

NORTHERN LAKE SHORE

TRAIL CONNECTIVITY PLAN

EXISTING CONDITIONS REPORT AUGUST 2019



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

ACKNOWLEDGEMENTS

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

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VISION

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 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 Beach Park, Winthrop Harbor, Zion, 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.



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

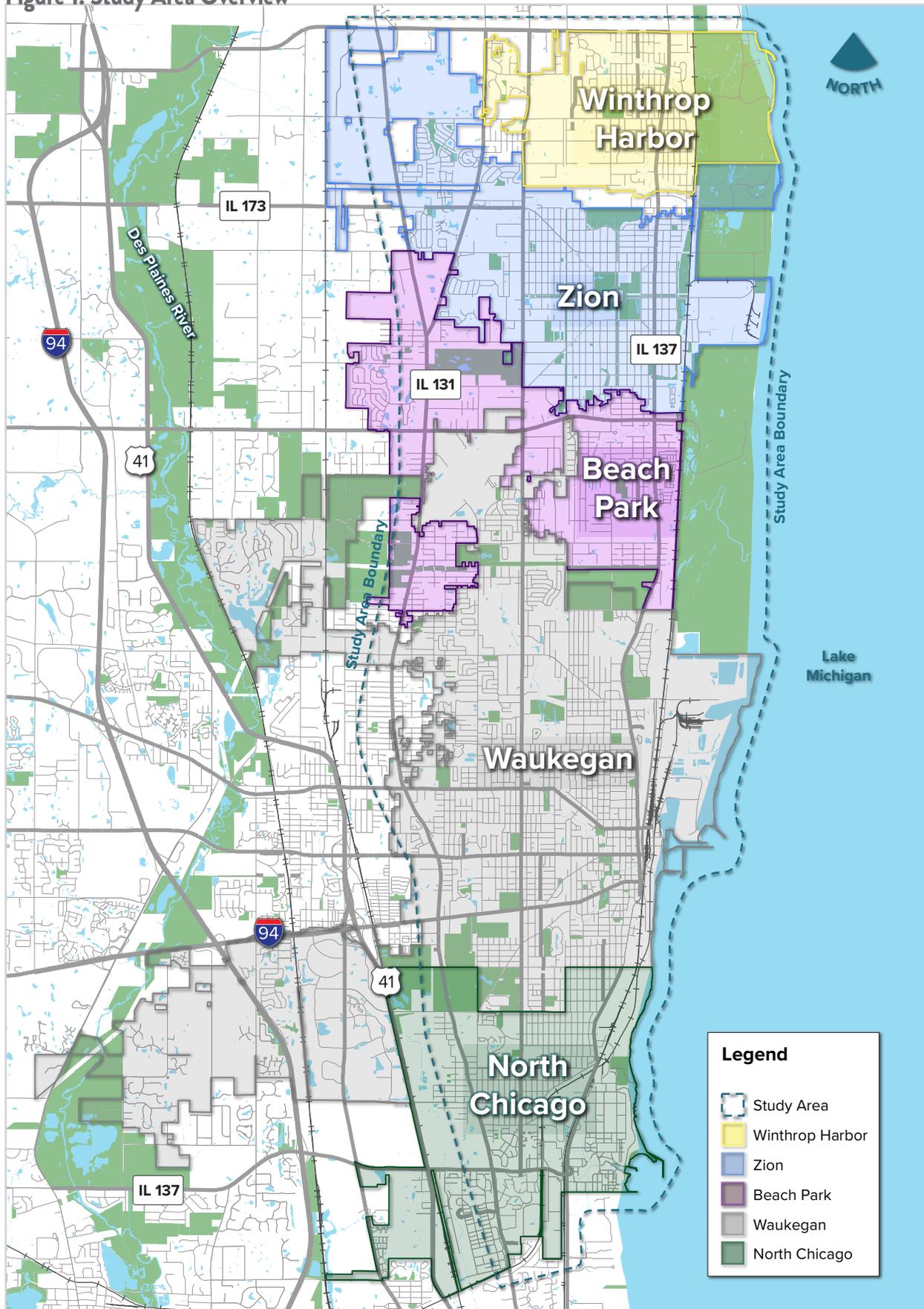
Build a network connecting municipalities locally and regionally, and provide convenient access to Illinois Beach State Park and Lake Michigan. Connect people with nature and water to inspire stewardship among residents and visitors to protect environmental and social resources.



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 neighborhoods, 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.

STUDY AREA AT A GLANCE

- 103** miles of trails connecting **5** municipalities, **6** forest preserves, and **89** municipal parks. Home to approximately **14** miles of Lake Michigan shoreline,
- 83%** of the population of the study area lives within **1/2** mile of a trail.
- 1/3** of the study area’s parks are connected to the trail network.
- 10%** of the study area’s residents live within **1/2** mile of the Lakeshore, home to
- 4,160** acres of high-quality, managed nature preserve and open space in
- 1** of Illinois’ most visited state parks welcoming more than
- 1,300,000+** annual visitors.

Figure 3: Study Area at a Glance

Households & Families

Among 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.

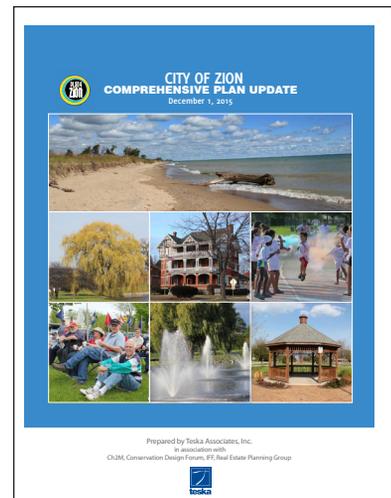
The Plan recommends the type, location, and intensity of future development, prioritizing implementation actions in the short, mid, and long term. Improving bicycle connectivity is a key goal, including connecting the Robert McClory bike path with the lakefront as well as other neighboring communities.



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.

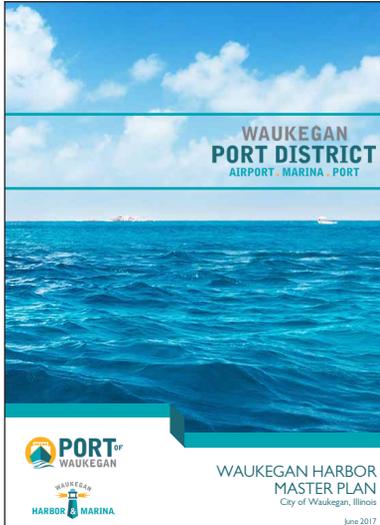


Village of Beach Park Planning Priorities Report (2017) [Link to Plan](#)

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

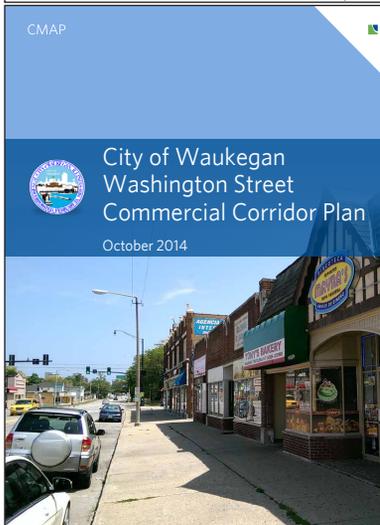


City of Waukegan Harbor Master Plan (2017)

[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.

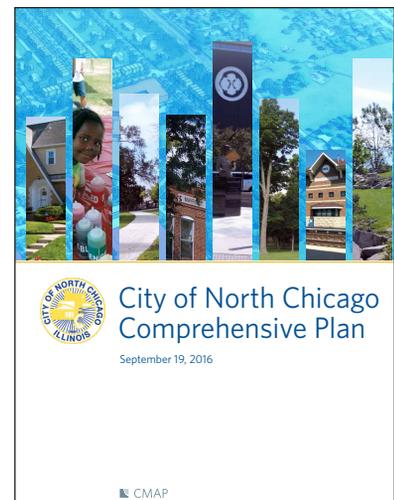
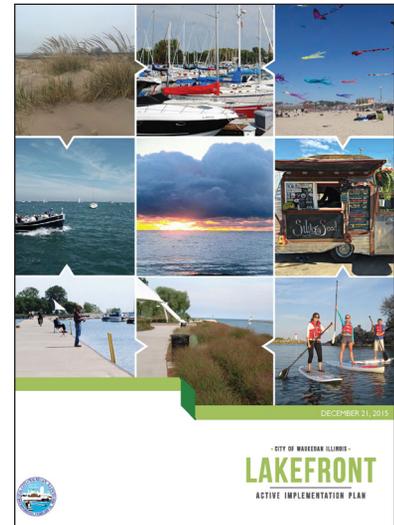
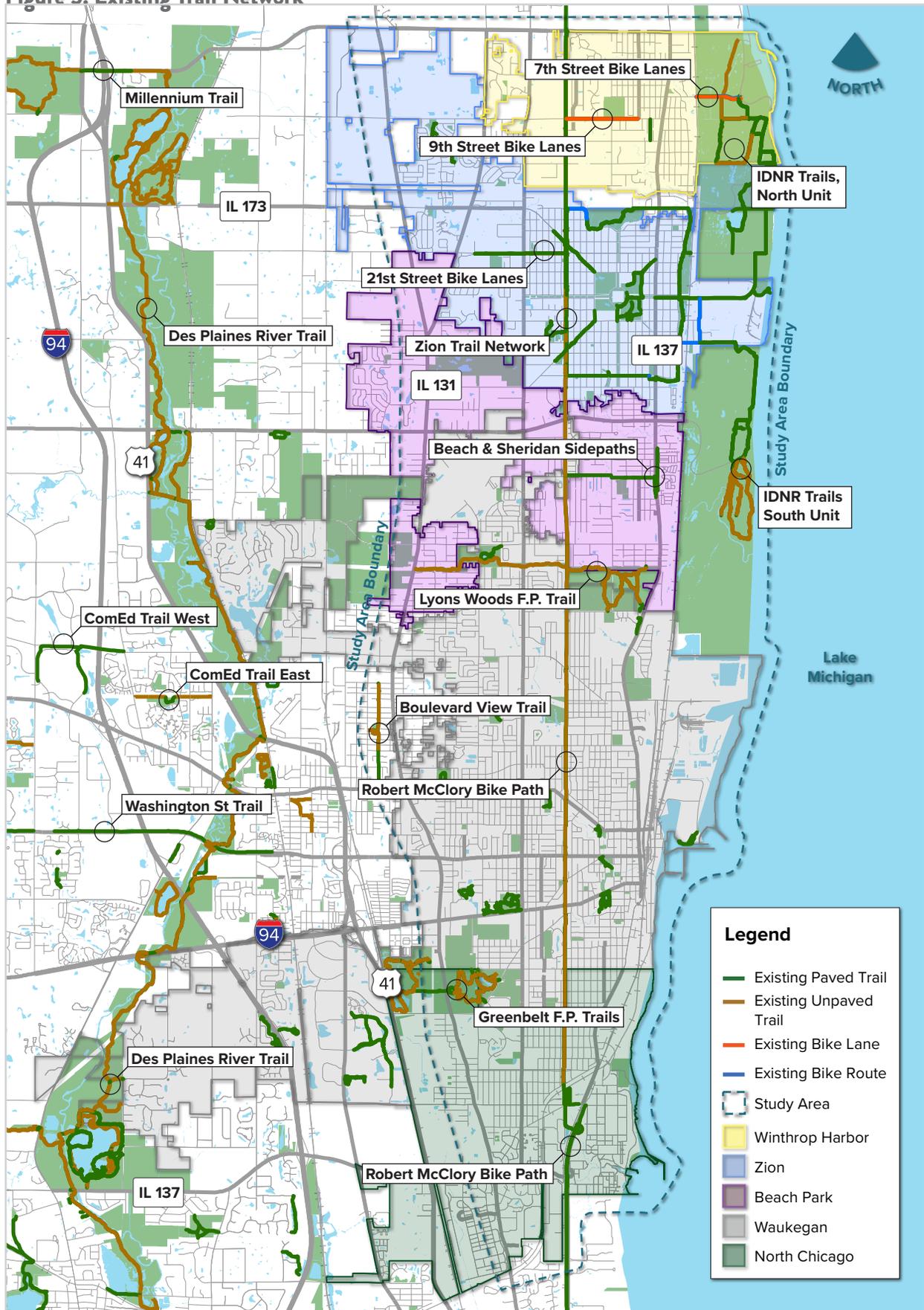


Figure 5. Existing Trail Network



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.

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.)

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

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 (Winthrop 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 Audubon 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.

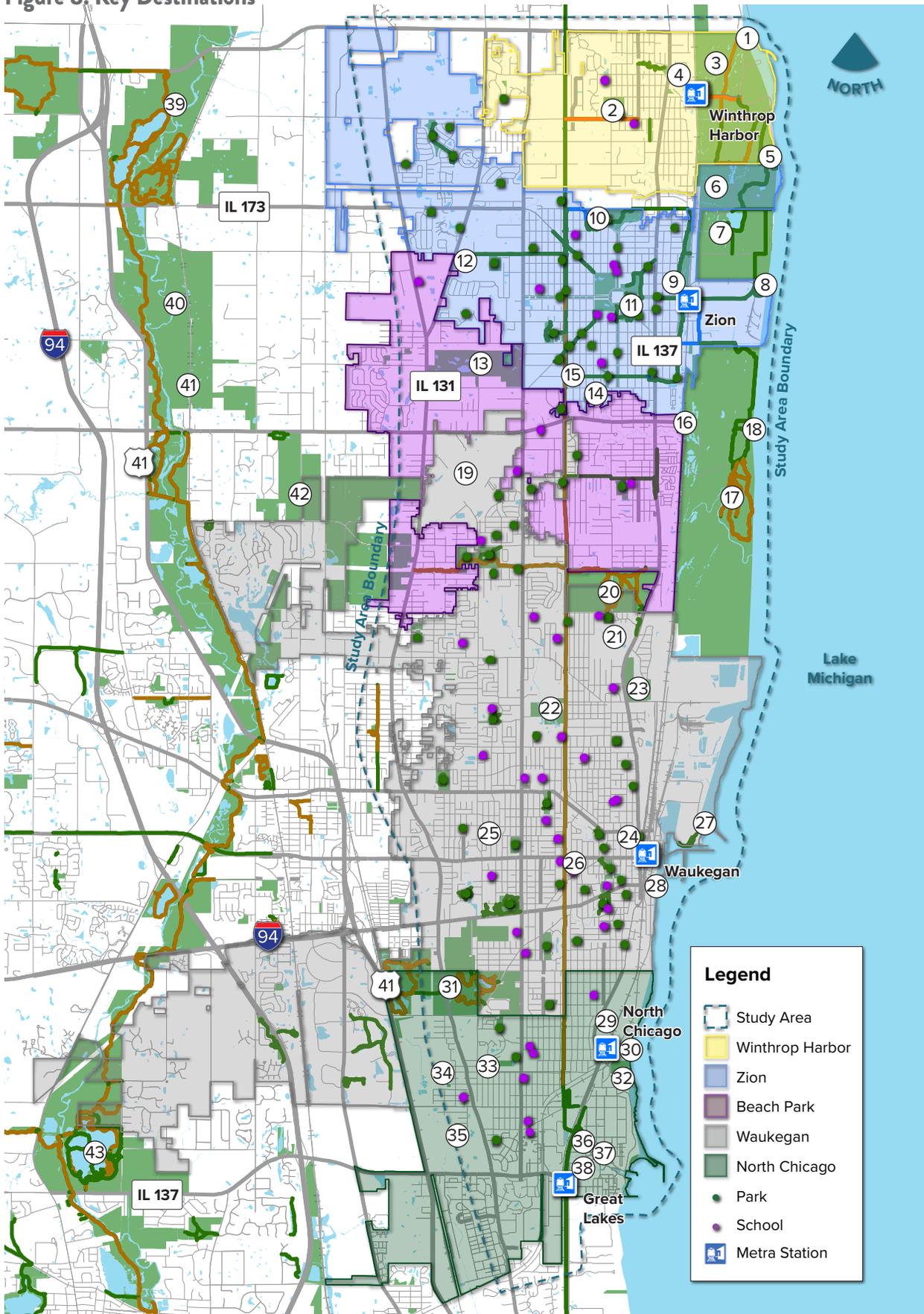
Lyons Woods Forest Preserve (Waukegan)

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. North Beach Park
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. 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 splash 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 include the visitor'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

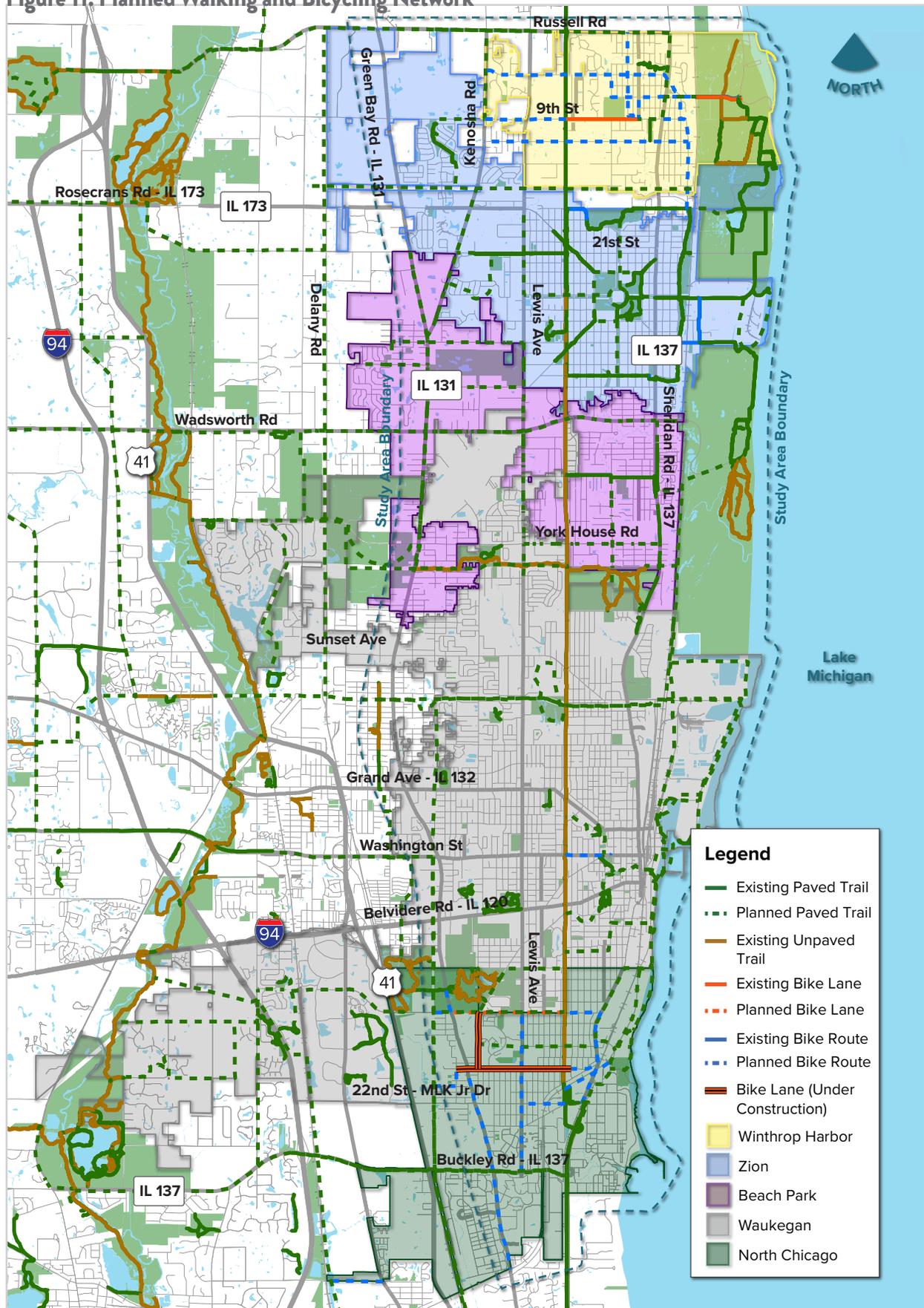
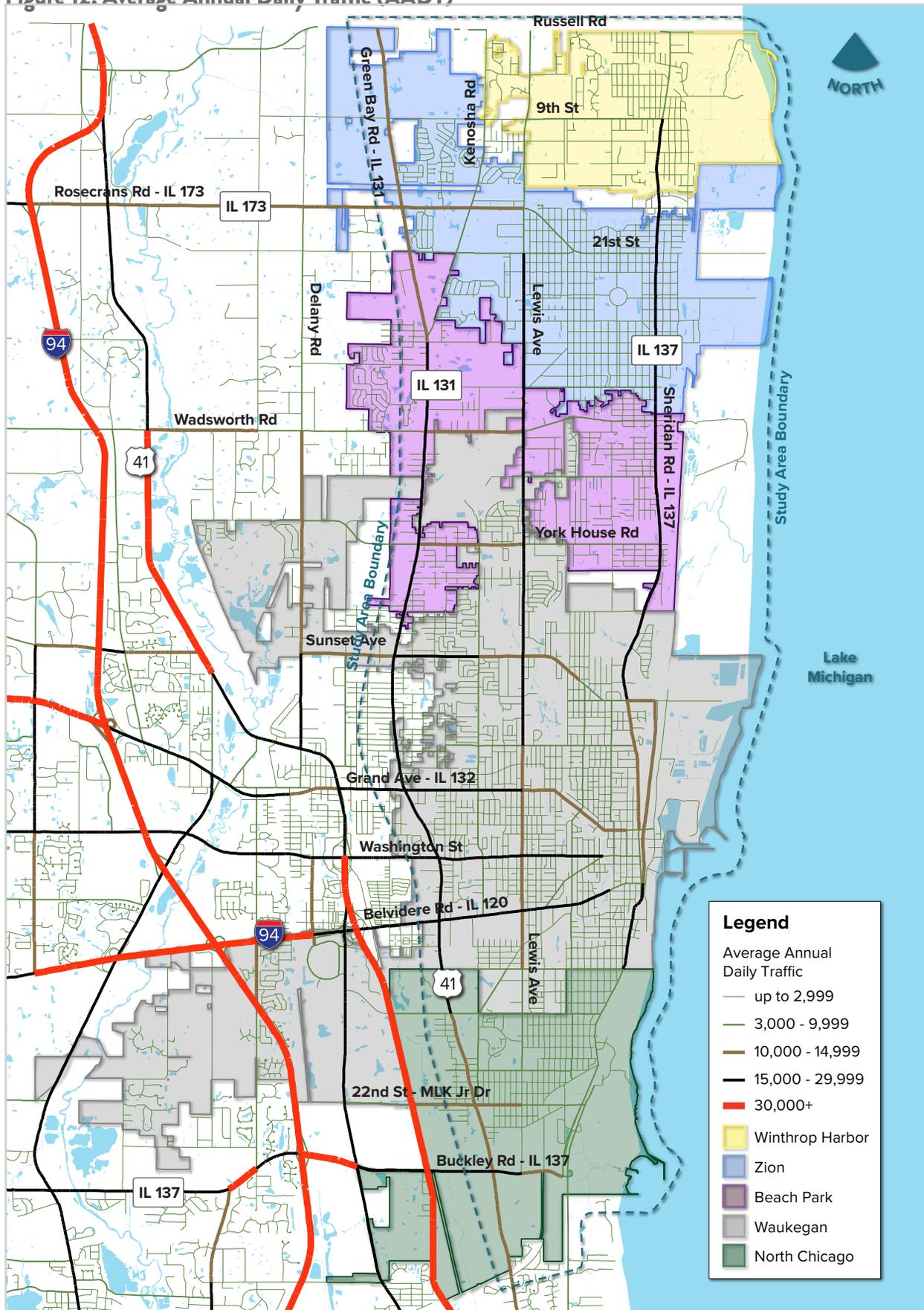


Figure 12. Average Annual Daily Traffic (AADT)



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 accommodate all road users, several roadways are designed primarily for driving, and lack accommodations for walking and bicycling.

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.

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,

Figure 13: Roadway Jurisdiction

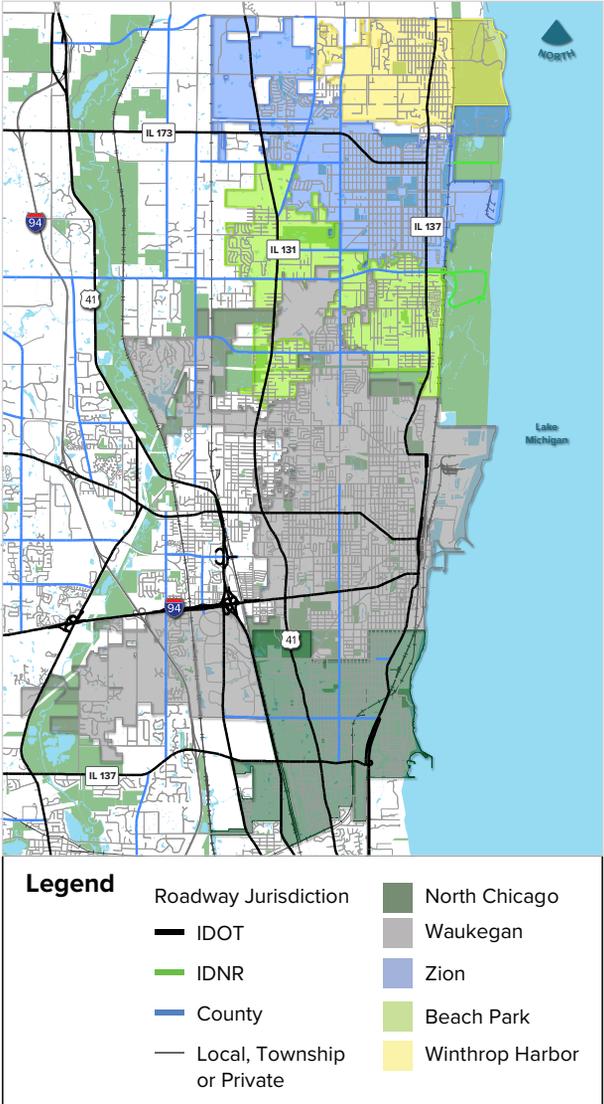
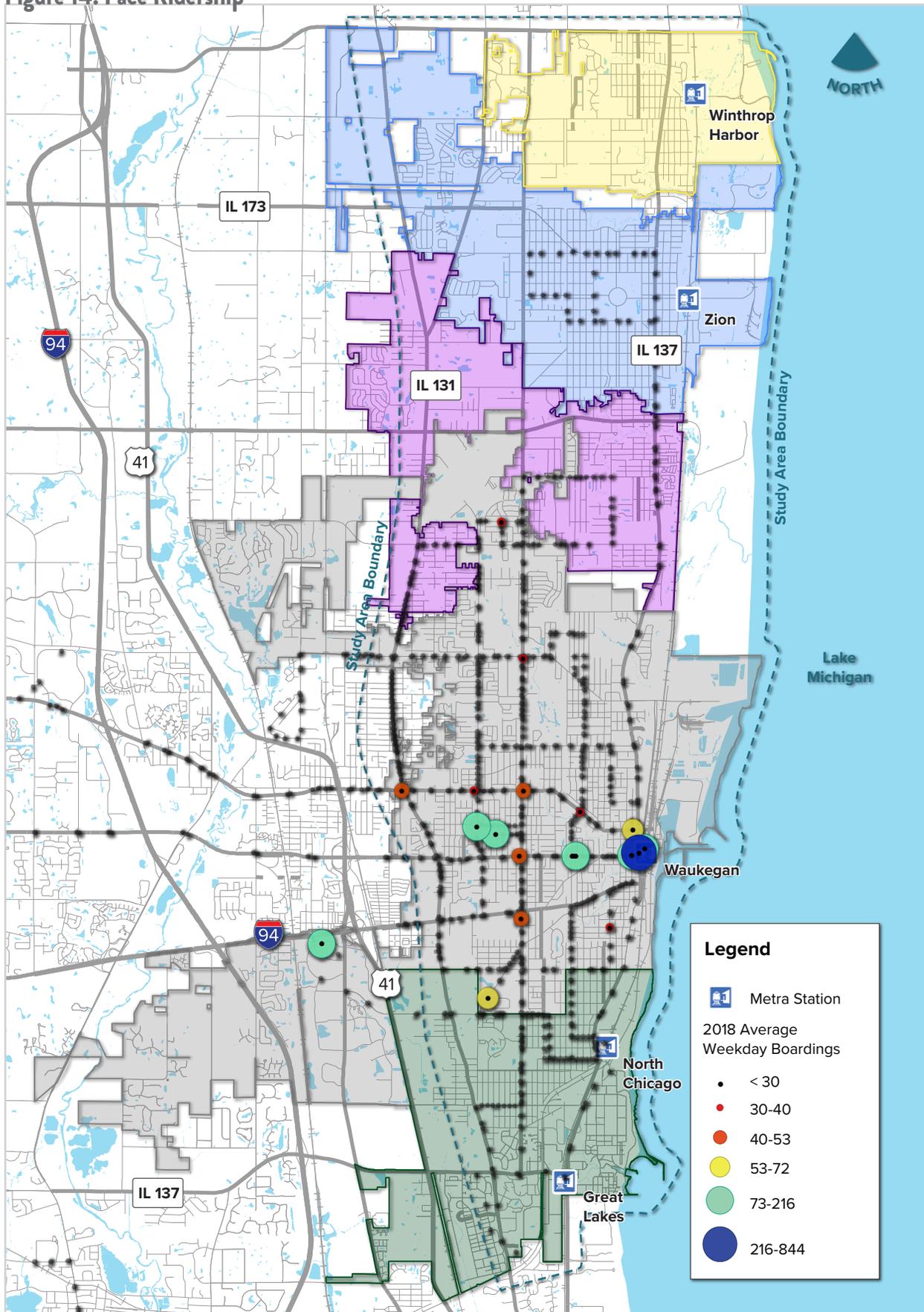


Figure 14. Pace Ridership



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 Genessee & 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 & Genessee	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 & Helmholtz	30

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

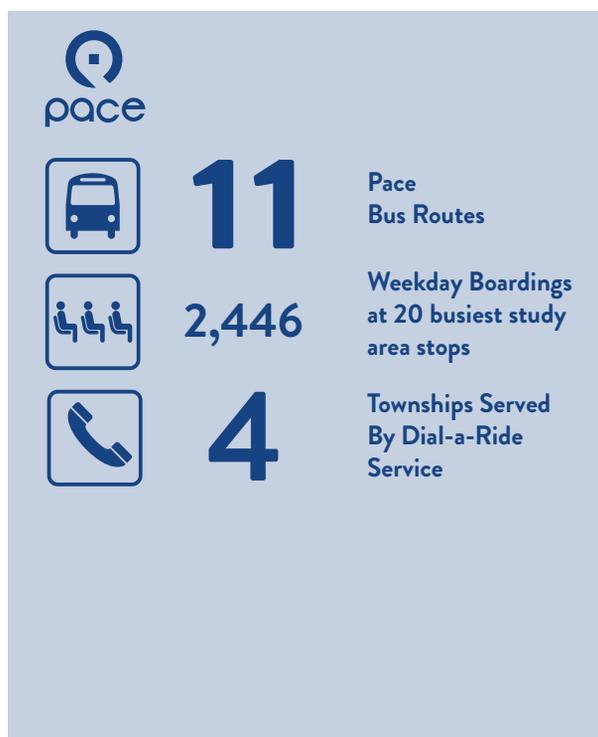


Figure 15b: Pace Ridership Statistics. Data Source: Regional Transportation Asset Management System, RTA, 2019.

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 weekday riders and 2,182 weekend riders.

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: Metra Ridership Statistics. Source: Regional Transportation Asset Management System, RTA, 2019.



Metra Ridership, Mode of Access

	Winthrop Harbor	Zion	Waukegan	North Chicago	Great Lakes
Ridership (Weekday Boardings)	61	124	911	170	293
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	45%	62%	48%	40%	60%

Figure 17: Metra Ridership Data Table. Source: Regional Transportation Asset Management System, RTA, 2019.

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 challenging 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, and on average only about 45% of these spaces are utilized. There is existing sidewalk or path on the northwest corner of the station. The Winthrop Harbor station is the only station with direct access to a state park. Closing the gap in transportation between this station and Waukegan would help grow mode share in transit ridership.

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, and on average only 62% are utilized. There are sidewalks on both sides of Shiloh Boulevard leading into the Metra Station.

Waukegan

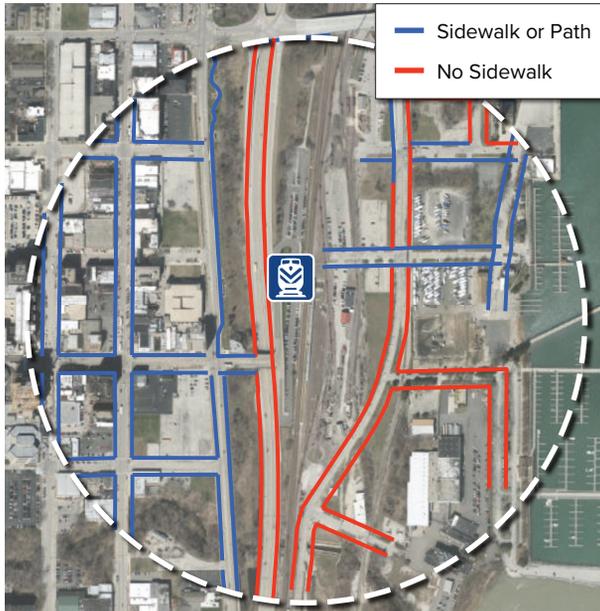


Figure 20: The majority of Metra riders to this station drive alone (44%) or get dropped off/carpool (32%). 12% of riders walk or bike to the station and 9% of riders take the bus. There are 438 parking spaces at this location, and on average 48% are utilized. There is a sidewalk located west of the station, but nothing to connect Metra riders to the east.

North Chicago

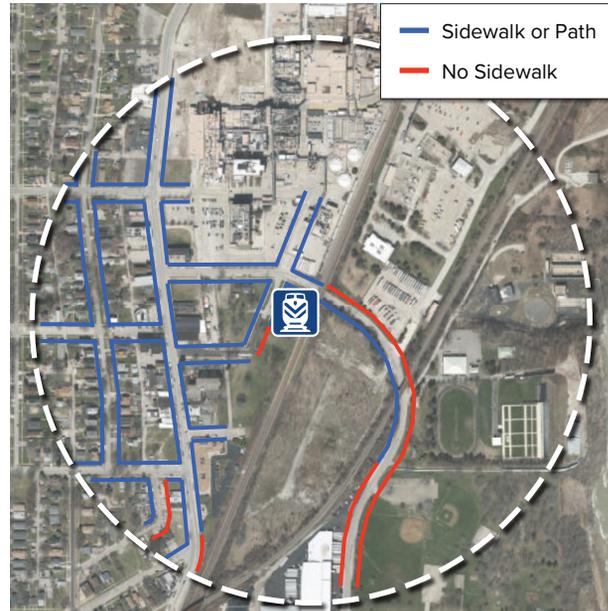


Figure 21: The majority of Metra riders to this station either walk (33%) or get dropped off or carpool (33%). The next largest group of riders are those who reported driving alone (22%) to the station. In addition, 9% of riders reported taking the bus to the station. There are 53 parking spaces at this location, and on average only about 40% 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.



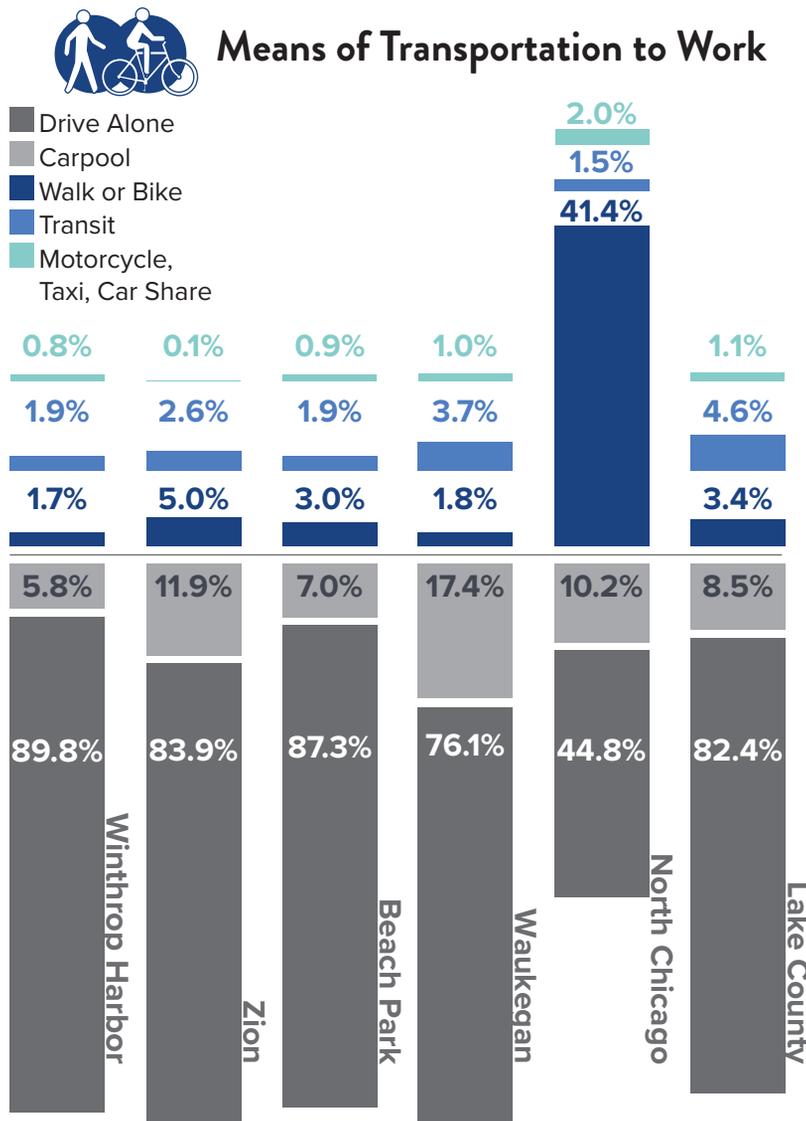
Great Lakes

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 60% 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.



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

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

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.

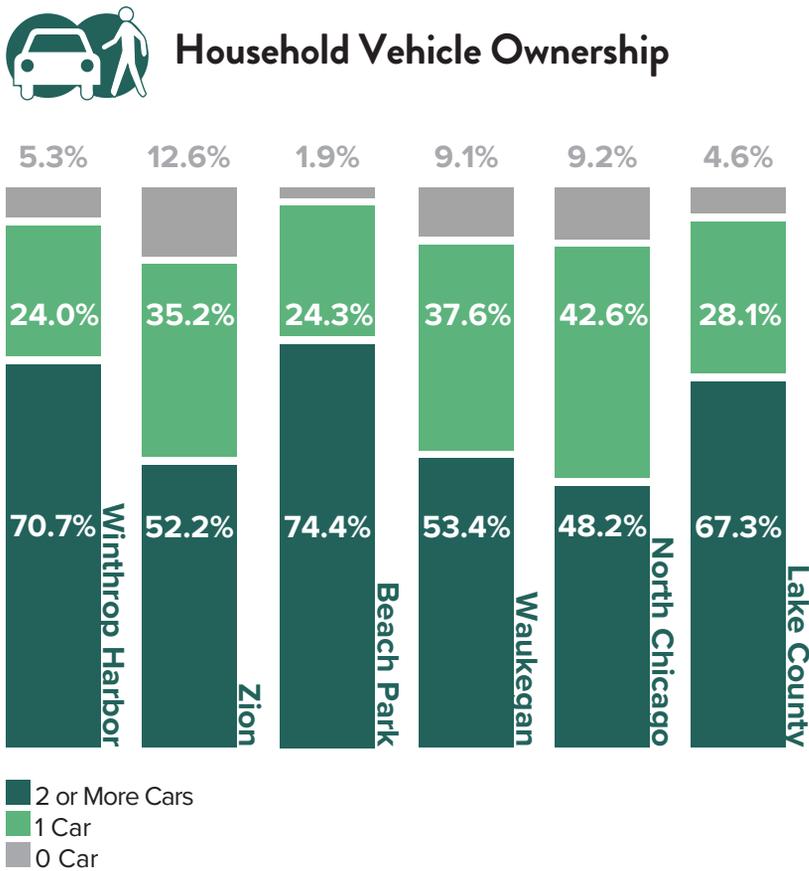


Figure 24: Household Vehicle Ownership. Source: American Community Survey, United States Census 2013-2019.



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

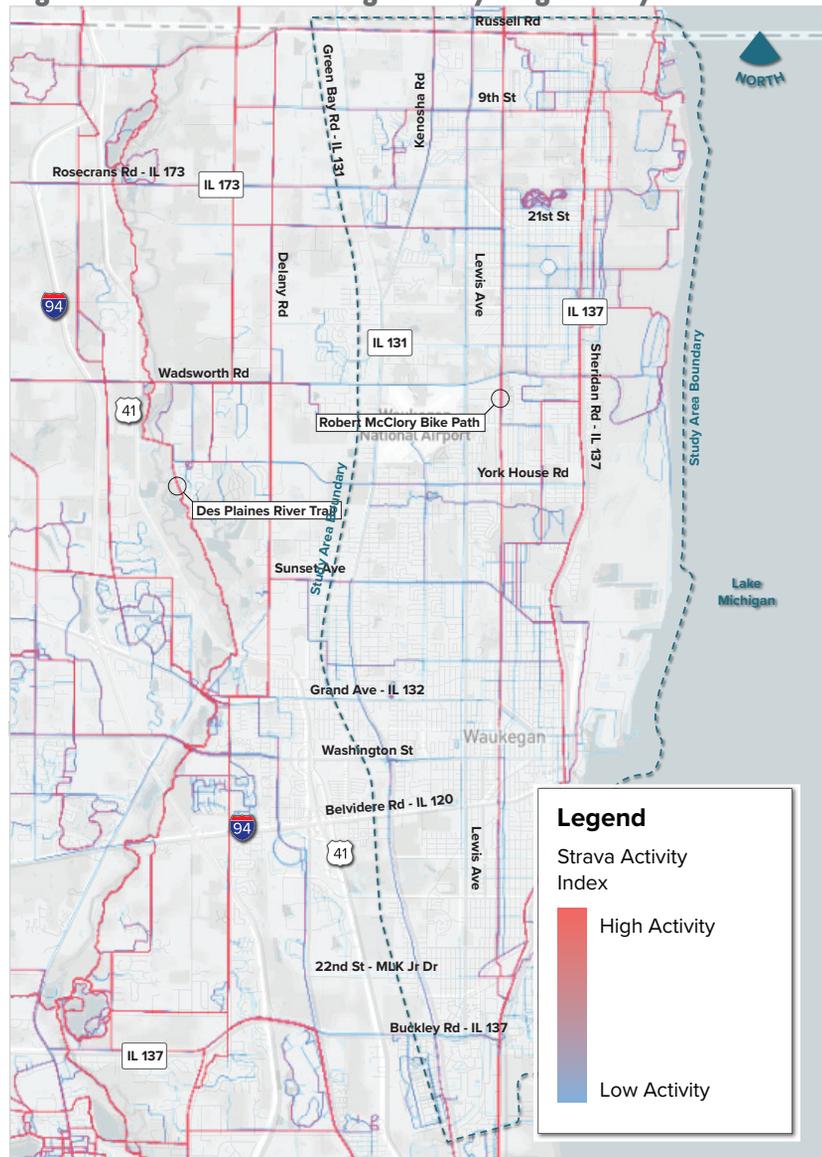


Figure 26a. Sidewalk Gaps Near Parks

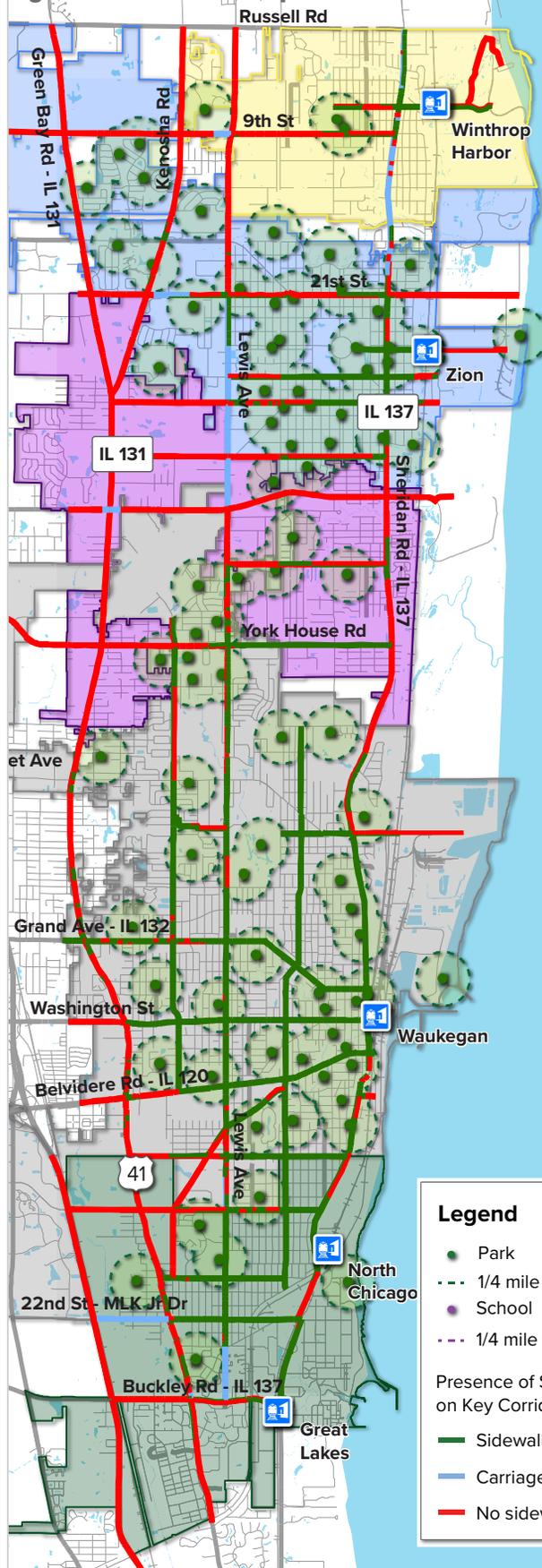
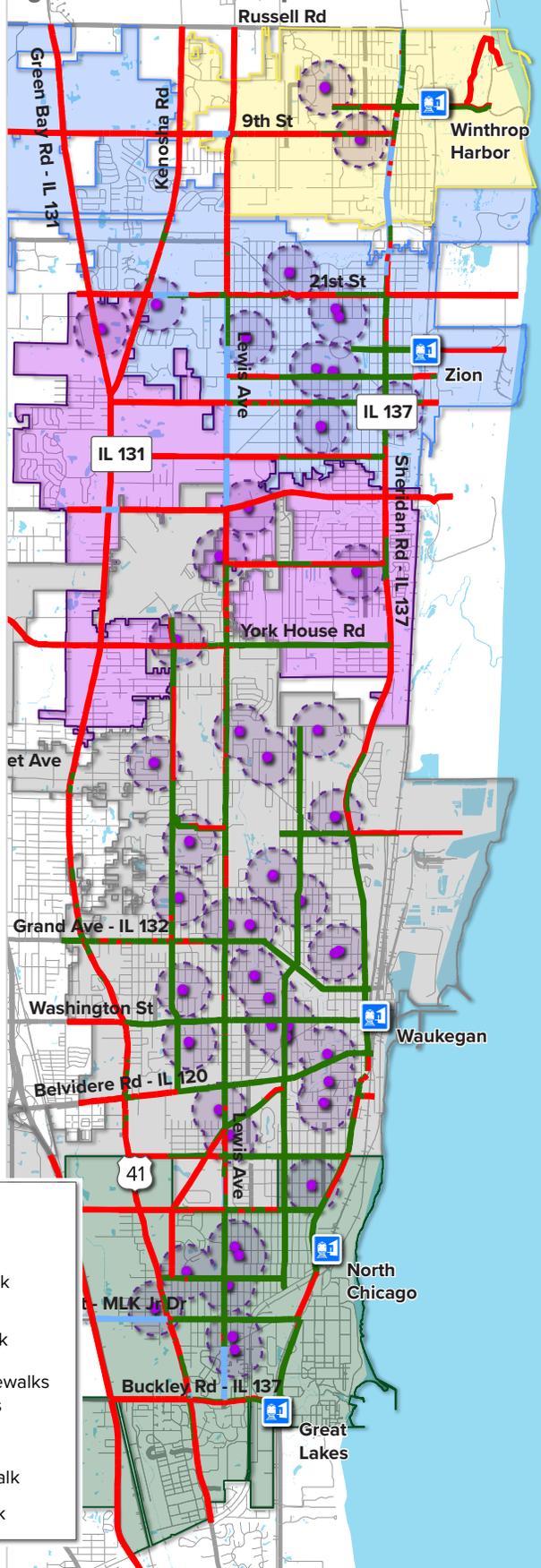


Figure 26b. Sidewalk Gaps Near Schools



Legend

- Park
- - - 1/4 mile walk
- School
- - - 1/4 mile walk

Presence of Sidewalks on Key Corridors

- Sidewalk
- Carriage Walk
- No sidewalk

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.

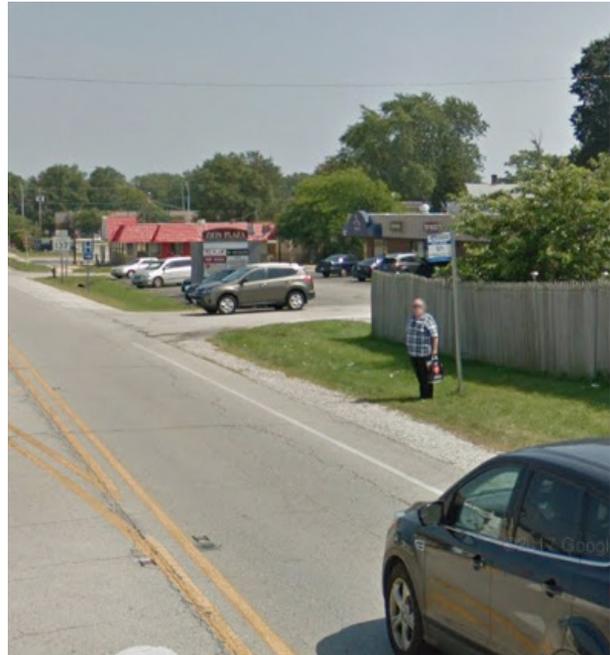


Figure 27: Transit rider waiting at a Pace bus stop with no sidewalks. Source: Google.

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

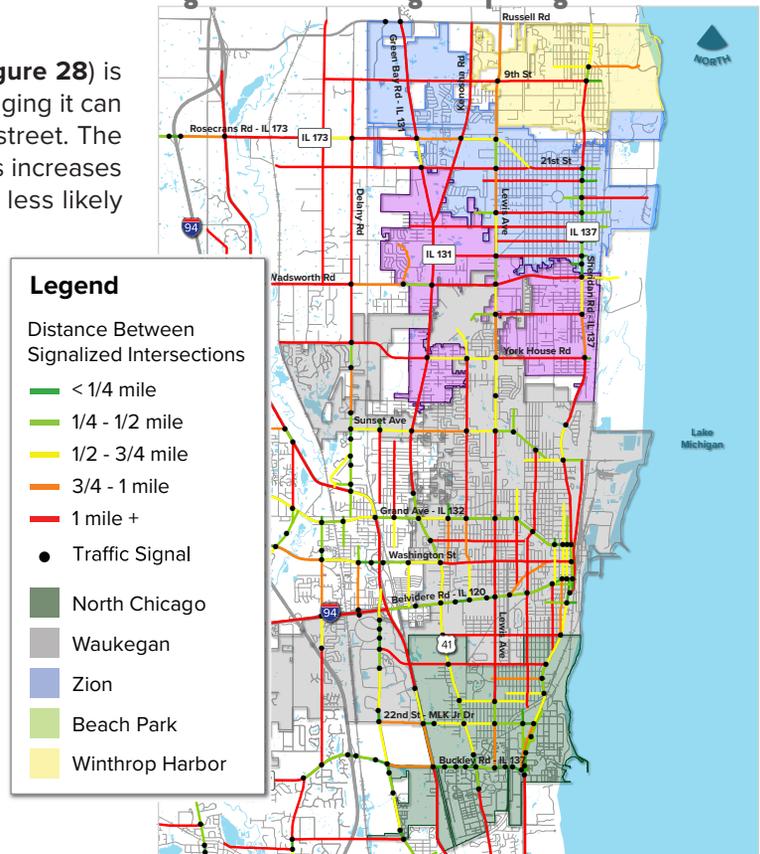
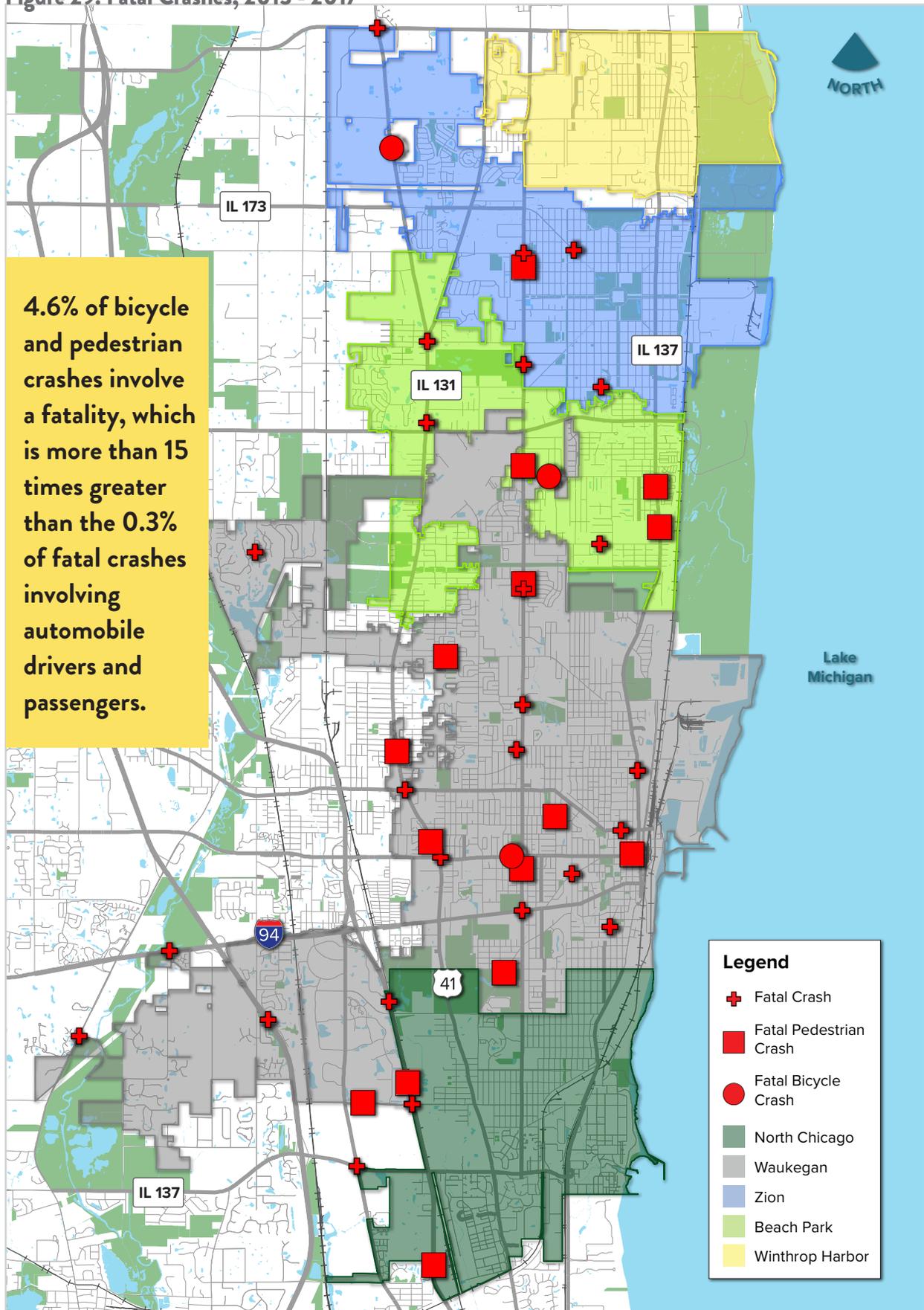


Figure 29. Fatal Crashes, 2013 - 2017



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

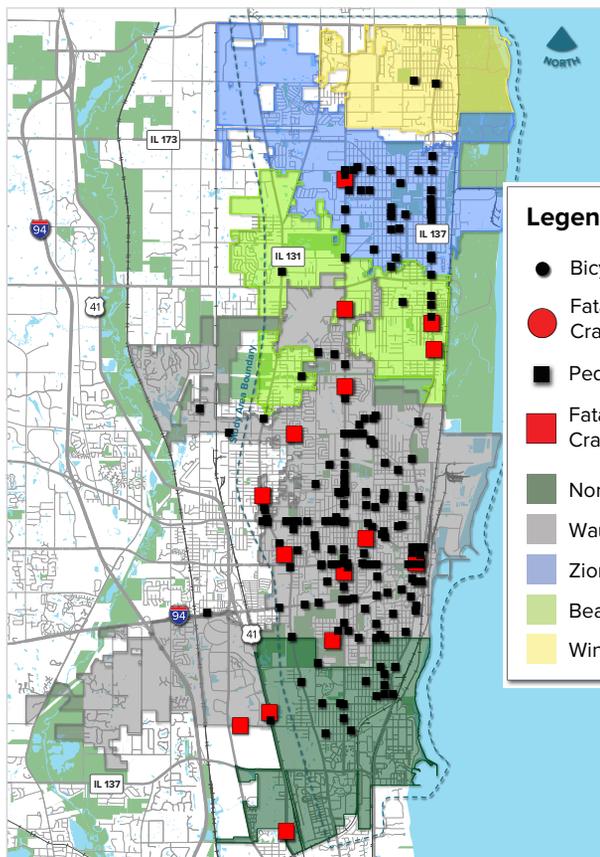
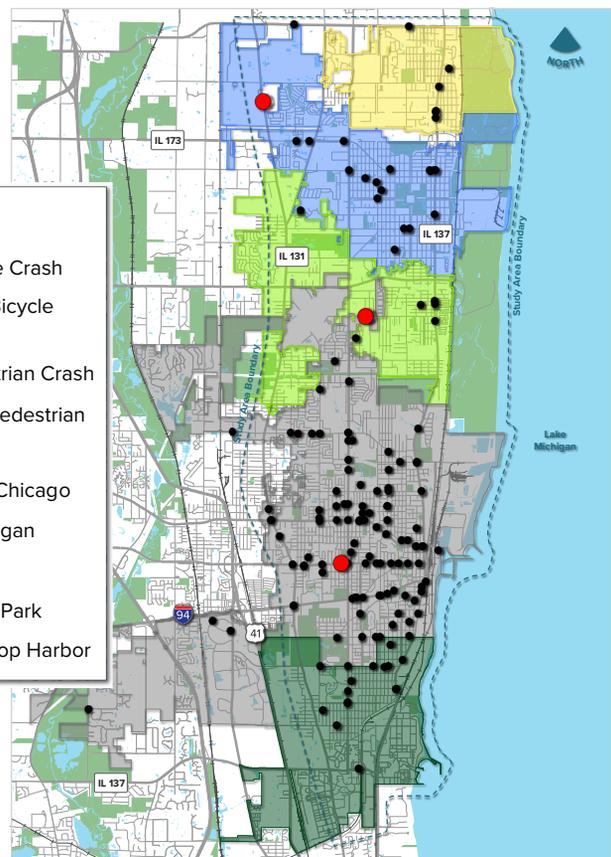


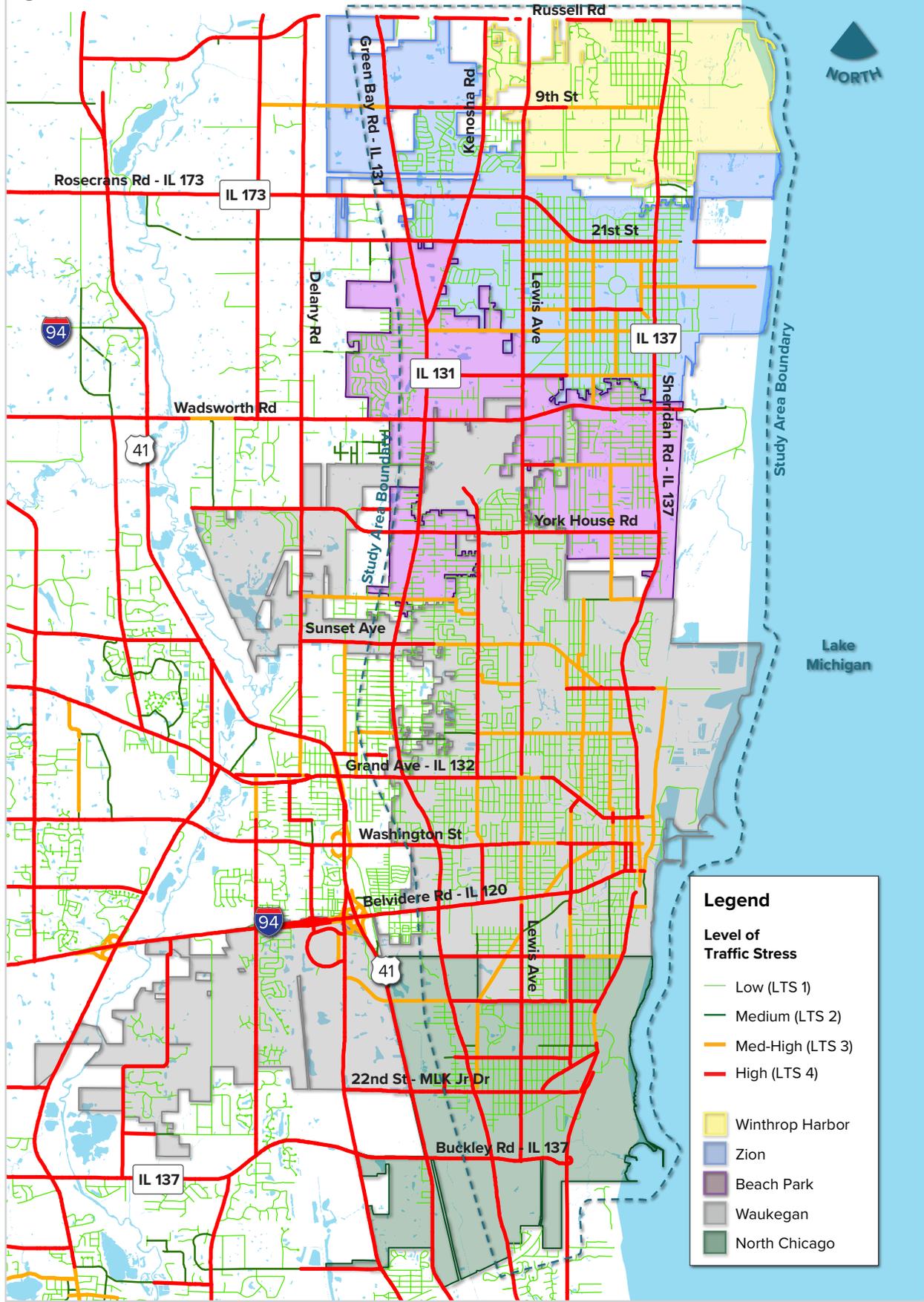
Figure 31. Crashes Involving Bicyclists, 2013 - 2017



Legend

- Bicycle Crash
- Fatal Bicycle Crash
- Pedestrian Crash
- Fatal Pedestrian Crash
- North Chicago
- Waukegan
- Zion
- Beach Park
- Winthrop Harbor

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

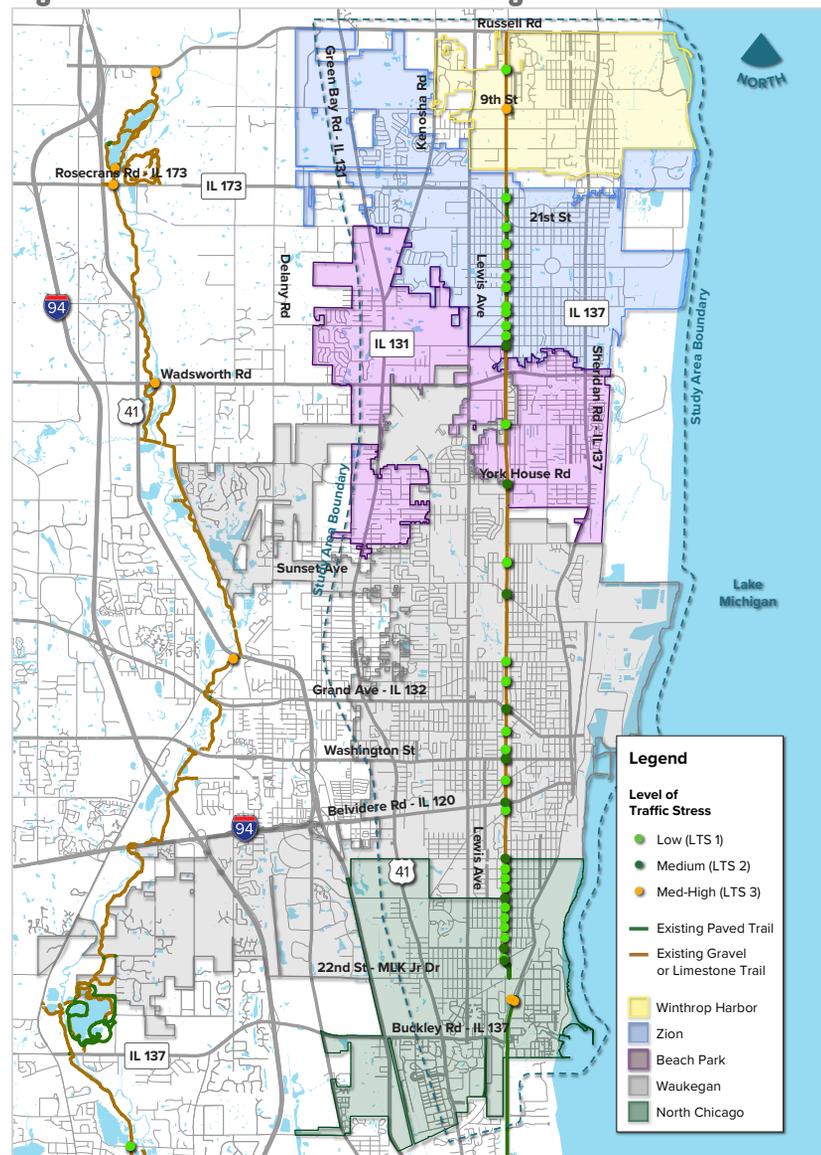
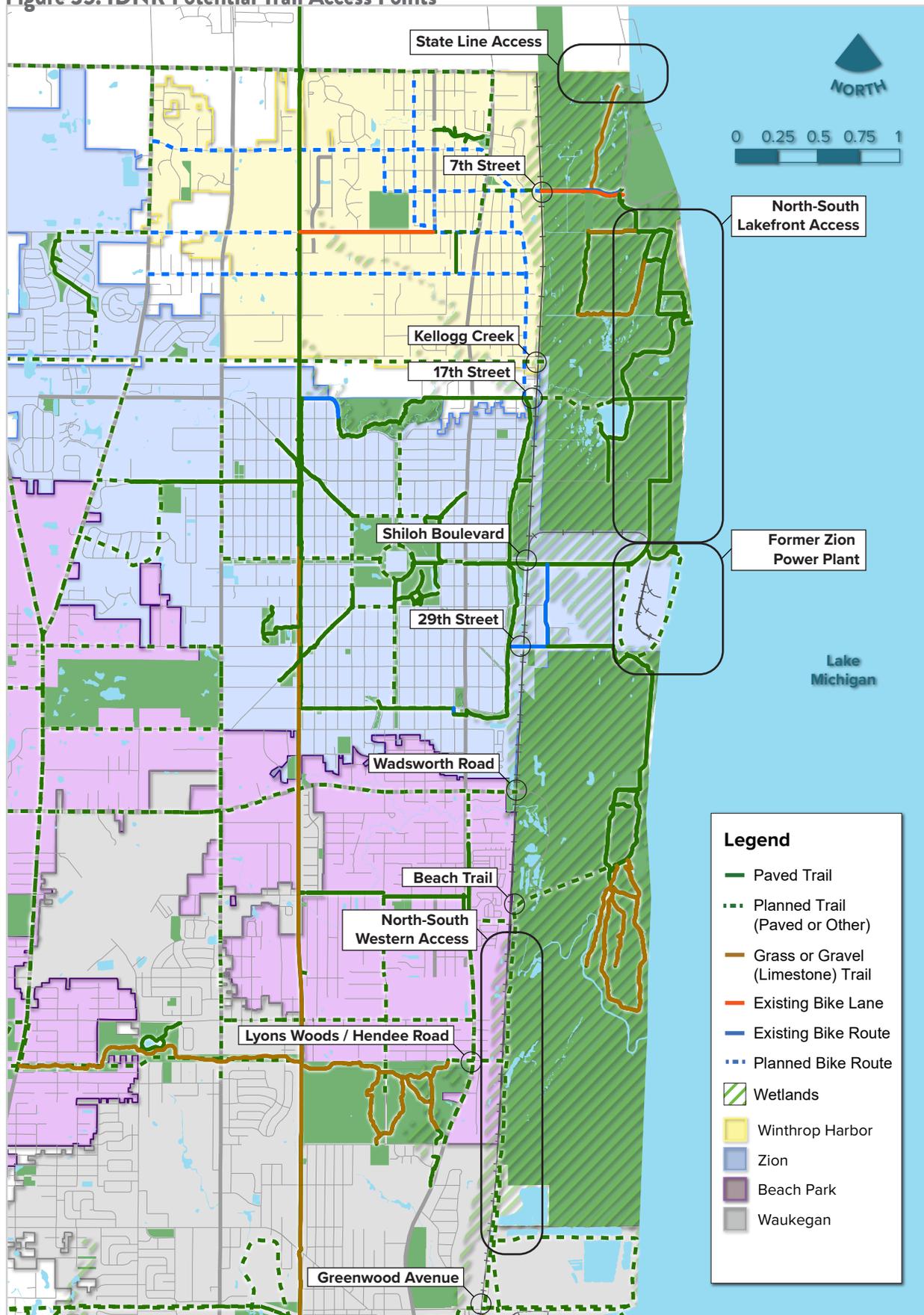


Figure 35. IDNR Potential Trail Access Points



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 Winthrop Harbor. Trail users have been observed utilizing the access road to travel between Wisconsin and Illinois, which provides access to Prairie Harbor 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

17th Street is an access point in Zion that provides access to Sand Pond, Camp Logan, and Isherwood Beach. It connects with the existing trail network on the east side of Sand Pond. 17th Street runs 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 Hosah Park, located approximately



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.

1 mile south of 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.

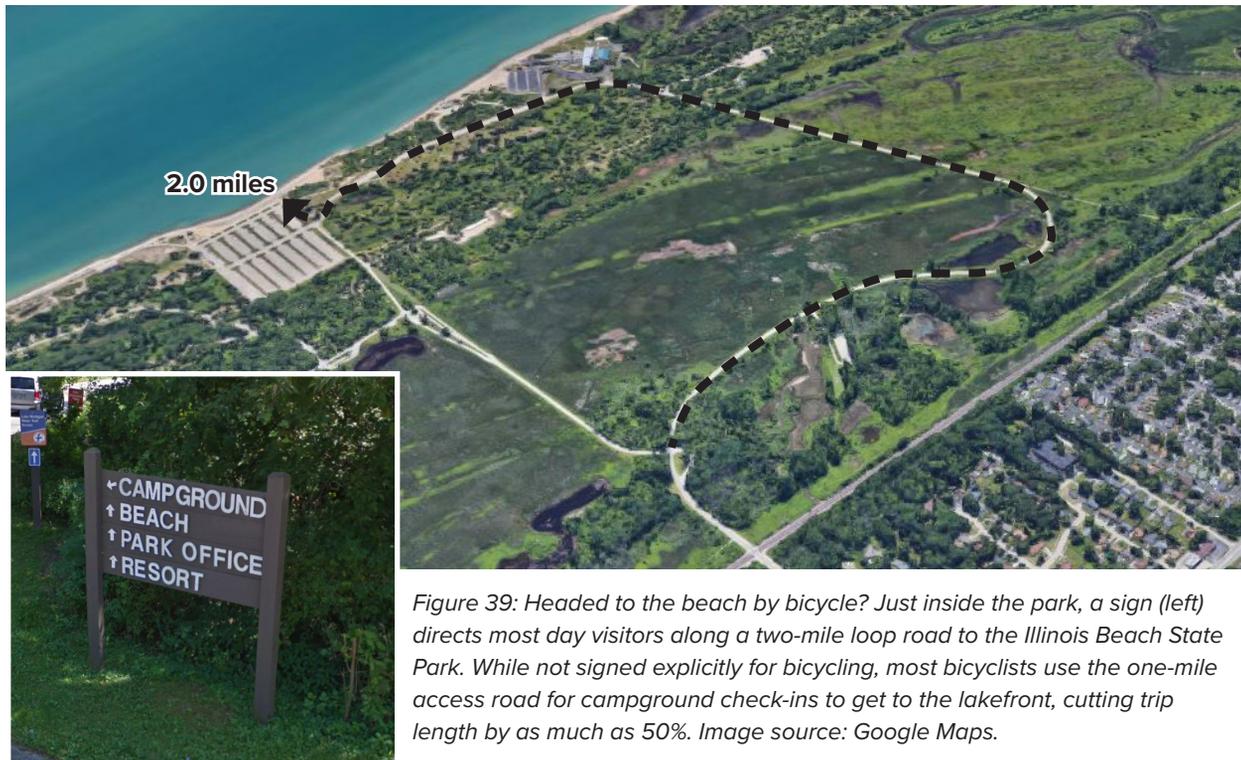


Figure 39: Headed to the beach by bicycle? Just inside the park, a sign (left) directs most day visitors along a two-mile loop road to the Illinois Beach State Park. While not signed explicitly for bicycling, most bicyclists use the one-mile access road for campground check-ins to get to the lakefront,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

27th & 29th Street

27th Street and 29th Street in Zion cross the Union Pacific Railroad tracks and serve industrial land uses west of the former Zion Power Station. 27th Street and 29th Street 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.)

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



Figure 40: Shoreline along the Northern Unit of Adeline Jay Geo-Karis Illinois Beach State Park Image 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.

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

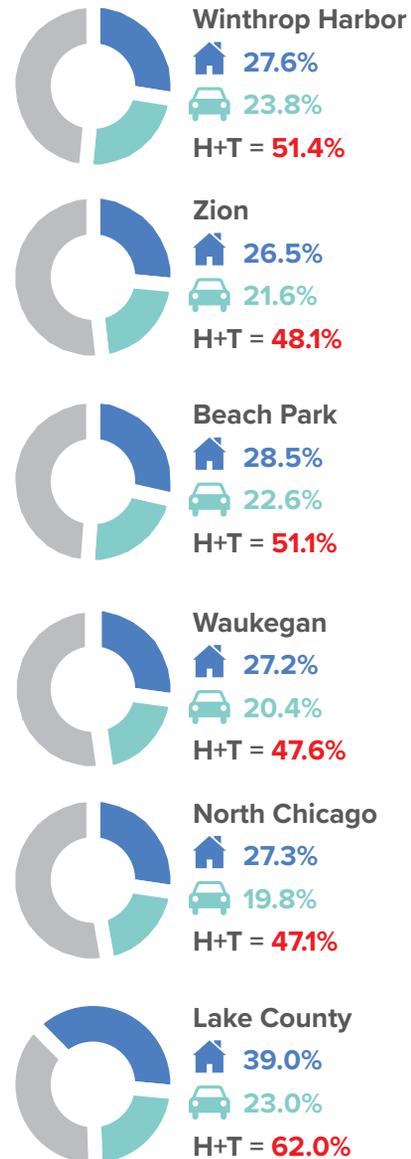


Figure 42: Source: Location Affordability Index, U.S. Dept. of Transportation and U.S. Dept. of Housing and Urban Development, 2019.

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.

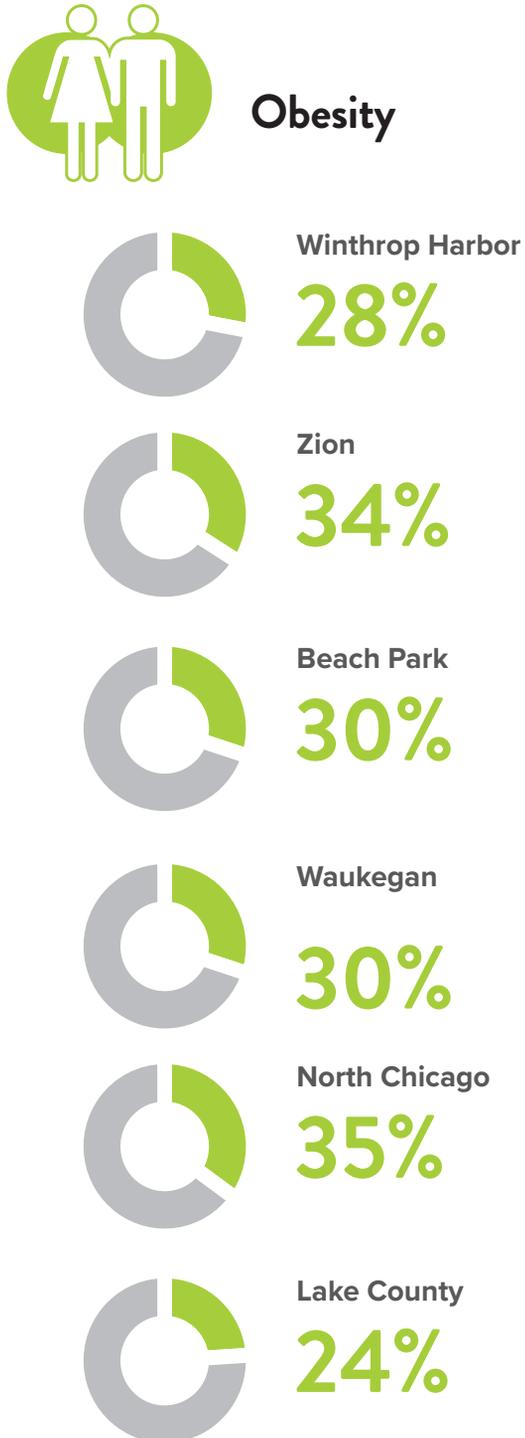


Figure 45: Source: Lake County Health Department, 2019.

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 programming 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.

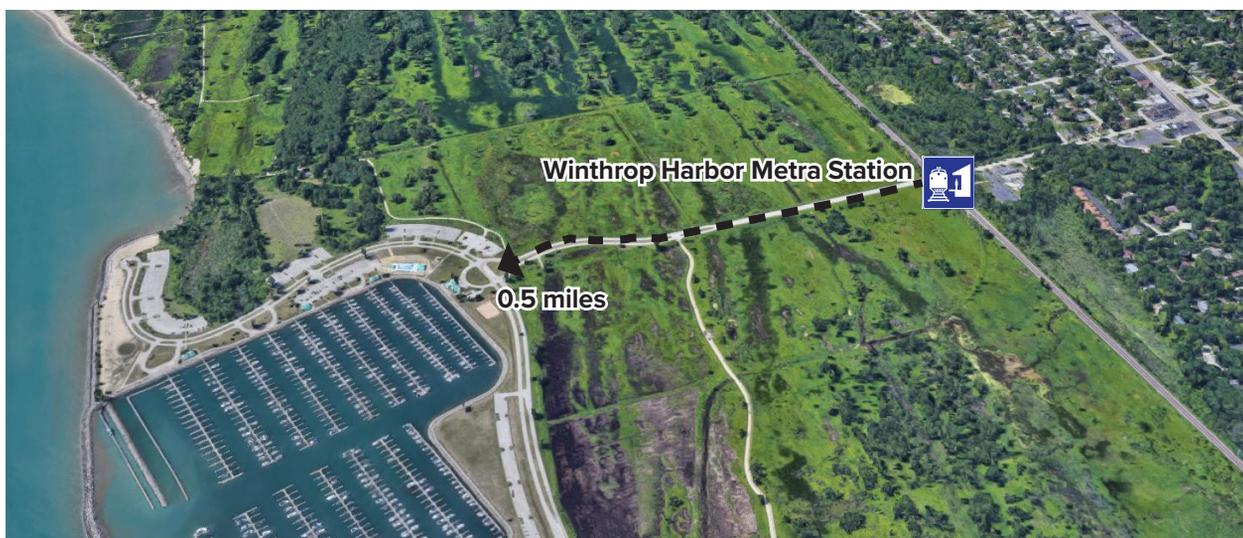


Figure 49: Aerial image of North Point Marina and Winthrop Harbor Metra Station. Source: Google.

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 north-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 consistent part of the discussions over transportation and transportation 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.

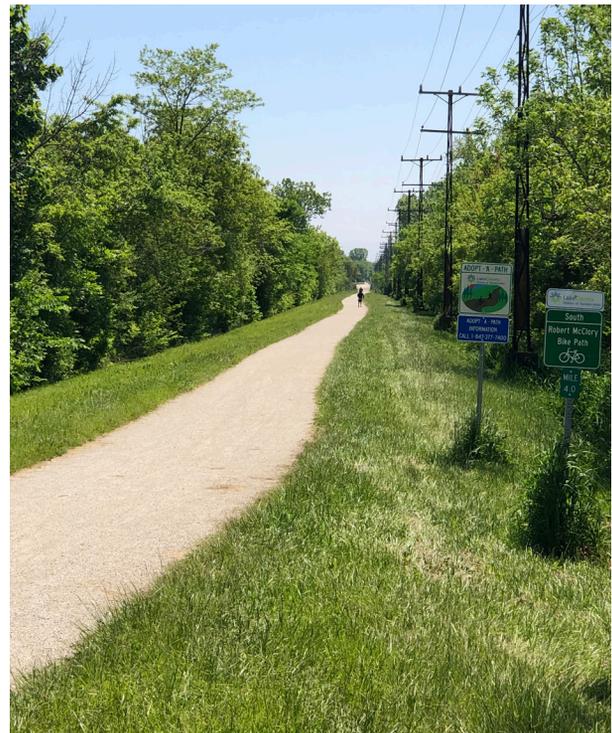


Figure 50: Robert McClory Bike Path at York House Road in Beach Park.

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 palette 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 addition, 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

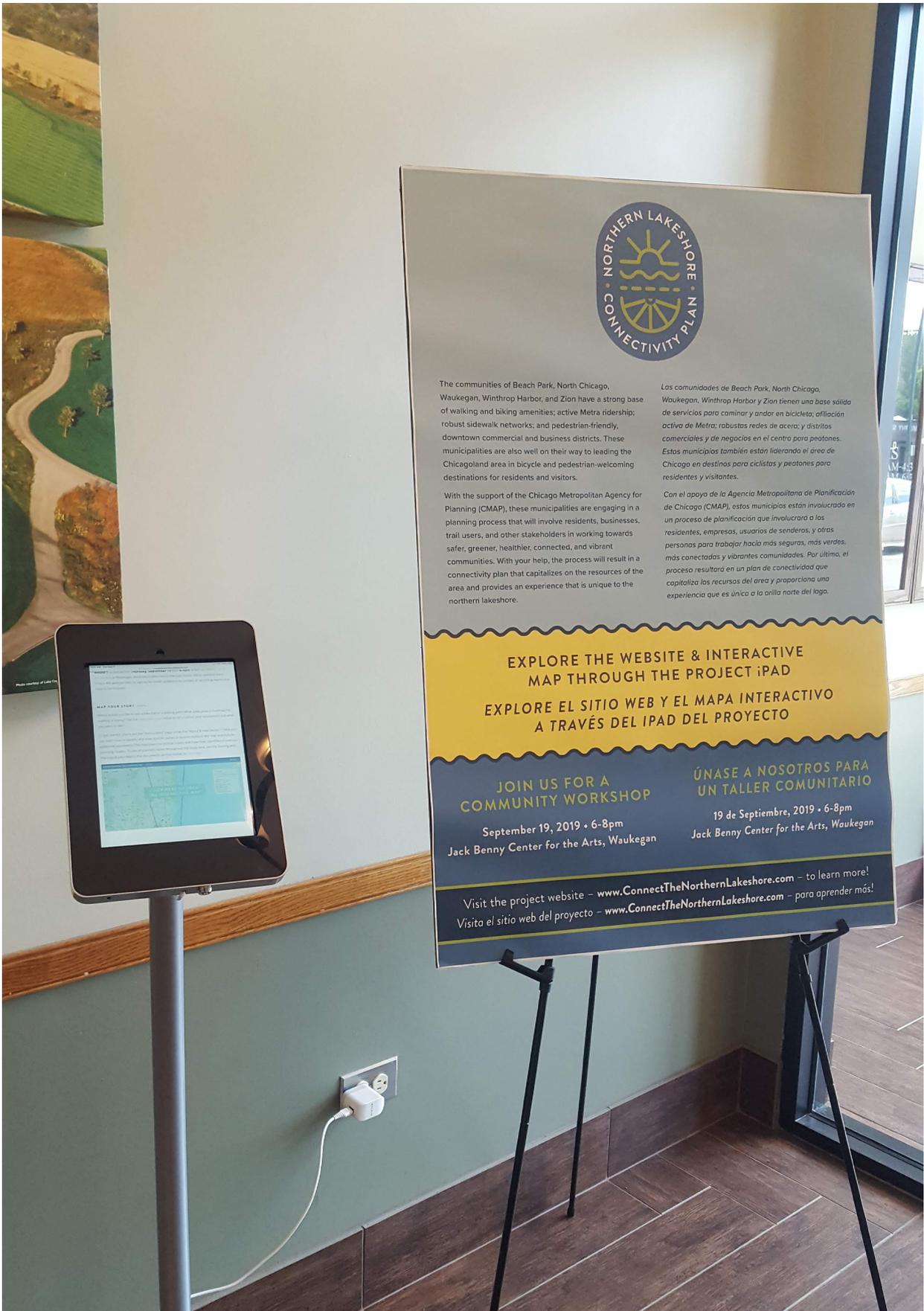
A project steering committee was convened to represent the diversity of the five partner communities and project stakeholders and to provide key insights, information, and background throughout the planning process. The steering committee includes transportation and transit agency representatives, public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



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 involucrados 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 **ÚNASE A NOSOTROS PARA UN TALLER COMUNITARIO**
 September 19, 2019 • 6-8pm 19 de Septiembre, 2019 • 6-8pm
 Jack Benny Center for the Arts, Waukegan 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!