Active Transportation Plan Excerpt (“MoveHP”) – “Proposed Bike/Ped Network” Section

What

A section of an active transportation plan produced during my internship with the City of Highland Park. I was the primary author of this section, and had Planner Jaemi Jackson as an editor and co-writer overseeing the project. The final plan (“MoveHP: An Update to Bike-Walk HP 2030”) is a major update to an active transportation plan for a medium-sized suburb of Chicago.

Work Performed

- Wrote & laid out the following section.
- Researched the listed interventions using best practices and resident input.

Why

- Report & proposal writing
- Design aptitude
- Adobe Suite (Photoshop, Illustrator, Indesign)

4 Proposed Bike/Ped Network

The MoveHP planning process utilized public input, staff analysis, and research on best practices to create a set of recommendations to improve Highland Park's bikeability and walkability. Key infrastructure improvements include: filling in sidewalk gaps, improving hard-to-navigate intersections, and enhancing east-west connections within Highland Park's bike & pedestrian network. These are general themes that guide MoveHP's proposed improvements which multiple objectives and recommendations serve to accomplish.

Key Infrastructure Improvements

Sidewalk Infill

The U.S. Department of Transportation notes that "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."[1] Several gaps in the pedestrian network remain, ranging from half a block to half a mile. Noteworthy gaps include:

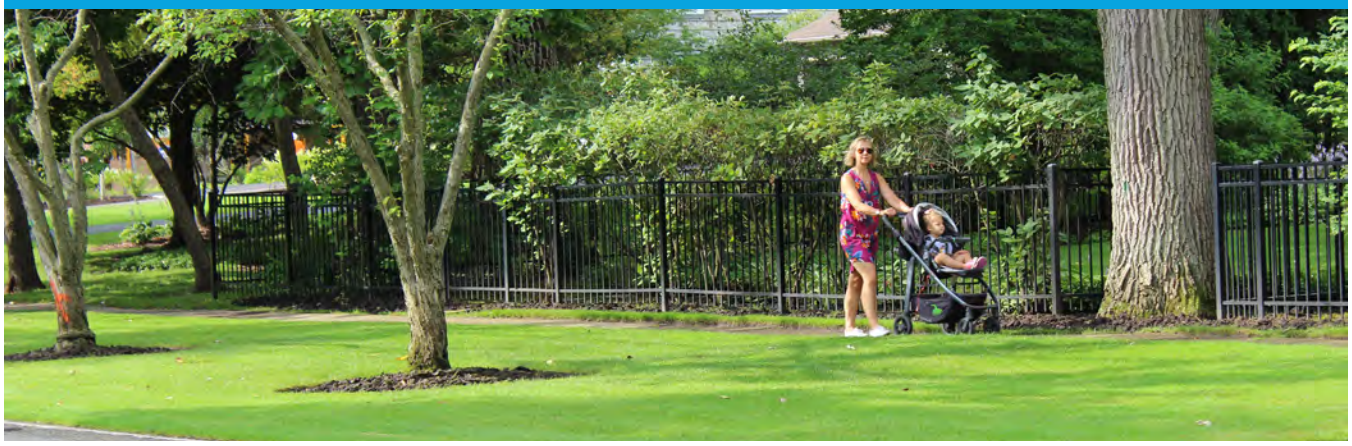
- Ridge Road between Berkeley Road and Midland Avenue
- Lake Cook Road between Ridge Road and Red Oak Lane
- Sheridan Road between Dean Avenue and Roger Williams Avenue

Filling in these gaps opens new routes for pedestrians, especially those who may not be comfortable walking in the roadway such as the disabled, elderly, children and expectant mothers. Priority infill areas should include connections to schools and parks. In addition to sidewalks, sidepaths, which are wider than sidewalks and mix bicycle and pedestrian traffic, are another viable option to increase pedestrian connectivity.

Improved Intersections and Crossings

The Federal Highway Administration remarks that "more than one in five pedestrian deaths is the result of a collision with a vehicle at an intersection" [2] Furthermore, the same report notes that "the older population is overrepresented relative to intersection fatalities by a factor of more than 2 to 1." Pedestrian and cyclist-friendly intersections are crucial to a viable bike-walk street network and the success of MoveHP.

1 https://www.transportation.gov/mission/health/promoting-connectivity
2 https://safety.fhwa.dot.gov/intersection/other_topics/fhwasa10005/docs/brief_9.pdf



Currently, several intersections in Highland Park are challenging for pedestrians to cross and present opportunities to improve overall safety. These include, amongst others:

- US-41 and Half Day Road
- US-41 and Park Avenue
- Deerfield Road and Soutland Avenue
- Green Bay Road, Vine Avenue, and First Avenue
- Central Avenue and McGovern Street
- Clavey Road and Hillside Drive / Hastings Avenue

The Public Works Department and Planning Division will require innovative solutions to these intersections. While some intersections may require total redesign and reconstruction, some solutions are relatively easy and cost-effective to implement.

'One such solution are bike boxes, which is a "designated area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase."[3] Bike boxes increases the visibility of cyclists, allows them to turn before motorized vehicles, and prevents vehicles from blocking the sidewalk. Bike boxes may be useful at an intersection such as Green Bay Road, Vine Avenue, and First Avenue, which would allow students going to and from Highland Park High School to safely cross the intersection on their bicycles.

A cost-effective solution for pedestrian connectivity are pedestrian safety islands. These are protected areas in the median strip of a 3-4 lane roads that give pedestrians a space to rest and wait for a break in traffic. They function to reduce the time pedestrians spend in traffic lanes at an intersection. NACTO recommends that pedestrian islands are 8-10 feet wide, with a minimum of 6 feet. They may be used to beautify the streetscape using plantings or street trees; however, these need to be maintained to ensure visibility. A pedestrian safety island is recommended for a non-signalized pedestrian crossing at Central Avenue and McGovern Street.

East-West Connections

Comments from the public workshop, online survey and steering committee all stressed the importance of improved east-west connections within Highland Park. The city currently has two long-distance bike trails running north-south, but no effective bike or pedestrian connection between them. A major hindrance is US-41, which has large, unsafe, and uncomfortable at-grade crossings at Half Day Road and Park Avenue; the overpass crossings at Clavey Road and Lake Cook Road are both hampered by the on- and off-ramps to the highway, while the pedestrian bridge at Deerfield Road is out of service. Furthermore, sections of these major east-west thoroughfares in Highland Park lack pedestrian infrastructure; while shared-lane markings (sharrows) were installed in 2017, the 35 MPH speed limit of these roads exceeds some industry recommendations. Improved east-west connections are important at both a local and regional scale and are a major priority for MoveHP.

3 https://nacto.org/publication/urban-bikeway-design-guide/intersection-treatments/bike-boxes/