be assembled to begin a dialogue between public safety officers and community representatives interested in advancing equity in public safety and addressing concerns associated with the vulnerability of being a minority while walking or bicycling.

This group should be included in decision-making around public safety programs to help each community determine alternative programming to build trust, create safer streets, and improve community-police relations. If deemed appropriate, task force members could lead a "caught being good" program to reward children for good walking and bicycling behaviors such as stopping at traffic lights or wearing their helmet properly.

Safe Routes Plans + Activities

Creating plans and opportunities for children, older adults, and vulnerable populations to navigate our region's transportation network safely and comfortably by foot or bike is essential for creating healthier, sustainable, more equitable communities. The following plans and programs are recommended for the region:

Safe Routes to School Action Plans
Develop Safe Routes to School Action Plans that layout travel barriers and sets goals on how to increase the number of students choosing to walk or bike to school.

Walking and Bicycling Safety Education in Schools
Implement the Bike Walk Education in Schools Act which requires every public K-8 school in Illinois to provide walking and bicycling safety in school curriculum.

Walk and Bike to School Day
Encourage area schools to participate in National Walk to School Day every May and Bike to School Day every October. Schools can host educational assembly events and organize a "walking school bus" or bike rodeo obstacle course to teach rules of the road and safety skills.

Safe Routes for Seniors Action Plans
Develop Safe Routes for Seniors Action Plans to help make communities safer and more comfortable for older adults to walk and bike. An Action Plan can target pedestrian safety improvements around specific areas such as senior centers and hospitals and can help establish collaboration between key stakeholders.

Safe Routes for Faith Action Plans
A Safe Routes for Faith Action Plan can help map out walking and bicycling routes to churches, synagogues, mosques, and temples and identify infrastructure improvements needed to improve pedestrian and bicycle safety near places of worship.

Regional Vision Zero Action Plan
Each municipality should commit to eliminating traffic fatalities as part of a Regional Vision Zero Action Plan and implement proven crash prevention measures on high-crash corridors.

Safe Park & Worship Zones
Set lower speed limits and install traffic calming on streets within 1,000' of parks and places of worship.

Snow Clearing Ordinance & Assistance Program
Require residents to clear snow and ice from the sidewalks adjacent to their properties in a timely manner. Review and update municipal code to specify when snow removal needs to occur, under what conditions, and how much needs to be removed. Additionally, work with local organizations to develop a volunteer snow clearance program to help older adults or those with disabilities shovel their sidewalks.

Sidewalk snow clearance.
Source: Active Transportation SidewAlliance

Zoning Codes

Zoning can be used to hold private developers responsible for building communities that support walking and bicycling. Each municipality should consider updating its municipal zoning code and subdivision regulations to ensure connectivity and access for pedestrians, bicyclists, and transit users in all new and redeveloped sites. With the right strategies, zoning can be used to minimize distance barriers, build new bicycle and pedestrian facilities, and maximize connectivity. See the appendix for specific zoning code examples.

Public Works

Public works departments can help address safety issues for people walking and bicycling through infrastructure improvements and allowing opportunities for residents to make requests and flag problem areas:

Traffic Signal Improvements
Accommodate pedestrians and bicycles at intersections through the use of loop detectors, push buttons, signal timing considerations, and upgraded signals that include pedestrian countdown timers and audible signals.

Traffic Calming Policy
Each municipality should develop a Traffic Calming Policy that allows residents to submit concerns about streets with unreasonably high and unsafe traffic speeds or volumes.

Bike Parking Request Form
Set up a process for allowing residents and businesses to request bike parking online. To create more community ownership, each municipality could work with local students or volunteers to design and build bike racks.

Bike & Scooter Share

Bike share systems provide on-demand public transportation where users can rent a bike or scooter for a designated time. They are ideal for tourism, commuting trips, recreational riding, and providing first/last-mile connections to transit. Stakeholders in Lake County are exploring the possibility of a bike share pilot that would eventually expand throughout the County. To prepare for a countywide or regional system, municipalities should become informed about bike share options and review key considerations. See the appendix for details and a list of active Chicagoland bike share systems.

Promotion & Events

Through the promotion of new and existing events, Northern Lakeshore residents will have a greater awareness of opportunities to walk, bike, and enjoy the many amenities of the Lakefront and region:

Regional Brand, Advertising Strategy, and Event Promotion
A cohesive identity and brand for the region can attract tourism, economic development, as well as instill local pride in among the people that call this region home. The branding developed for this plan could serve as the starting point for a true regional brand. A coordinating committee of Northern Lakeshore Communities should hire a creative agency to lead a branding exercise to further develop the identity of this region and craft strategic messaging.

Once a brand and advertising strategy has been developed, this coordinating committee should create a shared calendar to promote Northern Lakeshore events and help event organizers reach a wider audience around the region. The public calendar should be cross promoted by the municipalities, regional agencies, and community organizations, with events listed in both English and Spanish. Advertising on Metra trains is a familiar, agency-supported means of marketing and is beneficial as the train connects residents and visitors to key destinations in the Northern Lakeshore region.

Joint, Public Calendar of Year-Round Trail Programming
Create a shared, public online calendar for the region that aggregates all planned walking, bicycling, transit, and trail events as well as other relevant outdoor and community events. On a monthly or quarterly basis, each municipality and various organizations within the region should submit relevant event information to a designated calendar manager, selected by the Complete Streets Coordination Committee. See the appendix for calendar examples.

Seasonal Walking & Bicycling Events
Organize seasonal walking and bicycling events to feature the natural beauty and the active transportation network of the region. Seasonal event ideas include a Spring beach clean-up, a Summer bike wash, a Fall Halloween bike ride, and a Winter holiday trail of lights.

Path Raising
Train residents on how to participate in the installation of sidewalks, or trails and organize path raising parties. Zion Cyclery and the Chicago Area Mountain Bikers, for example, provided tools and trained volunteers to build mountain bike trails in Beulah Park.

"Party on McClory!" One weekend each summer, plan a regionwide block party on sections of the Robert McClory Bike Path. Offer food, music, games, bike parades, perhaps a chalk art competition at key crossings trailheads that are closed to automobile traffic for the day. Creating an event along the trail can help create a lively environment and a chance for residents to meet their neighbors, build community, and become more familiar with the trail network.

Open Streets
Close a local street to vehicles and open it for walking, bicycling, and informal play. For example, one or both directions of the Amstutz Expressway could be closed for a regionwide "Amble the Amstutz" event. Programming could include walking, bicycling, a bike rodeo obstacle course, yoga, dance, face painting, arts and crafts, and live music.

Trail Block Party
Host block parties on various parts of the Robert McClory Bike Path or trails within the Illinois Beach State Park with food, music, and games. Streamline permitting processes to make it easy for community groups, block clubs, churches, etc., to organize and conduct events along the rights of way adjacent to the trail.

Bike/Walk to the Beach 5K
Bring all five communities together for an annual 5K run, walk, or bike ride. The event could start or end with a festival at Foss Park in North Chicago or North Point Marina in Winthrop Harbor.

Pilot Projects or Tactical Urbanism Installations
Install temporary infrastructure to visually demonstrate how walking and bicycling facilities can create safer, more engaging, livable streets. Examples include using duct tape to build a bike lane or flowerpots to create a curb bump-out or mini-roundabout. These projects can have a big impact on building political and public support. See the appendix for potential tactical urbanism locations in each community.

Walk/Bike & Dine Events
Invite pedestrians or cyclists to enjoy a progressive dinner on foot or by bike at local restaurants.

Shop by Foot & Bike
Develop a campaign to encourage residents to walk or bike when making short errands to local shops.

Bicycling "school bus." Source: Active Transportation Alliance.

5. FUNDING + IMPLEMENTATION STRATEGY

STRATEGIC INVESTMENT

Implementation of this plan will leverage local, state, and federal grants whenever feasible. Funding programs can be used to support the design and construction of walking and bicycling infrastructure and provide financial resources for programming and marketing initiatives. In some cases, one local grant award may be used as local match toward another (i.e., local grants or private funds may be used as a local match for federal funds.)

When considering funding programs for implementation, this plan pairs key projects with candidate funding sources, helping to align funding program requirements with eligible projects or corridors. Three primary strategies are recommended:

1. Proceed West from the Lakefront
2. Project Bundling
3. Intergovernmental Coordination

1. Proceed West from the Lakefront

A primary objective of this plan is to connect the Northern Lakeshore municipalities with Lake Michigan and regional trails.

Years 1-2: Primary Patrhways. As the lakefront is among the most desirable destinations for stakeholders, implementation of this plan should prioritize connections that improve access to it. Initiatives developed during the first two years of implementation should focus on projects that achieve the following objectives:

- Improving Crossings of Sheridan Road
- Improving Crossings of the Union Pacific Railroad
- Improving Walking and Bicycling Along Sheridan Road
- Improve the primary walking and bicycling entrances to Illinois Beach State Park: 7th Street in Winthrop Harbor and Wadsworth Road in Beach Park

Year 3-4: McClory-Lakefront Connections. After the first two years of plan implementation, stakeholders should focus on projects that connect between Sheridan Road and the Robert McClory Bike Path.

Year 5+: The third phase of plan implementation should involve filling in remaining gaps and advancing long-range or high-cost improvements such as new trails or overpasses.

2. Project Bundling

Assemble two or more, related projects that share similar geography and scope into a single application. For example, the RTA Access to Transit program provides funding for projects that have known benefits at improving access to transit stations to support increased ridership or mode share.

Implementing mobility improvements near each Metra Station and enhancing Pace bus stops near key destinations are candidate projects as they align with this program. To help meet the funding threshold, one or more municipalities should consider bundling wayfinding, pavement markings, intersection improvements, and enhanced bicycle parking facilities into a single application.

3. Intergovernmental Coordination

The Northern Lakeshore communities have an established record of working together. They should continue to pursue projects that cross municipal boundaries and work to involve transportation agencies with jurisdiction over roadways and rights of way within the network.

The Northern Lakeshore communities should work together to advance network and intersection projects longer than 2-miles in length or exceeding $2-million in construction cost, and identify a lead municipal point of contact for coordination with LCDOT, IDOT, IDNR, and ComEd.

Funding

Recommendations in this plan are structured to encourage and empower stakeholders to maximize local, state, and federal grants for implementation.

Funding sources for transportation-related projects generally fall into one of five categories:

- Plans / Feasibility Studies
- Design
- Construction / Installation
- Maintenance
- Non-Infrastructure

Plans / Feasibility Studies
Plans and feasibility studies are important steps in project development, as they help establish a purpose and need, determine whether a recommendation is feasible within a reasonable cost (and other factors), and help to identify stakeholders who can generate support for a project.

We know the construction cost, now what? Cost estimates in this plan give planning-level estimates, which provide a per-mile or per-unit estimate of the cost of construction or installation. For ongoing maintenance and upkeep, turn to the North Carolina DOT (connect.ncdot.gov/projects/BikePed/Pages/Guidance.aspx) or Montana DOT (*Shared Use Paths Inventory and Detailed Maintenance Plan*) for guidance.

This plan was funded in part by planning funds distributed through the CMAP Local Technical Assistance (LTA) program, which provides funding to municipalities undertaking planning efforts to implement the regional comprehensive plan, ON TO 2050.

If recommendations require further study or the feasibility cannot easily be determined without collecting more information (e.g. if a traffic study is needed or right-of-way constraints are unknown), planning grants should be considered as one method for financing these project development tasks.

Design
Some grant programs provide funding to help pay a portion of the cost to prepare design plans for walking, bicycling, and roadway infrastructure. Design phases are divided into preliminary engineering (Phase I) and detailed design (Phase II).

If an applicant plans to use federal funds for Phase II or construction, work completed during Phase I must meet specific federal reporting, analysis, and public involvement requirements. Documentation of this process is submitted with proposed improvement plans in a project development report (PDR). Approval of a PDR makes the project eligible (but not guaranteed) for federal funding and is subject to approvals and commitments contained in the PDR. Once design approval is obtained, the project may

September 2019 Northern Lakeshore Trail Connectivity Plan open house.

advance to detailed design. If applicants are planning to use non-federal funds for construction, Phase I and II may be completed concurrently for installation directly by the local agency on their roads.

Construction / Installation

Construction funding makes up the largest share of program funding available for transportation projects, the majority of which is provided as federal funding passed through state agencies including IDOT and IDNR. If a municipality wishes to construct or improve a county or state road, they may do so either by permit or by paying for the marginal cost of adding a facility into an otherwise planned improvement by the state or county agency. Common examples of this include installing sidewalks or sidepaths being added to roadway widening or reconstruction projects, or when a storm sewer is being installed.

IDOT and LCDOT each have policies that outline cost share policies for various types of infrastructure projects. Municipalities should contact their transportation planning liaisons for more information. While eligibility for federal funding does not guarantee funding will be made available, having a clear vision for project implementation helps make a project more competitive. Several grant programs require federal funds for construction to obtain design approval prior to application for construction funds.

Maintenance

Routine maintenance is an important factor in ensuring that investments in walking and bicycling can be enjoyed and remain functional, operational, and adhere to accessibility guidelines. This includes seasonal maintenance such as sweeping and snow clearance as well as mill and overlay, resurfacing, and periodic replacement of signs, pavement markings, and traffic signal components.

Unlike new construction, federal funds may not be used for maintenance. Therefore, municipalities should plan for maintenance funding to grow to keep pace with new construction. Motor fuel tax (MFT) funding is among the most common funding, but other local funds or user fees are sometimes used.

When municipalities install infrastructure along rights-of-way by other agencies or wish to construct a facility spanning multiple jurisdictions, maintenance agreements or intergovernmental agreements are the methods used to ensure someone is responsible for keeping a facility in a state of good repair.

Non-Infrastructure

Funds for programming and events are important and should be viewed as the marketing necessary to encourage efficient use of infrastructure investments. Recognizable examples of this are staff time, advertising, and promotional materials dedicated to Walk and Bike to School Day, funding allocations for crossing guards, and fees for hiring bicycle safety instructors to participate in bike rodeos or other school-sponsored bicycle safety events. Non-infrastructure funding also includes permit fees, insurance, traffic control, and traffic safety that would be required for open street or trail events where roadways are temporarily closed for special events.

Plans are Important, but More Funding is Needed

Funding for design and construction in Illinois is competitive and always requires financial participation by a local agency or municipality. Funding for maintenance is even rarer, such that Municipalities and departments of transportation with constrained financial resources face challenges to maintain infrastructure, even when demand is high. Cost share policies at the County and State level impose a burden on local municipalities, who are asked to contibute to the construction and/or maintenance of infrastructure they may not own.

To provide financial support and incentive to implement complete streets policies advanced at all levels of government, stakeholders for this plan should continue to advocate for increased funding at all levels of project development.

Funding Sources Overview

While funding comes from a variety of sources, the majority of funding for implementing this plan is administered through IDOT, with additional support from IDNR, CMAP, and RTA. Most programs administered through IDOT require a local match between 20% and 50%, and several programs require preliminary engineering (Phase I) be complete or ready to be completed to ensure obligation of funding aligns with program year requirements. Candidate funding sources are grouped into those that fund infrastructure, programs, or marketing.

Infrastructure
- CMAP Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- CMAP Surface Transportation Program (STP-L)
- CMAP Transportation Alternatives Program (TAP-L)
- IDNR Bicycle Path Grant Program
- IDNR Coastal Management Program
- IDNR Open Space, Land Acquisition and Development Program (OSLAD)
- IDNR Park and Recreation Facilities Program (PARC)
- IDNR Recreational Trails Program (RTP)
- IDOT Highway Safety Improvement Program (HSIP)
- IDOT Illinois Transportation Enhancements Program (ITEP)
- RTA Access to Transit, Small-Scale Capital Projects (RTA)
- Openlands ComEd Green Region Grant

Infrastructure or Non-Infrastructure, Programs, + Marketing
- IDOT Safe Routes to School Grant (SRTS)
- PeopleForBikes Community Grant Program
- Rails to Trails Conservancy Doppelt Family Trail Development Fund
- AARP Community Challenge Grant
- Action for Healthy Kids Game On Grant & Parents for Healthy Kids Grants

Non Infrastructure, Programs, + Marketing
- America Walks Community Change Grant

Foss Park Avenue and entrance to Foss Park.

Congestion Mitigation and Air Quality Program (CMAQ)

Agency: CMAP
Available Amount: $114 million
Typical Award: $16- 30 million
Website: https://www.cmap.illinois.gov/mobility/strategic-investment/cmaq

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

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

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

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

Surface Transportation Program (STP-L)

Agency: CMAP
Available Amount: $266 million
Typical Award: $150,000 to no more than $4 million
Website: https://www.cmap.illinois.gov/committees/advisory/council-of-mayors/stp

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

Eligibility: Government entities.

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

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

Transportation Alternatives Program (TAP-L)

Agency: CMAP
Available Amount: $7.5 - 10 million
Typical Award: $100,00 - $1 million
Website: https://www.cmap.illinois.gov/mobility/strategic-investment/transportation-alternatives

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

Eligibility: Local governments, non-profit organizations.

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

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

Illinois Bicycle Path Grant Program

Agency: IDNR
Available Amount: $1 million ($200,000 max award)
Typical Award: $100,000 - $200,000
Website: https://www.dnr.illinois.gov/grants/Pages/BikePathProgram.aspx

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

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

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

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

Coastal Management Program (CMP)

Agency: IDNR
Available Amount: $2 million
Typical Award: $1,000 - $100,000
Website: https://www2.illinois.gov/dnr/cmp/Pages/default.aspx

Purpose: To fund projects that protect and improve coastal habitat, species, support and facilitate economic development and public access to coastal resource-based tourism activities, and help coastal communities improve and protect natural resources.

Eligibility: Government organizations.

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

Candidate Projects: Wayfinding and interpretive signage, mobility improvements to help visitors respectfully enjoy accessible public open spaces.

Open Space, Land Acquisition and Development Program (OSLAD)

Agency: IDNR
Available Amount: $29 million
Typical Award: Up to $75,000
Website: https://www2.illinois.gov/dnr/news/Pages/IDNR-Accepting-Applications-for-OSLAD-and-LWCF-Grant-Programs.aspx

Purpose: To help agencies acquire land to be used for public open space and recreation. Can be used for development projects provided they are for public parks or open spaces.

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

Candidate Projects: Acquisition of property to build a park or open space recreation area.

Park and Recreational Facilities Construction Program (PARC)

Agency: IDNR
Available Amount: $25 million
Typical Award: $600,000 - $2 million
Website: https://www.dnr.illinois.gov/grants/Pages/PARC-Grant.aspx

Purpose: To provide funding for bondable or brick and mortar capital projects. Can be used for site demolition, site preparation, utility relocation, construction, or rehabilitation of buildings and structures.

Eligibility: Local government entities (municipalities, park districts) who are eligible to spend public funds to buy or develop property for parks, recreation, or conservation. School districts are not eligible.

Local Match: The grant covers 75% of the capital cost of a project, requiring a 25% local match. For economically disadvantaged communities, the grant pays for 90% and the local match requirement is 10%.

Candidate Projects: Acquisition of property for construction of a trail, outdoor restrooms, lockers, and wayfinding and/or interpretive signage.

Recreational Trails Program (RTP)

Agency: IDNR
Available Amount: $750,000
Typical Award: $200,000
Website: https://www.dnr.illinois.gov/grants/Pages/PARC-Grant.aspx

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

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

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

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

Illinois Transportation Enhancements Program (ITEP)

Agency: IDOT
Available Amount: $80 million (anticipated)
Typical Award: $2 million (maximum allowable)
Website: http://www.idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/funding-opportunities/ITEP

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

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

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

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

Local Highway Safety Improvement Program (HSIP)

Agency: IDOT
Available Amount: $16.2 million
Typical Award: $2 - 5 million
Website: http://www.idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/funding-opportunities/highway-safety-improvement-program

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

Eligibility: Government entities.

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

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

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

Agency: RTA
Available Amount: Varies (as a program within CMAP)
Typical Award: $150,000 to no more than $1 million
Website: https://www.rtachicago.org/plans-programs/access-transit-program

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

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

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

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

ComEd Green Region Grant

Agency: Openlands
Available Amount: Varies
Typical Award: Up to $10,000
Website: https://www.openlands.org/livability/greenregion/

Purpose: Protect or improve public spaces for the benefit of all.

Eligibility: Municipalities, townships, counties, park districts, conservation districts, and forest preserve districts within Lake County

Local Match: At least 50% local match required

Candidate Projects: Capital improvements to trails

Safe Route to School Grant (SRTS)

Agency: IDOT
Available Amount: $27.8 million
Typical Award: $25,000 to $200,000 for infrastructure and $2,500 to $50,000 for non-infrastructure applications
Website: http://www.idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/safe-routes-to-school/index

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

Eligibility: Government agencies, transit agencies, school districts.

Local Match: At least 20% local match required.

PeopleForBikes Community Grant Program

Agency: PeopleForBikes
Available Amount: Varies
Typical Award: Up to $10,000
Website: https://peopleforbikes.org/grant-guidelines/

Purpose: To build momentum for bicycling.
Eligibility: Non-profits; city or county agencies or departments; state or federal agencies working locally.

Local Match: Covers no more than 50% of project budget.

Candidate Projects: Bicycle paths, bicycle lanes, bike racks, rail trails, mountain bike trails, bike parks, and large-scale bicycle advocacy initiatives.

Doppelt Family Trail Development Fund

Agency: Rails to Trails Conservancy
Available Amount: $85,000
Typical Award: $5,000 to $50,000
Website: https://www.railstotrails.org/our-work/doppelt-family-trail-development-fund/

Purpose: To support the development and improvement of multi-use trails.

Eligibility: Non-profits; state, regional, local or tribal government agencies; and other organizations.

Local Match: None

Candidate Projects: New trail construction, trail facility/infrastructure, land acquisition, trail signage, improvements to existing trails, maintenance tasks, local media promotion, feasibility studies, or adding personnel/volunteer coordination capacity.

AARP Community Challenge Grant

Agency: AARP
Available Amount: Varies
Typical Award: $500 - $30,000
Website: https://www.aarp.org/livable-communities/community-challenge/

Purpose: Help communities make immediate improvements and jump-start long-term progress in support of residents of all ages.

Eligibility: Non-profits; government agencies; and other organizations.

Local Match: None

Candidate Projects: Permanent physical improvements, temporary demonstrations that lead to long-term change, new and innovative programming or services that increase connectivity, walkability, bikeability, wayfinding, access to transportation options, and roadway improvements.

Game On Grant & Parents for Healthy Kids Grants

Agency: Action for Healthy Kids
Available Amount: Varies
Typical Award: $1,000 to $2,500
Website: https://www.actionforhealthykids.org/school-grants-support/

Purpose: Provide funding for schools and parent-led groups to improve or introduce new nutrition and physical activity programs.

Eligibility: Elementary schools (K-8), school districts, municipalities, counties, townships, police departments, health department, non-profits

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

Candidate Projects: Sidewalk improvements, traffic calming, pedestrian/bicycle crossing improvements, bicycle facilities, bicycle parking, educational and encouragement programs

America Walks Community Change Grant

Agency: America Walks

Available Amount: Varies
Typical Award: $1,500
Website: https://americawalks.org/community-change-grants/

Purpose: Creating healthy, active, and engaged places to live, work, and play.

Eligibility: Advocates, organizations, and agencies

Local Match: None

Candidate Projects: Programming and event ideas that engage communities in increased physical activity and active transportation.

APPENDIX A1

Policy and Program Recommendations

Policies and programs help create a supportive and welcoming environment for pedestrians and bicyclists and provide near-term steps that can be taken in advance of infrastructure improvements. Through the adoptions of these recommendations, Northern Lakefront residents will have more opportunities to safely walk, bicycle, and enjoy the many amenities of the Lakefront and region.

Complete Streets Related Recommendations

Complete Streets Policy Adoption

Complete streets are designed to enable safe access for all users of the transportation network regardless of age, ability, or travel mode. A complete street has no predefined facilities requirements but is optimized within its surrounding context to promote safe, convenient active transportation options for the community.

To ensure that these principles play a lasting role in the development of the local transportation network, the adoption of a Complete Streets policy by each community is recommended. This means committing to the accommodation of pedestrians, bicyclists, and transit users as well as motor vehicles in all new transportation construction and maintenance projects whenever appropriate.

Additionally, adopting a Complete Streets policy helps connect municipalities to more transportation funding opportunities. The Lake County Council of Mayors (LCCOM), for example, adopted new council rules in August 2019 for the allocation of their federal Surface Transportation Program (STP) Block Grant funds. Municipalities will now receive an additional 50 points out of 200 for having a Complete Streets policy, greatly increasing their likelihood of receiving STP funding.

To better position communities to access future funding and implement complete streets projects, the project team provided each of the five communities with a model Complete Streets policy, following best practices from the National Complete Streets Coalition. Using this model policy to serve as a customizable template for policy development, the team offered assistance and attended village board and policy committee meetings to help staff modify and develop a policy appropriate to their local priorities and culture.

The development of a Complete Streets policy is underway in each municipality. As of the publication of this plan, the following communities have adopted a policy:

- Beach Park: Adopted December 2019
- North Chicago: Originally adopted January 2014, update planned: https://atpolicy.org/complete-streets-policy-north-chicago-il-2014/
- Waukegan: In progress
- Winthrop Harbor: In progress
- Zion: TBD

Complete Streets Coordination Committee

Successful incorporation of complete streets into regular project development processes will rely heavily on a commitment from each municipality to implement all facets of this plan, from scope development and programming through detailed engineering (design), and construction. Key staff from each municipality should meet regularly to coordinate this plan's implementation locally, and should include representatives from one or more of the following departments from each municipality:

- Public Works / Engineering
- Village Administration / City Manager
- Planning / Community Development

The Complete Streets Coordination Committee should meet monthly or quarterly with meeting locations rotating between each municipality. Responsibilities of the Committee may include the following activities:

- **Review road projects**
  On a quarterly or monthly basis, meet to review upcoming transportation projects to determine if additional coordination is needed to ensure complete streets are considered and incorporated in project development.

- **Coordinate with IDOT**
  To increase the likelihood of including walking, bicycling, and transit access in a project's scope, the Complete Streets Coordination Committee should receive quarterly status updates on all relevant transportation projects from the Illinois Department of Transportation (IDOT). The Lakefront Economic Development Group, consulting engineers, or other relevant staff can act as IDOT liaisons and report back to the Coordination Committee and elected officials in each municipality.

- **Coordinate on funding**
  Multi-jurisdictional, community-supported projects often make for more competitive grant applications. The Complete Streets Coordination Committee can help prioritize and apply for funding for relevant projects from this plan that span community boundaries. The Committee can also coordinate on sharing local match obligations between municipalities to help lower the overall contributions of each body of government.

- **Activate the community**
  The Committee can coordinate regional educational and event programming and help regularly add to and promote a public, year-round community calendar highlighting events in the Northern Lakefront region. See policy and program recommendations for more details about coordination responsibilities.

- **Address plan recommendations**
  The Committee can take the lead helping each municipality implement the infrastructure, policy, and program recommendations in this plan. Best practices and model policies can be shared during the quarterly or monthly meetings.

- **Evaluate progress**
  A successful plan involves collecting and reporting data to evaluate progress so achievements can be celebrated, lessons can be shared, and strategies can be adjusted. On an annual basis, the Committee should review progress made on implementation of this plan. Regional performance measures could include the following:
    - Infrastructure installed (feet/miles of sidewalk, bicycle lanes, trails, etc.)
    - Mode share counts
    - Severe and fatal crash statistics for all modes

Education

Engaging educational activities and resources can be designed to promote safe travel behavior on local streets and help build more community support and interest in walking, bicycling, and transit. The following educational programs and resources can be coordinated by the Complete Streets Coordination Committee and local municipalities.

- **Pedestrian & Bicycle Training**
  Pedestrian and bicycle training for adults, teens, and youth should be offered in each municipality. Youth will benefit from classes on bicycle and pedestrian safety and skills building. Bicycle mechanics classes, education related to the variety of transportation options, and on-bicycle education classes (such as Learn to Ride or Traffic Safety Skills 101) can be made available for middle and high school students and adults. Local experts such as staff from Zion Cyclery or a League Certified Instructor (LCI) could be recruited to assist with these trainings.

- **Youth Bicycle Mechanics**
  Youth can learn to assemble bicycles, ride safely, and use their knowledge to create a "pop-up" bicycle shop. This shop will give residents a cheap bicycle repair and the youth in the community will learn valuable skills. The Complete Streets Coordination Committee and local municipalities could work with community organizations such as Zion Cyclery, local chambers of commerce, or places of worship to develop this program and recruit participants from Boy Scout, Girl Scout, or high school clubs.

- **Regional Bicycle Map**
  A user-friendly bicycle network map would encourage use of the improved pedestrian and bicycle network and patronage of local businesses, the Illinois Beach State Park, and other destinations identified in this plan. The Complete Street Coordination Committee could lead this or hire a contractor to produce and distribute a free active transportation network map that includes safe bicycling and walking routes to key places and safety tips. Large employers and local businesses could be approached for sponsorship and distribution of the map.

- **Walk and Bicycling Education Campaign**
  Regional and national organizations such as the Active Transportation Alliance, Ride Illinois, America Walks, the League of American Bicyclists have many existing educational and safety resources for walking and bicycling. The Complete Streets Coordination Committee can assist each municipality in the distribution of relevant safety materials and the region's active transportation network through the following means:
    - Use local media outlets such as municipal websites, cable access stations, local newspapers, and online social networks to broadcast videos and publish articles on pedestrian and bicycle safety.
    - Arrange for pedestrian and bicycle information to be reprinted or distributed by partner agencies, Zion Cyclery, utility companies, and the private sector. Materials should be made available in both English and Spanish.
    - Work with local doctors and health care providers to distribute information on the health benefits of bicycling and walking.
    - Give away front and rear lights to cyclists with educational information on bicycle safety. Lights could be donated by local businesses, police departments, or public health departments.

- **Driver Safety Education**
  Regularly educate residents on cell phone use and speeding laws. Residents can sign a pledge through newsletters, board meetings, businesses, events, and local social media outlets. Providing yard signs, city stickers, announcements with water bills, posters, and educational events will bring more awareness to these laws. Additionally, other topics can include walking & bicycling rules of the road, tricks and tips, sharing the road with non-motorized users, Must Stop for Pedestrians law, promoting local bicycling and walking events, and issues for discussion or action.

- **Community-Centered Public Safety Alternatives**
  To make the region's streets and trails safe, comfortable, and welcoming to all, improving relationships between residents, visitors, and public safety officers should take priority. Every resident and visitor should feel welcome and comfortable regardless of race, gender, and mode of transportation. People walking and bicycling should not be any more exposed to traffic violence than those traveling in automobiles. The region should consider modifying or eliminating conventional enforcement strategies and instead work on diversifying which agencies are best suited to build community trust while encouraging safe behaviors, particularly in communities of color.

  A community-led task force should be brought together to begin a dialogue on the harm that traffic enforcement practices have created in the past and ways the community can move forward together. Those represented on this task force should include people of color, low-income people, and those who have been negatively impacted by enforcement.

  This group of community residents should be included in decision-making around public safety programs to help each community determine alternative programming to build trust, create safer streets, and improve community-police relations.

  For example, community-based public safety programs can implement a "Rewarding Good Behavior" program could be considered to reward children for good walking and bicycling behaviors such as stopping at traffic lights or wearing their helmet properly. When community-based task force members observe these behaviors, residents can be recognized at community events and be awarded prizes for demonstrating desirable behavior. Working with local businesses or the police department to donate rewards will provide sustainability to this program and encourage children to walk and bicycle safely around the Northern Lakefront communities.

Safe Routes Plans & Activities

Creating plans and opportunities for children, older adults, and vulnerable populations to navigate our region's transportation network safely and comfortably by foot or bicycle is essential for creating healthier, sustainable, more equitable communities.

- **Safe Route to School Action Plans**
  Safe Routes to School is a federally funded program that helps communities identify social and physical barriers to walking and bicycling to school. The program provides funding for education, encouragement, enforcement, and engineering projects aimed at making the trip to school safe, fun, and convenient for students in elementary and middle school.

  A Safe Routes to School Action Plan is a valuable tool that lays out current travel barriers and sets goals on how to increase the number of students choosing to walk or bicycle to school. Schools without a program should organize a Safe Routes to School Committee to develop an Action Plan, which is a pre-requisite for federal Safe Routes to School funding.

- **Walking and Bicycling Safety Education in Schools**
  The impacts that walking and bicycling can have on our children are enormous. Students test better and are more focused throughout the day and they are more likely to get their recommended daily dose of physical activity, reducing the risk of obesity and promoting good overall health.

  Passed in September 2018, The Bicycle Walk Education in Schools Act requires every public K-8 school in Illinois to provide walking and bicycling safety education. School boards are responsible for ensuring that the law is appropriately implemented in their district.

  To assist school districts in this task, the Active Transportation Alliance and Illinois Association of School Boards compiled multiple recommended educational resources that teachers can incorporate in their classroom. Resources include quizzes, videos, lesson plans and workshops which can be found at activetrans.org/resources/education.

- **Walk and Bicycle to School Day**
  Encourage area schools to participate in National Walk School Day every May and Bicycle to School Day every October. Schools can host educational assembly events and organize a walking school bus or bicycle rodeo to teach rules of the road and safety skills.

    - Walking school buses involve children walking to school together with one or more adult volunteers. It can have a planned route, similar to a school bus, where children are 'picked up' at designated meeting points. For children who live too far away to participate in Walk to School Day, they can be dropped off at a meeting point such as a playground or church to be picked up by the walking school bus. See the National Center for Safe Route to School's Walking School Bus Guide for more information: guide.saferoutesinfo.org/walking_school_bus/

    - Bicycle rodeos are obstacle courses designed to teach bicycle safety skills. They can be set up on a flat surface such as a parking lot or tennis court during the school day with volunteers leading different stations to teach maneuvering skills, stopping/starting, turning, and balancing. See the Active Transportation Alliance's guide for detailed bicycle rodeo station ideas: activetrans.org/sites/files/BicycleRodeoStationIdeas.pdf

  As part of National Walk to School Day, North Chicago Community Unit School District 187 has started an annual tradition called 'Walk a Cop to School Day'. The event brings together police officers, elected officials, teachers, families, and children for healthy snacks at a church parking lot followed by a group walk to school. The event is dually intended to build more positive relationships between officers and youth.

Toolkits and materials to plan a walk or bicycle to school event are available at walkbicycletoschool.org.

- **Safe Routes for Seniors Action Plans**
  A Safe Routes for Seniors Action Plan aims to make a community safer and more comfortable for older adults to walk and bicycle. Developing a plan may be especially relevant to communities with a high concentration of adults 65 and older such as Winthrop Harbor or Beach Park.

  An Action Plan can target pedestrian safety improvements around specific areas such as senior centers and hospitals and can help establish collaboration between key stakeholders who can identify and address mobility and safety concerns of older adults. Crossing intersections, for example, is often cited as particularly challenging for older adults. The plan could identify the need for countdown timers or adjustments to signal timing to accommodate slower walking speeds and give everyone enough time to safely cross the street.

  By planning our streets to accommodate the needs of older adults, they become a more attractive walking environment for all people using the road.

- **Safe Routes for Faith Action Plans**
  Similar to Safe Route to School and Safe Route for Seniors Plans, a Safe Route for Faith Plan could help map out walking and bicycling routes to churches, synagogues, mosques, and temples and identify infrastructure improvements needed to improve pedestrian and bicycle safety near places of worship.

- **Regional Vision Zero Action Plan**
  Vision Zero is an international traffic safety movement guided by the principle that no loss of life on our streets is acceptable. Each municipality should commit to eliminating traffic fatalities as part of a Regional Vision Zero Action Plan and implement proven crash prevention measures on high-crash corridors.

  On a quarterly or annual basis, the Complete Streets Coordination Committee should continue to review new crash data and reprioritize design safety improvements as needed. To determine which roads are the best candidates for funding from the federal Highway Safety Improvement Program (HSIP), the Committee should consult with the Lake County Division of Transportation and Council of Mayors and facilitate the formation of intergovernmental agreements for road projects that span multiple jurisdictions.

- **Safe Park & Worship Zones**
  Safe Park Zones are streets adjacent to parks where traffic safety is prioritized with lower speed limits when children are present. Safe Park Zone streets should be designated by a local ordinance and marked with signs. Safe Worship Zones can be similarly designed to slow traffic near places of worship during services.

- **Snow Clearing Ordinance & Assistance Program**
  The accumulation of snow and ice on sidewalks creates a major barrier to pedestrians, especially older adults, children, and people with disabilities.

  Municipal code should include snow removal responsibilities that require property owners or another responsible party to maintain sidewalks adjacent to their properties during and after a snow event in a timely manner.

  The municipal codes of North Chicago, Waukegan, and Beach Park include some language on who is responsible for keeping sidewalks free and clear of snow, ice, and other debris. However, in addition to establishing who is responsible for snow clearance, it is best practice for code to also specify when snow removal needs to occur, under what conditions, and how much needs to be removed. The City of Evanston's ordinance, for example, requires property owners to clear a three-foot path on sidewalks within 24 hours after a snowfall of four inches or more. Each municipality should review and update their code accordingly.

Additionally, each municipality should consider developing a snow shoveling assistance program to help people with disabilities and others who need assistance with snow clearance. Other communities have issued a call for volunteers or coordinated with local Boy Scout, Girl Scout, or high school clubs in need of volunteer hours to remove snow from the sidewalks of older adults or those with disabilities. See the City of Evanston's Volunteer Snow Shoveling Program as an example: cityofevanston.org/government/departments/parks-recreation-community-services/senior-services/snow-shoveling-program

Zoning Codes

Zoning can be used to hold private developers responsible for building communities that support walking and bicycling as new sites are built or redeveloped within the community. With the right strategies, zoning can be used to minimize distance barriers, build new bicycle and pedestrian facilities, and maximize connectivity.

Municipal Zoning Code
Facilities within private developments play a significant role in whether they can be accessed by active transportation. Each municipality should consider updating its zoning code to ensure connectivity and access for pedestrians, bicyclists, and transit users in all new and redeveloped sites. Examples include:

- Require development site plans to comply with each community's Complete Streets policy and Active Transportation Plan where applicable to ensure that sidewalks, bicycle facilities, and network connectivity are included.
- Allow for greater integration of land use types, thereby decreasing distance barriers for walking and bicycling.
- Give priority to continuous sidewalks adjacent to large developments and require connectivity to building entrances.
- Require a maximum setback distance for building entrances, ensuring shorter trips through parking lots for people walking and bicycling.
- Require street connectivity for housing developments to improve the directness of routes, again decreasing distance barriers for walking and bicycling.
- Increase flexibility on the required number of car parking spaces to limit parking lot size.
- Create minimum standards for bicycle parking accommodations at commercial and workplace locations.
- Develop specifications for planting trees, installing benches, including pedestrian scale lighting, and installing awnings in business districts.

Developers should be expected to implement this plan as a condition of any proposed development. Proposed plans that do this and meet any of the above criteria could receive expedited permits, density bonuses, or reduced costs by allowing for reduced parking.

Subdivision Regulations
Each community should review its current planned development or subdivision ordinance to assess whether Complete Streets features are required as new sites are built or redeveloped. If needed, these ordinances should be revised to hold private developers responsible for building communities that support walking, bicycling, and access to transit.

Subdivision and Planned Unit Development regulations, for example, can include a statement that all subdivisions shall make adequate provision for bicycle and pedestrian access. Design standards can be set (e.g. sidewalks, crosswalks, bicycle lanes, bicycle parking, street furniture), pedestrian and bicycle circulation plans can be required, and terms for plan approval can be stated.

Providing a checklist of requirements can be a very useful tool to help both the developer and administrative zoning staff better gauge if an application is complete. Approval of the subdivision can be withheld if pedestrian and bicycle access and circulation are deemed inadequate. Developers, on the other hand, can save time and money if they clearly understand what they are expected to provide.

Some examples:

- Skokie: skokie.org/DocumentCenter/View/1705/Preliminary-Plan-Review---Checklist-for-Development-Design-and-Complete-Streets-Policy-Implementation-PDF

- Oak Park: https://www.oak-park.us/sites/default/files/bfc/6_Complete%20Streets%20Checklist.pdf

Bicycle Parking Ordinance
To promote the use of the bicycleway and trail networks and to boost local commerce, each community should adopt a zoning ordinance to require bicycle parking at key commercial, residential, and industrial sites.

The ordinance could require a specific number of bicycle parking spaces, depending on land use type, in both new development and major renovations. Density bonuses for including bicycle parking could also be used as an incentive for developers. A model bicycle parking ordinance can be found at changelabsolutions.org/product/making-place-bicycles

Public Works

Public works departments can help address safety issues for people walking and bicycling through infrastructure improvements and allowing opportunities for residents to make requests and flag problem areas.

Traffic Signal Improvements

Intersections can act as a barrier to non-motorized travel when traffic signals are poorly timed or when they are not easily triggered by people traveling by foot or bicycle. When an intersection is built or redesigned, pedestrians and bicyclists should always be considered.

Actuated or semi-actuated signals should accommodate pedestrian and bicycle crossings through loop detectors and push buttons. Loop detectors embedded in the pavement need to be calibrated to detect bicyclists and should be clearly marked for activation. Push buttons should include signage and be easily accessible to someone on foot and, if needed, to someone riding a bicycle if no loop detector exists.

When triggered, traffic signals should allow enough time for slower pedestrians including children, older adults, and people with disabilities to cross safely. Long traffic signal delays for pedestrians and bicyclists should be avoided as people will be more likely to cross against on-coming traffic or choose to avoid travel by foot or bicycle altogether. Improved signal spacing on arterials to every quarter to a half-mile will also reduce the likelihood of a person crossing without a signal and help prevent fatal or serious traffic crashes.

Accessible pedestrian signals inclusive of audible and countdown timers are now the standard for signal upgrades. Whenever a signal is upgraded, it should be upgraded with the latest technology to help people walking and bicycling feel more comfortable while traveling on the road. These measures are especially important for vulnerable populations including older adults and those with visual impairments.

Traffic Calming Policy

Develop a Traffic Calming Policy that allows residents to submit concerns about streets with unreasonably high and unsafe traffic speeds or volumes. Complaints can be evaluated by municipal staff and, if warranted, affordable interventions can be proposed to address the concerns.

Low-cost traffic calming measures can include signage, pavement markings, bump-outs, or speed humps/bumps. Other Chicagoland communities including Wilmette and Glenview have adopted traffic calming policies and a process to receive input from community members:

- Village of Wilmette's Traffic Calming Policy and Procedure: wilmette.com/download/engineering/Traffic_Calming_Policy__Procedure_8-21-98_(2).pdf
- Village of Glenview's Traffic Calming Procedures and Policies: glenview.il.us/Documents/Traffic%20studies/Traffic_Calming.pdf

Bicycle Parking Request Form

Residents will not use bicycleways to reach businesses unless they can safely lock their bicycles at their destinations. Each community should set up a process for allowing residents and businesses to request bicycle parking.

An online request form can be created to offer residents an opportunity to share where they would like a bicycle rack and why it would be helpful at a location. The form can note that the municipality can only install bicycle parking racks within the public right-of-way and at municipality-owned facilities and that making a request will not guarantee that a rack will be installed. A staff person from each community should be assigned to take requests, document them, and respond to residents.

In addition, to create more community ownership, each municipality could work with area high schools to design and build bicycle racks. Public Works departments can provide students or volunteers with materials to produce the racks to be installed by each municipality. Work with the Complete Streets Coordination Committee, residents, and elected officials to prioritize locations.

Bike Share / Scooter Share

Bike share and some scooter share systems provide on-demand public transportation where users can rent a vehicle for a designated period. Bike share can help create more visibility for bicycling, increase access to jobs, transit, and other destinations, and positively impact public health, air quality, and local economies. They are ideal for tourism, commuting trips, recreational riding, and providing first/last-mile connections to transit.

Stakeholders in Lake County including the Village of Grayslake, College of Lake County, Lake County Forest Preserves, and Lake County Division of Transportation are exploring the possibility of a bike share pilot that would eventually expand throughout Lake County. To prepare for a countywide or regional system, municipalities should become informed about bike share options and review key considerations. Scooter share is being considered, but the majority of interest is focused on nonmotorized vehicles first.

Traditionally, bike share systems have been station-based where users check out and return bicycles to an automated station at a fixed location. Other bike share models include dockless and hybrid systems that have integrated locks so a bicycle can be locked to itself or an object such as a bicycle rack. Dockless systems allow users to rent bicycles and leave them at any location while hybrid systems require bicycles to be left in bicycle share parking areas, often designated by a painted box on the pavement. Scooter share tends to be dockless, but there is an increasing interest in docks or corrals as a means of discouraging parking bicycles or scooters on sidewalks or blocking areas that block the public way.

Hybrid and dockless systems typically create more convenience for users and are less costly for a municipality to implement. Docked systems, however, create more consistency where users can reliably find an available bicycle. They also eliminate issues with 'bicycle litter' where bicycles are improperly parked in sidewalks, pathways, and other public spaces, creating a safety hazard and public nuisance.

When developing a bike share program, additional consideration needs to be given to bicycle or station density and coverage area, check-out and payment options, equipment and maintenance, financing and sponsorship, private versus public operations, regulations and operating permits, communications and community engagement, and strategies for encouraging bicycle share use in underserved communities.

In the Chicagoland region, the following communities and counties have implemented or have plans to specifically create bike share programs:

- Kane and Kendall Counties – docked system to launch in Summer 2020
- McHenry County (Bicycle MC) - docked system launched in Summer 2019
- I&M Canal Trail – docked system launched Summer 2019
- Cook County Forest Preserves – hybrid system launched in 2018
- Evanston (Divvy) –docked system launched Summer 2016
- Aurora – docked system launched Summer 2016
- Chicago (Divvy) – docked system launched Summer 2013, dockless coming in 2020

For best practices on developing a bike share program, visit NACTO's Bike Share resource page nacto.org/program/bicycle-share-initiative/ and Transport for America's Shared Micromobility Playbook playbook.t4america.org/

Promotion & Events

Through the promotion of existing and new events, Northern Lakefront residents will have a greater awareness of opportunities to walk, bicycle, and enjoy the many amenities of the Lakefront and region.

Promotion

Joint, Public Calendar of Year-Round Trail Programming

Hundreds of community events take place in Beach Park, North Chicago, Waukegan, Winthrop Harbor, and Zion every year. Building more local awareness of existing trail and community programming was identified as a key need for the Northern Lakeshore region to help more residents and visitors take advantage of existing activities, promote local business, and connect more people to the Lakefront. Creating a shared, public online calendar for the region that aggregates all planned walking, bicycling, transit, and trail events, as well as other relevant outdoor and community events is recommended.

On a monthly or quarterly basis, each municipality and various organizations within the region should submit relevant event information to a designated calendar manager, selected by the Complete Streets Coordination Committee.

The Calumet Heritage Area Calendar, managed by the Calumet Collaborative, is an example of a successful collaborative, public calendar used to promote events and programming throughout the southern Cook County and northwest Indiana region. Calendar submissions are made through an online form and are either accepted or denied by the calendar manager based on submission guidelines. The Calumet Heritage Area Calendar uses a platform called Tockify and can be viewed at //calumetheritage.org/calendar.html.

Calendar platform options should be researched and reviewed by the Coordination Committee. If needed, the lead organization or individual selected to manage the calendar could seek funding from the participating municipalities to develop and host a website and manage the calendar.

Regional Brand, Advertising Strategy, and Event Promotion

A cohesive identity and brand for the region can attract tourism, economic development, as well as instill local pride in among the people that call this region home. The branding developed for the Northern Lakeshore Trail Connectivity Plan has been embraced by many and serve as the starting point for a true regional brand—particularly in relation to the typography, iconography, and color palette. A coordinating committee of Northern Lakeshore Communities should hire a creative agency to lead a branding exercise to further develop the identity of this region and craft strategic messaging to communicate its unique value.

A full advertising strategy should include recommendations for online and print marketing materials. Advertising on the Union Pacific North Metra Line is recommended to draw more visitors from outside of the region. Metra offers a wide array of advertising options including banners on trains, posters at stations, and ads in their train schedule booklets and newsletter, which are read by tens of thousands of Metra riders. In the Calumet region, for example, the South Shore Convention and Visitors Bureau commissioned local artists to design vintage-style posters to advertise on the South Shore Line to draw in more tourism to attractions along the route: southshorecva.com/region/south-shore-posters/

Once a brand and advertising strategy has been developed, this coordinating committee should create a shared calendar to promote Northern Lakeshore events and help event organizers reach a wider audience around the region. The public calendar should be cross promoted by the municipalities, regional agencies, and community organizations including the Lake County Illinois Convention & Visitors Bureau (LCICVB), Lake County Health Department, Illinois Department of National Resources (IDNR), and local chambers of commerce. Events should be listed in both English and Spanish.

Events

Community walking and bicycling events are a great way to feature the region's active transportation network. Select a route or activity that features local businesses or attractions such as the Illinois Beach State Park or any new or planned network improvements. Large events can also serve as fundraisers for local projects and bring visitors from neighboring communities.

Seasonal Walking & Bicycling Events
The Key Recommendations Memo includes existing events and new event ideas the community expressed interest in during the public outreach process for this plan. The following seasonal events are examples of activities that could be coordinated by the Complete Streets Coordination Committee in collaboration with community partners.

- **Spring Beach Clean-up –** Encourage community members to take care of their beaches and become stewards to the environment by cleaning up trash from the shoreline or helping to implement erosion control measures**.** The annual beach clean-up could include competitions between municipalities or teams to see who can collect the most trash bags or walk the most steps.
- **Summer Bicycle Wash –** Set-up a stand at local farmers' markets where people can wash their bicycles for free. Partner with Zion Cyclery or others to additionally offer quick bicycle tune-ups, helmet checks, and safety resources. This would encourage people to bicycle to the farmer's market and promote a lifestyle where bicycling is a means of transportation and not just a hobby.
- **Fall Halloween Bicycle Ride** – Host a Halloween party on two wheels where people come dressed in costume, decorate their bicycles, and ride a route of their choice or parade together through a downtown business district.
- **Winter Holiday Trail of Lights** – Decorate a trail or street with holiday lights for outdoor appreciation while bicycling or walking around the region.

Regionwide Activities
The following events could encourage more walking and bicycling in the region and help participants re-envision the design and use of their streets.

- **Path Raising** - To improve paths in the network, municipalities can train residents on how to install sidewalks and build trails. Path raising parties for trained residents can be organized to put their new skills to work in prioritized areas throughout the region (under the direction of city-authorized crews).

  The Chicago Area Mountain Bicyclers (CAMBr) and Zion Cyclery, for example, provided tools and trained volunteers to build mountain bicycle trails in Beulah Park. CAMBr now maintains these trails as well as several other trails they have built around the Chicagoland region with volunteers. In Southern Illinois, students and community members have volunteered with Southern Illinois University to help build part of a 30-mile trail network near the Shawnee National Forest. During trail building days, organizers ask volunteers to sign a waiver and provide tools and safety equipment including gloves and eye and head protective gear.

- **Open Streets** - Open Streets events occur anytime local streets are closed to vehicles and open for walking, bicycling, and informal play. The municipalities can adopt Open Streets as an annual event to complement existing events such as the Faith in Place Farmer's Markets, Zion Cyclery Bicycle Fest or Fat Tire Rides, or other local events or festivals.

  Special times or days can also be designated for stand-alone Open Streets events. One or both directions of the Amstutz Expressway between downtown Waukegan and Lake Michigan could be closed for a regionwide **Amble the Amstutz** event. In addition to proving space to walk or bicycle up and down the Amstutz, programming could include a bicycle rodeo obstacle course, yoga, dance, face painting, arts and crafts, and live music.

- **Trail Block Party** – During one month each summer, encourage community organizations to host block parties on various parts of the Robert McClory Bicycle Path or trails within the Illinois Beach State Park. Food, music, games, and bicycle parades can create a lively environment and a chance for residents to

meet their neighbors, build community, and get to know the trail network.

- **Bicycle/Walk to the Beach 5K** – Bring all five communities together for an annual 5K walk, run, or bicycle ride that brings participants along a route featuring future transportation improvement areas, local businesses, and key destinations. The event could start or end with a festival at Foss Park in North Chicago or North Point Marina in Winthrop Harbor.

- **Pilot Projects or Tactical Urbanism Installations** – Pilot project and tactical urbanism events are powerful and popular tools used by communities to visually demonstrate how walking and bicycling facilities can create safer, more engaging, livable streets. These low-cost, temporary projects, such as building a bicycle lane out of duct tape or curb bump-out with flowerpots, should be regularly used to 'test out' new designs or improvements to public spaces. They can have a big impact on building public and political support of walking and bicycling projects and can inspire long-term physical change.

  Potential tactical urbanism locations:

  - **North Chicago:** Foss Park District Office and Community Center
  - **Waukegan:** Waukegan High School Campuses
  - **Zion:** Roads leading into Beulah Park or Shiloh Park
  - **Beach Park:** Robert McClory Bicycle Path and W. Wadsworth Road crossing
  - **Winthrop Harbor**: Roads around Village Park
  - **Regionwide:** Mobility Improvement Areas
  - **Regionwide:** Robert McClory Bicycle Path – Host a public art competition to design and create painted intersections and trail crossings using chalk paint. The artwork will help slow down vehicle traffic, celebrate the trail, and draw attention to it. A month-long competition could coincide with the Trail Block Party.

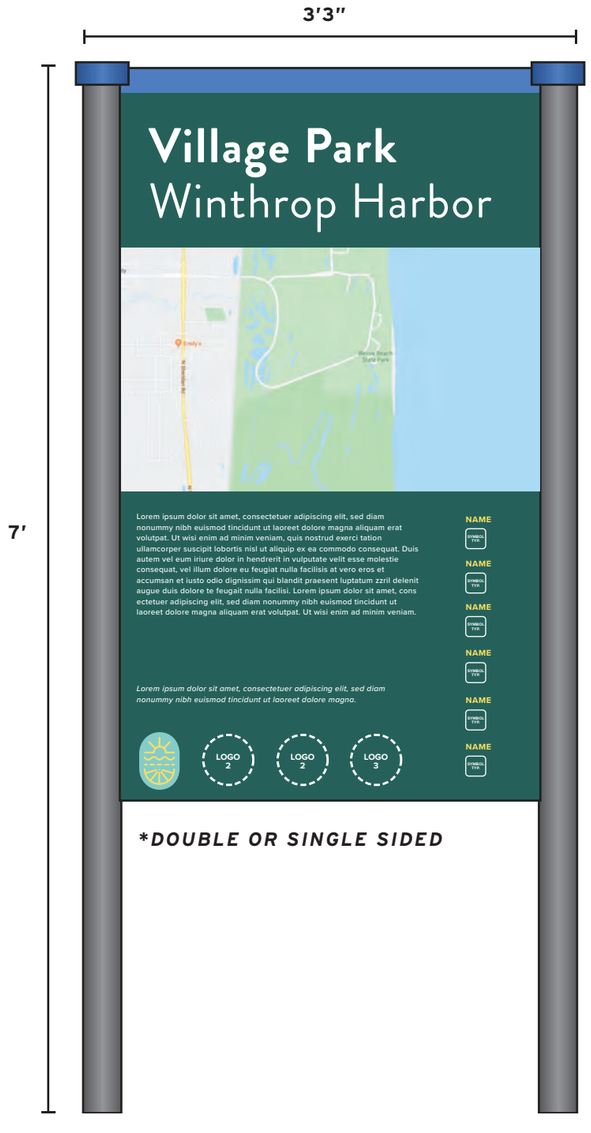
- **Walk/Bicycle & Dine Events** - Invite pedestrians or cyclists to enjoy a progressive dinner on foot or by bicycle at local restaurants. A bicycle or walking tour of these establishments for groups of 30 or less can garner media attention for local businesses and raise the profile of walking and cycling as a way to encourage and enjoy local patronage. The route can also highlight new or potential community improvements to the transportation network.

- **Shop by Foot & Bicycle** - Encourage residents to walk or bicycle when making short errands to local shops. Partner with local businesses to provide discounts and promotions for encouragement. The Lake County Libation Trail, for example, could be expanded to encourage walk and bicycling and to incentivize more businesses to locate within the Northern Lakeshore region.

APPENDIX A2 WAYFINDING CONCEPT

FREESTANDING SIGN STRUCTURE*

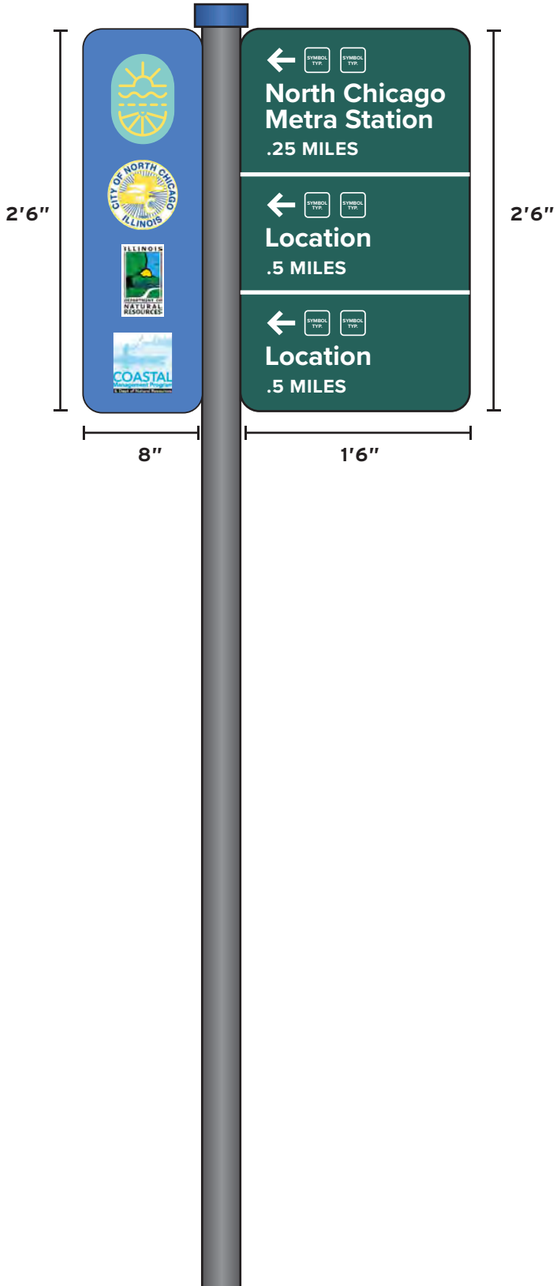
~$4,000



**DOUBLE OR SINGLE SIDED*

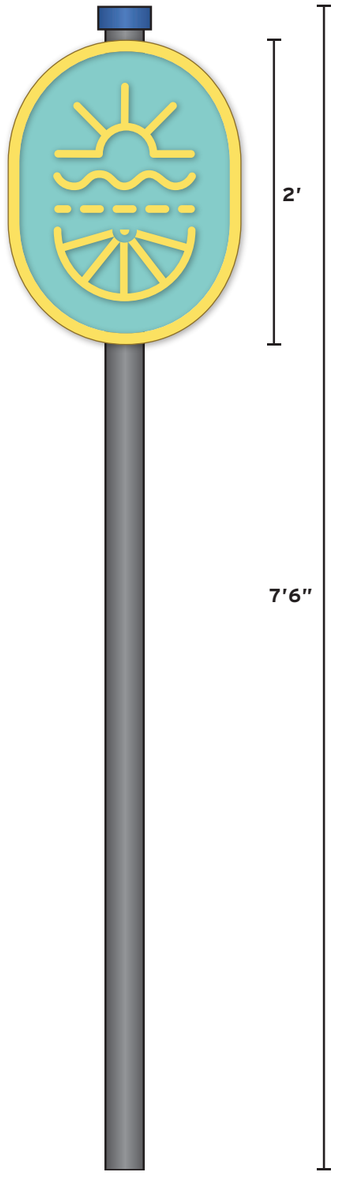
DIRECTIONAL STREET SIGNS*

~$2,000



TRAIL MARKER SIGN

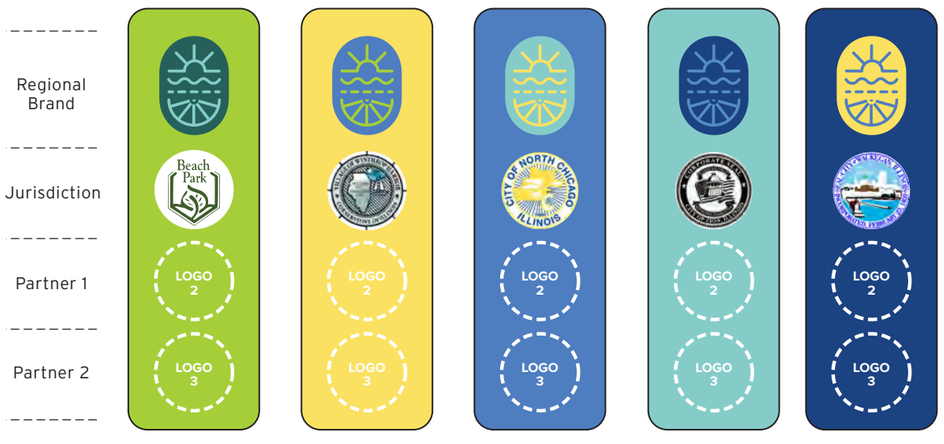
~$1,200



DIRECTIONAL WALL SIGN

~$800

DECORATIVE SIDE MOUNT



COLOR VARIATIONS BASED ON COMMUNITY LOCATION

APPENDIX A3 INFRASTRUCTURE COST TABLES

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
BPI001	McAree Rd & Green Bay Rd		Traffic Signal	Beach Park	$ 395,000
BPI002	Wadsworth Rd & Robert McClory Path		Access Ramp	Beach Park	$ 50,000
BPI003	Wadsworth & Sheridan		Traffic Signal, Bike Transition, Crosswalk, Detectible Warning, Curb Ramp	Beach Park	$ 442,000
BPI004	Hendee Rd & Sheridan Rd		Midblock Crossing, Crosswalk, Detectible Warning, Curb Ramp	Beach Park	$ 25,000
BPI005	York House Rd and Sheridan Rd		Traffic Signal, Crosswalk, Detectible Warning, Curb Ramp	Beach Park	$ 408,000
BPN001	Green Bay Rd	29th St to 21st St	Sidepath	Beach Park	$ 975,000
BPN002	Green Bay Rd	Waukgan Savanna FP to 29th St	Sidepath	Beach Park	$ 2,163,000
BPN003	Kenosha Rd	Green Bay Rd to Zion Limit	Sidepath	Beach Park	$ 1,669,000
BPN004	Wadsworth Rd	Green Bay Rd to Sheridan Rd	Sidepath	Beach Park	$ 2,657,500
BPN005	Lewis Ave	Beach Road to 29th St	Sidepath	Beach Park	$ 2,339,500
BPN006	Lewis Ave	Buckingham Rd to Wadsworth Rd	Sidewalk	Beach Park	$ 1,870,500
BPN007	33rd St	Lewis Ave to Robert McClory Path	Bike Lanes	Beach Park	$ 155,500
BPN008	North Ave	Blanchard Rd to Beach Rd	Advisory Lanes	Beach Park	$ 494,000
BPN009	York House Rd	Robert McClory Path to Sheridan Rd	Sidepath	Beach Park	$ 992,000
BPN010	Hendee Rd	Lyons Woods FP to Hendee Rd Connector	Signed Route	Beach Park	$ 2,000
BPN011	Sheridan Rd	Beach Rd to Wadsworth Rd	Sidepath	Beach Park	$ 299,500
BPN012	Sheridan Rd	Beach Rd to Wadsworth Rd	Sidewalk	Beach Park	$ 333,000
BPN013	Sheridan Rd	Crissy Ave to Oak Forest Dr	Sidepath	Beach Park	$ 53,000
BPN014	Sheridan Rd	Michigan Blvd to Wadsworth Rd	Sidewalk	Beach Park	$ 278,500
BPN015	Wadsworth Rd	Sheridan Rd to CVS	Advisory Lanes	Beach Park	$ 23,500

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
BPN016	Sheridan Rd	Blanchard Rd to Howard Rd	Sidepath	Beach Park	$ 1,244,500
BPN017	Beach Rd	Sheridan Rd to Beach Trail	Further Study Needed	Beach Park	$ -
BPN018	ComEd ROW	Beach Park Southern Limit to Beach Trail	Unpaved Trail	Beach Park	$ 234,000
BPN019	Beach Trail	Beach Trail to UP-N RRX	Further Study Needed	Beach Park	$ -
DRA001	Sand Pond Parking Lot		Bike Racks	IDNR	$ 2,000
DRA002	Illinois Beach State Park		Bike Racks	IDNR	$ 2,000
DRA003	Illinois Beach State Park		Bike Racks	IDNR	$ 2,000
DRI001	Wadsworth Rd east of Patomos Ave		Sign, Bike Transition	IDNR	$ 14,000
DRI002	7th St after UP RRX		Sign, Bike Transition, Midblock Crossing	IDNR	$ 21,000
DRI003	7th St & Sand Bluff Dr		Crosswalk	IDNR	$ 3,000
DRI004	17th St & Sand Pond		Crosswalk	IDNR	$ 3,000
DRI005	Patomos Dr & IL Beach State Park Trail		Sign, Crosswalk	IDNR	$ 4,000
DRI006	IL Beach State Park Rd & Waukegan Dunes		Sign, Crosswalk	IDNR	$ 5,000
DRI007	17th St & North Dune Nature Preserve Trail		Sign, Crosswalk	IDNR	$ 5,000
DRI008	Isherwood Beach Rd & North Dunes Preserve Trail		Sign, Crosswalk	IDNR	$ 5,000
DRN001	Wadsworth Rd	CVS to UP-N Tracks	Advisory Lanes	IDNR	$ 80,500
DRN002	New DNR Access P	Beach Trail to Ex DNR Access Path	Further Study Needed	IDNR	$ -
DRN003	Beach Trail	Beach Trail to Patamos Rd	Further Study Needed	IDNR	$ -
DRN004	17th St	Sheridan Rd to Sand Pond	Advisory Lanes	IDNR	$ 275,500
DRN005	Illinois Beach State	Patomos Rd to Wadsworth Rd	Custom Roadway Reconfiguration	IDNR	$ 208,500

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
DRN006	Wadsworth Rd	UP-RR to Patomos Ave	Advisory Lanes, Remove Centerline	IDNR	$ 249,500
DRN007	7th St	UP-N Railroad Tracks to North Point Dr	Further Study Needed	IDNR	$ -
DRN008	Wisconsin Connect	Spring Bluff Dr to 1st Ct	Trail	IDNR	$ 247,500
DRN009	Patamos Rd	Illinois Beach State Park to Wadsworth Rd	Further Study Needed	IDNR	$ -
NCA001	10th St & McAree Rd		Bus Shelters & Bus Pad	North Chicago	$ 22,000
NCA002	North Chicago Metra Station		Covered Bike Parking	North Chicago	$ 6,000
NCI001	Greenbelt FP & Green Bay Rd		Traffic Signal, Crosswalk, Detectible Warning, Curb Ramp	North Chicago	$ 410,000
NCI002	14th St & Robert McClory Path		Midblock Crossing	North Chicago	$ 10,000
NCI003	14th St & Glenn Dr		Bike Transition	North Chicago	$ 10,000
NCI004	Argonne Dr & Jackson St		Bike Transition	North Chicago	$ 10,000
NCI005	Foss Park Ave & Sheridan Rd		Crosswalk, Detectible Warning, Curb Ramp	North Chicago	$ 15,000
NCI006	Foss Park Ave & Lakeview		Crosswalk, Detectible Warning, Curb Ramp	North Chicago	$ 27,000
NCN001	ComEd ROW	Martin Luther King Jr Dr to 10th St	Unpaved Trail	North Chicago	$ 565,500
NCN002	20th Pl	Northern Ave to Natoma Ave	Shared Lanes	North Chicago	$ 1,500
NCN003	Green Bay Rd	14th St to Greenbelt FP	Sidepath	North Chicago	$ 233,500
NCN004	Argonne Dr	Foss Park Golf Crs to Natoma Ave	Shared Lanes	North Chicago	$ 1,000
NCN005	Natoma Ave	20th St to Argonne Dr	Shared Lanes	North Chicago	$ 1,500
NCN006	Dugdale Rd	Argonne Dr to 14th St	Bike Lanes	North Chicago	$ 205,500
NCN007	Dugdale Rd	Greenbelt FP to Robert McClory Path	Sidepath	North Chicago	$ 1,734,000
NCN008	Green Bay Rd	Elgin Joliet & Eastern RR to Patriot Path	Sidepath	North Chicago	$ 1,067,000
NCN009	Buckley Rd	Green Bay Rd to Sheridan Rd	Sidewalk	North Chicago	$ 900,500

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
NCN010	Patriot Path	Great Lakes Rd to Robert McClory Path	Trail	North Chicago	$ 1,236,500
NCN011	Argonne Dr	Natoma Ave to Jackson St	Bike Lanes	North Chicago	$ 423,500
NCN012	Lewis Ave	Buckley Rd to 14th St	Advisory Lanes	North Chicago	$ 582,500
NCN013	17th St	Lewis Ave to Sheridan Road	Bike Lanes	North Chicago	$ 272,000
NCN014	Sheridan Rd	N Chicago S Limit to Barry Rd	Sidewalk	North Chicago	$ 301,000
NCN015	Argonne Dr	Jackson St to Sheridan Rd	Shared Lanes	North Chicago	$ 1,000
NCN016	14th St	Robert McClory Path to Sheridan Rd	Bike Lanes	North Chicago	$ 133,500
NCN017	Sheridan Rd	Martin Luther King Jr Dr to 18th St	Sidepath	North Chicago	$ 525,000
NCN018	Broadway Ave	Argonne Dr to Sheridan Rd	Shared Lanes	North Chicago	$ 1,000
NCN019	Sheridan Rd	Cluverius Ave to Broadway Ave	Sidewalk	North Chicago	$ 1,054,500
NCN020	Foss Park Ave	Cluverius Ave to UP Viaduct	Sidepath	North Chicago	$ 721,000
NCN021	Sheridan Rd	18th St to 10th St	Bike Lanes	North Chicago	$ 343,000
NCN022	10th St	Robert McClory to EJ&E Railroad	Shared Lanes	North Chicago	$ 4,500
NCN023	Foss Park Ave	Sheridan Rd to UP Viaduct	Bike Lanes	North Chicago	$ 87,500
NCN024	Sheridan Rd	13th St to 10th St	Sidewalk	North Chicago	$ 516,000
NCN025	Lakeview Ave	Foss Park Ave to Foss Park	Sidepath	North Chicago	$ 158,500
NCN026	Elgin Joliet Eastern	Robert McClory Path to Secret Beach	Trail	North Chicago	$ 1,520,000
WHA001	The Tropics		Bike Racks	Winthrop Harbor	$ 2,000
WHA002	Winthrop Harbor Metra		Covered Bike Parking	Winthrop Harbor	$ 6,000
WHA003	North Point Marina		Bike Racks	Winthrop Harbor	$ 2,000
WHI001	11th St & Sheridan Rd		Traffic Signal	Winthrop Harbor	$ 395,000
WHI002	9th St & Sheridan Rd		Bike Transition	Winthrop Harbor	$ 10,000
WHI003	7th St & Sheridan Rd		Revise Turning Radius	Winthrop Harbor	$ 6,000
WHI004	5th St & Sheridan Rd		Traffic Signal	Winthrop Harbor	$ 395,000

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
WHI005	Russell Rd & Sheridan Rd		Traffic Signal	Winthrop Harbor	$ 395,000
WHI006	7th St & Wintrhop Harbor Metra Station		Sign, Crosswalk	Winthrop Harbor	$ 5,000
WHN001	5th St	Kenosha Rd to Fossland Ave	Signed Route	Winthrop Harbor	$ 4,500
WHN002	W 5th St	Fossland Ave to Lewis Ave	Unpaved Trail	Winthrop Harbor	$ 47,000
WHN003	9th St	Lewis Ave to Sheridan Rd	Sidewalk	Winthrop Harbor	$ 2,524,500
WHN004	5th St	Lewis Ave to Robert McClory Path	Signed Route	Winthrop Harbor	$ 5,000
WHN005	11th St	W Broadway Ave to E Broadway Ave	Trail	Winthrop Harbor	$ 30,500
WHN006	5th St	Robert McClory Path to Roberts Rd	Unpaved Trail	Winthrop Harbor	$ 127,500
WHN007	Russell Rd	Lewis Ave to Sheridan Rd	Sidepath, Underpass	Winthrop Harbor	$ 5,008,000
WHN008	North Ave	7th St to 5th St	Signed Route	Winthrop Harbor	$ 3,000
WHN009	11th St	Robert McClory Path to Park Ave	Shared Lanes	Winthrop Harbor	$ 7,500
WHN010	Thompson Ave	9th St to Russell Rd	Shared Lanes	Winthrop Harbor	$ 5,500
WHN011	5th St	Roberts Rd to Sheridan Rd	Signed Route	Winthrop Harbor	$ 10,000
WHN012	7th St	North Ave to Sheridan Rd	Shared Lanes	Winthrop Harbor	$ 3,500
WHN013	9th St	Russell Ave to Sheridan Rd	Sidepath	Winthrop Harbor	$ 257,000
WHN014	Com Ed ROW	Beach Park/Zion Limit to UP RRX	Unpaved Trail	Winthrop Harbor	$ 383,000
WHN015	Sheridan Rd	17th St to 14th St	Sidepath	Winthrop Harbor	$ 360,500
WHN016	Sheridan Rd	12th St to 2nd St	Sidewalk	Winthrop Harbor	$ 291,000
WHN017	Sheridan Rd	14th St to Russell Rd	Raised Bike Lanes, Sidewalk	Winthrop Harbor	$ 3,906,000
WHN018	9th St	Sheridan Rd to Park Ave	Signed Route	Winthrop Harbor	$ 2,500
WHN019	Landon Ave	Park Ave to 7th St	Signed Route	Winthrop Harbor	$ 3,000
WHN020	7th St	Sheridan Rd to UP-N Railroad Tracks	Sidepath	Winthrop Harbor	$ 329,500
WHN021	Park Ave	ComEd ROW to 9th St	Signed Route	Winthrop Harbor	$ 12,500
WKA001	McAree Rd & Brookside Ave		Bus Shelters & Bus Pad	Waukegan	$ 22,000
WKA002	Monroe St & Berwick Blvd		Bus Shelters & Bus Pad	Waukegan	$ 22,000

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
WKA003	Monroe St & Berwick Blvd		Bus Shelters & Bus Pad	Waukegan	$ 22,000
WKA004	Sheridan Rd & Madison St		Bus Shelters & Bus Pad	Waukegan	$ 22,000
WKA005	Washington St & Jackson St		Bus Shelters & Bus Pad	Waukegan	$ 22,000
WKA006	Washington St & West Ave		Bus Shelters & Bus Pad	Waukegan	$ 22,000
WKA007	Belvidere Rd & Sheridan Rd		Bus Shelters & Bus Pad	Waukegan	$ 22,000
WKA008	South Ave & Sheridan Rd		Bus Shelters & Bus Pad	Waukegan	$ 22,000
WKA009	Dugdale Rd & Whispering Oaks Apartments		Bus Shelters & Bus Pad	Waukegan	$ 22,000
WKI001	10th St & McAree Rd		Sign, Crosswalk, Detectible Warning, Curb Ramp, RRFB	Waukegan	$ 46,000
WKI002	Green Belt FP & Dugdale Rd		Sign, Midblock Crossing, RRFB	Waukegan	$ 72,000
WKI003	11th St & Dugdale Rd		Sign, Midblock Crossing, Crosswalk, Detectible Warning, Curb Ramp, RRFB	Waukegan	$ 56,000
WKI004	10th St & Dugdale Rd		Traffic Signal, Crosswalk, Detectible Warning, Curb Ramp	Waukegan	$ 410,000
WKI005	ComEd ROW & Lewis Ave		Midblock Crossing	Waukegan	$ 10,000
WKI006	Washington St and Dorchester Ct		Sign, Crosswalk, Detectible Warning, Curb Ramp	Waukegan	$ 15,000
WKI007	Belvidere Rd & Robert McClory Path		Midblock Crossing	Waukegan	$ 10,000
WKI008	Washington St & Robert McClory Path		Traffic Signal, Midblock Crossing	Waukegan	$ 405,000
WKI009	Grand Ave & Robert McClory Path		Midblock Crossing	Waukegan	$ 10,000
WKI010	Golf Rd & Robert McClory Path		Midblock Crossing	Waukegan	$ 10,000
WKI011	Washington St and Victory St		Sign, Crosswalk, Detectible Warning, Curb Ramp	Waukegan	$ 15,000

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
WKI012	Washington St and Park Ave		Sign, Crosswalk, Detectible Warning, Curb Ramp	Waukegan	$ 15,000
WKI013	Lyons Woods FP Trail & North Ave		Sign	Waukegan	$ 3,000
WKI014	ComEd ROW & Sheridan Rd		Access Ramp	Waukegan	$ 50,000
WKI015	Sheridan Rd & Genesee St		Bike Transition	Waukegan	$ 10,000
WKI016	Waukegan River Trail & UP RRX		Railroad Overpass	Waukegan	$ 5,250,000
WKI017	Pershing Rd & Madison St		Crosswalk, Detectible Warning, Curb Ramp	Waukegan	$ 25,000
WKI018	Pershing Rd & Clayton St		Crosswalk, Detectible Warning, Curb Ramp	Waukegan	$ 25,000
WKI019	Greenwood Ave & Amstutz Expwy		Access Ramp	Waukegan	$ 50,000
WKI020	Clayton St & E Seahorse Dr		Crosswalk, Curb Ramp	Waukegan	$ 23,000
WKI021	E Seahorse Dr & E Seahorse Dr		Crosswalk, Detectible Warning, Curb Ramp	Waukegan	$ 15,000
WKN001	Glen Flora Connect	ComEd ROW to Frolic Ave	Trail	Waukegan	$ 596,000
WKN002	ComEd ROW	10th St to N Shore Highlands Pond 5	Unpaved Trail	Waukegan	$ 1,113,000
WKN003	14th St	Dugdale Rd to Glenn Dr	Sidepath	Waukegan	$ 1,734,000
WKN004	10th St	McAree Rd to Dugdale Rd	Sidewalk	Waukegan	$ 348,500
WKN005	Dugdale Rd	14th St to 10th St	Sidepath	Waukegan	$ 553,000
WKN006	Brookside Ave	Public Service Rd to Edison Ct	Shared Lanes	Waukegan	$ 8,000
WKN007	ComEd ROW	N Shore Highlands Pond 5 to Amstutz Expwy	Unpaved Trail, Overpass	Waukegan	$ 4,446,000
WKN008	Lewis Ave	Sunset Ave to York House Rd	Sidewalk	Waukegan	$ 1,118,500
WKN009	Lewis Ave	Beach Rd to Yorkhouse Rd	Sidewalk	Waukegan	$ 1,870,500
WKN010	Lewis Ave	Lyons Woods FP to Beach Rd	Sidepath	Waukegan	$ 2,339,500
WKN011	10th St	Dugdale Rd to Robert McClory Path	Sidepath	Waukegan	$ 632,000

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
WKN012	York House Rd	Lewis Ave to Robert McClory Path	Sidepath	Waukegan	$ 452,000
WKN013	Glenn Flora Ave	Frolic Ave to Sheridan Rd	Advisory Lanes	Waukegan	$ 784,000
WKN014	Larsen NP Path	Larsen Nature Preserve to Larsen Nature Preserve	Trail	Waukegan	$ 1,574,500
WKN015	Dugdale Rd	Benny Ave to Jackson St	Sidewalk	Waukegan	$ 230,000
WKN016	Waukegan River Tr	Robert McClory Path to Roosevelt Park	Trail	Waukegan	$ 511,000
WKN017	Waukegan River Tr	Washington St to Robert McClory Path	Trail	Waukegan	$ 813,000
WKN018	Washington St	Robert McClory Path to Genessee St	Bike Lanes	Waukegan	$ 247,000
WKN019	Sunderlin St	South Ave to Waukegan Ravine	Signed Route	Waukegan	$ 1,000
WKN020	Grand Ave	Robert McClory Path to Sheridan Rd	Buffered Bike Lanes	Waukegan	$ 321,500
WKN021	Blanchard Rd	Robert McClory Path to Sheridan Rd	Advisory Lanes	Waukegan	$ 280,500
WKN022	South Ave	Sunderlin St to Market St	Shared Lanes	Waukegan	$ 3,000
WKN023	Waukegan River Tr	Belvidere Rd to Secret Beach Trail	Trail	Waukegan	$ 972,500
WKN024	Belvidere Rd	Waukegan River Trail to Market St	Sidepath	Waukegan	$ 668,500
WKN025	Sheridan Rd	Foss Park Ave to Amstutz Expressway	Buffered Bike Lanes	Waukegan	$ 268,000
WKN026	Sheridan Rd	Blanchard Rd to Greenwood Ave	Sidewalk	Waukegan	$ 1,517,000
WKN027	Washington St	Gennessee St to Sheridan Rd	Shared Lanes	Waukegan	$ 1,000
WKN028	Sheridan Rd	Belvidere Rd to Sheridan Rd	Sidewalk	Waukegan	$ 182,500
WKN029	Washington St	Sheridan Rd to Waukegan Metra	Bike Lanes	Waukegan	$ 44,500
WKN030	Glen Flora Connect	Sheridan Rd to Amstutz Expwy	Trail	Waukegan	$ 208,500
WKN031	Market St	South Ave to Washington St	Shared Lanes	Waukegan	$ 4,000

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
WKN032	Market St	South Ave to Washington St	Sidewalk	Waukegan	$ 794,000
WKN033	South Ave	Hill St to Market St	Sidewalk	Waukegan	$ 220,000
WKN034	Mathon Dr	Sheridan Rd to Pershing Rd	Buffered Bike Lanes	Waukegan	$ 94,500
WKN035	Amstutz Expressw	Sheridan Rd to Greenwood Ave	Trail	Waukegan	$ 2,169,500
WKN036	Secret Beach Trail	Waukegan River Trail to Secret Beach	Trail	Waukegan	$ 914,000
WKN037	Pershing Rd	Washington St to Mathon Dr	Shared Lanes	Waukegan	$ 2,000
WKN038	Pershing Rd	Washington St to Mathon Dr	Sidewalk	Waukegan	$ 355,500
WKN039	Clayton Dr	Pershing Rd to E Seahorse Dr	Sidewalk	Waukegan	$ 82,000
WKN040	Clayton Dr	Pershing Rd to E Seahorse Dr	Bike Lanes	Waukegan	$ 24,000
WKN041	ComEd ROW	Greenwood Ave to Waukegan Northern Limit	Unpaved Trail	Waukegan	$ 374,000
WKN042	Pershing Rd	Greenwood Ave to Dahringer Rd	Sidepath	Waukegan	$ 618,000
WKN043	Canadian National	E Seahorse Dr to Pershing Rd	Trail	Waukegan	$ 635,000
WKN044	E Seahorse Dr	Clayton St to Waukegan Municipal Beach	Sidewalk	Waukegan	$ 1,306,000
WKN045	E Seahorse Dr	Clayton St to Waukegan Municipal Beach	Bike Lanes	Waukegan	$ 381,000
ZIA001	Isherwood Beach		Bike Racks	Zion	$ 2,000
ZIA002	Zion Metra Station		Covered Bike Parking	Zion	$ 6,000
ZII001	Salem Ave & Lewis Ave		Access Ramp	Zion	$ 50,000
ZII002	21st Street & Lewis Ave		Bike Transition	Zion	$ 10,000
ZII003	27th St & Galilee Ave		Detectible Warning	Zion	$ 6,000
ZII004	Ezra & 27th St		Detectible Warning	Zion	$ 2,000
ZII005	Ezekiel & 27th St		Detectible Warning	Zion	$ 2,000
ZII006	Dowie Memorial & Salem Blvd		Detectible Warning	Zion	$ 2,000

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
ZII007	Shiloh Blvd & Bethel Blvd		Detectible Warning	Zion	$ 4,000
ZII008	Bethel Blvd & Dowie Memorial		Detectible Warning	Zion	$ 2,000
ZII009	Dowie Memorial & Bethesda Blvd		Detectible Warning	Zion	$ 2,000
ZII010	Shiloh Blvd & Dowie Memorial		Detectible Warning	Zion	$ 2,000
ZII011	27th St & Eschol Ave		Detectible Warning	Zion	$ 6,000
ZII012	27th St & Enoch Ave		Detectible Warning	Zion	$ 2,000
ZII013	Erasmus Ave & Shiloh Blvd		Detectible Warning	Zion	$ 2,000
ZII014	Shiloh Blvd & Erasmus Ave		Detectible Warning	Zion	$ 2,000
ZII015	27th St & Erasmus		Detectible Warning	Zion	$ 4,000
ZII016	17th St & Sheridan Rd		Traffic Signal	Zion	$ 395,000
ZII017	29th St & IL Beach State Park		Sign	Zion	$ 2,000
ZII018	Shiloh Blvd & Deborah Ave		Sign, Crosswalk	Zion	$ 5,000
ZII019	Between Shiloh & 29th St		Sign, Fence	Zion	$ 50,000
ZII020	Shiloh Blvd & Hosah Park		Sign, Crosswalk	Zion	$ 5,000
ZIN001	Russell Rd	Green Bay Rd to Lewis Ave	Sidepath	Zion	$ 1,647,500
ZIN002	Kenosha Rd	Beach Park Limit to Com Ed ROW	Sidepath	Zion	$ 1,669,000
ZIN003	9th St	Jordan Park to Kenosha Rd	Sidepath	Zion	$ 520,500
ZIN004	Zion Bike Path	Kenosha Rd to 21st St	Trail	Zion	$ 963,500
ZIN005	Com Ed ROW	Green Bay Rd to Beach Park/Zion Limit	Unpaved Trail	Zion	$ 861,500
ZIN006	9th St	Kenosha Rd to Lewis Ave	Bike Lanes	Zion	$ 155,000
ZIN007	Salem Ave	Shiloh Ave to Lewis Ave	Trail, Pedestrian Ramp	Zion	$ 2,538,000

SEGMENT NUMBER	LOCATION	PROJECT LIMITS	FACILITY TYPE	MUNICIPALITY	TOTAL COST
ZIN008	Ravine Dr	Robert McClory Path to 18th St	Signed Route	Zion	$ 4,000
ZIN009	Gabriel Ave	26th St to 23rd St	Trail	Zion	$ 410,500
ZIN010	27th St	Gabriel Ave to Bethel Blvd	Trail	Zion	$ 248,500
ZIN011	Dowie Memorial Dr	Bethel Blvd to Shiloh Blvd	Trail	Zion	$ 451,000
ZIN012	23rd St	Gabriel Ave to Enoch Ave	Trail	Zion	$ 446,000
ZIN013	Bethel Blvd	Carmel Blvd to 27th St	Trail	Zion	$ 587,000
ZIN014	Bethesda Blvd	Dowie Memorial Blvd to Beulah Park	Trail	Zion	$ 705,000
ZIN015	29th St	Robert McClory Path to Deborah Ave	Advisory Lanes, Wayfinding Sign	Zion	$ 490,500
ZIN016	17th St	Beaulah Park to Sheridan Rd	Advisory Lanes	Zion	$ 56,000
ZIN017	Sheridan Rd	Wadsworth Rd to Zion Bike Path	Sidepath	Zion	$ 440,500
ZIN018	29th St	Sheridan Rd to Eden Ave Path	Sidewalk	Zion	$ 233,500
ZIN019	Sheridan Rd	17th St to Wadsworth Rd	Sidewalk	Zion	$ 1,381,000
ZIN020	21st St	Lewis Ave to Eden Ave Path	Sidewalk	Zion	$ 2,667,000
ZIN021	Park Ave	17th St to ComEd ROW	Signed Route	Zion	$ 12,500
ZIN022	Deborah Ave	29th St to Shiloh Blvd	Signed Route, Wayfinding Sign	Zion	$ 7,000
ZIN023	North Dunes Conn	Shiloh Blvd to 29th St	Unpaved Trail	Zion	$ 222,500

NORTHERN LAKESHORE
TRAIL CONNECTIVITY PLAN

EXISTING CONDITIONS REPORT AUGUST 2019

CONNECTING THE COMMUNITIES OF WINTHROP HARBOR, ZION, BEACH PARK, WAUKEGAN, AND NORTH CHICAGO

ACKNOWLEDGEMENTS

CORE PROJECT COMMITTEE

Jon Kindseth	Village of Beach Park
Leisa Niemotka	Village of Beach Park
Noelle Kischer-Lepper	City of Waukegan
Sonolito Bronson	City of Zion
Nimrod Warda	City of North Chicago
Pat DiPersio	Village of Winthrop Harbor
Ania Bayers	Illinois Department of Natural Resources
Vidya Balasubramanyam	Illinois Department of Natural Resources

STEERING COMMITTEE

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Carlos Feliciano, PE	Illinois Department of Transportation
Jon Ashworth	Lake County Health Department
Randy Seebach	Lake County Forest Preserves
Alison Buchwach	Metra
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John Moore	Resident Bicyclist, Former City Engineer
Bob Schrank	Resident Bicyclist
Chris Daisy	Zion Cyclery
Ryan Prehn	Director of Land Management, Illinois Beach State Park

PROJECT FUNDING

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Unless otherwise noted, photos shown in this report were taken by the consultant team.

CONTENTS

NORTHERN LAKESHORE TRAIL CONNECTIVITY PLAN

1

VISION

The communities of Winthrop Harbor, Zion, Beach Park, Waukegan, and North Chicago have a strong base of walking and biking amenities; active Metra ridership; robust sidewalk networks; and pedestrian-friendly, downtown commercial and business districts. These municipalities are enthusiastic to become leaders in the Chicagoland area through creating bicycle and pedestrian-friendly destinations for residents and visitors.

With the support of the Chicago Metropolitan Agency for Planning (CMAP), these municipalities have engaged in a planning process that involves residents, businesses, trail users, and other stakeholders in working towards safer, greener, healthier, connected, and vibrant communities.

INTRODUCTION

PURPOSE

The purpose of the Northern Lakeshore Trail Connectivity Plan is to improve walking and bicycling connections between and among the five northern lakeshore communities of Winthrop Harbor, Zion, Beach Park, Waukegan, and North Chicago. A key objective of this plan is to identify potential bicycle and pedestrian routes that better connect these communities to Illinois Beach State Park, regional trail networks, and the Lake Michigan shoreline.

This plan will help to advance the implementation of **ON TO 2050**, the Chicago Metropolitan's regional comprehensive plan. ON TO 2050 seeks to guide and influence the region under the principles of **inclusive growth**, **resilience**, and **prioritized investment**. Improved regional coordination among these five municipalities and IDNR was funded in part by CMAP's Local Technical Assistance (LTA) program, local municipal contribution, and the IDNR Coastal Management Program (CMS). Included in the CMS are increased access and visitors to Illinois Beach State Park and Waukegan Harbor and improving bluff and ravine systems.


ADOPT A PATH
South
Robert McClory
Bike Path
MILE
4.0

PLAN GOALS

SAFE & ACCESSIBLE

Provide walking and bicycling routes that enable everyone to move with a strong sense of safety and security along their entire trip, regardless of whether they are commuting or recreating. Improve access to Metra train stations and Pace bus stops.

HEALTHY

Support affordable transportation options to residents and visitors of all incomes, ages, and abilities; build better links between open spaces within the communities, and encourage more physical activity to improve health.

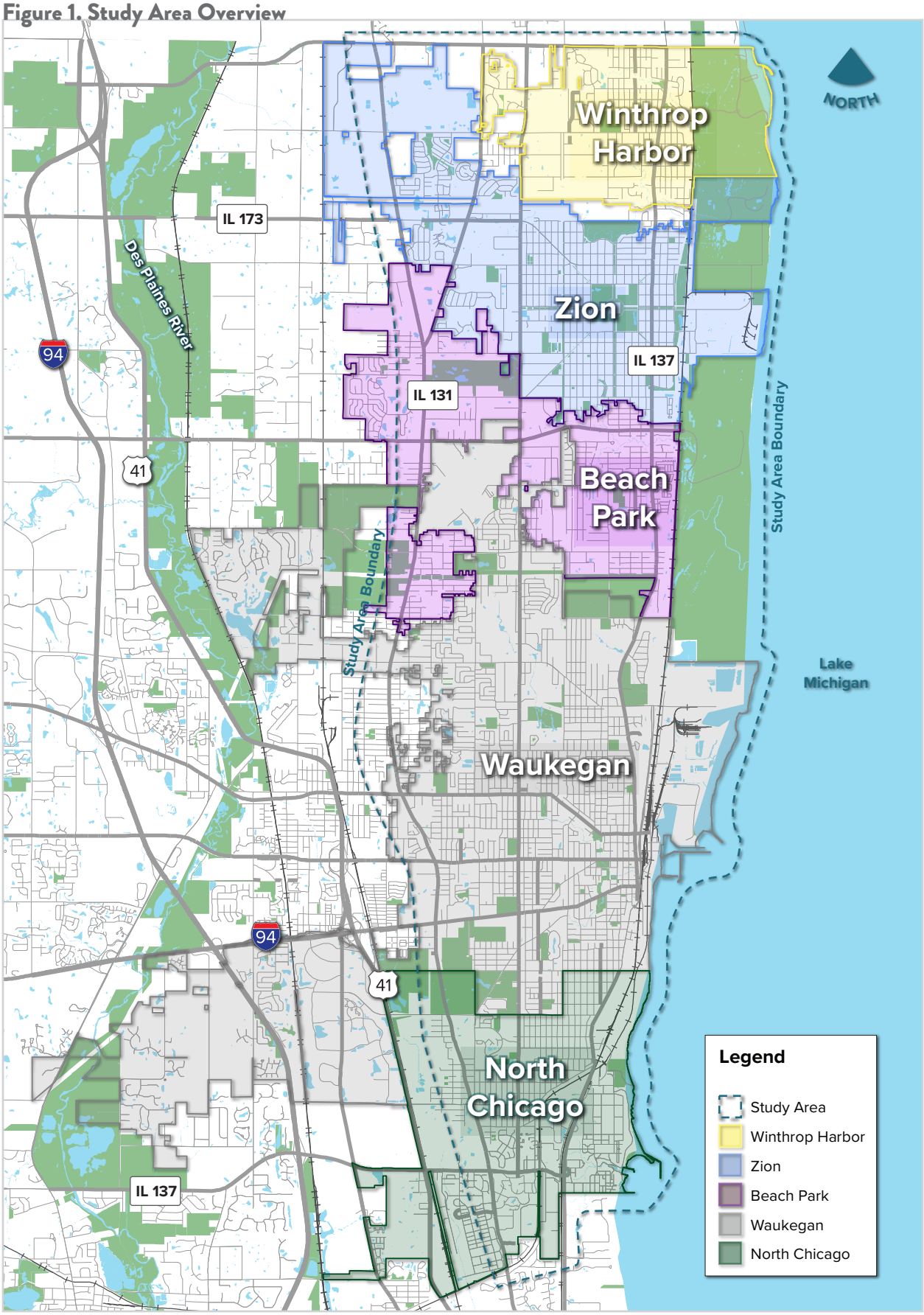
CONNECTED

Build a network connecting municipalities locally and regionally, and provide convenient access to Illinois Beach State Park and Lake Michigan. Connect people with nature and water to inspire stewardship among residents and visitors to protect environmental and social resources.

GROWING

Create a welcoming environment and culture and encourage an influx of visitors, residents, and business to the area to promote a vibrant economy and attractive culture today and for future generations.

Figure 1. Study Area Overview



2.STUDY AREA OVERVIEW

The Northern Lakeshore is a dynamic area of beautiful, high quality natural resources nestled among the diverse and welcoming municipalities of Winthrop Harbor, Zion, Beach Park, Waukegan, and North Chicago.

Home to Illinois Beach State Park, the Northern Lakeshore serves as Illinois' natural resource steward among an increasingly connected network of trails, forest preserves, residential neigborhoods, and commercial districts.

For the purposes of this plan, the boundaries of the study area are the Illinois-Wisconsin Border to the north, Lake Michigan to the east, the North Shore Bike Path to the south, and Green Bay Road (IL 131) to the west as shown in **Figure 1**.

According to the Census, the total population living within the study area is 162,997 residents. This is approximately 23% of Lake County's population living within less than 5% of its total land area (including Illinois Beach State Park).

Study Area Population

	Population	% of Lake County Pop.
Winthrop Harbor	6,832	0.10%
Zion	24,195	3.4%
Beach Park	13,788	2.0%
Waukegan	88,159	12.5%
North Chicago	30,023	4.3%
Study Area	162,997	23.2%
Lake County	702,890	

Figure 2. Study Area Population. Source: American Community Survey 2013 - 2019, United States Census.

Figure 3: Study Area at a Glance

Households & Families

Amoung the five study area communities, Waukegan has the most population in the study area and also happens to be the largest municipality in Lake County with 88,159 residents (12.5% of Lake County's population). The population of Waukegan is approximately half of the total population of the entire study area. The next largest municipality is North Chicago with 30,023 residents, followed by Zion, Beach Park, and Winthrop Harbor.

Among many of these families and households, there is a significant Spanish-speaking population. In Waukegan, 60% of residents speak a language other than English at home, the largest percentage in the study area.

Four out of five communities in the study area have 24% or more of their population speaking a language other than English at home. Over a quarter of residents in Waukegan speak English less than very well, more than any other municipality in the study area.

When discussing family and resident engagement with area Park Districts, the study team found that Spanish-speaking residents and those with children at home prefer to access local parks and trails in their neighborhoods. Approximately one-third of study area parks are connected to a local or regional trail network.

Families with young children prefer to recreate in their local neighborhood parks and along trails that run through their neighborhood.

Language Spoken At Home

	English Only	Language Other Than English	Speak English Less Than Very Well
Winthrop Harbor	95%	5%	1.8%
Zion	75.9%	24.1%	9.5%
Beach Park	74.1%	25.9%	9.1%
Waukegan	44.1%	55.9%	25.2%
North Chicago	67.2%	32.8%	13.3%
Lake County	72%	28%	10.4%

Figure 4: Language Spoken at Home. Source: American Community Survey 2013 - 2019, United States Census.

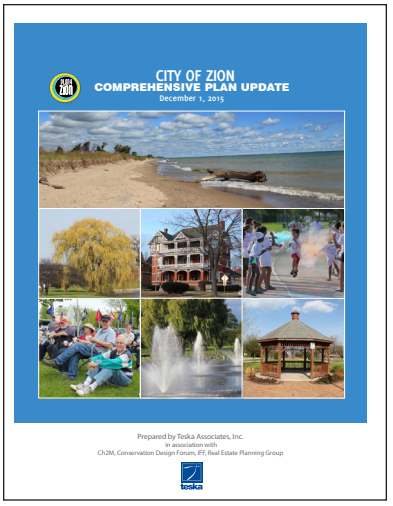
Planning Context - Area Plans

Village of Winthrop Harbor
Comprehensive Plan (2016)
Link to Plan

The Village of Winthrop Harbor Comprehensive Plan was prepared by CMAP. The plan has key goals for the Village: fostering more cooperation and communication between local and regional stakeholders, maintaining the character and economic development potential of the Village, promoting transportation investments, encouraging in-fill development within the Village's developed areas while protecting environmentally sensitive and agriculturally productive lands.

The Plan recommends the type, location, and intensity of future development, prioritizing implementation actions in the short, mid, and long term. Improving bicycle connectivity is a key goal, including connecting the Robert McClory bike path with the lakefront as well as other neighboring communities.

City of Zion
Comprehensive Plan (2015)
Link to Plan



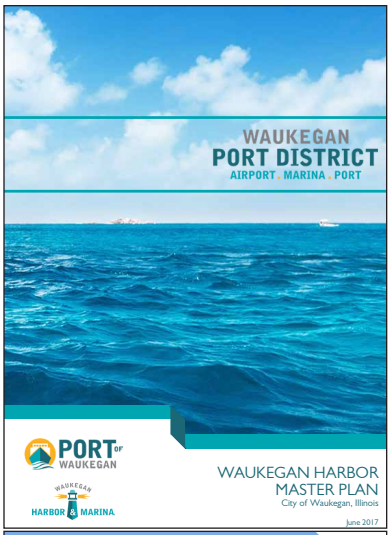
The Comprehensive Plan for Zion, Illinois, is a 20-year plan that emphasizes emerging trends that are shaping the way people work, live, entertain, and do business. This plan builds on the results of previous planning efforts, and communicates a cohesive community image and long-term economic development strategy. With a strong focus on short and long-term goals to foster future growth, improve existing neighborhoods and strengthen communities, the plan provides a guide for investments that will reap the greatest benefits for the City of Zion.

Zion's Comprehensive Plan looks at ways to emphasize the importance of inter-connectivity between different parts of Zion.

Village of Beach Park
Planning Priorities Report (2017)
Link to Plan

The Planning Priorities Report prepared by CMAP for the Village of Beach Park summarizes the needs, assets, and opportunities in the Village of Beach Park, and identifies priorities for future plans and projects. The Action Plan section identifies three key priorities that would have the greatest impact for Beach Park: identify residential and economic development opportunities; enhance water and sewer infrastructure system; create strategic transportation connections; and develop a bicycle and pedestrian plan.

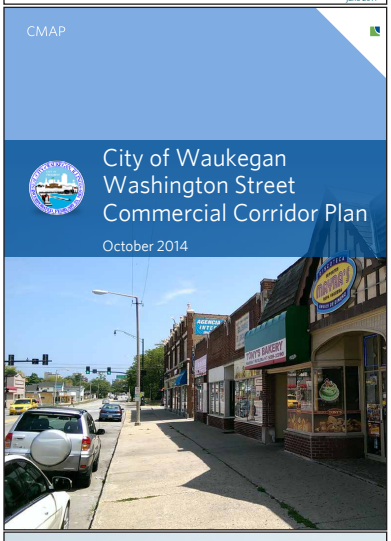
Planning Context - Area Plans



City of Waukegan
Harbor Master Plan (2017)
Link to Plan

The Waukegan Harbor Master Plan looks at the existing conditions of the Waukegan Port District's waterfront properties, identifies potential economic and connection opportunities, and provides economically sustainable suggestions of short- and long-term improvements.

A number of concepts were developed to enhance the waterfront—the most popular, near-term recommendations were to increase accessibility and connections to the waterfront, and to leverage and generate opportunities to attract more private investment. Development concepts include a continuous promenade, and connections to regional trails, downtown, and the beach.



City of Waukegan Washington Street
Commercial Corridor Plan (2014)
Link to Plan

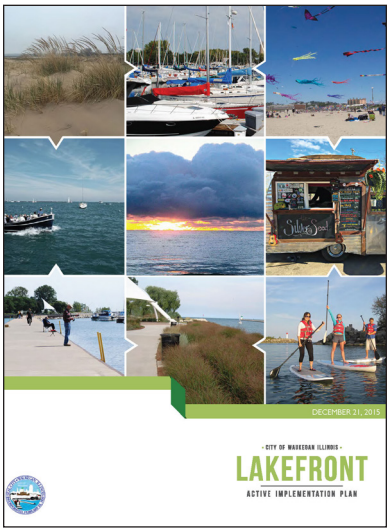
The City of Waukegan Washington Street Commercial Corridor Plan was prepared by the Chicago Metropolitan Agency for Planning (CMAP). The report is an analysis of Washington Street in Waukegan and provides recommendations for the corridor that build on existing strengths and identify economic development opportunities based on the needs of those who work and live in the community. There are parts of the corridor that are considered walkable and well-connected while others are not. It is important to not only connect the space within the defined corridor but nearby areas of Waukegan and other communities and resources, as well.

City of Waukegan
Beach Management Plan (2016)
Link to Plan

The City of Waukegan Beach Management Plan outlines environmentally and economically sustainable protection methods for the City of Waukegan's public beach and dune natural resources, with an emphasis on continuing to allow recreational use of the area.

Management methods are broken down into three categories: Habitat, Sand, and Recreation Management. Waukegan's City Council continues to support sustainable efforts along the waterfront including development and implementation of a mix of uses and accessibility. The goals of this plan are related to those of the Lakefront Active Implementation Plan, as well as the Northern Lakeshore Trail Connectivity Plan – with a common theme of connectivity.

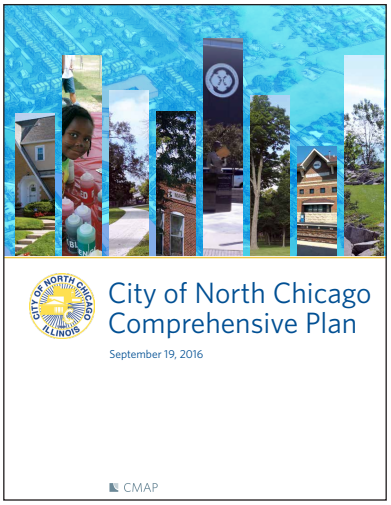
Planning Context - Area Plans



City of Waukegan Lakefront Active Implementation Plan (2015)
Link to Plan

The Lakefront Active Implementation Plan builds upon the waterfront vision first laid out in the 2003 Master Plan. A key challenge identified in this plan is the perceived and actual barrier posed by the bluff and an approximately two-mile distance that separates residents from downtown Waukegan and the lakefront.

While other aspects of the 2003 plan have been implemented, those focused on the waterfront remain a challenge, and have not found the traction needed for advancement.

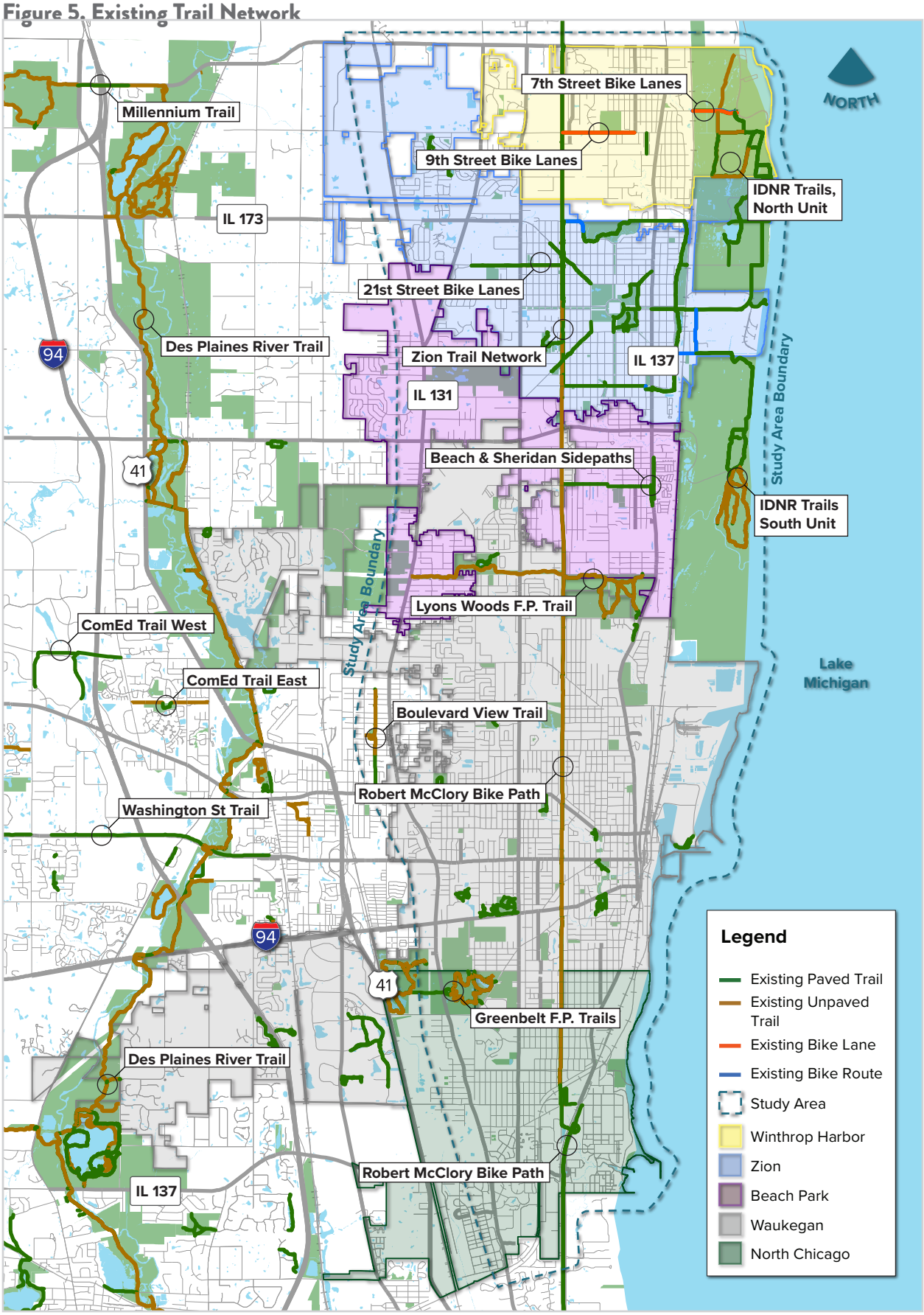


City of North Chicago Comprehensive Plan (2016)
Link to Plan

The City of North Chicago Comprehensive Plan was prepared by CMAP and provides a 10 to 15-year vision for the community's future and methods through which that vision can be achieved through the promotion of new opportunities and staying current on evolving community trends and needs.

Transportation recommendations in the plan include developing pedestrian and bicycle networks, encouraging active transportation through educational programs and regional partnerships, prioritizing maintenance and traffic calming projects, fostering transit ridership through facility improvements, planning for long-term transit needs of residents and employees and integrating and maintaining the local freight network. Pedestrian and bicycle network development aims to connect North Chicago's parks, forest preserves, schools, and civic uses, and surrounding areas.

Figure 5. Existing Trail Network



3. OUR ASSETS

Existing Walking and Bicycling Network

As shown in **Figure 5**, there are two primary north - south regional trails. The Robert McClory bike path is located on the east side of the study area, constructed along the former alignment of the Chicago North Shore and Milwaukee Railroad. The Illinois portion is approximately 25 miles long and extends from the Lake/Cook County border on the south and the Wisconsin State Line on the north. The trail continues several more miles north to Anderson Park near Tremper High School in Kenosha. Most of the trail is a gravel or crushed limestone surface.

The Des Plaines River Trail, while technically not in the study area, is a significant regional trail and an important to consider for connections to the study area. The trail follows the Des Plaines River for approximately 56 miles from its northern terminus of the trail is in Wadsworth at the Van Patten Woods Forest Preserve to the southern terminus is in River Grove at the Jerome Huppert Forest Preserve. The trail is also a mostly gravel or crushed limestone surface.

The Village of Beach Park has completed several trail connections along its roadways, most recently along Sheridan Road and Beach Road (Beach Road pictured at right). The rest of the study area includes several other trails, many of which are associated with parks and Forest Preserves.

Illinois Beach State Park has two separate bicycle trail networks; 4 miles in the North Unit and 3.3 miles in the South Unit. For hikers and pedestrians in the north section of the park there is a 1.8 mile loop to Camp Logan that is used by walkers and cross-country skiers. Within the southern part of Illinois Beach State Park, there are dedicated walking trails including a 2.2 mile gravel loop trail.

Currently, the North Unit and South Unit bicycling networks are connected by trail segments located west of the Union Pacific Railroad Tracks. Today, bicyclists travel between the north and south units of Illinois Beach State Park by utilizing the Zion Bike Trail, a section of trail connecting 29th Street at the south end to 17th Street at the north end. However, this trail and other trails in this area have limited overall network connectivity due to gaps in the trails,

Figure 6: Beach Road sidepath in Beach Park.

trail washouts and barriers. Study area municipalities, stakeholders, and IDNR have expressed support for connecting the North and South Units by an internal trail network east of the tracks, as a connected network is of primary importance to provide visitors with access to some of the most valuable natural resources the region has to offer.

While residents and visitors enjoy the study area trail network, some are unfamiliar with how trails connect to each other and the lakefront.

The study area's largest municipal trail network is located in the city of Zion, which has a set of paved trails that encompass Shiloh Park and connects the Robert McClory bike path to the lakefront and Illinois Beach State Park.

During stakeholder interviews with the Illinois Department of Natural Resources and discussions with municipal representatives and park districts, it was identified that many residents are unaware of how or where trails connect to each other and to the lakefront.

While much of the study area's trails are regarded as bicycle facilities, all of these trails accommodate walking and hiking, and the study area also contains an extensive sidewalk network. Each of the five municipalities have sidewalks in central business districts, and several miles of sidewalks throughout each municipality. Farther from each central business district, sidewalk coverage is less consistent, and sidewalk gaps are more common, sidewalks often are located on one side of the roadway, or no sidewalk is present at all. (An analysis of sidewalk gaps is provided in the next section.)

For example, in the north-south direction, Sheridan Road has mile long stretches of roadway without sidewalk. Green Bay Road, just outside of the study area, has virtually no sidewalk within the limits of the five municipalities. Lewis Avenue is well connected by sidewalks through Waukegan and North Chicago but becomes fragmented further north in Beach Park, Zion and Winthrop Harbor.

Throughout the study area, east-west sidewalk connectivity is limited. There is little to no sidewalk on 9th Street, 21st Street, or Wadsworth Road. However, Grand Avenue, Washington Street, York House Road, and Martin Luther King Jr. Drive all provide essential east to west pedestrian connections. there are few roadways that connect into Illinois Beach State Park or the lakeshore that are equipped with sidewalks.

Figure 7: Pedestrian crosswalk on 9th Street at Westfield School in Winthrop Harbor.

Key Destinations

The study area's regional walking and bicycling network connects residents and visitors to a plethora of destinations for outdoor recreation, transit facilities, employment and education institutions, and one of the most unique habitats and ecosystems that are designated as Ramsar Wetlands of International Importance. Key destinations are shown in **Figure 8**, with brief summaries for select destinations are provided below.

Illinois Beach State Park
The Illinois Department of Natural Resources maintains more than 4,160 acres of preserve, open space, and lakefront parks. It is home to the state's only natural beach shoreline and contains dunes, swales, extensive areas of marshes, oak forests, and a range of animal habitat and unique vegetation. The park offers swimming, boating, picnicking, hiking, fishing, and camping. It also is the site of the Illinois Beach Resort and Conference Center, located one mile east of the intersection of Sheridan Road and Wadsworth Road.

Spring Bluff Forest Preserve (Winthop Harbor)
The 229-acre forest preserve is home to a 38-acre park, wetlands that are officially recognized as Ramsar Wetlands of International Importance, a nature watching tower, and recreational trails. The preserve welcomes visitors from the Chicago Audobon Society and other enthusiasts, as the forest preserve and other areas within the nature preserves are a key stop on several flyways for migratory birds.

North Point Marina (Winthrop Harbor)
The largest marina on the Great Lakes sports a protected floating dock with 1,500 slips, one of the largest charter fishing fleets on Lake Michigan and a swimming beach. The harbor and beach are maintained by a third party operator under a lease agreement with IDNR. At this location, there is an undeveloped parcel suited for hotel development, and automobile parking at the trailhead. Currently, there are connections from Winthrop Harbor to Pleasant Prairie, Wisconsin via the Robert McClory Bike Path and through Lake Michigan water trails. Just over the border in Pleasant Prairie, Wisconsin, the Chiwaukee Preserve has a trail network, which creates an opportunity for a potential third connection to Illinois near the lakefront.

Beulah Park (Zion)
A wooded city park running along a ravine and creek with a section of paved bike path and about 5 miles of trails frequented by local mountain bike and BMX riders.

North Point Marina is located in the North Unit of Illinois Beach State Park near Winthrop Harbor. At 1,500 slips, it is the largest marina on the Great Lakes and home to one of the largest charter fishing fleets on Lake Michigan.

Shiloh Park (Zion)
A 132 acre park that contains picnic shelters, tennis courts, basketball courts, baseball diamonds, softball fields, and a playground.

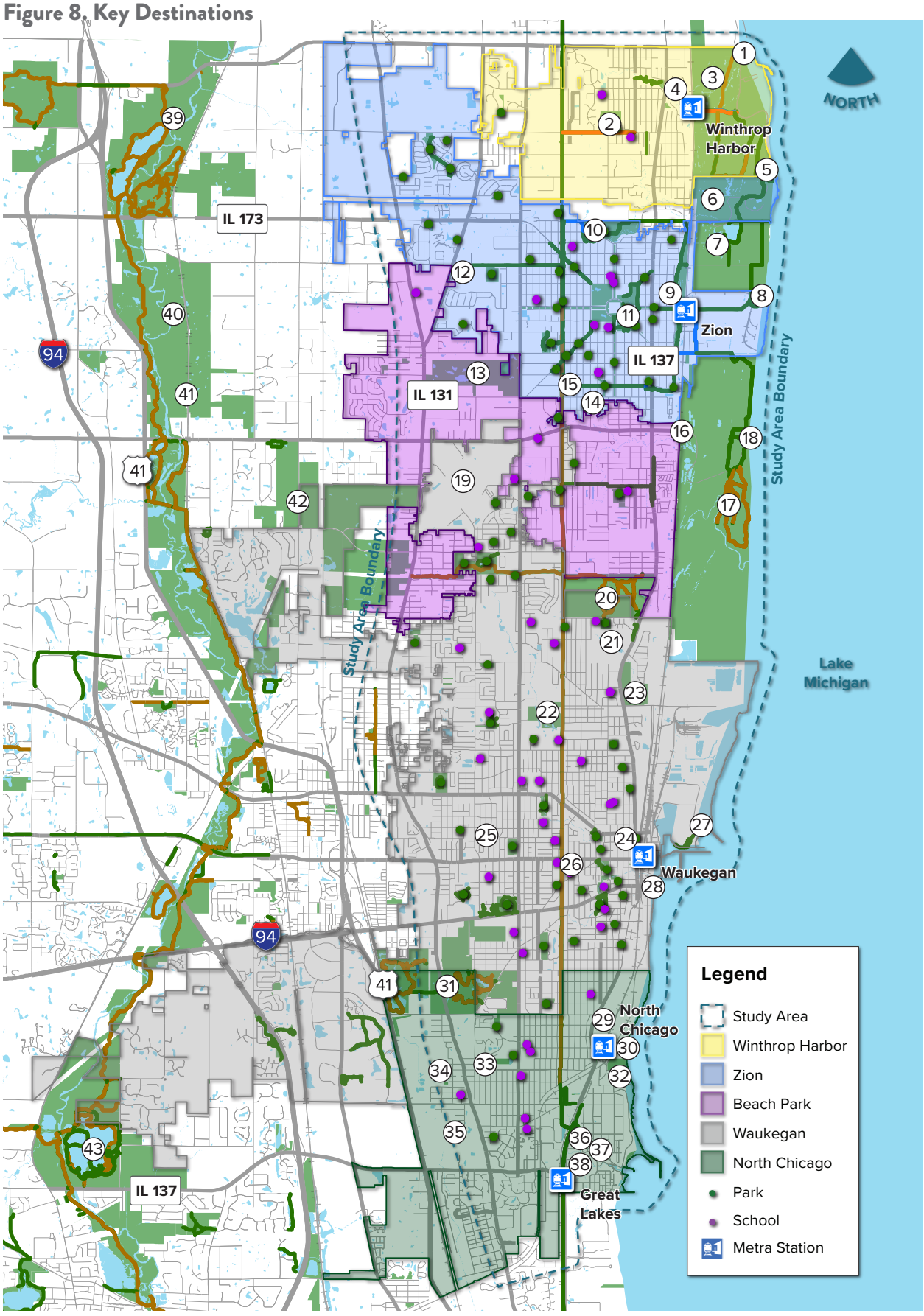
Thunderhawk Golf Club (Beach Park)
A 228-acre Audubon Signature course providing valuable natural areas and wildlife habitat.

Founder's Park (Beach Park)
A large park geared towards families with children of all ages. The park has playground equipment, a walking trail, softball fields, basketball, and tennis courts.

Lyons Woods Forest Preserve (Waukegan)
This preserve includes a contrasting mix of terrain. An observation deck makes it easy to view a variety of bird species. There are 2.5 miles of gravel trails that tie into the McClory trail.

Bowen Park (Waukegan)
A 61.1 acre park with a baseball diamond, a greenhouse, hiking/jogging, physical fitness course,

Figure 8. Key Destinations



Winthrop Harbor
1. North Point Marina ▲
2. Village Park
3. Spring Bluff Forest Preserve ●
4. Winthrop Harbor Metra Station
5. Isherwood Beach ▲

Zion
6. North Dunes Nature Preserve ▲
7. Sand Pond ▲
8. Hosah Park
9. Zion Metra Station
10. Beulah Park
11.Shiloh Park
12. Zion-Benton High School

Beach Park
13. Thunderhawk Golf Club
14. Founders Park
15. Pine View Memorial Park
16. Illinois Beach State Park Wadsworth Road Entrance ▲
17. Illinois Beach Nature Preserve ▲
18. Illinois Beach, Resort, and Conference Center ▲

Waukegan
19. Waukegan National Airport
20. Lyons Woods Forest Preserve ●
21. Glen Flora Country Club
22. Larsen Nature Preserve and Dog Park
23. Bowen Park, Jack Benny Center for the Arts
24. Waukegan Metra Station
25. Waukegan High School, Brookside
26. Waukegan High School, Washington
27. Waukegan Municipal Beach
28. Waukegan Harbor and Marina

North Chicago
29. Abbvie
30. North Chicago Metra Station
31. Greenbelt Forest Preserve ●
32. Foss Park
33. North Chicago High School
34. Foss Park Golf Course
35. Veterans Memorial Golf Course
36. Naval Station Great Lakes Visitors Center & National Museum of the American Sailor
37. Naval Station Great Lakes
38. Great Lakes Metra Station

Other
39. Van Patten Woods Forest Preserve ●
40. Sterling Lake Forest Preserve ●
41. Wadsworth Prairie Forest Preserve ●
42. Waukegan Savanna Forest Preserve ●
43. Independence Grove Forest Preserve ●

Legend

- ▲ *IDNR Property*
- *Metra Station*
- ● *Lake County Forest Preserve District Property*

Key Destinations (continued)

picnic shelters, play equipment, and a stream/pond. The park is a historic registered site, and home to the Waukegan History Museum and Jack Benny Center.

The Waukegan Harbor and Marina (Waukegan)
This harbor and marina is equipped with a promenade, park, nearby public beach and boat slips. It hosts people from Joliet to Wisconsin. Many Visitors use Metra to access the Marina, located only 1/4 mile away from the Waukegan Metra Station. A single road connects the station with the Marina and does not have sidewalks or bike lanes.

Greg Petry Sports Park (Waukegan)
Sports Park is a state-of-the-art sports complex with 14 soccer fields, 4 softball fields, 2 concession stands, and a playground with a spash pad. LCDOT plans to connect the region trail network to this park.

Greenbelt Forest Preserve (North Chicago)
This preserve is home to many birds, wildflowers, and landscapes, has 5 miles of hiking trails, 4 miles of bike and cross-country skiing trails, and a 1-mile

Figure 9: Trailhead at 7th Street in North Dunes Nature Preserve in Winthrop Harbor

Key Destinations (continued)

self-guided nature trail, and the Greenbelt Cultural Center.

Naval Station Great Lakes (North Chicago)
The sites on Naval Station Great Lakes open to the public invluce the vistor's center, Veterans Memorial Golf Course, and the National Museum of the American Sailor. While the rest of the station is not open to the public, there are 7,000 recruits at the Station. It is home of the Navy's only boot camp and home to the division of Morale, Welfare, and Recreation (MWR) which provides quality of life programs for service members and their families.

Foss Park (North Chicago)
Foss Park is a park district independent of those in North Chicago and Lake Bluff. With jurisdiction over approximately 300 acres, Foss Park includes a golf course, recreation center, skate park, tennis and basketball courts, baseball diamonds, and soccer fields. Currently, there is no public beach access in Foss Park due to erosion and rip currents near the North Chicago Water Department.

Metra Stations
The Metra Union Pacific North Line runs on the east side of the study area with stations in Winthrop Harbor, Zion, Waukegan, North Chicago (pictured below), and Naval Station Great Lakes.

Figure 10: North Chicago Metra Station

Planned Improvements

In addition to existing facilities, all municipalities in the study area have plans for additional walking and bicycling facilities in various stages of implementation.

Figure 11 shows planned improvements throughout the region identified in each municipality's comprehensive plan, trails plan, and the Lake County 2040 Non-motorized Plan.

As shown on the map, plans identify an extensive walking and bicycling network that extends well beyond the limits of the study, creating a grid of trails across several major arterial roadways, along utility corridors (e.g. ComEd), and a sizeable network is planned to connect into and along Illinois Beach State Park.

Regarding plans to join the North and South Units of Illinois Beach State Park via trails, a notable connection is shown where the current Zion nuclear power plant site is located, which is nearing completion of its demolition phase.

GO Lake County

GO Lake County, presented by Live Well Lake County, is a walking initiative that promotes healthy and active living through programming and events within Lake County Communities.

GO enables everyone in Lake County to increase their level of daily physical activity and foster community engagement. Each of the five municipalities are among the more than 20 Lake County municipalities that participate in this initiative.

Figure 11. Planned Walking and Bicycling Network

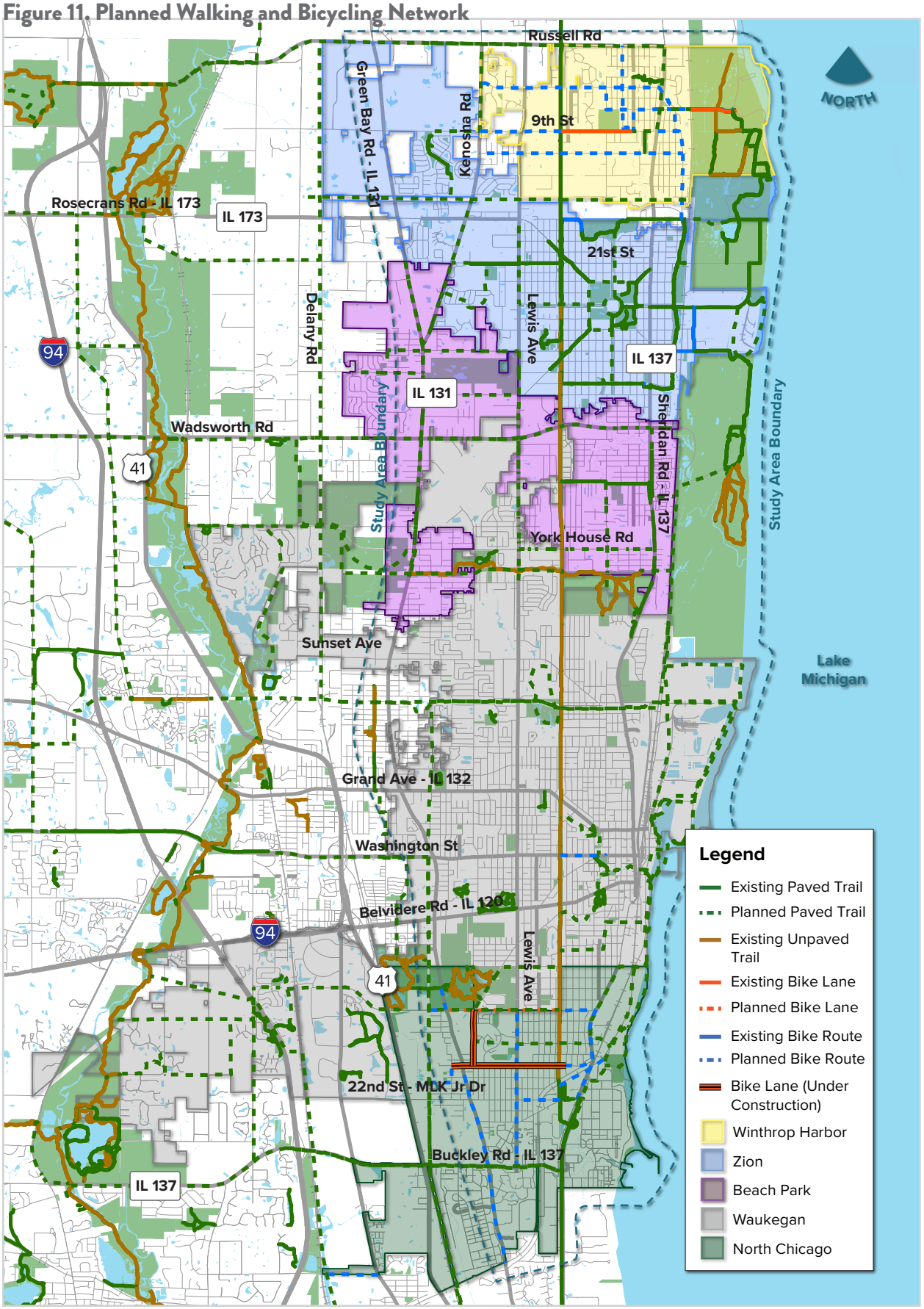
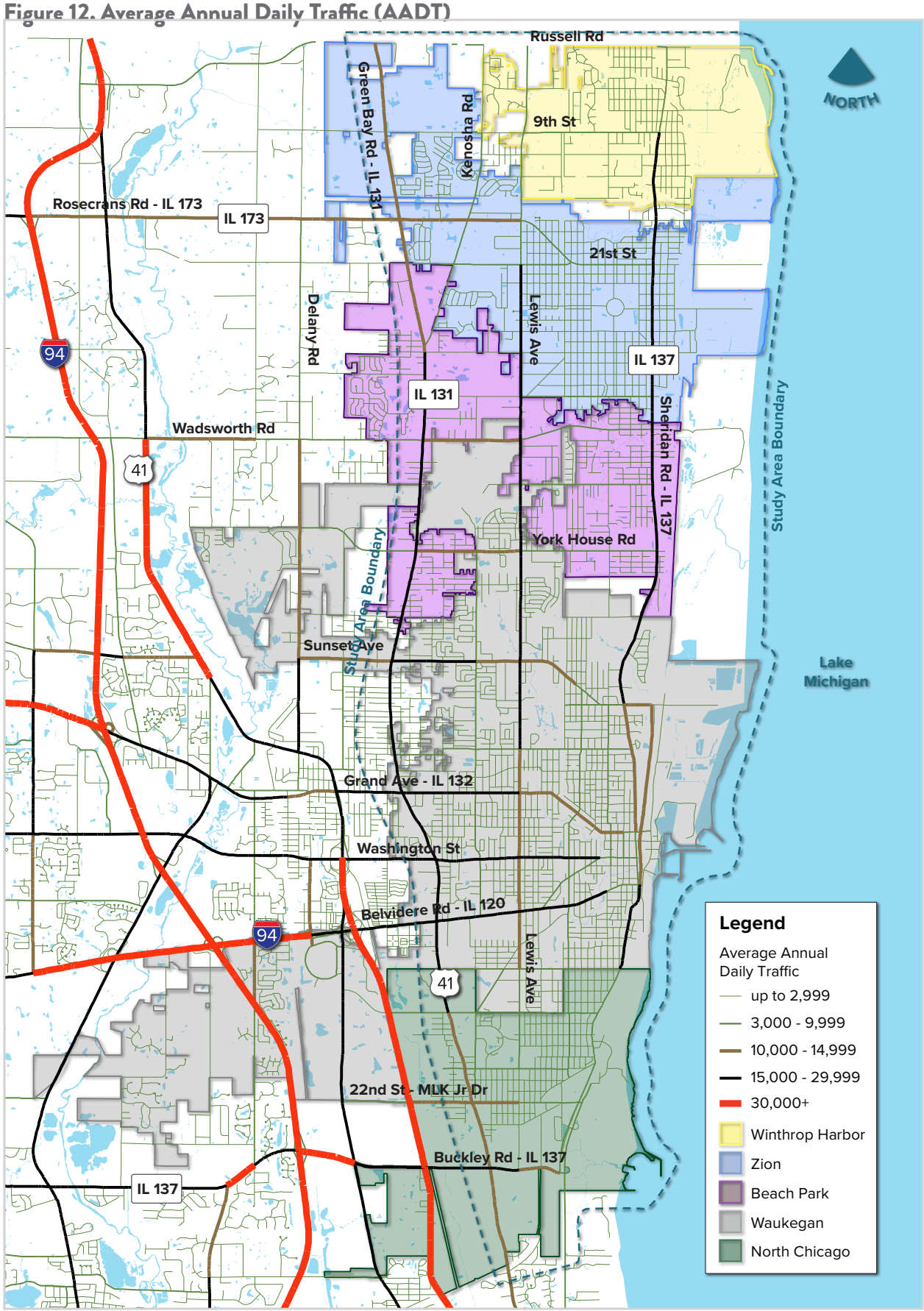


Figure 12. Average Annual Daily Traffic (AADT)



4.HOW WE MOVE

Existing Transportation Network

The roadway network in the study area provides regional connectivity, served by I-94, US 41, and a network of roadways owned and maintained by IDOT, Lake County, and municipalities. Its structure is divided among arterial roadways for long distance travel at moderately high speeds to collector and local roadways, intended for slower traffic with a greater amount of access to surrounding parcels and destinations. While progress has been made to complete the streets and accomodate all road users, several roadways are designed primarily for driving, and lack accommodations for walking and bicycling.

Automobile Traffic

Average Annual Daily Traffic (AADT) is a measure of the average daily total volume of automobile and truck traffic on a highway or road, expressed as an average from data collected over the course of a year.

As shown in **Figure 12**, roadways within the study area with highest AADT levels (between 15,000 and 30,000 vehicles) include IL 137 – Sheridan Road/ Buckley Road, IL 131 – Green Bay Road, IL 173 – Rosecrans Road, IL 132 – Grand Ave, and IL 120 – Belvidere Road. US 41 carries more than 30,000 vehicles.

Roadway Jurisdiction

Well maintained roads are essential to residents, businesses, schools and emergency service providers. Numerous government agencies construct and maintain roads in the study area. Roads by jurisdiction are shown in **Figure 13**.

State Highways: The Illinois Department of Transportation (IDOT) has responsibility for the planning, construction, operation and maintenance of Illinois' transportation network. Highways under the jurisdiction of IDOT are identified by a white rectangle sign with black letter.

County Highways: The Lake County Division of Transportation (LCDOT) is responsible for planning, designing, constructing and maintaining certain Lake County highways. Roads in LCDOT jurisdiction are identified by the 5-sided blue and gold markers. A county highway must meet criteria established by state law, be a designated county highway by the county board and approved by the state.

Local Streets: Municipal Streets are located within the municipal corporate limits that are not state or county highways. Each municipality is responsible for the construction, maintenance and repair of the streets within their municipal limits.

Figure 13: Roadway Jurisdiction

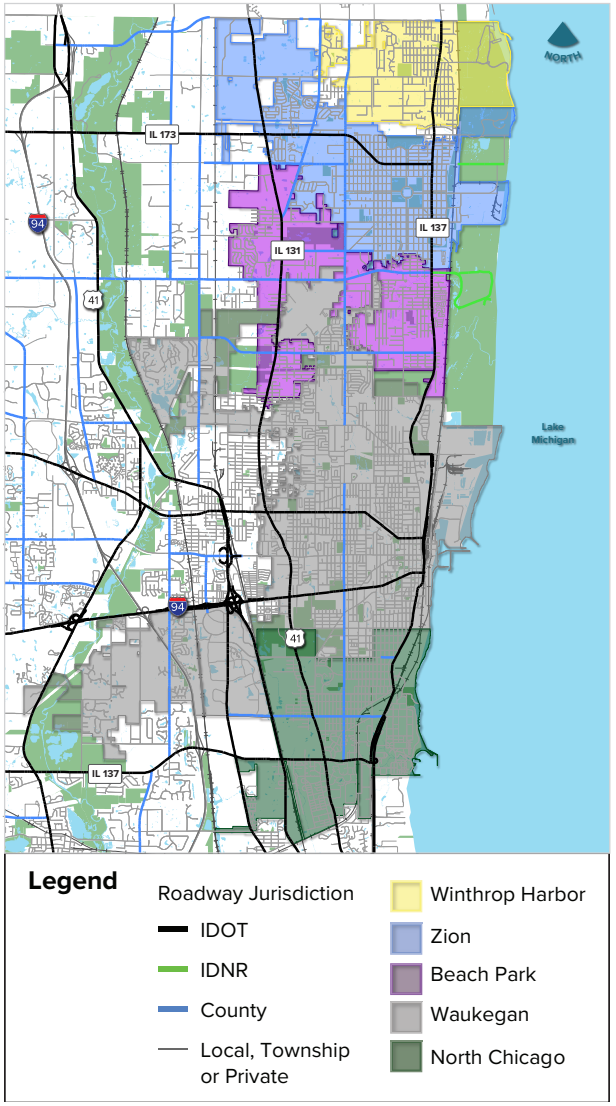
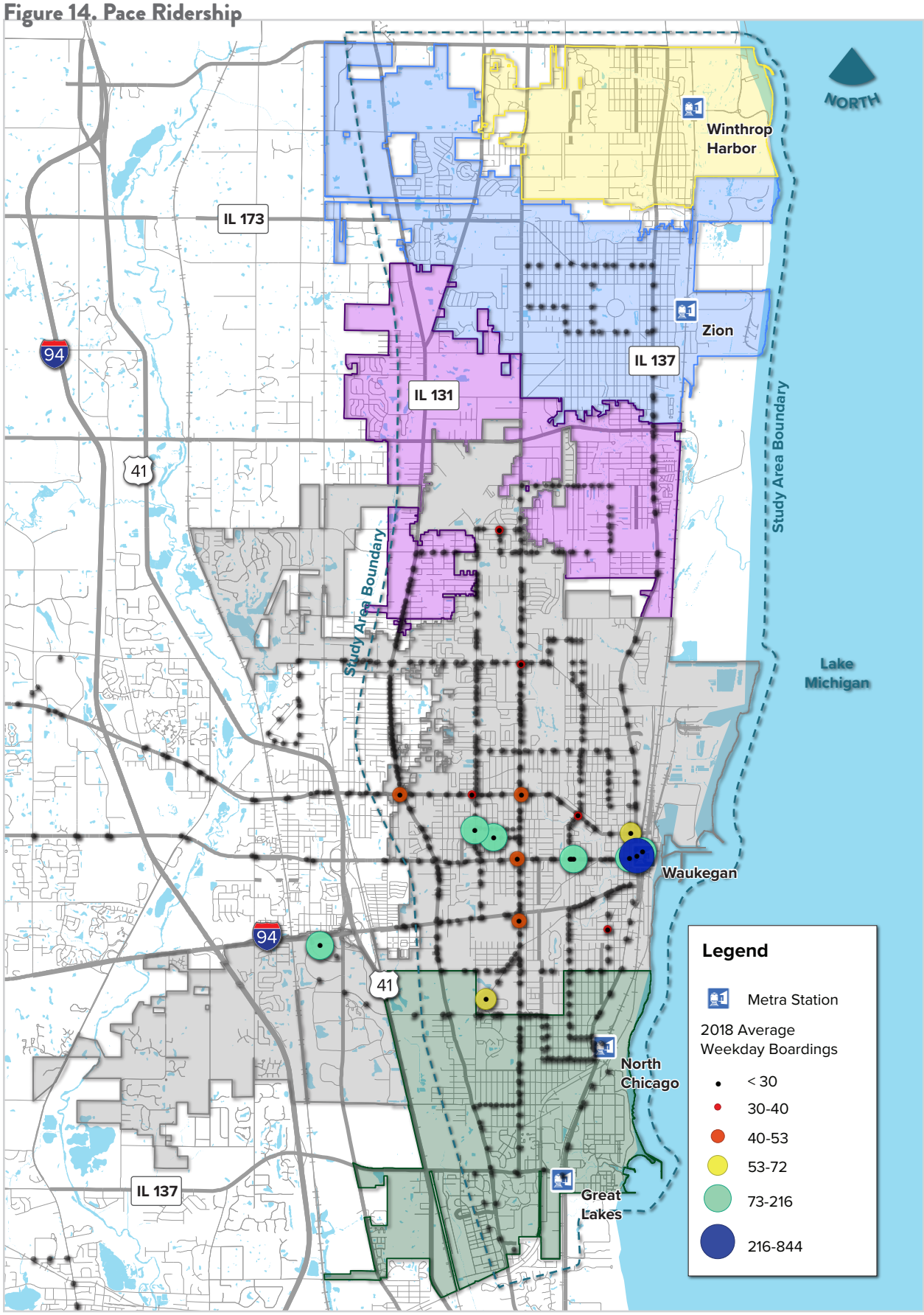


Figure 14. Pace Ridership



Transit Ridership, Pace

There are 11 Pace bus routes within the study area, with the majority of the ridership located in Waukegan. Stops with the largest number of boardings are located in Waukegan. As shown in **Figure 14**, only a few Pace routes continue north of Waukegan. The Village of Winthrop Harbor has no Pace services, and areas on the west side of the study area, further from the Metra stations, have less Pace ridership and services. There are also four townships served by dial-a-ride service, providing connections to key destinations or other transit facilities. The 20 busiest bus stops in the study area have 2,446 weekday boardings. The busiest Pace bus stop is at Sheridan and Washington along bus route #561, and is the main bus terminal near the Waukegan Metra train station where passengers can connect to Routes 562, 563, 564, 565, 568, and 571. Some of the next busiest stations, with ridership between 73 and 216 average weekday boardings, are near Waukegan high schools, middle schools and a shopping center that features a Walmart.

While the majority of high ridership bus stops are located in urbanized areas and are served by comprehensive sidewalk networks, several bus stops within the study area are more isolated and lack sidewalk and crosswalk connections. A stakeholder interview conducted with Pace identified that there are opportunities to close some of these gaps when municipal coordination and some financial cost sharing is involved. Recommendations will draw on guidance from Pace's Transit Friendly Development Guidelines.

Pace Ridership, 2018

Route	Stop	Avg. Weekday Boarding, 2018
561	Sheridan & Washington	844
568	Gennessee & Washington	216
562	Waukegan HS - Brookside	209
571	Waukegan Metra Station	158
566	McAree & Brookside	142
562	Waukegan HS - Washington	137
568	Walmart - 170 Northpoint Blvd	126
572	Washington & Jackson	73
568	Whispering Oaks Apts	69
565	Grand & Gennessee	65
572	Washington & Lewis	54
565	Grand & Green Bay	52
565	Grand & Lewis	51
568	654 S Lewis	47
566	Newcastle & Edgewood	41
565	Grand & McAree	35
569	Lewis & Sunset	34
562	Washington & Jackson	31
565	Grand & Jackson	31
568	McAlister & Helmholz	30

Figure 15a: Pace Ridership Data Table. Source: Regional Transportation Asset Management Systen, RTA, 2019.

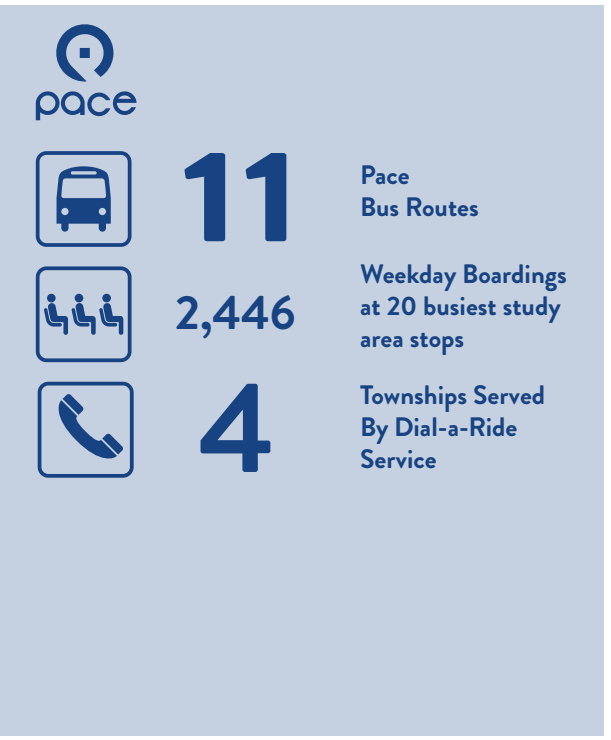


Figure 15b: Pace Ridership Statistics. Data Source: Regional Transportation Asset Management Systen, RTA, 2019.

Transit Ridership, Metra

Metra stations were reviewed to identify general ridership and to explore trends for how users access each station. Metra ridership and mode of access data were collected from Metra and shown in the table below.

The five Metra Union Pacific line stations within the study area are Winthrop Harbor, Zion, Waukegan, North Chicago, and Naval Station Great Lakes. These 5 stations see an average of 1,559 riders on a typical weekday and 2,120 riders based on average weekend count data (collected in 2010).

Weekend ridership within the study area is among the highest in the Metra system, due in large part to Naval Base activity and frequency of events in Waukegan.

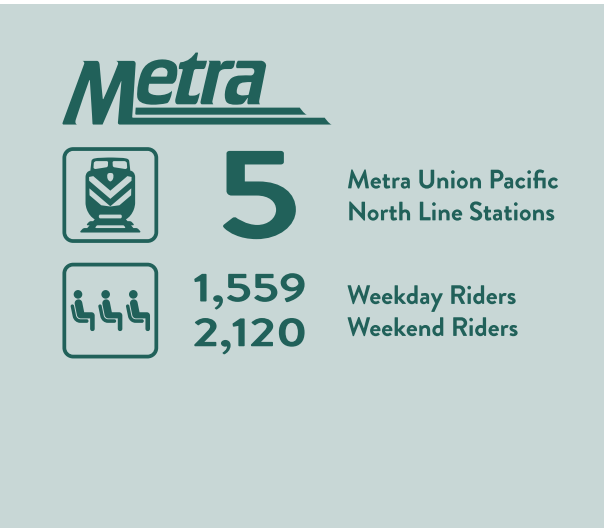


Figure 16 Ridership Data. Source: Metra Commuter Rail System Boarding/Alighting Count 2010 Weekend, 2011.

Metra Ridership, Mode of Access

	Winthrop Harbor	Zion	Waukegan	North Chicago	Great Lakes
Ridership					
Weekday Boardings	**61**	**124**	**911**	**170**	**293**
Weekend Boardings	***16***	***37***	***888***	***136***	***1,043***
Mode of Access					
Walk	8%	14%	11%	33%	12%
Drove Alone	65%	53%	44%	22%	33%
Drop Off / Carpool	25%	30%	32%	33%	47%
Bus	0%	0%	9%	9%	7%
Bike	2%	0%	1%	0%	0%
Taxi / Other	0%	3%	4%	4%	0%
Parking Spaces	**107**	**98**	**438**	**53**	**144**
Utilization	50%	50%	41%	38%	54%

Figure 17: Metra Ridership Data Table. Sources: Metra Boarding-Alighting Counts, 2018; Metra Origin-Destination and Mode of Access Survey, 2016; Metra

Metra Mode of Access

Means of access was assessed for each station to identify trends with regard to station location, presence of infrastructure, and whether barriers exist that make it challening to walk or bike. In general, the majority of the Metra riders reported accessing the station by driving or are dropped off/carpool to the station. Walking and bicycling rates are low. A key factor in this may be due to a lack of comfortable bicycle and pedestrian accommodations surrounding the stations and few options for bicycle parking.

Below is a series of exhibits with a more detailed look at each station showing a ½ mile walkshed surrounding each station. These assessments, combined with mode of access data for each station suggest that the presence of sidewalk or path immediately adjacent to the station can improve the likelihood that riders will walk or bicycle to the station.

Winthrop Harbor

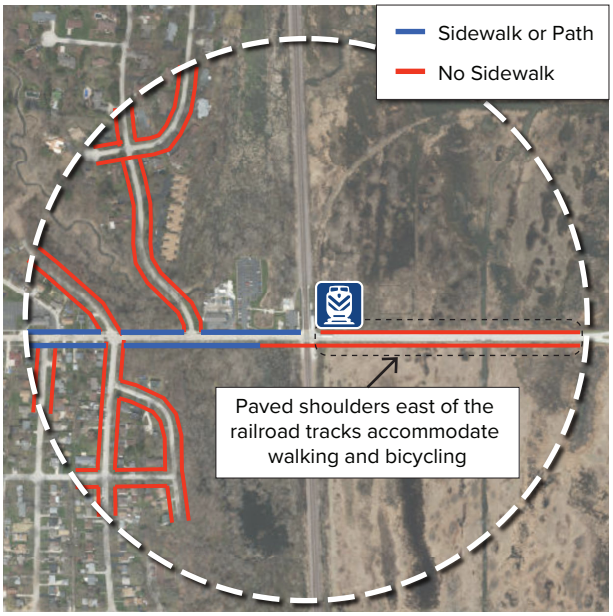


Figure 18: The majority of Metra riders to this station drive alone (65%) or get dropped off or carpool (25%). Only 10% of train riders walk or ride their bicycle to the station. There are 107 parking spaces, 50% of which are utilized.

There are sidewalks leading to the station that terminate west of the railroad crossing. While there are no sidewalks east of the tracks, paved shoulders accommodate walking and bicycling. While they do not qualify as an ADA-compliant pedestrian facility, they provide .

Zion

Figure 19: The majority of Metra riders to this station either drive alone (53%) or get dropped off or carpool (30%). Only 14% of train riders walk to the Metra Station and no one reported that they ride their bike to the station. There are 98 parking spaces at this location, 50% of which are utilized. There are sidewalks on both sides of Shiloh Boulevard leading into the Metra Station.

Waukegan

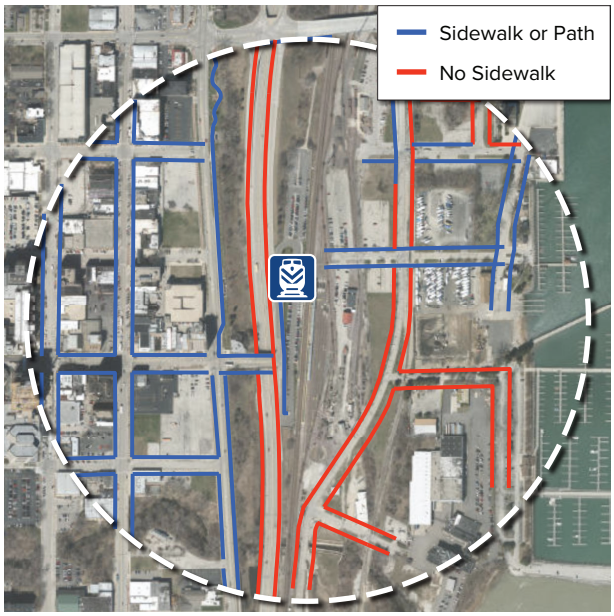


Figure 20: The majority of Metra riders to this station drive alone (44%) or get dropped off/carpool (32%). 12% of riders walk or bike to the station and 9% of riders take the bus. There are 438 parking spaces at this location, 41% of which are utilized. There are sidewalks on Washington Street for those traveling from west of IL 137, and a sidewalk connects the north end of the platform to Madison Street for those walking from the east.

North Chicago

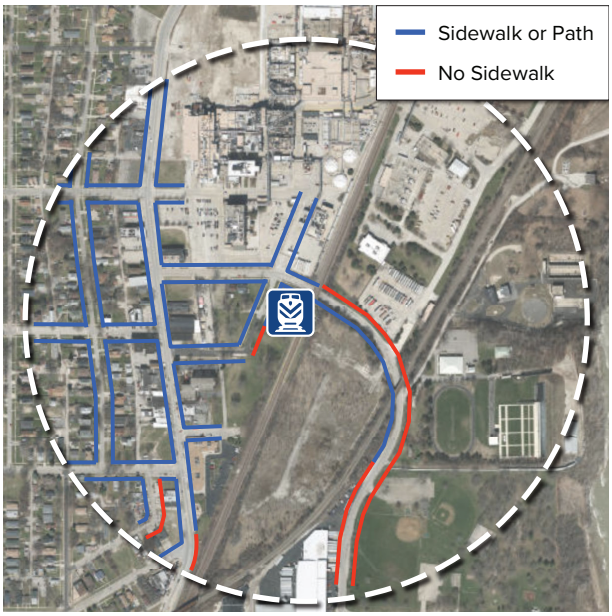


Figure 21: The majority of Metra riders to this station either walk (33%) or get dropped off or carpool (33%). The next largest group of riders are those who reported driving alone (22%) to the station. In addition, 9% of riders reported taking the bus to the station. There are 53 parking spaces at this location, and on average only about 38% are utilized. There are existing sidewalks or paths directly connected to the station, and throughout the surrounding neighborhoods which support the high percentage of riders who reported walking to the station.

Great Lakes

Figure 22: The majority of Metra riders to this station are dropped off or carpool (47%). The next two largest groups of riders are those who reported driving alone (33%) and walking (12%). In addition, 7% of riders reported taking the bus to the station. There are 144 parking spaces at this location, and on average about 54% are utilized. There is an existing sidewalk connecting the Naval Base to the Metra Station.

Travel to Work

To estimate the size of the walking and bicycling "market," Census data on work commute activities were reviewed. Over 75 % of the populations of Winthrop Harbor, Zion, Beach Park, and Waukegan drive alone to work. In the same municipalities, more than 93% of residents drive alone or carpool to work. The remaining share of the population uses transit, walks, bicycles, rides a motorcycle, takes a taxi, or uses car share for work trips.

This is common in municipalities like Winthrop Harbor and Beach Park. While quiet neighborhoods, low traffic levels, and a high quality of life, these are primarily residential communities and most residents must travel to work outside of Winthrop Harbor. This is also no Pace route and limited Metra services which is reflected in the data below. The population of North Chicago has the highest rates of walking and bicycling to work, which stands apart from the rest of the study area. 44.8% of the population drives alone to work and 10.2% carpool.

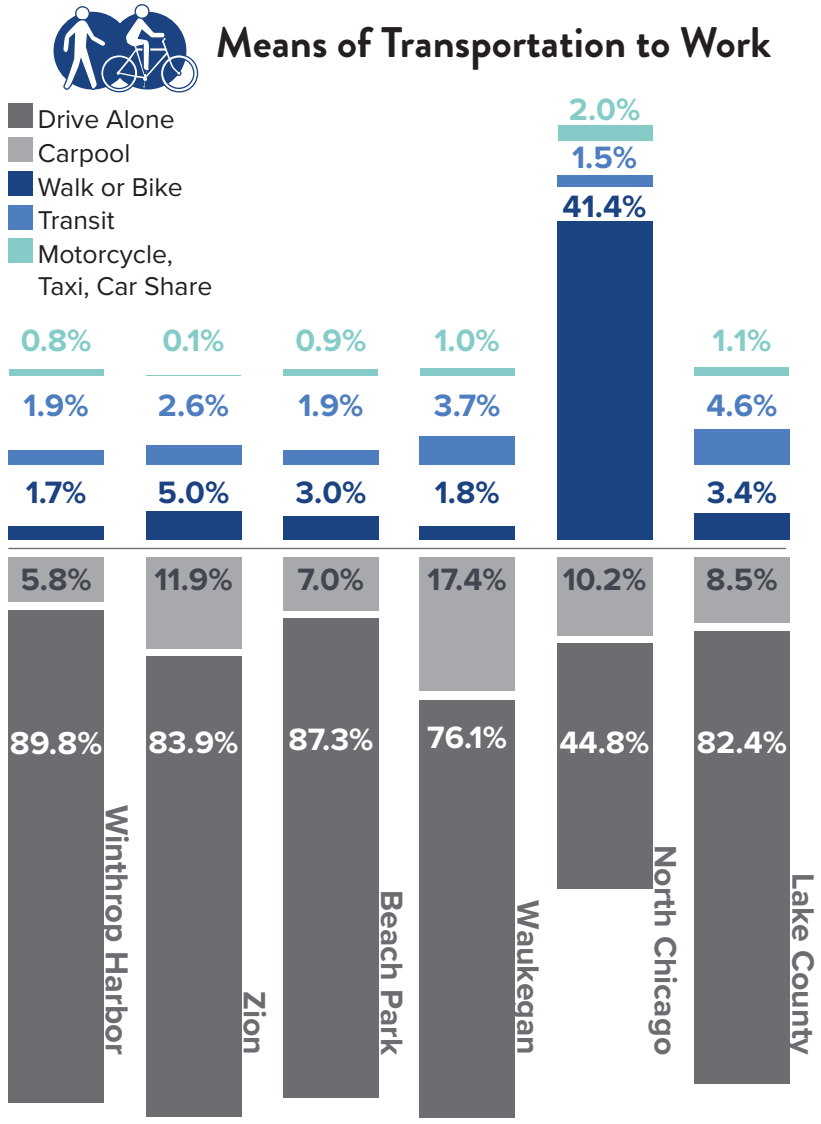


Figure 23: Means of Transportation to Work. Source: American Community Survey, United States Census 2013-2019.

Due primarily to the residents at Naval Station Great Lakes, 41.4% of North Chicago residents walks or rides a bicycle to work.

Vehicle Ownership

Commuting patterns are also a function of household vehicle ownership, access to jobs, household income, and other factors. Winthrop Harbor and Beach Park have the highest vehicle ownership rates with 70.7% and 74.4% of the households owning 2 or more cars. These communities are more residential in land use and have little to no transit options, and many residents must commute by car to jobs.

Zion, Waukegan, and North Chicago have lower rates of vehicle ownership with approximately 50% of the households owning two or more cars. Zion, Waukegan, and North Chicago also have the largest share of zero-car households between 9.1 and 12.6%. Expansion of a regional trail network may provide additional transportation mode choices for residents, including the ability to bike to Pace stops or Metra stations.

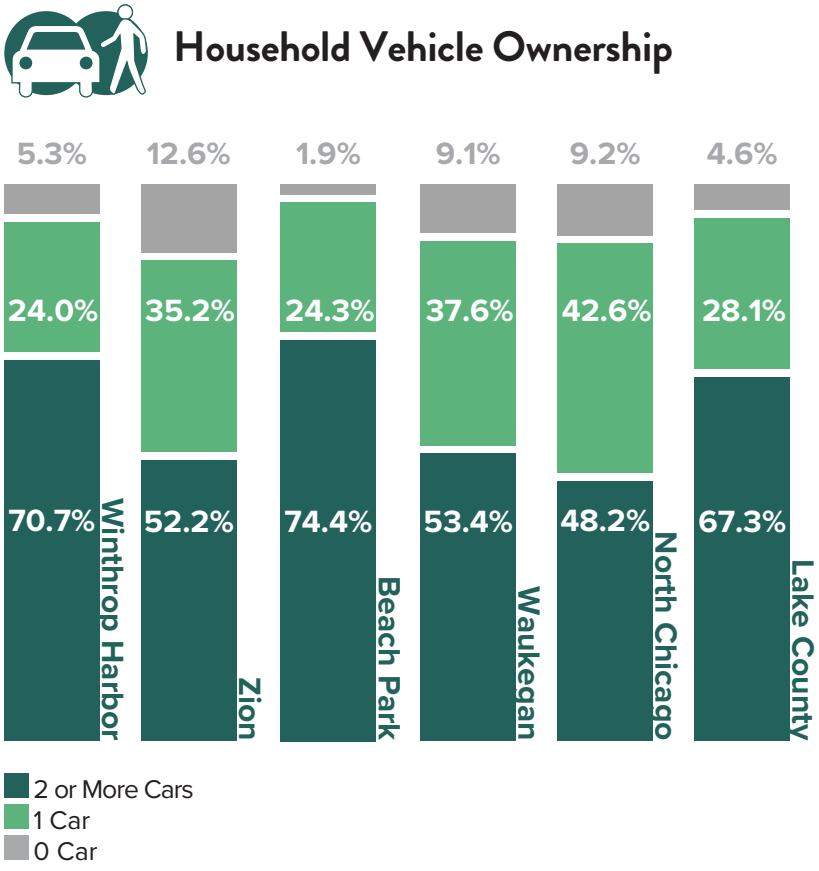


Figure 24: Household Vehicle Ownership. Source: American Community Survey, United States Census 2013-2019.

Walking & Bicycling Demand

Despite the majority of the population choosing to drive to work, there are several other common trip types taken regularly using other modes of transportation. Including recreational trips, and other non-work related trips. Furthermore, children and seniors, and those not in the workforce comprise a large portion of the population. Generally, pedestrian and/or bicycle counts are a good way to establish a baseline for walking and bicycling demand. If count data is not available, other methods can be used to approximate this demand.

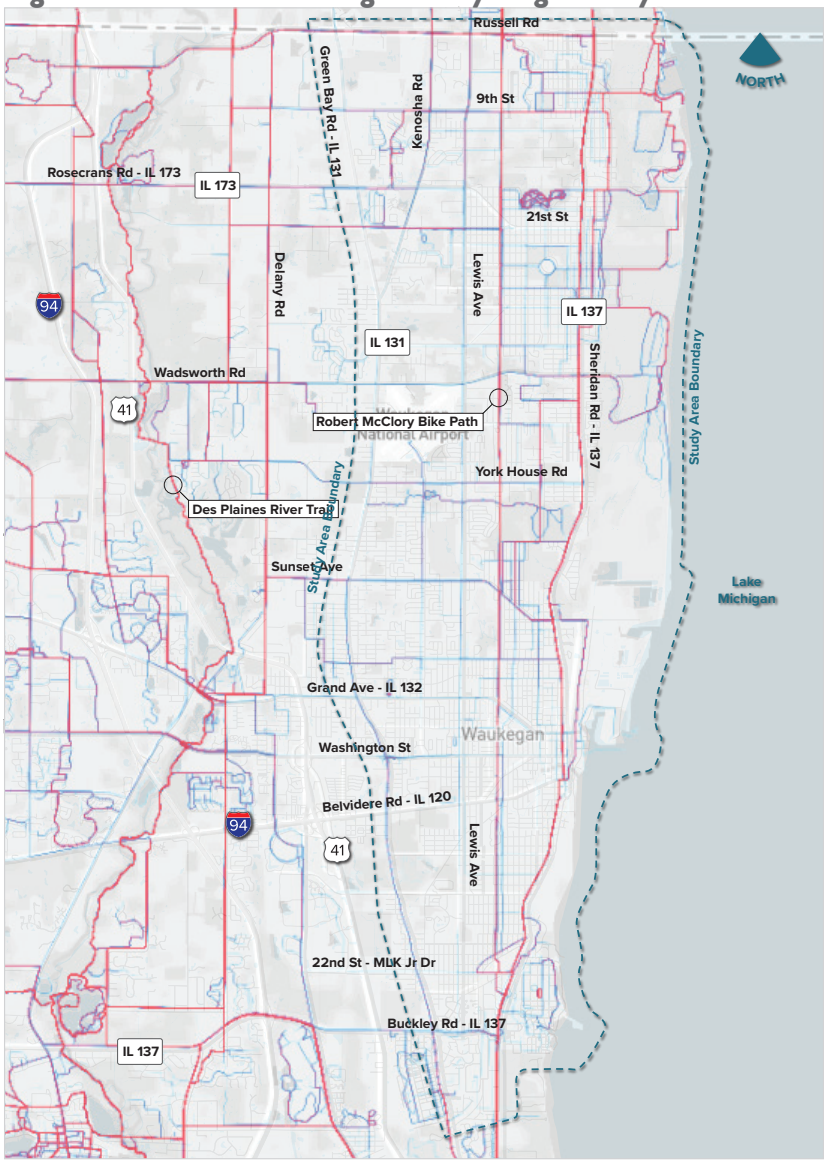
Strava data was reviewed at the regional level as a proxy for existing walking and bicycling activity. Strava is a social fitness network, which is primarily used to track cycling and running exercises. The heat map, shown in **Figure 25** uses data provided by the Strava app. The app depends on GPS to allow users to self-report walking and bicycling activity which can be shared among friends or with the public.

While this data does not represent all walkers or bicyclists within the study area, it provides a good representation of the routes that users have found most effective.

The heat map shows that walking and bicycle activity is high on both of the regional trails, Robert McClory path and the Des Plaines Trail.

It also indicates that many users travel on Sheridan Road – IL 137 which recently has been improved in several locations to include walking and bicycling facilities. While not continuous, it shows a strong preference for north-south travel at key locations within the study area. In addition, there is high bicycle and walking activity on the trails through the Illinois Beach State Park and other corresponding nature preserves.

Figure 25. Estimated Walking and Bicycling Activity



Legend

Strava Activity Index

High Activity

Low Activity

Figure 26a. Sidewalk Gaps Near Parks

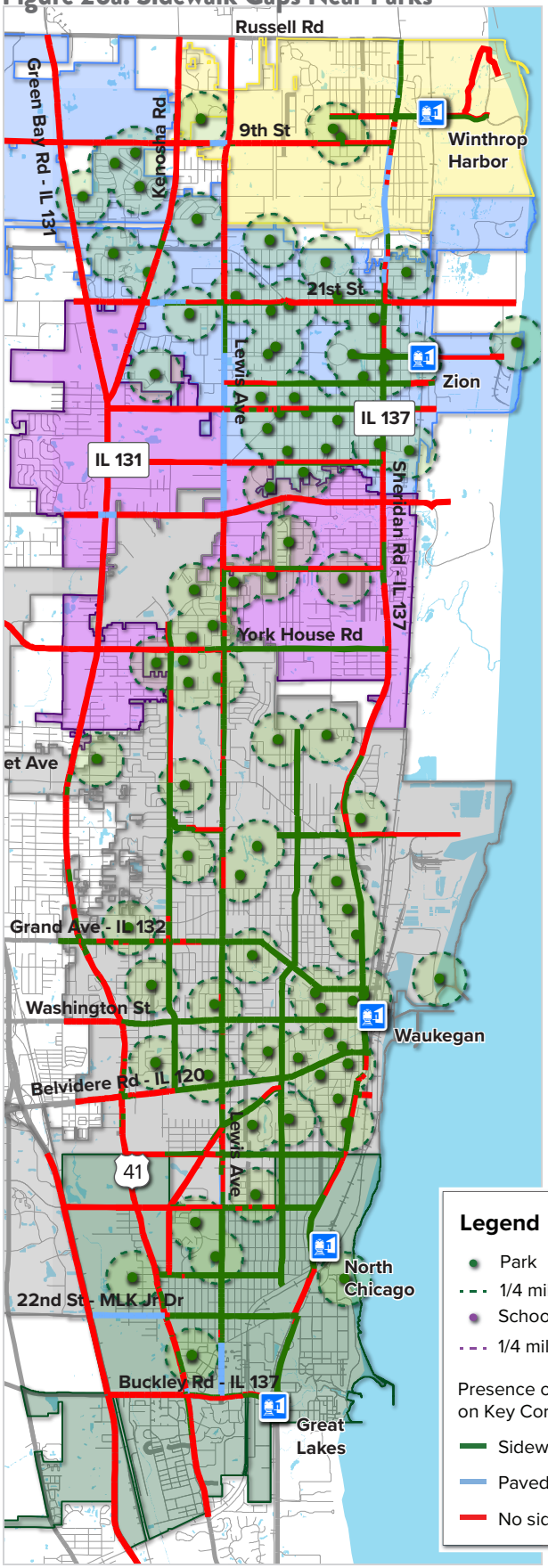
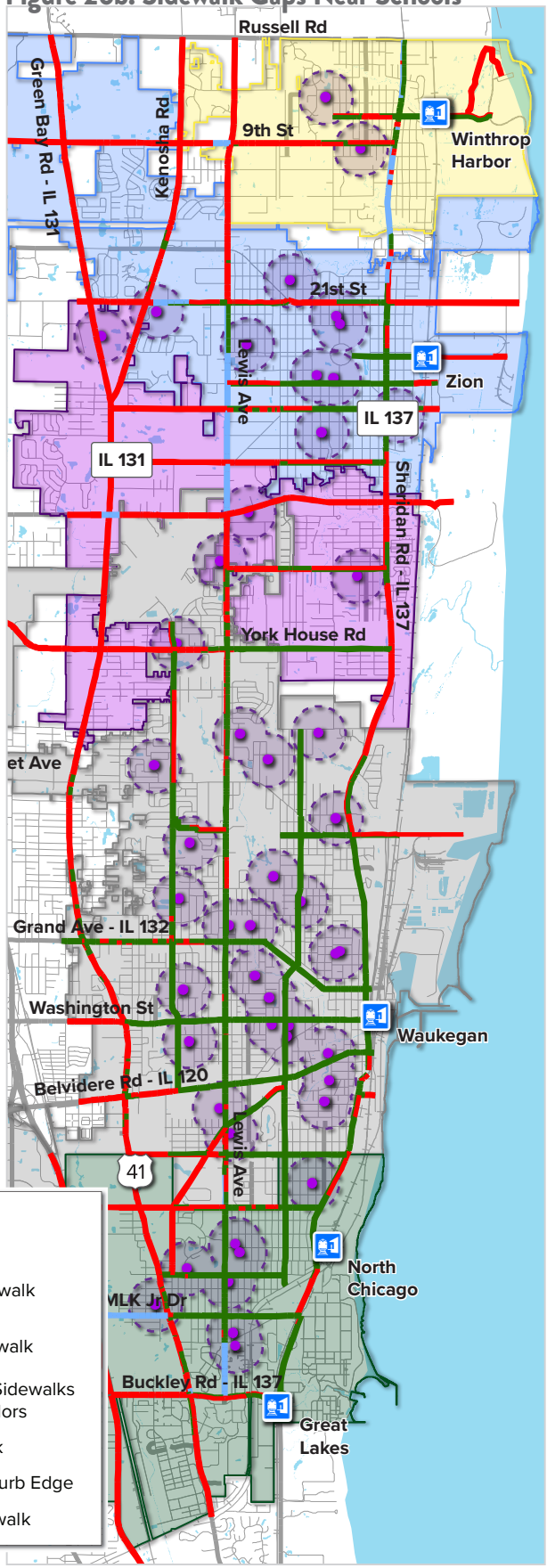


Figure 26b. Sidewalk Gaps Near Schools



5. OUR CHALLENGES

Sidewalk Gaps

The presence of sidewalks is one of the single most significant factors affecting walkability, comfort, and safety. The Federal Highway Administration Proven Safety Countermeasures indicates that the installation of sidewalks along a roadway (with no other intervention) can reduce all crashes up to 88%.

For the health and safety of the school age population it is important for schools and parks to be connected by sidewalks. **Figure 26** shows the presence of sidewalk gaps overlaid with a ¼ mile walkshed around schools and parks within the study area. Schools and parks in Waukegan have far fewer sidewalk gaps than the other communities.

Sidewalk gaps along transit routes also create challenges. A lack of sidewalks to bus stops affects a potential rider's preference for using transit over other modes of transportation, and negatively impacts comfort and safety for existing passengers.

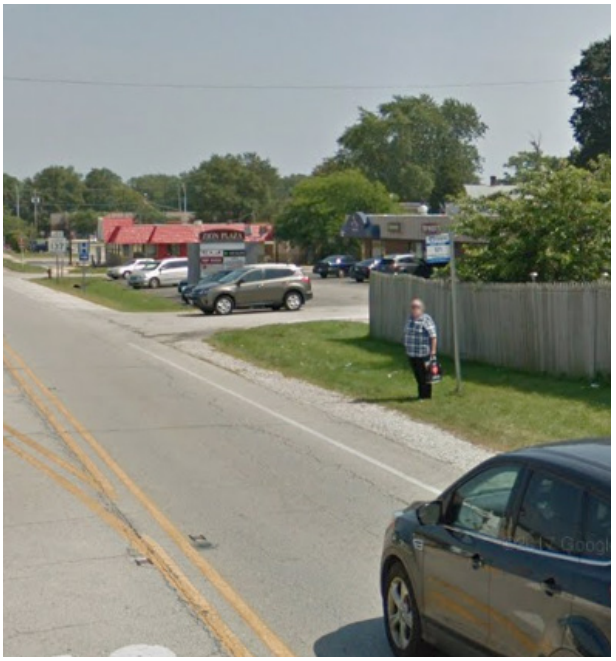


Figure 27: Transit rider waiting at a Pace bus stop with no sidewalks. Source: Google.

Traffic Signal Spacing

The distance between traffic signals (**Figure 28**) is another measure to highlight how challenging it can be for a person walking to cross a busy street. The distance between signalized intersections increases a person's total trip length, and makes it less likely that they will cross at a signal, which impacts safety of those walking as well as those driving. A person is less likely to walk or ride their bicycle somewhere if they feel unsafe or if it is not convenient.

Generally, signal spacing of one quarter mile is ideal for walkability. Sections of the study area through Zion and Winthrop Harbor have many streets where the distance between traffic signals is greater than one mile. Further south in the study area in Waukegan and North Chicago several of the state routes, including Grand Ave – IL 132, Belvidere Road – IL 120, and Buckley Road – IL 137, have traffic signals where the spacing is less than ¼ mile apart.

Figure 28. Traffic Signal Spacing

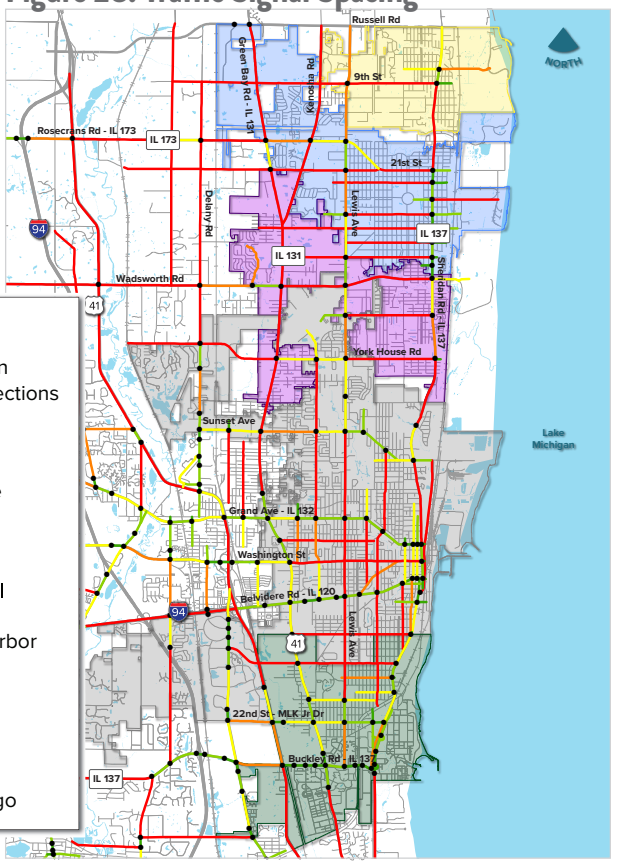
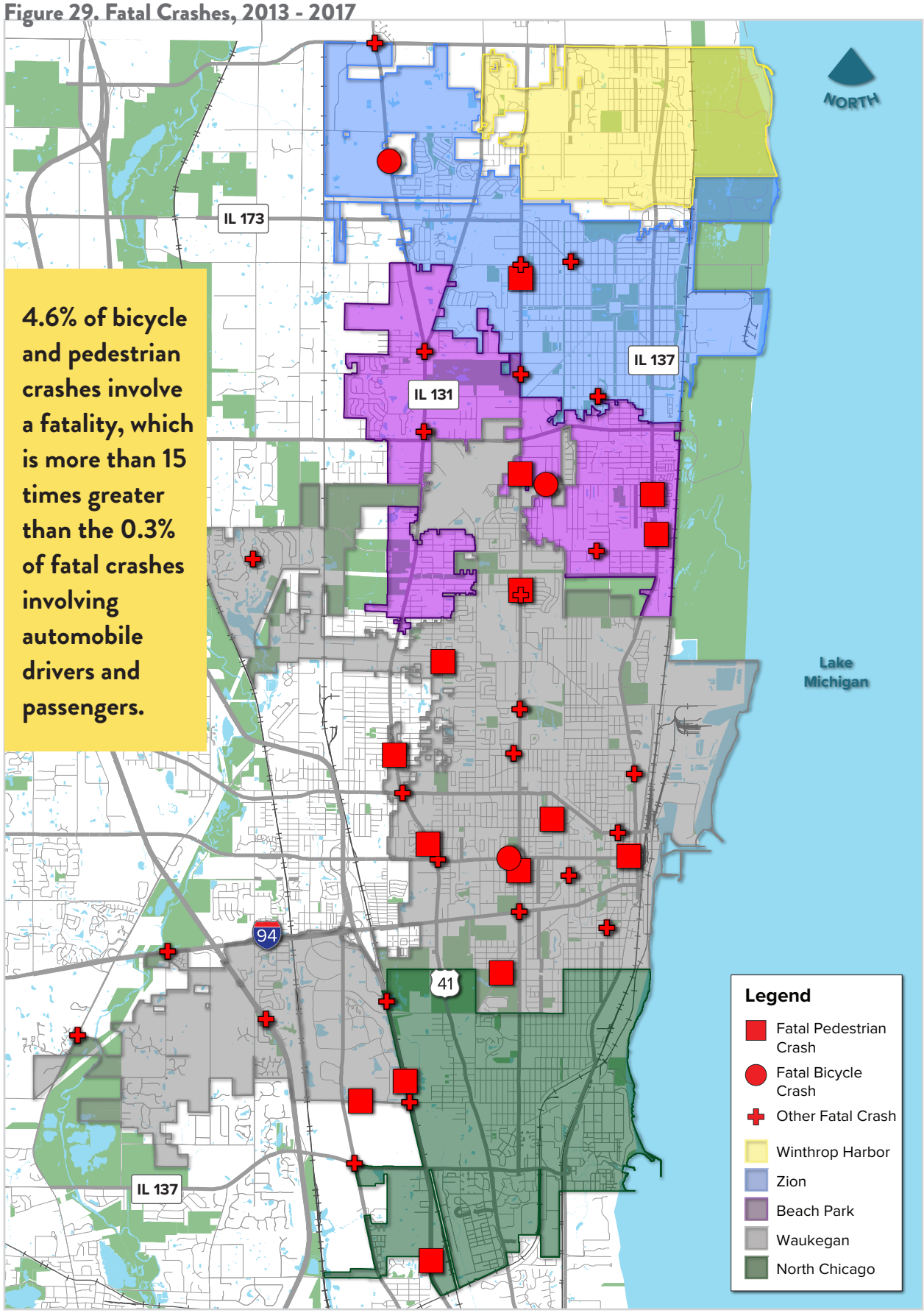


Figure 29. Fatal Crashes, 2013 - 2017



4.6% of bicycle and pedestrian crashes involve a fatality, which is more than 15 times greater than the 0.3% of fatal crashes involving automobile drivers and passengers.

Traffic Crashes

Crash data was reviewed for the five-year period between 2013 and 2017 and is shown in **Figures 29-31**. A total of 14,464 crashes were reported within the study area. Of these, 40.2% involved an injury and 0.3% of them involved a fatality. While bicycle and pedestrian crashes account for only 2.7% of all crashes within the study, they represent 6.7% of all fatalities and 36% of all injuries.

Almost every single crash reported (99%) involving a person walking or bicycling resulted in an injury and 4.6% of bicycle and pedestrian crashes were fatal, a fatality rate **15 times greater** than crashes involving automobile passengers.

Bicycle & Pedestrian Crashes

Total Crashes	14,464
Result in Injury	40.2%
Result in Fatality	0.30%
Bicycle & Pedestrian	2.7%
Bicycle & Pedestrian Crashes	**393**
Result in Injury	99.0%
Result in Fatality	4.6%

Figure 32: Study area bicycle and pedestrian crash data. Source: Illinois Department of Transportation, 2013-2017.

Figure 30. Crashes Involving Pedestrians, 2013 - 2017

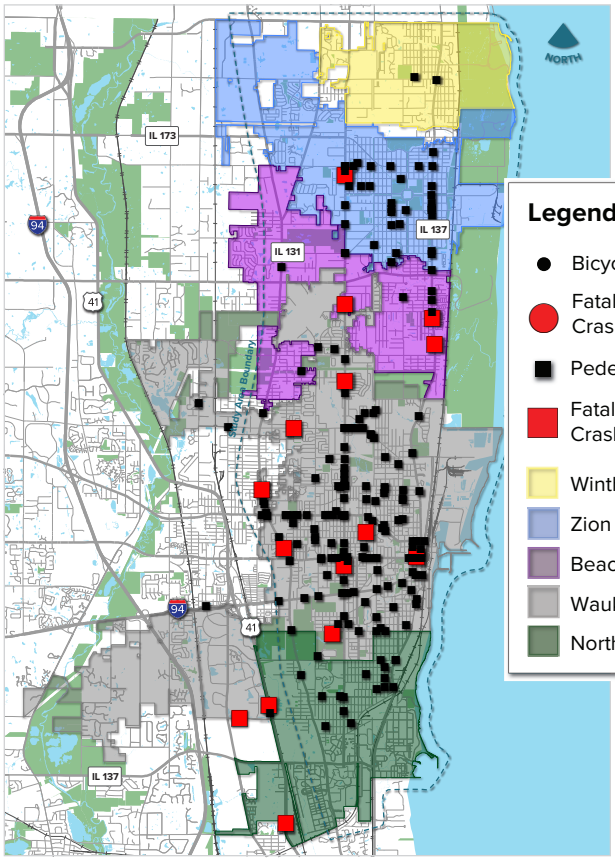


Figure 31. Crashes Involving Bicyclists, 2013 - 2017

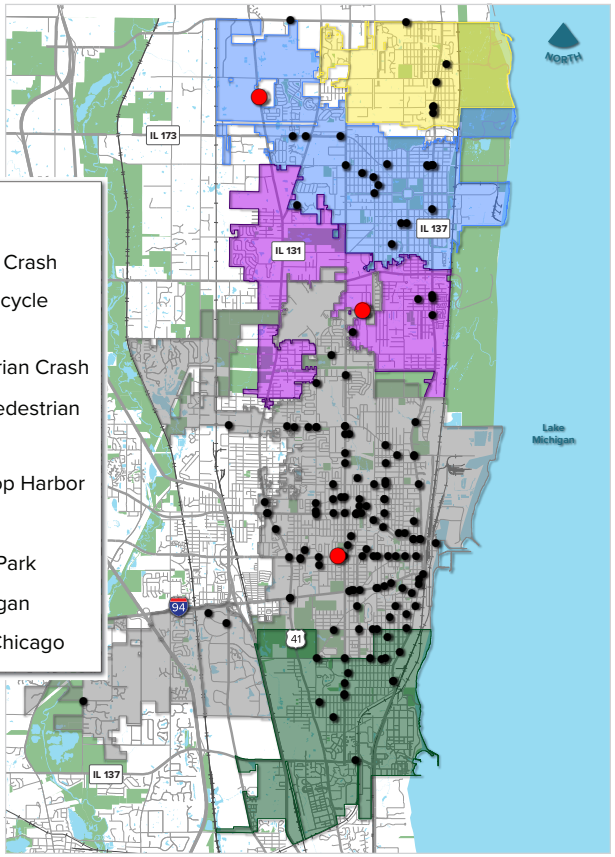
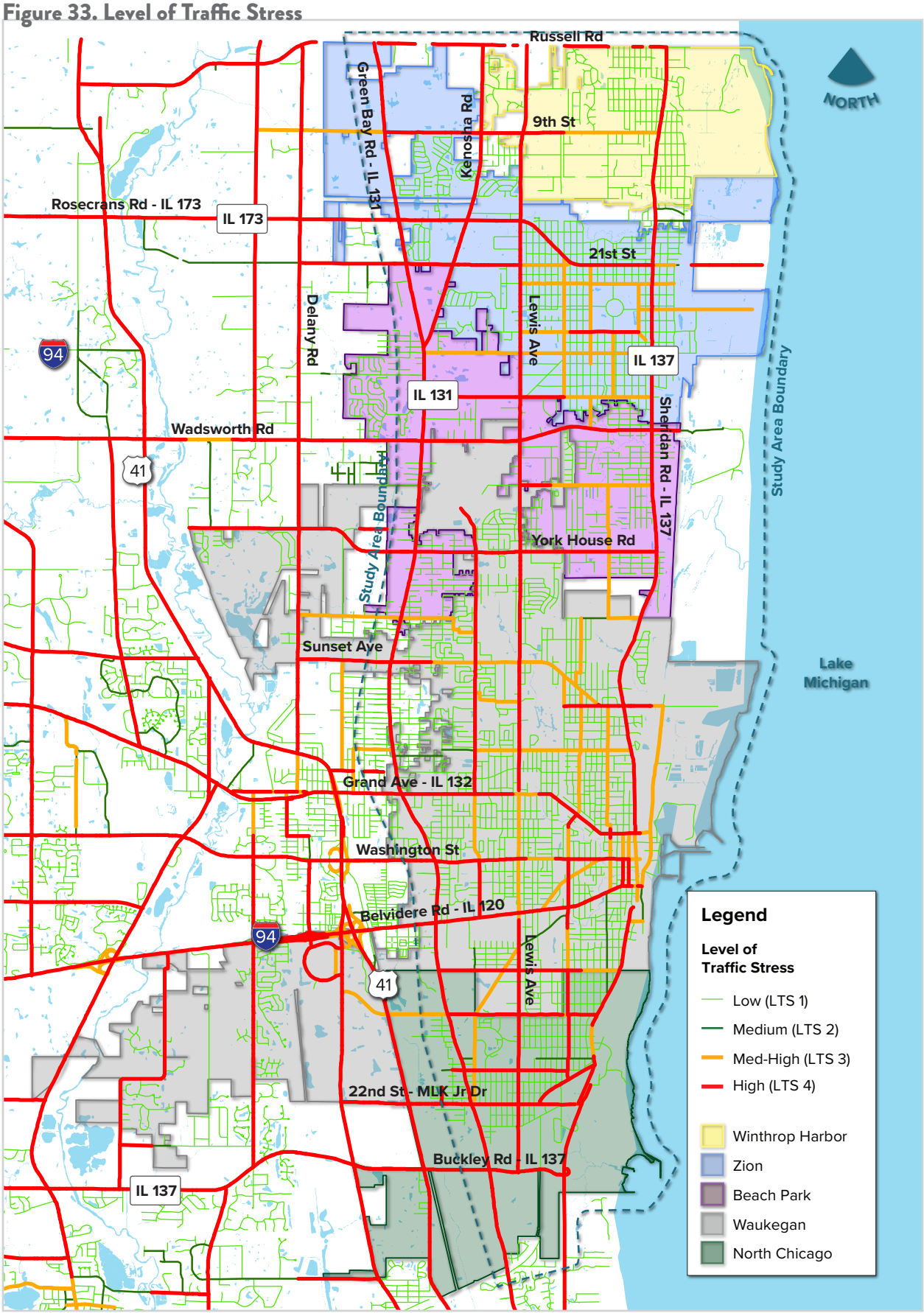


Figure 33. Level of Traffic Stress



Traffic Stress

Level of Traffic Stress (LTS) is a qualitative measure that evaluates a roadway from the perspective of a bicyclist. Created by the Mineta Transportation Institute, LTS assigns a score of one to four based on roadway width, posted or prevailing speed, number of lanes, and amount of separation between bicyclists and motorists (calculated either as the width of the outside lane or width of a bike lane). Existing LTS is shown in **Figure 33**.

Generally, low stress roadways are comfortable for people of all ages and abilities and high stress roadways are stressful for all except the most confident and experienced adult cyclists. In the study area, the majority of the major roads, including state routes and county highways have an LTS 4. Whereas most of the residential and smaller roads have a lower LTS of 1 or 2. Shared use paths and trails are not rated for LTS because they are completely separated from the roadway.

However, LTS for trail crossings can be measured and are shown for the Robert McClory Bike Path and Des Plaines River Trail in **Figure 34**.

There are only two intersections on the Robert McClory Path with an LTS of 3. All of the intersections within the study area with the Des Plaines River Trail have an LTS of 3.

LTS 1 roadways are low-stress, low-speed facilities like many neighborhood streets and cul-de-sacs.

LTS 2 roadways are shared facilities with posted speeds under 30 miles per hour or roads with bike lanes and posted speeds under 35 miles per hour.

LTS 3 roadways are shared roads under 35 miles per hour or roads with bike lanes and posted speeds under 40 miles per hour.

LTS 4 roadways are any shared roadway with posted speeds at or above 35 miles per hour and roadways with bike lanes and posted speeds at or above 40 miles per hour.

Figure 34: Traffic Stress at Trail Crossings

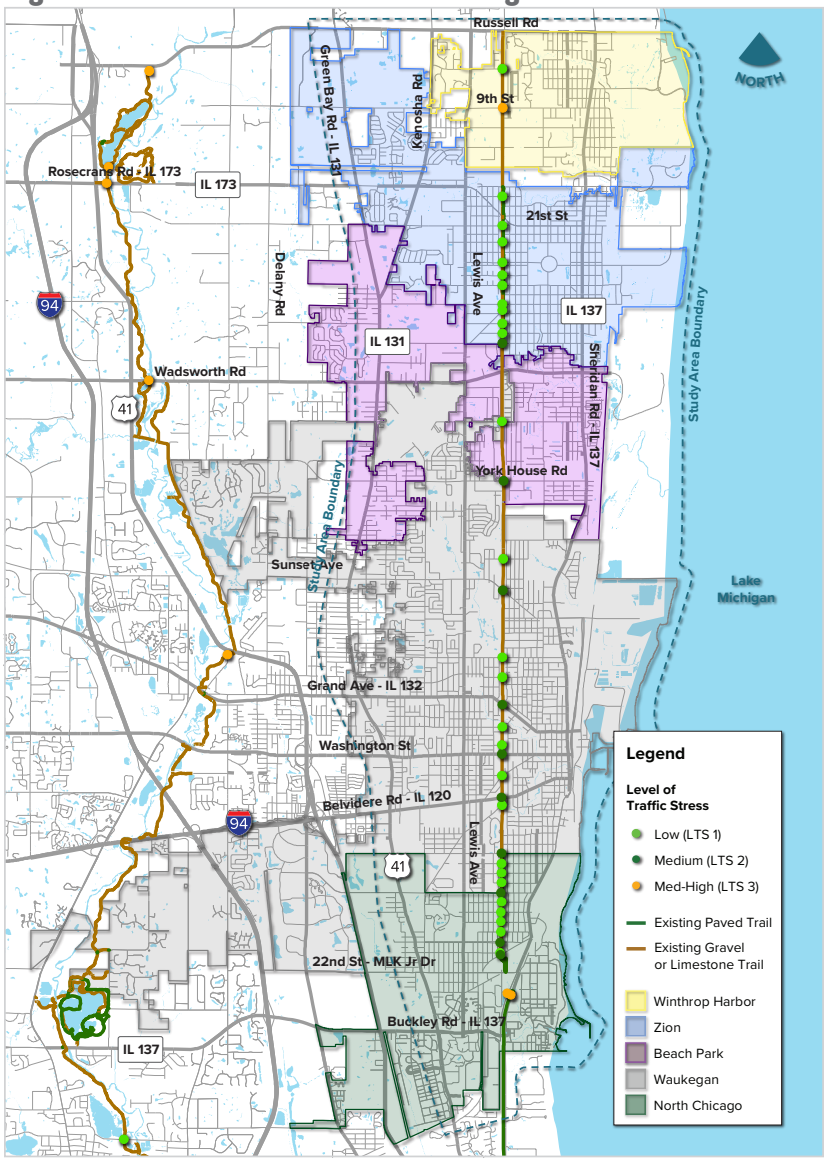
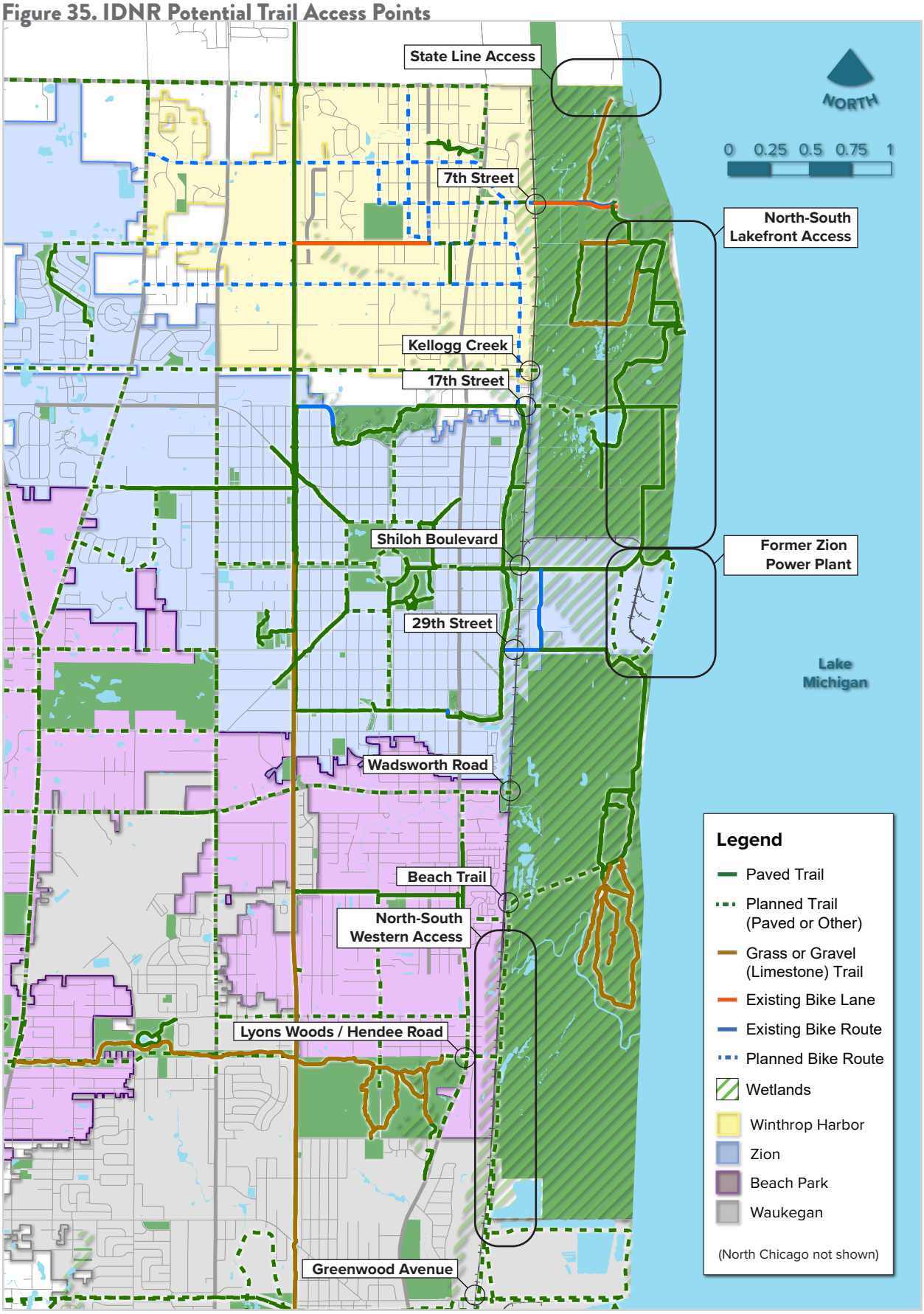


Figure 35. IDNR Potential Trail Access Points



Illinois Beach State Park Trail Connectivity Assessment

A key objective of this plan is to improve connections between study area municipalities, Illinois Beach State Park, and the lakefront. To identify the current state of connections identify future trail connection opportunities, the study team conducted four stakeholder interviews with the IDNR, reviewed the existing condition of open spaces, discussed the needs of sensitive areas including wetlands, nature preserves, and reviewed potential trail access and alignment locations.

During site visits, the project team observed the current state of trails in the North Unit and South Unit, as well as existing connections between the two.

One objective of this discussion was to identify where former, existing, and potential trail access points exist to connect municipal trail networks and Illinois Beach State Park. A shared goal among all stakeholders was connecting the North Unit and South Unit in a continuous trail network east of the Union Pacific Railroad.

Illinois Beach State Park possesses two separate trail networks; 4 miles in the north unit, and 3.3 miles in the south. In discussions with IDNR and stakeholders interested in trail connections and lakefront recreation, north-south connectivity was identified as critically important for regional trail connectivity, as well as east-west access. To inform the development of trail recommendations, the following trail access issues were identified, accompanied by a map of locations in **Figure 35**.

7th Street

Sidewalks are located on 7th Street as part of a streetscape project on 7th Street and Sheridan Road. These terminate at the railroad Tracks near the Winthrop Harbor Metra Station. Bike lanes are located on 7th Street east of the railroad tracks, which provide access to North Point Marina, the North Unit of Illinois Beach State Park, and Spring Bluff Forest Preserve. An existing Lake County Forest Preserve District trail travels north from 7th Street

A shared goal among all stakeholders is to connect the North Unit and South Unit in a continuous trail network east of the Union Pacific Railroad while also protecting the natural resources and sensitive habitat present within nature preserves within Illinois Beach State Park. To explore this, the plan should identify opportunities to make existing roadways and trails more bicycle and pedestrian-friendly without expanding the roadway footprint.

Figure 36. Image Source: Wrongdave at English Wikipedia - Transferred from en.wikipedia to Commons by Vux using CommonsHelper., Public Domain, https://commons.wikimedia.org/w/index.php?curid=6043267

into the preserve, and terminates where Spring Bluff Drive meets Spring Bluff Drive. The existing bike lane on 7th Street connects to a trailhead where 7th Street meets North Point Drive, slightly west of the parking lot. These trails proceed south and east, crossing a stream located just north of IDNR parking lots at Isherwood Beach.

State Line Access
Chiwaukee Prairie State Natural Area is a preserve located in Pleasant Prairie, Wisconsin, just over the border from Wlnthrop Harbor. Trail users have been observed utilizing the access road to travel between Wisconsin and Illinois, which provides access to Prairie Harboer Yacht Club, a public beach access, and Phil Sander Park. Chiwaukee is an intact coastal wetland with more than 400 species of plants, 10 of which are listed as threatened or endangered.

17th Street
Access via 17th Street in Zion provides access to Sand Pond, Camp Logan, and Isherwood Beach. It connects with the existing trail network on the east side of Sand Pond. It travels east-west adjacent to Kellogg Creek to the lakefront; a gate in the parking lot on the north end of Sand Pond prevents motorized vehicles from continuing east on 17th Street, but bicyclists and pedestrians are permitted. This roadway-trail connection links 17th Street to to Hosah Park, located approximately 1 mile south of

Figure 37: Chiwaukee Prairie State Natural Area at the lakefront.

Figure 38: Parking lot at the eastern end of Shiloh Boulevard in Zion, adjacent to the security checkpoint for entry to the former Zion Power Plant. Source: Google.

17th Street, along Burnett Avenue, 21st Street, and Fulton Avenue, all located east of the North Dunes Nature Preserve. At the time of this writing, sections of the trail network near Hosah Park were being repaired from a washout.

21st Street
Originally an access road that runs east-west between Sheridan Road and the lakefront, 21st Street was closed from east of Edina Boulevard to Fulton Avenue, and the railroad crossing of the Union Pacific Railroad was removed by IDNR to stabilize the existing preserve's ecosystem. The right-of-way remains. The only sections of 21st Street that remain are west of the Union Pacific Railroad tracks and a 600-foot section near the lakefront.

Shiloh Boulevard
Shiloh Boulevard is an existing east-west roadway with a crossing of the Union Pacific Railroad tracks connecting the City of Zion to the IDNR trail network and Zion's Hosah Park, located on Lake Michigan. There are sidewalks on both sides of the street until Deborah Avenue, and sidewalks on the north side of the street between Deborah Avenue and the Hosah Park parking lot at Shiloh Boulevard and Fulton Avenue. It is a direct connection between the Zion Metra Station and the Lakefront. There is potential for additional trail connections following completion of the decommissioning of the Zion Nuclear Power Station.

Figure 39: Headed to the beach by bicycle? Just inside the park, a sign (left) directs most day visitors along a two-mile loop road to the Illinois Beach State Park. While not signed explicitly for bicycling, most bicyclists use the one-mile access road for campground check-ins to get to the lakefront, cutting trip length by as much as 50%. Image source: Google Maps.

27th & 29th Street

Access points on 27th Street and 29th Street cross the Union Pacific Railroad tracks and serve industrial land uses west of the former Zion Power Station. They are connected by Ebenezer Avenue and Deborah Avenue, and 29th Street extends east to the north end of IDNR campground, which has a gate to permit bicycle and pedestrian traffic but restricts automobile traffic. Potential trail connections east of Debroah Avenue could be combined with future site development at the former power plant.

Wadsworth Road & Patomos Avenue

Wadsworth Road is the primary entrance to Illinois Beach State Park. Visitors who are **not** planning to camp on-site are directed along a two-mile loop along Patomos Avenue to the parking lot by way of the convention center, rather than a one-mile trip to the campground check-in station. However, those familiar with the shorter one-mile access route proceed due east to the trail network via the campground entrance.

IDNR stated that Patomos Avenue travels through sensitive wetland and wildlife habitat, and expressed concern over speeding and vehicles occasionally leaving the roadway in this area.

Traffic calming measures or the accommodation of walking and bicycling within the existing roadway footprint (no widening needed) may help to reduce travel speeds and provide an opportunity to improve walking and bicycling accommodations on Patomos Avenue.

Beach Road & Beach Trail

Beach Trail, an extension of Beach Road that is located east of Sheridan Road and approximately 800 feet south of Beach Road, was once the main entrance to Illinois Beach State Park. When the main park entrance was relocated to Wadsworth Road, Beach Trail across the railroad tracks was closed to automobile traffic. Since that time, the Village has completed sidepath improvements along Sheridan Road and Beach Road, and expressed interest in making connections to Illinois Beach State Park. An

access road that begins east of Beach Trail within Illinois Beach State Park east of the railroad tracks intersects Patomos Avenue at a skewed angle. Similar to Wadsworth Road, the presence of wetlands and nature preserve make roadway widening challenging, but this location has been identified by stakeholders as an area of interest for a potential trail connection.

Lyons Woods / Hendee Road
Included as a trail connection as part of Waukegan's proposed bicycle network and part of trail improvements between the Lake County Division of Transportation and Lake County Forest Preserve District, trails connecting Lyons Woods to a larger trail network west of Sheridan Road are ongoing. East of Sheridan Road, a proposed extension of the trail would connect Lyons Woods to Illinois Beach State Park along an alignment running parallel to Hendee Road, approximately halfway between Beach Trail and Greenwood Avenue.

This connection depends on the feasibility of trail connections along the western edge of the Illinois Beach Nature Preserve, potentially along Com Ed right-of-way but outside of preserve boundaries. (Note: Access to the nature preserve south of Dead River is by permit only. Permits may be obtained from the site superintendent.)

Figure 40: Shoreline along the Northern Unit of Adeline Jay Geo-Karis Illinois Beach State ParkImage Source: Photo taken in 2006 by Dave Piasecki. Transferred from en.wikipedia to Commons by Vux using CommonsHelper.

between 29th Street and the Illinois Beach Hotel. There are no trails or infrastructure located within Illinois Beach State Park or the Illinois Beach Nature Preserve south of the Dead River (access is by permit only).
Currently, IDNR and Openlands are working to develop a Water Trails Plan to identify publically accessible canoe launches along the Lakefront between the Wisconsin State Line and Lake Bluff. Potential land trail connections should consider the locations of these canoe launches as potential links between land and water trail networks.

There are no trails or access points in the Illinois Beach Nature Preserve south of the Dead River. Access is via permit only.

Greenwood Avenue
Greenwood Avenue has long been identified as a desirable direct connection to the lakefront as it travels over the railroad tracks and is located north of NRG Waukegan Generating Station. The IDNR has a pending land transfer from IDOT following the completion of the Greenwood/Amstutz Highway improvement project for a parcel of land located north of Greenwood Avenue and east of the railroad tracks. Along Greenwood Avenue east of the railroad tracks, trail connections may be considered as part of redevelopment of the former Johns Manville site.

North-South Connections, Lakefront
North-south trail connections currently exist between North Point Marina and Hosah Park, and again

North-South Travel, Trackside
Located west of the Union Pacific railroad tracks, a trail network connects Carmel Park with Sheridan Road just north of 33rd Street to 17th Street in Zion near Kellogg Creek and Ravine. East of the railroad tracks, stakeholders have expressed interest in developing a north-south trail to connect Waukegan with Withrop Harbor along an uninterrupted alignment within the Com Ed right-of-way.

Transportation Affordability

Improving mobility choice can have a significant impact on household spending on transportation. The Housing and Transportation Affordability Index measures the combined spending on housing and transportation costs at the household level.

Under this methodology, areas are considered "affordable" when the combined spending on these two items does not exceed 45% of household expenses. None of the municipalities in the study area have an index below the 45% threshold, and Lake County overall has an index of 62%, nearly 20% higher than what is defined as affordable.

Figure 41: Traffic on Sheridan Road in Winthrop Harbor at 7th Street.

Housing & Transportation

Winthrop Harbor
27.6%
23.8%
H+T = **51.4%**

Zion
26.5%
21.6%
H+T = **48.1%**

Beach Park
28.5%
22.6%
H+T = **51.1%**

Waukegan
27.2%
20.4%
H+T = **47.6%**

North Chicago
27.3%
19.8%
H+T = **47.1%**

Lake County
39.0%
23.0%
H+T = **62.0%**

Figure 42: Source: Location Affordability Index, U.S. Dept. of Transportation and U.S. Dept. of Housing and Urban Development, 2019.

Mobility

Mobility and accessibility are important considerations for the region's trail network. Trails must be compliant with the Americans with Disabilities Act, which means they must consider the needs of users of all ages and abilities, and provide an infrastructure network that enables physical activity to be incorporated into everyday tasks. To benchmark these needs, data on obesity and disability were reviewed.

Disabled Population

Winthrop Harbor	11.8%
Zion	14.1%
Beach Park	11.9%
Waukegan	9.9%
North Chicago	12.3%
Lake County	8.7%

Figure 43: Source: American Community Survey 2013 - 2019, United States Census; Percentage of total civilian non-institutionalized population

The share of residents within the study area with a disability is between 9.9% and 12.3%, as measured by the United States Census.

The Lake County Health Department prepares Community Health Improvement Plans (CHIP) and a Community Health Assessments (CHA) to showcase a variety of information on the health of Lake County.

The CHA uses quantitative and qualitative methods to collect and examine health status indicators and provide an understanding of health in the community. The CHIP is a long-term, systematic effort to address public health problems in a community. Information gathered in the preparation of these reports has been used to inform this study.

The average obesity rate in Lake County is 24%. Every community in our study area has an obesity rate higher than the county average. Obesity rates county-wide are highest among Hispanic and African American residents. Both groups are 1.6 times more likely to be diagnosed with diabetes and African Americans are three times more likely to die from diseases related to diabetes.

Co-morbidities stemming from obesity include heart disease, diabetes, and cancer. Creating a built environment that encourages physically active transportation is among the recognized countermeasures for ensuring a healthy community.

Figure 44: Stop sign and warning sign on recently installed sidepath along Beach Road at Geraghty Avenue in Beach Park.

Obesity

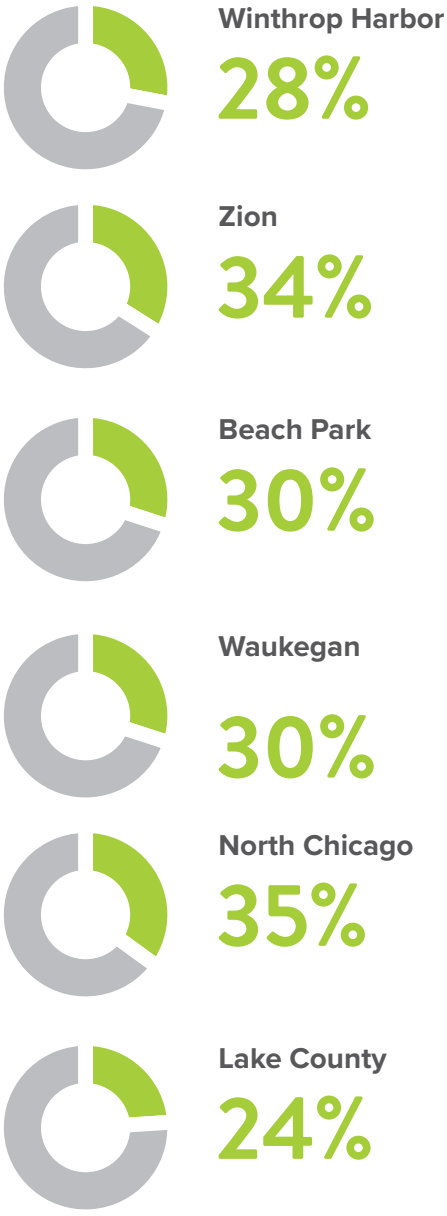


Figure 45: Source: Lake County Health Department, 2019.

Trails must be compliant with the Americans with Disabilities Act, which means they must consider the needs of users of all ages and abilities.

Figure 46: A bicyclist crosses Sheridan Road at 7th Street in Winthrop Harbor.

Figure 47. Existing Conditions Corridor Assessment Summary

Corridor	Mobility	Accessibility	Comfort		Right-of-Way Feasibility
			Pedestrian	Bicyclist	
7th Street	Low	High	High	High	Medium
9th Street	High	Medium	Low	Low	Medium
10th Street	Medium	Medium	Low	Low	Low
14th Street	High	Medium	Medium	Low	Medium
17th Street	High	High	Low	High	High
21st Street	High	High	Low	Low	Medium
24th Street	Medium	Medium	Medium	High	Medium
27th Street	Medium	High	Medium	Medium	Medium
29th Street	High	Medium	Medium	Medium	Medium
33rd Street	High	Medium	Low	Medium	Medium
Argonne Drive	Medium	Medium	Low	Medium	Medium
Beach Road	High	Medium	Low	Medium	Medium
Belvidere Street	High	Medium	Medium	Low	Low
Buckley Road (IL 137)	High	High	Low	Low	Medium
Dugdale Road	Medium	Medium	Medium	Medium	Medium
Elmwood Avenue	Medium	Medium	High	High	Medium
Glen Flora Avenue	Medium	Medium	High	High	Medium
Grand Ave / Mathon Dr	High	Medium	High	Low	Low
Green Bay Road (IL 131)	High	Medium	Low	Low	Low
Greenwood Avenue	High	Medium	High	Low	Medium
Jackson Street	Medium	Medium	High	High	Medium
Kenosha Road	Medium	Low	Low	Low	Medium
Lewis Avenue	High	High	Medium	Low	Medium
McAree Rd / Keller Ave	High	Medium	High	Medium	Medium
Martin Luther King Jr Drive	High	Medium	High	Low	Medium
Ridgeland Avenue	Medium	Medium	High	High	Medium
Sheridan Road (IL 137)	High	Medium	Low	Low	Low
Shiloh Boulevard	High	High	High	High	Medium
Skokie Highway	High	Medium	Low	Low	High
Sunset Avenue / Golf Road	High	Medium	High	Medium	Medium
Wadsworth Road	High	High	Low	Low	High
Washington Street	High	Medium	High	Low	Low
York House Road	High	High	Medium	Low	High

6. KEY FINDINGS

Corridor Assessment

To summarize key findings from data review and analysis of existing transportation infrastructure within the study area, key corridors were assessed using a scoring methodology that reviews the transportation network using four primary assessment criteria: Mobility, Accessibility, Comfort, and (Engineering) Feasibility. Higher scoring corridors generally provide good connections to existing trails and key destinations, while lower scoring corridors may need additional investments to achieve a level of connectivity desired in the region. Corridor assessment by category is shown in **Figure 47**.

	High	Medium	Low
Mobility 	North/south or east/west connectivity is available across an entire community or between two or more communities with no interruption	North/south or east/west connectivity across an entire community or between two or more communities is available, with some interruption	Limited north/south or east/west connectivity across an entire community or between two or more communities is available
Accessibility 	Clear and direct access to both major trails, Illinois State Beach Park, and other destinations	Clear and direct access to one major trails, Illinois Beach State Park, and other destinations	Clear and direct access to one major trail, Illinois Beach State Park, or other destinations
Comfort 	A continuous facility for pedestrians and bicyclists that is context sensitive (e.g. comfortable given area roadway speeds and land use, driveways, intersections, etc.)	A facility for pedestrians and bicyclists that is either discontinuous or not context sensitive along certain segments	No facility for pedestrians and bicyclists
Feasibility 	Connected right-of-way is available, either on-street or off-street, allowing for the addition of appropriate pedestrian and/or bicycle facilities	Some right-of-way available to add pedestrian or bicycle facilities. Some land acquisition or roadway geometry modifications needed	Right-of-way acquisition or roadway geometry modifications needed to provide a context appropriate pedestrian and/or bicycle facility

Key Findings

Through discussions between the study team, municipalities, and stakeholders, several themes were identified that reflected the issues and challenges that exist with respect to walking, access to transit, and bicycling within the study area. These themes are grouped into the following key findings.

Key Finding #1 A Preliminary Walking/Biking Encouragement Framework Exists

GO Lake County
This regional walking initiative promotes healthy and active living through programing and events within Lake County communities. Each of the five municipalities involved in this project are participating in the GO initiative, although at varying levels. Expanded collaboration with this established program can help individual communities activate their walking and bike trails and networks. The initiative could benefit from greater collaboration between communities and park districts leading the programs to share learnings, ideas, and develop a strategic approach to community engagement.

Safe Routes to Schools
None of the School Districts within this region have a formal Safe Routes to Schools program, although Waukegan Public Schools does offer bike safety classes. Stakeholders noted that one barrier to biking within their communities was a real and perceived lack of safety.

Bike training programs for both children and parents could encourage the use of bicycles and promote road safety to reduce the incidents of bicycle related injuries and fatalities and provide a space for sharing community resources and fostering community education. A formalized Safe Routes to Schools program could introduce additional funding opportunities for infrastructure improvements, as well as biking and walking education.

Tourism
Numerous bike rides, mountain bike races, and other events are hosted in the region throughout the year. If accompanied by improved and connected bicycle and trail infrastructure, tourism generated from these outdoor recreational opportunities has the potential to positively impact local economies and turn the area into a regional destination for outdoor adventure. Creating a unique experience through nature preserves with vistas of Lake Michigan would attract usage.

Culture Shift
Many community members see walking and biking as a recreational activity rather than an option for transportation within and around their community. Through programming, education, outreach, and relationship building, a culture shift is needed to help more residents realize the importance of active living and the impacts it can have beyond health.

Figure 48: Crosswalks and streetscape on 7th Street at Sheridan Road in Winthrop Harbor.

Key Finding #2 Popular Destinations and Events are Opportunities for Growth

Finding the Lakefront
Stakeholders mentioned that a lack of signage and wayfinding makes it difficult to "locate" the Lakefront, especially when walking or biking. No matter where one enters Illinois Beach State Park or which mode of transportation is used, every visitor must travel one mile or more to reach the shore. In communities throughout the study area, additional signage is needed at Metra Stations that indicates the distance to the lakefront by bike and by foot. In North Chicago, accessing Foss Park by bike or foot is particularly difficult, given that the area is surrounded by largely industrial uses as well as the Naval Station and an FBI shooting range.

Marina Access
The North Point Marina has 1,500 boat slips and is the largest marina on Lake Michigan. As a result, it has a very big regional draw and pulls in visitors and members from Joliet to Wisconsin. Located just over half a mile from the Winthrop Harbor Metra Station, many members and visitors use the Metra to access the Marina. Only a single road connects the station with the Marina and does not have sidewalks. Waukegan Harbor and Marina is a full service public marina with promenade, park, nearby public beach and boat slips. It hosts people from Joliet to Wisconsin. Many Visitors use Metra to access the Marina, located only 1/4 mile away. A single road connects the station with the Marina and does not have sidewalks or bike lanes.

Marketing Efforts & Events
Opportunities exist for different partners to work more closely with Lake County to better market destinations (such as Illinois Beach State Park) and events (such as the Venetian Light Festival, which draws 10,000 people to the lakefront every August). Each individual community and other entities offer a multitude of lakefront and activity-related events and programs, but promotional efforts can be better coordinated on a more regional scale to attract people to this area, its trails, the lakefront, and local businesses.

Community Engagement
The community as a whole may be largely unaware of local amenities and events taking place on the Lakefront. In order to encourage more local participation and reach the full community, the networks and existing relationships of community-based organizations and community leaders should be utilized. These groups and individuals can act as a trusted bridge to connect residents, especially those most in need, to regional opportunities through messaging and activities in their local neighborhoods and locations where they feel most comfortable.

Figure 49: Aerial image of North Point Marina and Winthrop Harbor Metra Station. Source: Google.

Key Finding #3 Improved Strategic Connections can Greatly Increase Regional Potential

North, South, East & West Connectivity
Study area municipalities are most interested in creating a continuous nort-south trail network that links natural assets and amenities along the lakefront, connects the study area from Wisconsin and southern Lake County. Secondly, east-west pedestrian and bike connections within the study area exist and have been recently enhanced (such as the Lyons Woods Forest Preserve Trail Extension), which will involve addressing the following issues:

Physical Barriers: High speed highways and arterial streets, lack of signalized intersections, fragmented street networks and rail lines all contribute to isolating destinations and otherwise connected routes.

Sheridan Road: This major north-south arterial needs sidewalks, lighting, signalized pedestrian crosswalks to allow for east-west connections, as well as other safety improvements in various points throughout the study area.

"I have been excited about an interconnected trail network for some time, and believe it is key to our economic development." -Pat DiPersio, Community Development Director, Winthrop Harbor

Metra: Residents of and visitors to the area ride the train to the area for both work and recreational purposes. Improved bicycle and pedestrian infrastructure between stations, employment and community centers, and destinations along the lakefront (such as the Marina) will help increase walking and bicycling.

Perceived Barriers: Some stakeholders noted that residents from the western portion of the study area do not visit the lakefront. Lack of bike and pedestrian infrastructure, limited wayfinding and signage, and cultural and socioeconomic factors all come into play as reasons for this disparity.

Neighborhood-School Connections
In communities such as Zion, there are no sidewalks along neighborhood streets or in front of schools. Due to state requirements, busing is not provided to residents who live within 1.5 miles of their school. As a result, a significant proportion of children are biking or walking to school without adequate infrastructure or are driven. Small-scale connections through parks and playgrounds, linking existing trail amenities (such as the Robert McClory Bike Path), neighborhoods, and schools could be a cost-effective way to enhance connections.

Improved Trails
Stakeholders, especially Park District representatives, said trail improvements and connectivity were major priorities for their communities. However, many stated that limited financial resources exist to expand trail amenities. There are planned trails in the works, but a need also exists to close minor trail gaps. Some paths within the planning area also lack essential trail amenities, including bike racks, trash receptacles, benches, drinking fountains. With the current high water levels, many of the trails that run along Lake Michigan have experienced erosion and require additional maintenance.

Competing Priorities
Many of the communities in the study area face financial challenges and have transportation and other priorities and needs that compete for investment. It may be challenging for communities to implement a Complete Streets policy due to these competing priorities as well as a lack of local resources and budget deficits. It will be helpful to make sure policies contain clear, prioritized action steps to guide implementation. Insights should also be gathered from stakeholders on how to make the policies more actionable.

Key Finding #4 Transportation Agencies are Key Partners Operating with Constrained Resources

Embrace Multimodalism
IDOT and LCDOT both reiterated that they are Departments of Transportation, not just highways. Nonmotorized improvements have recently become a larger more consistant part of the discussions over transportation and transporation investments. For state highways, bicycle or pedestrian improvements typically are most feasible when there is available right-of-way, and the corridor is programmed for a major improvement. Smaller projects like resurfacing or signal maintenance are not typically good candidates for adding new connections.

Funding is Available but Limited
The most recent capital bill dedicated $50million in funding for bike/ped improvements that will be managed through the Illinois Transportation Enhancement Program (ITEP), which is administered through IDOT'S Bureau of Programming in the Office of Planning and Programming.

Despite this and other funding sources, no agency has enough funding to implement every desired project. Local leadership and financial contributions are key to advancing local priorities.

Metra has the ability to channel operating funds to municipalities for station improvements. As funding is limited, these projects rarely exceed $400,000 for improvements to station houses, bike parking, or other station-specific improvements. Generally, municipalities are responsible for their own parking lots at Metra stations, relying on parking revenue as the primary funding source for parking lot maintenance.

Interagency Coordination is the Norm
Particularly among Lake County projects, LCDOT indicates that it is rare when a roadway improvement project does ***not*** involve the Forest Preserve. Advancing local priorities is most successful when municipal partners initiate discussions to achieve consensus in identifying project priorities.

Awareness Needed to Improve Access to Transit
When it comes to improving access to transit, municipalities can achieve a lot through an incremental approach. Pace has the ability to pay for very short sidewalk connections, but requires a local municipal agency as a pass-through for funding. Pace does not have program management personnel to directly hire contractors to construct sidewalks.

Pace and Metra both have community representatives who work exclusively with Lake County municipalities, and serve as liaisons with direct contact to transit agency program development teams. They meet periodically, and will do targeted involvement when there is a project. These representatives also provide helpful ridership reports, operations, and performance data.

Figure 50: Robert McClory Bike Path at York House Road in Beach Park.

Key Finding #5 Tourism Access and Growth is Constrained by Several Factors beyond Municipal Jurisdiction

Nature Preserves Limit Accessibility
By their very design, nature preserves are intended to preserve natural habitat by keeping humans out of key areas. IDNR is open to improving existing trails, but remains vigilant in not exposing sensitive areas to potential damage caused by visitors who travel beyond permitted areas. Large areas of Illinois Beach State Park contain high quality wetlands, natural habitat, and preserve areas through which travel is limited. Improving and enhancing trail networks in coordination with IDNR is key to increasing connectivity within the study area.

Metra Ridership
Metra service and ridership within the study area is robust as far north as Waukegan, but Metra riders experience lower levels of service north of Waukegan due to constraints on train storage capacity. The southern half of the study area has sufficient train capacity due, in large part, to freight service still in operation as far north of Waukegan. Service expansion is challenging without additional storage capacity. Providing connections in the form of trails, paths or transit other than Metra would aid in closing the public transportation gap between Withrop Harbor and the Waukegan Metra Station.

Wayfinding
Pace, Metra, and the Regional Transportation Authority (RTA) have an interagency sign manual that includes transfer and wayfinding signage standards. Extending wayfinding beyond the immediate station area will require local funds and additional coordination. However, Metra does have the ability to add trailblazing signs to stations and at decision points.

Transit Tourism Marketing
Metra features key tourism destinations that are accessible via Metra trains. Coordination between local municipal partners and Metra's community liaison is a good way to feature local events to a larger region.

Figure 51: Top: Metra Trailblazing Sign. Source: Metra. Bottom: Waukegan Harbor.

7. ENGAGEMENT TO DATE

Community involvement and engagement is critical to a successful plan. The project team has employed a variety of methods for reaching out to the community and provided multiple resources to help municipalities and partner organizations provide information to the communities they serve.

Project Brand
A project brand and template was created at the start of the project to serve as an anchor for all plan materials and which is intended to remain in use with study area communities and organizations during plan implementation. Branding materials included a logo, color palate and typography, which will be included on all of the project materials to create a cohesive project that the municipalities and members of their communities can relate to and recognize.

Key workshop and media materials were created in English and Spanish to maximize engagement reach throughout the planning process

Project Information Page & Social Media Engagement
A project information sheet has been created that includes information on the branding, an overview of the project, project goals, a map of the study area and a link to the website. In addtition, a handout was created to be distributed via email blasts, municipalities and partner organizations. A version of the project information sheet was also provided in Spanish.

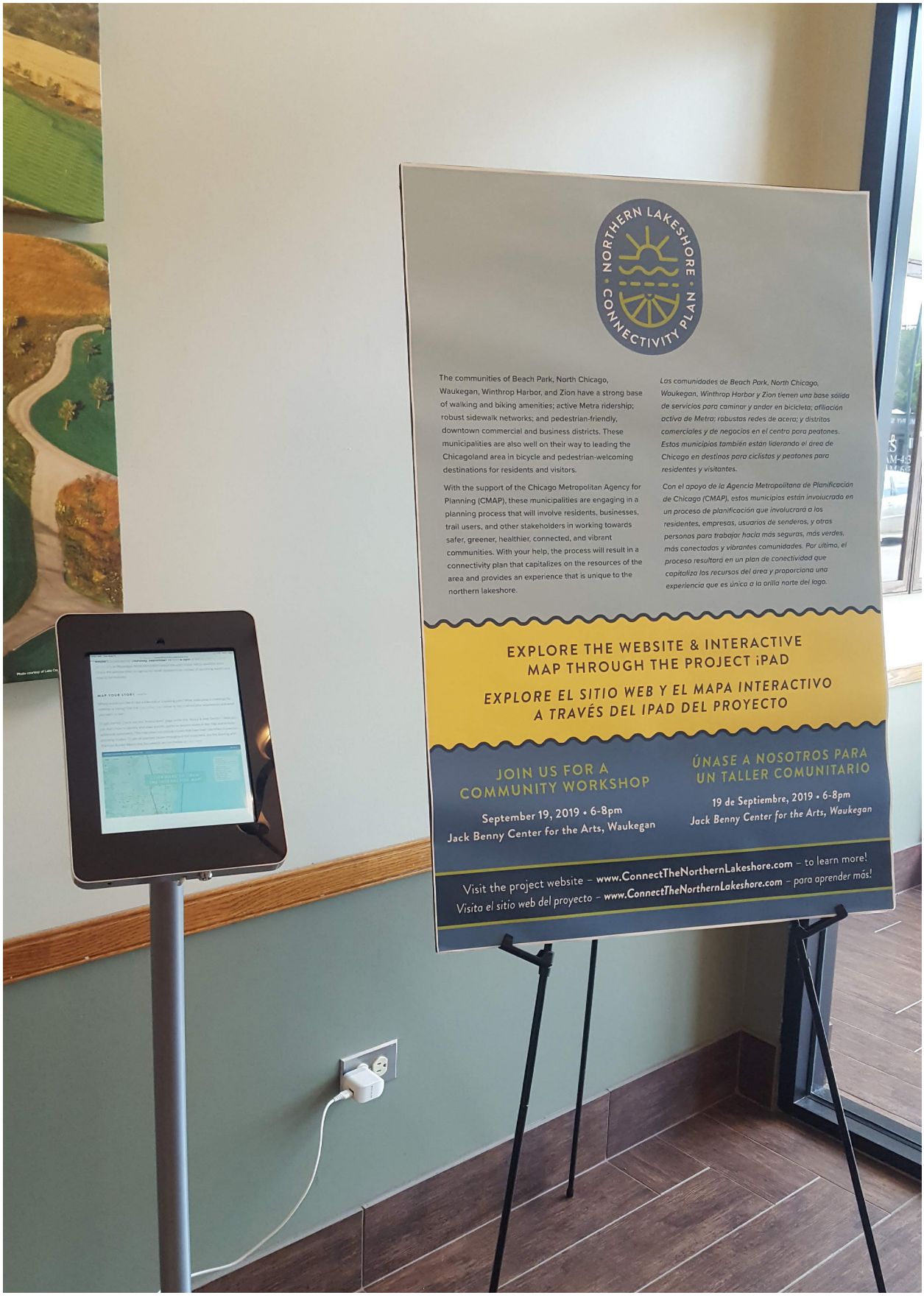
The project team created a series of social media posts for CMAP and their partner organizations to use and distribute through their own social media channels throughout the duration of the project. The project team understands the importance of getting the community and community leader's ideas and thoughts on the project in order for the plan to truly benefit the communities, who must ultimately take ownership of the plan, as well as responsibility for implementing the plan recommendations.

Project Website
A project website was created to serve as a single point of entry for all the material on the project, including project team contact information, project updates and documents, an online survey to give citizens the chance to provide feedback, with an interactive web map inviting users to share thoughts in relation to specific locations.

Steering Committee
A project steering committee was convened to represent the diversity of the five partner communities and project stakeholders and to provide key insights, information, and background throughout the planning process. The steering committee includes transportation and transit agency representatives, public health professionals, and local business representatives.

Stakeholder Interviews
In addition to the steering committee the project team has put together a list of stakeholders, with whom the project team will conduct interviews, to gain insight on the project.

Mobile Feedback Opportunities
Currently, there is an interactive iPad kiosk traveling through each of the partner municipalities, spending about two weeks in each location. The iPad includes all the project information, interactive maps and a survey. The survey asks community members to give suggestions and provide opinions about the project, project goals, and bicycling and walking in the study area.


NORTHERN LAKESHORE CONNECTIVITY PLAN
The communities of Beach Park, North Chicago, Waukegan, Winthrop Harbor, and Zion have a strong base of walking and biking amenities; active Metra ridership; robust sidewalk networks; and pedestrian-friendly, downtown commercial and business districts. These municipalities are also well on their way to leading the Chicagoland area in bicycle and pedestrian-welcoming destinations for residents and visitors.
With the support of the Chicago Metropolitan Agency for Planning (CMAP), these municipalities are engaging in a planning process that will involve residents, businesses, trail users, and other stakeholders in working towards safer, greener, healthier, connected, and vibrant communities. With your help, the process will result in a connectivity plan that capitalizes on the resources of the area and provides an experience that is unique to the northern lakeshore.
Las comunidades de Beach Park, North Chicago, Waukegan, Winthrop Harbor y Zion tienen una base sólida de servicios para caminar y andar en bicicleta; afiliación activa de Metra; robustas redes de acera; y distritos comerciales y de negocios en el centro para peatones. Estos municipios también están liderando el área de Chicago en destinos para ciclistas y peatones para residentes y visitantes.
Con el apoyo de la Agencia Metropolitana de Planificación de Chicago (CMAP), estos municipios están involucrado en un proceso de planificación que involucrará a los residentes, empresas, usuarios de senderos, y otras personas para trabajar hacia más seguras, más verdes, más conectadas y vibrantes comunidades. Por último, el proceso resultará en un plan de conectividad que capitaliza los recursos del área y proporciona una experiencia que es única a la orilla norte del lago.
EXPLORE THE WEBSITE & INTERACTIVE MAP THROUGH THE PROJECT iPAD
EXPLORE EL SITIO WEB Y EL MAPA INTERACTIVO A TRAVÉS DEL IPAD DEL PROYECTO
JOIN US FOR A COMMUNITY WORKSHOP
September 19, 2019 • 6-8pm
Jack Benny Center for the Arts, Waukegan
ÚNASE A NOSOTROS PARA UN TALLER COMUNITARIO
19 de Septiembre, 2019 • 6-8pm
Jack Benny Center for the Arts, Waukegan
Visit the project website – www.ConnectTheNorthernLakeshore.com – to learn more!
Visita el sitio web del proyecto – www.ConnectTheNorthernLakeshore.com – para aprender más!

NORTHERN LAKESHORE

TRAIL CONNECTIVITY PLAN

KEY RECOMMENDATIONS MEMORANDUM

JANUARY 2020

Introduction

The Northern Lakeshore Trail Connectivity Plan seeks to improve walking and bicycling infrastructure between and among Winthrop Harbor, Zion, Beach Park, Waukegan, and North Chicago, helping to connect trail networks to Lake Michigan and Illinois Beach State Park. The Existing Conditions Report, stakeholder engagement, and participation by the steering committee helped to create consensus around gaps, barriers, and potential opportunities. Efforts are ongoing to advise, identify, and support plan development. This memorandum outlines the key themes and recommendations, is structured to facilitate discussion with the steering committee, and serves as an inventory of all potential recommendations to be included in the draft plan. The project purpose, vision and goals can be found in the Existing Conditions Report found on the project website.

Summary of Key Findings

The Existing Conditions Report analyzed relevant factors that impact the study area's walking and bicycling network, culture, and constraints. Informed by the core team, steering committee, stakeholders and community, this input serves as the foundation for recommendations in the Northern Lakeshore Connectivity Plan. The key findings presented in the Existing Conditions Report and summarized below serve as summary statements based on an examination of evidence for possible trail and path alignments, agency coordination, and other factors that impact feasibility.

1. A Preliminary Walking and Biking Framework Exists

- Expanding on the existing Go Lake County programs and creating a partnership between Go Lake County and the municipality park districts and communities would expand the opportunities for all residents.
- The school districts could also initiate Safe Routes to School programs to educate children and adults on the available resources and diminish the real and perceived safety barriers preventing members of the communities from walking and biking.
- Popular events can be better connected to main multimodal thoroughfares and the unique natural resources in the area. This can boost tourism and encourage alternative modes of transportation.

2. Popular Destinations and Events are Opportunities for Growth

- Lack of infrastructure, wayfinding and information makes it difficult for people to take advantage of key destinations, such as Illinois Beach State Park, North Point Marina, Waukegan Harbor and Marina, Metra Stations, etc.
- Opportunities exist for municipal partners to work more closely with Lake County, and for municipalities in the study area to work with each other to better promote destinations and events.

3. Improved Strategic Connections Increase Regional Potential

- The study area municipalities are most interested in creating a continuous north-south trail network that links natural assets and amenities along the lakefront and connects the study area from Wisconsin to southern Lake County.
- Improving and enhancing east-west connections will provide better access from communities to the lakefront, key destinations and to main bike/pedestrian thoroughfares.
- All connections will have to overcome obstacles such as highways and arterial street barriers, lack of lighting, minimal signalized crosswalks and sidewalks, low connectivity between Metra Stations and perceived barriers such as lack of wayfinding and socioeconomically and cultural factors.

4. Transportation Agencies are Key Partners, But Operate Under Constrained Resources

- Municipalities can work with transportation agencies (Illinois Department of Transportation, Lake County Division of Transportation) to help plan, facilitate and fund improvements.
- Improvements may have to be incremental to get the appropriate funding.

- All of these methods for obtaining funding or help from statewide agencies have one thing in common: local leadership, stakeholder support, and financial contributions are key to advancing local priorities.

5. Tourism Growth is Constrained by Factors Beyond Jurisdiction

- Improving and enhancing trails within Illinois Beach State Park in coordination with the IDNR is key to increasing connectivity in the study area.
- Trails, paths and other forms of transit can help bridge this gap between Metra stations for the northern half of the study area.
- Extending wayfinding signage beyond the immediate station area for Pace and Metra stations is important to connect popular destinations and natural resources.

Key Recommendations

1. Connect Walking and Bicycling Paths Directly into Illinois Beach State Park.

Bicyclists and pedestrians have to travel at least a mile from the entrance to Illinois Beach State Park to the shore. Providing walking and bicycling infrastructure, and improving rail crossings and signage will increase connectivity, comfort, and accessibility between the municipalities and the beach. Municipalities should partner with the Illinois Department of Natural Resources and area tourism-related groups to seek funding and increase capital improvement opportunities to and within Illinois Beach State Park. **Table 1** identifies key corridors recommended to connect Sheridan Road (IL 137) to the shore of Lake Michigan. **Table 2** identifies other key lakefront connections to close gaps or create new corridors to the lakefront, including the opening of a new, potentially non-motorized access point to Illinois Beach State Park at Beach Road.

Table 1. Key East-West Corridors to Connect Sheridan Road to Lake Michigan

Corridor (From Sheridan Road to Lake Michigan)	Mobility	Accessibility	Comfort		Right-of-Way Feasibility
			Pedestrian	Bicyclist	
7th Street	Low	High	High	High	Medium
9th Street	High	Medium	Low	Low	Medium
14th Street	High	High	High	Medium	Medium
17th Street / Foss Park Avenue	High	High	Low	High	High
27th Street	Medium	High	Medium	Medium	Medium
29th Street	High	Medium	Medium	Medium	Medium
Argonne Drive	High	High	High	High	High
Beach Road	High	Medium	Low	Medium	Medium
Belvidere Street	High	Medium	Medium	Low	Low
Buckley Road (IL 137)	High	High	Low	Low	Medium
Russell Road	Low	Low	Low	Low	Low

Corridor (From Sheridan Road to Lake Michigan)	Mobility	Accessibility	Comfort		Right-of-Way Feasibility
			Pedestrian	Bicyclist	
Shiloh Boulevard	High	High	High	High	Medium
Through Foss Park	High	Medium	High	High	High
Wadsworth Road	High	High	Low	Low	High
Washington Street	High	Medium	High	Low	Low
ComEd Right-of-Way	High	High	N/A	N/A	High

Table 2. Other Key Lakefront Connections

Corridor	Mobility	Accessibility	Comfort		Right-of-Way Feasibility
			Pedestrian	Bicyclist	
7th Street from Village Park to North Point Marina	Low	High	High	High	Medium
Mathon Drive and Seahorse Drive to Waukegan Municipal Beach (planned for 2020)	Low	Medium	Low	Low	Medium
Beach Road to Beach Trail and Patomos Avenue*	Low	Low	Low	Low	Low
South Avenue from Waukegan Ravine to Market Street	Low	Low	Medium	Medium	High
*New Access Point					

2. Create Continuous, Multimodal Paths Across the Entire Study Area

Continuous multimodal paths are recommended along critical north-south, as well as east-west corridors to each end of the study area. If these routes can be improved for bicycle and pedestrian facilities they will create highly connected networks within municipalities, between municipalities and to important destinations. Creating exclusive nonmotorized facilities will help to improve safety along these corridors. It also will provide logical termini and improve mobility, comfort, and accessibility as reviewed in the Existing Conditions Report. **Table 3** shows proposed continuous multimodal connections and current multimodal evaluation results.

Recommendations to Improve Multimodal Connectivity:

- **Increase Pedestrian Comfort.** Recommendations for corridors with low/medium pedestrian comfort may include providing sidewalk links between disconnected paths, increased signage, and added barriers between vehicular traffic and pedestrian routes.
- **Increase Bicyclist Comfort.** Recommendations for corridors with low/medium bicyclist comfort may include proposed bike lanes in the right-of-way or on-street facilities with striping improvements or physical barriers to separate bicyclists from vehicles.
- **Improve Accessibility.** Recommendations for corridors with low/medium accessibility will focus on improving facilities that connect to regional trails or key destinations. This may include sidewalk improvements and improvements to cyclist facilities.
- **Overcome Feasibility Constraints.** Recommendations for corridors with low/medium right-of-way feasibility will suggest right-of-way acquisitions, easements, and traffic studies to provide information if a road diet is feasible.

Table 3. Proposed Continuous Multimodal Path Connections

Corridor	Mobility	Accessibility	Comfort		Right-of-Way Feasibility
			Pedestrian	Bicyclist	
Amstutz Expressway	High	Low	Low	Low	Medium
Wadsworth Road	High	Low	Low	Low	Low
Belvidere Road	High	Low	Low	Low	Medium
Grand Avenue	High	Low	Low	Low	Medium
Washington Street	High	Low	Low	Low	Medium
ComEd Right-of-Way	High	High	N/A	N/A	High
17th Street	High	High	Low	High	High
Shiloh Boulevard	High	High	High	High	Medium
29th Street	High	Medium	Medium	Medium	Medium
Sheridan Road	High	Medium	Low	Low	Low
Rail Line (Abbot/ Abbvie Corporate Campus	Medium	High	N/A	N/A	Medium
Patriot Path from Independence Grove to Robert McClory	High	High	High	High	Medium

3. Build Out Walking, Bicycling, and Wayfinding Infrastructure at Mobility Improvement Areas (MIA)

A Mobility Improvement Area (MIA) is defined as all potential pathways within a ¼ mile radius of a key destination. These include Metra Stations, high ridership bus stops, and other locations through communications with the community and community leaders. A photograph showing potential MIA and stakeholder input collected at the public meeting is shown in **Figure 1.**

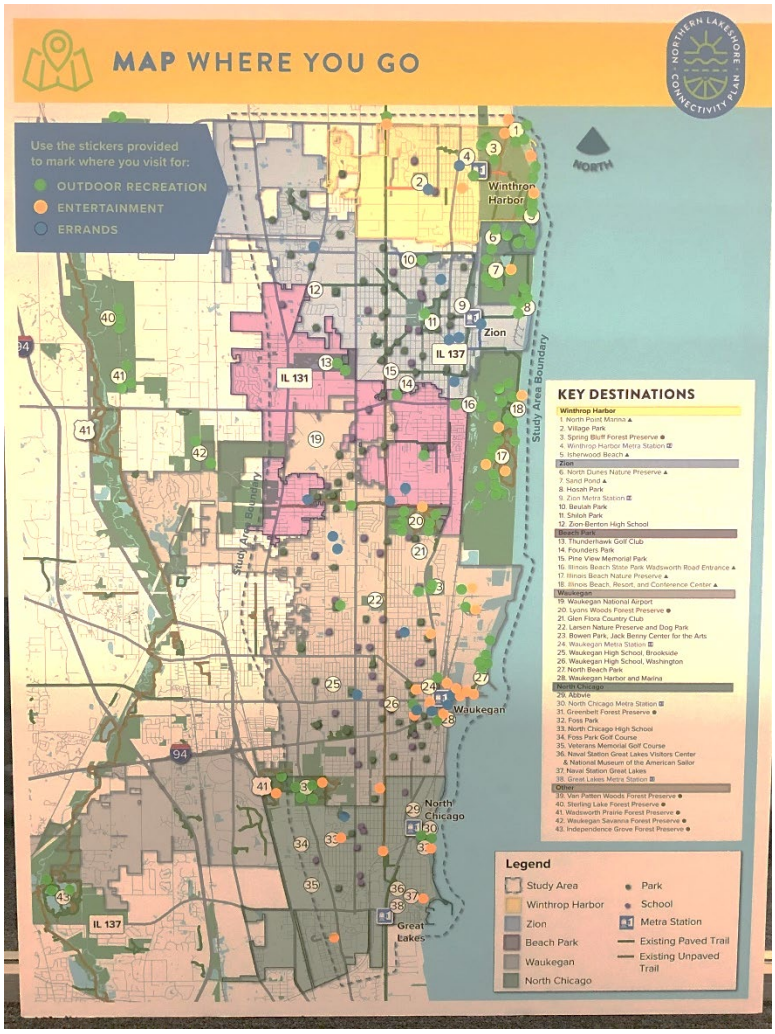


Figure 1: Map exercise from Public Meeting "Map Where You Go"

There are four general improvements that can be made within the study area an MIA:

1. **Build Sidewalks, Add Bike Lanes or Delineate Shoulders.** Completing sidewalk sections within ¼ mile radius of key destinations will improve walkability and accessibility. Where space is available, narrow roadways and add bike lanes. If shared spaces are more desired, mark shoulders to be used by people walking and bicycling without widening existing roadways.

2. **Install Pedestrian and Bicycle Wayfinding.** Improving signage to key destinations will reduce perceived gaps in transportation and encourage members of the community to not only visit these destinations but to come by foot or bike. Metra trailblazer signs will be included in the recommendations and strategic locations of these signs will be crucial to connecting people to the Metra and bridging the gap between Metra stations.

3. **Construct / Improve Signalized Intersections.** Providing signalized intersections at ¼ mile spacing helps mitigate or eliminate conflicts between people walking with people driving, and improves safety for pedestrians in the presence of vehicular traffic. Adjusting signal timing and providing pedestrian push buttons can improve crossing conditions and has the potential to prioritize pedestrian movements at intersections.

4. **Install Bus Pads and Shelters.** All Pace bus stops and terminals within the study area should be made accessible. High ridership bus stops and terminals should be upgraded to include shelters, real-time arrival information, and other amenities such as seating, bike parking, and other infrastructure to improve transit access and quality.

Proposed MIA are listed below:

- Metra Stations
- Pace Bus Stations
- Locations where Go Lake County Meets
- North Point Marina
- Spring Bluff Forest Preserve
- Isherwood Beach
- North Dune Nature Preserve
- Sand Pond
- Hosah Park
- Shiloh Park
- Harbor Front District
- Lyons Wood Forest Preserve
- Greenbelt Forrest Preserve
- Foss Park
- North Beach Park

Metra stations will be a key area of focus for the recommendations because of the presence of crashes near stations, levels of traffic stress, and stakeholder input citing safety concerns when walking or bicycling near Metra stations. Public workshop attendees were asked to identify where they felt unsafe walking and biking. Responses are shown in **Figure 2.**

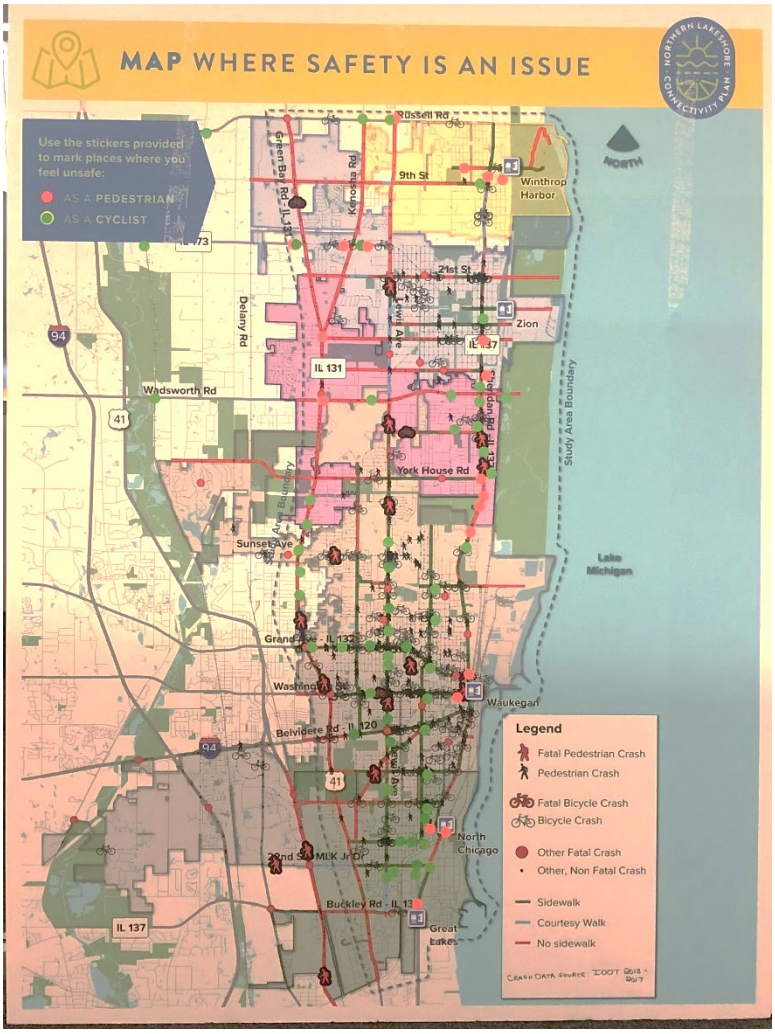


Figure 2: Map exercise "Map Where Safety Is An Issue"

4. Implement Year-Round Trail-Focused Programming

Stakeholders identified strong support for programming in all four seasons and an interest in inter-agency marketing. Stakeholders expressed enthusiasm for being outdoors and experiencing the exceptional natural resources located in their communities. The strong support shown during engagement activities highlights an appreciation for a sense of place where people live, and a willingness to engage in community activities. **Figure 3** shows the public responses on existing and proposed programs in all four seasons.

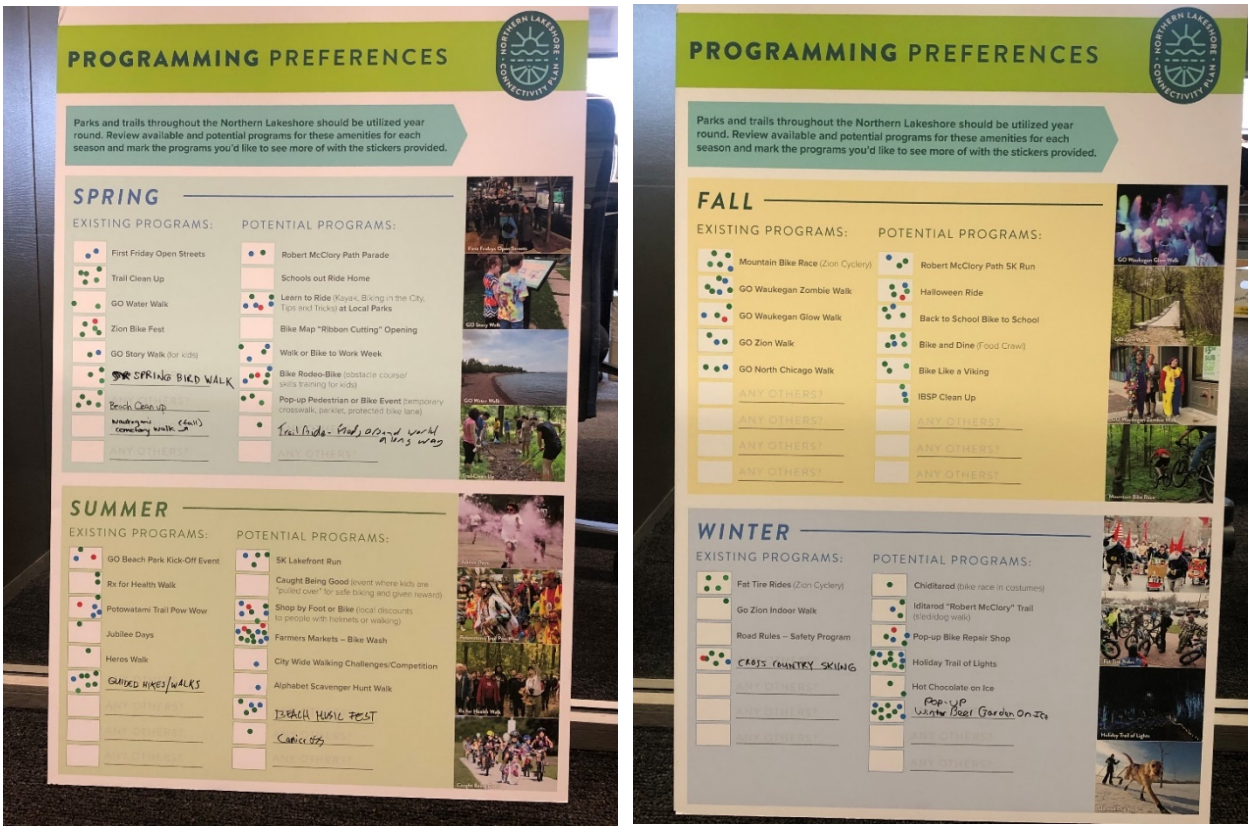


Figure 2: Programming Preferences Activity

In addition to providing feedback on the programmed events already in place and those suggested by the project team, community members shared their thoughts on new ideas for events. For example, people expressed interest for beach cleanup events currently held at Illinois Beach State Park, bird appreciation walks in the spring, guided hikes and beach music festivals in the summer, cemetery walks in the fall, and cross country skiing and beer gardens on ice in the winter. There are many great ideas for programs year-round that are supported by the community.

A key recommendation for programming activities includes the establishment of a regional calendar that cross-references events throughout the Northern Lakeshore region. It is recommended that quarterly coordination occur among agencies that maintain event calendars for events in the area such as Lake County Visitors Bureau, Metra, and Lake County Health Department. One or more agencies should compile this information to improve communication between municipalities and regional agencies, which will provide cross-promotional and advertising opportunities. A summary of recommended programs is shown in **Table 4.**

Table 4. Program Recommendations

Legend			
	New Program		**Continue or Expand Program**

Season	Event	Description
Spring	Bike Rodeo	obstacle courses for biking and a skills training seminar
	Learn to Ride	occur in a local park and would be centered on instruction for how to kayak, tips and tricks to riding your bike in the city, ice skating tricks, etc.
	Beach Cleanup	Encourage community members to take care of their beaches and become stewards to the environment by cleaning up trash from the shoreline or helping to implement erosion control measures.
	Trail Cleanup	Clean trash and debris from trails. In the future these events could be used to install erosion control measures along the trail to keep them in use.
	Zion Bike Fest	There are several themed events that Zion Cyclery puts on, focusing on mountain biking, food tours, sunset beach cruises, and much more.
Summer	Farmer Market Bike Wash	Stand at local farmers markets where you could wash your bike. This would encourage people to bike to the farmers market and promote a life style where biking is a means of transportation and not just a hobby.
	First Fridays Open Streets	Local businesses would come together to provide discounts on a night or week where everyone who is shopping by bike or foot would receive a discount.
	Guided Hikes/Walks	Go Lake County hosts a series of guided walking events in municipalities with Go Programs. There is interest to expand this program and have guided/themed walking tours and hikes.
	Beach Music Festival	People gather at the beach and listen to music.
	Potowatomi Trail Pow Wow	Celebrates summer and native American heritage in Shiloh Park.
Fall	Halloween Ride	People come dressed in costume and ride a trail of choice.
	Bike and Dine Food Crawl	Involves biking around to get to know a municipality's gastronomic scene. This event could be a great way to showcase locations and restaurants communities are most proud of
	Zion Cyclery Fat Tire Rides	Mountain bike races in different terrains surrounding Zion with beautiful scenery and topography.
Winter	Holiday Trail of Lights	Involves Christmas lights along a trail or street and outdoor appreciation while biking or walking through the lights.
	Pop-Up Beer Garden on Ice	An adult event that occurs on the frozen lake. The program could be expanded to include activities for children.
	Cross Country Skiing	Scheduled group cross country skiing.
	Pop-Up Bike Repair Shop	Involves partnering with a business in the community and setting up a bike repair shop at their location.

5. Develop Regional Wayfinding Network and Brand

The purpose of the wayfinding recommendations will be to enhance citizen awareness of trail connectivity through a unified wayfinding system.

Conversations with community members and stakeholders have made clear the need for wayfinding signage—both to direct pedestrians and cyclists to the safest and most comfortable routes, and to alert drivers that they are on a designated bike route. A holistic signage system throughout the region could leverage the project brand as a driver for regional tourism and economic development. As part of the final plan, a wayfinding framework will be developed that identifies key locations for signage in the study area. This includes the area surrounding Metra Stations and key bus stops, and decision points for cyclist and pedestrians on existing trails to access the lake. These locations will be informed by conversations with local communities, as well as through resident feedback received at the community open house and via the interactive online map.

The framework will be organized by sign type, as supported by the Regional Transportation Authority (RTA) Interagency Sign Design Manual. The final framework will highlight priority locations, conceptual designs for various sign types, and preliminary cost estimates to implement.

6. Continue and Expand Interagency Coordination

As part of key recommendations development, this plan recommends interagency coordination in the immediate term to seek potential scope additions to projects currently in development. The IDOT FY 2020-2025 Rebuild Illinois Highway Improvement Program, the Lake County 2024 Proposed Highway Improvement Program, and multiyear programs led by the municipalities are summarized in **Figure 4** and **Table 5**.

When roadway resurfacing or reconstruction is programmed, ADA accessibility improvements are considered. As such, these are opportunities for local agencies (municipalities) to propose scope additions and pay for the marginal cost of these additions. Through collaboration, these present an opportunity to add walking and bicycling infrastructure along transportation corridors, regardless of agency of jurisdiction.

Figure 3: Multi-year Program Map (IDOT 2020-2025, LCDOT 2020-2024)

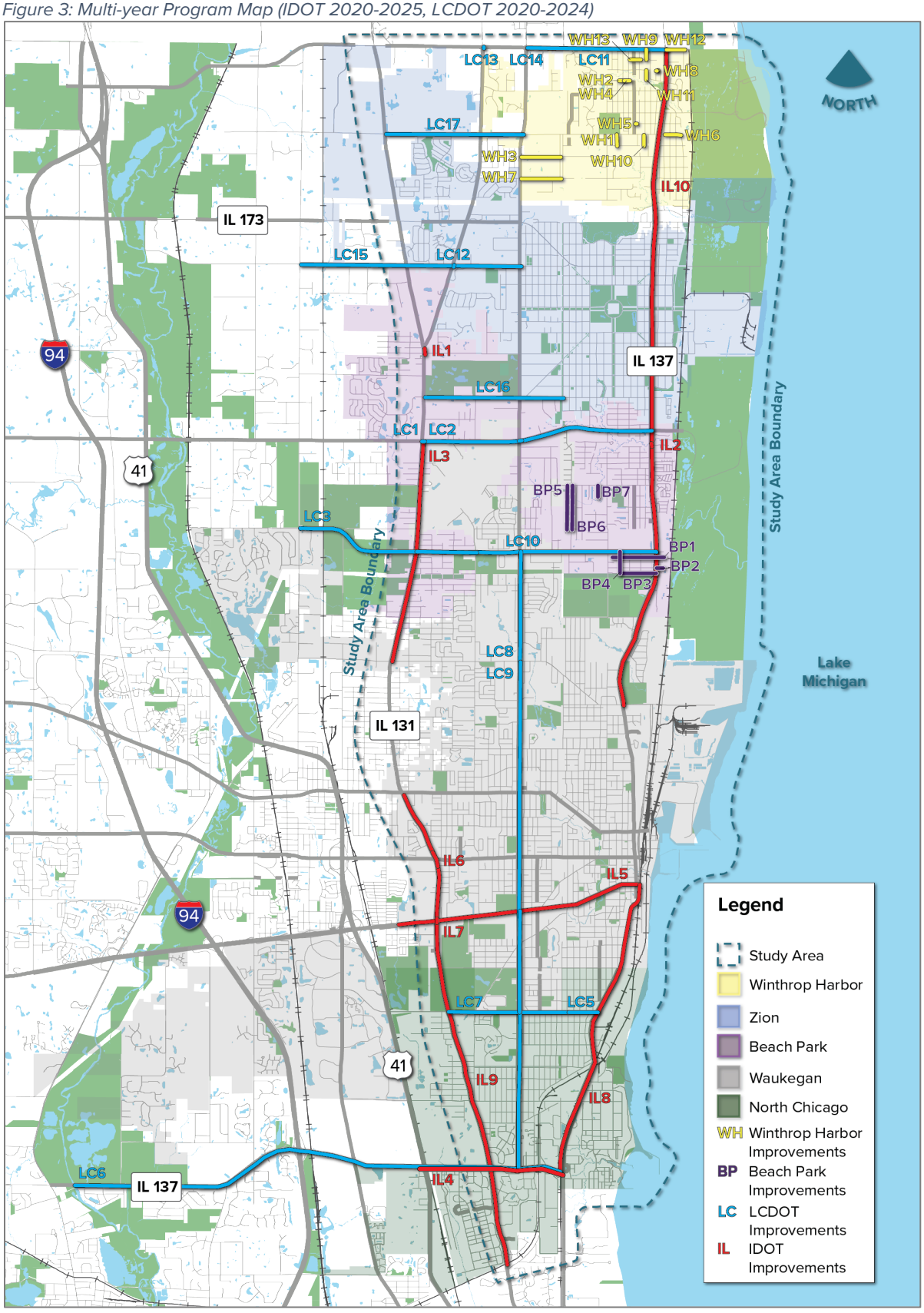


Table 5: Multi-year Program Table

Agency (Year)	No.	Limits	Type of Improvement
Beach Park (2020)	BP1	Bairstow Ave. from North Ave. to one block east of Sheridan Rd.	Resurfacing
	BP2	Paddock Ave. from Sheridan Rd. to one block east of Sheridan Rd.	Resurfacing
	BP3	Hendee Ave. from Garnett Ave. to Sheridan Rd.	Resurfacing
	BP4	Garnett Ave. from York House Rd. to Hendee Ave.	Resurfacing
	BP5	North Shore Ave. from Beach Rd. to Edgewood Rd.	Resurfacing
	BP6	Manor Ave. from Beach Rd. to Edgewood Rd.	Resurfacing
	BP7	Tewes Ct.	Resurfacing
Winthrop Harbor (2020)	WH1	Kimberly Ave. from 9th St. to 10th St.	Resurfacing
	WH2	4th St. from Garnett Ave. to Thompson Ave.	Resurfacing
	WH3	11th St. from W. Broadway Ave. to Lewis Ave.	Full width grind, patch and overlay
Winthrop Harbor (2021)	WH4	4th St. from Thompson Ave. to Holdridge Ave.	Resurfacing
	WH5	8th St. from Russell Ave. to 80' east of Russell Ave.	Resurfacing
	WH6	9th St. from Fulton Ave. to South Park Ave.	Resurfacing
Winthrop Harbor (2022)	WH7	13th St. from Lewis Ave. to W. Broadway Ave.	Resurfacing
	WH8	Kirkwood Ave. from 2nd St. to end of block	Resurfacing
	WH9	3rd St. from Runyward Ave. to end of block	Full width grind, patch and overlay
Winthrop Harbor (2023)	WH10	Charles Ave. from 658' south of 9th St. to 9th St.	Resurfacing
	WH11	Kirkwood Ave. from 3rd St. to end of block	Resurfacing
	WH12	1st St. from Sheridan Rd. to Oakdale Ave.	Full width grind, patch and overlay
	WH13	2nd St. from Holdridge Ave. to Geddes Ave.	Full width grind, patch and overlay

Table 5: Multi-year Program Table (continued)

Agency (Year)	No.	Limits	Type of Improvement
Lake County (2019-2024)	LC1	Wadsworth Rd. at Green Bay Rd.	Intersection Expansion
	LC2	Wadsworth Rd. from Green Bay Rd. to Sheridan Rd.	3R Preservation, 3R Resurfacing
	LC3	York House Rd. from Delany Rd. to Sheridan Rd.	Resurfacing
	LC4	York House Rd. from Green Bay Rd. to East of McAree Rd.	Reconstruction Modernization - 2 lanes to 3 lanes
	LC5	14th St. from Jackson St. to Sheridan Rd.	Resurfacing
	LC6	Patriot Path from Des Plaines River Trail to Sage Ct. / Robert McClory Bike Path	Bike Path Modernization
	LC7	14th St. from Green Bay Rd. to Sheridan Rd.	Reconstruction from Green Bay Rd. to Jackson St., Signal Interconnect and Lighting from Jackson St. to Sheridan Rd.
	LC8	Lewis Ave. from York House Rd. to Sunset Ave.	Resurfacing
	LC9	Lewis Ave. from 14th St. to Belvidere Rd.	Reconstruction
	LC10	Wadsworth Rd. at Lewis Ave.	Intersection Modernization - Construct 5-lane section
	LC11	Russell Rd. from Lewis Ave. to Sheridan Rd.	Resurfacing
	LC12	Kenosha Rd. at 21st St.	Roundabout or Traffic Signal
	LC13	Russell Rd. at Kenosha Rd.	Roundabout or Traffic Signal
	LC14	Russell Rd. at Lewis Ave.	Roundabout or Traffic Signal
	LC15	21st St. from Delany Rd. to Lewis Ave.	Resurfacing
	LC16	33rd St. from Green Bay Rd. to Galilee Ave.	Resurfacing
	LC17	9th St. from Lewis Ave. to Sheridan Rd.	Resurfacing
IDOT (2020-2025)	IL1	Green Bay Rd. from 29th St. to Kenosha Rd. (proposed)	Intersection Reconstruction
	IL2	Sheridan Rd. from Bull Creek to 0.2 miles south of Wadsworth Rd.	Culvert Replacement and ADA improvements
	IL3	Green Bay Rd. from Wadsworth Rd. to Sunset Ave.	Reconstruction
	IL4	Buckley Rd. from West of Frontenac St. to Bobby Thompson Expy. (IL 137)	Pavement Resurfacing, ADA Improvements, Pedestrian Signals
	IL5	Belvidere St. (IL 120) from Knight Ave. to Amstutz Expy. (IL 137)	Rehabilitation - Pavements, Standard Overlay and ADA Improvements
	IL6	Green Bay Rd. (IL 131) at Washington St.	Add Turning Lanes
	IL7	Green Bay Rd.(IL 131) at Belvidere (IL 120)	Traffic Signal Modernization
	IL8	Genesee St. (IL 137) from Belvidere St. to Buckley Rd.	Rehabilitation - Pavements, Standard Overlay and ADA Improvements
	IL9	Green Bay Rd. (IL 131) from South of Grand Ave. (IL 132) to EJ&E Railroad	Rehabilitation - Pavements, Standard Overlay and ADA Improvements
	IL10	Sheridan Rd. (IL 137) from Russell Rd. to Greenwood Rd.	Rehabilitation - Pavements, Standard Overlay and ADA Improvements

Engagement

The first round of engagement involved promotion of the project, creation of project brand, launching the project website and commencement of social media engagement campaign. Following the launch of the project, the project team began gathering information from communities within the five municipalities through public meetings, stakeholder interviews, and steering committee meetings. The project team collected data on current walking and bicycling habits, where people feel safe/unsafe, where people wish to bike and walk, and what kinds of bicycling and walking activities and events are desired.

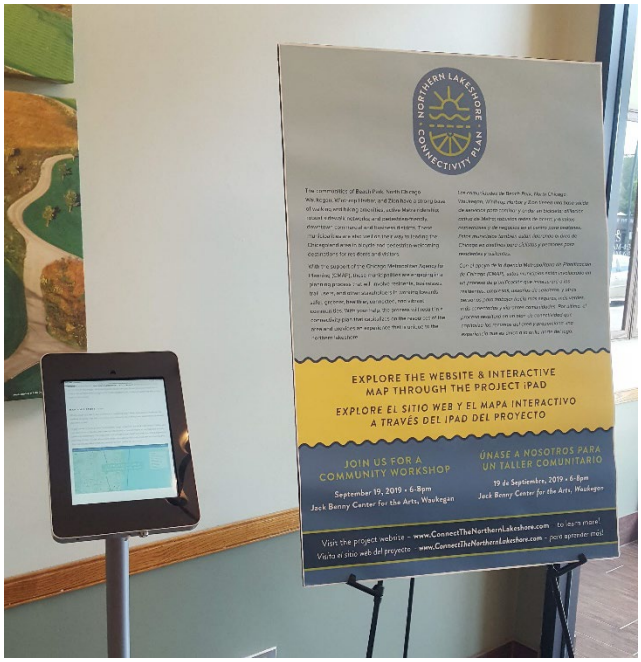


Figure 4: IPad exhibit setup at the Beach Park Village Hall.

During this engagement period, the project team made contact with 620 people through public meetings and events, 18 individuals through stakeholder interview meetings, 36 community leaders through steering committee meetings, several hundred contacts through social media and the project website where 90 users provided comments on the interactive web map. An iPad exhibit for the project website and map spent a month traveling between 5 communities leading up to the public workshop.

The next phase of engagement will focus on recommendations that will be included in the final plan. Community members and leaders will have the opportunity during this engagement period to learn about the recommendations proposed and provide feedback through similar channels as the first phase of engagement.

Conclusion

This Key Recommendations Memo reflects an understanding of the recommendations that will be included in the Draft Plan. The existing multi-year programs on the state, regional, and municipal levels provide an opportunity to participate and expand the scope of the projects. This memo will be used to discuss the recommendations with stakeholders and steering committee members for their review and guidance on the completeness and the limits of extents for the recommendations. Upon review and finalization of recommendations, the Draft Plan will be created.