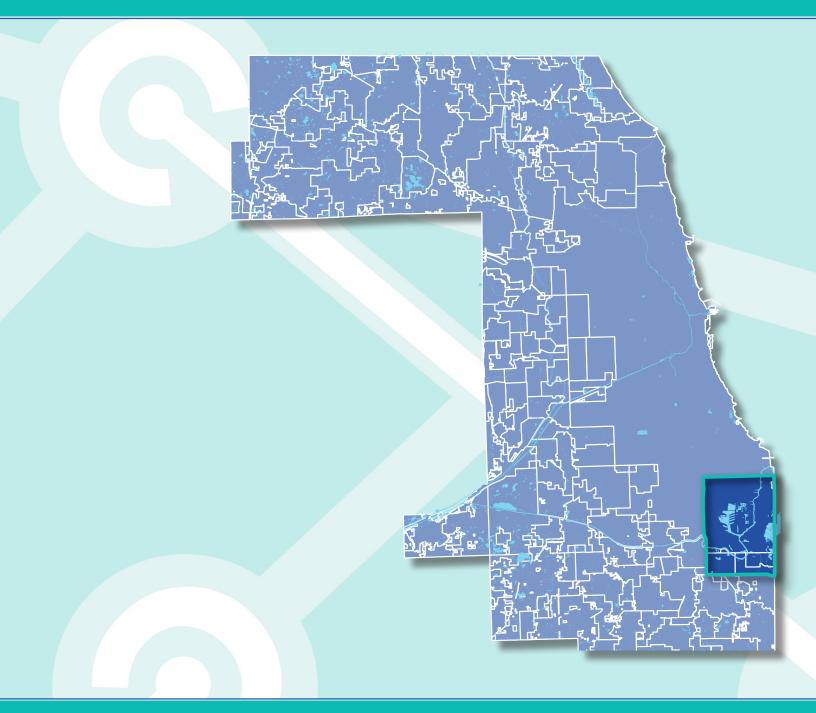
Lake Calumet Bicycle Network Study

August 2024







JENNIFER "SIS" KILLEN, P.E., PTOE, SUPERINTENDENT DEPARTMENT OF TRANSPORTATION AND HIGHWAYS

Acknowledgments

PREPARED FOR:

Cook County Department of Highways and Transportation In Partnership with the Chicago Department of Transportation

CONNECTING COOK COUNTY Beyond Transportation

Chicago Department of Transportation

PREPARED BY:

HNTB Rudd Resources Lamar Johnson Collaborative





Lamar Johnson Collaborative

Contents

1. Introduction	5
2. Study Area Characteristics	13
3. Transportation Infrastructure Assessment	21
4. Engagement	43
5. Equity Analysis	59
6. Future Opportunities	71
7. Key Infrastructure Strategies	78
8. Implementation Strategies	99
9. Non-Infrastructure Strategies	109







1.1 Vision

To develop a safer, more accessible walking and bicycling network in the Lake Calumet area that better connects people with destinations and recreational opportunities.

The Lake Calumet Bicycle Network Study's projects can improve bicycle comfort, safety and help connect neighborhoods separated by industry, highways and rail yards to improve mobility and access.

A more connected Lake Calumet area bicycle network will link this area with the rest of Cook County and the surrounding region in alignment with the Cook County Bicycle Plan.



Terms used in this document

- Affordability: Defined by the Bureau of Labor Statistics and United States Census, affordability refers to the share of household income available for the purchase of goods and services. Housing is defined as affordable when it consumes no more than 30% of household income; transportation is affordable when it consumes no more than 15% of household income.
- Arterial Roadway: A roadway design for the accommodation of automobile traffic traveling at speeds of 30 miles per hour or greater over long distances. Generally, arterial roadways have two or more lanes of travel for automobiles.
- Collector Roadway: A roadway designed to accommodate automobile traffic traveling at speeds less than 40 miles per hour for shorter distances than typically is accommodated on arterial roadways. Generally, collector roadways have two lanes of travel for automobiles.
- Comfort and Safety: Refers to conditions where the risk of physical harm or personal safety are eliminated or minimized, such that a user feels welcome to travel using the mode of their choice.
- Equity: A condition of fairness and justice or the provision of resources to address a specific need.

- Focus Group Meeting: A style of meeting used during engagement to generate discussion on specific topics by a small group such that longer and more detailed feedback may be provided.
- Historically Disinvested: A state of disadvantage and/or disinvestment brought about by historic patterns of institutionalized or other forms of systemic discrimination. May refer to individuals, groups, institutions or geographic areas.
- Level of Traffic Stress (LTS): A qualitative measure of stress that summarizes the experience of a person traveling by bicycle in typical roadway conditions measured on a scale of 1 to 4, with 4 being the most stressful. LTS is a function of roadway width, parking lane width, posted speed and the extent to which bicyclists are provided with exclusive space or physical separation from automobile traffic.
- Incapacitating Injury Crash: A roadway crash that results in a an injury that is evident at the scene of the crash but is not fatal.
- Neighborhood Greenway: One or more roadways that have been designed to accommodate and prioritize bicycle travel. Typically this is achieved through reduction of automobile traffic volumes, calming of automobile travel speeds or a combination of both treatments.



- Pop-Up Event: An informal engagement activity that typically involves setting up a booth or table at a community event to engage in casual and informal conversations with stakeholders on a particular topic, plan or event.
- Roadway Jurisdiction: The legal authority or control over a public right-of-way for the purposes of design, maintenance and capital infrastructure investment.
- Shared Use Path: A facility designed to accommodate walking and bicycling in a shared environment that is separated from automobile traffic.
- Sidepath: A type of shared use path that is located within the right-of-way of a roadway and generally travels parallel to it. Typically a sidepath crosses driveways and intersecting streets.
- **StoryMap:** A form of web-based map that shows geographic data in a dynamic, interactive format.
- Trail: A type of shared use path that is not associated with a roadway and usually is located in a park or forest preserve.



Figure 1: Participants on a study area bike ride, August 2023.

Introduction 9



The Lake Calumet Bicycle Network Study builds upon recommendations from the Cook County Bicycle Plan which identified critical needs and opportunities to improve existing and future bicycle infrastructure in Cook County.

This effort also coordinates ongoing fundraising, planning, design and construction activities around Lake Calumet to support active transportation programs and infrastructure.

Purpose

The purpose of this study is to improve active transportation options in historically under-resourced communities. Recommendations have been prepared to **develop a network of low-stress bikeways** throughout the study area.

This effort evaluates existing infrastructure and identifies opportunities to create a more connected bikeway network through enhancements to existing and future (planned) on- and off-street facilities.

To overcome physical barriers to walking and cycling, this study focuses on a series of recommendations that include additional bicycle lanes, off-street trails and other improvements.

These recommendations are intended to create a complete bicycle network that promotes safe, comfortable, accessible, connected and equitable biking opportunities to major community destinations.

Interaction with motor vehicle traffic, intersection design, speed and size of cars and trucks and the amount of separation of bicycle lanes from automobile traffic play an important role in the bicycle rider's experience.

What is a Low-Stress Bikeway?

Defined in the Cook County Bike Plan, low-stress bikeways "include sidepaths, off-street trails, bike routes on low-traffic streets and fully-separated bike lanes on major roads."

The Chicago Cycling Strategy defines these facilities as "bike routes that are comfortable for people of all ages and abilities, not just for experienced bicyclists and consist of separated bike lanes, neighborhood greenways and off-street trails."

The study prioritizes improvements based on ease of construction, consistency with other planning efforts and availability of funds. The report proposes a build-out of the complete low-stress bicycle network over the next 10 to 15 years.



Level of Traffic Stress (LTS)

A qualitative measure of stress that summarizes the experience of a person traveling by bicycle in typical roadway conditions measured on a scale of 1 to 4, with 4 being the most stressful. Typical LTS conditions are illustrated in Figure 2 and are a function of roadway width, parking lane width, posted speed and the extent to which bicyclists are provided with exclusive space or physical separation from automobile traffic.

To read more:

- Cook County Bicycle Plan, click here
- Chicago Cycling Strategy, click here

Figure 2: Level of Traffic Stress

Level of Traffic Stress (LTS)

Low Stress **High Stress**



Trail (or Separated Bike Lane)

Comfortable for Most Users

LTS₂

Buffered Bike Lane

LTS₃

Visual Separation (Bike Lane)



LTS 4

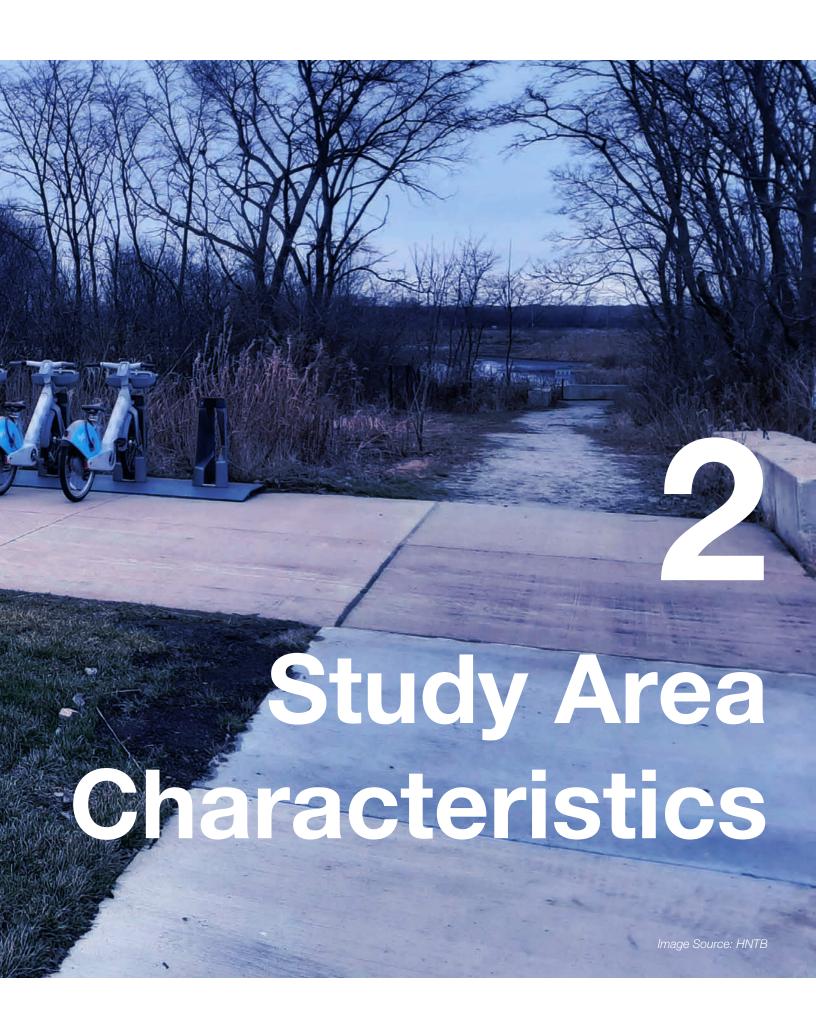
No dedicated bicycling space

Stressful for Most Users

Source: HNTB. Rudd Resources

Introduction 11





2.1 Study Area Overview

Study Area

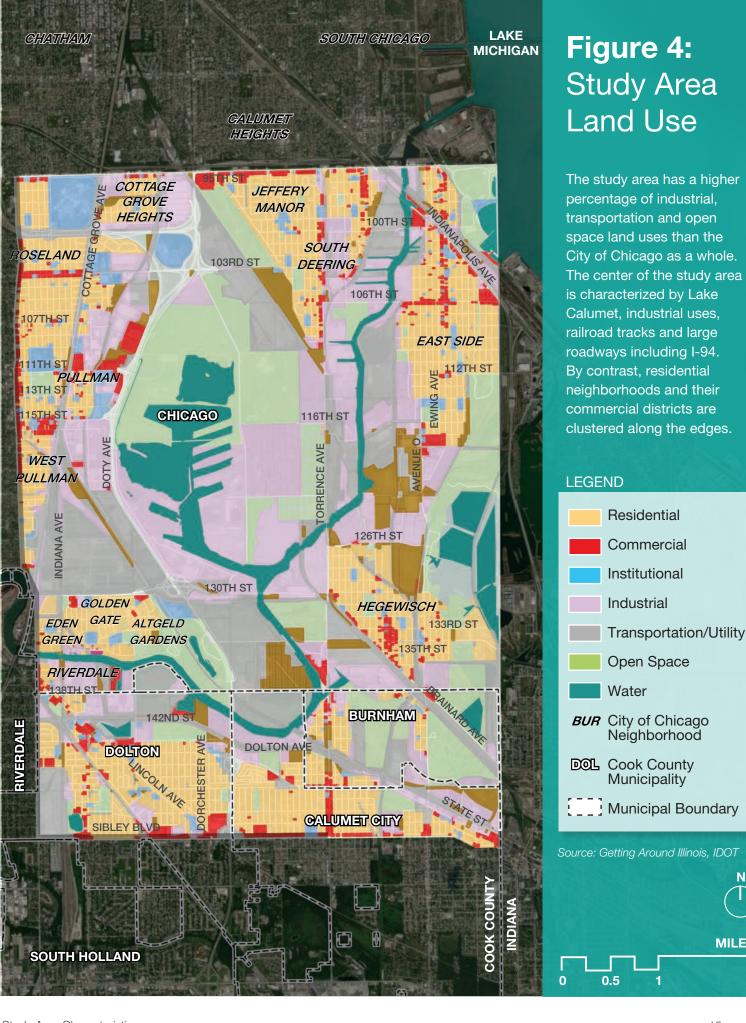
The Lake Calumet Bike Network Study Area is a 34-square mile area centered on Lake Calumet. The study area is bounded by 95th Street, the Illinois-Indiana State Line, Sibley Boulevard and Indiana Avenue and Michigan Avenue. This includes:

- Chicago Neighborhoods:
 - Altgeld Gardens
 - Cottage Grove Heights
 - East Side
 - Eden Green
 - Golden Gate
 - Hegewisch
 - Jeffery Manor
 - Pullman
 - Riverdale
 - Roseland
 - South Deering
 - West Pullman
- South Suburban Cook County Municipalities
 - City of Calumet City
 - Village of Dolton
 - Village of Burnham
 - Village of Riverdale

Figure 3 highlights the distances between residential neighborhoods. **Figure 4** shows how land uses in the study area are a mixture of residential, industrial, neighborhood commercial and institutional, as well as large tracts of transportation infrastructure and open space.

Figure 3: Study Area, Residential Focus





Study Area Characteristics 15

MILES

2.2 Race and Ethnicity

Race and Ethnicity

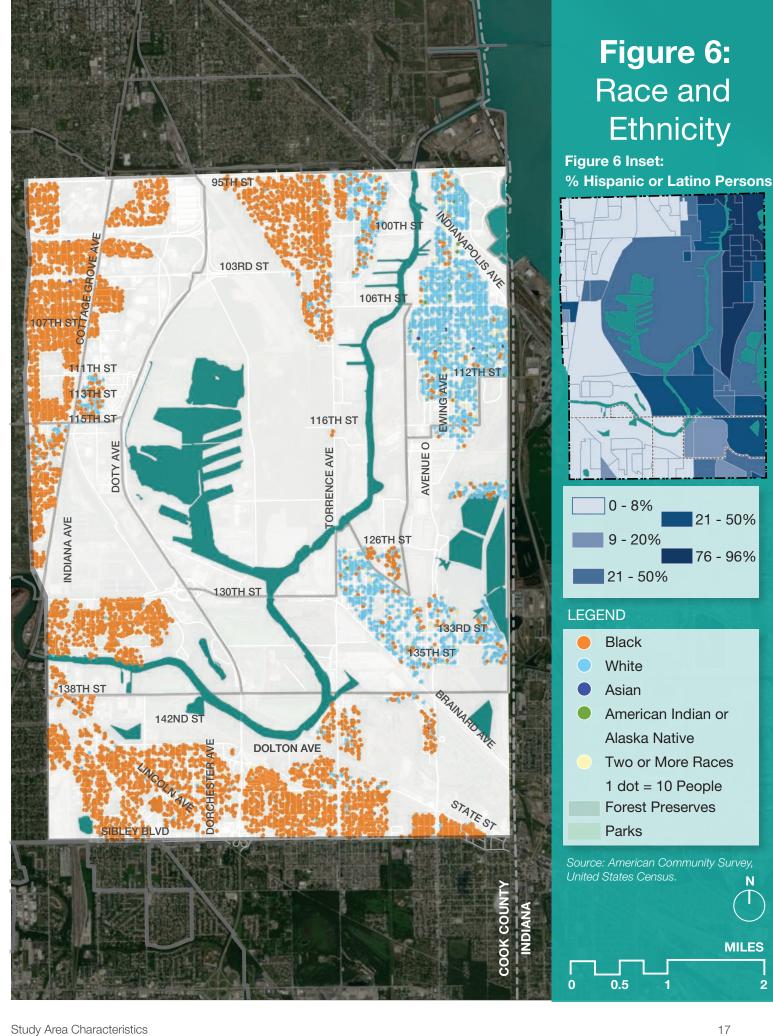
Figure 6 shows the distribution of study area residents by race and ethnicity. Each dot represents 10 people. While segregated, the study area is racially diverse with representation of several racial and ethnic groups. Race and ethnicity are shown in **Figure 7** and **Figure 8**.

Race and ethnicity data show high levels of segregation. For example, areas with high concentrations of Black residents have low representation of white or Hispanic residents. The total population within the study area is 104,000 residents. Of that population, 66,000 (63%) are Black.

Generally, Chicago neighborhoods west of Torrence Avenue are predominantly Black, and those east of Torrence are a mixture of white and Hispanic residents. Roseland, Altgeld Gardens, Eden Green and Golden Gate have the highest concentration of Black residents. East Side and Hegewisch are primarily Hispanic (53.6% population), closely followed by white (40.5% population).



Figure 5: Engagement activities at Taste of Chicago Pullman Park, an area with a higher concentration of Black residents compared to areas east of Torrence Ave.



2.3 Neighborhoods and Municipalities

Chicago Neighborhoods

Altgeld Gardens, Eden Green, Golden Gate

These three neighborhoods are located south of 130th Street, east of Indiana Avenue and north of the Little Calumet River.

Cottage Grove Heights

Cottage Grove Heights is a neighborhood located south of 95th Street, east of Cottage Grove Avenue and west of Stony Island Avenue.

East Side

The East Side neighborhood borders Lake Michigan with western access from Calumet Park. The community is adjacent to Eggers Grove Forest Preserve.

Hegewisch

Hegewisch is located south of East Side and bordered by Riverdale and South Deering to the west and the Village of Burnham to the south.

Pullman

Pullman is located west of Lake Calumet. Originally built to accommodate workers at the Pullman Company, the neighborhood has been recognized as a National Historic Landmark as well as receiving city and state historic landmark recognition.

Riverdale

Chicago's Riverdale neighborhood is bordered by the Little Calumet River to the north, 138th Street to the south, Indiana Avenue to the west and railroad tracks that run parallel to Forest Avenue to the east.

Roseland

West of Pullman and Lake Calumet, Roseland is bounded by Cottage Grove Avenue to the east,

115th Street to the north, Little Calumet River to the south and Ashland Avenue to the west.

South Deering

South Deering is one of the largest neighborhoods in Chicago, but 80% of it is industrial areas, wetlands and open space. The neighborhood is known for its mid-century modern housing developments.

West Pullman

The Major Taylor Trail is partially located in the West Pullman community and connects to Whistler Woods Forest Preserve to the south.

South Cook Municipalities

Calumet City

The City of Calumet City is located in the southeastern corner of the study area, east of Dolton and south of the Village of Burnham.

Village of Dolton

Dolton is bordered by Riverdale and Harvey to the west, South Holland to the south and Calumet City to the east. The Village separated from Riverdale in 1892.

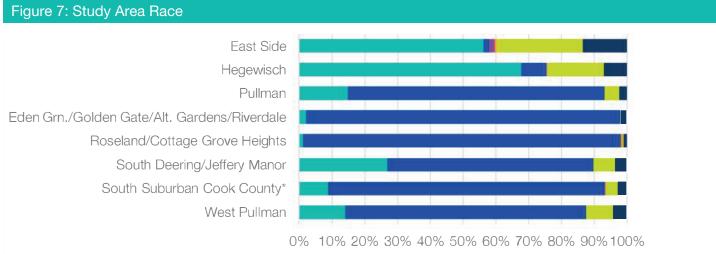
Village of Burnham

The Village of Burnham is located southeast of Chicago. The community is home to the Burnham Park District, the Burnham Historic District and the Burnham Harbor.

Village of Riverdale

Bearing the same name as the Chicago neighborhood to the north, the easternmost portion of this Village is included in the study area.

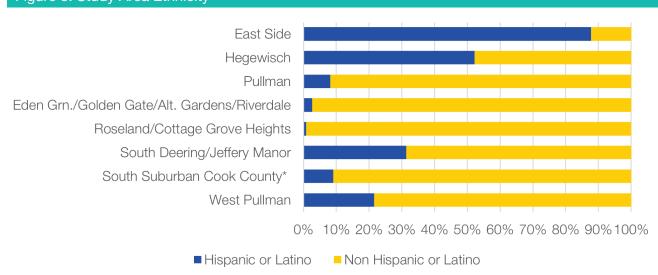




■ White ■ Black ■ American Indian ■ Asian ■ Other ■ Two or more races

^{*} South Suburban Cook County Includes Calumet City, the City of Dolton Village of Burnham and Village of Riverdale. Source: ACS 5-Year Estimates, US Census Bureau, 2021





^{*} South Suburban Cook County Includes Calumet City, the City of Dolton, Village of Burnham and Village of Riverdale. Source: ACS 5-Year Estimates, US Census Bureau, 2021

Study Area Characteristics 19





3.1 Existing Roadway Conditions and Jurisdiction

Roadway Jurisdiction

Roadway jurisdiction shown in **Figure 9** identifies agencies responsible for access management and maintenance of roadways in the study area. Roadway jurisdiction is an important factor when advocating for walking and bicycling improvements, as roadway improvements must be coordinated with these agencies. The existing roadway network in the study area forms a grid around Lake Calumet, fed by major roadways leading to I-94.

Annual Average Daily Traffic

Figure 10 shows Annual Average Daily Traffic (AADT) for major roads within the study area. Darker red colors indicate roadways with higher levels of traffic.

Roads with higher traffic volumes generally have more lanes, higher speeds and require greater separation of bike and pedestrian facilities. These factors often result in wider roadways and a greater need of physical separation between people driving and those who are walking and bicycling.

Roadways that provide east-west connectivity (95th Street, 103rd Street and 130th Street) have roadway volumes at or above 20,000 vehicles per day. Roadways that provide continuous north-south connectivity have AADT between 5,000 and 20,000 but lack continuous walking and bicycling infrastructure include:

- 1. Michigan Avenue
- 2. Indiana Avenue
- 3. Cottage Grove Avenue
- 4. Doty Avenue

- 5. Torrence Avenue
- 6. Burnham Avenue

Transit Network

Transit service in the study area consists of Metra stations along the Metra Electric District and bus service provided by the Chicago Transit Authority and Pace. **Figure 11** shows the location of rail stations, bus routes and bus stops. Due to the presence of Lake Calumet and the Bishop Ford Freeway (I-94), there are no bus routes that travel east-west in the study area south of 103rd Street.

CTA bus routes 26, 106 and 111A terminate at the 103rd Street terminal, and CTA bus route 34 terminates at 131st Street and Ellis Avenue or Carver Military School, depending on time of day.

CTA bus route 34 South Michigan travels from 95th Street through Pullman, Eden Green, Golden Gate and Altgeld Gardens. However, the bus travels in a one-way loop through these areas (**Figure 11**).

Residents seeking to travel northbound toward 95th Street can only board buses headed in the northbound and westbound direction, and cannot ride an eastbound bus through to the 131st Street or Carver Military Academy layover stop. If they wait for a westbound bus during peak hours, riders may find a bus to be crowded depending on where they board along the route.

To integrate bicycle and transit travel, a new Metra policy allows bicycles on trains at any time of day. All CTA buses are equipped with bike racks.

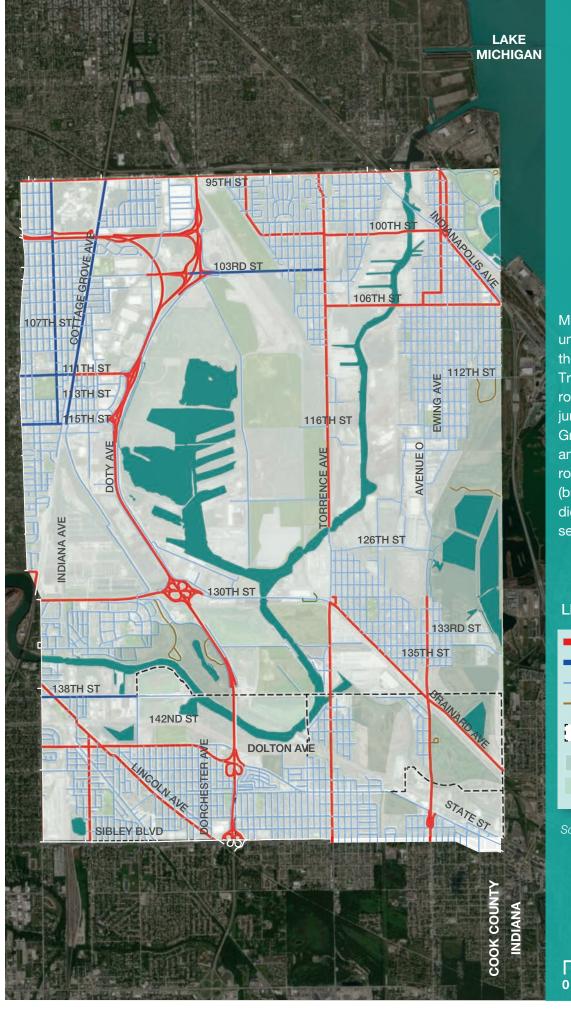


Figure 9:Roadway Jurisdiction

Most arterial roadways are under the jurisdiction of the Illinois Department of Transportation (IDOT). Key roadways under Cook County jurisdiction include Cottage Grove Avenue, 103rd Street and 138th Street. Private roads in the study area (brown) are under the jurisdiction of the Forest Preserves of Cook County.

LEGEND



Source: Getting Around Illinois, IDOT

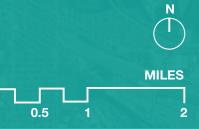


Figure 10: Annual Average Daily Traffic

Annual Average Daily Traffic (AADT) estimates the average level of automobile traffic on a street during a typical day using data averaged over a year. Typically, streets with higher speed limits, more lanes and wider lane widths have higher volumes of traffic. Within the study area, streets with the highest AADT levels are 103rd Street, 130th Street and Sibley Boulevard.

LEGEND (AADT)

More than 20,000

10,000 - 20,000

5,000 - 10,000

2,500 - 5,000

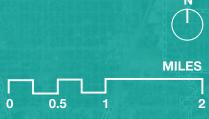
Less than 2,500

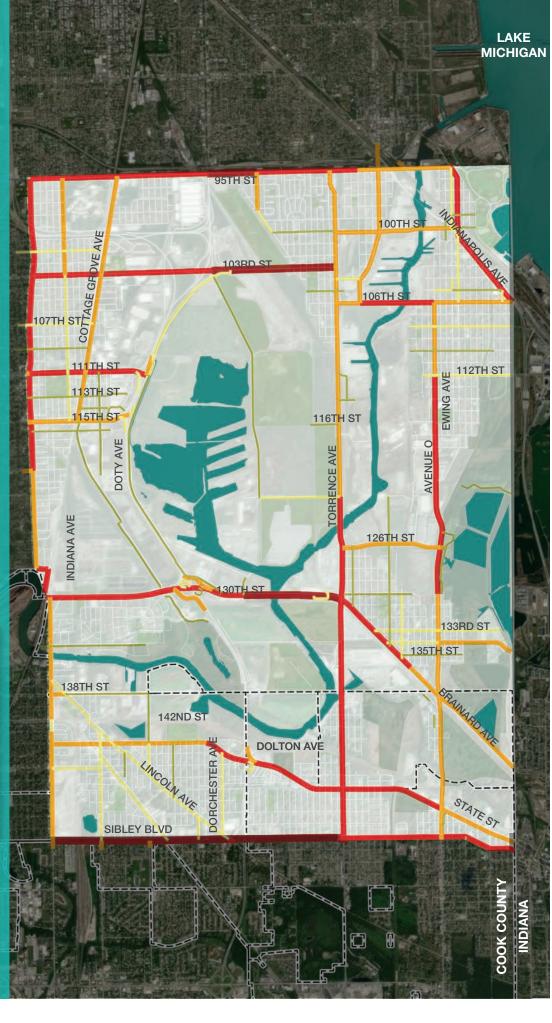
Municipal

Boundary
Forest Preserves

Parks

Source: Illinois Roadway Analysis Database System (IROADS), 2023.







MILES

3.2 Traffic Stress and Gaps

Roadways carrying a large volume of automobile traffic, vehicles traveling at high speeds (or a combination of both), a disconnected bikeway network and missing sidewalks are common barriers to walking and biking. Additionally, even when facilities are present, roadway characteristics can create high levels of stress for users. This section details level of traffic stress and the current state of the bicycling and pedestrian infrastructure network.

Level of Traffic Stress (LTS)

Level of Traffic Stress (LTS) is a qualitative measure of how stressful a roadway feels from the perspective of a person on a bicycle. It is a function of roadway width, number of automobile travel lanes, posted speed limit and the width of roadway space assigned exclusively for bicyclists.

Higher speed roadways with more than two automobile travel lanes have higher levels of stress than two-lane roadways with posted speeds at or below 30 miles per hour. LTS is assigned a score of 1 to 4, with 4 corresponding with highly stressful roadways for all users.

As shown in **Figure 12**, nearly every arterial roadway that connects neighborhoods and municipalities to each other is rated LTS 4, highlighting barriers to bicycling connectivity.

Bicycle Network

Existing bicycle infrastructure and corridors where projects are planned are shown in **Figure 13**. When completed, the Burnham Greenway will be a continuous bicycle facility extending north to south along the eastern edge of the study area.

Low-stress bicycle facilities refer to trails and sidepaths, which are physically separated from automobile traffic. While there are some on-street bicycle facilities in the study area, the majority of existing bikeways are low-stress. However, not all low-stress bicycle facilities are connected, and there are gaps between them, making bicycle travel over long distances more difficult.

Sidewalk Network

Sidewalk coverage in the study area is shown in **Figure 14.** Using data provided by the Chicago Metropolitan Agency for Planning (CMAP), sidewalk gaps shown in red are concentrated along many of the same roadways carrying high volumes of automobile traffic, further highlighting stressful conditions for walking.

There are 53 public and private schools in the study area, and the majority of these have complete sidewalk coverage within a half-mile (about a 10 minute walk) of the school. Regarding bicycle coverage, there are no bicycle routes within a half-mile of schools in Riverdale or Dolton, and bicycle route coverage is limited in South Deering.

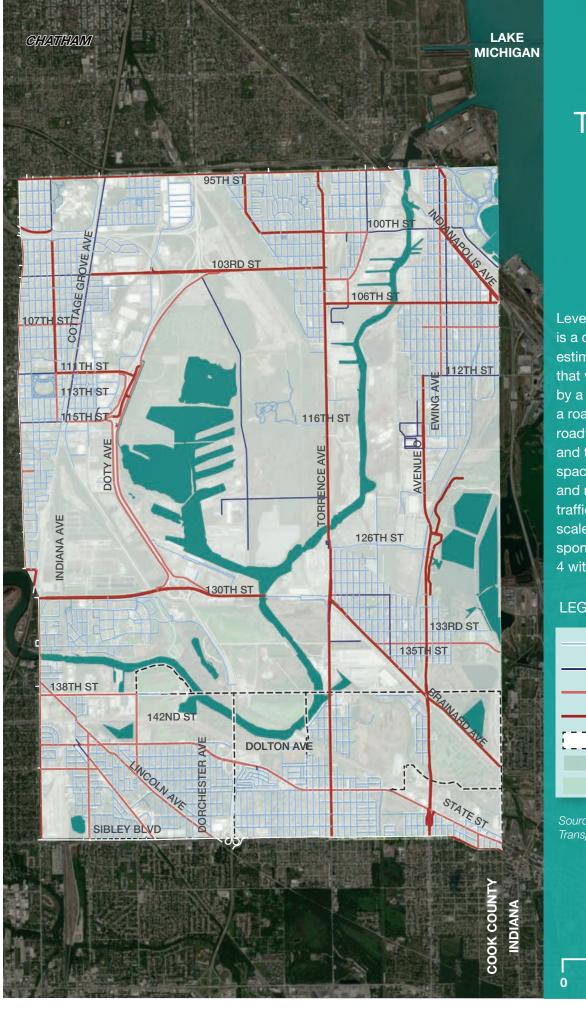


Figure 12: Level of Traffic Stress (LTS)

Level of Traffic Stress (LTS) is a qualitative measure that estimates the level of stress that would be experienced by a bicyclist traveling along a roadway. It is a function of roadway width, posted speed and the amount of roadway space allocated to bicyclists and not shared with automobile traffic. LTS is assigned on a scale of 1 to 4, with 1 corresponding with low stress and 4 with high stress.

LEGEND



Source: Cook County Department of Transportation and Highways (DoTH)

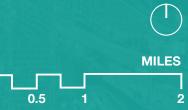


Figure 13: Bicycle Network

This map shows existing bicycle facilities and projects for which funding has been proposed.

Note: Routes shown are reproduced as identified from previous planning efforts.

LEGEND



Transportation and Highways (DoTH).

MILES



0.5

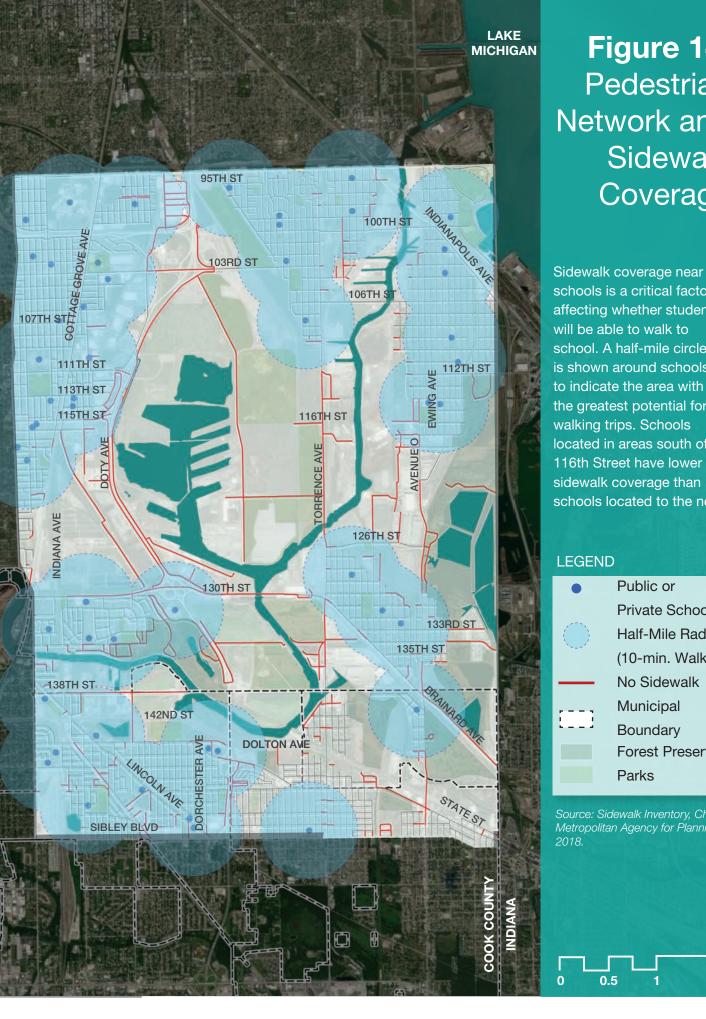


Figure 14: Pedestrian Network and Sidewalk Coverage

schools is a critical factor affecting whether students will be able to walk to school. A half-mile circle is shown around schools to indicate the area with the greatest potential for walking trips. Schools located in areas south of 116th Street have lower sidewalk coverage than schools located to the north.

Public or Private School Half-Mile Radius (10-min. Walk) No Sidewalk Municipal Boundary Forest Preserves

Metropolitan Agency for Planning,



3.3 Access by Subgroup

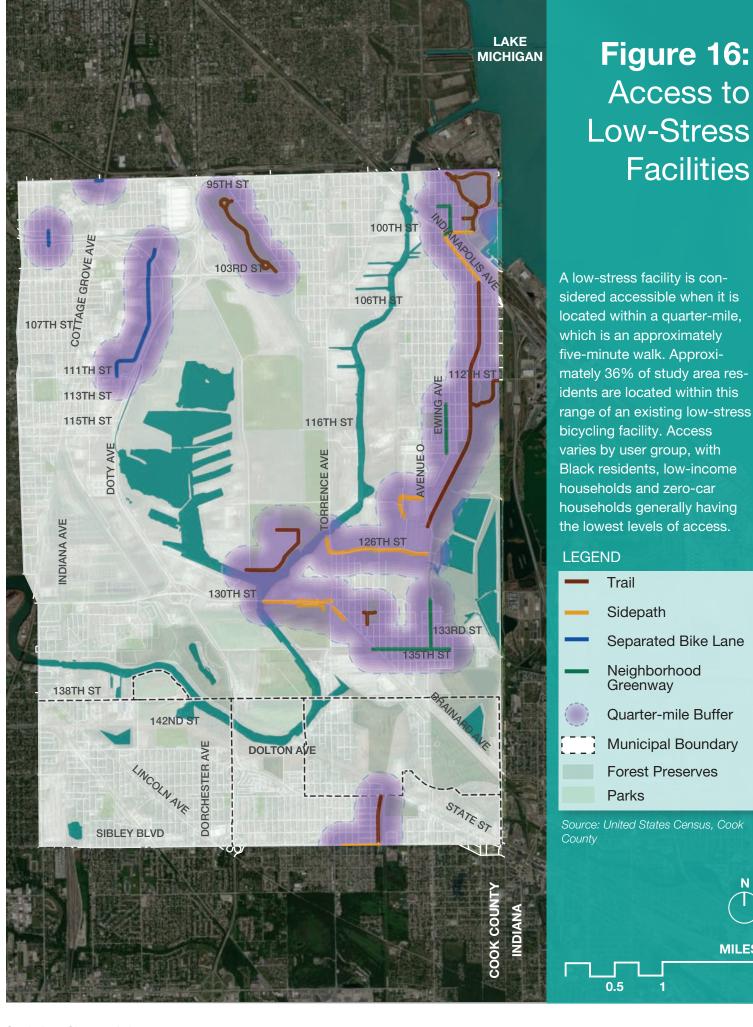
Barriers to Access

Figure 15: Access to Low-Stress Facilities shows the share of study area by race, household income and vehicle ownership that are within a quarter-mile of low-stress bicycle facilities. Low-stress facilities include trails, sidepaths, separated bike lanes and neighborhood greenways on low-speed, low-volume streets. Thirty-six percent of study area residents live within a quarter-mile of such a facility.

Figure 16: Low-Stress Access by Population Subgroup shows the geographic location of low-stress facilities, and areas in purple show the quarter-mile buffer around them. Households with median incomes below \$35,000, zero-car households and Black residents have lower access to low-stress facilities than the study area average. These characteristics are indicators of need, as those with greatest need have the lowest levels of access.

Figure 15: Access to Low-Stress Facilities by Population Subgroup.

Study Area Population	Percent of Population within a Quarter- Mile of a Low-Stress Bicycle Facility	Difference from Study Area Average
Total Study Area Population	36%	
White	63%	27%
Black	19%	-17%
American Indian and Alaskan Native	61%	25%
Asian	40%	4%
Other race	60%	24%
Two or more races	58%	22%
Hispanic or Latino	60%	24%
Non Hispanic or Latino	25%	-11%
Median HH income lower than \$35k	19%	-17%
Median HH income between \$35k - \$50k	42%	5%
Median HH income over \$50k	33%	-3%
Zero-Car Households	17%	-20%



31 Study Area Characteristics

MILES

3.4 Traffic Safety and Transportation Preferences

Bicyclist and Pedestrian Crashes

Figure 17 shows crashes reported in the study area between 2017 and 2021. During this period, there were 164 pedestrian crashes reported in the study area. Five of these crashes (3%) resulted in a fatality, 31 (19%) resulted in an incapacitating injury, 76 (47%) resulted in a non-incapacitating injury, 30 (18%) resulted in reported but not visible injuries and 22 (13%) resulted in no indication of injury.

Pedestrian fatalities occurred in the northern half of the study area with one on Doty Avenue, one on 95th Street near Chicago State University and three others on Commercial Avenue, Van Vlissingen Road and Bensley Avenue near the East Side neighborhood.

Out of the 46 total reported bicyclist crashes during this five-year period, one crash (2%) resulted in a fatality, six crashes (13%) resulted in an incapacitating injury, 19 (41%) resulted in a non-incapacitating injury, nine (20%) resulted in reported but not visible injuries and 11 (24%) resulted in no indication of injury.

The lone bicyclist fatality reported in the study area occurred in Dolton at the intersection of 142nd Street and Langley Avenue.

Bicycle Commuting

Figure 18 shows that a very low number of study area residents commute to work by bicycle.

Household Income

Median household income, shown in **Figure 19**, shows areas where household income is at or below \$30,000, including areas of Riverdale and Dolton in the southwest part of the study area.

Vehicle Ownership

Vehicle ownership by household is shown in **Figure 20**. A majority of households in the study area have access to at least one vehicle with the exception of Riverdale, where the average household has no vehicle available. Generally, areas of Pullman and Riverdale (Chicago) have lower vehicle ownership than neighborhoods to the east.

Transportation Spending

Shown in **Figure 21**, most households in the study area spend between \$12,501 to \$15,000 annually on transportation. Residents of Pullman and Riverdale spend less annually on transportation, use public transportation more often and own fewer cars than neighborhoods to the east.

Although Pullman and Riverdale households spend less annually on transportation, these neighborhoods are more vulnerable to changes in public transportation than residents of the study area who have greater access to an automobile.

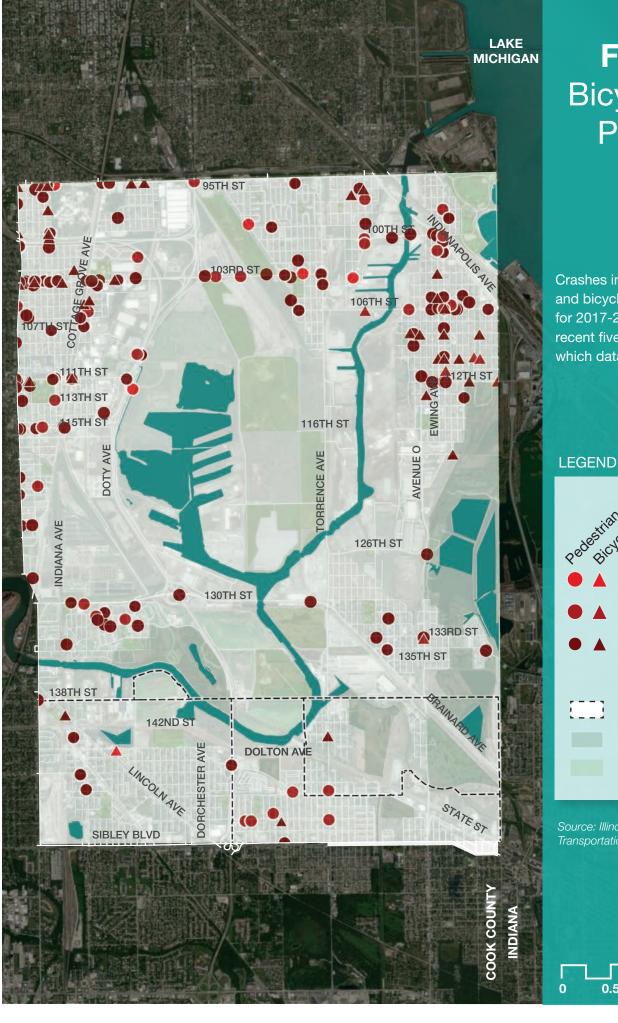
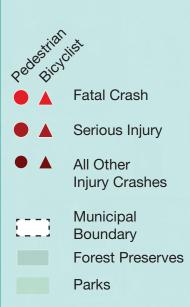


Figure 17: Bicyclist and Pedestrian Crashes

Crashes involving pedestrians and bicyclists were mapped for 2017-2021, the most recent five-year period for which data were available.



Source: Illinois Department of

MILES 0.5

Study Area Characteristics 33

Figure 18: Workers who Commute to Work by Bicycle, Ages 16 and Older

Compared to other parts of the study area, the central and southernmost areas of Dolton and Burnham have the highest number of workers who commute to work on bicycles. A part of the Pullman neighborhood with access to a biking facility has a few bicycle riders commuting to work.

LEGEND



Social Explorer Tables A09005





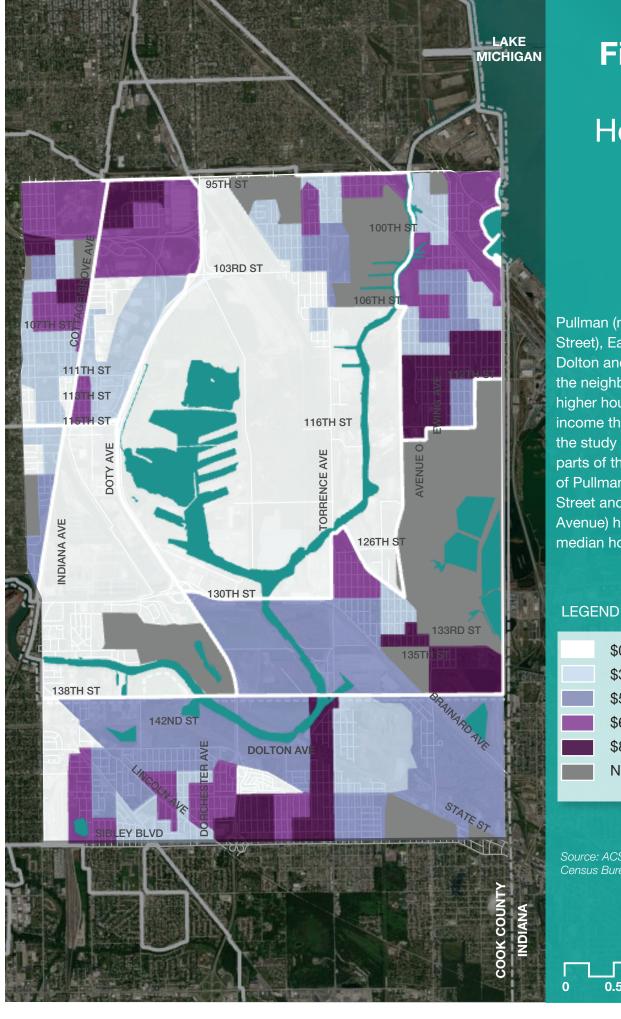
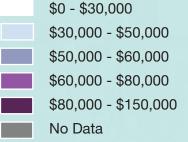


Figure 19: Median Household Income

Pullman (north of 115th Street), East Side, Roseland, Dolton and Burnham are the neighborhoods with higher household median income than others within the study area. Riverdale and parts of the southern area of Pullman (south of 115th Street and west of Doty Avenue) have the lowest median household income.



Source: ACS 5-Year Estimates, US Census Bureau, 2021



35 Study Area Characteristics

Figure 20: Average Vehicles per Household

The neighborhoods of Altgeld Gardens, Golden Gate, Eden Green, Riverdale and southern portions of Pullman are where vehicle ownership is lowest, as many households do not have access to any automobiles.

LEGEND

No Vehicle Available

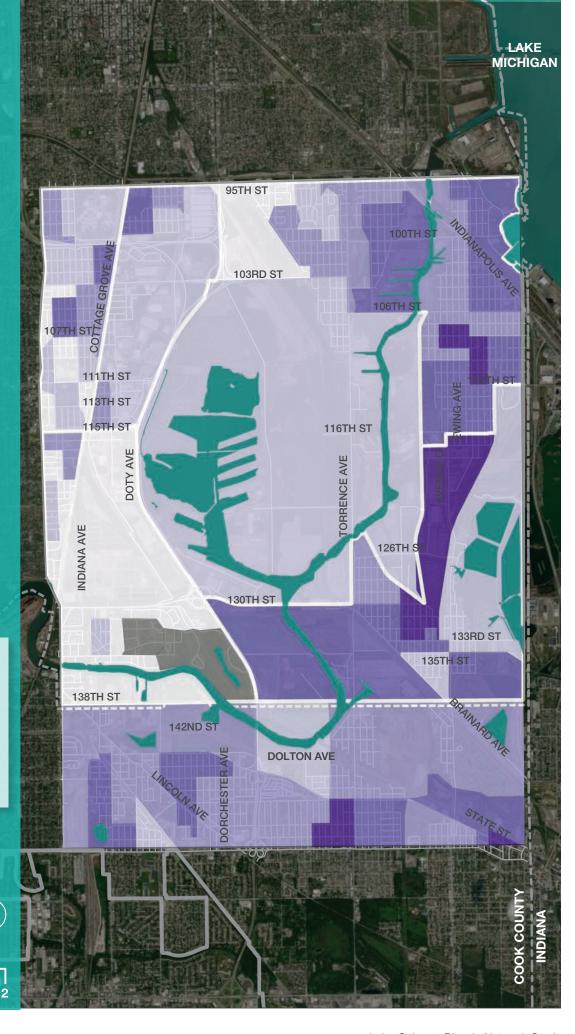
1 Vehicle

2 Vehicles

3-4 Vehicles

No Data

Source: ACS 5-Year Estimates, US Census Bureau, 2021



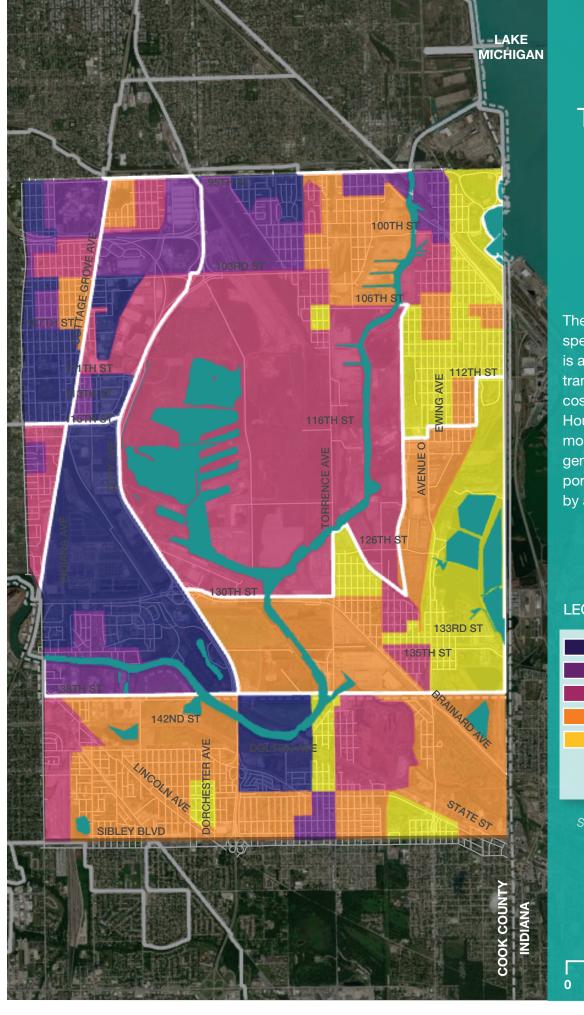
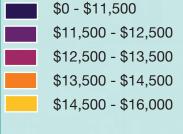


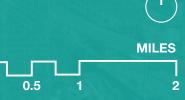
Figure 21: Annual Transportation Costs by Household

The amount of household spending on transportation is a function of mode of transportation used and the costs associated with it. Households that use automobiles as the primary mode generally have higher transportation costs, as indicated by areas east of Avenue O.

LEGEND



Source: Housing and Transportation Affordability Index, CNT, 2019



Study Area Characteristics 37

Figure 22: Workers who Commute to Work by Transit,Taxi and Shared Ride, Ages 16 and Older

The South Deering neighborhood has the highest number of residents who rely on public transit. A significant number of Pullman and Riverdale residents who have access to Metra and CTA bus services also use public transportation or taxis to commute to work.

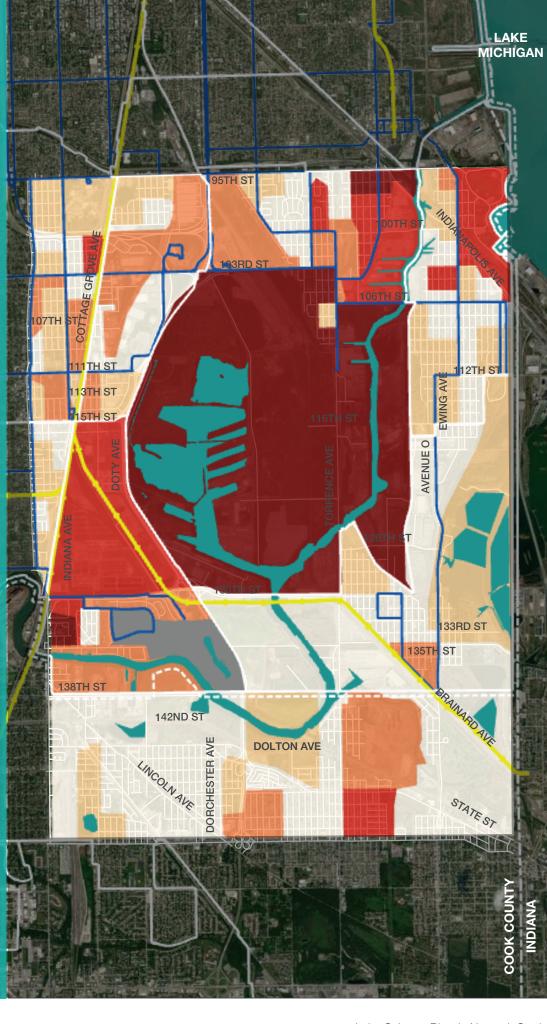
LEGEND

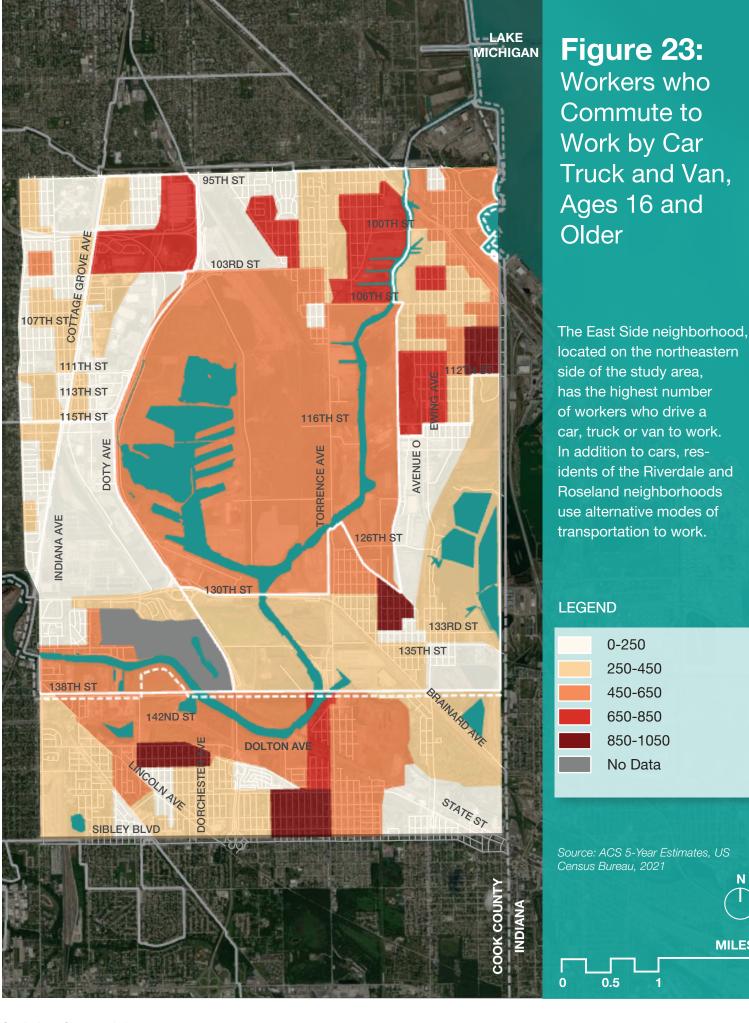
0-50
51-100
101-150
151-200
201-250
No Data
Metra Line
CTA Bus Route

Source: ACS 2021 5-Year Estimates, Social Explorer Tables A09005

0.5







39 Study Area Characteristics

MILES

3.5 Network Multimodal Activity

Traffic Counts

To establish a baseline of demand for walking and bicycling in the study area, traffic counts were conducted over three consecutive days at 16 locations shown in **Figure 24 (Map) and Figure 25 (Table)** in September 2023:

- 1. 95th Street and Michigan Avenue
- 2. 95th Street and Avenue L
- 3. 100th Street and Avenue L
- 4. 103rd Street and Cottage Grove Avenue
- 5. 103rd Street and Doty Avenue
- 6. 103rd Street and Torrence Avenue
- 7. 103rd Street and Woodlawn Avenue
- 8. 111th Street and Cottage Grove Avenue
- 9. 112th Street and Ewing Avenue
- 10. 112th Street and Burnham Greenway
- 11. 118th Street and Avenue O
- 12. 118th Street and Ewing Avenue
- 13. 130th Street and Saginaw Avenue
- 14. 134th Street and Baltimore Avenue
- 15. 142nd Street and Chicago Road (Dr. Martin Luther King Drive)
- 16. Sibley Avenue and Burnham Greenway

Figure 24. Traffic Count Locations

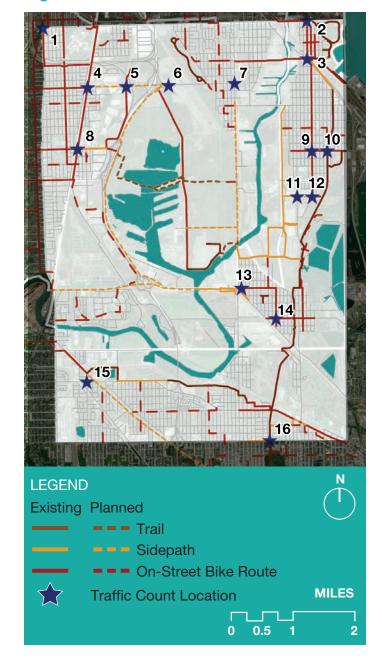


Figure 25: Traffic Count Summary

Int #	Intersection	Peak Hourly Vehicle Volume	Average Over 24-hour Period		Bike & Ped Share of Total
			Bicycle	Pedestrian	Grane or Total
1	95th Street & Michigan Avenue	1,828	1.03	2.96	1.43%
2 🚲	95th Street & Avenue L	1,762	4.95	3.14	0.68%
3 💑	100th Street & Avenue L	1,231	1.47	0.00	0.41%
4 💑	103rd Street & Cottage Grove Avenue	2,191	1.63	22.05	0.28%
5 👫	103rd Street & Doty Avenue	2,519	0.25	0.93	0.04%
6	103rd Street & Torrence Avenue	2,062	0.49	4.57	0.28%
7	103rd Street & Woodlawn Avenue	1,905	0.53	1.26	0.17%
8 💑	111th Street & Cottage Grove Avenue	1,897	2.21	14.85	0.34%
9	112th Street & Ewing Avenue	1,223	1.65	4.13	0.65%
10¹ ₫ౖౖ	112th Street & Burnham Greenway ¹	O ¹	3.22 ¹	5.38 ¹	100%1
11	118th Street & Avenue O	1,555	0.24	0.29	0.04%
12	118th Street & Ewing Avenue	295	0.48	0.60	0.61%
13 🕉	130th Street & Saginaw Avenue	58	0.29	1.17	2.94%
14 🚲	134th Street & Baltimore Avenue	488	0.69	4.67	1.52%
15	142nd Street & Chicago Road (MLK)	888	0.34	4.22	1.05%
16 🕉	Sibley Avenue & Burnham Greenway	10	0.45	0.93	100%

☼ Denotes bicycle facility at intersection.

Traffic counts were conducted at nine locations with existing bicycle facilities and seven without them to determine whether presence of bicycle facilities affected ridership. The following key findings were observed:

- Generally, pedestrian and bicyclist activity represent between 0 - 3% of total traffic at intersections where automobiles are present.
- The intersection of 95th Street and Avenue L has the highest average bicycle volumes in the study area.
- The intersection of 103rd Street and Cottage Grove Avenue has the highest average pedestrian traffic volumes in the study area.

- Locations on the Burnham Greenway and the intersection of 95th Street and Avenue L showed the highest volumes of bicycle and pedestrian activity.
- Pedestrian and bicyclist activity is generally higher on roadways that include bicycle facilities, sidewalks and transit service. This is most prominent at intersections along Cottage Grove.

Study Area Characteristics 41

^{1.} Traffic count at this location only includes bicycle and pedestrian volumes.







The Lake Calumet Bicycle Network Study is a community-led process that brings together neighborhood residents, businesses, community groups and public agencies. Community input and perspectives, such as their travel experiences when biking and knowledge of the study area environment, provide valuable information to understanding systemic challenges to active mobility and identifying potential opportunities to improve the bicycle network.

This section documents communications and public engagement undertaken for the study. This includes an overview of outreach efforts that resulted in a robust dialogue between Cook County, the project team and local community members. Given the expanse of the study area, this comprehensive effort applied various methods to communicate and engage a diverse set of organizations, elected officials, advocates and other members of the public about the study.

Importantly, the combination of in-person, virtual, website and social media activities enabled Cook County and the project team to collect valuable input on existing and potential challenges and opportunities to active mobility in and around the study area.





Figure 26. (Top) Stakeholders and facilitators at Open House #1 for the study. (Bottom) Stakeholders and facilitators at Open House #1 for the study.



Media

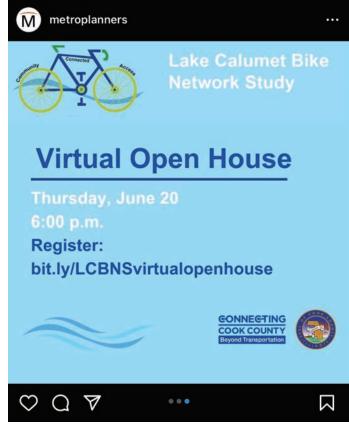
Various news and social media platforms were contacted prior to and during the engagement activities. This allowed for increased exposure and marketing to the larger community. These efforts helped get the word out about the project and informed social media followers and subscribers about upcoming events.

Digital Toolkit

A digital toolkit was developed and distributed to stakeholder members and public via the project website.

This toolkit helped promote the Lake Calumet Bike Network Study through web content and social media. The toolkit provided both ready-to-go content as well as tips for creating individual content.

Public and stakeholder members used tips and resources for both personal and organizational social media accounts and shared this toolkit with other partner organizations and advocates of active transportation.



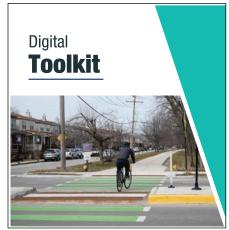
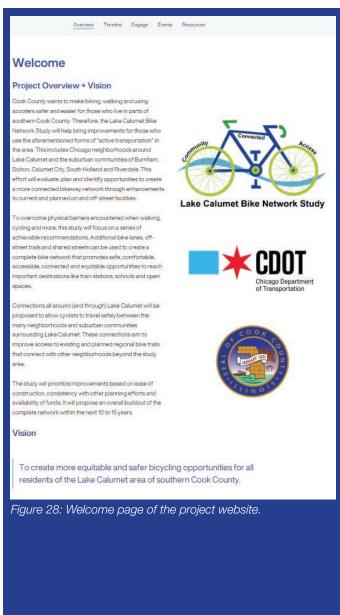


Figure 27: (Top) A
Metropolitan Planning
Council (MPC) Instagram post featuring
details regarding a
virtual open house
event (June 2023).

(Left) Digital media toolkit for the Lake Calumet Bike Network Study developed for communication and engagement activities for the project.





Website

A public-facing website helped the project team receive project information and promote status updates, events, related documents and studies and project team contact information. The website also contained an interactive map to enable comments and suggestions on potential improvements within the study and a survey to gather information from those who live, work and play in the study area.

The website was built on the ESRI StoryMap platform and developed to house all project-related information to the general public. The website was made available on its own dedicated web page and linked to the Cook County website. The website link was also made available to other social media sources and partner agencies.

The website included the following:

- Project Overview (Purpose)
- Vision and Mission Statement
- Timeline
- Survey
- Interactive Comment Map
- Event Information
- Subscription Opportunity
- Contact Information
- Available Resources and Related Documentation (e.g., Cook County Bike Plan, Digital Toolkit)



Interactive Comment Map

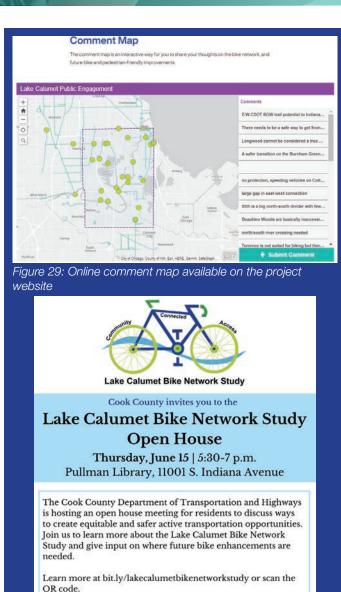
To complement the survey, an interactive comment map was created to allow community members to identify specific geographic areas of concern or improvement.

The input from the community allowed the Cook County and project team members to support the development of potential infrastructure improvements to address notable barriers and opportunities.

Key takeaways included the overarching need for infrastructure along key streets and intersections to create safer priority space for vulnerable roadways, essentially for those not in a car or bus. Other comments included the strong desire for more east-west connectivity in the study, which essentially does not exist to an adequate degree of safety, connectivity and accessibility for people of all abilities.

Flyers

The project team compiled a comprehensive list of community groups and organizations, public agencies and departments, elected officials and media outlets. Those on the list were contacted via email with digital flyers for all community in-person and virtual open house events. Flyers were distributed prior to each meeting and included detailed information on the location, timing, meeting purpose and links to the website.

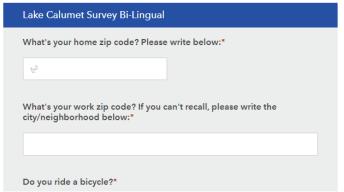


CONNECTING

Figure 30: Open House flyer

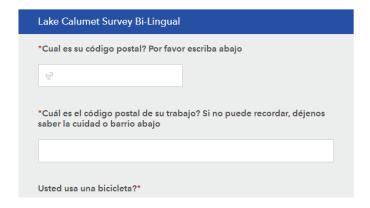


The project team distributed a bilingual survey (English and Spanish) to gain insight into community member experiences traveling in and around the Lake Calumet area. The survey inquired about mobility interests, key destinations, evident barriers and general thoughts about ways to improve biking and active transportation in the area. Fifty-two people completed the survey.



Do you ride a bicycle?*

Figure 31: Online survey prompts in English and Spanish.



Of the respondents who answered questions about whether they ride a bicycle, 83% stated they ride a bicycle and 17% do not. Of those who do ride a bicycle, nearly all ride their bicycle for recreation (99%).

Do You Ride a Bicycle?

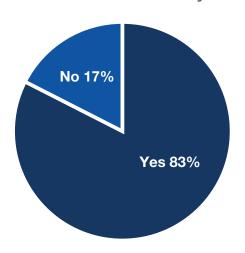
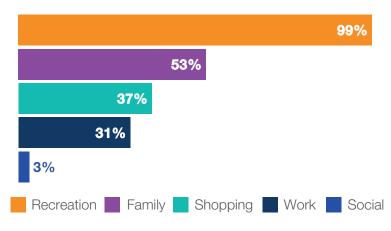
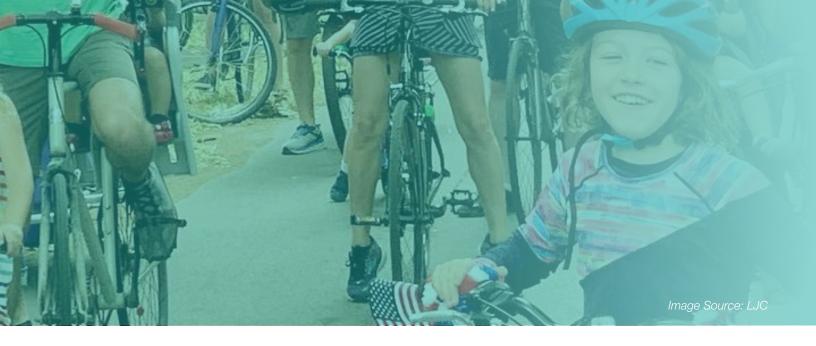


Figure 32: Online survey results

Why Do You Ride a Bicycle?



Respondents were encouraged to select all answers that apply; results exceed 100%.



What Encourages You to Bike More?

When asked what would encourage people to ride a bicycle more, respondents were allowed to select all answers that were applicable. Most common responses were to travel on routes separated from automobile traffic (82%) or ride on designated routes (78%). Remaining responses included reducing feelings of danger (63%), slower traffic (51%) and having more secure places to ride (45%).

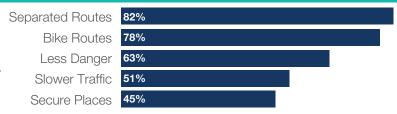


Figure 33: Survey responses for "What encourages you to bike more?"

How Do You Currently Get Around? How Would You Like to Get Around?

Survey respondents were asked about their current modes of transportation and their preferred modes of transportation. If provided with better options, 31% of respondents would prefer to drive less, 17% would prefer to bicycle more and 9% would walk more. Bus ridership would decrease by 3% and 2% of respondents would ride the train less often.

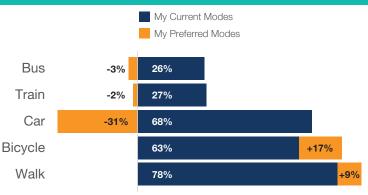


Figure 34: Responses currently and preferred modes of travel.

Barriers to Bicycling

traffic signal timing non-separated facilities bike parking winter plowing speed bumps infrastructure upkeep CONNECTIVITY ADA accessibility infrequent trains climate Connectivity time dogs railroads carrying capacity accessible bikes transit gaps unsafe crossings construction storage potholes poor bus service

Key Destinations

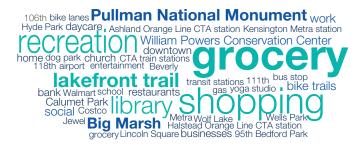


Figure 35: Word cloud responses for "Barriers to Bicycling" and "Key Destinations"



Open House Meetings

The project team hosted four open house meetings at locations across the study area. Attendees were notified via email invitation. Community input was collected via open discussion, posted notes and written comments.

Open House No. 1: Rowan Park

The meeting took place on Thursday, April 20, 2023 from 5:30 to 7:00 p.m. at Rowan Park, 11546 S. Avenue L in Chicago. More than 20 participants attended the meeting.

Key Takeaways:

- Major challenges: freight and truck traffic, motorists not obeying signs, broken lights along Burnham Greenway Trail.
- Prioritize upgrading existing bike lanes to separated bikeways and adding more separated bike lanes in the study area.
- Connect existing bike lanes with each other in a safer manner for cyclists and considering the amount of vehicular traffic in the area.
- Invest in infrastructure to enhance safety on neighborhood streets such as installing more bike racks, adding more lighting and reducing speed of cars.
- Connect Burnham Greenway to Avenue O.
- Add more bike lanes along 116th and 118th streets.
- Add bike bridges similar to those over Lake Shore Drive near downtown Chicago.

When I See People Biking in My Community, I Think...

"Hope they are safe, it can be dangerous"

"It's a sign of community health!"

"How fit they are!"

"One less car"

"It brings joy"

"I would like to join them!"

Figure 36: Survey responses to the question, "When I see people biking in my community, I think:"



Figure 37: Participants at open house #1.



Open House No. 2 and No. 3: Dolton Public Library (Village of Dolton) and Chicago Public Library (Pullman Neighborhood)

Open House No. 2 took place on Wednesday, June 14, 2023 from 5:30 to 7:00 p.m. at 14700 Evers Street at the Dolton Park District Ember Room. Open House No. 3 took place on Thursday June 15, 2023 from 5:30 to 7:00 p.m. at the Pullman Chicago Public Library at 11001 S. Indiana Avenue in Chicago. In total, seven participants attended the meetings.

Key takeaways:

- Address major challenges including the lack of bicycle facilities on 103rd Street between Cottage Grove and Woodlawn Avenues; frequent drag racing on Stony Island Avenue; improving 111th and 115th Streets at Doty Avenue to create safe crossings to access Big Marsh park and completing a bridge to connect the Village of Burnham to the Hegewisch neighborhood in Chicago.
- Make connections between Hegewisch and Big Marsh and between Altgeld Gardens and Beaubien Woods.
- Improve biking experience on north-south streets such as Cottage Grove Avenue and Dr. Martin Luther King Jr. Drive.
- Extend the Burnham Greenway south of 134th Street.
- Upgrade existing bike lanes for more separation from automobile traffic.



Figure 38: Participants at Open House No. 2



Figure 39: Participants at Open House No. 2



Open House #4: Virtual Open House

A virtual open house webinar was held on Tuesday, June 20, 2023 from 6:00 to 7:00 p.m. with four participants in attendance. The meeting was hosted via Zoom platform and made available to the public.

The virtual open house included an introduction of the project team, project overview and purpose, key tasks and timeline and discussion about engagement activities and how the public could get involved in the process.

Key takeaways:

- Cottage Grove has high-speed automobile traffic and a lack of protection for bicyclists traveling between 95th and 115th Streets.
- Stakeholders requested improved bicycle connectivity between Pullman and Hegewisch as people may need this for travel to work, grocery stores, libraries and other trips.
- Divvy and other bike share programs can play a role in active transportation in the area.
 - "Regional bike trails are the most important destination for me."
 - "I live in an industrial area that has a lot of traffic and is a barrier for me to get around."
 - "Some of my favorite places to go are Calumet Park, Wolf Lake and William Powers Conservation Area."



Figure 40: Virtual open house flyer



Figure 41: Participants at open house No. 1.



The project team held several pop-up meetings at existing community events to supplement the open houses. Pop-up events took place at the Taste of Chicago at Pullman Park, the Pullman Farmer's Market, the 8th Annual "Lucas Legacy" Bike Ride and Hegewisch Fest throughout the summer of 2023.

More than 300 attendees engaged directly with the Cook County Department of Transportation and Highways (DoTH) about the Lake Calumet Bike Network Study. Community members viewed current and proposed bike lanes/trails on a bike network map and were asked to participate in an interactive survey.



Figure 42: A project stakeholder visiting the project table at Taste of Chicago at Pullman Park.

Key Takeaways:

- Participants noted a lack of connection among and between their communities and made comparisons to northern and southern Cook County regarding investment, connectivity and resources.
- Participants expressed interest in bicycling in the community but cited a need for more resources to buy and maintain bicycles.
- Some noted that current facilities in the neighborhood end abruptly which can leave bicyclists stranded. Others mentioned packing their bicycles onto an automobile in search of more accessible trails.
- Participants recommended improving safety for bicyclists by adding separated bike lanes and connecting trails and bike lanes to each other. This included requesting connections between bike trails and bike lanes such as the Cal-Sag Trail, Burnham Greenway in Calumet City, Major Taylor Trail, Big Marsh and other neighborhood bike lanes.
- Participants wanted to see a focus on connections that will allow people to travel east and west between Pullman, Hegewisch and East Side neighborhoods.



Virtual focus group meetings were conducted on Wednesday, August 2, 2023 and Thursday, August 3, 2023 via Zoom. Fifteen participants joined the focus groups.

The project team provided a presentation informing participants of the project purpose, timeline, network analysis and more. The project team used the chat function and asked participants to unmute to engage.

The project team focused on learning from the participants about local points of interest, biking opportunities and barriers.

And Cronfer Section 1 Assess Thomas Where are the biggest challenges and gaps in the bike network?

Figure 43: Screenshot of a discussion question posed at the August 2, 2023 focus group meeting.

Key Takeaways:

- Focus group participants discussed a holistic approach to safety to make people feel safe riding on their own. This included the promotion of bike lanes/trails, addition of bike racks, more lighting, separated bike lanes and consideration of emergency call buttons like those used by universities.
- Participants wanted to see improved connectivity between trails in the south suburbs and those in Chicago and Indiana.
- Participants requested more consideration for multimodal connectivity to CTA stations during the rehabilitation of existing stations and construction of new CTA stations as part of the Red Line extension.



Figure 44: Screenshot showing a link to the survey and digital toolkit for the Lake Calumet Bike Network Study.



Hegewisch and East Side Bicycle Tour

Twenty-three people participated in the Hegewisch and East Side bicycle ride on August 19, 2023. Riders engaged with DoTH staff along with the project team to learn more about ways to improve walking and bicycling paths in the Hegewisch and East Side neighborhoods.

After the ride, participants were encouraged to provide feedback by filling out a brief survey:

Question 1: After going on the tour, are there any new streets or intersections that should be prioritized for improvement? Please list your top three.

Ewing Avenue, 106th Street, Indianapolis Avenue and the Burnham Greenway were most frequently cited as routes in need of improvement.

Question 2: Did you experience any barriers while biking today that could prevent you from biking and walking in the area?

Some participants mentioned the need to improve pavement conditions such as potholes and painting on the Burnham Greenway. Most participants said they had to drive to the tour's starting location because there are no east-west connections to get to Hegewisch.

While riding from Hegewisch to East Side, many participants echoed the need for directional signs, clear crosswalk signals and more separated bicycle lanes. Some of the reasons they were reluctant to ride were car traffic, commercial truck traffic and the lack of bicycle lanes.

Question 3: What are the top bicycling and walking issues you would like this project to address?

The first issue identified by respondents was a need for more separated bicycle lanes and trails. In connection with this issue, more dedicated and separated bicycle infrastructure were requested. The bicycle infrastructure improvements noted by respondents included repaving and repainting bicycle lanes and adding more lighting.

The second major issue was the need for east-west connections and better connectivity to the south suburbs. Adding bicycle lanes on Torrence Avenue and 130th Street was suggested to help improve connectivity.

Question 4: Any other comments or observations?

Additional feedback from the survey included:

- "[There is] no way to get east if you live west of 94."
- "Please direct us to ways to keep promoting this work to our political representatives."
- "The south/east sides are almost forgotten in the city's planning for fair and equitable bicycle options, especially with regard to such a huge barrier to cycling here."
- "[There are] some bumps on the Burnham Greenway due to tree roots."
- "It was a well-organized ride. Interested in following the plans as they develop."

4.9 Stakeholder Committee Meetings

A project stakeholder committee served as a sounding board, essential to coordinating engagement activities, communicating their ideas and insight about the study and helping guide the implementation of the final study.

The following organizations were invited to participate:

- 7th Ward
- 8th Ward
- 9th Ward
- 10th Ward
- Active Transportation Alliance
- Bike Grid Now
- Black Girls Do Bike
- Calumet City
- Calumet Collaborative
- Center for Neighborhood Technology
- Chicago Department of Transportation
- Chicago Metropolitan Agency for Planning
- Chicago Neighborhood Initiatives
- Chicago Park District
- Chicago Southland Chamber of Commerce
- Chicago Southland Economic Development Corporation
- · Chicago Transit Authority
- Far South Community Coalition
- Far South Community Development Corporation
- Fit Life Social Club
- Forest Preserves of Cook County
- Friends of Major Taylor Trail
- Illinois International Port District
- Major Taylor Cycling Club of Chicago
- Major Taylor Trail Keepers
- Metra
- Metropolitan Mayors Caucus
- Metropolitan Planning Council
- National League of Cities Race, Equity and Leadership Council
- National Park Service
- National Parks Conservation Association
- Northwestern Indiana Regional Planning Commission
- Openlands
- Pace Suburban Bus

- People for Community Recovery
- Ride Illinois
- Regional Transit Authority
- South Suburban Council of Mayors
- Southeast Environmental Task Force
- Southland Development
- University of Illinois Chicago Great Cities Institute
- Urban Growers Collective
- WE ACT for Environmental Justice

Stakeholder committee members represented local community residents, organizers and advocacy groups, public agencies and municipal departments and elected officials. Stakeholder members were identified and selected in direct coordination with Cook County and local community groups to assure a diverse set of community representatives and their perspectives were brought to the table, enabling them to voice their input at scheduled meetings, open house events and during the planning process.

Stakeholder committee meetings were conducted every other month starting in June 2023. The June stakeholder meeting served as a goal setting workshop to clarify the vision and mission of the project and to share next steps of the project. The July meeting gathered feedback on current bicycle network opportunities and asked the stakeholders what they would like to see in an improved bicycle network.

Meetings conducted in the fall of 2023 included a presentation of key findings, draft bicycle network recommendations and a review of proposed concept plans for catalytic projects.



Stakeholder Committee No. 1

The virtual meeting took place on Monday, June 5, 2023, from 6:00 to 7:00 p.m.

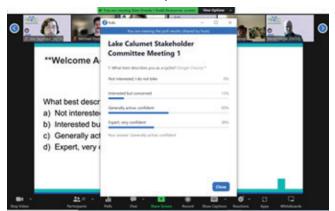


Figure 45: Real-time polling results shown during Stakeholder committee meeting No. 1.

Key Takeaways:

- Participants want to make a bike network that is focused on safety. Improving real and perceived safety was cited as important for driving interest in using the bike network. This included considerations for paved trails, improved lighting, connectivity and other factors that would allow people to feel comfortable biking alone.
- Participants want the team to share future engagement opportunities between the stakeholder committee, other local leaders/ stakeholders, local media outlets and neighbors.
- Participants want to see increased incorporation of bicycle improvements into the larger transportation system that include transit, vehicular traffic, pedestrians, scooters, etc.
- Seek ways to make the bike network reflect travel preferences of all Lake Calumet area residents.

Stakeholder Committee No. 2

The virtual meeting took place on Monday, July 10, 2023, from 6:00 to 7:00 p.m.

Key Takeaways:

- Continue to share engagement opportunities with our stakeholder committee, consider sending specific language and a flyer for each event.
- Requested a focus on messaging on how the study vision intends to create more equitable and safer bicycling opportunities for all.
- Create a connected bike network that considers ways around or across highways, rail yards, industrial uses, traffic and other barriers that limit travel by bicycle.
- Update the stakeholder committee on the bike network recommendations and concept plans.

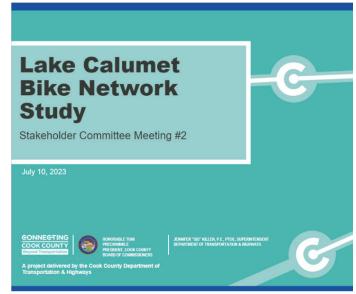


Figure 46: Opening slide for Stakeholder committee meeting No. 2







Overview

An equity analysis identifies the distribution of benefits and burdens among different population groups or communities. The equity analysis evaluates how the existing bicycle network impacts various demographic, socioeconomic and geographic factors as the first step toward ensuring fairness and equal access for all individuals.

Using data from the American Community Survey of the U.S. Census, trends were analyzed in three topic areas:

- Safety
- Accessibility
- Affordability

This approach helped to identify areas of need such as populations without access to low-stress bicycle facilities, the presence of sidewalk gaps near schools, a lack of transit options and other factors. The following sections detail the data sources used for the analysis and key findings in each category.

Safety

Evaluating the safety implications of the bicycle network for various user groups, including vulnerable populations such as children, seniors and people with disabilities is critical to understanding how to mitigate negative impact for those most at risk. The safety analysis is an important factor in the equity analysis and key recommendations related to ensuring network gaps in areas with the highest safety concerns are prioritized.

Analytical Methodology

The analysis identified factors that affect bicyclist comfort and safety. These key elements and data sets include:

- Traffic volume
- Crash data
- Road conditions
- Intersection design
- Presence of barriers or hazards that could disproportionately affect certain communities

The Impact of Land Use on the Equity Analysis

Large portions of the study area are open space, water or industrial land uses. These areas include transportation infrastructure, utility infrastructure and other industrial uses with little or no residential areas. To improve the visual clarity of trends based on where people live, areas where people do <u>not</u> live are excluded from the analysis.



Accessibility

This category explored the extent to which people living in different neighborhoods, communities and demographic groups have access to low-stress bicycle facilities. Improving accessibility is a key component to overcoming barriers that impact a person's socio-economic status, access to employment and educational opportunities, housing choice, healthcare, commercial and retail needs.

Analytical Methodology

The analysis identified gaps in providing equitable access and reduction of disparities based on income, race and age.

- Proximity to bicycle lanes and the low-stress network
- Connectivity to key destinations such as schools, retail, places of employment, parks and recreational amenities

The following datasets were used to determine priority areas to focus mitigation efforts on gap disparities:

- Percent of population in historically disinvested communities within a half-mile of a bicycle facility
- Percent of population in census tracts with one or less cars per household
- Percent of population with limited English proficiency

Affordability

To reduce barriers to modal choice for residents, affordability in transportation planning must be addressed. The financial implications of bicycle network access for a variety of socio-economic groups were examined in this study. These variables address the creation of key recommendations that prioritize low-income households who historically spend the largest portion of their annual income on transportation costs.

Analytical Methodology

The analysis identified contributing factors to understand how households are able to access and utilize the bicycle network as a function of their economic status. Key elements and data points used for this analysis were:

- Current method of commuting
- Percent of annual median household income spent on transportation
- Percent of population in low median income tracts with access to biking facilities
- Commute time to work

Equity Analysis 61



Figure 47: Equity Analysis Process

Accessibility

Safety

Affordability



Data

- Average Annual Daily Traffic
- Pedestrian Crashes
- Bicyclist Crashes
- Percent of White Population
- Percent of Black Population
- Percent of Hispanic Population
- Average Median Household Income
- Access to Commercial Centers
- Household Annual Transportation Cost
- Historically Disadvantaged Tracts
- Sidewalk Coverage
- Average number of Vehicles per Household

- Number of Workers who Commute to Work by Bicycle, 16 Years of Age or Older
- Number of Workers Who Commute to Work by Car, Truck and Van, 16 Years of Age or Older
- Number of Workers who Commute to Work by Public Transportation including Cabs, 16 Years of Age or Older



Key Themes



Safety Analysis Findings

Pedestrian and Bicycle Crashes (Figure 48)

A cluster of pedestrian crashes were reported in the Roseland, Pullman, South Deering and East Side neighborhoods. Out of the five pedestrian fatalities recorded in the study area, three took place in South Deering, specifically on streets without sidewalks. The majority of crashes reported in the Pullman and East Side neighborhoods resulted in non-incapacitating injuries. Incapacitating injury crashes were reported on the southern side of Burnham.

Among the 46 bicyclist accidents recorded, a majority were reported in the East Side neighborhood. Most of the injuries reported were non-incapacitating. The sole fatality within the specified study period from 2017 to 2021 took place in Dolton, specifically at the intersection of 142nd Street and Langley Avenue.

School Catchment Area with Sidewalk Inventory (Figure 49)

The Altgeld Gardens, Eden Green, Golden Gate, Dolton and Burnham have no access to bike routes within 10 minutes of walking distance from a school. Schools on the northern end of South Deering also have limited access to a bike network. Limited access to a bike network and lack of sidewalk continuity elevates safety concerns for the subject neighborhoods.

Figure 48: Bicycle and Pedestrian Crashes 2017-2021

LEGEND Bic cycling Fatal Crash Serious Injury All Other Injury Crashes

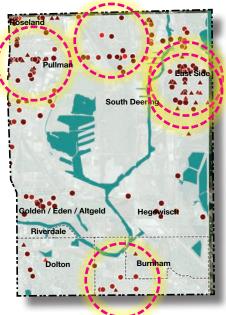


Figure 49: School Catchment Area with Sidewalk Inventory

LEGEND

Public or
Private School
0.5 Mile Radius
(10 min Walk)
No Sidewalk



Equity Analysis 63



Accessibility Analysis Findings

The accessibility analysis helped identify areas with limited access to public transportation and existing biking infrastructure. A more detailed examination of areas without adequate bicycle infrastructure is done in the following sections and appropriate recommendations are proposed.

Race and Ethnicity (Figure 50)

The map in **Figure 50** illustrates the distribution of racial and ethnic populations in residential areas.

Overall, the study area is racially and ethnically diverse. However, there are high levels of segregation between the six groups represented. For example, areas with high concentrations of Black residents have low representation of white or Hispanic populations. The total population within the study area is 104,000 residents. Of that population, 66,000 are Black. This is over 50% of the total area population.

Within the study area, Roseland and Riverdale have the highest concentration of Black residents with the exception of historic Pullman and an area south of Palmer Park. East Side and Hegewisch are primarily Hispanic (53.6% population), followed by white residents (40.5% population). There are very few other ethnicities represented in concentration within this side of the study area.

Average Number of Vehicles Per Household (Figure 51) and Bicycle Infrastructure

The average number of vehicles in a household is an indicator of greater modal choice and ability to reach desired destinations. Within the study area, generally, most households have one to two vehicles available. Households with the most vehicles (3-4 vehicles) available are located in East Side, the eastern portion of Hegewisch and the southern portion of Burnham.

The Riverdale community has the lowest number of vehicles per household, with some households having none. This is the case even though Riverdale has no bicycle facilities. The only area where the majority of households do not have access to a vehicle is the southeastern corner of Roseland, which also corresponds to the section where residents spend the lowest amount on transportation annually.



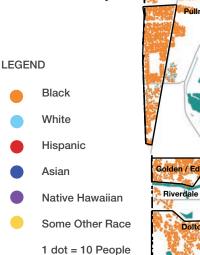
Healthcare Inventory

Access to healthcare facilities contributes to overall community wellness. This includes access to pharmacies, medical offices and hospitals. There are three pharmacies and three medical offices located in the study area.

Pharmacies in the study include two Walgreens located on Avenue O and 118th Street and on Sibley Boulevard at Torrence Avenue and a CVS located at Sibley Boulevard and Torrence Avenue. There are three medical offices: Roseland Medical Center (Michigan Avenue and 114th Street) in Chicago, TCA Health Chicago Medical Clinic (130th Street and Ellis Avenue) in Chicago and Family Christian Health Center (713 E. 142nd Street) in Dolton.

There are no hospitals in the study area. With the exception of the Roseland Medical Center located within a block of buffered bike lanes on 115th Street, none of these destinations are connected to the bicycle network.

Figure 50: Race and Ethnicity



Roseland
Pullman

South Deering

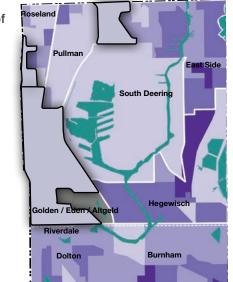
Golden / Eden / Attgeld

Riverdale

Dolton

Burnham

Figure 51: Average Number of Vehicles per Household



LEGEND



3-4 Vehicles

No Data

Equity Analysis



Affordability Analysis Findings

Household Annual Transportation Cost (Figure 52)

Most households within the study area spend between \$11,500 to \$14,500 on transportation annually. Households that spend less than \$11,500 are primarily Black, and are more proximate to public transit. The lowest amount of money spent on transportation within the study area is in the southeast corner of Roseland, which is likely connected to the many commercial areas within a 10-minute walking distance. Despite having limited access to commercial centers within a 10-minute walking distance, 85% of the Riverdale community spends the least on transportation annually.

Median Household Income (Figure 53)

Riverdale and South Deering appear to be largely dominated by a median household income of less than \$30,000. The highest income section in the study area is in the southeast corner of Hegewisch, where there is a mix of parks and residential land use. The northwestern side of Dolton falls on the lower side within the \$30,000 to \$50,000 category.

Average Number of Vehicles Per Household (Figure 54)

Riverdale, Eden Green, Altgeld Gardens and Golden Gate have the lowest average number of vehicles per household, with most households having an average of 0.5-1 cars available. The only area where the majority of households do not have access to a car is the southeastern corner of Roseland, which also corresponds to the community where residents spend the lowest amount on transportation annually. These patterns correlate to similar patterns of median income, with areas having lower income also having low access to vehicles.

Average Commute Time to Work (Figure 55)

Study area residents spend an average of 35-38 minutes commuting to work. Households with lower median incomes tend to have longer average commute times. In Roseland, some census tracts show an average of 45-60 minute commute times. Longer commute times correlate with fewer employment opportunities in these neighborhoods due to limited access to transportation infrastructure. Increasing job opportunities within the study area can lead to a notable reduction in transportation costs and commute times.



Figure 52: Household Annual Transportation Cost

\$0 - \$11,500

\$11,500 - \$12,500

\$12,500 - \$13,500

\$13,500 - \$14,500

\$14,500 - \$16,000

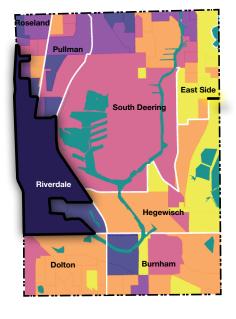


Figure 53: Median Household Income

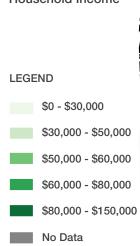
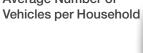




Figure 54: Average Number of Vehicles per Household



LEGEND

No Vehicle

1 Vehicle

2 Vehicles

3-4 Vehicles

No Data

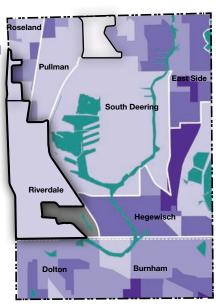


Figure 55: Average Commute Time to Work in Minutes

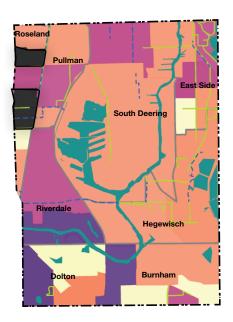
LEGEND

0 - 35 min 35 - 38 min

38 - 43 min

43 - 45 min

45 - 60 min



Equity Analysis 67



Key themes synthesize data shown in the preceding maps and identify areas most in need of transportation infrastructure. The analysis of various data sets illustrates that a high functioning and equitable multimodal transportation system is critical to improving quality of life for the study area residents most burdened by high transportation costs, low median household income, poor access to bicycle facilities, high crash rates and gaps in the sidewalk network. Data analysis reveals an interaction between residential location, race and household income that potentially limits residents' ability to use safe and comfortable bicycle facilities to travel to work, services and other destinations.

Shown in **Figure 56** and described below, key themes serve to close the gap between the three elements of safety, accessibility and affordability to identify locations for priority consideration for new facilities and opportunities for improved connectivity.

1. Improve Sidewalk Connectivity

There is a need to improve sidewalk connectivity, and provide sidewalks on at least one side of every street. Priority locations are Roseland and Dolton. Areas east of Pullman also would benefit from additional sidewalks.

2. Increase Transportation Options in Low Access Areas

Focus on increasing transportation options through improved connectivity in areas of high transportation cost, low car ownership and low median household income. Priority locations are the East Side, Hegewisch and Burnham whose households have the highest transportation cost burden. Pullman is a neighborhood with low car ownership and high household income, indicating this neighborhood may be better served by transportation than others in the study area.

3. Make Local and Regional Bicycle Connections

Coordinate local and regional proposed bike trails with areas that are least connected, have high commute times and exceed study area averages. Focus areas include areas between Pullman and Riverdale. East-west neighborhood connections are underrepresented in the datasets. However, commute times in these neighborhoods exceed 30 minutes and could benefit from additional bicycle infrastructure to reach desired destinations.

LEGEND WITH DATASETS

- Majority of Black population
- Households with low number of vehicles
- · Household with low median income
- · School catchment areas with limited access to sidewalks
- No bicycle infrastructure
- Majority of Black population
- · Households with low median income
- Pedestrian crashes
- Majority of Black population
- Households with low median income
- · Long average commute time to work
- Pedestrian crashes
- Bicyclist crashes
- Majority White and Hispanic population
- Pedestrian crashes
- Longer average commute time to work

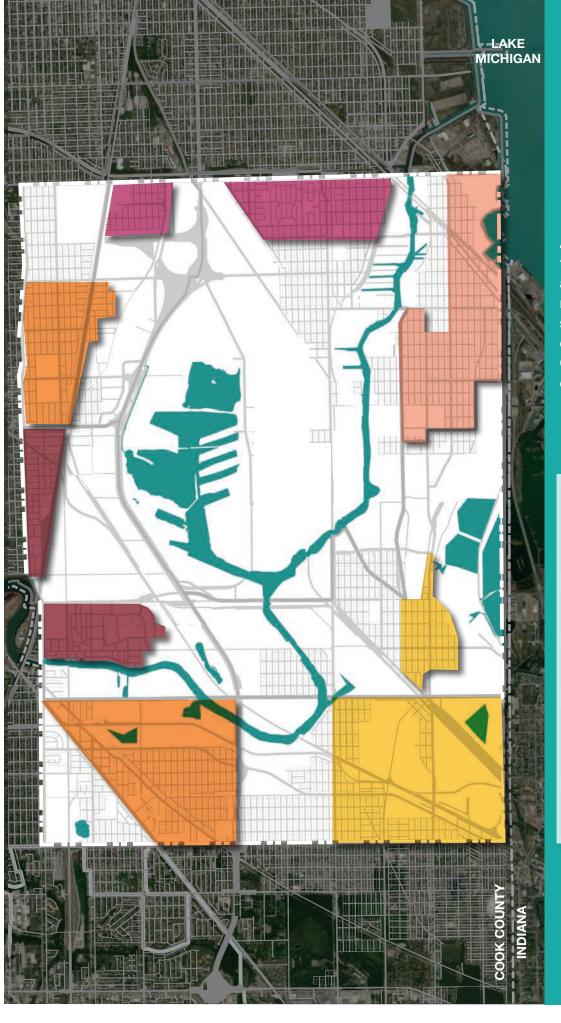
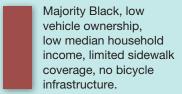
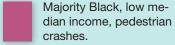


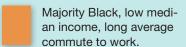
Figure 56: Key Themes Summary Map

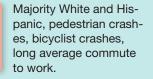
Areas of greatest need identified through the equity analysis are highlighted on the map. Neighborhoods located south of 115th Street, west of I-94 and north of the Little Calumet River ranked highest on this assessment.

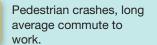
LEGEND

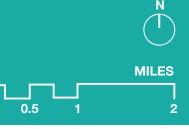












69







The Lake Calumet Bicycle Network Study expands on previous planning efforts that include feasibility studies, complete streets plans, greenway and trail plans, neighborhood corridor studies and comprehensive plans.

Each plan has been summarized to identify recommendations or findings that contribute to improving connectivity within the Lake Calumet Bike Network Study area, emphasizing the creation of safe and accessible places for all users.

- 2014: Calumet City Comprehensive Plan recommended addressing gaps in the transportation network, identified ways to connect the City's parks and forest preserve lands, and provided a complete streets concept for Pulaski Road near City Hall.
- 2015: West Pullman 119th Street Corridor Plan was the first plan to recommend bicycle facilities along 119th Street. A road diet with a sidepath was recommended on this corridor between I-57 and Halsted Street.
- 2016: Washington Heights/ 95th Street
 Planning Priorities Report identified the main
 issues for walking and bicycling which included
 a lack of accommodations along 95th Street,
 and recommended the inclusion of walking and
 bicycling infrastructure for better access to the
 CTA 95th / Dan Ryan Station.

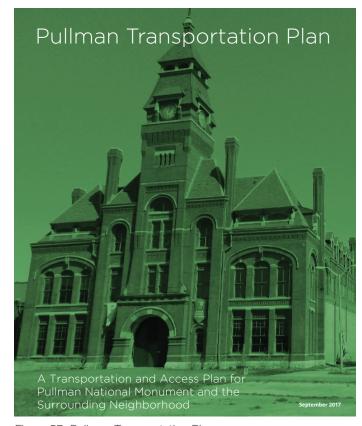


Figure 57: Pullman Transportation Plan

2017: Pullman Transportation Plan
 recommended ways to improve walking,
 bicycling and transit access to the Pullman
 historic district, developed recommendations for
 improved outreach to community stakeholders
 and prepared strategies to connect the National
 Monument to surrounding neighborhoods.



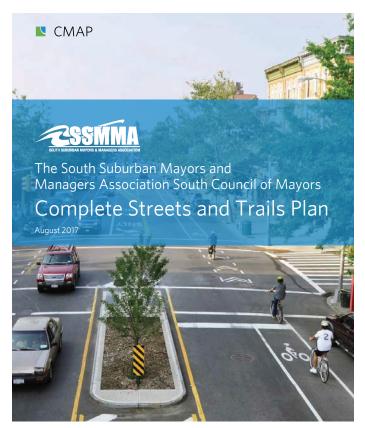


Figure 58: South Suburban Mayors and Managers Association and South Council of Mayors Complete Streets and Trails Plan

 2017: The South Suburban Mayors and Managers Association and South Council of Mayors Complete Streets and Trails Plan identified priority corridors for bicycle and pedestrian accommodations. A highlight of this study was the identification of communities for which a Complete Streets policy was recommended.

- 2018: Northeastern Illinois Regional Greenways and Trails Plan was originally prepared in 1992 and updated in 1997 and 2009 to assemble a regional trail vision. Nearly all corridors identified in this vision are further developed in plans summarized here.
- 2018: Trail Connect Chicagoland Vision
 Plan: Linking Our Trails identified general
 strategies for intergovernmental coordination
 aimed at closing gaps in regional trails. This
 was the first time the 130th Street sidepath was
 recommended.
- 2018: Roseland Medical District: Existing
 Conditions Report and Market Analysis was
 prepared to prioritize needs in the neighborhood
 surrounding Roseland Community Hospital,
 and identified a need for improved bicycling
 accommodations on 111th Street, a project that
 began implementation in 2022.
- 2019: Riverdale Neighborhood Multimodal Transportation Plan developed recommendations for improving access to transit, recreation and employment using a "pedestrian first" approach. This plan recommended a sidepath along 130th Street between Indiana Avenue and Ellis Avenue and other pedestrian safety improvements.
- 2019: Calumet River Communities Planning Framework identified strategies for improving public health, economic development and improvements to the Burnham Greenway.

Future Opportunities 73



- 2020: Invest SouthWest was a city of Chicagoled initiative to revitalize areas of the city's south and west sides through strategic investment led by the Chicago Department of Planning and Development and supported by developers. Key to this process was the emphasis on pedestrian improvements included in the immediate surroundings of proposed developments funded through this effort.
- 2021: Lake Calumet Trail Feasibility Study
 evaluated alternative alignments for a trail
 connection across the Illinois International Port
 District, connecting the Pullman neighborhood
 with Big Marsh Park.
- 2022 Illinois International Port District Master Plan provided the IIPD with a vision for port development through 2050. The plan identified strategies for better use of existing facilities and position the port to realize its full economic potential. The Lake Calumet Trail recommendation was included in this plan for all land use strategies.
- 2023: Big Marsh East Side Neighborhood Connectivity Plan presented a vision to create an interconnected network of low-stress transportation facilities to improve walking and bicycling within three miles of Big Marsh Park. Key recommendations from this plan included projects on 103rd, 116th, 122nd Street, Stony Island Avenue and Torrence Avenue.

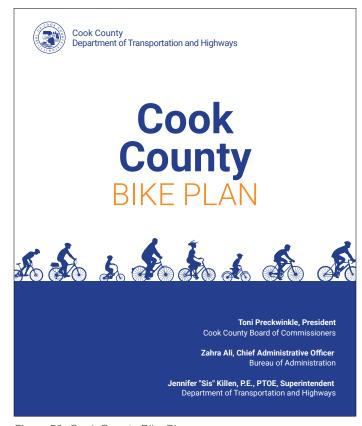


Figure 59. Cook County Bike Plan

2023: Cook County Bike Plan served as a
unifying plan that recommended enhancements
to include 90 miles of new off-street paved
trails, 150 miles of new sidepaths and at least
230 miles of new on-street bicycle routes. Once
fully implemented, the plan ensures that 96% of
County residents will live less than a mile from a
low-stress bicycle facility or trail.





Figure 60. Lake Calumet Trail Feasibility Study

 2023: Chicago Cycling Strategy established a vision for the next 150 miles of bikeways to be implemented by the Chicago Department of Transportation; emphasizing south and west sides of Chicago for a more equitable walking and bicycling network.

- 2023: Illinois Public Health Institute Increasing Physical Activity in South Suburban Cook County Communities was a study funded by the Illinois State Physical Activity and Nutrition Program aimed at increasing health outcomes in south suburban communities, including those located in the Lake Calumet study area. A key recommendation of this initiative was the addition of wayfinding signs to help users navigate the trail and bicycle network.
- 2023: Red Line Extension Transit-Supportive
 Development Plan discussed the reduction
 in travel time by 30 minutes from 130th Street
 when traveling on the Red Line. Enhanced trip
 reliability and increased connectivity between
 transit, cars and micromobility modes highlights
 the importance of the expanding bicycle network
 nearby.
- 2024: Hegewisch Neighborhood Plan is an ongoing effort that is focused on improving the quality and vibrancy of Baltimore Avenue. The plan will recommend economic development, streetscape, access to transit, bicycle and pedestrian improvements.

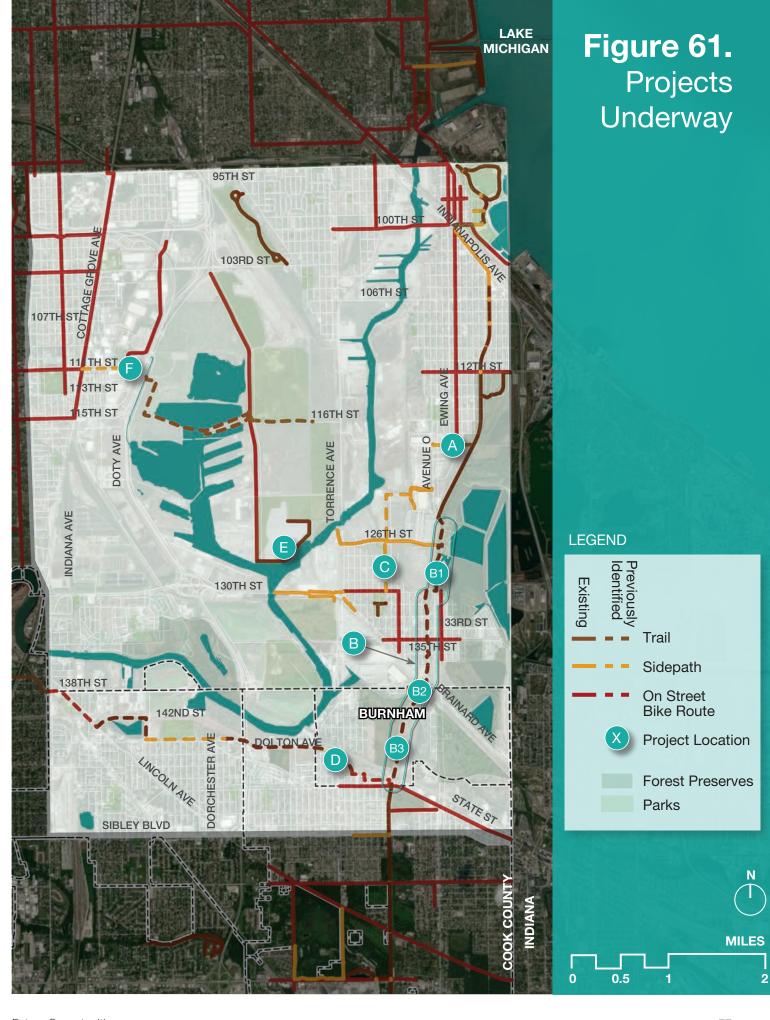
Future Opportunities 75

6.2 Projects Underway

The Lake Calumet Bike Network Study builds upon planned, programmed and some some recently completed connections shown in **Figure 61**:

- A 118th Street Sidepath: CDOT recently constructed a sidepath along 118th Street between Avenue O and South Burley Avenue.
- B Completing the Burnham Greenway:
 Three projects are under way to close
 an approximately 2.5-mile gap in
 the Burnham Greenway.
- Chicago Segment: The Chicago section of the Burnham Greenway will be extended from where it currently ends near the 12300 block of Avenue O to Brainard Avenue near the Hegewisch Metra station.
- Burnham Multimodal Connector (BMC): The BMC is being led by Cook County and will soon begin phase II engineering (preparation of construction plans) to construct a bicycle and pedestrian bridge over Brainard Avenue and adjacent railroad tracks near the Hegewisch Metra station uniting the Chicago and Burnham sections of the greenway.
 - Burnham Segment: The trail in the Village of Burnham will travel south from the BMC at Green Bay Avenue near 138th Place to the existing Burnham Greenway at State Street where it is planned to connect to the planned extension of the Cal-Sag Trail at Alice Avenue near State Street.

- Burley Avenue Projects: Three projects are funded that will improve walking and bicycling along Burley Avenue in the following areas:
 - Sidepath north of 126th and west of Avenue O as part of new industrial development. Sidepath between 106th and 126th Streets (planned construction 2024)
 - Carondolet Avenue Sidepath: new sidepath between 122nd St and 126th Street
 - 122nd Street Sidepath: new sidepath between South Carondolet and South Burley Avenues
- D Cal-Sag Trail Extension: This project will extend the Cal-Sag trail east from 138th and Indiana in Dolton to connect to the Burnham Greenway at State Street near Alice Avenue in the Village of Burnham. While mostly off-street, there will be some short on-street segments in Dolton.
- Calumet River Trail: This project proposes constructing a 10-foot paved trail along the north bank of the Calumet River between Stony Island Avenue and Torrence Avenue.
- 111th Street: Streetscaping improvements including separated bike lanes and pedestrian refuges are planned on 111th Street between Cottage Grove Avenue and Doty Avenue.



Future Opportunities 77





7.0 Key Infrastructure Strategies

Infrastructure Vision

To improve connectivity in and around Lake Calumet, infrastructure strategies were developed for five locations in the study area. A key objective in the development of these strategies is to improve walking, bicycling and provide better access to transit.

Proposed strategies consider the context of the transportation network while addressing needs identified as part of the infrastructure assessment, study area characteristics and equity analysis.

Stakeholder input, findings from previous plans and reports and potential connections to the existing walking and bicycling network were factors considered in the identification of network strategies.

Figure 62 shows the following corridors proposed for strategy development:



- B Cottage Grove Avenue, 95th Street to 115th Street
- Stony Island Avenue, Doty Avenue and 103rd Street to 122nd Street
- 116th Street, Big Marsh Park to Torrence Avenue
- 130th Street, Indiana Avenue to the 130th Street Bridge at the Calumet River

Figure 62: Key Infrastructure Strategy Map



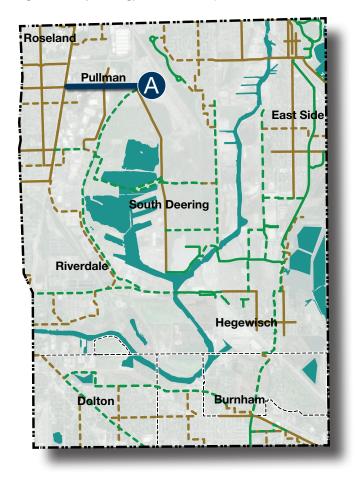




Key Infrastructure Strategies 81

Key Infrastructure Strategy A:103rd Street, Cottage Grove Avenue to Doty Avenue

Figure 63: Key Strategy Corridor A Map







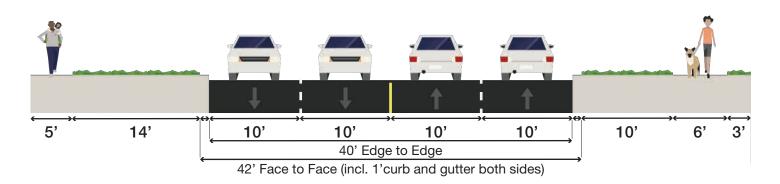
Existing Condition

- Average Daily Traffic: 15,800
 Existing Level of Traffic Street
- Existing Level of Traffic Stress: 4
- Agency of Jurisdiction: Chicago Department of Transportation (CDOT). Intersections of 103rd Street and Stony Island Avenue are under the jurisdiction of IDOT.

Description

- 103rd Street is a four-lane arterial roadway under the jurisdiction of CDOT between Cottage Grove Avenue and Woodlawn Avenue, and under the jurisdiction of IDOT between Woodlawn Avenue and Doty Avenue.
- There are two automobile travel lanes in each direction and left turn lanes at signalized intersections. Between intersections where no left turn lanes are present, there is 16-foot-wide median.
- The roadway is approximately 40-44 feet wide with an 80-foot right-of-way. Sidewalks are 8 feet wide on both sides of the roadway between Cottage Grove Avenue and 500 feet west of Woodlawn Avenue. There are no sidewalks between Woodlawn Avenue and Doty Avenue.
- CTA bus stops are located on both sides of the street. The CTA 103rd Street garage, a major generator of transit and pedestrian activity, is located on 103rd Street at Doty Avenue. Bus passenger boarding and alighting activity is highest for buses traveling westbound.

Figure 64: Existing Typical Section, 103rd Street



Project Vision:

Install Two-Way Separated Bike Lane on 103rd Street

Purpose

 To support low-stress bicycling, improvements are recommended on 103rd Street to provide physically separated spaces for walking, bicycling and automobile traffic. This helps people feel more comfortable biycling on city streets while alco mitigating potential conflicts associated with bicycling on the sidewalk.

Level of Traffic Stress After Improvement: 1

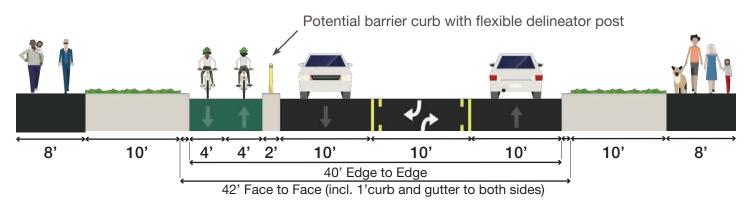
Scope of Improvement

- Reallocate roadway space by converting 103rd Street from four automobile travel lanes to three, consisting of one automobile travel lane in each direction separated by a two-way left-turn lane.
- Maintain existing curbs and apply new pavement markings consistent with proposed lane configuration, aligning automobile travel lanes with the south curb. Install a two-way separated bike lane along the north curb.
- Install floating bus stop and elevate the two-way bike lane to sidewalk level at bus stops.
- Remove free-flow automobile turn lanes onto 103rd Street where the proposed reconfigured roadway and bike lanes intersect with Woodlawn Avenue, northbound Stony Island Avenue and southbound Stony Island Avenue.

Additional Considerations

- Removal of free-flow ramps and installation of traffic signals requires a traffic study to determine feasibility. Required storage length for anticipated automobile queues has not been determined at this time.
- Installation of bus bulbs may require adjustments to drainage structures or other utility impacts. No drainage adjustments are anticipated along the south curb.

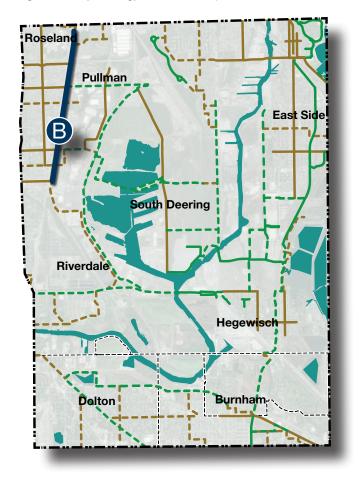
Figure 65: Proposed Typical Section, 103rd Street



Key Infrastructure Strategies 83

Key Infrastructure Strategy B: Cottage Grove Avenue, 95th Street to 115th Street

Figure 66: Key Strategy Corridor B Map





Sidepath / Trail, Existing
Sidepath / Trail, Proposed
On-Street Bike Lane, Existing
On-Street Bike Lane, Proposed
Key Infrastructure Strategy

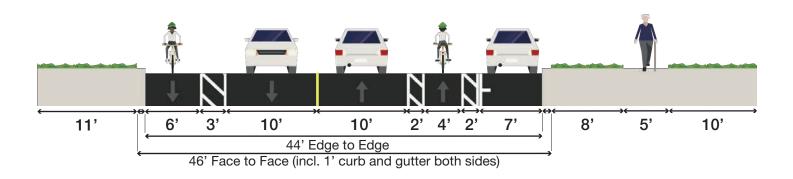
Existing Condition

- Average Daily Traffic: 7,400
- Existing Level of Traffic Stress: 2
- Agency of Jurisdiction: Chicago Department of Transportation.

Description

- Cottage Grove Avenue is a two-lane major collector roadway under the jurisdiction of CDOT. It consists of one 10-foot automobile travel lane in each direction, one buffered bike lane (a 4-foot bike lane between a 2-foot buffer on each side) in each direction. The roadway runs parallel to the Metra Electric railroad tracks which are adjacent to the west side of the roadway.
- Parking is permitted along the east curb of the roadway for most of its length. The average daily traffic along Cottage Grove Avenue within the project limits is 7,400 vehicles. CTA bus stops are located along both sides of the roadway, such that most bus passengers boarding or alighting southbound buses must cross Cottage Grove Avenue during their trip.
- CDOT is upgrading many existing buffered bike lanes to separated bike lanes as part of a citywide expansion of low-stress bikeways throughout Chicago. Converting the buffered bike lanes on Cottage Grove would allow for physical separation between the automobile travel lanes and bike lanes with a parking lane and/or concrete curb.

Figure 67: Existing Typical Section, Cottage Grove Avenue



Project Vision: Convert Existing Buffered Bike Lanes to Separated Bike Lanes With a Parking Lane Buffer on the East Side of the Roadway

 Because the existing roadway width is sufficient for all existing lane assignments, this report documents the proposed scope of improvement.

Purpose

 To support low-stress bicycling, improvements to Cottage Grove Avenue are recommended to increase the comfort and safety of people walking and bicycling. Best practices for this include the creation of separated bike lanes, as this helps people walking and bicycling feel more comfortable and welcome on city streets.

Level of Traffic Stress after improvement: 1

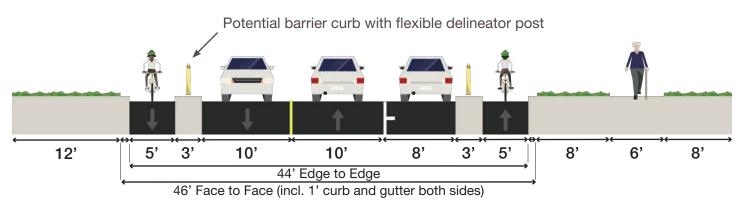
Scope of Improvement

- Remove existing pavement markings and apply new pavement markings to install bike lanes adjacent to the curb. Install concrete curbs between bike lane and parking lane on the east side as well as adjacent to the automobile travel lane on the west side.
- Apply pavement markings to provide a single automobile travel lane in each direction and maintain existing turn lanes at the intersections of Cottage Grove Avenue at 95th Street, 100th Street, 103rd Street,107th Street and 111th Street. Maintain "NO TURN ON RED" restrictions for all signalized intersections.
- Maintain existing bus stops and apply crosswalk markings at all intersections.

Additional Considerations

 Style and placement of curbs will be refined during detailed design.

Figure 68: Proposed Typical Section, Cottage Grove Avenue



Key Infrastructure Strategies 85

Figure 69: Key Strategy Corridor C Map



LEGEND

Sidepath / Trail, Existing
Sidepath / Trail, Proposed
On-Street Bike Lane, Existing
On-Street Bike Lane, Proposed
Key Infrastructure Strategy

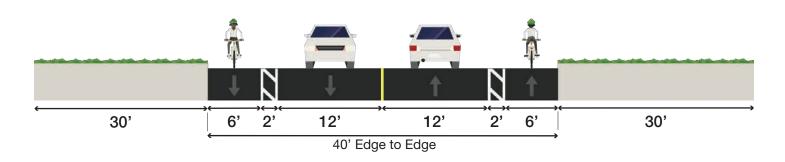
Existing Condition

- Average Daily Traffic: 1,700
- Existing Level of Traffic Stress: 2
- Agency of Jurisdiction: Chicago Department of Transportation.

Description

- Stony Island Avenue is a two-lane collector roadway under the jurisdiction of CDOT between 103rd Street and 122nd Street providing access to Big Marsh Park. It consists of one 12-foot automobile travel lane in each direction flanked by 3-foot buffers and 6-foot bike lanes.
- There is no curb and gutter on this section of the roadway, and there are open drainage swales on both sides of the road. There are no pedestrian facilities and no roadway lighting.
- The average daily traffic along this section of Stony Island Avenue is 1,700 vehicles. Due to the proximity of industrial land uses, a large share of these vehicles are trucks. Reports of drag racing are common along this section of Stony Island Avenue, as it is isolated from the rest of the City of Chicago by the Bishop Ford Expressway (I-94), large industrial tracts of land, wetlands and Lake Calumet.

Figure 70: Existing Typical Section, Stony Island Avenue



Project Vision: Convert Existing Bike Lanes to a Sidepath along the East Side of the Roadway

Purpose

- To support low-stress bicycling, improvements to Stony Island Avenue seek to relocate all walking and bicycling infrastructure to a single side of the roadway to provide additional separation from automobile and truck traffic.
- This reallocation of space will create room to provide pedestrian facilities where none currently exist. Additionally, increasing the separation between motorized vehicles and active transportation helps lower traffic stress, discourage speeding, shoulder-riding and unauthorized parking associated with drag racing along the corridor.

Level of Traffic Stress after improvement: 1

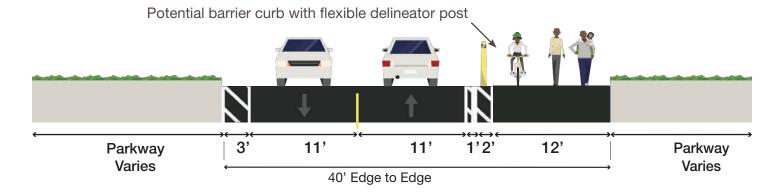
Scope of Improvement

- Restripe the roadway to create a sidepath on the east side of the roadway.
- Install precast curb barriers and flexible delineators to separate the automobile travel lanes from the sidepath.
- Add roadway lighting at the entrance to Big Marsh Park.

Additional Considerations

 Aerial views of the existing condition and a rendering of proposed improvements appear on the following pages.

Figure 71: Proposed Typical Section, Stony Island Avenue



Key Infrastructure Strategies 87

Figure 72: Existing Condition
Stony Island Avenue, Doty Avenue and 103rd Street to 122nd Street





Key Infrastructure Strategues 89

Figure 73: Proposed Condition

Stony Island Avenue, Doty Avenue and 103rd Street to 122nd Street



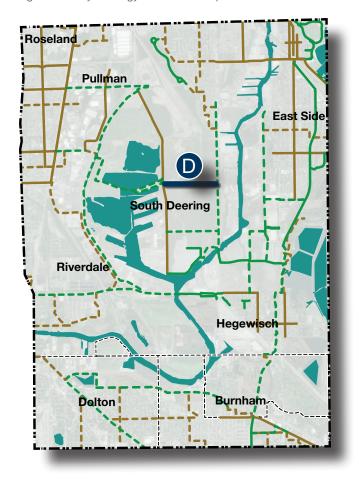


Key Infrastructure Strategies 91

Key Infrastructure Strategy D:

116th Street, Big Marsh Park to Torrence Avenue

Figure 74: Key Strategy Corridor D Map



Existing Condition

- Average Daily Traffic: < 300
- Existing Level of Traffic Stress: Undetermined (corridor is not paved)
- Agency of Jurisdiction: Chicago Park District

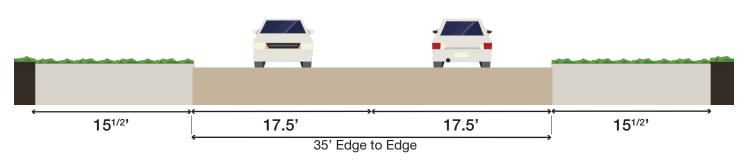
Description

- 116th Street is an unpaved right-of-way owned by the Chicago Park District. It is located adjacent to the Norfolk Southern railroad that runs parallel to the eastern boundary of Big Marsh Park and Torrence Avenue.
- The unimproved corridor is approximately 35 feet wide within a 66-foot right-of-way. The rightof-way is not paved, has no curb and gutter, no pavement markings and no lighting.

LEGEND



Figure 75: Existing Typical Section



Project Vision:

Create a New Multimodal Entrance to Indian Ridge Marsh and Big Marsh Park

Purpose

 This project would help provide an eastwest connection to Big Marsh Park from the communities to the east and extend the reach of low-stress bicycle infrastructure not located on city streets. If implemented, the 116th Street Bridge would extend the Lake Calumet trail network to Indian Ridge Marsh.

Level of Traffic Stress after improvement: 1

Scope of Improvement

- Construct an entrance drive within the former right-of-way and multimodal gateway to provide eastern access to Big Marsh Park and a new northern entrance to Indian Ridge Marsh.
- Provide paved areas on both sides of the roadway that can serve as short-term parking for visitors arriving by automobile, and long-term storage and parking for shipping containers for Chicago Park District maintenance equipment.
- A future improvement would include a bridge over the railroad tracks and would lead directly into the east side of Big Marsh Park.

Additional Considerations

- The improvement of 116th Street can be treated as a Chicago Park District entrance drive to provide access to Big Marsh Park and Indian Ridge Marsh.
- To avoid creating a new gap in the trail network, proposed improvements to 116th Street should be coordinated with improvements to Torrence Avenue that provide a connection to the existing sidepath located on 126th Place. Proposed improvements on Torrence Avenue will require coordination and approval by IDOT.
- Aerial views of the existing condition and a rendering of proposed improvements appear on the following pages.

Figure 76: Proposed Typical Section

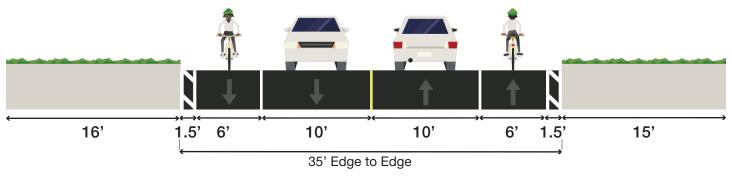


Figure 77: Existing Condition 116th Street, Big Marsh Park to Torrence Avenue



Figure 78: Proposed Condition 116th Street, Big Marsh Park to Torrence Avenue



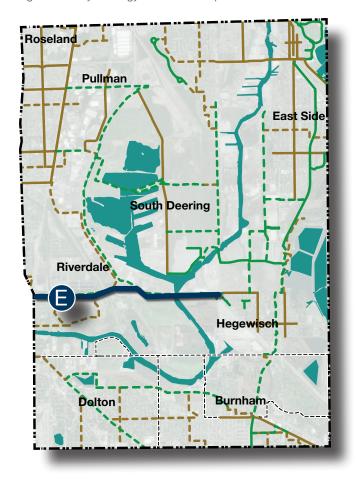
Image Source: LJC

Key Infrastructure Strategues 95

Key Infrastructure Strategy E:

130th Street, Indiana Avenue to the 130th Street Bridge at the Calumet River

Figure 79: Key Strategy Corridor E Map



LEGEND

Sidepath / Trail, Existing Sidepath / Trail, Proposed On-Street Bike Lane, Existing On-Street Bike Lane, Proposed Key Infrastructure Strategy

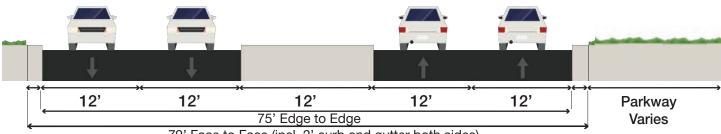
Existing Condition

- Average Daily Traffic: 15,200 (127th Street), 16,600 (Indiana Avenue), 23,700 (130th Street)
- Existing Level of Traffic Stress: 4
- Agency of Jurisdiction: Illinois Department of **Transportation**

Description

- 130th Street is a four-lane arterial roadway under the jurisdiction of IDOT. The roadway consists of four 12-foot-wide automobile travel lanes, a 16foot mountable median and 2-foot-wide curb and gutter on both sides of the roadway. There are no bicycle facilities for most of the corridor, and sidewalk gaps are common. The roadway has a posted speed limit of 40 miles per hour.
- 130th Street is a freight corridor that provides access to the Bishop Ford Freeway (I-94). Average traffic along 130th Street is 23,700 vehicles per day. Ramps at the interchange have average traffic levels ranging from 2,400 to 6,000 vehicles per day, approximately 7% of which are trucks.
- The 2018 Riverdale Community Area Multimodal Transportation Plan funded by the CMAP Local Technical Assistance Program recommended the addition of a sidepath on the south side of the roadway between Indiana Avenue and Ellis Avenue.

Figure 80: Existing Typical Section



79' Face to Face (incl. 2' curb and gutter both sides)

Project Vision:

Add a Low-Stress Bicycling Facility on 127th Street, Indiana Avenue and 130th Street

 Guidelines from the CTA Transit-Supportive Development Plan are consistent with this recommendation as the Red Line Extension (RLE) advances toward the full funding grant agreement (FFGA) stage of the project.

Purpose

- Eden Green, Golden Gate and Altgeld Gardens are three neighborhoods that lack low-stress bicycle facilities beyond the neighborhood boundaries. This is due in part to limited roadway connectivity and barriers created by large institutional and industrial land uses, waterways, the Bishop Ford Expressway, railroad tracks and other transportation infrastructure.
- The addition of a sidepath along 130th Street seeks to eliminate this barrier while keeping automobile and truck traffic separate from where people walk and bicycle. The project will also provide access to the future CTA Red Line Extension and existing Major Taylor Trail.
- Preliminary engineering for the section of this project between the Major Taylor Trail and Ellis Avenue is underway and is being led by CDOT. The project is following the IDOT Bureau of Local Roads and Streets (BLRS) process to make the project eligible to receive federal funding. The potential extension of walking and bicycling

facilities east of Ellis Avenue remains part of a long-term vision to connect to an existing sidepath on the east side of the Calumet River.

Level of Traffic Stress after improvement: 1

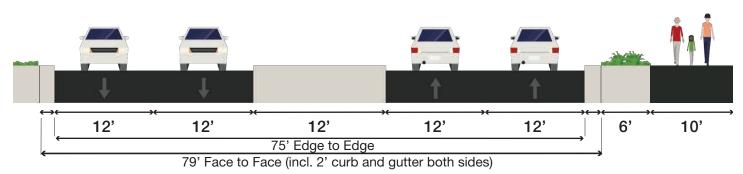
Scope of Improvement

 Construct a 10-foot wide sidepath on the south side of 130th Street between Indiana Avenue and Ellis Avenue.

Additional Considerations

 Proposed improvements on 127th Street and Indiana Avenue to be determined during preliminary engineering.

Figure 81: Proposed Typical Section



Key Infrastructure Strategies 97





8.0 Implementation Strategy Overview

Project opportunities developed for this study include projects on roadways under the jurisdiction of other agencies and involve projects with varying levels of complexity. The approximate timeline for implementation of each project depends on several characteristics:

Scope of work

Key items in this category include whether the projects alter how the roadway may function (e.g., changing the width or placement of existing lanes is lower complexity than a roadway reconfiguration involving a reduction in number of lanes).

Generally, roadway projects that involve no major changes to the placement of curbs, signals or drainage structures are less complex than projects that do alter roadway operations.

Cost

Projects that can be implemented using local agency funds may be completed more quickly than those for which federal grants are needed. If projects are higher cost such that federal funding is desirable to obtain, project development must follow a specific process to make the project eligible to receive federal funds. This may add time and cost to the project development process that can affect the project implementation timeline.

Securing federal funds adds approximately two to three years to a typical project and five or more years to a complex project involving multiple federal grant program applications. If a project is not successfully awarded funding during an application

cycle, agencies will seek funding from another source or wait two years to apply to the program a second time, as most recurring federal grant programs are offered every other year.

Intersections or crossings of other agency rights-of-way

Railroad crossing improvements or bridges require written approval by the railroad, and these agencies are under no obligation to agree. Out of concern for the safety of the traveling public, many railroads have specific written policies that discourage or prohibit new at-grade railroad crossings from being allowed except under the most extreme cases, and instead encourage grade-separated crossings to be pursued as the only option, either in the form of a bridge or tunnel for the facility that is being proposed.

While most projects involve coordination with other agencies, projects involving permits or written approvals generally require more time, as the project cannot advance without permission.

Key infrastructure strategies identified in this study vary from low-cost, near-term projects to higher-cost, long-term projects with a general timeline shown in **Figure 82**.



	Local Connections		Catalyst Projects	
Timeline	Near-Term	Mid-	Term	Long-Term
Key Infrastructure Strategy (Project)	Cottage Grove Avenue		103rd Street	116th Street / Big
	127th Street / Indiana Avenue / 130th Street (Major Taylor Trail to Ellis Avenue)			Marsh Trail Bridge
		Stony Island Avenue		130th Street (Ellis Avenue to Calumet River)

Figure 82: Key Infrastructure Strategy Timeline

Near-Term: A project is identified as "near-term" when it is estimated to be feasible to **complete** construction within the next five years. It should be incorporated in the implementing agency's next round of capital improvement program, is neither complex nor requires federal funding.

Mid-Term: Projects identified as "mid-term" are feasible to <u>begin</u> implementation within the next five years and classified as feasible to be completed within 10 years. These projects should be included in each agency's next round of capital improvement program additions. Additional funding will need to be pursued for these projects, as the project scope or cost exceeds what agencies typically can afford with local funds and requires agencies to seek federal funding. These projects must follow a federalized process to be eligible to receive federal funds.

Long-Term: Projects rated as "long-term" may begin implementation in the next five years but may take more than 10 years to complete. These projects have a high level of complexity like projects in the mid-term category but require approvals from other agencies or jurisdictions and require more funding than local resources may be able to provide. While a project may be identified as long-term, this does not mean the project is low priority. All key infrastructure strategies identified in this study can start implementation as soon as implementing agencies are ready to begin.



Figure 83: 103rd Street Implementation Strategy

Project Jurisdiction and Limits	Project Development Details
Term:	1) CDOT can advance preliminary design of the project and coordinate
Mid-Term	with IDOT to obtain approvals on the feasibility of removal of free-flow ramps leading to/from Stony Island Avenue.
Limits:	2) CDOT can advance detailed design of the project between Cottage
Cottage Grove Avenue to Doty Avenue/Stony Island Avenue	2) CDOT can advance detailed design of the project between Cottage Grove Avenue and the start of the left turn lane that is approaching Stony Island Avenue.
Jurisdiction:	3) IDOT can advance preliminary engineering of the project between
1) CDOT	the left turn lane and the intersection of 103rd Street with Doty Avenue and Stony Island Avenue.
2) IDOT (for ramps and	
intersections with	4) CDOT can schedule work on the western half of the project to be
Stony Island Avenue)	performed approximately three months after the IDOT letting date for the eastern half.
Candidate Funding Sources:	
1) Cook County	
Motor Fuel Tax (MFT)	
2) Local Surface Transportation Program (STP-L)	
3) State Highway Program Funds	



Figure 84: Cottage Grove Avenue Implementation Strategy

Project Jurisdiction and Limits	Project Development Details
Term:	1) CDOT can advance preliminary and detailed design of the project
Near-Term	using local contracts.
Limits:	2) CDOT may consider construction of the project using local con-
95th Street to 115th Street	tracts.
	3) The use of TIF funding requires approval by the Chicago City
Jurisdiction:	Council.
CDOT	
Candidate Funding Sources:	
1) City of Chicago	
Capital Improvement Bonds	
2) Cook County	
Motor Fuel Tax (MFT)	
3) North Pullman Tax Infrement	
Financing District (TIF)	



Figure 85: Stony Island Avenue Implementation Strategy

Project Jurisdiction and Limits	Project Development Details
Term: Mid-Term	CDOT can advance preliminary and detailed design of the project through local contracts.
Limits: 103rd Street to 122nd Street	2) CDOT may consider construction of the project using local contracts.
Jurisdiction:	3) Use of TIF funding requires approval by the Chicago City Council.
Candidate Funding Sources: 1) City of Chicago Capital Improvement Bonds 2) Cook County Motor Fuel Tax (MFT) 3) North Pullman Tax Increment Financing (TIF) District 4) Lake Calumet Industrial Area Tax Increment Financing District (TIF)	



Figure 86: 116th Street Implementation Strategy

Project Jurisdiction and Limits	Project Development Details
Term:	1) The Chicago Park District (CPD) can advance the development
Long-Term	of a new entrance to Indian Ridge Marsh Park which can include space for automobile parking and storage of park district equipment.
Limits:	This would be located between the Norfolk Southern railroad
Big Marsh	and Torrence Avenue.
Park to Torrence Avenue	2) As this provides new access to a park facility, CPD can
Jurisdiction:	advance detailed design and construction of the project using IDNR OSLAD funds.
Chicago Park District	
Candidate Funding Sources:	3) CPD should pursue negotiations with Norfolk Southern railroad to obtain approval for the construction of a bridge based on a pre-
1) Illinois Department of Natural Resources (IDNR)	liminary engineering concept design based on a type, size and location (TSL) drawing and report.
Open Space Land Acquisition and Development (OSLAD)	4) Upon receiving approval from Norfolk Southern railroad on the proposed TSL, the Chicago Park District and DoTH should pursue
2) IDNR	detailed design and construction plans for the bridge.
Coastal Management Program	5) If ITEP funds are preferred for construction, the Chicago Park District
3) Invest In Cook	should prepare preliminary engineering plans following the IDOT Bureau of Local Roads and Streets (BLRS) process for the project to be
4) Illinois Transportation	eligible to receive federal funds.
Enhancement Program (ITEP)	6) Upon receiving design approval, the Chicago Park district should
5) Illinois Transportation Alternatives Program (TAP)	prepare plans, specifications and estimates for an IDOT letting.



Figure 87: 130th Street Implementation Strategy
Major Taylor Trail to Ellis Avenue (including 127th Street and Indiana Avenue)

Project Jurisdiction and Limits	Project Development Details
Term:	1) CDOT has begun work to prepare a preliminary engineering study for
Mid-Term	the improvement of 127th Street, Indiana Avenue and 130th Street from the Major Taylor Trail to Ellis Avenue. Completion of this study will help
Limits:	position the project for future federal funding.
127th Street, Indiana Avenue and 130th Street: Major Taylor Trail to Ellis Avenue	
Jurisdiction:	
IDOT	
Candidate Funding Sources:	
1) STP-L	
2) STP Shared Fund	
3) Local Transportation Alternatives Program (TAP-L) / Congestion Mitigation and Air Quality (CMAQ) Program	
4) Illinois Transportation Enhancement Program (ITEP)	
5) State Highway Program Funds	



Figure 88: 130th Street Implementation Strategy
Ellis Avenue to the Calumet River

Project Jurisdiction and Limits	Project Development Details
Term: Long-Term	1) IDOT, with concurrence from CDOT and DoTH, should pursue a feasibility study concept design of proposed improvements between Ellis Avenue and the Calumet River based on preliminary improvements
Limits: Ellis Avenue to the Calumet River Jurisdiction: IDOT	associated with the CTA RLE and outcomes from Segment 1. A key objective of this study would be to confirm the feasibility of the project by analyzing the safety, geometric and traffic impacts associated with ramp reconfiguration for the collector-distributor (CD) ramps on the south side of the junction between 130th Street and Bishop Ford Freeway (I-94).
Candidate Funding Sources: 1) Reconnecting Communities Grant 2) STP Shared Fund 3) Illinois Transportation Enhancement Program (ITEP) 4) State Highway Program Funds	2) Study considerations may include incorporation of a sidepath or other non-motorized facility through the junction of I-94 and 130th Street, which currently has ramps to facilitate free flow movements in all directions, reconfiguration of the junction or creation of a new underpass below I-94 near Carver Military Academy High School, among other options. 3) Design and construction should be pursued after completion of the feasibility study.





9.0 Non-Infrastructure Strategies Overview

The following strategies are recommended to help DoTH and partners advance programs, policies and take other actions to support the development of key infrastructure strategies outlined in the previous chapter.

1. Mobility Hub Development

Mobility hubs are a tool for improving seamless transportation connections by providing a range of integrated mobility services and supporting amenities and/or technologies to facilitate connections between destinations. Examples of these types of hubs are present in the study area, such as a bike share station next to a bus stop or trailhead.

While adequate spacing and infrastructure are required to accommodate physical amenities associated with a mobility hub, developing criteria, guidelines and best practices to identify and define appropriate types of mobility hubs are equally important.

DoTH is working on a mobility hub study with the Shared Use Mobility Center (SUMC) that could serve as a blueprint for municipalities, agencies, counties, local jurisdictions and other partners to work toward when considering and implementing a mobility hub in their location. This framework could include a summary of what criteria would constitute an effective mobility hub location.

This could include geographic, land use, demographic, mobility or other factors. DoTH could then identify potential mobility hub types that could be deployed based on these factors. There is no one-size-fits-all design for a mobility hub; instead they



Figure 89: Example of a mobility hub. (Source: 710 North Mobility Hubs Plan.)

are scaled to reflect the unique context and needs of a particular area.

2. DoTH Leadership on Project Development, Implementation and Maintenance

Disinvested communities within the study area may lack the administrative capacity to advance walking and bicycling projects on their own.

DoTH can serve in a project development capacity by working directly with these communities, their stakeholders and the South Suburban Mayors and Managers Association to program, design and construct projects that others may not be able to advance.





Case Study: The City of Evanston Municipal Code requires bicycle parking minimums for any commercial and residential development. The city website also provides information about locations of public bike parking, how to bike to, from and on transit, Divvy bikeshare locations and how to register. More information can be found at:

https://www.cityofevanston.org/about-evanston/getting-around/bike-evanston

Figure 90: City of Evanston case study description and hyperlink to policy on bicycle parking minimum requirements.

This may take the form of assisting with procuring a consultant or assigning DoTH staff to assist in project development.

When designing a project, DoTH should continue to work with communities to identify maintenance needs and responsibilities.

It is important to ensure adequate resources are available to keep facilities in a state of good repair, including street sweeping, snow removal, resurfacing and reconstruction.

3. Amend Local Development Ordinances to Enhance Bicycling and Access to Transit

While many municipalities have required automobile parking associated with site development or land uses, many lack specifics on bicycle parking and accessibility to transit.

Currently, none of the suburban Cook County municipalities in the study area (Calumet City, Dolton and Riverdale) have codified bicycle parking requirements in their municipal code. Calumet City includes language requiring bicycles to be parked in dedicated zones or areas for that specific use.

By contrast, the City of Chicago Zoning Ordinance, Section 17-10-0300 Bicycle Parking provides detailed language that bicycle parking must be provided in accordance with off-street vehicle parking ratios, which helps to ensure parking supply is inclusive of active transportation.

The zoning ordinance describes bicycle parking location and placement requirements, and typically requires bicycle parking as a function of required automobile spaces.

For more information on City of Chicago bicycle parking requirements, visit https://codelibrary.amlegal.com/codes/chicago/latest/chicago-zoning_il/0-0-0-50699

An action for implementation from the Cook County Bike Plan is to "integrate bike and transit networks." Integration of bicycle and transit networks begins



with municipalities establishing bicycle parking minimums near or within residences, commercial corridors and other areas of interest by amending local development codes or ordinances.

Land uses with bicycle parking minimums can include residential units, medical offices, retail, health clubs, indoor recreation facilities and restaurants. Bicycle parking minimums for residential buildings can be set by the number of dwelling units with additional spaces for visitors. For other uses, minimums can be set by the square footage of the gross floor area with differing minimums between employees and patrons. DoTH can collaborate with Councils of Governments in Cook County to communicate the value of bicycle parking minimums and support municipalities in the amendment process.

Integrating bicycling with transit relies on establishing bicycle parking minimums near train stations and bus stops. Providing transit riders adequate bicycle parking will encourage the use of public transportation as a bicyclist could complete a first and last mile trip to the transit stop.

Since most transit operators allow bicycles on vehicles, an increase in the allotment of bicycle parking at a destination transit stop eliminates the need to find bicycle parking at a rider's final destination. RTA and operators like Metra, Pace and CTA are key collaborators in this effort to connect transit to the bicycle network.

Bicycle Parking: Standards, Guidelines, Recommendations

Figure 91: San Francisco Municipal Transportation Agency established bicycle parking standards that require minimum bike parking for new or redevelopments, including transit stations and bus stops. Under special circumstances, developers can pay an in-lieu fee to contribute to bike parking or bikeways as part of the approvals process. More information can be found at https://www.sfmta.com/getting-around/bike/bike-parking.

4. DoTH Leadership of Bus Stop Enhancements

The Cook County Bike Plan and Cook County Transit Plan acknowledged the complementary relationship between bicycling and transit infrastructure. The combination of a low-stress bikeway that connects to bus stops can create a more convenient, safe and accessible experience for transit riders and bicyclists, while also breaking down barriers to first/last-mile challenges.





Figure 92: CTA bus stop located on 130th Street at Daniel Avenue in the Eden Green neighborhood of Chicago.

DoTH can coordinate and collaborate with transit CTA, Pace and Metra, during each phase of bicycle network improvement project development and implementation. These transit agencies can work with DoTH and community members to consider the best route for customers with bicycles to travel to and from bus stops and stations.

DoTH can serve as the main point of contact to improve infrastructure immediately surrounding bus stops and stations within the Lake Calumet Bike Network (existing and planned). Key elements to consider during transit agency and community coordination may include sidewalk connections, bus stop pads, expanded pads to include shelters, bicycle parking and transit agency or interagency signage.

5. Local Match Set-Asides

While grant programs like Illinois Transportation Enhancement Program (ITEP) often have a requirement for local matching funds, partnerships may be utilized to reduce local agency contributions to project implementation.

While Justice40 and other programs encourage priority to be given to historically disinvested areas when considering projects, partners could provide funds specifically aimed at advancing projects in these areas.

This would help advance key projects while reducing local financial burdens in lower capacity communities.

6. Outreach Stipend

Obtaining valid and beneficial feedback from the public is a critical aspect of any project but can also be one of the most difficult to obtain. Engagement of stakeholders without compensation is unpaid labor. DoTH should provide stipends to participants in future community engagement events in line with the *Community Compensation Policy* for the Offices under the Cook County President.

Future considerations include working with partner agencies to provide childcare services for community engagement participants, transportation to meetings and other assistance that facilitates deep and authentic community engagement.

Non-Infrastructure Strategies 113



7. Fare Integration and Equity

Fare integration is the unification of different modes of public transport under a single payment system and/or a single combined or coordinated fare regardless of which agency operates the service. It offers several advantages to transit riders, including a simplified and more convenient trip, time and cost savings, enhanced access to opportunity and increased equity. Fare integration has been identified as a goal in the region. In June 2024 CTA, Metra and Pace authorized a new regional day pass as part of a six-month pilot program.

In the interest of serving lower income residents, RTA, Metra and Cook County have created the Access Pilot Program where residents who receive Supplemental Nutrition Assistance Program (SNAP) benefits also qualify for reduced fares on Metra throughout the region. This 18-month pilot program will run from February 2024 until July 2025. The County will continue to work with the transit agencies and RTA to explore future mechanisms to reduce transit costs for lower income residents.

The region's transit providers – CTA, Metra, Pace and micromobility providers – offer overlapping but at times inconsistent systems of pricing, transfer and fare collection approaches. Today, riders must manage multiple payment methods during transit trips that combine Metra with Pace and/or CTA.

DoTH can advance actions set forth in the recent Cook County Transit Plan and work with its regional partners to support unifying fare system administration and payment methods, enabling free or discounted interagency transfers, aligning fare



Figure 93: Cover page of the Cook County Transit Plan. The Cook County Transit Plan (2023) highlights the need for and actions toward fare integration, with major emphasis on affordable fares across all transit and mobility services. (Source: Cook County).

structures across agencies for similar trips and integrating with complementary modes.



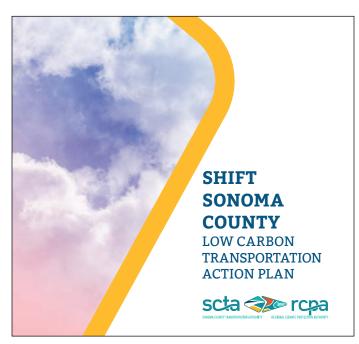


Figure 94: Cover page of the Shift Sonoma County Plan. Case Study: Sonoma County Transportation Authority (Sonoma, CA As a part of their SHIFT Plan, the Sonoma County Transportation Authority has an established program and funding dedicated to planning and implementation of TDM strategies for local communities. These include bikeshare and carshare programs, educational and outreach, and local ordinance assistance to require TDM measures. More information at: https://scta.ca.gov/planning/shift/

8. Neighborhood-Scale TDM programs

Transportation Demand Management (TDM) commonly refers to policies, physical amenities, programs and services that support the use of sustainable modes of transportation, such as walking, biking and taking transit. TDM works with the existing transportation system to expand and support mobility options for people of all ages, abilities and socioeconomic backgrounds. Supporting bicycling, walking and using transit makes it

easier for all users to reduce reliance on driving and provides larger environmental and health benefits.

DoTH and its regional partners can develop, coordinate and/or fund neighborhood TDM programs. These agencies and departments can help raise public awareness about biking, transit and other active mobility.

Neighborhood TDM programs can leverage social marketing to inform and engage residents about their transportation options, targeting areas where safe biking options and transit service are available or where planned bicycle infrastructure will be located to connect to transit, trails or major destinations in the area. Partnering with community groups and advocacy organizations can help promote TDM through biking events, biking lessons, specific information about biking to transit, transit cards and benefit programs.

9. Stakeholder Representation in Decision-Making Capacities for Bicycle Infrastructure

Transportation investments, such as the planning, construction and maintenance of low-stress bikeways and dedicated off-street pathways can change the physical landscape of neighborhood streets and can affect community members in different ways. Aligning these projects with a transparent, equitable engagement process will generate more ownership, accountability and support from local neighborhood stakeholders.



The Cook County Bike Plan led to the establishment of a Bicycle Advisory Committee to serve as the conduit between DoTH and County residents to help engage community members to implement bike network improvements.

Through the Lake Calumet Bike Network effort, DoTH can leverage these efforts by requesting Bicycle Advisory Committee members to identify and engage neighborhood stakeholders in the early stages of the decision-making process of planned bike network improvements. Stakeholders would be notified about all project-related activities and coordination meetings and tasked with helping get the word out to residents and businesses about planned improvements.

