MOVEHP

An Update to Bike-Walk HP 2030

DRAFT

Existing Conditions Report

June 2019

City of Highland Park

Acknowledgments

MoveHP is made possible through the volunteer efforts and input from dedicated members of the Highland Park community.

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1. Introduction

The City of Highland Park had made big strides since the adoption of Bike-Walk HP 2030 in 2012, the City's comprehensive bicycle and pedestrian plan. Since its adoption, the City achieved multiple recommendations from the plan, including a pedestrian cut-through, installation of a bicycle repair station, and 18 miles of shared-use lane marking (sharrows) and signage. In 2018, the City was awarded a Bronze status as a Bicycle Friendly Community by the American League of Bicyclists, one of only 19 Bicycle Friendly Communities in the state.

The City seeks to continue serving as a bicycle- and pedestrian-friendly community through the implementation of Bike-Walk HP 2030. Updates to the plan are needed to reflect new bike infrastructure and pedestrian connections, integrate the Family Friendly Bikeways Action Plan (2016), and re-evaluate project priorities. The updated plan, known as MoveHP, will provide the City with a non-motorized transportation plan that represents changing community needs and desires.

Purpose of the Existing Conditions Report

The Existing Conditions Report provides a snapshot of the existing bicycle and pedestrian infrastructure and policies in Highland Park. It also outlines and celebrates what the City has accomplished since the adoption of Bike-Walk HP 2030. The Existing Conditions report provides the foundation to reevaluate recommendations from Bike-Walk HP 2030 and introduce new recommendations that align with current trends and best practices.


Photo: Merle A. Branner

Process

MoveHP is following a 10-step planning process from kick-off to adoption:

Step 1: Project Kick-Off

Step 2: Public Workshop

Step 3: Existing Conditions Analysis

Step 4: Steering Committee Meeting

Step 5: Committee of the Whole

Step 6: Bicycle and Pedestrian Network Analysis

Step 7: Steering Committee Meeting

Step 8: Draft Plan

Step 9: Open House

Step 10: Final Plan & Approval Process

This process is designed to thoroughly evaluate Bike-Walk HP 2030, garner feedback, and research and apply best practices.

Public Outreach

MoveHP is an update of an existing document, which limits the need for the extensive outreach that occurred through Bike-Walk HP 2030. Nevertheless, the process includes several chances for public input. Outreach opportunities include a community workshop, online survey, and open house.

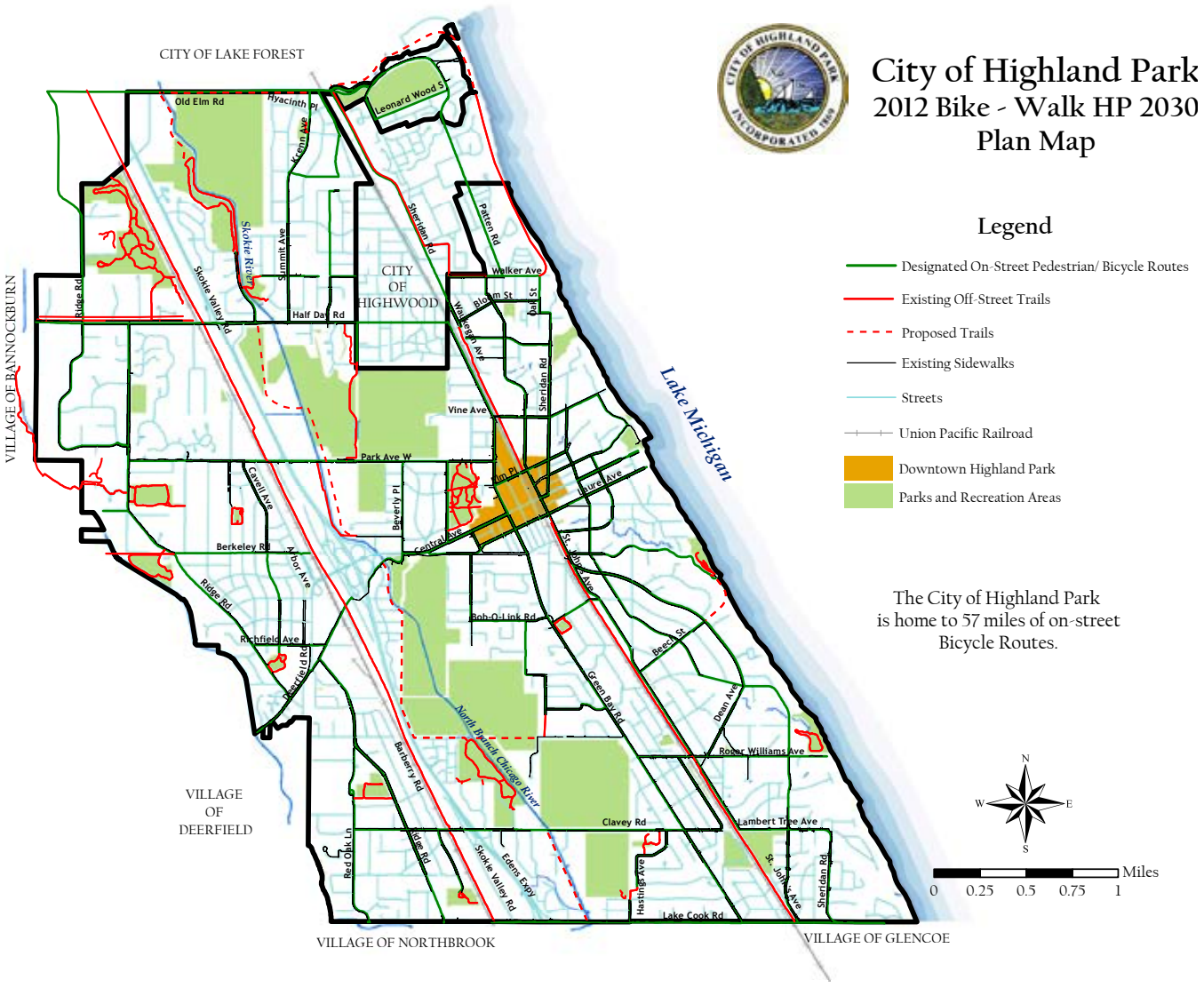
The MoveHP outreach process also includes multiple opportunities for public input through various presentations to City Council during regular updates and throughout the approval process.

Steering Committee

During the planning process, City staff regularly solicits feedback from the Steering Committee. The Steering Committee is comprised of community stakeholders including the Park District of Highland Park, residents, bike-enthusiasts, and every-day walkers. The committee will work closely with staff to serve as a sounding board and ensure the plan meets the needs of the Highland Park community.

Existing Bike/Ped Network

Bike-Walk HP 2030 Existing & Proposed Improvements



2. Accomplishments

In the seven years since the adoption of Bike-Walk HP 2030, the City has made significant strides to improve its non-motorized transportation infrastructure. The City has a designated annual budget of $20,000 to implement Bike-Walk HP 2030; however, as part of regular roadway improvement projects, active transportation infrastructure is included as applicable. The City has completed multiple pedestrian and cycling-focused projects, including adding 18 miles of shared-used lanes, constructing 2.5 miles of sidewalk, and adding or improving connections between shared-use trails.

Recognition & Ratings

Bike Friendly Community Designation

In 2018, the League of American Bicyclists designated the City of Highland Park a Bicycle Friendly Community at the Bronze level. The League reserves this award for select communities with impressive commitments to bicycling. A Bike Friendly Community welcomes bicyclists by providing safe accommodations for bicycling and encouraging people to bike for transportation and recreation. Making bicycling safe and convenient are keys to improving public health, reducing traffic congestion, and improving both air quality and quality of life. There are currently 19 recognized Bicycle Friendly Communities in Illinois including the City of Highland Park. Previously, Highland Park received honorable mention, but with the implementation of key recommendations from Bike-Walk HP 2030, the City is now nationally-recognized for its commitment to bike infrastructure and safety.

PlacesForBikes Rating

Places for bikes is a ranking system used by People ForBikes, a national bike advocacy organization. According to PeopleForBikes, "PlacesForBikes is a data-driven approach to identifying the best U.S. cities and towns for bicycling to help city leaders pinpoint improvements, and make riding better for everyone. Using feedback from everyday bike riders, city staffers, open-source maps and publicly available data, it scores five key factors: Ridership, Safety, Network, Acceleration and Reach." In 2018, Highland Park scored 1.3 out of 5. By adding additional data to open-source maps that includes the City's most recent bike infrastructure improvements, the 2019 score jumped to 2.4 out of 5. This represents another measure of progress in the last several years.

Plans & Policies

Bike-Walk HP 2030

The City of Highland Park adopted Bike-Walk HP 2030 plan in 2012. It serves as the non-motorized transportation plan and policy document for Highland Park. It is complementary to the Greenways Plan element of the City of Highland Park Master Plan; and is an evolution and update of the concepts and policies already established. The plan ultimately aimed to encourage more residents to walk or bike to work, school and shopping, and provide every user with an improved, more enjoyable and safer access to local and regional destinations. The plan recommended both programmatic improvements as well as physical improvements to the street, sidewalk, intersection, and trail systems.

The planning process included a thorough review of current pedestrian and cycling infrastructure in Highland Park and multiple avenues for community input. City staff held two community meetings in June 2011, an online survey, and accepted written responses on the plan.

Specific recommendations in the plan include the development of dedicated bicycle lanes, designation of shared roadways, signed bicycle routes and shared-use paths, as well as improved sidewalks and intersections throughout the City for cyclists and pedestrians. The plan also includes recommendations to make it easier to use existing local public transportation for persons of all abilities. These improvements are to be integrated into the city's annual continuous improvement plan. A status document with all the recommendations from Bike-Walk HP 2030 is included in the Appendix.

Family Friendly Bikeways Plan

In 2016, City staff and the Bike Walk Advisory Group collaborated with the Active Transportation Alliance – a Chicago non-profit advocating improved bicycling and pedestrian transportation – to create the Family Friendly Bikeways Action Plan. The regional campaign's goal is to help build a network of streets that are comfortable for cyclists of all ages and abilities. In Highland Park, the plan focused on improving cycling routes in the Highlands neighborhood.

The Highlands neighborhood was selected because it is primarily residential, includes numerous schools and parks, and is near restaurants and other facilities. The planning process included reviewing existing plans and data, visiting the High-

Bike/Ped Infrastructure Improvements

2012-2018

Greenwood Cut Through

Trail extension on Trail Way

lands neighborhood, and meeting with residents to identify barriers and opportunities to develop family-friendly bikeways.

The plan recommended numerous improvements to the area, including a new shared-use path along Half Day Road, family-friendly bikeways along Greenwood Avenue and Summit Avenue, and traffic calming along University Avenue, among other recommendations.

Highland Park Bike Walk Advisory Group

The Bike Walk Advisory Group (BWAG) was formed as part of the Bike-Walk HP 2030 implementation process. BWAG works with the city Transportation Advisory Group (formerly the Transportation Commission) to advise the City on bike/walk initiatives. Since the adoption of Bike-Walk 2030, BWAG has served as an advocate for bike and pedestrian policies and infrastructure implementation. All BWAG activities are designed to support a thriving, healthy, safe, and sustainable community in Highland Park and the group continues to meet and provide input and support for non-motorized transportation.

Pedestrian Infrastructure Improvements

Since 2012, the City of Highland Park added 2.5 miles of sidewalk and improved wayfinding signage within the city. Major improvements include building sidewalks on Lake Cook Road, filling sidewalk gaps on Green Bay Road, and improving the Robert McClory Path near Highland Park High School.

Pedestrian infrastructure downtown was improved by re-marking intersections, installing signs in downtown Highland Park in 2016, and removing "beg buttons" for pedestrian signaling. Wayfinding signs throughout the city were installed in conjunction with the 2017 Sharrows Project. In 2019, a sidewalk was built on the west side of Ridge Road from Lawrence Lane to Lake Cook Road.

To improve connectivity for both pedestrians and cyclists, the City constructed a "cut-through" at Greenwood Avenue and North Avenue. Previously, Greenwood Avenue came to a dead end north of North Avenue, near Northwood Junior High. A new sidewalk now improves network connectivity.

Bicycle Infrastructure Improvements

Since the adoption of Bike-Walk HP 2030, Highland Park has made substantial progress improving bicycle infrastructure. A significant investment included the 2017 Shared-Lane Project, which added or updated 18 miles of shared-use lanes throughout the city of Highland Park. These run primarily along secondary, low-speed streets making cycling comfortable for users of multiple abilities. The Sharrows Project also included improved wayfinding signage helping both residents and visitors find their way around town easier.

In May 2019 as part of the Family Friendly Bikeways Plan, the City installed 11 signs throughout the Highlands neighborhood. The signs identify the Family Friendly Bikeway Route.

In spring 2018, the City installed a bicycle repair station on the Robert McClory trail near the Ravinia Metra stop. The station includes a bicycle stand with an air pump and commonly-used tools attached. The station was a $2,650 investment utilizing part of a $10,000 2017 ComEd Green Region Grant. The bicycle repair station was part of a larger project to remove invasive buckthorn and install a pollinator garden along the trail. The station was installed to draw people toward the new garden and improved landscaping.

Shared Use/Trail Improvements

At the end of 2018, the City installed a key connection on the Trail Way path that links Sleepy Hollow Park to Danny Cunniff Park and the Centennial Ice Arena. Previously, the trail from Sleepy Hollow Park north towards Danny Cunniff Park required users to cross a parking area, but the new 0.035-mile extension now provides a safe and continuous path. The City also completed a shared-use side path along Walker Avenue from St. Johns Avenue to Oak Street, connecting residential areas with the Hamill Family Upland Trail in the Openlands Lakeshore Preserve. Highland Park currently has 9.5 miles of off-street shared-use paths, that include 7 miles of paved and 2.5 miles unpaved paths.

Summary of Bike-Walk HP 2030 Accomplishments

Pedestrian Improvements

- Develop the bicycle and pedestrian system through implementation of other improvements including street striping and signage: *Signs installed w/ sharrows in 2017.*
- Robert McClory Path On-street connection from Lincoln Avenue to Vine Avenue/Highland Park High School: *Bridge abutments over Mulberry Place repaired in 2017 including additional bracing of the handrails.*
- Green Bay Road sidewalks: *Completed gaps on west side of road between Lake Cook and Edgewood Roads.*
- Ridge Road/Collector sidewalks: *Sidewalk on west side of Ridge Road from Ridgelee to Lake Cook to be completed in 2019.*
- Lake Cook Road sidewalk from Ridge Road to City limits: *Partially constructed.*
- Central Avenue @ Second St, First St, St Johns, Sheridan Road intersection marking improvements: *Completed 2016*
- Elm Place and First Street intersection marking improvements: *Signs installed throughout Elm Place & pavement markings are maintained as required.*
- Downtown crosswalk "Beg Buttons": *removed at key CBD intersections 2019.*

Bicycle Improvements

- Develop the bicycle and pedestrian system through implementation of other improvements including street striping and signage: *Signs installed with sharrows in 2017.*
- Plan for and improve the arterial, collector and primary residential streets with striping and signage as needed so that they provide a secondary cycling and walking system and a link to the primary system: *Sharrows in 2017.*
- All On-Street bicycle routes signage improvements: *Installed in sharrows project in 2017*
- Robert McClory Path On-street connection from Lincoln Avenue to Vine Avenue/Highland Park High School: *Bridge abutments over Mulberry Place repaired in 2017*
- Central Avenue @ Second St, First St, St Johns, Sheridan Road intersection marking improvements: *Completed 2016*
- Elm Place and First Street intersection marking improvements: *Signs installed throughout Elm Place & pavement markings are maintained as required.*

Other Infrastructure Improvements

In 2018, the City created new angled parking on First Street north of Central Avenue. The design intent was to add additional on-street parking; however, an additional benefit of the change is traffic calming. The angled parking forces drivers to slow and veer slightly around the parked vehicles, and functions as a chicane. Chicanes are an intentional serpentine curve in a road used to slow speed. A chicane is one example of a traffic calming measure, which uses physical design to slow speed and make roadways safer for pedestrians, cyclists, and motorists alike.

Planned Improvements

Capital Improvement Program

The majority of infrastructure improvements were implemented under the City's Capital Improvement Program. The Department of Public Works oversees an annual 10-Year Capital Improvement Program (CIP). The plan prioritizes and budgets projects ranging from street rehabilitation to facility upgrades. Each year, as part of the 10-Year CIP budget process, the Department reviews upcoming needs in infrastructure improvements and prioritizes projects based on asset rating, master plans, grant funding, public input, City funding and Council approval. The 10-Year CIP incorporates short-term and long-term projects, including implementing water conservation and efficiency initiatives, facility upgrades, Emerald Ash Borer infested tree management plan including replacement of trees, green fleet initiatives, implementation of WaterSmart program whereby residents can view water usage in real time, improving sidewalk snow removal operations and implementation of the Bike-Walk HP 2030 plan for pedestrian safety and connectivity. The FY2020-2029 CIP includes a number of bike/walk projects:

- Clavey Road Reconstruction, including an 8-foot trail on the south side of the road
- Sidewalk installation/reconstruction (new sidewalk construction is subject to adjacent resident approval, see Section 4)
    - Arbor Ave (Berkeley to Midland)
    - Brook Road (Western to Hill)
    - Cloverdale Avenue (Berkeley to Cloverdale Park)
    - Crofton Avenue (Bob-O-Link to Saxony)
    - First Street (Green Bay to Elm)
    - Krenn Avenue (Hyacinth to Old Elm)
    - Lake Cook Road (Ridge to western city limits)
    - Old Skokie Valley Road
    - Old Trail (Western to Greenwood)
    - Park Avenue West (Cavell to Skokie Valley Bike Path
    - Ridge Road (Half Day Road to Mill Trail)
    - Ridge Road (Berkeley to Garland)
    - Sheridan Road (Roger Williams to Cedar/Dean)
    - Taylor Avenue
- Downtown Crosswalk Improvements
- Miscellaneous Pedestrian Enhancements (signals, striping, bumpouts, etc.)
- St. Johns Train Station Bike Path Relocation

Development Projects

Bike and pedestrian improvements were included as part of approval for three developments in the last several years. Projects include Laurel Courts II, 515 Roger Williams Avenue, and Capital Senior Housing.

- Bike lanes are proposed on the Laurel Avenue right-of-way as part of the Laurel Courts II development at 807-833 Laurel Avenue, (Ord #32-14). According to the ordinance, the applicant must:
    - Develop a design for dedicated bicycle lanes, or shared lane markings if dedicated lanes are infeasible, for both sides of Laurel Avenue between Hickory Street and Green Bay Road; and
    - Make a payment to the City of the costs of installation of such lanes or markings.

Planned Improvements

Capital Improvement Program FY 2020-2029 & Development Projects

Bike and Walk to School Day at Edgewood Middle School, October 2017

- The development for the proposed mixed-used development at 515 Roger Williams Avenue includes a provision for a Bicycle Parking Structure (Ord #34-15). The approved ordinance states, "the developer must cause to be designed and installed, at no cost to the City, a covered bicycle parking structure in the vicinity of the Ravinia Metra Station"
- The Capital Senior Housing project at 968-998 Central Avenue requires the developer to construct a sidewalk on the north side of Deerfield Road and an improved crossing across at Central Avenue and Sunset Road (Ord #45-2018).

Events

Events provide fun and safe opportunities for residents to enjoy riding a bike in the City and learn about bike safety. Since the adoption of Bike-Walk 2030, the City has hosted numerous bike-walk events to encourage residents to use non-motorized forms of transportation.

Each year as part of Fourth of July festivities, the City hosts a Children's Bike Parade. In 2018, as part of the Park District of Highland Park Fourth Fest event, the City hosted a Bike Fair. The City of Highland Park Police Department coordinated the event, offering bicycle and helmet safety checks, demos, bike rodeo, and raffles. Working Bikes, a local non-profit, accepted donations of new and used bicycles. This Bike Fair was one of several that were held on an annual basis. In 2015, the Bike Fair included a Bicycle Film Fest at the Highland Park Library.

In October 2017, North Shore School District participated in Walk and Bike to School Day. The Bike Walk Advisory Group asked the school district to participate as part of its education campaign. The event was well-received, with students, parents, and teachers biking and walking to school.

The annual Art Fair and the Taste of Highland Park close Central Avenue between Green Bay Road and First Street, turning the street into a pedestrian mall. These events also help to promote walking in the community.

3. Non-Motorized Transportation Status

The City of Highland Park includes diverse land uses, a robust park system, and regional attractions, many of which are accessible by the City's existing pedestrian and bicycle infrastructure. This chapter provides an overview of the current state of Highland Park's non-motorized transportation system, accessibility, and data.

Land Use Overview

Highland Park is a suburban community defined by diverse neighborhood characteristics. Anchored by an urban downtown adjacent to a Metra commuter rail station, the City includes dense, multi-family housing near downtown and the Ravinia Business District, while the majority of the City is comprised of single-family residential neighborhoods.

Parks & Schools

Residents and visitors of Highland Park benefit from a robust park system. The Park District of Highland Park operates over 700 acres of land in 45 park areas and offers approximately 2,800 recreation and seasonal programs." These parks include 4 lakefront park properties open to Highland Park residents and visitors. Park District parks are complemented by Openlands, which owns and operates the Openlands Lakeshore Preserve that comprises nearly 77 acres of natural area at Fort Sheridan and includes nearly 3 linear miles of trails.

Highland Park is served by North Shore School District 112, Township High School District 113, and several private school organizations.

Attractions & Destinations

In addition to the many parks in the City, residents and visitors enjoy a variety of cultural attractions. These include commercial areas such as Downtown and the Ravinia Business District, as well as the City's many businesses located along the Skokie Valley corridor. Ravinia Festival draws more than half a million visitors every season to its many concerts and shows. In addition, the City is home to a wealth of historic structures, including more than 150 listed on the National Register of Historic Places and over 130 designated as local landmarks.

Current Land Use

Attractions

1. Fort Sheridan
2. Ravinia Festival

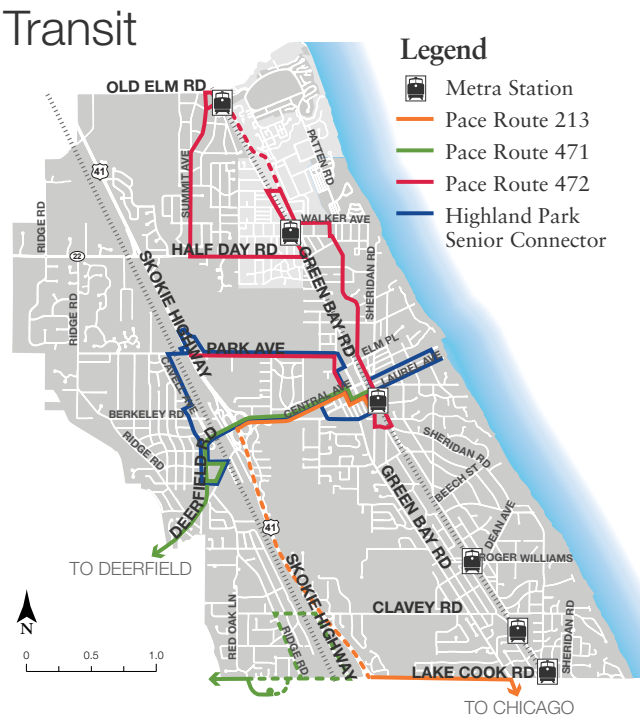
Schools

1. Braeside School
2. Edgewood School
3. Elm Place School
4. Highland Park High School
5. Indian Trail School
6. Lincoln School (vacant)
7. North Suburban Beth El
8. North Suburban Special Education District & School
9. Northwood School
10. Oak Terrace (Highwood)
11. Ravinia School
12. Red Oak School
13. St. James (Highwood)
14. Sherwood School
15. Wayne Thomas School
16. Deerfield High School (Deerfield)

Transit

Highland Park includes a public transit system that provides access to neighboring municipalities and local destinations. Pace has three fixed bus routes that serve Highland Park: Route 471, Route 472 and Route 213. Route 471 includes stops in Northbrook (Northbrook Court) and Deerfield; Route 472 serves Highland Park and Highwood; and Route 213 serves North Shore communities from Highland Park to Chicago. In addition, the Senior Connector provides free bus transportation on a fixed route to seniors and people with disabilities.

Metra operates the Union Pacific North Line, which generally parallels Green Bay Road. Highland Park includes four Metra stops: Fort Sheridan, Highland Park, Ravinia, and Breaside. While not located in Highland Park, the Highwood station is used by residents and commuters alike. In addition, Metra runs trains that make special stops at Ravinia Festival during festival season.

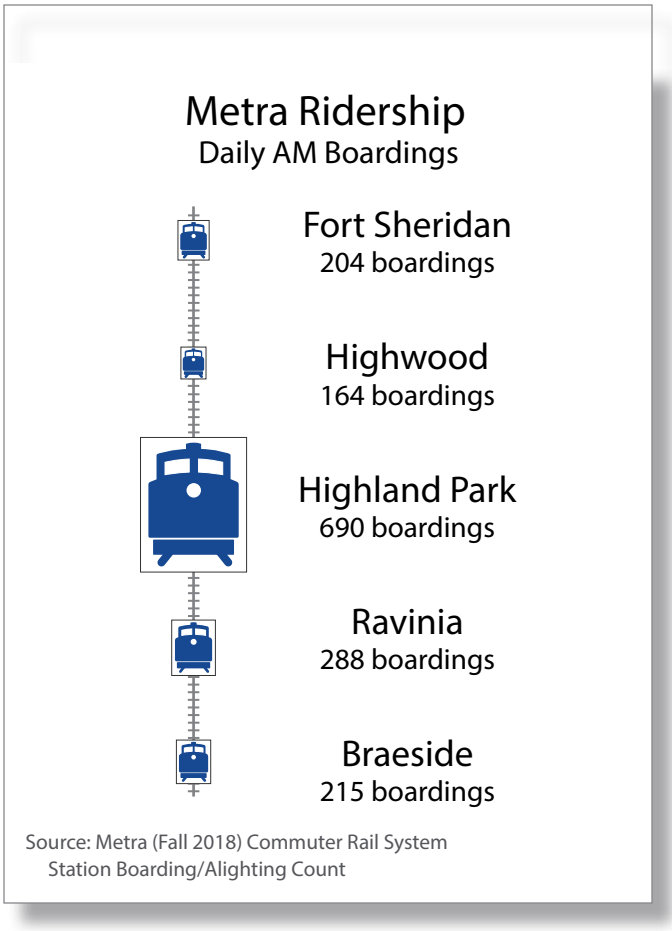


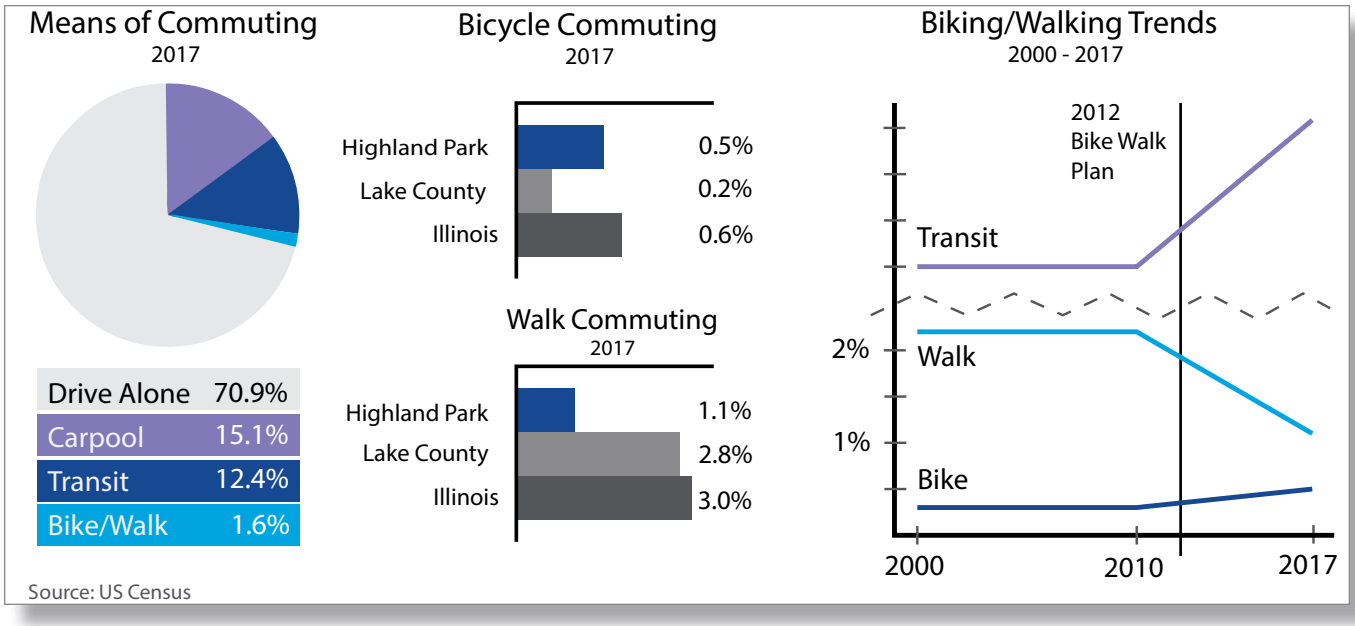
Active Transportation Use

How Residents Get Around

According the U.S. Census, the majority of Highland Park residents commuted by car in 2017, with 70.9% of workers driving alone and 15.1% of workers carpooling. Public transit was the next most popular option, with 12.4% of residents taking Metra or Pace to work. Finally, 1.1% of all daily commutes were made by walking, and 0.5% were made by bike.

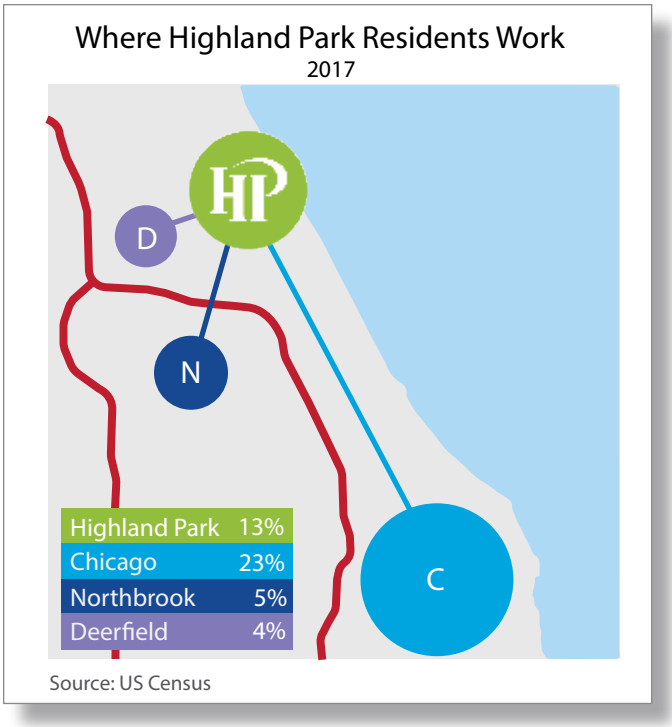
These numbers differ in several key aspects from 2012 when the City approved Bike-Walk HP 2030. First, there was a decline in the number of people walking to work; in 2012, 1.8% of workers walked to work. Secondly, there was an increase in the number of people taking public transit to work – in 2012, approximately 10% of workers commuted by public transit. Finally, the total number of Highland Park residents walking, biking, or taking public transit to work rose from 12.5% to 14% between 2012 and 2017. This increase is a significant improvement; however, it is concerning that walking declined one-third over the same period of time.





The rate of walking in Highland Park compares poorly to both Lake County and Illinois overall. In 2017, 2.8% of workers in Lake County and 3% across Illinois walked to work. Highland Park has more favorable bicycling numbers; it is significantly above the 0.2% average for Lake County and approximate to the 0.6% average for Illinois.

The data presented is collected by the U.S. Census Bureau detailing the commuting habits of workers. It does not include recreational use and errands. It may be worthwhile to note that Highland Park's workforce is declining in both real and relative terms: in 2000, the labor force participation rate was 52%; in 2017, the estimated rate was 49%. The working-age population (between 18 and 65 years old) has declined from 58% of the total in 2000 to an estimated 52% of the total in 2017. Some of the decline in commuting numbers may be attributed to the declining overall workforce. However, even as workforce participation rates and the working-age population shrink, biking and walking may be even more important for recreation and errands.



Home and Work Commutes

Of the approximately 11,000 Highland Park residents who work, Chicago is the most popular destination at 22.7% of commutes. Highland Park is the second most common workplace with 13% of commutes internal to the city. Neighboring Northbrook and Deerfield are the destinations for 5.4% and 3.8% of commutes, respectively. Less than 2% of workers commute out of state. These commuting patterns suggest there is room for improving the number of residents that bike, walk, or take transit to work.

New Laws

The State of Illinois passed several bills in the past six years that seek to better regulate roadways and improve safety for non-motorized transportation.

Public Act 98-0485: Bicycles May Pass Cars on the Right (2013)

- This act exempts bicycles from certain restrictions on overtaking from the right. Prior to the amendment, bicycles could not pass on the right unless the unobstructed pavement to the right was a width of 8 feet or more. The act exempts bicycles from this requirement, and prioritizes that safe conditions are the only requirement for a bicyclist to pass on the right of a vehicle.

Illinois SB0396: Electric-assist Bicycles (2017)

- Defined and created a regulatory structure for e-bikes.
- Senate Bill 0396 defines a low-speed electric bicycle and divides them in three different classes depending on how the electric assist is utilized and the max speed. The bill further states that laws and regulations that adhere to bicycles shall also apply to low-speed electric bicycles. Furthermore, the bill provides that low-speed electric bicycles may be operated on any bicycle path unless the municipality, county, or local authority prohibits their use on that path. Became a public act on August 18, 2017.

Illinois HB4799: Biking and Walking Education in Schools (2018)

- Requires school boards to educate K-8 students about biking and walking safety.
- House Bill 4799 provides that every public school with grades between kindergarten and grade 8 shall instruct, study, and discuss "effective methods" to prevent and avoid traffic injuries while walking and bicycling. If school boards provide safety education as already required in the State of Illinois, then the instruction should also include pedestrian and bicycling safety. School boards are to update their policies and instruction every 2 years. Became a public act on August 24, 2018.

Illinois HB5143: Bicycle Safety and the Dutch Reach (2018)

- Illinois Vehicle Code recommends the Dutch Reach method, and bike safety will feature in the Rules of the Road manual and driver's license exam.
- House Bill 5143 provides that information advising drivers use the Dutch Reach method when opening a vehicle door. The Dutch Reach method is a strategy used while parallel parking that reduces the risk of injury to a bicyclist or striking an oncoming vehicle. The information will be included in the Illinois Rules of the Road publication, and included as a test question in the driver's license examination.

Illinois HB2895: Cycling is official State exercise (2018)

- Cycling is designated the official State exercise of the State of Illinois.

Illinois HB1784: Bicycle Rear Light in addition to or instead of a Reflector and Allows Passing in No-Passing Zones (2017)

- This bill allows a rear red light instead of or in addition to a rear red reflector, and allows motorists to pass bicyclists in a no-passing zone under certain conditions to improve cyclist safety.
- Due to improvements in bicycle light technology, red lights have greater visibility than reflectors. House Bill 1784 has changed to allow cyclists to solely use rear red lights instead of rear red reflectors.
- Motorists are now able to pass cyclists in otherwise no-passing zones. This change should increase traffic flow, place less pressure on cyclists, and allow for safer passing around cyclists. In addition, cyclists may now utilize the shoulder on roads, which is typically prohibited for most vehicles.

Bike/Pedestrian Counts

In May and September of 2013 and 2014, the City of Highland Park, in conjunction with the Bike Walk Advisory Group, performed bike and pedestrian counts to better understand the utilization of local roads and trails by alternative transportation modes. No counts were performed between 2015-2017, but the efforts were restarted in the fall of 2018.

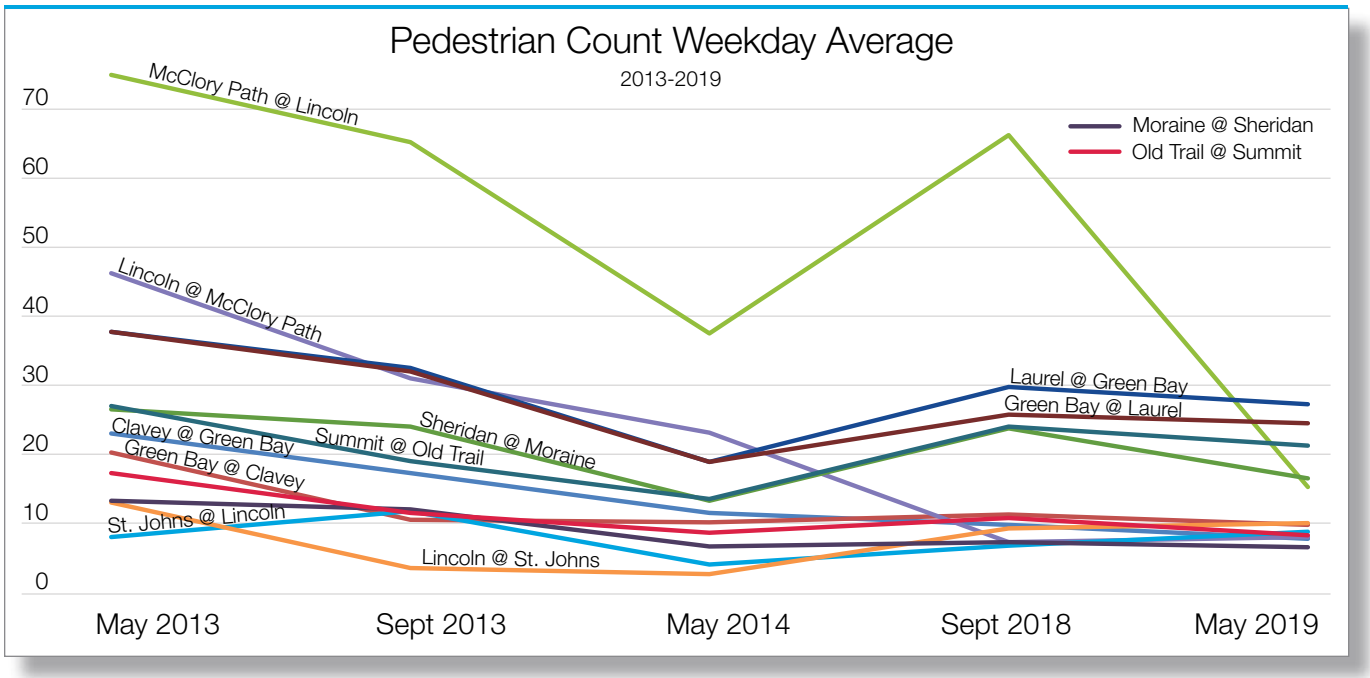
The Bike/Pedestrian Count generally follows guidelines set by the National Bicycle and Pedestrian Documentation Project, which recommends performing two counts per year. It recommends counting in May and mid-September as they represent "peak period[s] for walking and bicycling, both work- and school-related."

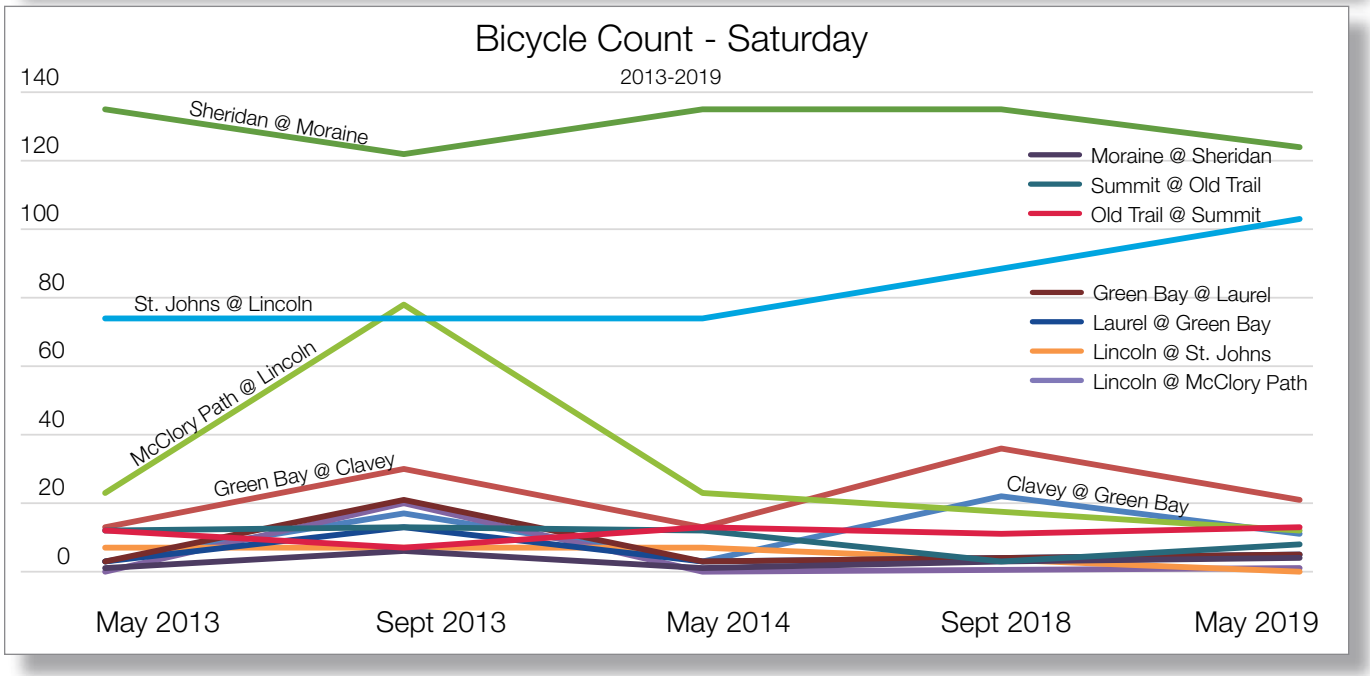
The average daily peak hour traffic for both pedestrians and bicyclists has fallen from September 2013 to September 2018, as the table below demonstrates. Pedestrian traffic has fallen by 14% and bicyclist traffic has fallen by 22% in that time period. Out of the 12 intersections observed, 9 saw reductions in pedestrian traffic and 9 saw reductions in bicyclist traffic. Several saw sharp declines, such as Lincoln at McClory which saw a 77% in pedestrian traffic (from 62 to 14.5 on average) and 59% in bicyclist traffic (from 22 to 9 on average). Because the declines are numerous, sharp, and averaged across four sampling periods during peak hours, it can be assumed that the general trend in Highland Park is a decrease in biking and walking during commuting hours. This correlates with declines reported in the American Community Surveys and noted in this section.

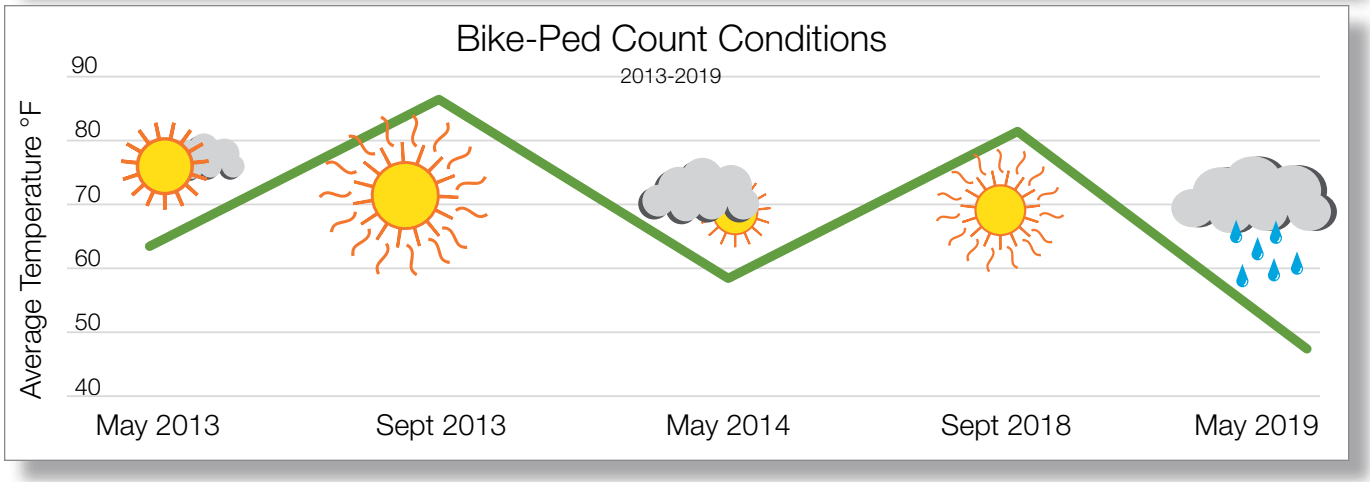
During the course of preparing this Existing Conditions Report, the City conducted the Spring 2019 bike-ped count. The data has been entered is available to view in the Appendix. Preliminary analysis reveals that the City's recreational bicycle population is growing and inclement weather has a signficant impact on the number of bicyclists and pedestrians.

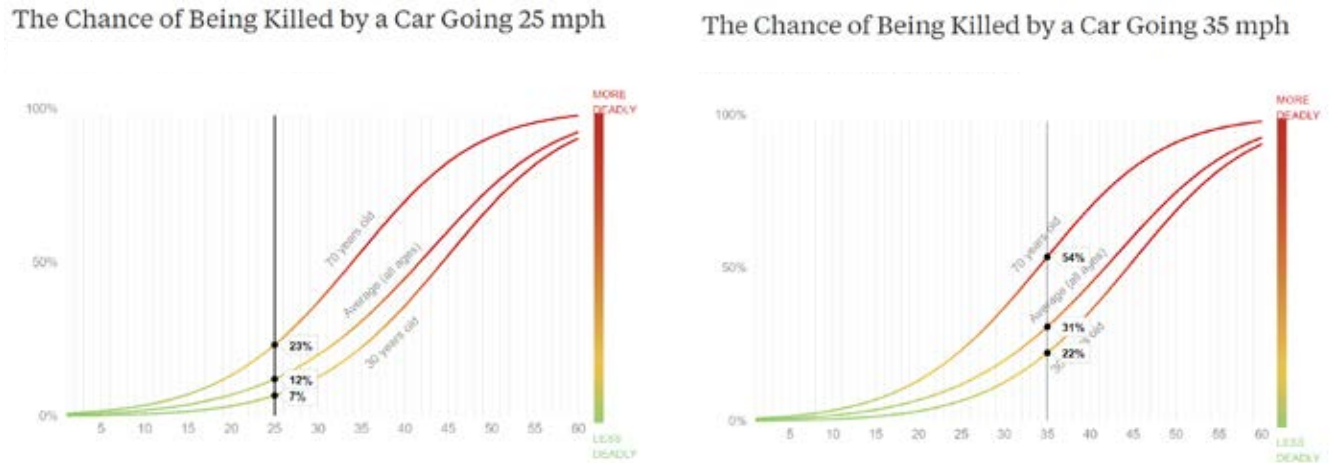
Average Daily Count of Peak Pedestrian and Bicyclist Traffic
Highland Park, September 2013 and September 2018

	Pedestrian Daily Average			Bicyclist Daily Average		
Intersection	**Sept. 2013**	**Sept. 2018**	**Change**	**Sept. 2013**	**Sept. 2018**	**Change**
Clavey @ Green Bay	17.25	9.75	-43%	7	5.75	-18%
Green Bay @ Clavey	10.5	11.25	7%	11.5	11.75	2%
McClory Path @ Lincoln	65.25	66.25	2%	19.5	17	-13%
Lincoln @ McClory Path	31	7.25	-77%	11	6.25	-43%
St Johns @ Lincoln	11.75	6.75	-43%	17	23.5	38%
Lincoln @ St. Johns	3.5	9.25	164%	1.25	6.25	400%
Laurel @ Green Bay	32.5	29.75	-8%	5	5.25	5%
Green Bay @ Laurel	32	25.75	-20%	5.5	4.75	-14%
Sheridan @ Moraine	24	23.75	-1%	37.75	43.75	16%
Moraine @ Sheridan	12	7.25	-40%	2.5	0.75	-70%
Summit @ Old Trail	19	24	26%	10	5.25	-48%
Old Trail @ Summit	11.5	10.75	-7%	13	3.5	-73%
Total	270.25	231.75	-14%	141	133.75	-5%


Pedestrian Count Weekday Average
2013-2019
70
60
50
40
30
20
10
0
McClory Path @ Lincoln
Lincoln @ McClory Path
Sheridan @ Moraine
Summit @ Old Trail
Clavey @ Green Bay
Green Bay @ Clavey
St. Johns @ Lincoln
Lincoln @ St. Johns
Laurel @ Green Bay
Green Bay @ Laurel
Moraine @ Sheridan
Old Trail @ Summit
May 2013
Sept 2013
May 2014
Sept 2018
May 2019


Bicycle Count - Saturday
2013-2019
140
120
100
80
60
40
20
0
Sheridan @ Moraine
St. Johns @ Lincoln
McClory Path @ Lincoln
Green Bay @ Clavey
Clavey @ Green Bay
Moraine @ Sheridan
Summit @ Old Trail
Old Trail @ Summit
Green Bay @ Laurel
Laurel @ Green Bay
Lincoln @ St. Johns
Lincoln @ McClory Path
May 2013
Sept 2013
May 2014
Sept 2018
May 2019


Bike-Ped Count Conditions
2013-2019
Average Temperature °F
90
80
70
60
50
40
May 2013
Sept 2013
May 2014
Sept 2018
May 2019



Source: ProPublica, https://www.propublica.org/article/unsafe-at-many-speeds

Safety

Safety is a key factor that motivates whether people choose to walk or bike to a destination. In fact, according to a 2018 national survey by PeopleForBikes, 50% of adults would like to ride bikes more, but are concerned about safety around motor vehicles. These perceptions are not unfounded. Between 2012-2018, 122 automobile crashes involving a cyclist or pedestrian occurred within the City, based on reports from the Highland Park Police Department. Of those crashes, 71 resulted in physical injuries.

Crash Data Analysis

City staff identified intersections, roadways, and areas that are hazardous to pedestrian and cyclist safety. Utilizing geographic information systems (GIS), staff performed hotspot and density analysis to identify areas with spatially concentrated or above average crashes involving pedestrians or cyclists. The highest concentration of crashes is in downtown Highland Park, which matches with its high level of pedestrian activity. The majority of crashes in downtown involve more pedestrians than cyclists. The second significant concentration of crashes are along the on- and off-ramps of Route 41 on Lake Cook Road. Notably, Highland Park only has half of the crash data along Lake Cook Road (and County Line Road) because the jurisdiction is shared with Glencoe and Northbrook on the eastbound lanes. The crashes involve a similar number of pedestrians and cyclists. Improvements to the intersection of Lake Cook Road and Skokie Valley Road will require coordination with both IDOT and the Village of Northbrook.

Pedestrian Safety

The majority of crashes involving pedestrians occur downtown, especially along 1st Street and 2nd Street between Elm Place and Laurel Ave. The intersections along Central Avenue have pedestrian bump-outs and highly visible crosswalks while those along Elm Place and Laurel Avenue only have crosswalks. Notably, the Laurel Avenue viaduct may contribute to poor visibility and the high number of crashes at the intersection of Laurel Avenue and 1st Street.

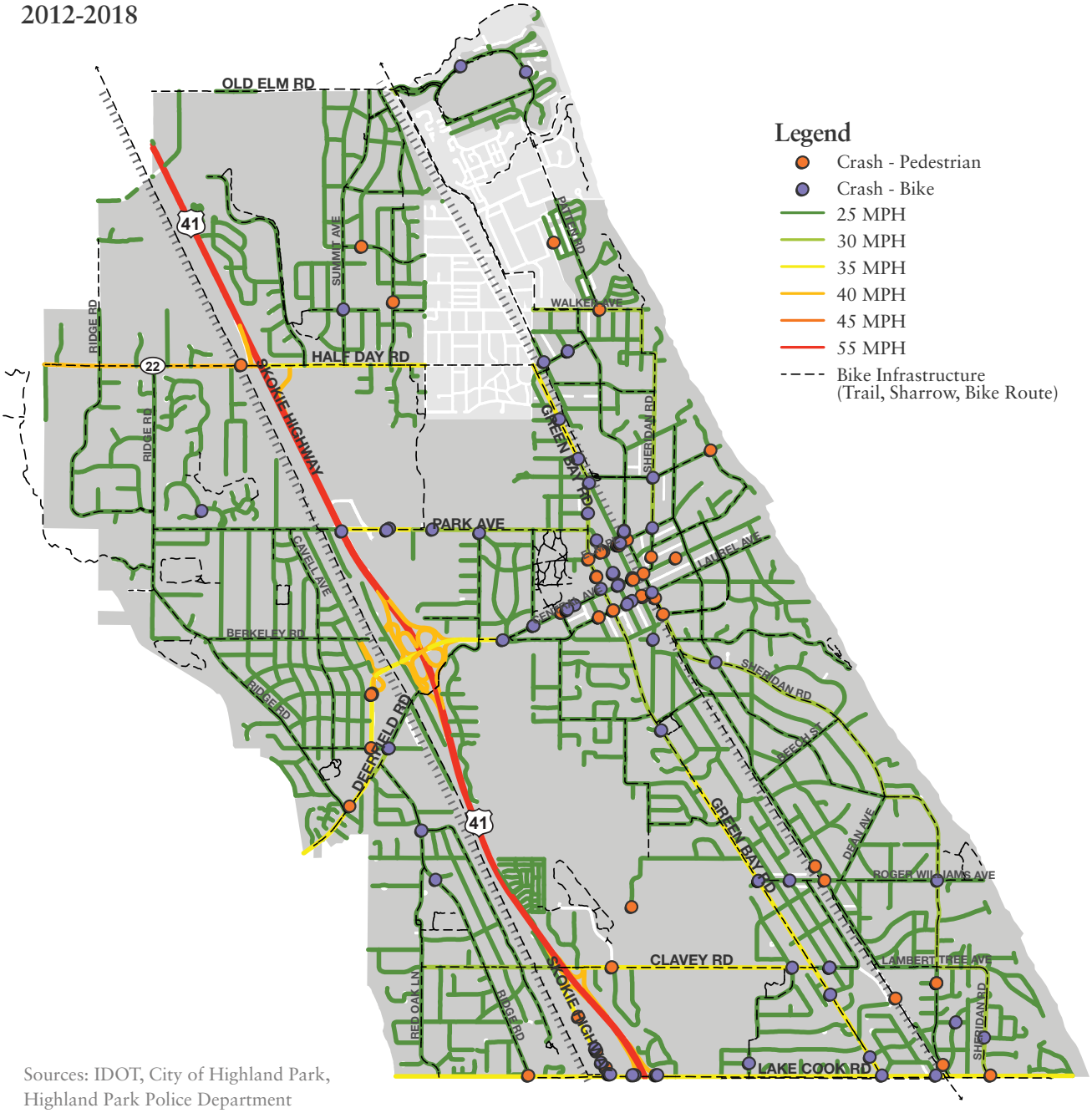
Crashes occurring outside of downtown are more widespread. One significant area is the Briergate District around the intersection of Deerfield and Old Deerfield roads. Deerfield Road is four-lanes-wide and receives a high volume of traffic (18,200 ADT, IDOT 2015) and both its width and volume may contribute to decreased pedestrian safety.

Bicycle Safety

There are two significant hot spots for crashes involving cyclists, downtown Highland Park and the on- and off-ramps of Route 41 on Lake Cook Road. Significantly, several roads including Green Bay Road and Central Avenue have an above average number of crashes involving cyclists. Because many cyclists utilize the roadway instead of side-

Vehicle Speed Limits + Crashes Involving Bikes & Peds

2012-2018



Sources: IDOT, City of Highland Park, Highland Park Police Department

walks, crashes will occur along a route instead of just intersections.

Roadway Speed & Traffic Volume

Many of the areas with a higher frequency of crashes are on roadways with high traffic volumes. For example, according to a 2014 IDOT traffic count, Lake Cook Road has approximately 33,000 cars traveling on it per day past Skokie Valley Road.

In addition to roadway volumes, which may increase opportunities for car-pedestrian/cyclist collisions, a major factor in cyclist and pedestrian safety is the speed at which a vehicle travels. According to a 2011 report by the AAA Foundation for Traffic Safety, the average risk of severe injury for a pedestrian struck by a vehicle going 25 MPH is 12%. When age is factored into the equation, the risk rises as age increases. A 70-year-old pedestrian has 23% change of severe injury if struck by a vehicle traveling 25 MPH.

As vehicle speeds increase, so do the risk for severe injury to pedestrians and cyclists if struck. In Highland Park, the default roadway speed is 25 MPH, but some roads that currently have bicycle infrastructure (sharrows) have speeds of up to 35 MPH. These roads include Lake Cook Road, Clavey Road, Deerfield Road, Half Day Road, and sections of Green Bay Road. At a speed of 35 MPH, the average risk of severe injury for a pedestrian struck by a vehicle jumps to 31%.

While the majority of crashes involving pedestrians and cyclists occur within or near the downtown area, roadways in Highland Park with higher speed limits are proving to be hazardous to pedestrians and cyclists alike. For example, Lake Cook Road has a frequency of crashes significantly higher than Highland Park overall. Lake Cook Road is a 35 MPH road, yet is a designated Bike Route. The National Association of City Transportation Officials (NACTO) recommends that on-street "Bicycle Boulevards" without any bicycle lanes or separation should be no more than 25 MPH and have fewer than 1,500 motor vehicles daily (NACTO, "Designing for All Ages & Abilities", 2017). It is not a best practice to have designated bicycle routes without any separation on roads faster than 25 MPH because it makes cycling both uncomfortable and more dangerous.

It is practicable and possible to reduce vehicular speeds in Highland Park. The speed limit on Park Avenue West was reduced in front of the High School field from 35 MPH to 30 MPH to make the road safer for pedestrians and cyclists.

Zoning & Code Analysis

The City's Municipal Code, including the Zoning Code, provide policies that can shape the walkabili-

ty and bikeability of the community. This section of the Existing Conditions Report provides a review and analysis of the City's code related to bicycles and pedestrians.

Bicycle Regulations

Bicycles are regulated by Chapter 75 of the Highland Park Code of 1968, as Amended. Bike-Walk HP 2030 includes a recommendation to amend Chapter 75; however, it does not specify the recommended amendments. Since the adoption of Bike-Walk HP 2030 in 2012, the State of Illinois passed several new laws related to biking (See Page 17), which may require City's regulations in Chapter 75 to be updated in order to align with state laws.

As an incentive to decrease vehicle parking and encourage additional bicycle parking, the City of Highland Park offers an automobile parking reduction at a ratio of ten (10) long-term bicycle parking spots for one (1) automobile spot (City of Highland Park Zoning Code Section 150.805(C)(4)). However, this reduction must meet the following conditions: approval from the City Council, have a park-

Pedestrian and Bicycle Zoning Policies in Select Chicago Suburbs and Other Cities

Municipality	Access in Parking Lots	Bicycle Parking (Multi-Family)	Bicycle Parking (Commercial)	Bicycle Parking Design	Code
Evanston, IL		Per requirement by the Design & Project Review Committee	Per requirement by the Design & Project Review Committee.		Article 16-6-16-2-11, Evanston Code of Ordinances
Oak Park, IL	All parking must have internal paths (Article 10.3.B.2)	1 bicycle : 4 dwelling units	1 bicycle : 2,000 sf GFA.	50 ft. rule; long-term rule.	Article 10, Oak Park Zoning Ordinance
Wilmette, IL		3 bicycle : 20 dwelling units	1 bicycle : 10 automobile spaces	Size rule; long-term rule; U-lock rule; paved rule.	Article 14.12 of Wilmette Zoning Ordinance
Northbrook, IL		1 bicycle : 20 automobile spaces	1 bicycle : 4 automobile spaces	Visible, well-lit, and accessible	Article 9-104 I, Northbrook Zoning Code
Chicago, IL	Internal paths in parking lots with 150 or more spaces (Article 17.10.1006)	1 bicycle : 2 automobile spaces (min. 8 units)	1 bicycle : 5 automobile spaces	Size rule; paved rule	Chapter 17-10-0300, Chicago Zoning Ordinance
Minneapolis, MN		1 bicycle : 4 bedrooms	1 bicycle : 20 automobile spaces (min. 4)	50 ft. rule; long-term rule	Chapter 541.180, Minneapolis Zoning Ordinance
Portland, OR	Internal paths in parking lots with 125,000 sf (Article 33.266.130.F.5)	1.1 bicycle : 1 unit	1 bicycle : 5,000 sf net building area	50 ft. rule; U-lock rule; long-term rule; size rule.	Chapter 33.266, Portland Zoning Code

Table Notes:
50 ft. rule: short-term parking must be within 50 ft. of main entrance and visible to street.
U-lock rule: all required bicycle racks must allow both the bike frame and a wheel to be secured by a common U-shaped lock.
Paved rule: bicycle parking must be paved and drained, and free of mud, dust, water, snow and ice.
Size rule: specifies that each space must be a minimum size, typically 2 ft. wide by 6 ft. long, with a 5-6 ft. aisle behind the rack to allow exit and entry.
Long-term rule: Long-term parking, where provided, must be covered, and either enclosed, secured, or supervised by a camera or within view of security.

ing demand analysis prepared by a qualified traffic consultant, and have an alternative plan for parking if the reduction does not meet demand (the City Council may revoke the reduction). These stringent requirements may make the bicycle parking reduction a less attractive option for developers and a disincentive to the policy.

The City includes bicycle parking design standards as part of its automobile parking reduction policy (City of Highland Park Zoning Code Section 150.805(C)(4)). These standards requires bike parking protect bicycles from weather, discourage theft, allow for both the frame and wheel to be secured with a standard U-shaped lock, and have a minimum dimension of two feet in width by six feet in length.

The City Code does not include *required* bicycle parking as part of new developments, which does not align with best practices and regional trends. Cities and Chicago-area suburbs with a bicycle parking ordinance generally require design and location standards for required bicycle parking. Bicycle parking is typically required for multi-family residential, commercial, institutional, and educational land uses. Zoning ordinances typically make a distinction between short-term and long-term bicycle parking with different design and location standards applying to each; a certain percentage of total bicycle parking must be allocated to each. The number of bicycle parking spaces required is determined as a ratio to required automobile spaces, gross floor area, net building area, or number of units in a building (see Table of Pedestrian and Bicycle Zoning Policies in Chicago Suburbs and Cities).

Pedestrian-related Regulations

Sidewalks are regulated, in part, by Chapter 93 of the Municipal Code. Specifically, the code requires sidewalks to be installed "on both sides of major arterial streets" (Section 93.040(A)(1)). The code also requires that sidewalks shall be installed on both or at least one side of minor arterial streets based on zoning districts.

In addition to the code requirements, the City of Highland Park Department of Public Works follows Local Streets Sidewalk Installation Policy, which requires property owners consent for new sidewalk on a residential street (See Section 4. Pedestrian Infrastructure for more information).

For example, street work was done on North Avenue between Summit and Priscilla Avenue. A sidewalk currently exists on the north side of North Avenue, but not the full length of the south side. Due to lack of owner consent, no sidewalk was built on the south side as part of the roadway improvement.

Additional code review reveals that the City does not currently mandate internal walkways in new parking lots of any size. Both Chicago and Portland, OR, require internal walkways in large-sized parking lots. Oak Park, IL, requires internal walkways in all parking lots. Internal walkways, usually separated from vehicular parking and traffic by landscaping, promote pedestrian safety and reduce the risk of injury. They are also important links between the sidewalk network and storefronts, which otherwise are difficult to find or dangerous to access in large parking lots. Internal walkways make parking lots safer and more pleasant for pedestrians and drivers alike.

4. Pedestrian Infrastructure

Pedestrian infrastructure includes sidewalk, trails, and crosswalks that allow pedestrians safe access to destinations throughout the community. This section provides a summary of the pedestrian infrastructure improvements implemented since the adoption of Bike-Walk HP 2030.

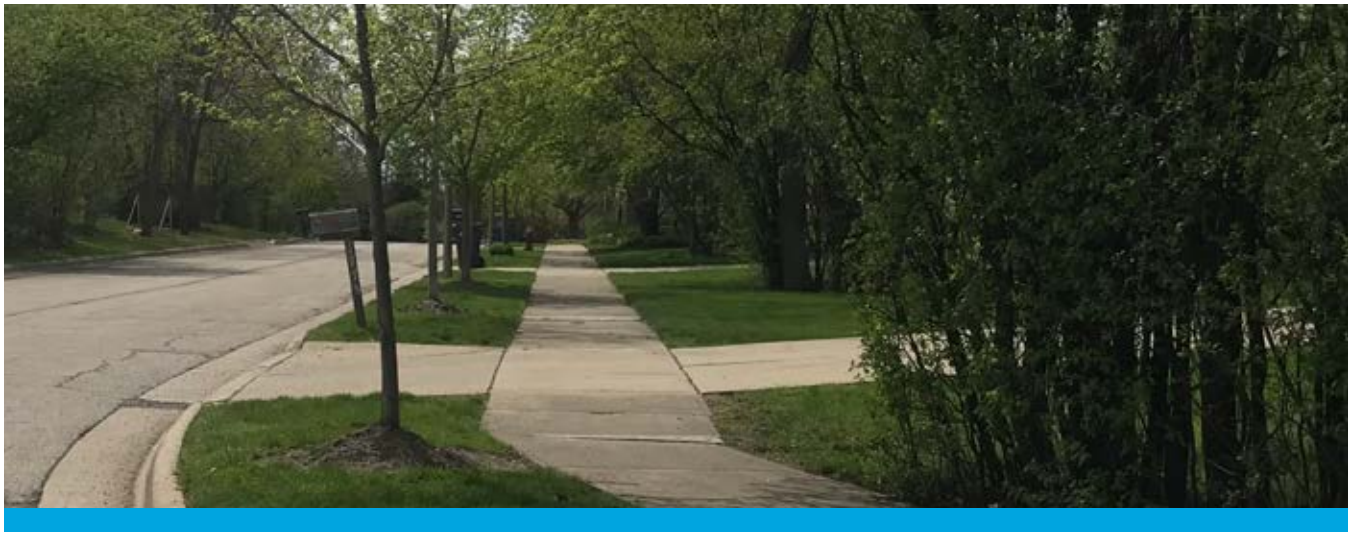
New Trails & Sidewalks

Highland Park has added several trail segments since the adoption of Bike-Walk HP 2030. These include new segments of sidewalk on Green Bay Road between Lake Cook Road and Edgewood Road, extending the Skokie Valley Trail from Old Elm Road to Half Day Road, and adding a shared-use sidepath on Walker Avenue from St. Johns Avenue to Oak Street. The City began work in Spring 2019 on a new sidewalk along Lake Cook Road from Ridge Road to the city limits.

Sidewalk Gaps

According to the U.S. Department of Transportation, "a well-connected transportation network reduces the distances traveled to reach destinations, increases the options for routes of travel, and can facilitate walking and bicycling." Several gaps in the pedestrian sidewalk network remain. These gaps range from half a block to half a mile. The following sidewalk gaps have been identified, but it is not exhaustive:

- Sheridan Road from Roger Williams Avenue to Cedar Avenue.
- Groveland between Oakland Drive and Hedge Run, and from Oakland Drive to Sheridan Road.



New sidewalk construction in Spring 2019 on Ridge Road, between Lake Cook Road and Lawrence Lane fills a critical gap in the sidewalk network.

- Highland Place & Hillside Drive – 1 block
- Western Avenue from Euclid Avenue to North Avenue
- Lake Cook Road from Ridge Road to Red Oak Lane
- Crofton Avenue from Saxony to Bob-O-Link
- Hyacinth Place between Krenn Avenue and Western Avenue, Western Avenue to Fort Sheridan
- Old Deerfield Road and Richfield Avenue

These gaps, and specific neighborhoods that lack pedestrian infrastructure, are further highlighted in the Existing Pedestrian Infrastructure Map presented later in this section.

Downtown Beg Buttons

Pedestrian crosswalk buttons, commonly known as "beg buttons," require pedestrians to push a button to activate a crosswalk signal. Often this act requires a pedestrian to wait an additional light cycle for permission to cross a street, giving preferencital treatment to vehicles. While beg buttons are appropriate for heavily trafficked roads with little pedestrian activity, they continue to prioritize car movement over pedestrian movement in pedestrian-oriented areas. In 2018, the City removed the beg button function at four intersections downtown. These intersections include:

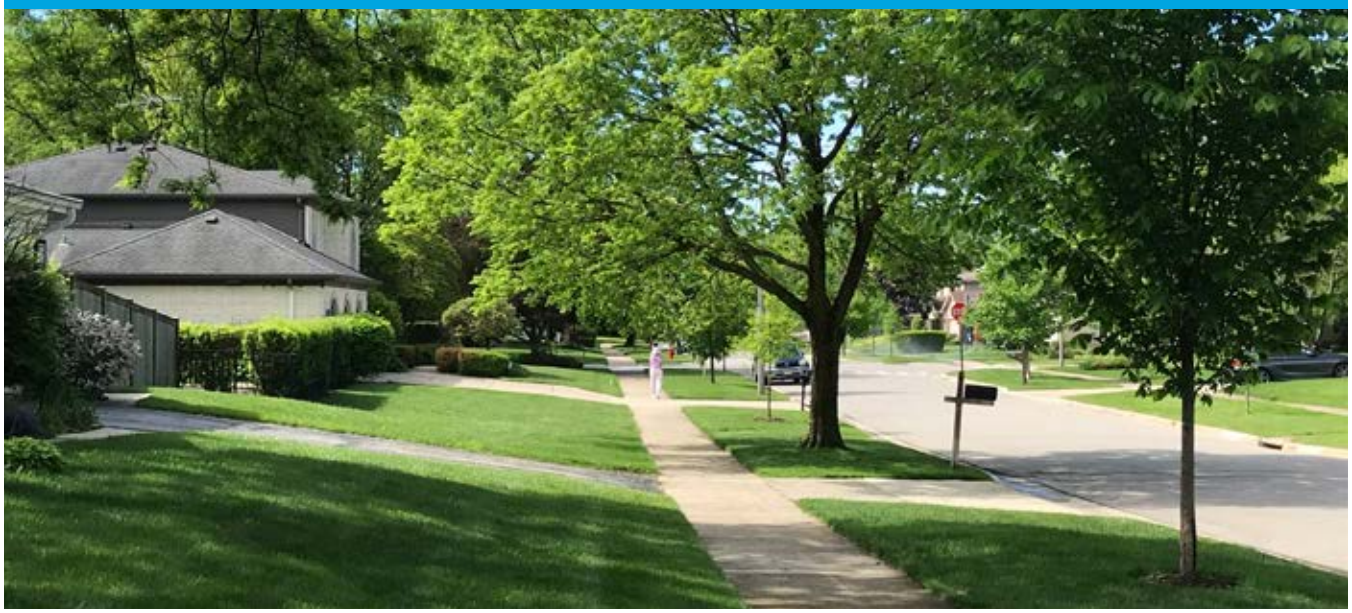
- Laurel Avenue and St. Johns Avenue
- Laurel Avenue and First Street
- Laurel Avenue and Green Bay Road
- Green Bay Road and Central Avenue

By eliminating the beg buttons, those who walk in downtown are given as much priority to move through the streets as automobiles. This promotes more efficient pedestrian movement and enhances the pedestrian-oriented nature of downtown.

Local Streets Sidewalk Installation Policy

The Public Works Department continues to identify gaps and install sidewalks as part of roadway improvements and implementation of Bike-Walk HP 2030. When new sidewalks are proposed, the Department follows the Local Streets Sidewalk Installation Policy. This policy, effective since July 2016 (Resolution No. R109-2016), outlines the requirements for the installation of new sidewalks on local, neighborhood streets.

Existing Pedestrian Infrastructure



Specifically, the policy for a new sidewalk must adhere to the following procedure:

- The process is initiated by a resident volunteer and requires the support of 75% of residents on the same side of the street where a sidewalk is proposed for construction.
- Preliminary engineering plans and estimates will be developed. Neighborhood meeting(s) will be held to present the plans and costs.
- A new sidewalk will be considered for inclusion in the City's Capital Improvement Program through the City's annual budget process based on the required 75% resident support.
- Should there be a lack of required support, the petition for the sidewalk will be tabled for a 3 year period.

This policy has been effective in bringing new sidewalks to neighborhoods within the City. Nevertheless, the requirement for 75% of residents on the same side of the street to support a new sidewalk has resulted in street reconstruction projects that are completed without a sidewalk due to a lack of resident support.

Sidewalk Installation Policies in Highland Park and Other Communities

Municipality	Policy
Highland Park, IL	New sidewalk requires the support of 75% of residents on the same side of the street where a sidewalk is proposed for construction.
Des Plaines, IL	Sidewalk requests under 100' in length are added it to upcoming nearby projects, and if over 100' in length it is added to a sidewalk request list and constructed as the budget allows.
Lake Forest, IL	If a resident requests a sidewalk to be installed in their area where no sidewalk exist, they are required to have 51% of the property owners on the block consent.
Libertyville, IL	Sidewalk requests go before a Streets Committee, and if there is no objection, the installation goes forward.

In addition to the above communities, staff contacted the Village of Deerfield, Glencoe, Elmhurst, Lombard, Downers Grove, and Northbrook.

Sidewalk Policy Comparison

Staff reached out to several communities in the Chicago area to better gauge Highland Park's sidewalk installation policy. Of the municipalities that responded, staff found that the City's policy creates a higher threshold for sidewalk installation.

Streets Lights

The presence of street lights increases pedestrian safety, and follows a similar installation policy as sidewalks. The Public Works Department generally installs streetlights as part of roadway improvements, as well as at the request of residents. To this effect, the Department follows the Local Streets Sidewalk Installation Policy. This policy, effective since June 2007 (Directive No. 03-0507-18) states that requests for new streetlights are to be referred to the Department of Public Works, and that the installation of new streetlights requires a survey of the neighbors to determine need or City Council approval. The City Engineer further confirmed that the Department of Public Works seeks 75% approval from residents, similar to the Sidewalk Installation Policy. New construction is required to build streetlights as per Section 93.062 of the Code of Ordinances.

Sidewalk Snow Removal

Clear sidewalks during and after snow events is a key element that contributes to year-round walkability of Highland Park. The City maintains approximately 120 miles of public sidewalk. For every snow event, City plows high pedestrian select sidewalk areas such as in and around train stations and schools, the Central and Ravinia Business Districts, parking garage entrances, and public facilities.

Upon accumulation of 4" or more of snow, City's authorized contractor(s) plow all public sidewalks, approximately 110 miles. The sidewalk plowing typically starts 12 to 24 hours after the start of the snowfall and could take up to 24 to 48 hours or more to complete the entire plowing operation of public sidewalks.

For snow totals less than 4", public sidewalks not plowed by City are the responsibility of the abutting property or business owners to clean the public sidewalks.

Strava Running Route Heat Map, 2019
White indicates "hotter" or more frequent use.

Frequently-Used Routes

Strava is an application that "turns every iPhone and Android into a sophisticated running and cycling computer" (strava.com/features, accessed April 29, 2019). It uses GPS to gather activity data, which provides user performance data and insight into frequently used walking, running, and cycling routes. The heat map below shows the "heat" made by aggregated public activities over the last two years. The "hottest" routes include the Robert McClory Trail and the Skokie Valley Trail. In contrast to the cycling Strava map, local neighborhoods and parks see increased activity.

Comparison of the Strava map with existing pedestrian infrastructure indicate people are running or walking on streets without sidewalks. This activity supports the need for additional sidewalk infrastructure to provide safer routes for pedestrians.

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5. Bike Infrastructure

Highland Park has an extensive network of shared-use paths and shared-use lanes that connect the city. Since the adoption of Bike-Walk HP 2030, the City has made numerous improvement to its bike network.

Infrastructure Improvements

The most significant bicycle infrastructure project was the creation and updating of 18 miles of shared-use lane markings, or sharrows, in Highland Park in 2017. Additional improvements include a new bike repair station near the Ravinia Metra station and several expansions to shared-use paths. These recent improvements serve to both expand and connect Highland Park's bicycle network, providing for leisure, errands, and commuting needs.

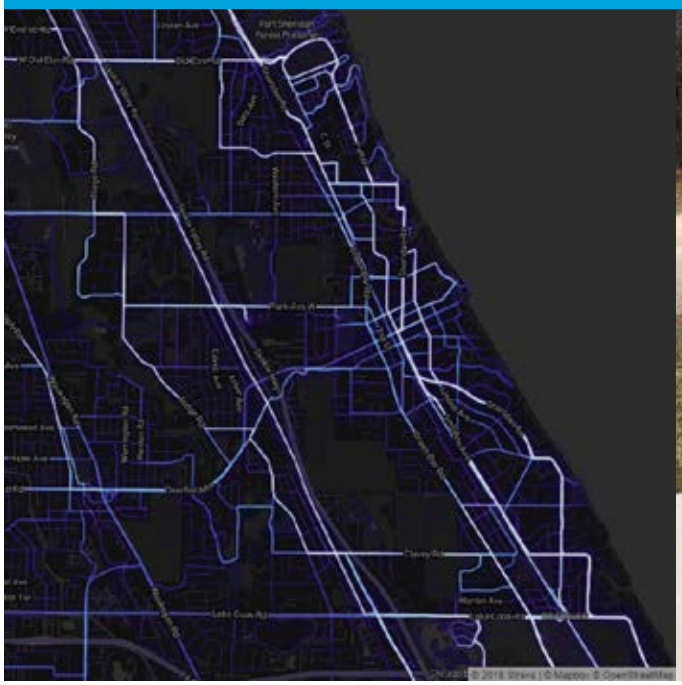
Shared-Use Lane Markings

A Shared-Use Lane Marking, also known as a "sharrow," is a street marking placed in the travel lane to indicate where people should cycle and have equal priority with motor vehicles. Importantly, sharrows alert motorists that a route is frequented by cyclists, and encourages extra vigilance and the safe passing of cyclists by motorists. Sharrows often denote bicycle boulevards, which are low-speed continuous cycling routes utilizing wayfinding signage and traffic calming to make the street safe for cyclists.

According to the 2017 National Association of City Transportation Officials (NACTO) guide "Designing for All Ages & Abilities: Contextual Guidance for High-Comfort Bicycle Facilities," bike boulevards and sharrows are recommended for roadways with a speed limit of 25 mph and less than 1,500 vehicles per day. Beyond 25 mph or on higher volume roadways, shared lanes are less comfortable and more dangerous for cyclists of all ages and abilities. Most sharrows in Highland Park are residential streets with slow-moving traffic; however, sharrows are present on Half Day Road, Clavey Road, and Sheridan Road, where the speed limits are between 30 and 35 MPH.

The City of Highland Park installed 18 miles of shared-lane markings in 2017. This improvement is a major investment into Highland Park's bicycle infrastructure and bike-friendly future. The project cost $429,000, and was funded in-part by the Illinois Department of Transportation (IDOT). IDOT's share was 80% of the project cost, while the local share was the remaining 20%.

Existing Bicycle Infrastructure



Strava Bicycle Route Heat Map, 2019
White indicates "hotter" or more frequent use.

Bike repair station on the Robert McClory Trail near the Ravinia Business District

Bike Routes

Highland Park has 9.5 miles of bicycle and shared-use trails. Notable routes include the Robert McClory Bike Path and the Skokie Valley Bike Path. The Fort Sheridan Forest Preserve boasts improved trails for cyclists' recreational use.

The bicycle and shared-use paths in Highland Park connect the city north-south. These routes are long-distance routes that connect Highland Park to other destinations in both Lake and Cook Counties. In order to travel between paths, cyclists must enter the on-street network of shared-use lane markings. This may involve crossing busy and automobile-dominated roads such as Skokie Highway, Skokie Valley Road, and Green Bay Road.

Similar to the Strava running/walking routes, the heat map above shows the "heat" made by aggregated bicycling activities over the last two years. The City's trails are heavily used, as are other north/south streets such as Sheridan Road and St. Johns Avenue. They City's east/west roads with the highest routes include Old Elm Road, Park Avenue West, Clavey Road, and Lake Cook Route. This data provides support for improved bicycle facilities on these routes.

Bike Repair Station

In spring 2018, the City installed a bike repair station near the Ravinia Metra station. It is located on the Robert McClory Bike Path, and features an air pump and tools required to make basic repairs to a bicycle. The project cost $2,650 and was fully funded by a 2017 ComEd Green Region Grant. The bike repair station was part of a larger project to remove invasive buckthorn and install a pollinator garden along the Robert McClory Trail, and is intended to draw people to the improved landscape. The facility is a useful addition to Highland Park's bicycle infrastructure, providing cyclists an opportunity to make a repair mid-ride if needed.

Bike Racks

Bike racks are important components of a bike network that allow cyclists to securely store their bicycles. This freedom of movement has a positive impact on retail, as racks enable cyclists to travel to stores or make unplanned stops along their routes. Common bike rack types include U-racks, wave racks, bollard or post-and-ring racks, and grid racks. There are also decorative types, which may reflect one of the above styles or be more freestyle.

Of these, the U-racks are the most desirable, followed by post-and-ring and wave racks. They allow for a bicycle's frame as well as front wheel to lock to the rack. The grid type is the least desirable. They allow for only the front wheel to be normally locked with a standard U-shaped lock; however, they are cheap and easy to install, so many stores utilize them. Many cities include shape standards for bike racks, restricting to U-racks, wave racks, or post-and-ring or a variant; the important feature is security and the ability to lock the bike frame as well as front wheel to the rack (See Bicycle Regulations in Section 4).

There are 78 public and private bike racks located across the city. The Park District of Highland Park has an additional 25 at its parks and facilities. The largest concentration of bike racks are in the downtown area, especially along Central Avenue and 1st and 2nd Streets; however, they are not well-distrib-

Typical Wave Rack

Unique bike rack at the Park District West Ridge Center

Grid Bike Rack at the Highland Park Metra Station

Downtown Bike Rack

U-Rack Proposed in the Downtown Streetscape Conceptual Design Plan

Trail Map as installed in 2006

Trail Map in 2019

uted throughout downtown. Other business districts, including the Briergate District, Ravinia Business District, and Skokie Valley Road all have some bike racks available. Bike racks are sparse throughout the residential neighborhoods, and many main roads have few or none available. Highland Park has 35 of the wave type, and 25 of the post-and-ring type. Almost all of the post-and-ring types are located downtown, chosen as part of a streetscape project in the 1980s.

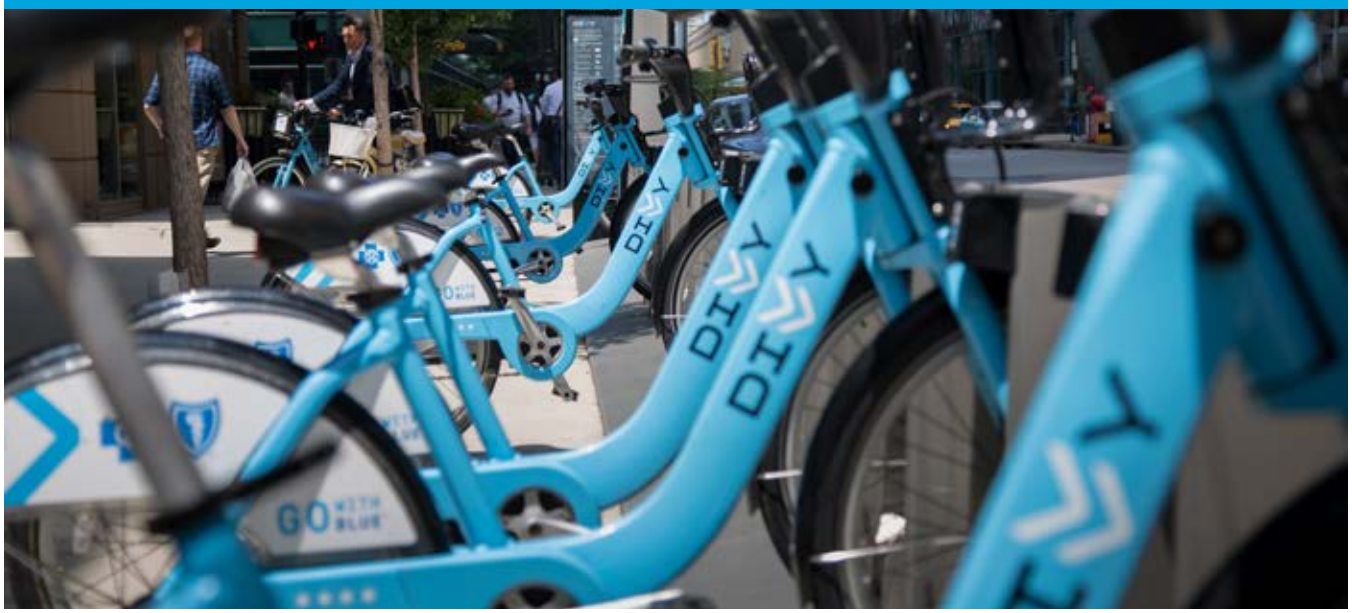
Signs

Signs indicating bike routes and stating drivers must give cyclists 3 feet of space were installed as part of the 2017 sharrows project. In addition, the City installed several signs throughout the Highlands neighborhood to indicate designated Family-Friendly Bike Routes.

In 2006, the City installed 6 pedestrian/bike trial sign maps. These sign posts are located at:

- Green Bay/McClory Bike Trail
  - North of the Braeside Train Station parking lot
  - South of the intersection of the trail and Lincoln Avenue West
  - South of the main entrance to the town of Fort Sheridan
- Skokie Valley Trail
  - At the beginning of the trail behind the Shell Station at Lake Cook and Skokie Valley Road
  - South of the intersection of the trail and Old Deerfield Road
  - South of the intersection of the trail and Old Elm Road

The signs are valuable wayfinding and placemaking tools, but have not been maintained or updated over the years.



Divvy bike share station in Chicago. Source: Tony Weber, Flickr

Bike Share

What is Bike Share?

A bike share program makes bicycles available for shared use on a short term basis, usually for a hourly or membership fee. Bike share programs may be either dock or dockless systems. Dock systems require users to place their bikes in company-owned "smart" racks that lock and unlock the bicycles; because the number of racks are generally limited and spread apart, users may have to walk to their end destination. Dockless systems, however, allow the users to place the bikes anywhere when finished and allow users to stop at their destination. Dockless systems may become chaotic, with users leaving bicycles in lawns, in streets, on sidewalks and shared-use paths, or spread the available bicycles out over a much larger area. To solve this problem, some dockless systems have utilized geofencing, where users can only end their trips in specific, predetermined locations. Smartphone mapping apps are critical for dockless systems to track the location of bicycles, and are commonly developed for dock systems as well.

Local Examples

Bike share systems in the Chicago metropolitan area include Divvy in Chicago, Zagster in Aurora, and a Divvy expansion in Oak Park and Evanston. While Chicago's Divvy program is considered a success, the expansion in Oak Park failed after a year of low ridership and high public cost. Aurora's program continues, but it is very limited in geographic scope and ridership, while Evanston's program is ongoing.

Divvy launched in 2013 with 750 bikes at 75 stations in a limited central area of Chicago. An expansion has been announced in 2015. Fees are $99 for an annual membership, $15 for a daily pass, and $3 for a single 30-minute trip. Between June 2017 and May 2018, Divvy hosted 3.5 million rides – a 169% increase from its initial year (Chicago Sun-Times, 30 June 2018). It's growing, high ridership and planned expansion make it a success.

In 2016 the City of Aurora entered into a contract with Zagster, a bike sharing company, to provide a bike sharing program. Aurora, a city of approximately 200,000 people, has averaged 26 trips per week. However, Aurora also only has 3 stations in the downtown area in use. Fees are $60 for an annual membership, $20 for a monthly membership, and $5 for a day pass.

Divvy launched in Oak Park in July 2016. The bike share program was an extension of Chicago's system into neighboring suburb, and utilized the same payment and fee structure. There were 13 stations and 130 bikes located at popular destinations around Oak Park including CTA stations and downtown. In January 2018, the Oak Park trustees canceled their contract with Divvy and its parent company, Motivate. Trustees were concerned about the high annual cost and low ridership. The Village of Oak Park paid Motivate $291,216 annually to operate the bike share, a taxpayer subsidy that amounted to $17.48 for every ride. Only 34 people used Divvy daily in a village of approximately 52,000 people.

Bike Share in Highland Park

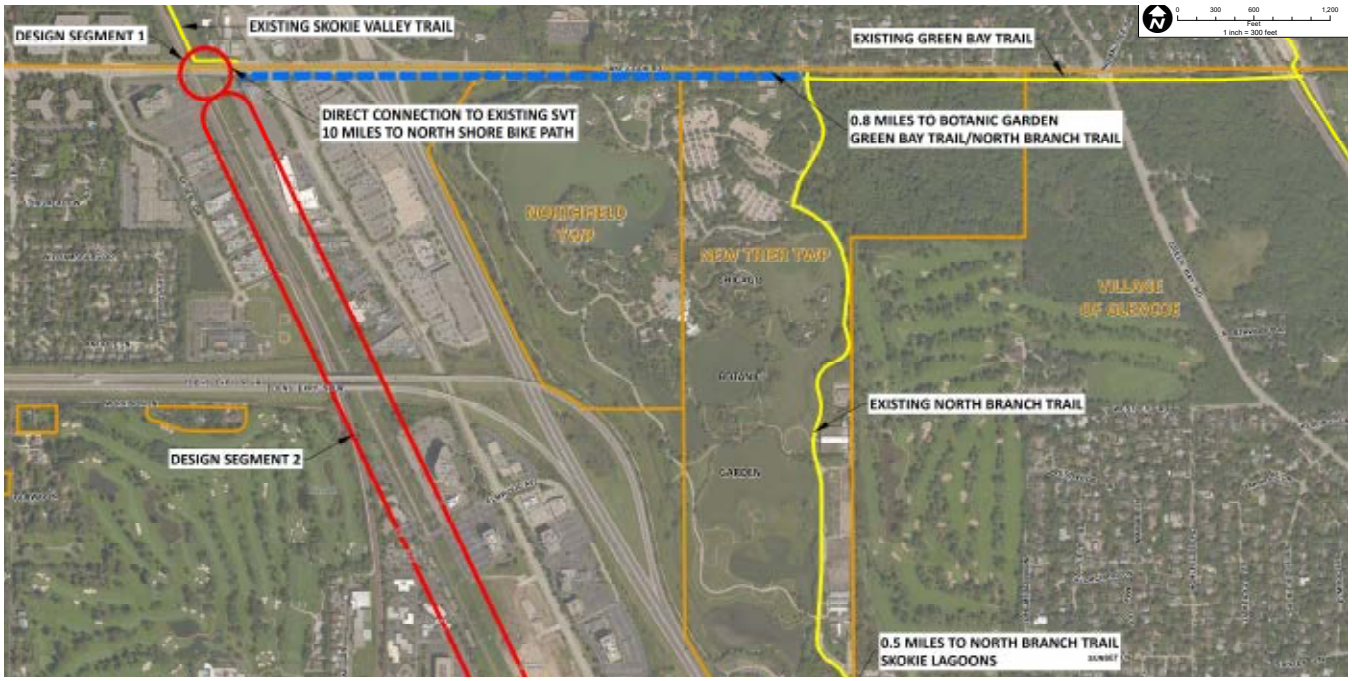
In spring 2017, City staff explored the possibility of implementing a bike share program within the City of Highland Park. The City reached out to Zagster, a bike sharing company in which users 18 years or older with an annual or monthly membership can check out a bike for short-term use. Zagster contracts with municipalities to set up a bike share program in return for an annual fee. In order to financially support bike share programs, municipalities typically find sponsorship funding. Staff reached out to potential sponsors and partners, but were not able to get sufficient interest to support a city-wide bike share system. Due to potential funding issues, it was determined that a bike share program was not feasible in the City of Highland Park at that time.

Adjacent Municipalities

Bicycle and pedestrian connectivity extends beyond municipal boundaries. Cities and villages adjacent to Highland Park contribute to City's regional mobility.

Northbrook

The Village of Northbrook, which borders Highland Park to the south, recently adopted a Master Bicycle and Pedestrian Plan (2018). The Plan establishes a strategy to support walking and bicycling as viable, accessible, and inclusive modes of transportation. A high-priority project includes a sidepath



Skokie Valley Path Extension Project Overview Map. Source: Village of Northbrook

Family-Friendly Bikeway shown at Brook Road, connecting Hill Street to Euclid Court

on Lake Cook Road from the North Branch Trail (Trumbell Woods Court) to Pfingsten Road. The project is estimated to cost $ 3,837,000.

In addition, the Village is working with Lake and Cook Counties to develop Phase I Engineering design for the extension of the Skokie Valley Trail from Lake Cook Road along the ComEd right-of-way to Dundee Road. The path extension would include a bridge over Lake Cook Road and the projects is estimated at $ 2,760,000.

Deerfield

As part of their 2004 Comprehensive Plan, the Village of Deerfield included recommendations for bicycle routes and pedestrian improvements. The "highest priority" noted is the "sidewalk/bike path along the south side of Deerfield Road from Waukegan Road to the east border of Deerfield." Deerfield between Waukegan Road and Highland Park Road was reconstructed in 2016, but the design did not include a sidepath.

Lake Forest

The City of Lake Forest Bike Master Plan (2013) identifies Old Elm Road as a "Core Route." The recommended bicycle facilities are sharrows. Currently, the section of Old Elm Road that borders Highland Park includes Sharrows.

6. Public Outreach

Public Outreach is the cornerstone of any successful plan. It ensures that the policies and recommendations of the plan reflect the vision of the community. Along with the direction provided by the Steering Committee, the MoveHP process provides several opportunities for public outreach.

Public Workshop

On the evening of April 9, 2019, nearly two dozen residents attended an open house workshop for MoveHP. Participants provided input through a group mapping exercise, individual worksheets, and talking with staff about their concerns and aspirations for pedestrian and bicycle infrastructure in Highland Park.

The group mapping exercise involved participants placing a marker where they would like active infrastructure improvements on two separate maps, one for pedestrian infrastructure and the other for bicycle infrastructure. The individual worksheet allowed them to draw and annotate their desired bicycle and pedestrian routes, identify hazards in Highland Park, and leave specific comments.

Summary of Comments

A consistent feature of public comments was the need for improved east-west connections within Highland Park especially on Clavey Road and Deerfield Road. Many comments focused on Green Bay Road and US-41/Skokie Highway, and the difficulty of crossing these roadways on foot or bike; attendees felt scared crossing difficult intersections such as Half Day Road and Skokie Highway. The negative perception, danger, and difficulty of crossing these roadways may deter Highland Park residents from more pedestrian and cycling trips.

Attendees noted a desire for improvements in the Ravinia neighborhood, especially along Roger Williams Avenue. Several comments focused on the intersection of Roger Williams Avenue and Sheridan Road, perceiving the intersection as dangerous and intimidating. In the same area, the pedestrian access to Rosewood Beach was described as a “crum-

my experience" and in need of a safe crossing from Roger Williams Avenue. Improving the connection to Rosewood Park and Beach from the Ravinia neighborhood west of Sheridan Road would make this community asset welcoming for pedestrians and cyclists.

Multiple comments focused on improving access to Highland Park's off-street trail network. Several attendees were frustrated with the missing section of the Robert McClory Path between Vine Avenue and St. John's Avenue near the train station. Another supported improvements to the McClory Path south of downtown along St. Johns Ave, describing it as "creepy and isolated." One attendee mentioned the poor access from the Highlands to the Robert McClory Path. Several expressed a desire for connectivity to businesses along the Skokie Valley Bike Path, as well as connecting to other path systems such as Heller Park. A common theme was poor access to and from these paths and a desire to use them not only recreationally, but also for commutes and errands.

Improved connections to train stations were highlighted as well. The majority of comments seemed to focus on bicycle infrastructure, but none specified a preference for bicycle over pedestrian improvements.

Hazards

The worksheets reveal a number of commonly perceived hazards in Highland Park. The area around Deerfield Road and Old Deerfield Road (the Briergate District) was mentioned multiple times, as was Sheridan Road, St. Johns Avenue, Lake Cook Road, and Clavey Road along most of their length. The Sheridan Road and Roger Williams Avenue intersection was a popularly identified hazard, as was Walker Avenue.

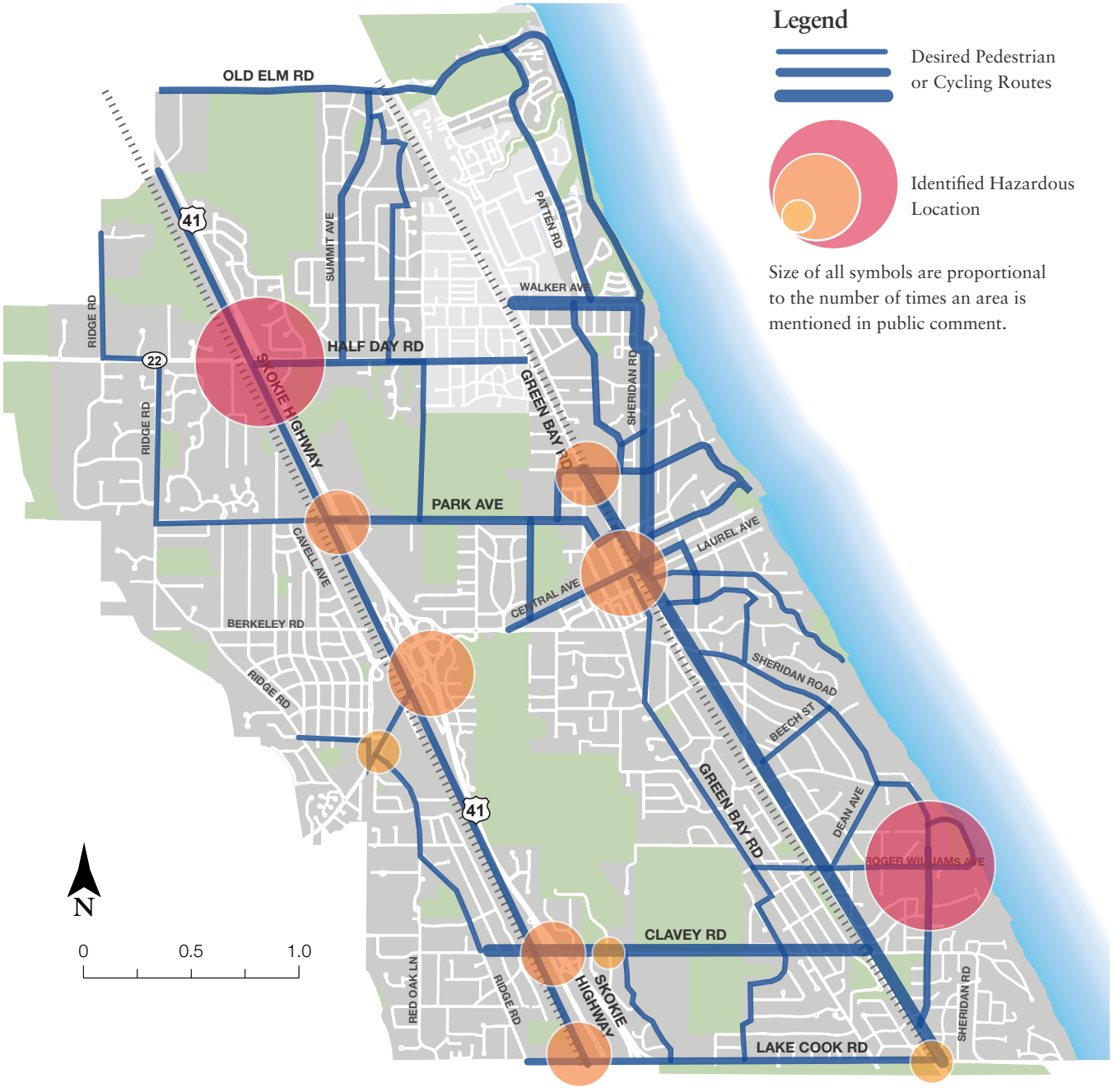
Infrastructure Improvements

Bicycle:

Attendees focused on the following areas for desired bicycle improvements:

- Central Business District
- Roger Williams Avenue
- Clavey Road
- Deerfield Road
- A desired connection between Old Elm Road and Trail Way

Public Comment Summary



Pedestrian:
Attendees focused on the following areas for desired pedestrian improvements:

- Roger Williams Avenue and Sheridan Road; access to Rosewood Park and Beach
- Clavey Road and Skokie Highway
- Deerfield Road
- Lake Cook Road
- Connection between Heller Nature Center and Skokie Valley Bike Path
- Other crossings over Skokie Highway: Park Avenue, Half Day Road
- Additional areas: Park Avenue Boathouse, Millard Park, Sheridan Road

Online Survey

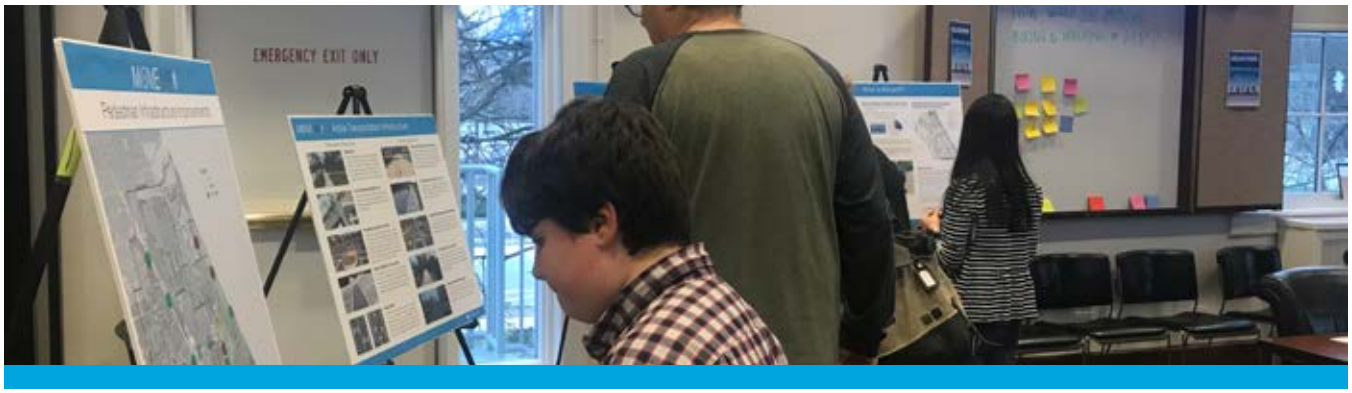
City staff hosted an online survey on Google Forms from mid-March to May 1st, 2019. The survey was advertised on the city's website and on promotional materials around the city. Nineteen respondents participated in the 7-question survey. The questions focused on the respondents' reasons and frequency for walking and cycling, major reasons that prevent them from doing so more often, and areas of Highland Park they would want to see pedestrian or cycling infrastructure improvements.

Responses

The most common reason for respondents to walk daily was exercise (12 respondents). Another 5 respondents walked for exercise weekly. Eight respondents walked weekly for errands or shopping. The most common reason for cycling was also exercise (10 respondents); however, respondents only cycled once a week on average and few respondents cycled daily.

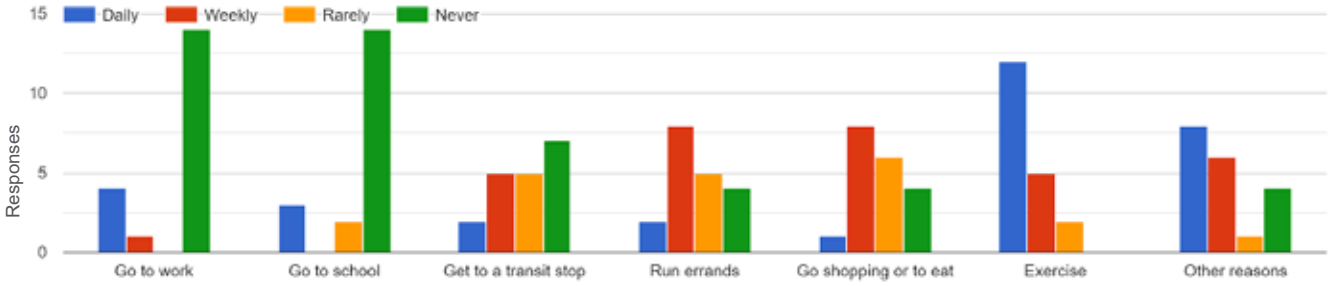
Cycling seems complementary to pedestrian travel in Highland Park. Furthermore, both cycling and walking are highly recreational in Highland Park. This trend is supported by other aspects of the survey; the most popular reason that respondents do not walk or bicycle more frequently is the "Destination is too far away" (10 respondents), followed by "Bad weather" (9 respondents). However, 8 respondents said that "No sidewalks/bike lanes" were a major reason they do not walk or cycle more frequently. This result indicates that a fair number of residents may walk or cycle more if appropriate infrastructure were in place.

When asked about pedestrian infrastructure projects that should be prioritized, the most frequent response was to have safer crossings over US-41 (4 respondents). Respondents listed Park Ave and the pedestrian bridge as specific crossings to be improved. The second project that should be prioritized was improved pedestrian infrastructure downtown (3 respondents). Similar to pedestrians, the most common cycling priority was safer crossings over US-41 (5 respondents). The second most common priority was improved bicycle infrastructure on Green Bay Road (3 respondents). The above results confirm that east-west crossings over US-41 should be a priority improvement, followed by improvements to downtown and major streets such as Green Bay Road.

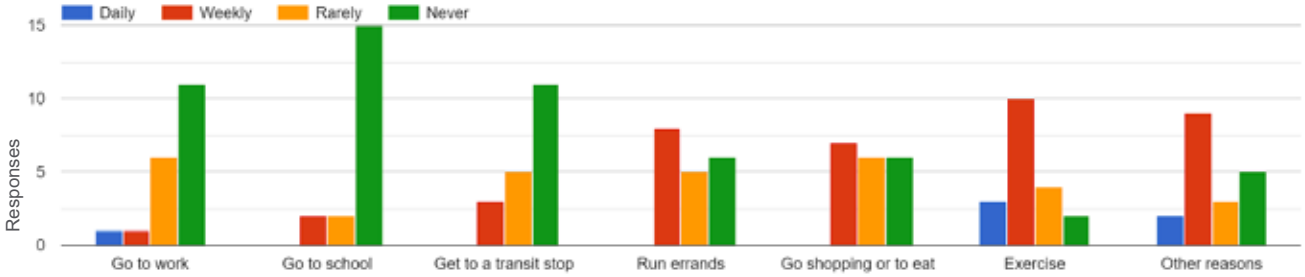


Online Survey Results (March - May 2019)

How often do you walk outside for the following reasons?

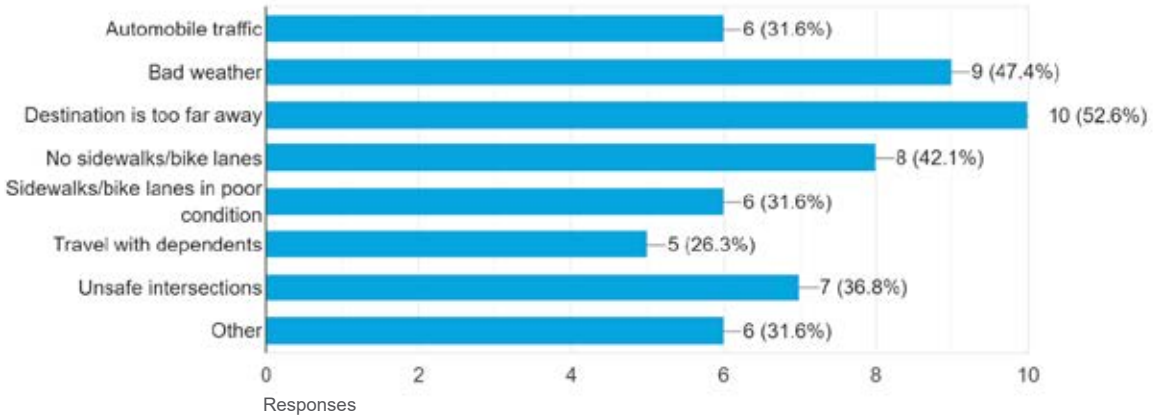


How often do you bicycle outside for the following reasons?



Major reasons that you do not walk or bicycle more frequently

19 responses



Steering Committee

As part of the MoveHP kick-off process, Steering Committee members were asked to provide what they believe to be the top three pedestrian or bicycle gaps in the City's network, or other project that would significantly improve the system. The suggestions included the following:

- Install a bike corral in Downtown*
- Install a bike lane on Green Bay Road*
- Sheridan Road/Rosewood Beach pedestrian access*
- Improve intersections by installing inductive-loop detectors for cyclists
- Improve Pace bus routes
- Robert McClory Path improvements:
  - At Highland Park/Highwood border near Highland Park High School
  - Between the Highland Park Metra Station and Highland Park High School
- Intersection and crossing improvements, including the use of HAWK (High-intensity Activated crossWalK beacon):
  - Intersection improvement at Vine and Green Bay Road*
  - Pedestrian crossing at Trail Way and Half Day Road
  - Mid-block crossing at Central between Green Bay Road and Hickory Avenue
  - Improved crossing at Park Avenue West between Wolters Field and the trail just east of the Highland Park Country Club Parking Lot
  - Clavey Road and Park Avenue crossings at US 41

*Consistently ranked high among Steering Committee input.

7. Next Steps

This Existing Conditions Report (ECR) provides the foundation for the final MoveHP plan. Information from the ECR will be used to update policies and recommendations from Bike-Walk HP 2030.

Based on the plan process, the following steps are needed to move MoveHP forward:

- ***Steering Committee Review.*** The Steering Committee will review and provide comment to the ECR, ensuring it accurately reflects the current state of pedestrian and bicycle infrastructure and policies in the City.
- ***City Council Update.*** City staff will present the Existing Conditions Report to members of City Council. The presentation, anticipated to occur with the Committee of the Whole in June 2019, will include a project update and outline next steps.
- ***Bicycle and Pedestrian Network Analysis /Draft Recommendations.*** City staff will review input from the public workshop, steering committee, and Council and reconcile that with the findings from the Existing Conditions Report. From this, staff will create a list of draft recommendations. This will include policy changes and key projects.
- ***Steering Committee Meeting.*** The Steering Committee will convene to review the Draft Recommendations. The meeting will be used to gather feedback and prioritize project recommendations. This meeting is tentatively planned for late summer 2019.
- ***Draft Plan.*** City staff will integrate all previous material and feedback from the draft recommendations to develop a draft plan.
- ***Open House.*** The Draft Plan will be presented to the public in an open house format. Members of the public will be invited to view the plan and ask questions.
- ***Final Plan & Approval Process.*** City staff will utilize feedback from the Steering Committee and Open House to create a Final Plan document that meets the needs of the community and stakeholders. This draft plan will be presented to the Committee of the Whole in late summer/early fall 2019. Following review, the Final Plan will be considered for adoption by the City Council.

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Appendix

1. Bike-Walk HP 2030 Status Document (table)
2. Bicycle Friendly Community 2018 Spring Report Card
3. 2018 People for Bikes Rating
4. 2019 People for Bikes Rating
5. Bike-Ped Count Data

Bike-Walk HP 2030 Policy & Infrastructure Recommendations

Goals & Policy Recommendations

1. The City of Highland Park will develop and adopt policies, plans and guidelines to assure that cycling and walking are an integral part of City life and will reach out to other agencies so that this goal is incorporated in their projects and facilities in the community.					
		Short-Term (0 – 2 Years)	**Mid-Term (2 – 4 Years)**	**Long-Term (4+ Years)**	**2019 Status**
1.1	Adopt the Complete Streets Policy.	√ (PW)			Plan adopted 2012
1.2	Accept the Complete Streets Matrix and Framework as a guideline for future road improvement projects.	√ (PW)			No Action
1.3	Develop and update a Complete Streets Improvement Master Plan program.	√ (PW)	Continue and Ongoing	Continue and Ongoing	Continue and Ongoing
1.4	Apply appropriate national model design standards for cycling, pedestrian and public transportation facilities.	Continue and Ongoing (PW)	Continue and Ongoing (PW)	Continue and Ongoing (PW)	Continue and Ongoing
1.5	Amend Chapter 75 Bicycle Regulations of the City Code.	√ (PW and POL)			No Action
1.6	Incorporate bicycle parking requirements in the zoning code for all multiple family residential and commercial land uses and provide on-street bike parking throughout the community.	√ (CD)			No Action
1.7	Provide facilities for two levels of bicycle riders: basic and advanced.	Continue and Ongoing (PW)	Continue and Ongoing (PW)	Continue and Ongoing (PW)	Continue and Ongoing
1.8	Design, develop and operate sidewalks as pedestrian spaces first and as bicycle facilities for children.	Continue and Ongoing (PW and Pol)	Continue and Ongoing (PW and Pol)	Continue and Ongoing (PW and Pol)	Continue and Ongoing
1.9	Coordinate efforts with Pace and Metra to provide or improve appropriate bicycle and pedestrian facilities along bus routes and at train stations.	Continue and Ongoing (CD and PW)	Continue and Ongoing (CD and PW)	Continue and Ongoing (CD and PW)	Continue and Ongoing

2. The City of Highland Park will develop and maintain a continuous, interconnected cycling and pedestrian system that accommodates short and long distance trips and provides connections and access to major community destinations.					
		Short-Term (0 – 2 Years)	**Mid-Term (2 – 4 Years)**	**Long-Term (4+ Years)**	**2019 Status**
2.1	Regularly assess street, trail and sidewalk maintenance needs and make spot improvements as part of the City's asset management program.	Continue / Ongoing (PW)			Ongoing
2.2	Develop the bicycle and pedestrian system through implementation of capital improvements for new and retrofitted facilities including sidewalks, bicycle facilities, and intersections.	Continue / Ongoing (PW)			Ongoing
2.3	Develop the bicycle and pedestrian system through implementation of other improvements including street striping and signage.	Continue / Ongoing (PW)			Signs installed with sharrows 2017
2.4	Clear paved multi-use trails in winter as part of the City snow plowing program.	√ (PW)	Continue and Ongoing		Ongoing
2.5	Plan for and improve the arterial, collector streets, and primary residential streets as either capital or retrofit improvements when implementing roadway improvement projects, so that	√ (CD and PW)	Continue and Ongoing		Ongoing

	they provide a primary cycling and walking system through the City.				
2.6	Plan for and improve the arterial, collector and primary residential streets with striping and signage as needed so that they provide a secondary cycling and walking system and a link to the primary system.	√ (CD and PW)	Continue and Ongoing		Sharrows in 2017
2.7	Plan for and implement Shared-use path improvements at the same time as making street route improvements in order to provide riding and walking opportunities for all types of bicyclists and pedestrians.		√ (CD and PW)	Continue and Ongoing)	Ongoing
2.8	Work with the School and Park Districts to ensure that schools and parks are safely connected into the bicycle and pedestrian systems.	Continue and Ongoing (CD and PW)			BWAG has ongoing comm. 10-Minute Walk campaign with Park District

3. The City of Highland Park will include funding of bicycle and pedestrian-related improvements into capital funding requests for street improvement related projects, where appropriate.					
		Short-Term (0 – 2 Years)	**Mid-Term (2 – 4 Years)**	**Long-Term (4+ Years)**	**2019 Status**
3.1	Identify a dedicated funding source for implementation of capital improvement projects.	√ (Finance and City Council)	Continue and Ongoing		Ongoing
3.2	Identify and apply for grant funding for bicycle and pedestrian related improvement projects.	Continue and Ongoing(CD and PW)			10-Minute Walk campaign with Park District
3.3	Allocate and balance funding between projects designed to improve conditions for automobiles and those that accommodate cyclists and pedestrians.	Ongoing(PW, Fin and City Council)			Roadway improvement projects consider bike and walking improvements

4. The City of Highland Park will supplement engineering improvements by implementing bicycle and pedestrian education, encouragement and enforcement and evaluation programs.					
		Short-Term (0 – 2 Years)	Mid-Term (2 – 4 Years)	**Long-Term (4+ Years)**	**2019 Status**
4.1	Establish a Non-Motorized Transportation Advisory Group of Transportation Commission members to support implementation of *Bike – Walk HP 2030.*	√ (Transportation Commission Chair to designate members)			BWAG established
4.2	Establish an on-going staff working group tasked with implementation of Bike – Walk HP 2030.	√ (CMO)			BWAG and Transportation Advisory Group role

4.3	Initiate a regular semi-annual bicycle count to establish base and on-going data on cycling in Highland Park.	√ (PW and CD)			Spring + Fall 2013 Spring + Fall 2014 Fall 2018 Spring 2019
4.4	Adopt requirements that property owners shovel snow and keep sidewalks clear for pedestrians.	√ (PW)			Public Works plows all sidewalks after 4" of snowfall. Residents are responsible for under 4".
4.5	Provide an annual update that tracks the implementation progress of the Non-Motorized Transportation Plan.		√ (PW and CD)		No Action
4.6	Collaborate with bicycle advocacy groups and other entities on the implementation of *Bike – Walk HP 2030* and other initiatives.	Continue and Ongoing (CD)	Continue and Ongoing (CD)	Continue and Ongoing (CD)	10-Minute Walk campaign with Park District
4.7	Pursue certifications as a Bicycle and Pedestrian Friendly Community.		√ (PW and CD)	√	Bronze certification awarded in 2017
4.8	Enforce motor vehicle and pedestrian laws at high volume intersections in downtown and other Highland Park locations on a regular basis.	Continue and Ongoing (Pol)	Continue and Ongoing (Pol)	Continue and Ongoing (Pol)	Ongoing
4.9	Once or twice per year, close off selected streets for a specific time period to automotive traffic to promote biking and walking.		√ PW and CD)	√	No Action
4.10	Promote cycling and walking in Highland Park through the Healthy Highland Park Task Force.	√ (CD and CM)			Task Force est. 2005, ended 2014
4.11	Promote Pace bus service and the local routes in order to increase local awareness of bus transit options and ridership.	Continue and Ongoing (CD, PW and CMO)	Continue and Ongoing (CD, PW and CMO)	Continue and Ongoing (CD, PW and CMO)	Ongoing

5. The City of Highland Park will work with adjacent municipalities and regional transit agencies to promote and implement improved regional connections.					
		Short-Term (0 – 2 Years)	**Mid-Term (2 – 4 Years)**	**Long-Term (4+ Years)**	**2019 Status**
5.1	Make improvements to corridors identified as regionally significant bicycle routes and coordinate planning and implementation with surrounding jurisdictions and through regional agencies, as necessary.		Continue and Ongoing (PW and CD)	Continue and Ongoing (PW and CD)	No Action "regionally significant" routes not identified in plan.
5.2	The City of Highland Park will seek to expand availability of and access to public transportation.		Continue and Ongoing (PW)	Continue and Ongoing (PW)	Ongoing
5.3	Improve bike and public transit connectivity by providing secure and improved protected bicycle storage at Metra Rail Stations.		Continue and Ongoing (PW)	Continue and Ongoing (PW)	No Action
5.4	Provide hard-surface and protected bus shelters at to be determined locations along Highland Park bus routes.		√ (PW)		No Action

5.5	Continue seeking opportunities to expand the service areas and hours of operation of the Senior Connector for persons 50 years or older and develop it as a Highland Park Connector that could be used by persons of any age.		√ (PW and CD)		Ongoing

Infrastructure Improvement Recommendations

Table 3: Initial Project Recommendations (Years 1 – 5 of Plan Implementation)				
	Location	**Proposed Improvement**	**Estimated Cost**	**2019 Status**
3.a	All On-Street bicycle routes	Signage only option: Install bike route signage in appropriate locations	$27,000	Signs installed with sharrows project in 2017
3.b	Robert McClory Path On-Street connection from Lincoln Avenue to Vine Avenue/Highland Park High School	Improve routing utilizing bike lanes, shared lanes and signage	$7,000 - $12,000 (Sharrows) $500 (Signage)	Bridge abutments over Mulberry Pl was repaired in 2017 including additional bracing of the handrails.
3.c	Green Bay Road (entire length of City)	On-street route including bike lanes, shared lanes and signage and missing sidewalk segments	$21,000 to $23,000 (Bike Lane) $1,000 (Signage) $126,000 (Sidewalk)	Bike lanes will be considered where the road is wide enough.
3.d	Ridge Road/Richfield Road from Lake-Cook Road (s) to City limits on (n)	On-street route including bike lanes, shared lanes and signage and missing sidewalk segments	$41,000 - $67,000 (Sharrows) $2,500 (Signage) $240,000 (Sidewalk)	Sharrows and signs completed in 2017 Sidewalk gap remains
3.e	Clavey Road/Blackstone/ Burton Red Oak Lane (w) to Roger Williams (n)	Develop on-street route including shared lanes and signage and install missing sidewalk segments (may include sidepath)	$10,000 to $130,000 (Bike Lane & Sharrows) Low end = Bike Lane, Shared Lane markings and Signage, High end = Bike Lane, Sidepath and signage) $1,000 (Signage)	Sharrows and signs completed in 2017 on Clavey (Red Oak to Green Bay)
3.f	Dean/Cedar/Linden from Roger Williams (s) to Maple Ave. (n)	Develop in-street route including shared lanes and signage and missing sidewalk on Cedar	$1,100 (Signage) $40,000 (Sidewalk)	No shared lanes. No sidewalk has been installed. Bike route signs have been installed throughout Dean/Cedar/Linden/ from Roger Williams to Maple
3.g	Pedestrian Bridge @ Old Deerfield Road & Old Skokie Road	Signage and appropriate street markings to lead cyclists and pedestrians to or from the bridge and the Skokie Valley Trail	$9,000	City is applying for grant money to replace the Pedestrian Bridge.

Long-Term Projects

Table 4: Shared-Use Paths Improvement Recommendations					
	Location	**Project Description**	**Project Length**	**Est Cost** (to nearest $1K) (2012 Cost Incl. 25% contingency)	**2019 Status**
4.a	Walker Avenue (north side of street)/(collector) from St. Johns Avenue to Oak Street	Sidepath (Work in cooperation with IDOT to extend existing sidepath to connect to Open Lands Lakefront Trail.)	1,500 feet (0.3 miles)	$50,700	Completed
4.b	Skokie River Trail from Old Elm Road south to Half Day Road	Trail from Old Elm Road to Cuniff Park and on street route from south end of Sleepy Hollow Park to Half Day Road and road crossing improvements at Half Day Road. Coordination with Park District.	Trail: 1,800 feet On-street route: 850 feet	$50,700	0.035 mile trail extension along Trail Way in 2018
4.c	Skokie River Woods to Highland Park Recreation Center at Park Avenue West (part of Skokie River greenway)	Shared-use path between Half Day Road and Park Avenue West in conjunction with the Park District of Highland Park	4,600 feet (0.86 miles)	$129,000	No Action
4.e	Taylor Avenue/Park Avenue West Trail (part of Skokie River greenway)	Park Avenue West to Taylor Avenue and then on-street connection to Central Avenue. Bridge over Skokie River may be required depending upon specific trail routing. Coordination with IDOT, Army Corps and private property owners	2,800 feet	$78,000 (exclude potential bridge cost)	No Action
4.f	Hidden Creek Aqua Park to Fink Park Trail (part of Skokie River greenway)	Hidden Creek Aqua Park along western edge of Sunset Valley G. C. and Bob O'Link C. C. to Edgewood Ave. right of way and Fink Park. Coordination w/Park Dist. and property owners incl. Country Clubs	10,000 feet (1.9 miles)	$281,000	No Action
4.g	Northshore Sanitary District Trail (part of Skokie River greenway)	Route from Clavey Road to Lake-Cook Road (adjacent to NSSD facility) Coordinate with NSSD	2,800 feet (0.53 miles)	$78,000	Ongoing discussion – Northshore Water Reclamation District – suggestion fo cut trail from Aspen Lane to Hiawatha Ct.
4.i	Old Elm Road	Develop sidepath or on-street route from Skokie River to the McClory Bike Path (possibly in conjunction with City of Lake Forest)	4,800 feet	$135,000	Sharrows installed in 2017
4.j	Beech Street	Build shared path to lakefront Park District of Highland Park	1,400 feet	$39,000	No Action
4.k	McClory Bike Path	Study feasibility (including soliciting community input) of redesigning the trail for enhanced year round functionality for cyclists and pedestrians.	12,300 feet	Not estimated at present time	No Action

Sidewalks

Table 5: Sidewalk Improvement Recommendations					
	Location/Street Classification	**Project Description**	**Project Length**	**Est Cost** (to nearest $1K) (2012 Cost Incl. 25% contingency)	**2019 Status**
5.a	City-wide	Complete gaps in existing sidewalk system not herein identified	Dependent upon length of missing sidewalk segment	Not estimated at present time, based on extent of the length of the missing sidewalk segment	No Action
5.b	Sheridan Road /Arterial	Complete sidewalks on one side to fill in gaps, especially in Rosewood Beach area (coordination with IDOT required)	4,900 feet	Not estimated at present time due to site specific related physical conditions	Public meetings held. Check w/PW for status/schedule
5.c	Green Bay Road	Complete gaps on west side of road between Lake Cook and Edgewood Roads	3,600	158,000	Complete
5.d	Park Avenue West/ Arterial	Complete sidewalk on south side from Ridge Road to Spruce Avenue	1,550 feet	$68,000	No Action
5.e	Ridge Road/Collector	Complete sidewalks (2) Ridgelee to Lake Cook Road (west side), (3) Route 22 to Park Avenue West (west side), (4) Route 22 to City limits (west side)	Ridgelee to Lake-Cook: 735 feet North of Rte 22 to City Limits: 1,300 feet	$90,000	Sidewalk on west side of Ridge Road from Ridgelee to Lake Cook to be completed in 2019.
5.f	Lake Cook Road (coordination with Cook County Highway Department required)	Build sidewalk on north side from Ridge Road to City limits	2,080 feet	$91,000	Partially-built
5.g	Warbler Lane, Brook Road, Western Avenue from Old trail to Old Elm Road /Secondary Local	Build sidewalk connecting neighborhood to south to Old Elm Road	2,800 feet	$123,000	No Action
5.h	Krenn Avenue from Hyacinth to Old Elm Road/ Secondary Local	Build sidewalk on east side of Krenn Avenue	600 feet	$26,000	No Action
5.i	Cloverdale Avenue/ Primary Local	Complete sidewalk from Cloverdale Park to Berkeley Road	811 feet	$35,000	No Action
5.j	Arbor Avenue/Secondary Local	Complete sidewalk on east side from Midland to Berkeley Road (access to Sherwood Park)	1,300 feet	$57,000	No Action
5.k	Crofton Avenue/Secondary Local	Build sidewalk on east side from Bob O'Link Road to Saxony Road	1,300 feet	$57,000	No Action

Intersections, Crosswalks, Pedestrian Bridges

Table 6: Intersection, Crosswalk, and Pedestrian Bridges Improvement Recommendations				
	Location(s)	**Project Description**	**Project Length**	**2019 Status**
6.a	Central Avenue at Second Street; First Street; St. Johns and Sheridan Road	Examine signage and street markings	Not applicable	Marking completed in 2016
6.b	Elm Place and First Street	Examine signage and street markings	Not applicable	Signs have been installed throughout Elm Pl. Pavement marks are maintained as required. (Milanesio)
6.c	Roger Williams Avenue and Sheridan Road	Improve crosswalk across Sheridan Road and sidewalk access to park and beach	Ravinia Business District and Rosewood Park and Beach	No Action
6.d	Crosswalks adjacent to parks and schools	On-going maintenance and restriping as needed	City-wide	No Action
6.e	Park Avenue and Illinois Route 41	Provide for grade separation between motorists and cyclist and pedestrians.	Not applicable	No Action
6.f	Half day Road and Illinois Route 41	Provide for grade separation between motorists and cyclist and pedestrians.	Not applicable	No Action

Implementation

Key Elements of Plan Implementation		
	Project Description	**2019 Status**
Development of Complete Streets Master Plan	PW and CD complete BLOS analysis	No Action
Designate a Complete Streets Staff Coordinator and Oversight Committee	Staff member would participate in plan and project reviews to assure compliance with the Complete Streets Policy and Plan recommendations. City Council establish an Advisory Group of the Transportation Commission	No Action
Pursue “Bicycle Friendly Community” Status	Achieve recognition as a Bicycle Friendly Community from the League of American Cyclists	Bronze certification awarded in 2017

HIGHLAND PARK, IL

BICYCLE FRIENDLY COMMUNITY
Spring 2018
BRONZE
THE LEAGUE OF AMERICAN BICYCLISTS

TOTAL POPULATION
29,763

POPULATION DENSITY
2,440

TOTAL AREA *(sq. miles)*
12.24

 # OF LOCAL BICYCLE FRIENDLY BUSINESSES 0

 # OF LOCAL BICYCLE FRIENDLY UNIVERSITIES 0

10 BUILDING BLOCKS OF A BICYCLE FRIENDLY COMMUNITY

	Average Silver	*Highland Park*
High Speed Roads with Bike Facilities	37%	0%
Total Bicycle Network Mileage to Total Road Network Mileage	45%	21%
Bicycle Education in Schools	GOOD	NEEDS IMPROVEMENT
Share of Transportation Budget Spent on Bicycling	12%	17%
Bike Month and Bike to Work Events	GOOD	ACCEPTABLE
Active Bicycle Advocacy Group	YES	YES
Active Bicycle Advisory Committee	MEETS EVERY TWO MONTHS	MEETS AT LEAST MONTHLY
Bicycle–Friendly Laws & Ordinances	SOME	NEEDS IMPROVEMENT
Bike Plan is Current and is Being Implemented	YES	SOMEWHAT
Bike Program Staff to Population	1 PER 100K	1 PER 60K

CATEGORY SCORES

ENGINEERING *Bicycle network and connectivity*	3.1/10
EDUCATION *Motorist awareness and bicycling skills*	2.7/10
ENCOURAGEMENT *Mainstreaming bicycling culture*	2.4/10
ENFORCEMENT *Promoting safety and protecting bicyclists' rights*	4.1/10
EVALUATION & PLANNING *Setting targets and having a plan*	3.4/10

KEY OUTCOMES

	Average Silver	*Highland Park*
RIDERSHIP *Percentage of Commuters who bike*	2.6%	0.45%
SAFETY MEASURES **CRASHES** *Crashes per 10k bicycle commuters*	523	2,419
SAFETY MEASURES **FATALITIES** *Fatalities per 10k bicycle commuters*	5.8	0

KEY STEPS TO SILVER

» Continue to expand the bike network in Highland Park, and ensure stronger compliance with the Complete Streets policy. Take advantage of Highland Park's low-speed streets to develop a system of bicycle boulevards that create an attractive, convenient, and comfortable cycling environment welcoming to cyclists of all ages and skill levels.

» Adopt a bike parking ordinance for new and existing buildings that specifies standards for the amount and location of secure, convenient, APBP-compliant bike parking available.

» Work with local bicycle groups and interested parents to expand and improve the Safe Routes to School program to all schools.

» Host a League Cycling Instructor (LCI) seminar to increase the number of local LCIs in your community. Having several active instructors will enable you to expand cycling education for youth and adults, recruit more knowledgeable cycling ambassadors, deliver Bicycle Friendly Driver education to motorists, and have experts available to assist in encouragement programs.

» Adopt a comprehensive road safety plan or a Vision Zero policy to create engineering, education, and enforcement strategies to reduce traffic crashes and deaths for all road users, including bicyclists and pedestrians. Road diets, lane diets, and traffic calming treatments are important engineering components for addressing safety.

» Adopt a target level of bicycle use (percent of trips) to be achieved within a specific timeframe, and ensure data collection necessary to monitor progress. Create a bicycle count program that utilizes several methods of data collection to create an understanding of current bicyclists and the effects of new facilities on bicycling.

» Begin the process of updating your 2012 *Bike Walk HP 2030* plan. Regularly updating your bicycle plan is key to improving conditions for bicycling, adhering to evolving best practices and national standards, and institutionalizing processes for continual evaluation and improvement.

HIGHLAND PARK, IL | CITY SCORECARD

placesforbikes

OVERALL SCORE

1.3

★ ☆ ☆ ☆ ☆

The overall score is based on Ridership, Safety, Network, Reach and Acceleration. It includes publicly available data and data gathered from our Community Survey, City Snapshot, and Bike Network Analysis.

RIDERSHIP

Measures how many people are riding.

1.6

★ ☆ ☆ ☆ ☆

Bicycle commuting	**0.1**
Recreational bike riding	**3.8**
Perceptions of bike use	‡

SAFETY

Measures how safe it is and feels to ride a bike.

1.8

★ ☆ ☆ ☆ ☆

All mode fatalities and injuries	**2.0**
Bicycle fatalities and injuries	**2.5**
Perceptions of safety	‡

NETWORK

Measures how well the bike network connects people to destinations.

1.6

★ ☆ ☆ ☆ ☆

Bicycle Network Analysis (BNA)	**2.0**
Perceptions of network quality	‡

REACH

Measures how well the bike network serves everyone equally.

1.7

★ ☆ ☆ ☆ ☆

Demographic gap in BNA	‡
Bicycle commuting rates by gender	**1.7**

ACCELERATION

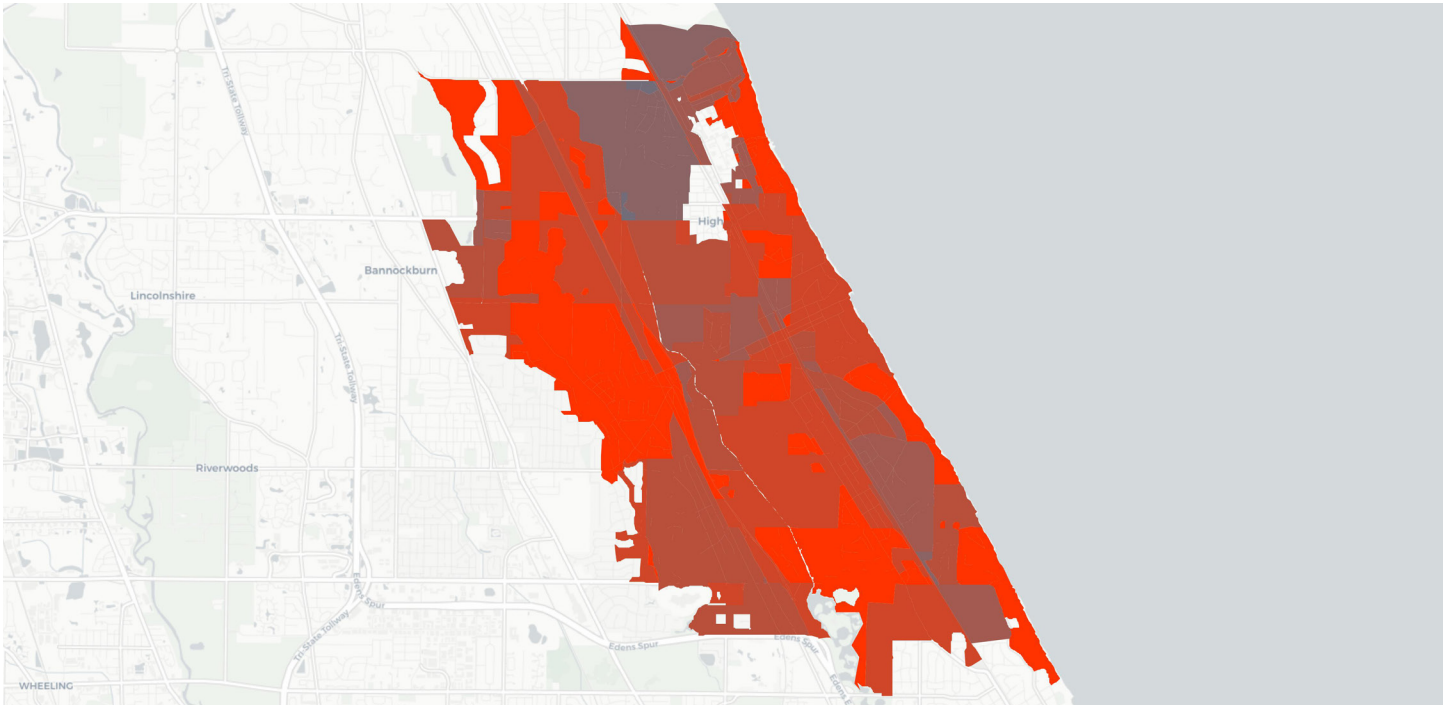
Measures the city's commitment to growing bicycling quickly.

‡

☆ ☆ ☆ ☆ ☆

Growth in bike facilities and events	‡
Perceptions of progress	‡

‡ Data unavailable



TEN WAYS TO IMPROVE YOUR SCORE

1. Hold a monthly social ride for new bikers. Choose flat, quiet routes and travel slowly. Count attendees.
2. Next 12-24 months: Launch or expand public bike share. Count rides.
3. 12-24 months: Create a Vision Zero policy with measurable goals and a clear timeline. Measure current safety to create a baseline.
4. 12 months: Use a crowdfunding campaign to build community support for an easy, visible protected bike lane. Measure "before and after" data.
5. 12 months: Install a small network of neighborhood bikeways by improving a few residential streets. Count bikes before and after.
6. Review your resurfacing schedule for chances to cheaply install post-protected bike lanes. Aim for these in 30% of all resurfacing projects.
7. Implement one pop-up event or pilot bikeway project this year using temporary material: paint, planters, pallet furniture. Count attendees.
8. Choose one neighborhood, recruit local leaders and plan a full network of low-stress bikeways that can be built with interim materials in 24 months.
9. 12 months: Build a diverse mobility advisory team. Prioritize people in underserved or fast-changing areas. Identify those not at the table.
10. Map assets like businesses, parks and events to showcase the strengths of underserved areas. Focus attention on helping people access those assets.

Highland Park, IL | CITY SCORECARD

placesforbikes

2019 OVERALL SCORE

2.4 ★★☆☆☆

The overall score is based on Ridership, Safety, Network, Reach and Acceleration. It includes publicly available data and data gathered from our Community Survey, City Snapshot, and Bike Network Analysis.

RIDERSHIP

Measures how many people are riding.

1.9 ★☆☆☆☆

Bicycle commuting	0.1
Recreational bike riding	3.6
Perceptions of bike use	2.3

SAFETY

Measures how safe it is and feels to ride a bike.

2.8 ★★☆☆☆

All mode fatalities and injuries	3.0
Bicycle fatalities and injuries	2.5
Perceptions of safety	2.9

NETWORK

Measures how well the bike network connects people to destinations.

2.1 ★★☆☆☆

Bicycle Network Analysis (BNA)	2.0
Perceptions of network quality	2.6

REACH

Measures how well the bike network serves everyone equally.

1.6 ★☆☆☆☆

Demographic gap in BNA	1.6
Bicycle commuting rates by gender	‡

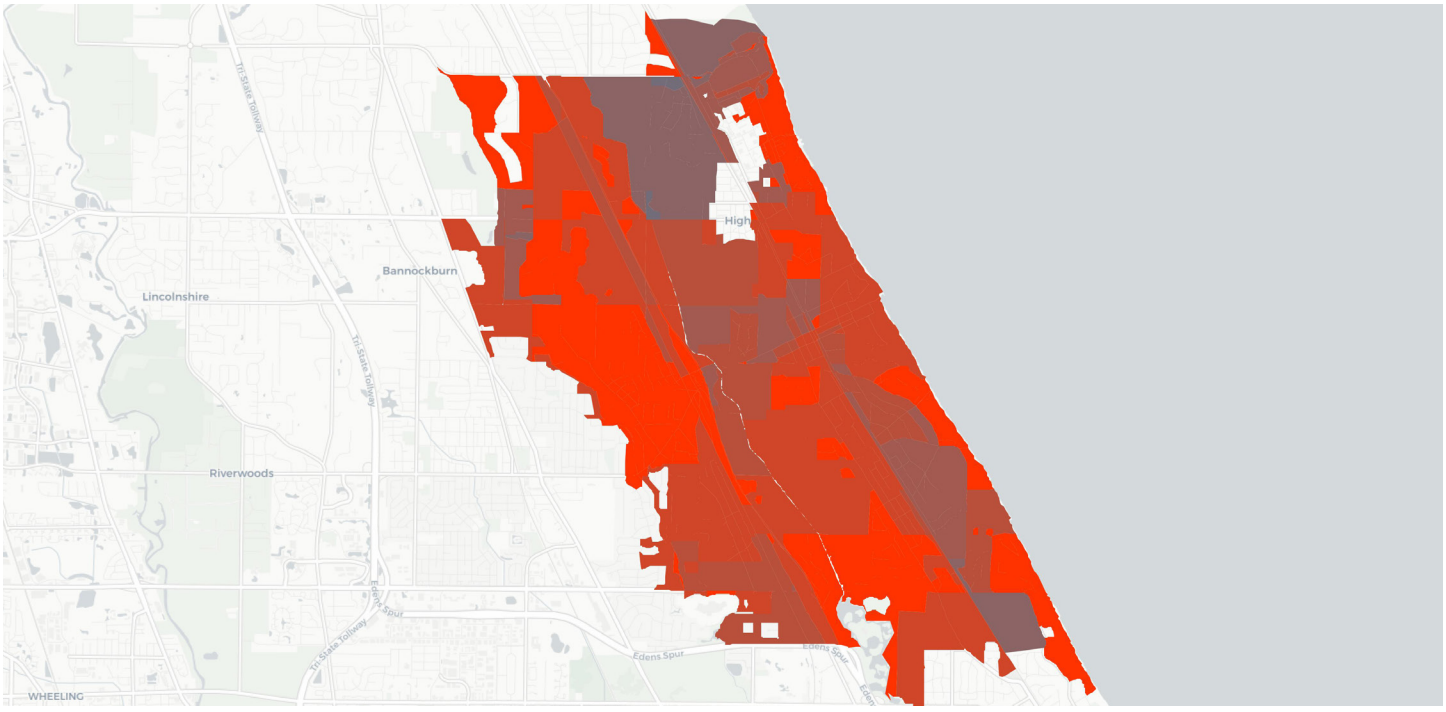
ACCELERATION

Measures the city's commitment to growing bicycling quickly.

1.3 ★☆☆☆☆

Growth in bike facilities and events	1.1
Perceptions of progress	2.1

‡ Data unavailable



TEN WAYS TO IMPROVE YOUR SCORE

1. Hold a monthly social ride for new bikers. Choose flat, quiet routes and travel slowly. Count attendees.
2. Next 12-24 months: Launch or expand public bike share. Count rides.
3. 12 months: Identify high crash corridors and work with locals to find infrastructure fixes. Measure baseline safety.
4. 12 months: Cut default residential speed limits to 20 mph or less. Catalog changes needed to bring streets to a 20 mph design speed.
5. Plan a bike network linking multiple districts. Use neighborhood bikeways on quiet streets, protected bike lanes on busy ones. Build in 24 months.
6. Improve bike/walk links to parks, trails & mountain bike areas. Make at least one new link each year, prioritizing areas with low recreation access.
7. 12 months: Build a diverse mobility advisory team. Prioritize people in underserved or fast-changing areas. Identify those not at the table.
8. Map assets like businesses, parks and events to showcase the strengths of underserved areas. Focus attention on helping people access those assets.
9. Implement one pop-up event or pilot bikeway project this year using temporary material: paint, planters, pallet furniture. Count attendees.
10. Choose one neighborhood, recruit local leaders and plan a full network of low-stress bikeways that can be built with interim materials in 24 months.

City of Highland Park Bike-Ped Count Data

2013-2019

Weekday Average

	Pedestrian					Bicyclist				
Intersection	**May 2013**	**Sept 2013**	**May 2014**	**Sept 2018**	**May 2019**	**May 2013**	**Sept 2013**	**May 2014**	**Sept 2018**	**May 2019**
Clavey @ Green Bay	23.0	17.3	11.5	9.8	7.8	6.5	7.0	3.3	5.8	3.5
Green Bay @ Clavey	20.3	10.5	10.1	11.3	9.8	11.3	11.5	5.6	11.8	4.3
McClory @ Lincoln	75.0	65.3	37.5	66.3	15.3	28.5	19.5	14.4	17.0	6.3
Lincoln @ McClory	46.3	31.0	23.1	7.3	8.0	11.8	11.0	5.9	6.3	3.3
St Johns @ Lincoln	8.0	11.8	4.0	6.8	8.8	15.0	17.0	7.5	23.5	4.0
Lincoln @ St. Johns	13.0	3.5	2.6	9.3	10.0	6.5	1.3	3.3	6.3	1.8
Laurel @ Green Bay	37.8	32.5	18.9	29.8	27.3	8.5	5.0	4.3	5.3	2.0
Green Bay @ Laurel	37.8	32.0	18.9	25.8	24.5	8.0	5.5	4.0	4.8	1.8
Sheridan @ Moraine	26.5	24.0	13.3	23.8	16.5	39.5	37.8	20.0	43.8	4.0
Moraine @ Sheridan	13.3	12.0	6.6	7.3	6.5	4.0	2.5	2.0	0.8	0.0
Summit @ Old Trail	27.0	19.0	13.5	24.0	21.3	7.0	10.0	3.5	5.3	2.3
Old Trail @ Summit	17.3	11.5	8.6	10.8	8.3	15.8	13.0	7.9	3.5	2.0
Total	**345.0**	**270.3**	**168.6**	**231.8**	**163.8**	**162.3**	**141.0**	**81.5**	**133.8**	**35.0**

Weekday Average (7-9 am)

	Pedestrian					Bicyclist				
Intersection	**May 2013**	**Sept 2013**	**May 2014**	**Sept 2018**	**May 2019**	**May 2013**	**Sept 2013**	**May 2014**	**Sept 2018**	**May 2019**
Clavey @ Green Bay	31.5	21.5	15.75	13	8.5	4.5	6.5	2.25	2.5	0.5
Green Bay @ Clavey	21.5	15.5	10.75	15	10.5	7.5	17	3.75	12	1.5
McClory @ Lincoln	69.5	78.5	34.75	14.5	7.0	13	17	6.75	18	0.5
Lincoln @ McClory	53	45	26.5	9.5	9.5	10.5	11	5.25	7	2.0
St Johns @ Lincoln	3.5	8.5	1.75	7	13.5	11	22.5	5.5	38	5.5
Lincoln @ St. Johns	18	0	1.25	6.5	11.5	2.5	0	1.25	5	2.5
Laurel @ Green Bay	27.5	25	13.75	30.5	24.0	2.5	3.5	1.25	4.5	0.0
Green Bay @ Laurel	27	26	13.5	31	23.5	0.5	5	0.25	4.5	0.0
Sheridan @ Moraine	25.5	34.5	12.75	32.5	24.5	34.5	50	17.75	61.5	4.0
Moraine @ Sheridan	15.5	13.5	7.75	9.5	8.0	2	3.5	1	0.5	0.0
Summit @ Old Trail	28.5	34	14.25	41.5	34.0	7	15	3.5	6	2.0
Old Trail @ Summit	17	20	8.5	16	13.0	10	14.5	5	4	1.0
Total	**338**	**322**	**161.25**	**226.5**	**187.5**	**105.5**	**165.5**	**53.5**	**163.5**	**19.5**
Weather	Partly Cloudy	Sunny, hot	Mostly cloudy	Sunny, humid	Rain, cold	Partly Cloudy	Sunny, hot	Mostly cloudy	Sunny, humid	Rain, cold
Avg Temp (°F)	63	86	58	81	47	63	86	58	81	47

Weekday Average (4-6 pm)

	Pedestrian					Bicyclist				
Intersection	**May 2013**	**Sept 2013**	**May 2014**	**Sept 2018**	**May 2019**	**May 2013**	**Sept 2013**	**May 2014**	**Sept 2018**	**May 2019**
Clavey @ Green Bay	14.5	13.0	7.3	6.5	7.0	8.5	7.5	4.3	9.0	6.5
Green Bay @ Clavey	19.0	5.5	9.5	7.5	9.0	15.0	6.0	7.5	11.5	7.0
McClory @ Lincoln	80.5	52.0	40.3	118.0	23.5	44.0	22.0	22.0	16.0	12.0
Lincoln @ McClory	39.5	17.0	19.8	5.0	6.5	13.0	11.0	6.5	5.5	4.5
St Johns @ Lincoln	12.5	15.0	6.3	6.5	4.0	19.0	11.5	9.5	9.0	2.5
Lincoln @ St. Johns	8.0	7.0	4.0	12.0	8.5	10.5	2.5	5.3	7.5	1.0
Laurel @ Green Bay	48.0	40.0	24.0	29.0	30.5	14.5	6.5	7.3	6.0	4.0
Green Bay @ Laurel	48.5	38.0	24.3	20.5	25.5	15.5	6.0	7.8	5.0	3.5
Sheridan @ Moraine	27.5	13.5	13.8	15.0	8.5	44.5	25.5	22.3	26.0	4.0
Moraine @ Sheridan	11.0	10.5	5.5	5.0	5.0	6.0	1.5	3.0	1.0	0.0
Summit @ Old Trail	25.5	4.0	12.8	6.5	8.5	7.0	5.0	3.5	4.5	2.5
Old Trail @ Summit	17.5	3.0	8.8	5.5	3.5	21.5	11.5	10.8	3.0	3.0
Total	**352.0**	**218.5**	**176.0**	**237.0**	**140.0**	**219.0**	**116.5**	**109.5**	**104.0**	**50.5**
Weather	Partly Cloudy	Sunny, hot	Mostly cloudy	Sunny, humid	Rain	Partly Cloudy	Sunny, hot	Mostly cloudy	Sunny, humid	Rain
Avg Temp (°F)	63	86	58	81	47	63	86	58	81	47

Weekend Count (10 am - 12 pm)

	Pedestrian					Bicyclist				
Intersection	**May 2013**	**Sept 2013**	**May 2014**	**Sept 2018**	**May 2019**	**May 2013**	**Sept 2013**	**May 2014**	**Sept 2018**	**May 2019**
Clavey @ Green Bay	13	8	13	14	18	3	17	3	22	11
Green Bay @ Clavey	20	18	20	10	16	13	30	13	36	21
McClory @ Lincoln	69	110	64	No data	46	23	78	23	No data	12
Lincoln @ McClory	No Data	37	0	No data	15	0	20	0	No data	1
St Johns @ Lincoln	21	No data	22	No data	7	74	No data	74	No data	103
Lincoln @ St. Johns	36	No data	36	No data	7	7	No data	7	No data	0
Laurel @ Green Bay	41	123	41	No data	26	3	13	3	No data	5
Green Bay @ Laurel	41	99	41	No data	31	3	21	3	No data	5
Sheridan @ Moraine	13	33	13	24	17	135	122	135	135	124
Moraine @ Sheridan	5	19	5	3	7	1	6	1	3	4
Summit @ Old Trail	22	26	22	21	17	12	13	12	3	8
Old Trail @ Summit	13	15	0	14	11	12	7	13	11	13
Total	**294***	**488***	**277**	**86***	**218**	**286**	**327***	**287**	**210***	**307**
Weather	Mostly cloudy	Partly Cloudy	Partly Cloudy	Cloudy	Light Rain	Mostly Cloudy	Partly Cloudy	Partly Cloudy	Cloudy	Light Rain
Avg Temp (°F)	52	77	72	65	49	52	77	72	65	49

* = incomplete data