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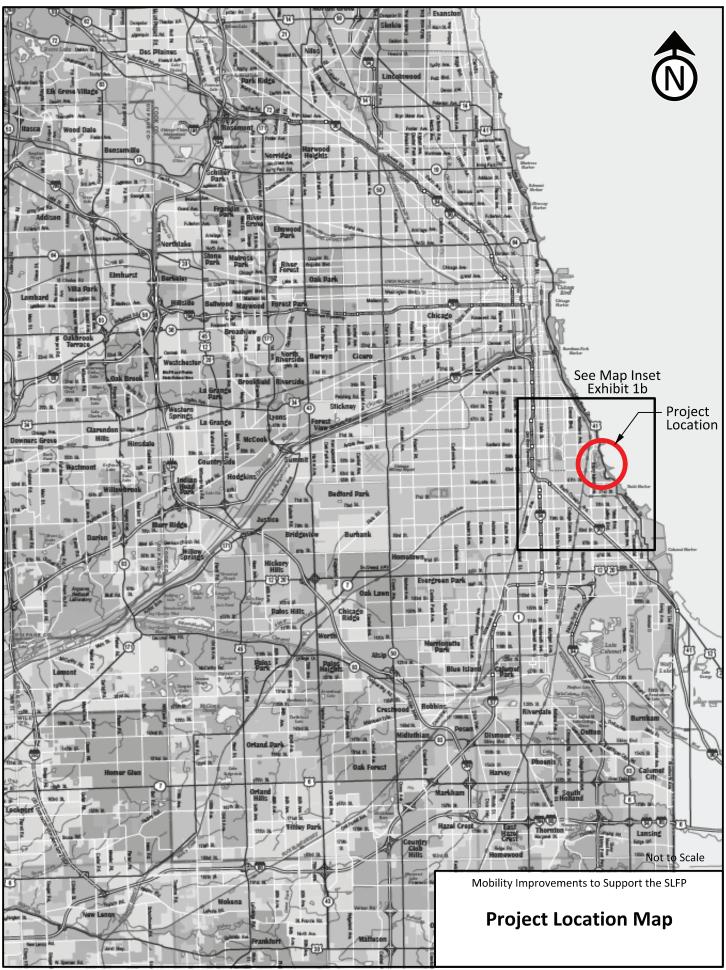


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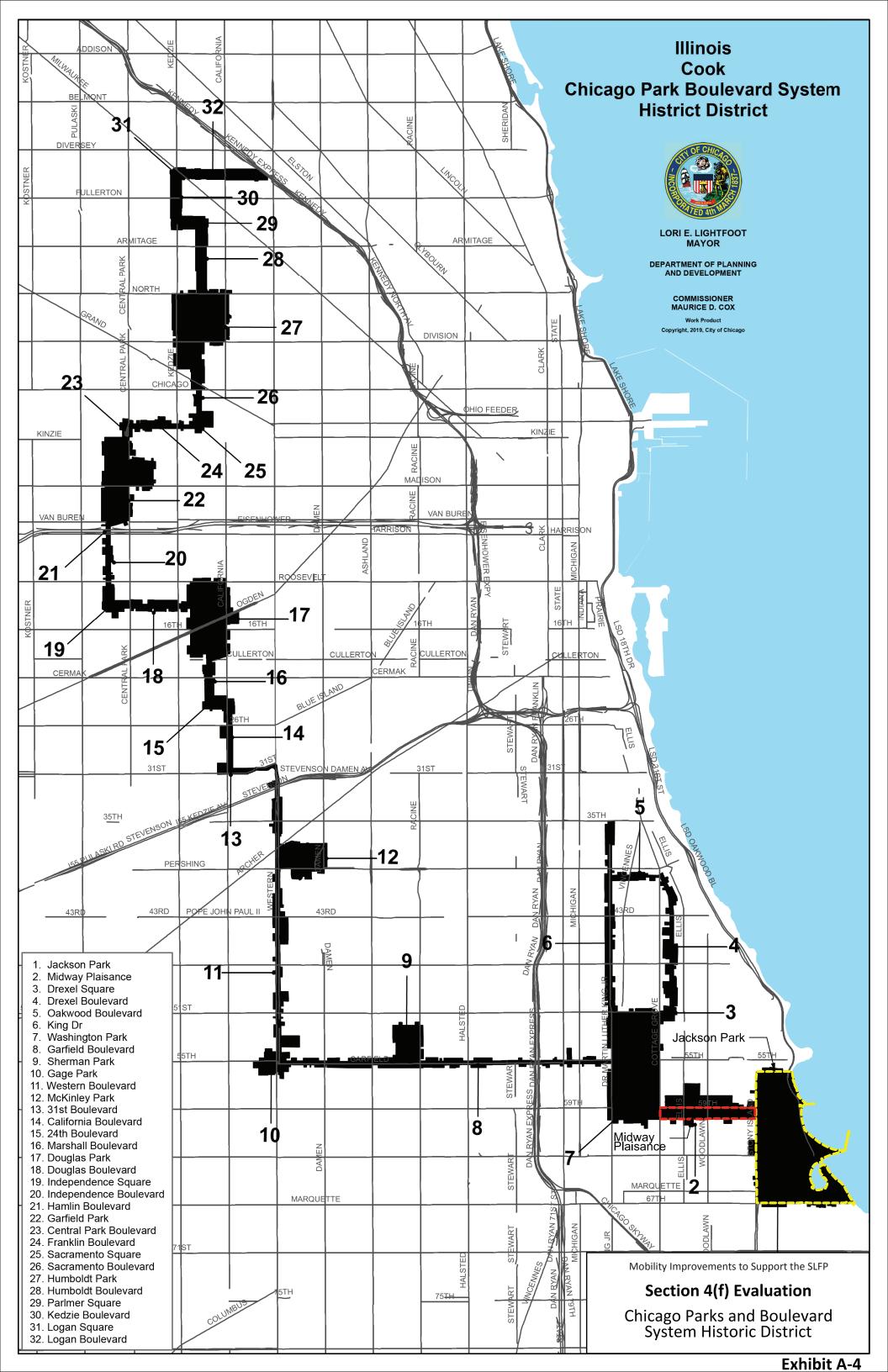
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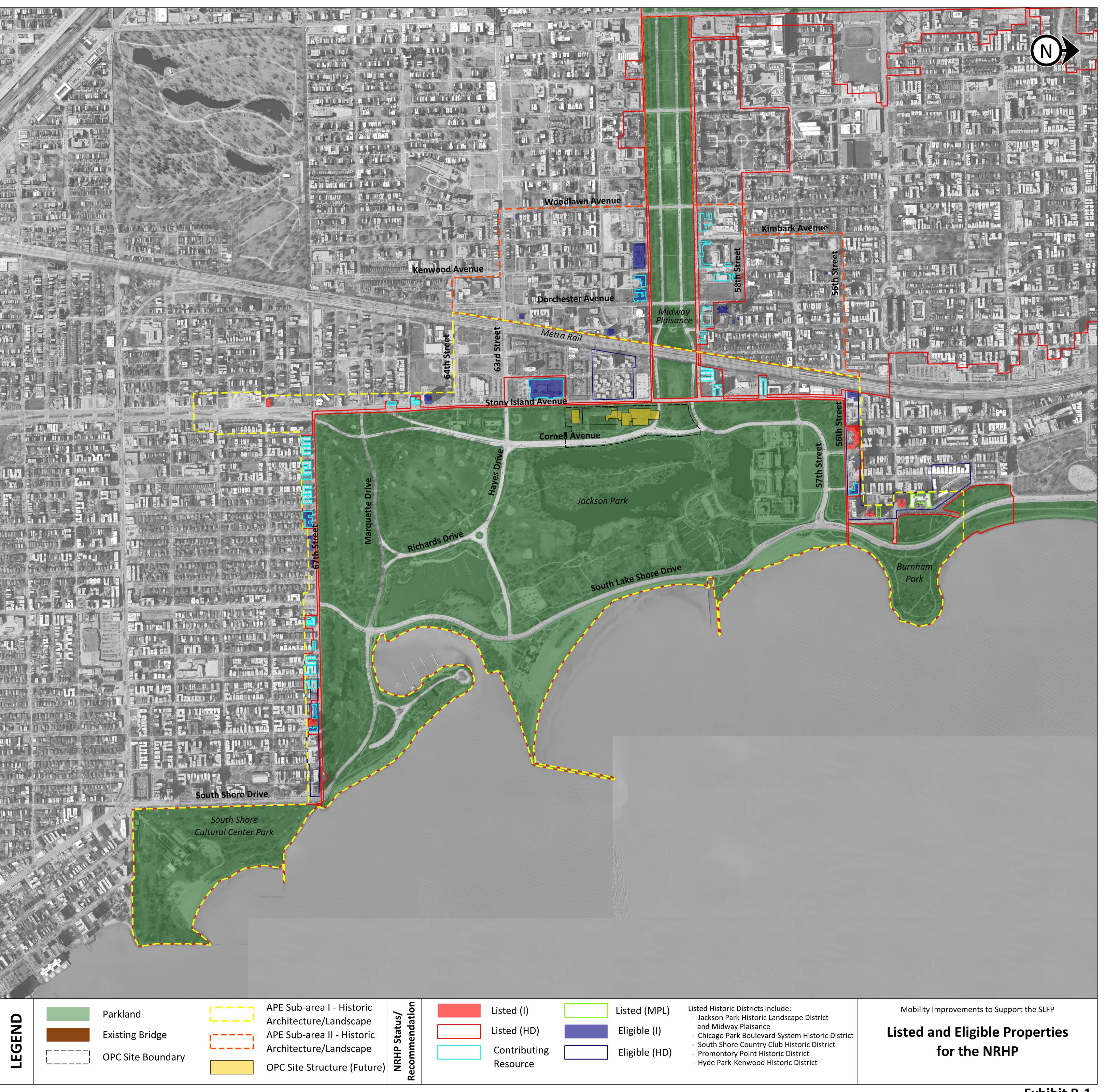






Exhibit B-3



ACTIVE USES



GOLFING

Graphic provided by the Chicago Park District

Jackson Park

Active Use Recreation Areas







Graphic provided by the Chicago Park District

Mobility Improvements to Support the SLFP

Jackson Park

Water-Based Recreation Areas



PASSIVE USES

Graphic provided by the Chicago Park District

Jackson Park

Other Recreation Areas



Exhibit B-8

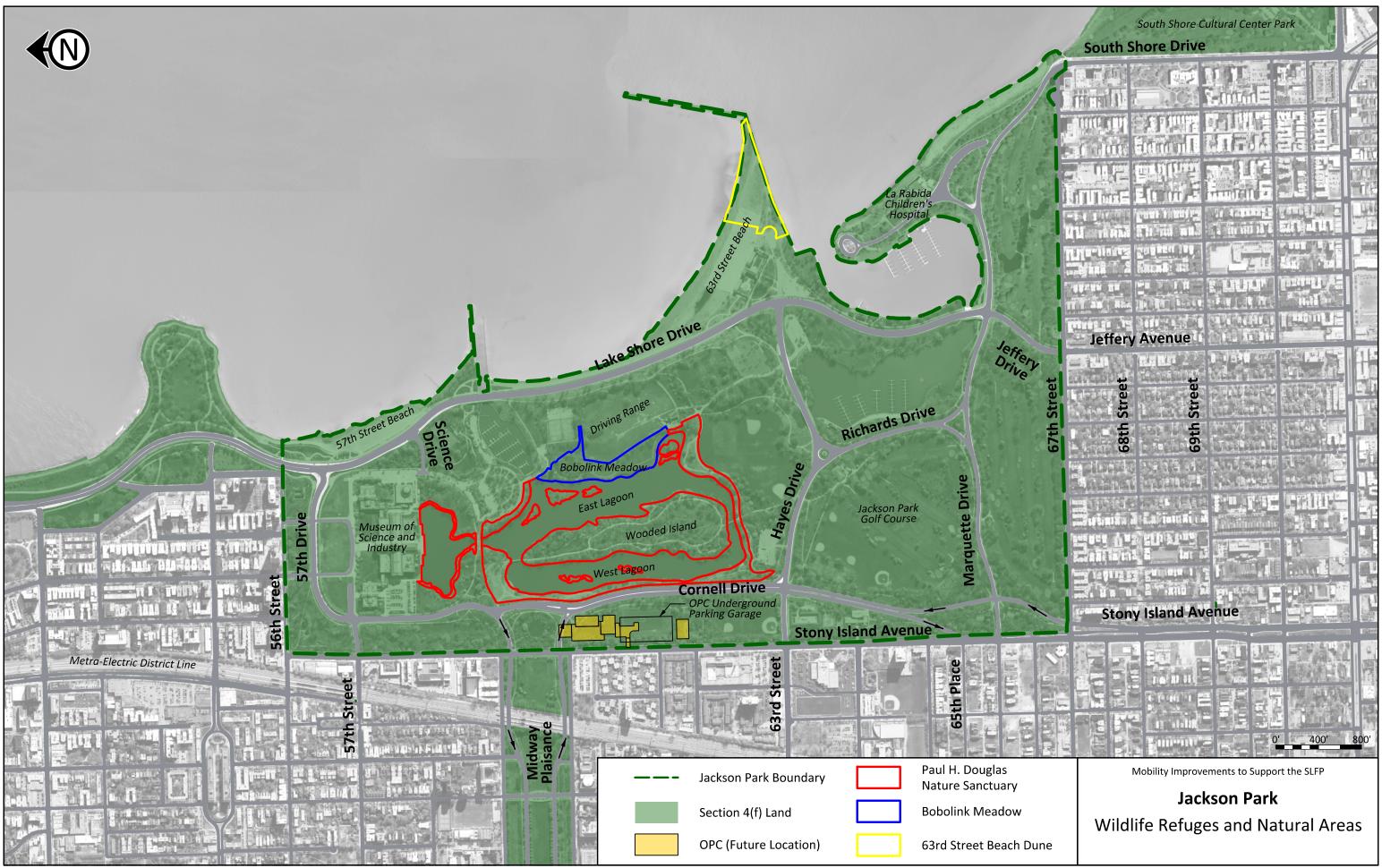
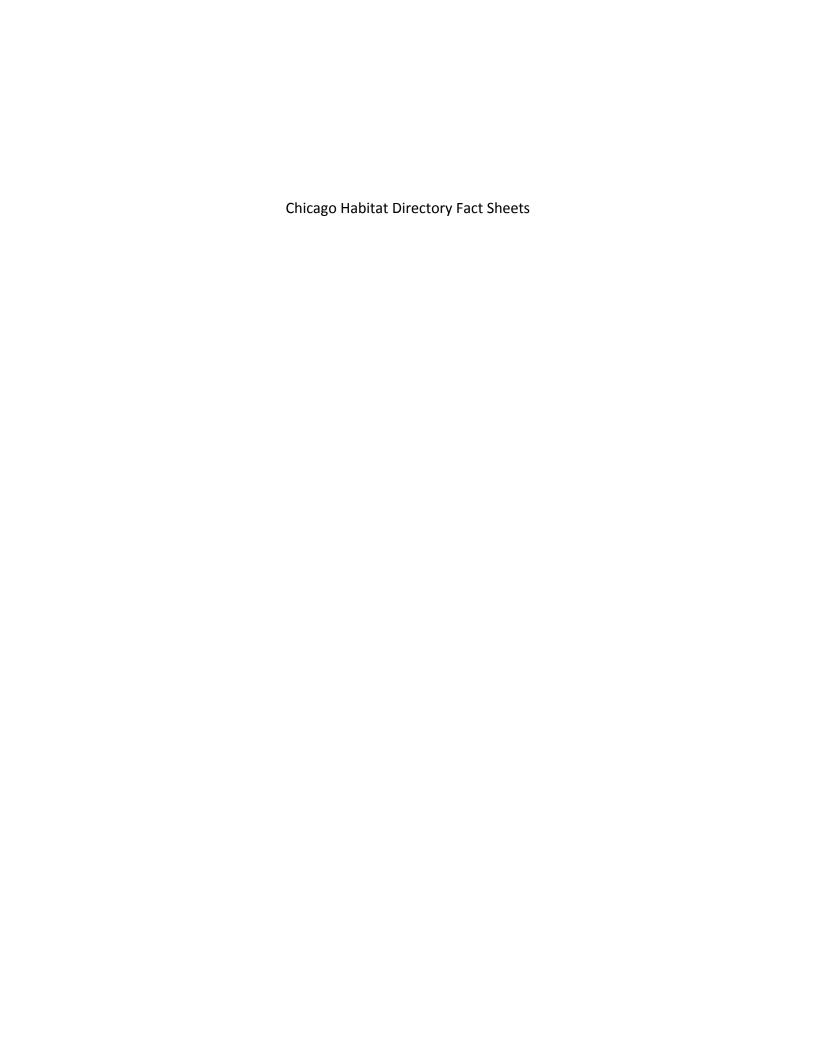


Exhibit B-9



Paul H. Douglas Nature Sanctuary

The Paul H. Douglas Nature Sanctuary was named for the Illinois senator who helped secure the preservation of the Indiana Dunes National Lakeshore and other important natural areas in the 1960s. Also known as "Wooded Isle," the name it was given for the 1893 World Columbian Exposition, the natural area is among the small number of sites in the city sizable enough to give a hint of true wildness.

In recent years, the Chicago Park District has worked with the Jackson Park Advisory Council, a citizen group, to plan for an intensive natural area restoration effort at this location. Much of the plan has been implemented: native trees, shrubs and perennials have been planted to improve the area's natural character and to provide migrating and resident birds a greater food supply and enhanced shelter.

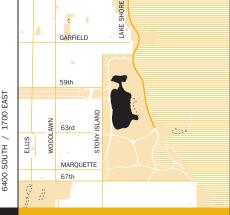
The concept for creating the island was that of Frederick Law Olmsted, the man responsible for designing Central Park in New York and a major figure in the history of landscape architecture. When Olmsted modified his original 1871 site design in prevision of the 1893 World's Fair, he envisioned Wooded Island as a "nature sanctuary,

a place to escape the hustle and bustle of the big event," according to Julia Bachrach, the Chicago Park District's historian. (Chicago Park District web site, 2002.)

Today the lagoon 4 has been improved through shoreline planting 5 as well as the restoration of five habitat islands 3, completed in 2002 and 2003. Two bridges provide access to Wooded Island.

On the island itself are mature oaks, maples, and Kentucky coffee trees. Because the island was originally a sand ridge and marsh, remnant habitat in the form of mature trees is present. In the spring and fall, migrating birds are abundant. The list of birds that have been seen here includes 250 different species. Mammals are here as well; beaver and muskrats can be spotted from the shoreline.

South of the Osaka Japanese Garden, on the west side of the path is the site of an old rose garden planted for the fair. It's fenced, and a grassland restoration is underway within its borders. Indigo buntings and eastern bluebirds are frequent visitors in the spring.



Jackson Park—Paul H. Douglas Nature Sanctuary

ADDRESS OWNER ACREAGE 6401 S Stony Island Ave Chicago Park District 57.62

HABITATS



Park—Paul H. Douglas Nature Sanctuary

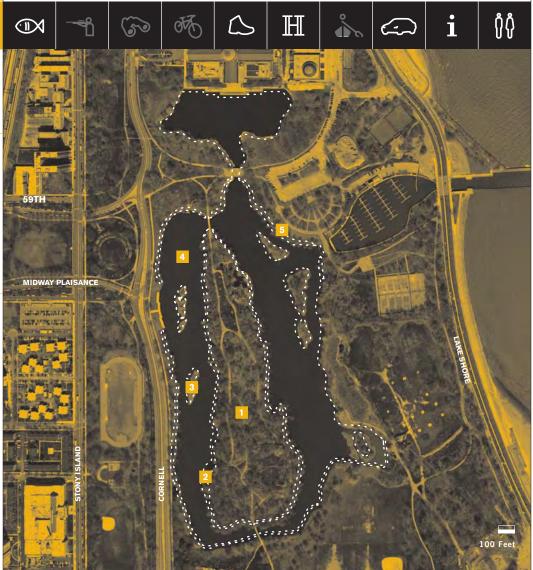
Jackson

Chicago Habitat Directory 2005

Forest / Woodland Riparian / Water Edge Aquatic

DIRECTIONS

Exit Lake Shore Drive at Science Drive (access road to the Museum of Science and Industry's east entrance, directly south of 57th Street); follow Columbia Drive to the left (south) and park at the westernmost point to walk across the Clarence Darrow Bridge and onto Wooded Island.



70

Bobolink Meadow

Bobolink Meadow's prairie restoration 1 has been ongoing since 1989, making it one of the older efforts in Chicago's parks.

It was built on the 1893 World's Fair grounds, in an area which was turned into a public golf course shortly after the exhibition, and then leased by the U.S. Army for its Nike missile base (1956–1971). It lies today along the edge of Jackson Park Lagoon, across from the Paul H. Douglas Nature Sanctuary (site 41, p. 70). Nodding wild onion blooms in early summer, and by July, the delicate pink blossoms

of obedient plant are abundant. In the late summer and fall, various species of goldenrods and asters make a colorful spectacle. Butterflies and dragonflies are common sights.

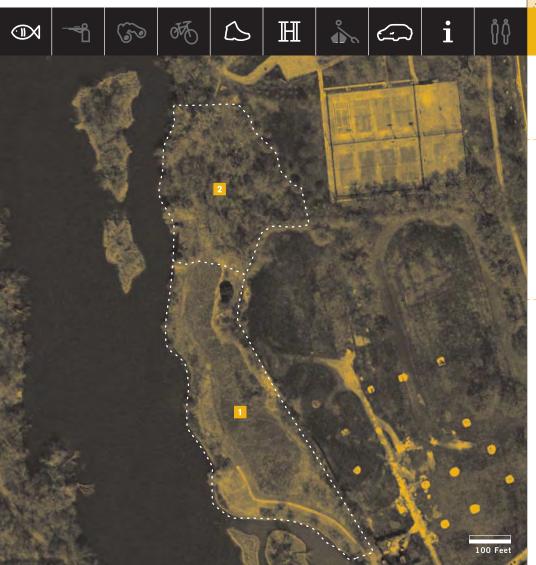
North of Bobolink Meadow is Bobolink Woods 2, a small woodland that provides a shady transition from prairie to parking lot.

JACKSON PARK— BOBOLINK MEADOW

WOODLAWN
WOO

63

Site No



Jackson Park— Bobolink Meadow

ADDRESS OWNER

ACREAGE

6401 S Stony Island Ave Chicago Park District, Private 5.39

HABITATS

2

Prairie / Grassland Forest / Woodland

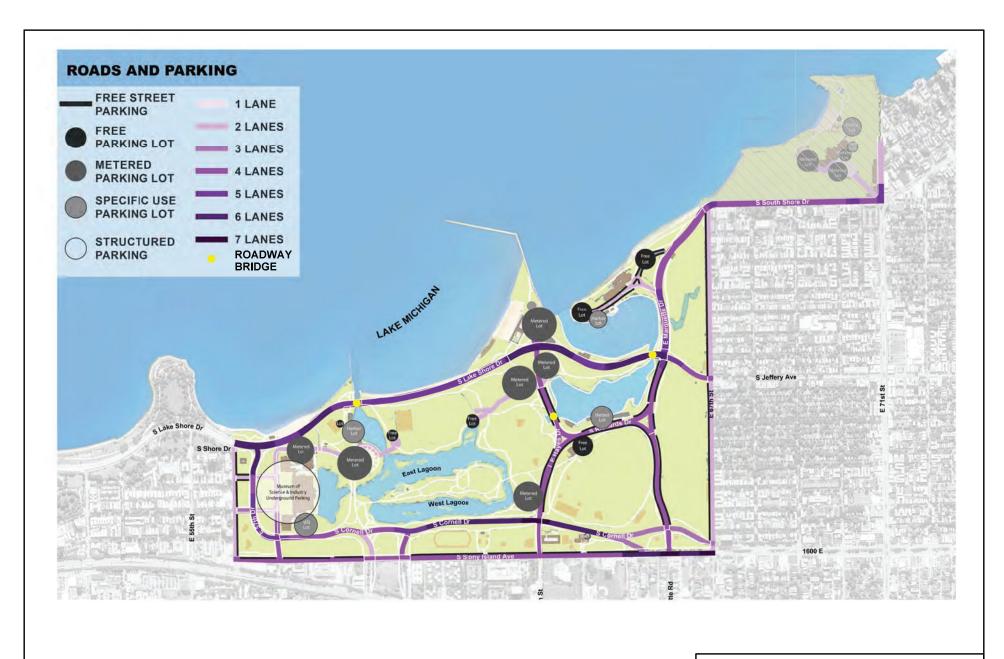
DIRECTIONS

Exit Lake Shore Drive at Science Drive (access road to the Museum of Science and Industry's east entrance, directly south of 57th Street); Follow Columbia Drive to the left (south) and park at the south end of the lot for quick access to Bobolink Meadow.

Jackson Park—Bobolink Meadow

Chicago Habitat Directory 2005

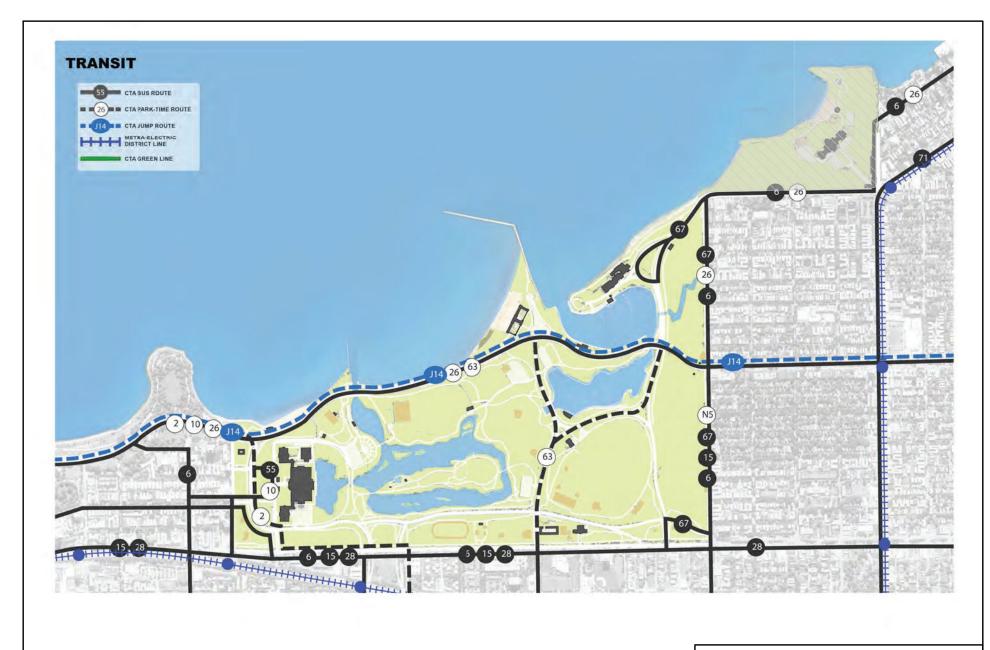
63rd Street Beach Dune



Mobility Improvements to Support the SLFP

Jackson Park

Roadways, Parking and Bridges



Mobility Improvements to Support the SLFP

Jackson Park

Transit Accommodations





GLOBAL USE

Graphic provided by the Chicago Park District

Mobility Improvements to Support the SLFP

Jackson Park

Global Use Areas



CITY & REGIONAL USE

Graphic provided by the Chicago Park District

Mobility Improvements to Support the SLFP

Jackson Park

City and Regional Use Areas

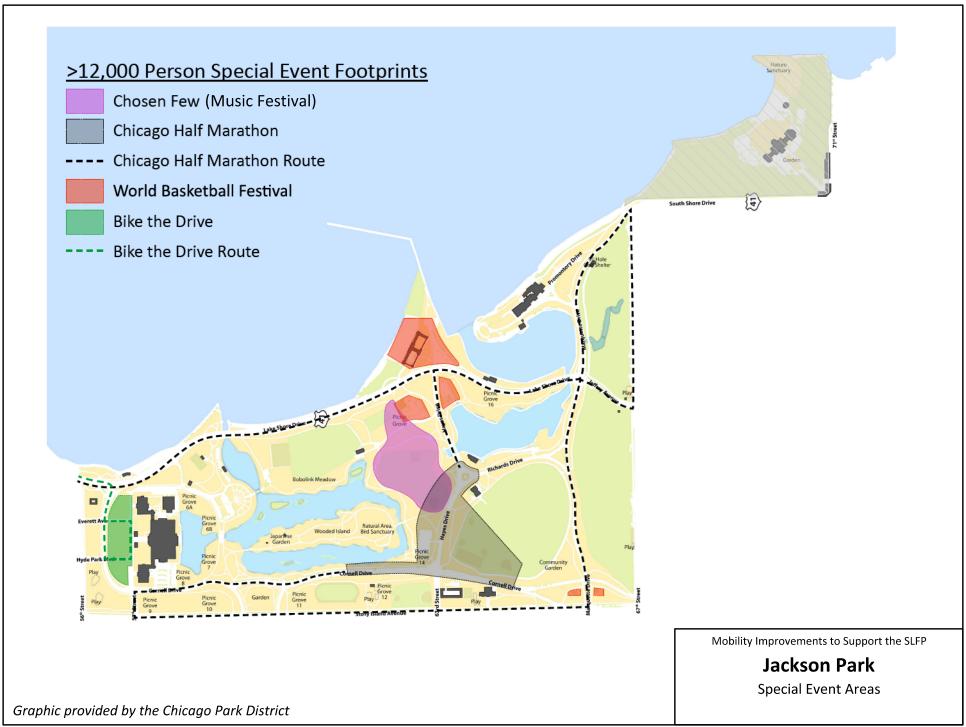


LOCAL USE

Mobility Improvements to Support the SLFP

Jackson Park

Local Use Areas





Section 4(f) Evaluation Existing Facilities

Jackson Park

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
1	Dickers Playground	Structure	ca. 1992	Playground Equipment	
2	Chrysalais Playground	Structure	ca. 1992	Playground Equipment	
3	lowa Building	Building	1936-40	Picnic Pavilion	

Section 4(f) Evaluation Existing Facilities

Jackson Park

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
4	Lake Shore Drive Underpass at 57th Drive	Structure	2004		
5	57th Drive Underpass	Structure	2004		
6	57th Street Beach House	Building	1998		

Section 4(f) Evaluation Existing Facilities

Jackson Park

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
7	Museum of Science and Industry	Building	1893/192 8- 30/1990s- 2000s		
8	Comfort Station (near Music Court)	Building	1888/193 6		
9	Bowling Green	Building	1927	Clubhouse with Shed, Lawn Bowling and Croquet	

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
10	Clarence Darrow Bridge	Structure	1880/189 3-95		
11	Music Court	Site	1895		
12	Museum Shores Yacht Clubhouse	Building	ca. 1962		

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
13	Lake Shore Drive Underpass at 59th Street	Structure	2004		
14	Perennial Garden (with circular lawn panel)	Site Feature	1936/ 1990s		
15	Wooded Island North Bridge	Structure	ca. 1970		

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
16	Music Court Bridge (East Lagoon Bridge)	Structure	1904-07		Activities
17	Tennis courts (west of Lake Shore Drive, south of 59th Street Harbor)	Structure	ca. 1938	8 Tennis Courts	
18	Dog Park	Site		Fenced area	

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
19	Osaka Garden/ Japanese Garden	Site Feature	1933/ 1980s- 2000s	Cultural Gardens featuring the Moon Bridge, Torii Gate, and Japanese Lanterns	
20	Artificial Turf Field and 8-Lane Track	Structure	2011		
21	Wooded Island	Site		Nature Habitat, recreational walking, bird watching	

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
22	Bobolink Meadow	Site		Nature area/habitat	
23	Driving Range	Building/ Site	1936	Driving Range, Shelter, Comfort Station	
24	Playground - Western Perimeter	Structure	1895/ca. 1995	Infant Playground Equipment with U-shaped walk	

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
25	English Comfort Station	Builing	1936-38		
26	Baseball Diamond	Site		Junior Baseball Playing Field	
27	Baseball Diamond	Site		Senior Baseball Playing Field	

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
28	Hayes Fields	Site		Two Senior Baseball Playing Fields, Flexible Recreation (Soccer)	
29	Basketball Court (Hayes Drive Parking Lot)	Structure	ca. 1990	Two Basketball Courts	
30	Lake Shore Drive underpass at Hayes Drive	Structure	ca. 2005		

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
31	63rd Street Bathing Pavilion	Building	1919/ 2005	Beach pavilion, spray feature, playground	
32	Maintenance Building	Building	1936		
33	Tennis court- near S. Stony Island and Service Yard	Structure	ca. 1950	Three Tennis Courts	

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
34	Jackson Park Field House Playground	Structure	ca. 2000	Playground Equipment	
35	Jackson Park Field House	Building	1957		
36	Tennis courts (near Hayes and Cornell)	Structure	ca. 1938	9 Tennis Courts	

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
37	Baseball Fields (near Hayes and Cornell)	Structure	ca. 1938	Three Junior Baseball Fields, flexible space (soccer)	
38	Baseball Fields (near Hayes and Cornell)	Structure	ca. 1938	One Senior Baseball Field	
39	Cecil Partee Golf Shelter	Building	1900		

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
40	Jackson Park Golf Course	Structure	1900	18-hole golf course	© 2075 Da per Dy-par Genten
41	Statue of the Republic (Golden Lady)	Object	1918		
42	Southern Shores Yacht Club	Building	1934		

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
43	Coast Guard Station	Building	1988	Harbor Station & Garage	
44	Basketball Court on S. Stony Island north of Marquette	Structure	ca. 1990	Fenced Basketball Court	
45	Basketball Court on S. Stony Island south of Marquette	Structure	ca. 1991	Fenced Basketball Court	

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
46	Community Garden	Site		Public garden	
47	Lake Shore Drive Underpas at Marquette Drive	Structure	ca. 2004		
48	Jackson Park Yacht Club	Building	ca. 1906- 1930		

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
49	La Rabida Children's Hospital	Building	1932- 2000s		
50	Playground near 67th and East End	Structure	ca. 2000	Playground Equipment	
51	Utility Building- West of S. Jeffery Ave.	Building	ca. 1988		

Facility Number	Facility Name	Site Type	Year Built	Additional Description	Photograph
52	Brick Utility Building	Building	ca. 1960		
53	Playground near E. 67th and S. Jeffery Avenue	Structure	ca. 2009	Playground Equipment	
54	Burnham Building (9th Hole Golf Shelter)	Building	1912		









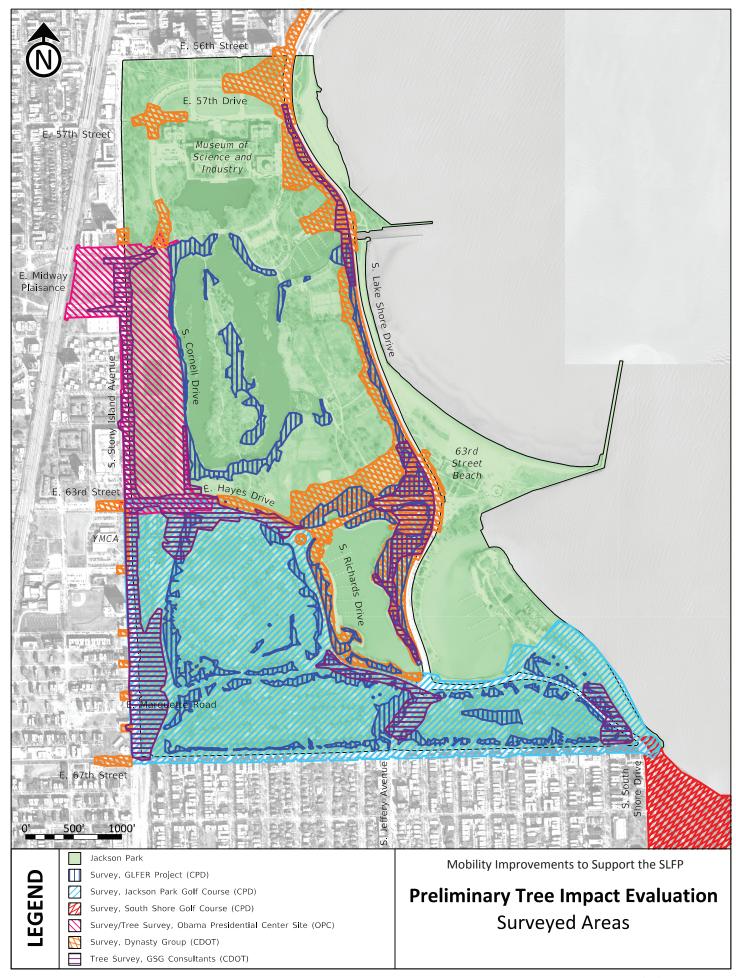




Exhibit B-23

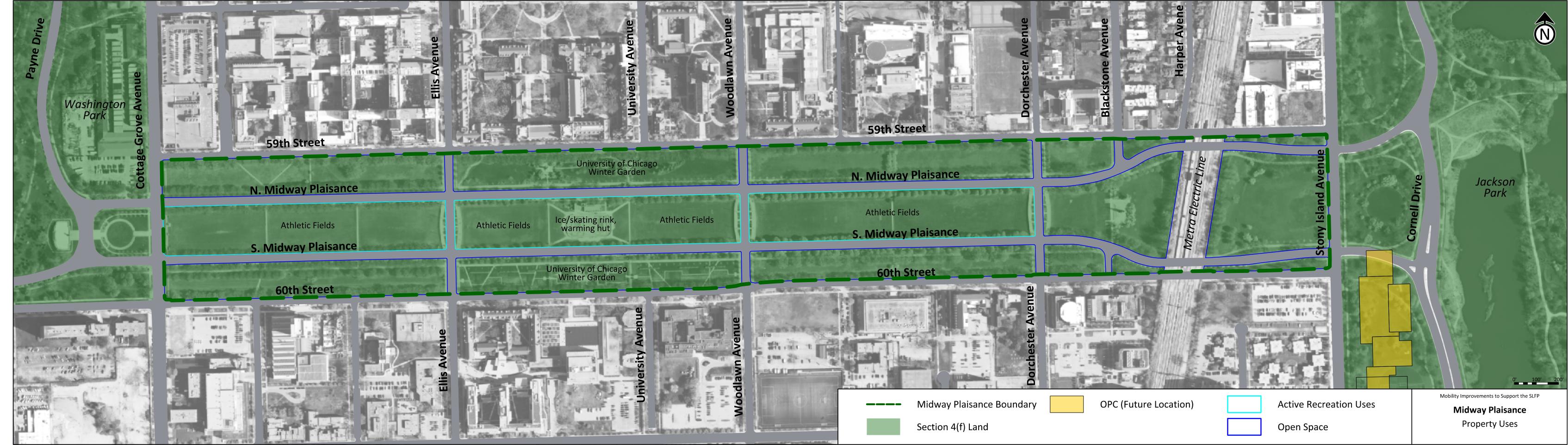


Exhibit B-24



Exhibit B-25

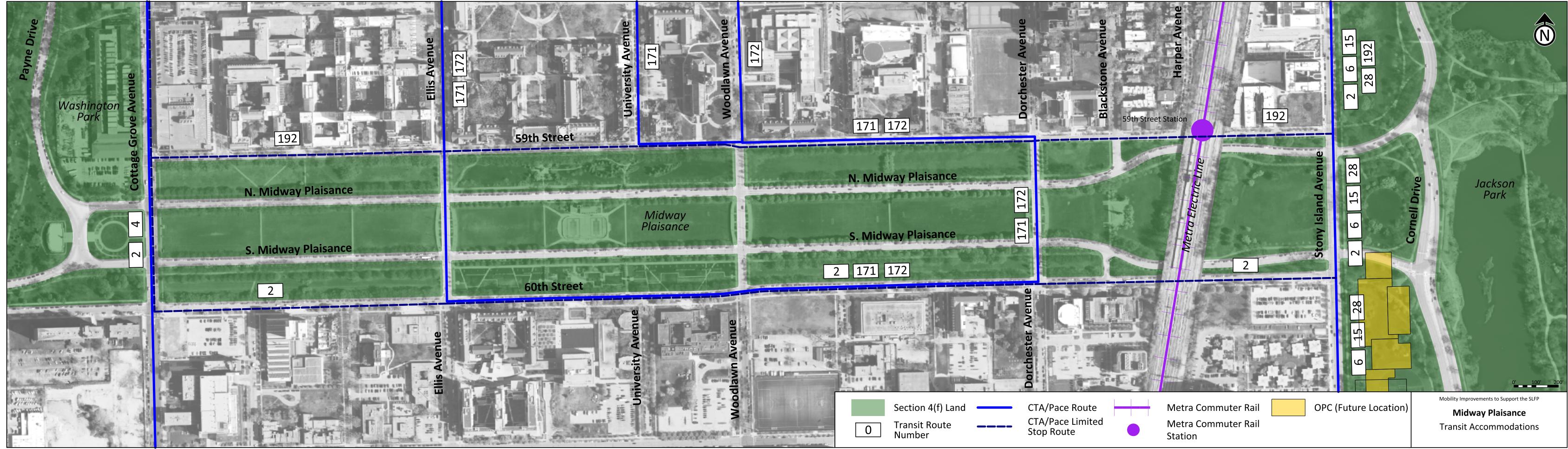


Exhibit B-26

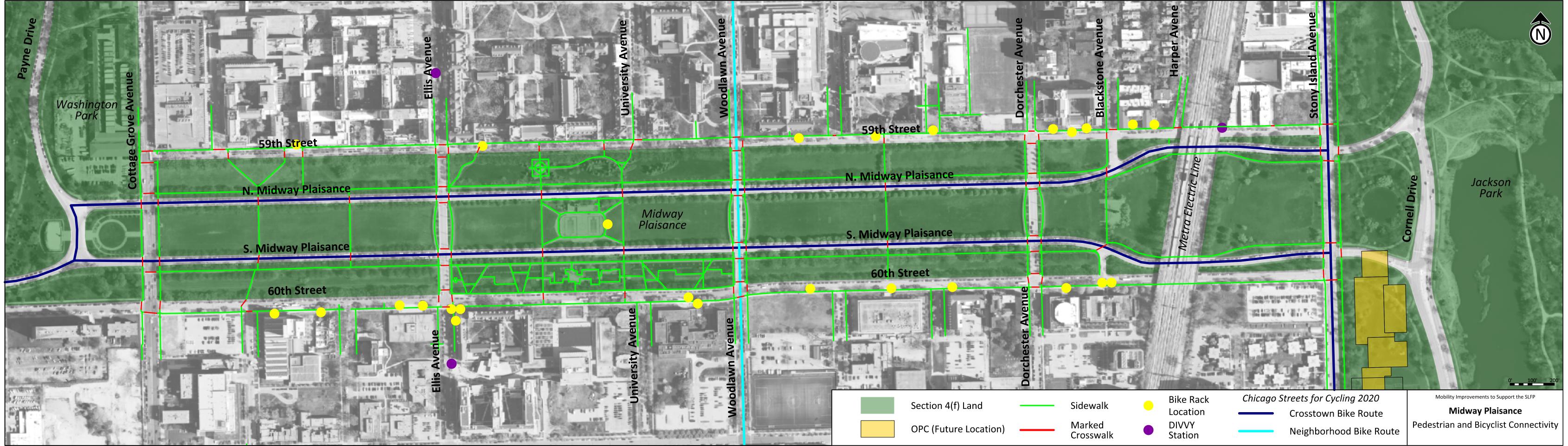


Exhibit B-27

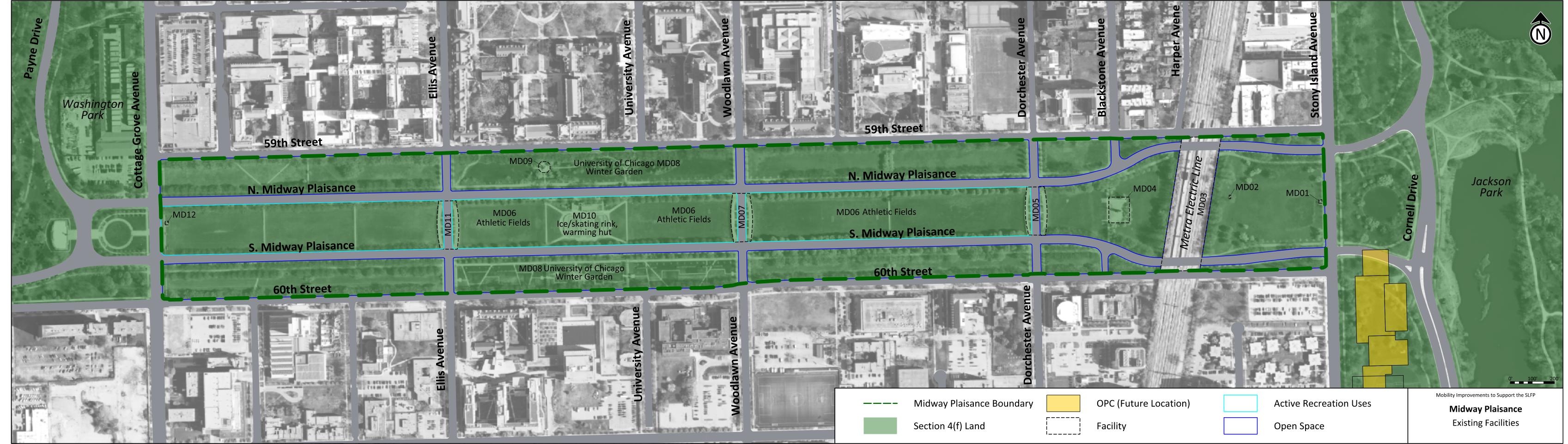


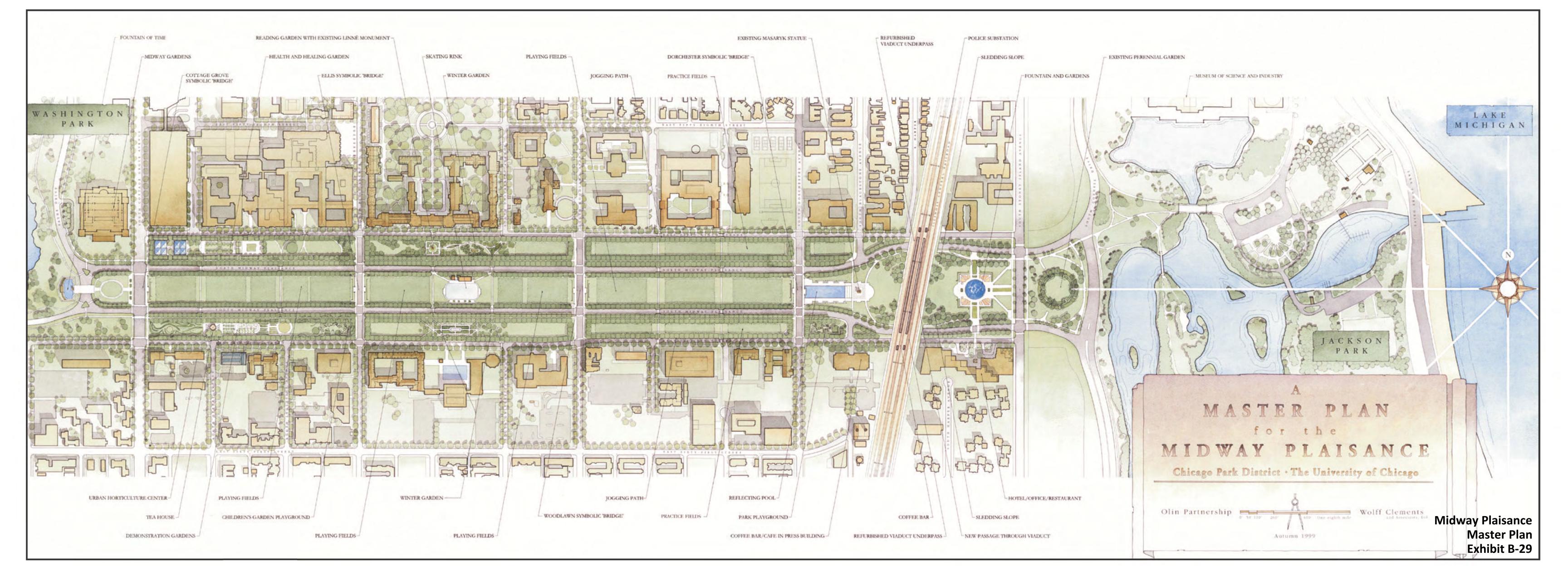
Exhibit B-28a

Facility Number	Facility Name	Site Type	Year Built	Description	Photograph
MD01	Boulevard Kiosk	Object	ca. 1995	Informational sign	
MD02	Cheney Goode Memorial	Object	1932	Bench/ Memorial	
MD03	Metra Electric Line	Structure	1893/ca. 1920- 1930	Railroad viaduct bridge	

Facility Number	Facility Name	Site Type	Year Built	Description	Photograph
MD04	Thomas Masaryk Monument	Object	1952	Statue	
MD05	Midway Plaisance Bridge Crossings - Dorchester Avenue	Structure	2013	Roadway Bridge	
MD06	Athletic Fields	Site		Flexible use, soccer	

Facility Number	Facility Name	Site Type	Year Built	Description	Photograph
MD07	Midway Plaisance Bridge Crossings - Woodlawn Avenue	Structure	2013	Bridge	
MD08	University of Chicago Winter Garden	Site	2009	Garden	
MD09	Carl von Linné Monument	Object	1891/ 1976	Statue	

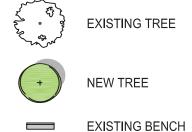
Facility Number	Facility Name	Site Type	Year Built	Description	Photograph
MD10	Ice/Skating Rink, warming hut	Structure	2000	Ice/ Skating Rink and maintenance facility	
MD11	Midway Plaisance Bridge Crossings - Ellis Avenue	Structure	2013	Bridge	
MD12	Boulevard Kiosk	Object	ca. 1995	Informational sign	







PROPOSED LAYOUT





















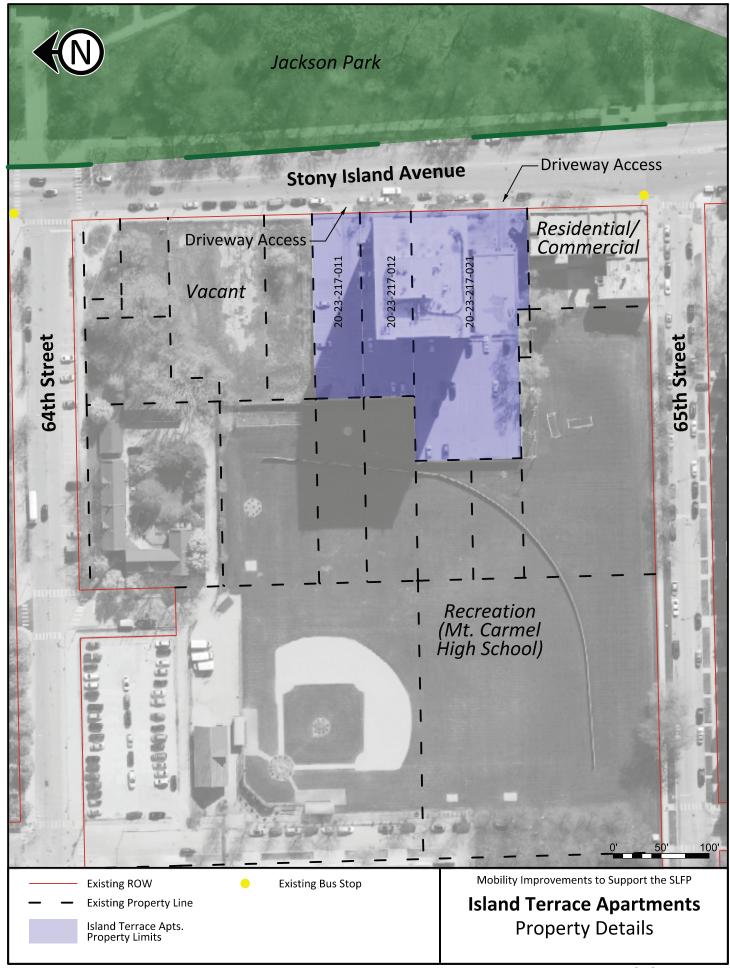


Exhibit B-30



Exhibit B-31

Appendix C – Alternatives Analysis

Alternatives to be Carried Forward Documentation

ALTERNATIVES TO BE CARRIED FORWARD

1. Introduction

This document describes and evaluates a range of alternatives for mobility improvements to support the South Lakefront Framework Plan (SLFP). The evaluation of the range of alternatives will result in a recommendation of alternatives to be carried forward for further refinements and evaluation. The following broad categories of alternatives will be analyzed in this document:

- No-Action Alternative
- Build Alternative Alternative Avoiding Parkland Use and Widen Stony Island Avenue
- Build Alternative Operational Changes to Roadways
- Build Alternative Mobility Improvements

The Alternative Avoiding Parkland Use and Widen Stony Island aims to avoid converting any parkland from a Section 4(f) resource to a transportation use while providing improvements to reduce congestion from the roadway closures. Publicly owned parks, recreational areas, wildlife and waterfowl refuges, and private and public owned historic properties are considered Section 4(f) resources under the U.S. Department of Transportation Act of 1966.

Operational Changes to roadways are intended to improve traffic flow at spot locations such as intersections and would minimize conversions of land from Section 4(f) resources to a transportation use. Operational changes can include pavement restriping, adding turn lanes, traffic signal retiming, and traffic signal modernization to provide pedestrian indications.

Mobility improvements include Operational Changes as well as increases to roadway through lane capacity.

1.1. Study Area

The Study Area is located in Chicago, Illinois, and encompasses Jackson Park. See Exhibits 1A, 1B and 2 in Appendix A. Jackson Park is bounded by 67th Street, Stony Island Avenue, 56th Street and Lake Michigan. See Exhibits 1 and 2 in Appendix A. Jackson Park is served by heavily travelled arterial roadways, including Lake Shore Drive (US Route 41) to the east and Stony Island Avenue to the west. Within Jackson Park, 57th Drive carries east-west traffic from Lake Shore Drive to the Museum of Science and

Industry (MSI). South of the Museum, 57th Drive becomes Cornell Drive which carries north-south traffic from the Museum toward park recreational facilities and beyond to residential neighborhoods. These roadway facilities provide an important route for westbound morning commuters and eastbound evening commuters between major commuter expressways and the City's Central Business District. Collector roadways within Jackson Park include Hayes Drive and Marquette Drive. Lake Shore Drive north of 57th Drive and Stony Island Avenue south of 57th Street are on the National Highway System, which consists of roadways that are important to the nation's economy, defense and mobility. The Lakefront Trail is parallel to the east side of Lake Shore Drive and serves recreational users, commuters, and tourists.

2. Purpose and Need

2.1. Proposed Action

The City of Chicago (City) is proposing to close roadways within Jackson Park, Chicago, Illinois to meet the planning and development objectives for Jackson Park as described in the 2018 South Lakefront Framework Plan¹. The permanent roadway closures include: Cornell Drive between 63rd Street (Hayes Drive) and 59th Street, the northbound section of Cornell Drive between 68th Street and 65th Street, Marquette Drive between Stony Island Avenue and Richards Drive, and South Midway Plaisance (eastbound only) between Stony Island Avenue and Cornell Drive. See Exhibit 3. Closures of South Midway Plaisance and Cornell Drive between 63rd Street and 59th Street are necessary to accommodate the development of the Obama Presidential Center. The additional roadway closures will allow for continuous parkland within Jackson Park. The roadway closures are separate independent actions that do not require any Federal approvals and are therefore considered the baseline condition as well as the No-Action alternative.

The roadway closures may require improvements to other roadways to mitigate traffic impacts. The potential roadway improvements may be funded through the Federal Highway Administration (FHWA) Federal-Aid Highway Program, which would require approval from FHWA.

2.2. Project Need

The Proposed Action relates to the potential roadway improvements that are necessary to address traffic impacts that will result from roadway closures within Jackson Park. Improvement needs vary within the project area, but fall into two broad categories:

- Accommodate changes in travel patterns.
- Improve bicyclist and pedestrian access and circulation.

A full description and analysis of these identified needs can be found in the Purpose and Need documentation, under separate cover.

2.3. Project Purpose

The purpose of the Proposed Action is to (1) address changes in travel patterns resulting from closing roadways in Jackson Park and (2) improve bicycle and pedestrian access and circulation.

¹ The 2018 South Lakefront Framework Plan is currently under development and is expected to be finalized and approved by the Chicago Park District in 2018.

3. Alternatives Evaluation Criteria

Each of the preliminary alternatives were evaluated to determine if Section 4(f) land would be permanently incorporated into a transportation facility and the alternative's ability to meet the project's Purpose and Need. Alternatives that avoided incorporating Section 4(f) land into a transportation facility (a Section 4(f) "use")were first considered including the No-Action Alternative and Alternative 1 – Alternative Avoiding Parkland Use and Widen Stony Island Avenue².

Before approving a project that uses Section 4(f) property, FHWA must either (1) determine that the impacts are *de minimis*, or (2) undertake a Section 4(f) Evaluation. If the Section 4(f) Evaluation identifies a feasible and prudent alternative that completely avoids Section 4(f) properties, it must be selected. If there is no feasible and prudent alternative that avoids all Section 4(f) properties, FHWA has some discretion in selecting the alternative that causes the least overall harm. FHWA must also find that all possible planning to minimize harm to the Section 4(f) property has occurred.

An alternative is feasible if it can be constructed as a matter of sound engineering judgement. An alternative is considered prudent if:

- "it is unreasonable to proceed with the project in light of its stated purpose and need;
- it results in unacceptable safety or operational problems;
- after reasonable mitigation, it still causes:
 - o severe social, economic, or environmental impacts;
 - o severe disruption to established communities;
 - o severe disproportionate impacts to minority or low income populations; or
 - severe impacts to environmental resources protected under other Federal statues;
- it results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
- it causes other unique problems or unusual factors; or
- it involves multiple factors... that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude." (CFR 774.17)

The amount of permanent incorporation of Section 4(f) land into a transportation facility is quantified for each alternative.

The amount of potential temporary occupancy of Section 4(f) land is also quantified for each alternative. A temporary occupancy is not considered a Section 4(f) use when: (1) the duration of the temporary occupancy is less than the time needed for construction of the project and there is no change in ownership of the land; (2) the scope of the work must be minor and the nature and magnitude of the

² It was later determined that this alternative involved the permanent use of Section 4(f) land into a transportation facility use. Refer to Section 5.2 of this document for additional information.

changes to the Section 4(f) property are minimal; (3) there are no anticipated permanent adverse physical impact, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis; (4) the land must be fully restored to a condition which is at least as good as that which existed prior to the project; and (5) there is documented agreement with the official(s) with jurisdiction over the Section 4(f) resource regarding these conditions (23 CFR 774.13(d)). For this project, proposed trails and underpasses within Jackson Park may qualify as a temporary occupancy of Section 4(f).

To determine if an alternative satisfies the goals of the project Purpose and Need, each preliminary alternative will assess the ability to improve pedestrian and bicyclist access and circulation to and within Jackson Park as well as its overall operational performance. Operational performance, or mobility, is evaluated for projected traffic conditions by considering Levels of Service (LOS) and facility capacity. For Northeastern Illinois, projections of future travel demands are provided by the Chicago Metropolitan Agency for Planning (CMAP) using regional travel-demand analyses and comprehensive plans. The most current plan projects traffic to the year 2040 based on the CMAP *GO TO 2040 Comprehensive Plan*. Level of Service (LOS) is a quantitative concept which has been developed to characterize degrees of congestion as perceived by motorists. Letter designations A through F have been correlated to quantitative measures based on the amount of delay experienced. Level A represents the best conditions and Level F the worst. Figure 1 below shows the delay values associated with the Levels of Service for both signalized and unsignalized intersections.

Level of Service	Signalized Intersection	Unsignalized Intersection	
A	≤10 seconds	≤10 seconds	
В	10 – 20 seconds	10 – 15 seconds	
С	20 – 35 seconds	15 – 25 seconds	
D	35 – 55 seconds	25 – 35 seconds	
E	55 – 80 seconds	35 – 50 seconds	
F	> 80 seconds	> 50 seconds	

Figure 1 – Levels of Service and Delays

Per the *Highway Capacity Manual (HCM)*, an intersection is also considered to operate at an LOS F if one or more movements operate over capacity, which is characterized by more vehicles arriving at the intersection that can be served by a specific movement during the analysis period. This is commonly evaluated using the volume-to-capacity (v/c) ratio. By definition, a movement exceeds its available capacity when the v/c ratio exceeds a value of one. The HCM makes this distinction because the methodologies used to determine the delay and Level of Service are not accurate under over-capacity conditions. Therefore, it is possible for the methodologies to provide a low delay and high Level of Service even when the volume of a movement exceeds that movement's capacity.

If an alternative meets the goals of the Purpose and Need, further environmental impacts and their quantifiable impact measure will then be evaluated as described below:

- **Floodplains** Acre-feet impacted by the alternative based upon Flood Insurance Maps published by the Federal Emergency Management Agency (FEMA) and drainage studies.
- **Wetlands** Acres of wetlands impacted by the alternative based upon delineations from field studies.
- Waters of the United States (WOUS) Acres of WOUS impacted by the alternative based upon National Wetland Inventory (NWI) maps, aerial photograph and field studies.
- Parking Loss Number of on-street parking spaces lost.
- Section 4(f) Land Conversion Acres of Section 4(f) land converted to transportation use.
- Residential Displacements Number of residences displaced,
- Commercial Displacements Number of non-residential properties displaced.
- Pedestrian Safety Improvements Number of locations improved.
- **Vehicular Safety** Number of locations improved.
- Pedestrian & Bicycle Mobility - Number of locations improved.
- Archaeological Sites Impacts to potential archaeological sites.
- **Historic Properties** Impacts to historic properties.
- Noise Number of impacted receptors.
- Trees Number of trees removed by the project.

4. No-Action Alternative

The No-Action Alternative would not convert any Section 4(f) land to a transportation use, nor would it involve any potential temporary occupancy of Section 4(f) properties. The No-Action Alternative does not provide sufficient pedestrian and bicyclist accommodations to improve access and circulation to and within Jackson Park. Unacceptable operational performance within the study area results from the No-Action Alternative. Therefore, the No-Action Alternative does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. However, the No-Action Alternative is required to be analyzed in detail and will be carried forward as a benchmark to compare against Build alternatives.

The analysis of the No-Action Alternative is described below.

4.1. Objective of Alternative

The No-Action Alternative is a condition in which regional improvements anticipated as part of the 2040 Regional Transportation Plan are implemented, but no project specific improvements are undertaken. It provides a baseline condition by which all other alternatives are measured to determine if the benefits of a particular Build alternative outweigh the impacts that would result from that alternative.

4.2. Description of Alternative

The No-Action Alternative is depicted on Exhibit 4. The No-Action Alternative represents future conditions that assume the following:

- The Obama Presidential Center (OPC) site is constructed within Jackson Park as proposed by the City of Chicago. The OPC site can be found on Exhibit 2.
- The City closes roadways within Jackson Park, Chicago, Illinois to implement a portion of their South Lakefront Framework Plan (SLFP), as described in Section 2.1 and depicted on Exhibit 3.
- No roadway improvements are made in response to changing conditions caused by the roadway closures.

4.3. Performance Analysis of No-Action Alternative

The road closures contained in the SLFP will alter travel patterns within and around Jackson Park. Using the regional Travel Demand Model, CMAP has modeled traffic volumes and patterns that would be expected for the No-Action Alternative. Exhibit 5 illustrates the No-Action average daily traffic (ADT) volumes within the study area. Based on those volumes, it is possible to identify predominant travel patterns through the study area that are expected for the No-Action Alternative. As illustrated on Exhibit 5, southbound traffic that currently uses Cornell Drive is expected to use Lake Shore Drive to

Hayes Drive to Cornell Drive to Stony Island Avenue. Northbound traffic predominantly will stay on Stony Island Avenue to 57th Drive/Cornell Drive.

Diverting traffic from Cornell Drive to these other area roadways will overwhelm their ability to safely and efficiently accommodate peak period traffic flows given existing intersection design and traffic controls. As shown on Exhibit 6 and summarized in Table 1, numerous intersections would operate at Level of Service (LOS) F during A.M. and/or P.M. peak hours, which is an extremely poor level of operation that is characterized by long vehicle delays, excessive queue lengths, low speeds, and potentially several signal cycles to process through the intersection.

Table 1
2040 No-Action Operational Performance Summary

2040 No-Action Operational Performance Summary Intersection Level of Service and Delay (sec./v						
		No-Action Alternative				
	Intersection	A.M.	P.M.			
		Peak	Peak			
Lake Shore	Drive	1 Cun	1 Cuk			
	larquette Dr	C (22)	C (24)			
	ayes Dr	F (**)	F (**)			
-	cience Dr	B (19)	F (**)			
	7 th Dr	B (13)	F (**)			
Stony Islan		D (13)	! ()			
	7 th St	F (**)	F (**)			
-	larquette Dr	D (50)	B (15)			
	5 th Pl	F (**)	C (30)			
	4 th St	F* (**)	F* (**)			
	3 rd St/Hayes Dr	F (**)	F (**)			
	Oth St	C (20)	B (12)			
		B (13)	C (31)			
	Midway Plaisance (EB)	F (**)	C (32)			
	Midway Plaisance (WB) 9 th St	F (**)	C (32)			
-		\ /	, ,			
	7 th St	F (**)	F (**)			
	6 th St * ve/57 th Drive	D (32)	D (31)			
	7 th St	Close	od.			
	larquette Drive	Close				
 	ayes Dr	F (**)	F (**)			
	Midway Plaisance (EB)	Close				
 	7 th St/MSI Drop off	F (**)	D (54)			
	yde Park Blvd	C (23)	B (20)			
67 th St	. = 1.0	D (42)	D /4.4\			
	ast End Ave *	B (12)	B (14)			
	regier Ave *	B (13)	B (13)			
	effery Ave	B (20)	B (19)			
	outh Shore Dr	B (17)	B (19)			
Marquette		<u></u>	,			
-	ichards Dr (West)	Close				
	ichards Dr (East)	Close				
	Rabida Entrance	B (14)	A (7)			
Richards Drive						
	larquette Dr (North)	Close				
	ayes Dr	A* (9)	B* (15)			
56 th St						
	yde Park Blvd *	B (12)	B (12)			
• Ev	verett Ave *	A (8)	A (7)			

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

4.4. Conclusion

Based upon the poor levels of operation and the lack of improvements in bicycle/pedestrian access circulation, the No-Action Alternative does not meet the Purpose and Need for the Proposed Action. While the No-Action Alternative does not address the needs for the project, it is presented with the awareness that any Build Alternative would result in impacts to the surrounding environment. The No-Action Alternative is therefore presented as a benchmark by which all proposed Build Alternatives will be compared to determine if roadway improvement benefits outweigh the impacts.

5. Build Alternatives

This section describes the alternatives investigated to address the Purpose and Need of the project. In addition, prior to considering capacity improvements, Congestion Management Process (CMP) strategies must first be evaluated and considered. The following strategies and alternatives will be analyzed:

- Congestion Management Process Strategies
- Alternative 1 Alternative Avoiding Parkland Use and Widen Stony Island
- Alternative 2 Operational Changes to Roadways
- Alternative 3 Mobility Improvement Widen Lake Shore Drive
- Alternative 4 Mobility Improvement Widen Stony Island Avenue
- Alternative 5 Mobility Improvement Reconfigure Hayes Drive
- Alternative 6 Mobility Improvement Widen Lake Shore Drive and Widen Stony Island Avenue
- Alternative 7 Mobility Improvement Widen Lake Shore Drive and Reconfigure Hayes Drive
- Alternative 8 Mobility Improvement Widen Stony Island Avenue Reconfigure Hayes Drive
- Alternative 9 Mobility Improvement Widen Lake Shore Drive/Widen Stony Island Avenue/ Reconfigure Hayes Drive

Common improvement treatments included in the alternatives are described below for reference:

Treatment	Description
Modernize traffic signal installation	Providing new signal equipment, such as LED signal heads, pedestrian countdown timers, signal poles, or a signal controller, as necessary.
Americans with Disability Act (ADA) improvements	Providing ADA compliant facilities, including sidewalk ramps, at widened or modernized intersections.

Treatment

Crosswalk improvements

Curb extensions

Refuge Islands

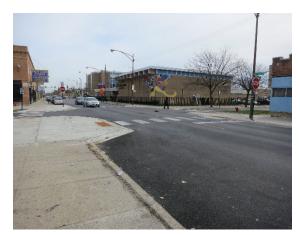


Figure 1: Curb Extension Example

Description

Upgrade marked and unmarked crossings with high-visibility crosswalk markings at widened or modernized intersections.

An extension of a sidewalk into an on-street parking lane at intersections or mid-block crossings to enhance pedestrian safety and visibility. Curb extensions provide additional pedestrian space at crossing locations while shortening crossing distances. An example of a curb extension is shown in Figure 1.

Pedestrian refuge islands are protected spaces in the middle of a street that facilitate safer pedestrian crossings by providing a protected area where pedestrians can stop before finishing crossing a road. An example of a refuge island is shown in Figure 2.



Figure 2: Pedestrian Refuge Island Example

Other specific improvements and locations are defined within each alternative description as necessary.

5.1. Congestion Management Process Strategies

Congestion Management Process (CMP) Strategies does not convert Section 4(f) land to a transportation use, but involves 2.7 acres of potential temporary occupancy of Section 4(f) land to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection. Unacceptable operational performance within the study area results from implementing only CMP strategies. Therefore, CMP Strategies do not meet the project's Purpose and Need and it would not be reasonable to continue with these strategies alone considering the stated Purpose and Need.

The analysis of CMP Strategies is described below.

5.1.1. Objective of Alternative

Congestion Management Process (CMP) strategies involve ways to reduce congestion in a transportation network that do not involve major construction, and do not provide additional through lane capacity for single-occupancy vehicles (SOVs). Instead they look to optimize the performance and/or manage the demand of the existing system. Typical CMP strategies include eliminating bottlenecks, promoting rideshare programs, transit improvements, adding HOV lanes, and providing shared-use paths.

This project is located within the Chicago Metropolitan area, which is designated a "non-attainment area" for air quality. The provisions of 23 CFR 450.320 place restrictions on the use of Federal funds for projects in Transportation Management Areas (TMAs) designated as non-attainment for carbon monoxide and/or ozone. In these areas, Federal funds may not be programmed for any project that will significantly increase capacity for SOVs unless the project is addressed through a CMP. The IDOT BDE Manual Chapter 22-6.04 requires a CMP analysis within the Chicago area, regardless of air quality status.

5.1.2. Description of Alternative

Reasonable project-specific CMP strategies will be incorporated into the project to the extent practicable. Additional coordination between the Chicago Department of Transportation (CDOT) and the Chicago Park District (CPD) will occur to determine final pedestrian and bicyclist improvements as described in the SLFP. The potential reasonable strategies are shown on Exhibit 7 and include the following:

Intersection Modifications

Lake Shore Drive

- At 57th Drive, re-time the traffic signal to optimize signal operations.
- At Science Drive, re-time the traffic signal to optimize signal operations.
- At Hayes Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Hayes Drive

• At Cornell Drive, re-time the traffic signal to optimize signal operations.

Stony Island Avenue

- At 57th Street, re-time the traffic signal to optimize signal operations.
- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At 63rd Street/Hayes Drive, modernize the traffic signal installation and re-time the signal to optimize operations.
- At 65th Place/Cornell Drive, modernize the traffic signal installation and re-time the signal to optimize operations.
- At Marquette Street, modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.

• At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's Streets for Cycling 2020 plan) along Cornell Drive and Hayes Drive
- Pedestrian underpasses at the following locations:
 - Cornell Drive/Hayes Drive intersection
 - Along Hayes Drive between Richards Drive and Lake Shore Drive
 - o Along Jeffery Drive between Marquette Drive and 67th Street
 - South Shore Drive/67th Street intersection

Note: The Cornell Drive/Hayes Drive intersection underpass concept is dependent upon which alternative is implemented. For all underpass locations, underpass design and trail connection concepts will be finalized through continued coordination with the Chicago Park District.

- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street
 - Stony Island Avenue at 67th Street
 - o Mid-Block Crossing of Cornell Drive between 57th Street and Stony Island Avenue

5.1.3. Performance Analysis of Congestions Management Process Strategies

Exhibit 8 depicts expected travel patterns and average daily traffic volumes on study area roadways that would result from the CMP Strategies Alternative. These patterns are similar to the No-Action Alternatives patterns. Exhibit 9 illustrates the expected intersection Levels of Service for this alternative. Table 2 summarizes the intersection Levels of Service and compares them to levels expected for the No-Action Alternative.

As shown in Table 2 below, the CMP Strategies Alternative will do little to improve traffic flows compared to the No-Action Alternative. Eliminating closely spaced traffic signals and access consolidation along Stony Island Avenue will slightly improve traffic operations along that roadway; however, the magnitude of diverted traffic volumes on Stony Island, Lake Shore Drive and Hayes Drive cannot be efficiently accommodated merely by retiming traffic signals.

The CMP Strategies Alternative will, however, improve pedestrian and bicycle access and circulation by grade separating pedestrian and bicycle movements from heavy traffic flows along Hayes Drive, Jeffery Drive and South Shore Drive/67th Street. Pedestrian safety will also be improved along Stony Island Avenue as a result of proposed curb extensions.

Table 2
CMP Alternative Operational Performance Summary (2040)

Intersection Level of Service and Delay (sec./veh.)								
			ction					
Intersection		Alterr	native	CMP Strategies				
		A.M.	P.M.	A.M.	P.M.			
		Peak	Peak	Peak	Peak			
Lake Shore Drive								
•	Marquette Dr	C (22)	C (24)	C (35)	C (24)			
•	Hayes Dr	F (**)	F (**)	C (35)	F (**)			
•	Science Dr	B (19)	F (**)	A (3)	F (**)			
•	57 th Dr	B (13)	F (**)	B (17)	F (**)			
Stony Is	sland Avenue			1				
•	67 th St	F (**)	F (**)	F (**)	F (**)			
•	Marquette Dr	D (50)	B (15)	F (**)	B (15)			
•	65 th Pl	F (**)	C (30)	D (46)	C (30)			
•	64 th St	F* (**)	F* (**)	F* (**)	F* (**)			
•	63 rd St/Hayes Dr	F (**)	F (**)	F (**)	F (**)			
•	60 th St	C (20)	B (12)	Right-in/	Right-out			
•	S Midway Plaisance (EB)	B (13)	C (31)	C (22)	B (18)			
•	N Midway Plaisance (WB)	F (**)	C (32)	F (**)	C (31)			
•	59 th St	F (**)	C (24)	Right-in/Right-out				
•	57 th St	F (**)	F (**)	F (**)	F (**)			
•	56 th St *	D (32)	D (31)	D (32)	D (30)			
Cornell	Drive/57 th Drive							
•	67 th St	Closed		Closed				
•	Marquette Drive	Clo	sed	Closed				
•	Hayes Dr	F (**)	F (**)	A (2) F(**)				
•	S Midway Plaisance (EB)	Clo	sed	Closed				
•	57 th St/MSI Drop off	F (**)	D (54)	F (**)	D (53)			
•	Hyde Park Blvd	C (23)	B (20)	C (24)	B (20)			
67 th St								
•	East End Ave *	B (12)	B (14)	B (12)	B (14)			
•	Cregier Ave *	B (13)	B (13)	B (13)	B (13)			
•	Jeffery Ave	B (20)	B (19)	C (20)	B (19)			
•	South Shore Dr	B (17)	B (19)	B (10)	B (19)			
Marque	ette Dr							
•	Richards Dr (West)	Closed		Closed				
•	Richards Dr (East)	Closed		Clo	sed			
•	La Rabida Entrance	B (14) A (7)		A (6) A (7)				
Richards Drive								
•	Marquette Dr (North)	Closed		Closed				
•	Hayes Dr	A* (9) B* (15)		A* (9) B* (14)				
56 th St		.		ı				
•	Hyde Park Blvd *	B (12)	B (12)	B (12)	B (12)			
	Everett Ave *	A (8)	A (7)	A (8)	A (7)			

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

5.1.4. Conclusion

Even if all of the above reasonable CMP strategies were implemented, they alone will not fully accommodate the changes in travel patterns, even though they would improve bicyclist and pedestrian access and circulation within the study area. Therefore, the remaining alternatives include capacity improvements in addition to a combination of CMP strategies listed above.

5.2. Alternative 1 – Alternative Avoiding Parkland Use and Widen Stony Island Avenue

Alternative 1 does not convert any area in Jackson Park or Midway Plaisance to a transportation use, nor does it involve potential temporary occupancy of Section 4(f) land. Alternative 1 does involve the permanent use of historic properties protected under Section 4(f) and results in unacceptable operational performance within the study area. Therefore, Alternative 1 does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. Alternative 1 will not be carried forward for detailed analysis.

The analysis of Alternative 1 is described below.

5.2.1. Objective of Alternative

Alternative 1 aims to avoid any permanent or temporary Section 4(f) use of Jackson Park or the Midway Plaisance while providing improvements to reduce congestion from the roadway closures. Jackson Park and the Midway Plaisance are Section 4(f) properties within the study area and are depicted on Exhibit 10. It should be noted that Section 4(f) properties begin at the backs of roadway curbs for all roadways located within and adjacent to Jackson Park and the Midway Plaisance. Any physical changes that require improvements beyond the existing back of curb in these areas would require incorporating Section 4(f) property into a transportation facility, resulting in a Section 4(f) use.

5.2.2. Description of Alternative

The improvements included in Alternative 1 can be found on Exhibit 10 and are described below:

Capacity Improvements

Stony Island Avenue - 60th Street to 65th Street

This existing section of Stony Island Avenue consists of one lane in each direction with on-street
parking on each side. This section would be widened to the west to avoid impacts to Jackson
Park. The widening consists of adding one southbound lane, one northbound lane, a center
raised median with left turn lanes, and space for bus loading lanes. The proposed Stony Island

Avenue section then consists of two lanes in each direction, a raised median with left turn lanes, and on-street parking/bus loading lanes on each side of the street. This widening results in the removal of three buildings, including one three-story building of the Jackson Park Terrace housing complex (6 units), the 21-story Island Terrace apartment building (264 units), and a two-story mixed residential/commercial building (24 units). The Jackson Park Terrace building and the Island Terrace apartment building are historic properties protected under Section 4(f). Greater than 90% of residents in the two Census blocks where these properties are located include low-income and minority populations (compared within the state of Illinois, 2012-2016 American Community Survey (ACS) 5-year estimate). The Jackson Park Terrace housing complex and Island Terrace apartment building provide housing for low-income residents in accordance with the Section 8 U.S. Department of Housing Program.

Stony Island Avenue - 65th Street to 67th Street

• This existing section of Stony Island Avenue consists of two northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side. This section would be widened to the west to avoid impacts to Jackson Park. The widening will add one northbound through lane along Stony Island Avenue to result in a proposed section that consists of three northbound lanes, four southbound lanes, a raised median with left turn lanes, and onstreet parking on the west side. This widening results in the removal of one three story apartment building (16 units). Greater than 90% of residents in the two Census blocks where these properties are located include low-income and minority populations (compared within the state of Illinois, 2012-2016 American Community Survey (ACS) 5-year estimate).

Intersection Modifications

Lake Shore Drive

- At 57th Drive, re-time the traffic signal to optimize signal operations.
- At Science Drive, re-time the traffic signal to optimize signal operations.
- At Hayes Drive, modernize the traffic signal installation and re-time the signal to optimize operations. Signal improvements would be completed without impacting adjacent parkland.

Hayes Drive

• At Cornell Drive, re-time the traffic signal to optimize signal operations.

Stony Island Avenue

- At 57th Street, re-time the traffic signal to optimize signal operations.
- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), convert North Midway Plaisance east of Stony Island
 Avenue to two-way without widening and provide one lane in each direction. Re-time the traffic
 signal to optimize signal operations.

- At South Midway Plaisance (eastbound), re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At 63rd Street/Hayes Drive, widen the intersection west to accommodate the additional lanes on Stony Island Avenue. Modernize the traffic signal installation and re-time the signal to optimize operations. Signal improvements would be completed without impacting adjacent parkland.
- At 64th Street, widen the intersection west to accommodate the additional lanes on Stony Island Avenue, and convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection west to accommodate the additional lanes on Stony Island Avenue and Cornell Drive. Convert Cornell Drive east of Stony Island Avenue to two-way without widening. Modernize the traffic signal installation and re-time the signal to optimize operations. Signal improvements would be completed without impacting adjacent parkland.
- At Marquette Street, widen the intersection west to accommodate the additional lanes on Stony Island. Modernize the traffic signal installation and re-time the signal to optimize operations.
 Signal improvements would be completed without impacting adjacent parkland.
- At 67th Street, widen the intersection west to accommodate the additional lanes on Stony Island Avenue. Modernize the traffic signal installation and re-time the signal to optimize operations. Signal improvements would be completed without impacting adjacent parkland.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations. Signal improvements would be completed without impacting adjacent parkland.

Other Capacity Modifications

Cornell Drive

 Remove excess capacity ("road diet") from existing Cornell Drive between 57th Street/MSI Dropoff and Stony Island Avenue by reducing from two lanes in each direction to one lane in each direction with a center median and 80 new on-street parking spaces.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 63rd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street
 - Stony Island Avenue at 67th Street
 - Mid-Block Crossing of Cornell Drive between 57th Street and Stony Island Avenue
- Pedestrian refuge islands at the following intersections or mid-block crossings:
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marguette Street
 - o Mid-Block Crossing of Cornell Drive between 57th Street and Stony Island Avenue

5.2.3. Performance Analysis of Alternative 1

Alternative 1 attempts to accommodate diverted traffic flows through capacity improvements along Stony Island Avenue between 67th Street and 60th Street (see Exhibit 10). Stony Island Avenue cannot be widened between South and North Midway Plaisance without converting Section 4(f) lands to a transportation use because Section 4(f) land is adjacent to the east and west backs of roadway curbs in that area.

Exhibit 11 depicts the predominant travel patterns and average daily traffic volumes on area roadways that are expected for Alternative 1. Exhibit 12 depicts intersection Levels of Service at key locations

within the project area. Table 3 summarizes the intersection Levels of Service and compares them to levels expected for the No-Action Alternative.

Table 3
Alternative 1 Operational Performance Summary (2040)

Alternative 1 Operational Performance Summary (2040) Intersection Level of Service and Delay (sec./veh.)								
	Intersection	No-Action Alternative		Alternative 1 Alternative Avoiding Parkland Use and Widen Stony Island				
		A.M. Peak	P.M. Peak	A.M. Peak	P.M. Peak			
Lake Shore Drive								
•	Marquette Dr	C (22)	C (24)	D (39)	C (25)			
•	Hayes Dr	F (**)	F (**)	C (29)	F (**)			
•	Science Dr	B (19)	F (**)	A (3)	F (**)			
•	57 th Dr	B (13)	F (**)	B (17)	F (**)			
Stony Is	land Avenue							
•	67 th St	F (**)	F (**)	C (34)	C (21)			
•	Marquette Dr	D (50)	B (15)	C (23)	C (22)			
•	65 th PI	F (**)	C (30)	B (14)	C (22)			
•	64 th St	F* (**)	F* (**)	A (5)	A (8)			
•	63 rd St/Hayes Dr	F (**)	F (**)	C (21)	C (25)			
•	60 th St	C (20)	B (12)	Right-in,	Right-out			
•	S Midway Plaisance (EB)	B (13)	C (31)	B (20)	C (27)			
•	N Midway Plaisance (WB)	F (**)	C (32)	F (**)	C (26)			
•	59 th St	F (**)	C (24)	Right-in,	/Right-out			
•	57 th St	F (**)	F (**)	C (23)	C (28)			
•	56 th St *	D (32)	D (31)	F (**)	F (**)			
Cornell	Drive/57 th Drive							
•	67 th St	Clo	sed	Clo	osed			
•	Marquette Drive	Clo	sed	Clo	osed			
•	Hayes Dr	F (**)	F (**)	C (27)	B (12)			
•	S Midway Plaisance (EB)	Clo	sed					
•	57 th St/MSI Drop off	F (**)	D (54)	B (14)	C (23)			
•	Hyde Park Blvd	C (23)	B (20)	C (24)	B (17)			
67 th St					•			
•	East End Ave *	B (12)	B (14)	B (14)	B (15)			
•	Cregier Ave *	B (13)	B (13)	B (14)	B (14)			
•	Jeffery Ave	B (20)	B (19)	C (22)	B (18)			
•	South Shore Dr	B (17)	B (19)	A (9)	A (8)			
Marque								
•	Richards Dr (West)	Clo	sed	Closed				
•	Richards Dr (East)	Closed Closed		osed				
•	La Rabida Entrance	B (14)	A (7)	A (8)	A (7)			
Richards Drive								
•	Marquette Dr (North)	Clo	Closed Closed		osed			
•	Hayes Dr	A* (9)	B* (15)	A* (9)	B* (15)			
56 th St								
•	Hyde Park Blvd *	B (12)	B (12)	B (12)	B (13)			
•	Everett Ave *	A (8)	A (7)	A (8)	A (7)			

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

5.2.4. Conclusion

As shown in Table 3, improving roadway capacity along Stony Island Avenue alone will not fully address the operational needs in the project area, as Alternative 1 results in multiple failing intersection levels of service.

Though pedestrian access and circulation would be improved along Stony Island Avenue, Alternative 1 would not improve pedestrian and bicycle access and circulation within Jackson Park, and park users would be subject to heavy traffic flows along Hayes Drive, Jeffrey Drive, South Shore Drive/67th Street. Also, in order to avoid impacts to parkland, improvements to the trail network that would improve connectivity would not be constructed.

The widening to the west along Stony Island Avenue would involve the permanent use of two historic properties that are protected under Section 4(f) which would result in diminishing the properties historic integrity.

Therefore, Alternative 1 fails to fully meet the project purpose of accommodating changes in travel patterns resulting from closing roadways in Jackson Park and improving pedestrian access and circulation. It is recommended that Alternative 1 be dropped from further consideration.

5.3. Alternative 2 – Operational Changes to Roadways

Alternative 2 converts 0.6 acres of Section 4(f) land to a transportation use to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation, and to reconfigure the Hayes Drive/Richards Drive intersection. This alternative also involves 2.7 acres of potential temporary occupancy of Section 4(f) land to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection. Unacceptable operational performance within the study area results from Alternative 2. Therefore, Alternative 2 does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. Alternative 2 will not be carried forward for detailed analysis, however, components of this alternative will be considered in subsequent build alternatives that expand upon these improvements to attempt to address operational problems within the study area.

The analysis of Alternative 2 is described below.

5.3.1. Objective of Alternative

The objective of Alternative 2 is to implement a combination of CMP strategies and traffic operational changes at intersections and on area roadways that would improve the efficiency of existing facilities to better respond to traffic pattern and volume changes resulting from the roadway closures. These operational changes could involve measures such as peak period/peak direction parking restrictions, restriping/reconfiguring lanes, converting stop-controlled intersections to signal control, or spot intersection improvements that add turn lane channelization and signal phasing.

5.3.2. Description of Alternative

The improvements included in Alternative 2 can be found on Exhibit 13 and are described below:

Intersection Modifications

Lake Shore Drive

- At 57th Drive, re-time the traffic signal to optimize signal operations.
- At Science Drive, re-time the traffic signal to optimize signal operations.
- At Hayes Drive, modernize the traffic signal installation and re-time the signal to optimize operations. Provide a new pedestrian crossing on across south leg.

Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, re-time the traffic signal to optimize signal operations.

Stony Island Avenue

- At 57th Street, re-time the traffic signal to optimize signal operations.
- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), convert North Midway Plaisance east of Stony Island Avenue to two-way by widening to provide two lanes in each direction. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At 63rd Street/Hayes Drive, modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64th Street, convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.

- At 65th Place/Cornell Drive, widen the intersection to convert Cornell Drive east of Stony Island Avenue to two-way and to provide additional turn lanes. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At Marquette Street, modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's Streets for Cycling 2020 plan) along Cornell Drive and Hayes Drive
- Pedestrian underpasses at the following locations:
 - Cornell Drive/Hayes Drive intersection
 - o Along Hayes Drive between Richards Drive and Lake Shore Drive
 - Along Jeffery Drive between Marquette Drive and 67th Street
 - South Shore Drive/67th Street intersection
- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street
 - Stony Island Avenue at 67th Street

5.3.3. Performance Analysis of Alternative 2

Alternative 2 attempts to accommodate diverted traffic flows through intersection improvements along Stony Island Avenue between 67th Street and 65th Street and at the Hayes Drive/Richards Drive intersection (see Exhibit 13). Also included are retiming of existing traffic signals along Stony Island and Hayes.

Exhibit 14 depicts the predominant travel patterns and average daily traffic volumes on area roadways that are expected for Alternative 2. The majority of diverted traffic is expected to utilize Lake Shore Drive, Hayes, Cornell and Stony Island Avenue with the Alternative 2 roadway improvements. Exhibit 15 depicts intersection Levels of Service at key locations within the project area. Table 4 summarizes the intersection Levels of Service and compares them to levels expected for the No-Action Alternative.

Table 4
Alternative 2 Operational Performance Summary (2040)

Attendate 20	Intersection Level of Service and Delay (sec./veh.)						
	No-A		Alternative 2				
Intersection	Alternative		Operational Changes to Roadways				
	A.M. Peak	P.M. Peak	A.M. Peak	P.M. Peak			
Lake Shore Drive							
Marquette Dr	C (22)	C (24)	C (34)	B (16)			
Hayes Dr	F (**)	F (**)	F (**)	F (**)			
Science Dr	B (19)	F (**)	A (4)	F (**)			
• 57 th Dr	B (13)	F (**)	B (17)	F (**)			
Stony Island Avenue			•	•			
• 67 th St	F (**)	F (**)	F (**)	C (24)			
Marquette Dr	D (50)	B (15)	F (**)	B (12)			
• 65 th PI	F (**)	C (30)	A (7)	B (16)			
• 64 th St	F* (**)	F* (**)	B (13)	B (15)			
63 rd St/Hayes Dr	F (**)	F (**)	C (26)	C (23)			
• 60 th St	C (20)	B (12)	Right-in/	Right-out			
S Midway Plaisance (EB)	B (13)	C (31)	B (17)	C (24)			
N Midway Plaisance (WB)	F (**)	C (32)	C (22)	B (13)			
• 59 th St	F (**)	C (24)	Right-in/	Right-out			
• 57 th St	F (**)	F (**)	C (23)	B (18)			
• 56 th St *	D (32)	D (31)	D (32)	D (31)			
Cornell Drive/57 th Drive							
• 67 th St	Clos	sed	Cla	sed			
Marquette Drive	Clos	sed	Cla	Closed			
Hayes Dr	F (**)	F (**)	B (14)	F (**)			
 S Midway Plaisance (EB) 	Clos	sed	Cla	sed			
• 57 th St/MSI Drop off	F (**)	D (54)	C (21)	B (19)			
Hyde Park Blvd	C (23)	B (20)	C (22)	B (14)			
67 th St							
East End Ave *	B (12)	B (14)	B (12)	B (14)			
Cregier Ave *	B (13)	B (13)	B (13)	B (13)			
Jeffery Ave	B (20)	B (19)	C (20)	C (21)			
South Shore Dr	B (17)	B (19)	A (9)	B (16)			
Marquette Dr							
Richards Dr (West)	Clos		Clo	sed			
Richards Dr (East)	Closed		Closed				
La Rabida Entrance	B (14)	A (7)	A (8)	A (8)			
Richards Drive							
Marquette Dr (North)	Closed		Closed				
Hayes Dr	A* (9)	B* (15)	B (13)	A (8)			
56 th St	·						
Hyde Park Blvd *	B (12)	B (12)	B (12)	B (12)			
Everett Ave * *Indicates All-way Ston-Controlled Intersection	A (8)	A (7)	A (8)	A (7)			

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

Alternative 2 will also improve pedestrian and bicycle access and circulation by grade separating pedestrian and bicycle movements from heavy traffic flows along Hayes Drive, Jeffrey Drive and South Shore Drive/67th Street, providing new trails along Cornell Drive and Hayes Drive, as well as installing curb extensions and refuge islands along Stony Island Avenue.

5.3.4. Conclusion

As shown in Table 4, modernizing or re-timing signals and signalizing the Hayes/Richards Drive intersection alone will not address the operational needs in the project area, as Alternative 2 results in multiple failing intersection levels of service. Therefore, Alternative 2 fails to fully meet the project purpose of accommodating changes in travel patterns resulting from closing roadways in Jackson Park. It is recommended that Alternative 2 be dropped from further consideration.

5.4. Alternative 3 – Mobility Improvement: Widen Lake Shore Drive

Alternative 3 converts 2.0 acres of Section 4(f) land to a transportation use to construct an additional southbound travel lane along Lake Shore Drive, to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation, and to reconfigure the Hayes Drive/Richards Drive intersection. This alternative also involves 2.6 acres of potential temporary occupancy of Section 4(f) land to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection. Unacceptable operational performance within the study area results from Alternative 3. Therefore, Alternative 3 does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. Alternative 3 will not be carried forward for detailed analysis, however, components of this alternative will be considered in combination with other Build alternatives to attempt to address operational problems within the study area.

The analysis of Alternative 3 is described below.

5.4.1. Objective of Alternative

The objective of Alternative 3 is to mitigate the impacts of traffic pattern and volume changes resulting from the roadway closures by improving Lake Shore Drive between 57th Drive and Hayes Drive. Considerable volumes of traffic turn between the north and west intersection legs at the 57th Drive/Lake Shore Drive intersection with the majority of that traffic destined to and from Cornell Drive and Stony Island Avenue. The primary objective of Alternative 3 is to redirect those traffic flows onto Lake Shore Drive along the east side of Jackson Park before distributing them to and from arterial roadways south of the park. Alternative 3 also incorporates a combination of CMP strategies and operational changes from Alternative 2.

5.4.2. Description of Alternative

The improvements included in Alternative 3 can be found on Exhibit 16 and are described below:

Capacity Improvements

Lake Shore Drive – 57th Drive to Hayes Drive

 This existing section of Lake Shore Drive consists of three northbound and two southbound travel lanes. This section would be widened to the west to add an additional southbound travel lane, resulting in a proposed section that consists of three northbound and three southbound travel lanes. No work will occur east of Lake Shore Drive to avoid impacts to the Pitcher's (Dune) thistle, a native endangered plant species.

Bridge Modifications

Lake Shore Drive

Widen the 59th Street underpass, the 59th Street Lagoon Inlet Bridge, and the 63rd Street underpass to accommodate the additional southbound lane proposed along the west side of Lake Shore Drive. No work will occur east of Lake Shore Drive to avoid impacts to the Pitcher's (Dune) thistle, a native endangered plant species.

Intersection Modifications

Lake Shore Drive

- At 57th Drive, widen the intersection to accommodate the new third southbound lane, and retime the traffic signal to optimize signal operations.
- At Science Drive, widen the intersection to accommodate the new third southbound lane, and re-time the traffic signal to optimize signal operations.
- At Hayes Drive, widen the intersection to accommodate the new third southbound lane on Lake Shore Drive and new turn lanes. Also, modernize the traffic signal installation and re-time the signal to optimize operations. Provide a new pedestrian crossing on across south leg.

Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, re-time the traffic signal to optimize signal operations.

Stony Island Avenue

• At 57th Street, re-time the traffic signal to optimize signal operations.

- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), convert North Midway Plaisance east of Stony Island Avenue to two-way by widening to provide two lanes in each direction. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At 63rd Street/Hayes Drive, modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64th Street, convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection to convert Cornell Drive east of Stony Island Avenue to two-way and to provide additional turn lanes. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At Marquette Street, modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's Streets for Cycling 2020 plan) along Cornell Drive and Hayes Drive

- Pedestrian underpasses at the following locations:
 - Cornell Drive/Hayes Drive intersection
 - o Along Hayes Drive between Richards Drive and Lake Shore Drive
 - Along Jeffery Drive between Marquette Drive and 67th Street
 - o South Shore Drive/67th Street intersection
- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street
 - Stony Island Avenue at 67th Street

5.4.3. Performance Analysis of Alternative 3

The mobility improvement that widens Lake Shore Drive (Alternative 3) attempts to accommodate diverted traffic flows on portions of Lake Shore Drive, Hayes Drive, Cornell Drive and Stony Island Avenue (see Exhibit 16). Also included is realigning and signalizing the Hayes Drive intersection with Richards Drive.

Exhibit 17 depicts the predominant travel patterns and average daily traffic volumes on area roadways that are expected for Alternative 3. The majority of diverted traffic is expected to utilize Lake Shore Drive, Hayes, Cornell and Stony Island Avenue with the Alternative 3 roadway improvements. Exhibit 18 depicts intersection Levels of Service at key locations within the project area. Table 5 summarizes the intersection Levels of Service and compares them to levels expected for the No-Action Alternative.

Table 5
Alternative 3 Operational Performance Summary (2040)

Alternative 3 Operational Performance Summary (2040) Intersection Level of Service and Delay (sec./veh.)						
			ction	Alternative 3		
Intersection		Alternative		Mobility Improvement		
		A.M.	P.M.	A.M.	P.M.	
		Peak	Peak	Peak	Peak	
Lake Sh	ore Drive					
•	Marquette Dr	C (22)	C (24)	C (31)	B (16)	
•	Hayes Dr	F (**)	F (**)	F (**)	F (**)	
•	Science Dr	B (19)	F (**)	A (4)	A (2)	
•	57 th Dr	B (13)	F (**)	B (12)	B (15)	
Stony Is	sland Avenue	, ,	, ,	. ,	, ,	
•	67 th St	F (**)	F (**)	F (**)	C (24)	
•	Marquette Dr	D (50)	B (15)	F (**)	B (11)	
•	65 th Pl	F (**)	C (30)	D (40)	B (16)	
•	64 th St	F* (**)	F* (**)	B (19)	B (15)	
•	63 rd St/Hayes Dr	F (**)	F (**)	C (25)	C (23)	
•	60 th St	C (20)	B (12)	Right-in/F		
•	S Midway Plaisance (EB)	B (13)	C (31)	C (20)	C (24)	
•	N Midway Plaisance (WB)	F (**)	C (32)	C (25)	B (12)	
•	59 th St	F (**)	C (24)	Right-in/F	1 1	
•	57 th St	F (**)	F (**)	C (21)	B (18)	
•	56 th St *	D (32)	D (31)	D (32)	D (31)	
Cornell	Drive/57 th Drive	(- /	(- /	(- /	(-)	
•	67 th St	Clo	sed	Closed		
•	Marquette Drive		sed	Closed		
•	Hayes Dr	F (**)	F (**)	B (17)	F (**)	
•	S Midway Plaisance (EB)	Clo	sed	Clos	` '	
•	57 th St/MSI Drop off	F (**)	D (54)	A (7)	B (19)	
•	Hyde Park Blvd	C (23)	B (20)	C (22)	B (14)	
67 th St	,	,		. ,	,	
•	East End Ave *	B (12)	B (14)	B (12)	B (14)	
•	Cregier Ave *	B (13)	B (13)	B (13)	B (13)	
•	Jeffery Ave	B (20)	B (19)	B (19)	C (23)	
•	South Shore Dr	B (17)	B (19)	A (9)	B (11)	
Marque		. ,	,	1 (- /	. ,	
•	Richards Dr (West)	Clo	sed	Closed		
•	Richards Dr (East)	Closed		Closed		
•	La Rabida Entrance	B (14)	A (7)	A (7)	A (8)	
Richards Drive						
•	Marquette Dr (North)	Closed		Closed		
•	Hayes Dr	A* (9)	B* (15)	B (12)	B (10)	
56 th St	- /	(-)	(,		(==,	
•	Hyde Park Blvd *	B (12)	B (12)	B (12)	B (12)	
•	Everett Ave *	A (8)	A (7)	A (8)	A (7)	
<u> </u>		1-7	ı <u>''' / </u>	(-/	V· /	

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

Alternative 3 will also improve pedestrian and bicycle access and circulation by grade separating pedestrian and bicycle movements from heavy traffic flows along Hayes Drive, Jeffrey Drive and South Shore Drive/67th Street, providing new trails along Cornell Drive and Hayes Drive, as well as by installing curb extensions and refuge islands along Stony Island Avenue.

5.4.4. Conclusion

As shown in Table 5, improving intersection capacity along Lake Shore Drive and signalizing the Hayes/Richards Drive intersection alone will not address the operational needs in the project area, as Alternative 3 results in multiple failing intersection levels of service. Therefore, Alternative 3 fails to fully meet the project purpose of accommodating changes in travel patterns resulting from closing roadways in Jackson Park. It is recommended that Alternative 3 be dropped from further consideration.

5.5. Alternative 4 – Mobility Improvement: Widen Stony Island Avenue

Alternative 4 converts 3.1 acres of Section 4(f) land to a transportation use to widen Stony Island Avenue between 67th Street and 59th Street, to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation, and to reconfigure the Hayes Drive/Richards Drive intersection. This alternative also involves 2.7 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection. Unacceptable operational performance within the study area results from Alternative 4. Therefore, Alternative 4 does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. Alternative 4 will not be carried forward for detailed analysis, however, components of this alternative will be considered in combination with other Build alternatives to attempt to address mobility problems within the study area.

The analysis of Alternative 4 is described below.

5.5.1. Objective of Alternative

The objective of Alternative 4 is to mitigate the impacts of traffic pattern and volume changes resulting from the roadway closures by redistributing traffic that currently uses Cornell Drive onto Stony Island Avenue. Alternative 4 would involve capacity improvements along Stony Island Avenue and its connector roadways to 57th/Cornell Drive that are needed to accommodate the diverted traffic volumes. Under this alternative, Stony Island would be widened to the east to avoid impacts to residences and commercial buildings that were affected by widening to the west under Alternative 1. Alternative 4 also incorporates a combination of CMP strategies and operational changes from Alternative 2.

5.5.2. Description of Alternative

The improvements included in Alternative 4 can be found on Exhibit 19 and are described below:

Capacity Improvements

Stony Island Avenue - Midway Plaisance to 65th Street

• This existing section of Stony Island Avenue consists of one lane each direction with on-street parking on each side. This section would be widened to the east to avoid impacts to residential properties on the west side of Stony Island Avenue. The widening consists of adding one southbound lane, one northbound lane, a center raised median with left turn lanes, and space for bus loading lanes. The proposed Stony Island Avenue section then consists of two lanes in each direction, a raised median with left turn lanes, and on-street parking/bus loading lanes on each side of the street.

Stony Island Avenue – 65th Street to 67th Street

• This existing section of Stony Island Avenue consists of two northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side. This section would be widened to the east to avoid impacts to residential and commercial properties on the west side of Stony Island Avenue. The widening will add one northbound through lane along Stony Island Avenue to result in a proposed section that consists of three northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side.

Intersection Modifications

Lake Shore Drive

- At 57th Drive, re-time the traffic signal to optimize signal operations.
- At Science Drive, re-time the traffic signal to optimize signal operations.
- At Hayes Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, re-time the traffic signal to optimize signal operations.

Stony Island Avenue

• At 57th Street, re-time the traffic signal to optimize signal operations.

- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), widen the intersection to accommodate additional through and turning lanes on Stony Island Avenue, to convert North Midway Plaisance east of Stony Island Avenue to two-way traffic, and provide two lanes in each direction on North Midway Plaisance east of Stony Island Avenue. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), widen the intersection to accommodate additional lanes on Stony Island Avenue. Remove 14 on-street parking spaces on the west leg to provide an additional eastbound to northbound left-turn lane. Re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only. Widen the intersection to accommodate the additional lanes on Stony Island Avenue.
- At 63rd Street/Hayes Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and shift the east leg to the north to provide better alignment for the westbound through movement across the intersection. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue and Cornell Drive, to convert Cornell Drive east of Stony Island Avenue to two-way, and to provide additional turn lanes. Modernize the traffic signal installation and retime the signal to optimize operations.
- At Marquette Street, widen the intersection to accommodate the additional lanes on Stony Island. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue. Modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.

• At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's Streets for Cycling 2020 plan) along Cornell Drive and Hayes Drive
- Pedestrian underpasses at the following locations:
 - Cornell Drive/Hayes Drive intersection
 - o Along Hayes Drive between Richards Drive and Lake Shore Drive
 - o Along Jeffery Drive between Marquette Drive and 67th Street
 - South Shore Drive/67th Street intersection
- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 63rd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marguette Street
 - Stony Island Avenue at 67th Street
- Pedestrian refuge islands at the following intersections or mid-block crossings:
 - Stony Island Avenue at North Midway Plaisance
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street

5.5.3. Performance Analysis of Alternative 4

The mobility improvement that widens Stony Island Avenue between 67th and 59th Streets (Alternative 4) attempts to accommodate diverted traffic flows primarily on Stony Island Avenue (see Exhibit 19). Also included is realigning and signalizing the Hayes Drive intersection with Richards Drive.

Exhibit 20 depicts the predominant travel patterns and average daily traffic volumes on area roadways that are expected for Alternative 4. The majority of diverted traffic is expected to utilize Stony Island

Avenue and Cornell Drive with the Alternative 4 roadway improvements. Exhibit 21 depicts intersection Levels of Service at key locations within the project area. Table 6 summarizes the intersection Levels of Service and compares them to levels expected for the No-Action Alternative.

Table 6
Alternative 4 Operational Performance Summary (2040)

Alternative 4 o	Intersection Level of Service and Delay (sec./veh.)				
		ction		ative 4	
Intersection		Alternative		Mobility Improvement	
	A.M.	A.M. P.M.		P.M.	
	Peak	Peak	Peak	Peak	
Lake Shore Drive					
Marquette Dr	C (22)	C (24)	C (31)	C (22)	
Hayes Dr	F (**)	F (**)	F (**)	F (**)	
Science Dr	B (19)	F (**)	A (3)	F (**)	
• 57 th Dr	B (13)	F (**)	B (15)	F (**)	
Stony Island Avenue		•			
• 67 th St	F (**)	F (**)	C (31)	C (28)	
Marquette Dr	D (50)	B (15)	C (21)	B (12)	
• 65 th PI	F (**)	C (30)	A (6)	B (11)	
• 64 th St	F* (**)	F* (**)	A (6)	A (7)	
63 rd St/Hayes Dr	F (**)	F (**)	C (24)	B (19)	
• 60 th St	C (20)	B (12)		Right-out	
S Midway Plaisance (E	B) B (13)	C (31)	B (14)	B (18)	
N Midway Plaisance (V		C (32)	C (23)	B (19)	
• 59 th St	F (**)	C (24)	Right-in/	Right-out	
• 57 th St	F (**)	F (**)	C (23)	C (23)	
• 56 th St *	D (32)	D (31)	D (32)	D (31)	
Cornell Drive/57 th Drive	-		•		
• 67 th St	Clo	sed	Closed		
Marquette Drive	Clo	sed	Clo	sed	
Hayes Dr	F (**)	F (**)	B (13)	F (**)	
S Midway Plaisance (E	B) Clo	sed	Clo	sed	
57 th St/MSI Drop off	F (**)	D (54)	C (22)	C (23)	
Hyde Park Blvd	C (23)	B (20)	C (23)	B (15)	
67 th St					
East End Ave *	B (12)	B (14)	B (12)	B (14)	
Cregier Ave *	B (13)	B (13)	B (13)	B (13)	
Jeffery Ave	B (20)	B (19)	B (19)	C (21)	
South Shore Dr	B (17)	B (19)	A (9)	B (17)	
Marquette Dr					
	Clo	Closed Close			
Richards Dr (West)					
Richards Dr (West)Richards Dr (East)		sed	Clo	sed	
, ,		sed A (7)	A (8)	A (8)	
Richards Dr (East) La Rabida Entrance Richards Drive	B (14)	A (7)	A (8)	A (8)	
Richards Dr (East) La Rabida Entrance	Clo B (14) Clo	A (7)	A (8)		
 Richards Dr (East) La Rabida Entrance Richards Drive Marquette Dr (North) Hayes Dr 	B (14)	A (7)	A (8)	A (8)	
 Richards Dr (East) La Rabida Entrance Richards Drive Marquette Dr (North) Hayes Dr 56th St 	Clo B (14) Clo A* (9)	A (7) sed B* (15)	A (8) Clo B (11)	A (8)	
 Richards Dr (East) La Rabida Entrance Richards Drive Marquette Dr (North) Hayes Dr 	Clo B (14) Clo	A (7)	A (8)	A (8)	

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

Alternative 4 will also improve pedestrian and bicycle access and circulation by grade separating pedestrian and bicycle movements from heavy traffic flows along Hayes Drive, Jeffrey Drive and South Shore Drive/67th Street, providing new trails along Cornell Drive and Hayes Drive, as well as by installing curb extensions and refuge islands along Stony Island Avenue.

5.5.4. Conclusion

As shown in Table 6, improving intersection capacity along Stony Island Avenue and signalizing the Hayes/Richards Drive intersection alone will not address the operational needs in the project area, as Alternative 4 results in multiple failing intersection levels of service. Therefore, Alternative 4 fails to fully meet the project purpose of accommodating changes in travel patterns resulting from closing roadways in Jackson Park. It is recommended that Alternative 4 be dropped from further consideration.

5.6. Alternative 5 – Mobility Improvement: Reconfigure Hayes Drive

Alternative 5 converts 1.5 acres of Section 4(f) land to a transportation use to reconfigure Hayes Drive at the Richards Drive and Cornell Drive intersections, and to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation. This alternative also involves 3.7 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection. Unacceptable operational performance within the study area results from Alternative 5. Therefore, Alternative 5 does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. Alternative 5 will not be carried forward for detailed analysis, however, components of this alternative will be considered in combination with other Build alternatives to attempt to address mobility problems within the study area.

The analysis of Alternative 5 is described below.

5.6.1. Objective of Alternative

The primary objective of Alternative 5 is to mitigate the impacts of traffic pattern and volume changes resulting from the roadway closures by reconfiguring Hayes Drive between Stony Island Avenue and Lake Shore Drive. The goal of Alternative 5 is to enhance mobility solely by improving Hayes Drive and portions of Cornell Drive and Stony Island Avenue south of 63rd Street without improvements to other area arterial roadways. Alternative 5 also incorporates a combination of CMP strategies and operational changes from Alternative 2.

5.6.2. Description of Alternative

The improvements included in Alternative 5 can be found on Exhibit 22 and are described below:

Capacity Improvements

Hayes Drive - Cornell Drive to Lake Shore Drive

• This existing section of Hayes Drive consists of one lane in each direction with on-street parking along both sides. In this alternative, 147 on-street parking spaces would be removed to increase the number of travel lanes to two lanes in each direction with a raised barrier median.

Cornell Drive - Hayes Drive to Stony Island Avenue

This existing section of Cornell Drive consists of three southbound-only travel lanes. This section
would be widened to the east to accommodate an additional lane and converted to two-way
traffic, resulting in the proposed section that consists of two southbound and two northbound
lanes.

Intersection Modifications

Lake Shore Drive

- At 57th Drive, re-time the traffic signal to optimize signal operations.
- At Science Drive, re-time the traffic signal to optimize signal operations.
- At Hayes Drive, reconfigure the intersection to accommodate two new through lanes on Hayes
 Drive. Also, modernize the traffic signal installation and re-time the signal to optimize
 operations. Provide a new pedestrian crossing on across south leg.

Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, reconfigure the intersection to provide a through movement for the
 predominant travel through the intersection (reference Exhibit 23). Realign the existing section
 of Hayes Drive between Stony Island Avenue and Cornell Drive to create a signalized Tintersection with the realigned Hayes Drive-Cornell Drive through movement.

Stony Island Avenue

- At 57th Street, re-time the traffic signal to optimize signal operations.
- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.

- At North Midway Plaisance (westbound), convert North Midway Plaisance east of Stony Island Avenue to two-way by widening to provide two lanes in each direction. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At 63rd Street/Hayes Drive, modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64th Street, convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection to convert Cornell Drive east of Stony Island Avenue to two-way and to provide additional turn lanes. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At Marquette Street, modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's Streets for Cycling 2020 plan) along Cornell Drive and Hayes Drive
- Pedestrian underpasses at the following locations:
 - Two legs of the Cornell Drive/Hayes Drive intersection

- o Along Hayes Drive between Richards Drive and Lake Shore Drive
- Along Jeffery Drive between Marquette Drive and 67th Street
- South Shore Drive/67th Street intersection
- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street
 - Stony Island Avenue at 67th Street
- Pedestrian refuge islands at the following intersections or mid-block crossings:
 - Hayes Drive at Richards Drive

5.6.3. Performance Analysis of Alternative 5

The mobility improvement that converts Hayes Drive to a 4-lane roadway (Alternative 5) attempts to accommodate diverted traffic flows primarily on Hayes Drive as well as on portions of Cornell Drive and Stony Island Avenue south of 63rd Street (see Exhibit 22). Also included is realigning and signalizing the Hayes Drive intersection with Richards Drive as well as reconfiguring the Hayes Drive/Cornell Drive/63rd Street intersection to accommodate predominant travel patterns as a through movement.

Exhibit 23 depicts the predominant travel patterns and average daily traffic volumes on area roadways that are expected for Alternative 5. The majority of diverted traffic is expected to utilize Lake Shore Drive, Hayes, Cornell and Stony Island Avenue with the Alternative 5 roadway improvements. Exhibit 24 depicts intersection Levels of Service at key locations within the project area. Table 7 summarizes the intersection Levels of Service and compares them to levels expected for the No-Action Alternative.

Table 7
Alternative 5 Operational Performance Summary (2040)

Atternative 5 Opera	Alternative 5 Operational Performance Summary (2040) Intersection Level of Service and Delay (sec./veh.)				
		ction	Alterna		
Intersection	Alternative		Mobility Improvement		
	A.M. P.M.		A.M.	P.M.	
	Peak	Peak	Peak	Peak	
Lake Shore Drive			•		
Marquette Dr	C (22)	C (24)	C (32)	C (28)	
Hayes Dr	F (**)	F (**)	C (31)	F (**)	
Science Dr	B (19)	F (**)	A (4)	F (**)	
• 57 th Dr	B (13)	F (**)	A (10)	F (**)	
Stony Island Avenue					
• 67 th St	F (**)	F (**)	F (**)	C (20)	
Marquette Dr	D (50)	B (15)	F (**)	B (10)	
• 65 th PI	F (**)	C (30)	A (8)	B (13)	
• 64 th St	F* (**)	F* (**)	A (8)	B (16)	
63 rd St/Hayes Dr	F (**)	F (**)	C (23)	B (18)	
• 60 th St	C (20)	B (12)	Right-in/F		
S Midway Plaisance (EB)	B (13)	C (31)	B (18)	C (22)	
N Midway Plaisance (WB)	F (**)	C (32)	C (21)	A (10)	
• 59 th St	F (**)	C (24)	Right-in/F	Right-out	
• 57 th St	F (**)	F (**)	C (24)	C (23)	
• 56 th St *	D (32)	D (31)	D (32)	D (29)	
Cornell Drive/57 th Drive					
• 67 th St	Clo	sed	Closed		
Marquette Drive	Clo	sed	Closed		
Hayes Dr	F (**)	F (**)	B (12)	B (14)	
S Midway Plaisance (EB)	Clo	sed	Clos	sed	
• 57 th St/MSI Drop off	F (**)	D (54)	A (7)	C (22)	
Hyde Park Blvd	C (23)	B (20)	C (22)	B (14)	
67 th St					
East End Ave *	B (12)	B (14)	B (12)	B (14)	
Cregier Ave *	B (13)	B (13)	B (13)	B (13)	
Jeffery Ave	B (20)	B (19)	B (19)	C (21)	
South Shore Dr	B (17)	B (19)	A (9)	B (18)	
Marquette Dr					
Richards Dr (West)	Closed Close		sed		
Richards Dr (East)	Closed		Closed		
La Rabida Entrance	B (14)	A (7)	A (7)	A (7)	
Richards Drive					
 Marquette Dr (North) 		sed	Clos	sed	
Hayes Dr	A* (9)	B* (15)	A (8)	B (10)	
56 th St		·			
 Hyde Park Blvd * 	B (12)	B (12)	B (12)	B (12)	
Everett Ave *	A (8)	A (7)	A (8)	A (7)	

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

Alternative 5 will also improve pedestrian and bicycle access and circulation by grade separating pedestrian and bicycle movements from heavy traffic flows along Hayes Drive, Jeffrey Drive and South Shore Drive/67th Street, providing new trails along Cornell Drive and Hayes Drive, as well as by installing curb extensions and refuge islands along Stony Island Avenue.

5.6.4. Conclusion

As shown in Table 7, reconfiguring Hayes Drive and signalizing the Hayes/Richards Drive intersection alone will not address the operational needs in the project area, as Alternative 5 results in multiple failing intersection levels of service. Therefore, Alternative 5 fails to fully meet the project purpose of accommodating changes in travel patterns resulting from closing roadways in Jackson Park. It is recommended that Alternative 5 be dropped from further consideration.

5.7. Alternative 6 – Mobility Improvement: Widen Lake Shore Drive/Widen Stony Island Avenue

Alternative 6 converts 4.5 acres of Section 4(f) land to a transportation use to construct an additional southbound travel lane along Lake Shore Drive, to widen Stony Island Avenue between 67th Street and 59th Street, to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation, and to reconfigure the Hayes Drive/Richards Drive intersection. This alternative also involves 2.6 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection. Unacceptable operational performance within the study area results from Alternative 6. Therefore, Alternative 6 does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. Alternative 6 will not be carried forward for detailed analysis, however, additional improvements from other Build alternatives will be considered to attempt to address the remaining mobility problems within the study area.

The analysis of Alternative 6 is described below.

5.7.1. Objective of Alternative

Alternative 6 combines the features of Alternatives 3 (Widen Lake Shore Drive) and 4 (Widen Stony Island Avenue) to mitigate the impacts of traffic pattern and volume changes resulting from the roadway closures. The primary objective of Alternative 6 is to redistribute traffic that currently uses Cornell Drive onto Stony Island Avenue and Lake Shore Drive without affecting other roadways located within Jackson Park. Alternative 6 also incorporates a combination of CMP strategies and operational changes from Alternative 2.

5.7.2. Description of Alternative

The improvements included in Alternative 6 can be found on Exhibit 25 and are described below:

Capacity Improvements

Lake Shore Drive – 57th Drive to Hayes Drive

 This existing section of Lake Shore Drive consists of three northbound and two southbound travel lanes. This section would be widened to the west to add an additional southbound travel lane, resulting in a proposed section that consists of three northbound and three southbound travel lanes. No work will occur east of Lake Shore Drive to avoid impacts to the Pitcher's (Dune) thistle, a native endangered plant species.

Stony Island Avenue – Midway Plaisance to 65th Street

• This existing section of Stony Island Avenue consists of one lane each direction with on-street parking on each side. This section would be widened to the east to avoid impacts to residential properties on the west side of Stony Island Avenue. The widening consists of adding one southbound lane, one northbound lane, a center raised median with left turn lanes, and space for bus loading lanes. The proposed Stony Island Avenue section then consists of two lanes in each direction, a raised median with left turn lanes, and on-street parking/bus loading lanes on each side of the street.

Stony Island Avenue - 65th Street to 67th Street

• This existing section of Stony Island Avenue consists of two northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side. This section would be widened to the east to avoid impacts to residential and commercial properties on the west side of Stony Island Avenue. The widening will add one northbound through lane along Stony Island Avenue to result in a proposed section that consists of three northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side.

Bridge Modifications

Lake Shore Drive

Widen the 59th Street underpass, the 59th Street Lagoon Inlet Bridge, and the 63rd Street underpass to accommodate the additional southbound lane proposed along the west side of Lake Shore Drive. No work will occur east of Lake Shore Drive to avoid impacts to the Pitcher's (Dune) thistle, a native endangered plant species.

Intersection Modifications

Lake Shore Drive

- At 57th Drive, widen the intersection to accommodate the new third southbound lane, and retime the traffic signal to optimize signal operations.
- At Science Drive, widen the intersection to accommodate the new third southbound lane, and re-time the traffic signal to optimize signal operations.
- At Hayes Drive, widen the intersection to accommodate the new third southbound lane on Lake Shore Drive and new turn lanes. Also, modernize the traffic signal installation and re-time the signal to optimize operations. Provide a new pedestrian crossing on across south leg.

Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, re-time the traffic signal to optimize signal operations.

Stony Island Avenue

- At 57th Street, re-time the traffic signal to optimize signal operations.
- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), widen the intersection to accommodate additional through and turning lanes on Stony Island Avenue, to convert North Midway Plaisance east of Stony Island Avenue to two-way traffic, and provide two lanes in each direction on North Midway Plaisance east of Stony Island Avenue. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), widen the intersection to accommodate the additional lanes on Stony Island Avenue. Remove 14 on-street parking spaces on the west leg to provide an additional eastbound left-turn lane. Re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only. Widen the intersection to accommodate the additional lanes on Stony Island Avenue.
- At 63rd Street/Hayes Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and shift the east leg to the north to provide better alignment for the westbound through movement across the intersection. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue and Cornell Drive, to convert Cornell Drive east of Stony Island Avenue to two-way, and to provide additional turn lanes. Modernize the traffic signal installation and retime the signal to optimize operations.

- At Marquette Street, widen the intersection to accommodate the additional lanes on Stony Island. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue. Modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's Streets for Cycling 2020 plan) along Cornell Drive and Hayes Drive
- Pedestrian underpasses at the following locations:
 - Cornell Drive/Hayes Drive intersection
 - o Along Hayes Drive between Richards Drive and Lake Shore Drive
 - Along Jeffery Drive between Marquette Drive and 67th Street
 - South Shore Drive/67th Street intersection
- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 63rd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street
 - Stony Island Avenue at 67th Street

- Pedestrian refuge islands at the following intersections or mid-block crossings:
 - Stony Island Avenue at North Midway Plaisance
 - o Stony Island Avenue at 60th Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street

5.7.3. Performance Analysis of Alternative 6

The mobility improvement that widens Lake Shore Drive between 57th and Hayes Drives and which widens Stony Island Avenue between 59th and 67th Streets (Alternative 6) attempts to accommodate diverted traffic flows on portions of Lake Shore Drive and Stony Island Avenue (see Exhibit 25). Also included is realigning and signalizing the Hayes Drive intersection with Richards Drive.

Exhibit 26 depicts the predominant travel patterns and average daily traffic volumes on area roadways that are expected for Alternative 6. The majority of diverted traffic is expected to utilize Lake Shore Drive, Hayes, Cornell and Stony Island Avenue with the Alternative 6 roadway improvements. Exhibit 27 depicts intersection Levels of Service at key locations within the project area. Table 8 summarizes the intersection Levels of Service and compares them to levels expected for the No-Action Alternative.

Table 8
Alternative 6 Operational Performance Summary (2040)

	Alternative 6 Operational Performance Summary (2040)					
	Intersection Level of Service and Delay (sec./veh.)					
		No-A		Alterna		
	Intersection	Altern		Mobility Improvement		
		A.M.	P.M.	A.M.	P.M.	
		Peak	Peak	Peak	Peak	
Lake Sh	ore Drive	T	I			
•	Marquette Dr	C (22)	C (24)	C (35)	B (20)	
•	Hayes Dr	F (**)	F (**)	F (**)	B (16)	
•	Science Dr	B (19)	F (**)	A (4)	A (3)	
•	57 th Dr	B (13)	F (**)	B (13)	B (13)	
Stony Is	sland Avenue					
•	67 th St	F (**)	F (**)	C (31)	C (29)	
•	Marquette Dr	D (50)	B (15)	C (21)	B (12)	
•	65 th Pl	F (**)	C (30)	A (7)	B (11)	
•	64 th St	F* (**)	F* (**)	A (6)	A (7)	
•	63 rd St/Hayes Dr	F (**)	F (**)	C (25)	B (19)	
•	60 th St	C (20)	B (12)	Right-in/I	Right-out	
•	S Midway Plaisance (EB)	B (13)	C (31)	B (15)	B (18)	
•	N Midway Plaisance (WB)	F (**)	C (32)	C (24)	B (19)	
•	59 th St	F (**)	C (24)	Right-in/l	Right-out	
•	57 th St	F (**)	F (**)	C (22)	B (19)	
•	56 th St *	D (32)	D (31)	D (32)	D (31)	
Cornell	Drive/57 th Drive					
•	67 th St	Clos	sed	Closed		
•	Marquette Drive	Clos	sed	Closed		
•	Hayes Dr	F (**)	F (**)	B (13)	F (**)	
•	S Midway Plaisance (EB)	Clos	sed	Clo.	Closed	
•	57 th St/MSI Drop off	F (**)	D (54)	A (7)	C (20)	
•	Hyde Park Blvd	C (23)	B (20)	C (22)	B (13)	
67 th St						
•	East End Ave *	B (12)	B (14)	B (12)	B (14)	
•	Cregier Ave *	B (13)	B (13)	B (13)	B (13)	
•	Jeffery Ave	B (20)	B (19)	C (20)	C (22)	
•	South Shore Dr	B (17)	B (19)	A (9)	B (17)	
Marque		-			· · · · · ·	
•	Richards Dr (West)	Clos	sed	Clo	sed	
•	Richards Dr (East)	Closed		Closed		
•	La Rabida Entrance	B (14)	A (7)	A (5)	A (8)	
Richard						
•	Marquette Dr (North)	Clos	sed	Clos	sed	
•	Hayes Dr	A* (9)	B* (15)	A (9)	A (9)	
56 th St	•					
•	Hyde Park Blvd *	B (12)	B (12)	B (12)	B (12)	
•	Everett Ave *	A (8)	A (7)	A (8)	A (7)	
L		·	·		. ,	

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

Alternative 6 will also improve pedestrian and bicycle access and circulation by grade separating pedestrian and bicycle movements from heavy traffic flows along Hayes Drive, Jeffrey Drive and South Shore Drive/67th Street, providing new trails along Cornell Drive and Hayes Drive, as well as by installing curb extensions and refuge islands along Stony Island Avenue.

5.7.4. Conclusion

As shown in Table 8, improving capacity along Lake Shore Drive and Stony Island Avenue without improving Hayes Drive between them will not fully address the operational needs in the project area, as Alternative 6 results in multiple failing intersection levels of service. Therefore, Alternative 6 fails to fully meet the project purpose of accommodating changes in travel patterns resulting from closing roadways in Jackson Park. It is recommended that Alternative 6 be dropped from further consideration.

5.8. Alternative 7 – Mobility Improvement: Widen Lake Shore Drive/Reconfigure Hayes Drive

Alternative 7 converts 3.2 acres of Section 4(f) land to a transportation use to construct an additional southbound travel lane along Lake Shore Drive, to reconfigure Hayes Drive at the Lake Shore Drive, Richards Drive and Cornell Drive intersections, and to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation. This alternative also involves 3.6 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection. Unacceptable operational performance within the study area results from Alternative 7. Therefore, Alternative 7 does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. Alternative 7 will not be carried forward for detailed analysis, however, additional improvements from other Build alternatives will be considered to attempt to address the remaining mobility problems within the study area.

The analysis of Alternative 7 is described below.

5.8.1. Objective of Alternative

Alternative 7 combines the features of Alternatives 3 and 5 to mitigate the impacts of traffic pattern and volume changes resulting from the roadway closures. The primary objective of Alternative 7 is to redistribute traffic that currently uses Cornell Drive onto and Lake Shore Drive and Hayes Drive without affecting other roadways located within Jackson Park. Alternative 7 also incorporates a combination of CMP strategies and operational changes from Alternative 2.

5.8.2. Description of Alternative

The improvements included in Alternative 7 can be found on Exhibit 28 and are described below:

Capacity Improvements

Lake Shore Drive – 57th Drive to Hayes Drive

• This existing section of Lake Shore Drive consists of three northbound and two southbound travel lanes. This section would be widened to the west to add an additional southbound travel lane, resulting in a proposed section that consists of three northbound and three southbound travel lanes. No work will occur east of Lake Shore Drive to avoid impacts to the Pitcher's (Dune) thistle, a native endangered plant species.

Hayes Drive – Cornell Drive to Lake Shore Drive

• This existing section of Hayes Drive consists of one lane in each direction with on-street parking along both sides. In this alternative, 147 on-street parking spaces would be removed to increase the number of travel lanes to two lanes in each direction with a raised barrier median.

Cornell Drive - Hayes Drive to Stony Island Avenue

This existing section of Cornell Drive consists of three southbound-only travel lanes. This section
would be widened to the east to accommodate an additional lane and converted to two-way
traffic, resulting in the proposed section that consists of two southbound and two northbound
lanes.

Bridge Modifications

Lake Shore Drive

• Widen the 59th Street underpass, the 59th Street Lagoon Inlet Bridge, and the 63rd Street underpass to accommodate the additional southbound lane proposed along the west side of Lake Shore Drive. No work will occur east of Lake Shore Drive to avoid impacts to the Pitcher's (Dune) thistle, a native endangered plant species.

Intersection Modifications

Lake Shore Drive

- At 57th Drive, widen the intersection to accommodate the new third southbound lane, and retime the traffic signal to optimize signal operations.
- At Science Drive, widen the intersection to accommodate the new third southbound lane, and re-time the traffic signal to optimize signal operations.
- At Hayes Drive, widen the intersection to accommodate the new third southbound lane on Lake Shore Drive, the two new through lanes on Hayes Drive, and new turn lanes. Also, modernize

the traffic signal installation and re-time the signal to optimize operations. Provide a new pedestrian crossing on across south leg.

Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, reconfigure the intersection to provide a through movement for the
 predominant travel through the intersection (reference Exhibit 29). Realign the existing section
 of Hayes Drive between Stony Island Avenue and Cornell Drive to create a signalized Tintersection with the realigned Hayes Drive-Cornell Drive through movement.

Stony Island Avenue

- At 57th Street, re-time the traffic signal to optimize signal operations.
- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), convert North Midway Plaisance east of Stony Island Avenue to two-way by widening to provide two lanes in each direction. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At 63rd Street/Hayes Drive, modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64th Street, convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection to convert Cornell Drive east of Stony Island Avenue to two-way and to provide additional turn lanes. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At Marquette Street, modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

• At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.

• At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's Streets for Cycling 2020 plan) along Cornell Drive and Haves Drive
- Pedestrian underpasses at the following locations:
 - o Two legs of the Cornell Drive/Hayes Drive intersection
 - o Along Hayes Drive between Richards Drive and Lake Shore Drive
 - Along Jeffery Drive between Marquette Drive and 67th Street
 - South Shore Drive/67th Street intersection
- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street
 - Stony Island Avenue at 67th Street
- Pedestrian refuge islands at the following intersections or mid-block crossings:
 - Hayes Drive at Richards Drive

5.8.3. Performance Analysis of Alternative 7

The mobility improvement that widens Lake Shore Drive between 57th and Hayes Drives and which reconfigures Hayes Drive between Stony Island Avenue and Lake Shore Drive (Alternative 7) attempts to accommodate diverted traffic flows on portions of Lake Shore Drive and Hayes Drive (see Exhibit 28). Also included are improvements to Cornell Drive south of Hayes and Stony Island Avenue south of Cornell.

Exhibit 29 depicts the predominant travel patterns and average daily traffic volumes on area roadways that are expected for Alternative 7. The majority of diverted traffic is expected to utilize Lake Shore Drive, Hayes, Cornell and Stony Island Avenue with the Alternative 7 roadway improvements. Exhibit 30

depicts intersection Levels of Service at key locations within the project area. Table 9 summarizes the intersection Levels of Service and compares them to levels expected for the No-Action Alternative.

Table 9
Alternative 7 Operational Performance Summary (2040)

Intersection		Alternative / Opera	ational Performance Summary (2040) Intersection Level of Service and Delay (sec./veh.)				
A.M. Peak Peak							
A.M. Peak Peak	Intersection						
Lake Shore Drive Peak Peak Peak Peak ● Marquette Dr C (22) C (24) C (32) C (25) ● Hayes Dr F (**) F (**) C (28) B (17) ● Science Dr B (19) F (**) A (4) A (1) ● 57" Dr B (13) F (**) A (9) B (17) Stony Island Avenue B (13) F (**) F (**) A (9) B (17) • 67" St F (**) F (**) F (**) B (11) 6 (5") B (11) • (65") B (11) • (65") B (11) • (65") B (11) • (60") A (8) A (10) B (15) • (**) B (13) A (10) B (15) • (**) B (19) • (60") B (15) F (**) F (**) A (8) A (10) • (60") B (15) F (**) F (**) A (10) B (15) • (24) B (19) • (24) B (19) • (24) B (19) • (25) • (26) • (27) • (27) B (13) B (13) <td< th=""><th></th><th></th><th></th><th></th><th>1</th><th>-</th></td<>					1	-	
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Marquette Dr ● Richards Dr (West) Closed Closed ● Richards Dr (East) Closed Closed ● La Rabida Entrance B (14) A (7) A (7) A (7) Richards Drive ● Marquette Dr (North) Closed Closed	• Je	effery Ave		B (19)	B (19)		
Marquette Dr ● Richards Dr (West) Closed Closed ● Richards Dr (East) Closed Closed ● La Rabida Entrance B (14) A (7) A (7) A (7) Richards Drive ● Marquette Dr (North) Closed Closed	• Sc	outh Shore Dr	B (17)	B (19)	A (9)	B (12)	
 Richards Dr (East) La Rabida Entrance B (14) A (7) A (7) Richards Drive Marquette Dr (North) Closed Closed 							
 La Rabida Entrance B (14) A (7) A (7) Richards Drive Marquette Dr (North) Closed Closed 	• R	ichards Dr (West)	Clos	sed			
Richards Drive • Marquette Dr (North) Closed Closed	• R	ichards Dr (East)	Closed		Closed		
Marquette Dr (North) Closed Closed	• La	a Rabida Entrance	B (14)	A (7)	A (7)	A (7)	
	Richards D	Prive					
4 4 (0) 5 4 (0) 5 (0)	• N	Narquette Dr (North)				sed	
,		ayes Dr	A* (9)	B* (15)	A (9)	A (9)	
56 th St					1		
Hyde Park Blvd * B (12) B (12) B (13)		•	` '				
• Everett Ave * A (8) A (7) A (8) A (7)	• E	verett Ave *	A (8)	A (7)	A (8)	A (7)	

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

Alternative 7 will also improve pedestrian and bicycle access and circulation by grade separating pedestrian and bicycle movements from heavy traffic flows along Hayes Drive, Jeffrey Drive and South Shore Drive/67th Street, providing new trails along Cornell Drive and Hayes Drive, as well as by installing curb extensions and refuge islands along Stony Island Avenue.

5.8.4. Conclusion

As shown in Table 9, improving capacity along Lake Shore Drive and Hayes Drive without improving Stony Island Avenue north of 65th Place will not fully address the operational needs in the project area, as Alternative 7 results in multiple failing intersection levels of service. Therefore, Alternative 7 fails to fully meet the project purpose of accommodating changes in travel patterns resulting from closing roadways in Jackson Park. It is recommended that Alternative 7 be dropped from further consideration.

5.9. Alternative 8 – Mobility Improvement: Widen Stony Island Avenue/Reconfigure Hayes Drive

Alternative 8 converts 3.9 acres of Section 4(f) land to a transportation use to widen Stony Island Avenue between 67th Street and 59th Street, to reconfigure Hayes Drive at the Richards Drive and Cornell Drive intersections, and to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation. This alternative also involves 3.7 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection. Unacceptable operational performance within the study area results from Alternative 8. Therefore, Alternative 8 does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. Alternative 8 will not be carried forward for detailed analysis, however, additional improvements considered in other Build alternatives will be considered to attempt to address the remaining mobility problems within the study area.

The analysis of Alternative 8 is described below.

5.9.1. Objective of Alternative

Alternative 8 combines the features of Alternatives 4 and 5 to mitigate the impacts of traffic pattern and volume changes resulting from the roadway closures. The primary objective of Alternative 8 is to redistribute traffic that currently uses Cornell Drive onto Stony Island Avenue and Hayes Drive without affecting other roadways located within Jackson Park. Alternative 8 also incorporates a combination of CMP strategies and operational changes from Alternative 2.

5.9.2. Description of Alternative

The improvements included in Alternative 8 can be found on Exhibit 31 and are described below:

Capacity Improvements

Hayes Drive - Cornell Drive to Lake Shore Drive

• This existing section of Hayes Drive consists of one lane in each direction with on-street parking along both sides. In this alternative, 147 on-street parking spaces would be removed to increase the number of travel lanes to two lanes in each direction with a raised barrier median.

Cornell Drive - Hayes Drive to Stony Island Avenue

This existing section of Cornell Drive consists of three southbound-only travel lanes. This section
would be widened to the east to accommodate an additional lane and converted to two-way
traffic, resulting in the proposed section that consists of two southbound and two northbound
lanes.

Stony Island Avenue – Midway Plaisance to 65th Street

• This existing section of Stony Island Avenue consists of one lane each direction with on-street parking on each side. This section would be widened to the east to avoid impacts to residential properties on the west side of Stony Island Avenue. The widening consists of adding one southbound lane, one northbound lane, a center raised median with left turn lanes, and space for bus loading lanes. The proposed Stony Island Avenue section then consists of two lanes in each direction, a raised median with left turn lanes, and on-street parking/bus loading lanes on each side of the street.

Stony Island Avenue - 65th Street to 67th Street

• This existing section of Stony Island Avenue consists of two northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side. This section would be widened to the east to avoid impacts to residential and commercial properties on the west side of Stony Island Avenue. The widening will add one northbound through lane along Stony Island Avenue to result in a proposed section that consists of three northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side.

Intersection Modifications

Lake Shore Drive

- At 57th Drive, re-time the traffic signal to optimize signal operations.
- At Science Drive, re-time the traffic signal to optimize signal operations.

At Hayes Drive, reconfigure the intersection to accommodate two new through lanes on Hayes
Drive. Also, modernize the traffic signal installation and re-time the signal to optimize
operations. Provide a new pedestrian crossing on across south leg.

Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, reconfigure the intersection to provide a through movement for the
 predominant travel through the intersection (reference Exhibit 32). Realign the existing section
 of Hayes Drive between Stony Island Avenue and Cornell Drive to create a signalized Tintersection with the realigned Hayes Drive-Cornell Drive through movement.

Stony Island Avenue

- At 57th Street, re-time the traffic signal to optimize signal operations.
- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), widen the intersection to accommodate additional through and turning lanes on Stony Island Avenue, to convert North Midway Plaisance east of Stony Island Avenue to two-way traffic, and provide two lanes in each direction on North Midway Plaisance east of Stony Island Avenue. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), widen the intersection to accommodate the additional lanes on Stony Island Avenue. Remove 14 on-street parking spaces on the west leg to provide an additional eastbound left-turn lane. Re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only. Widen the intersection to accommodate the additional lanes on Stony Island Avenue.
- At 63rd Street/Hayes Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and shift the east leg to the north to provide better alignment for the westbound through movement across the intersection. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue and Cornell Drive, to convert Cornell Drive east of Stony Island Avenue to two-way, and to provide additional turn lanes. Modernize the traffic signal installation and retime the signal to optimize operations.
- At Marquette Street, widen the intersection to accommodate the additional lanes on Stony Island. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, widen the intersection to accommodate the additional lanes on Stony Island
 Avenue. Modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's Streets for Cycling 2020 plan) along Cornell Drive and Hayes Drive
- Pedestrian underpasses at the following locations:
 - o Two legs of the Cornell Drive/Hayes Drive intersection
 - o Along Hayes Drive between Richards Drive and Lake Shore Drive
 - o Along Jeffery Drive between Marquette Drive and 67th Street
 - South Shore Drive/67th Street intersection
- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 63rd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marguette Street
 - Stony Island Avenue at 67th Street
- Pedestrian refuge islands at the following intersections or mid-block crossings:
 - Hayes Drive at Richards Drive
 - Stony Island Avenue at North Midway Plaisance
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street

- Stony Island Avenue at 65th Street
- Stony Island Avenue at 65th Place
- Stony Island Avenue at Marquette Street

5.9.3. Performance Analysis of Alternative 8

The mobility improvement that reconfigures Hayes Drive into a 4-lane roadway and improves Stony Island Avenue (Alternative 8) attempts to accommodate diverted traffic flows primarily on Stony Island Avenue and Hayes Drive (see Exhibit 31). Also included is realigning and signalizing the Hayes Drive intersection with Richards Drive.

Exhibit 32 depicts the predominant travel patterns and average daily traffic volumes on area roadways that are expected for Alternative 8. Despite improvements along much of Stony Island Avenue, the majority of diverted traffic in Alternative 8 is expected to utilize Lake Shore Drive, Hayes and Cornell to access Stony Island Avenue south of 65th Place. Exhibit 33 depicts intersection Levels of Service at key locations within the project area. Table 10 summarizes the intersection Levels of Service and compares them to levels expected for the No-Action Alternative.

Table 10
Alternative 8 Operational Performance Summary (2040)

	Alternative o opera	ational Performance Summary (2040) Intersection Level of Service and Delay (sec./veh.)				
		No-Action Alternative 8				
Intersection		Alternative		Mobility Improvement		
		A.M. P.M.		A.M.	P.M.	
		Peak	Peak	Peak	Peak	
Lake Sh	ore Drive					
•	Marquette Dr	C (22)	C (24)	C (32)	C (28)	
•	Hayes Dr	F (**)	F (**)	F (**)	F (**)	
•	Science Dr	B (19)	F (**)	A (4)	F (**)	
•	57 th Dr	B (13)	F (**)	A (10)	F (**)	
Stony Is	sland Avenue					
•	67 th St	F (**)	F (**)	C (31)	C (21)	
•	Marquette Dr	D (50)	B (15)	C (22)	A (9)	
•	65 th Pl	F (**)	C (30)	A (9)	B (14)	
•	64 th St	F* (**)	F* (**)	A (6)	A (7)	
•	63 rd St/Hayes Dr	F (**)	F (**)	C (20)	B (14)	
•	60 th St	C (20)	B (12)	Right-in/	Right-out	
•	S Midway Plaisance (EB)	B (13)	C (31)	B (10)	B (18)	
•	N Midway Plaisance (WB)	F (**)	C (32)	B (11)	B (12)	
•	59 th St	F (**)	C (24)	Right-in/	Right-out	
•	57 th St	F (**)	F (**)	C (21)	C (23)	
•	56 th St *	D (32)	D (31)	D (32)	D (31)	
Cornell	Drive/57 th Drive					
•	67 th St	Clos	sed	Clo	sed	
•	Marquette Drive	Clos	sed	Clo	sed	
•	Hayes Dr	F (**)	F (**)	B (15)	B (14)	
•	S Midway Plaisance (EB)	Clos	sed	Closed		
•	57 th St/MSI Drop off	F (**)	D (54)	A (9)	C (23)	
•	Hyde Park Blvd	C (23)	B (20)	C (21)	B (15)	
67 th St						
•	East End Ave *	B (12)	B (14)	B (12)	B (14)	
•	Cregier Ave *	B (13)	B (13)	B (13)	B (13)	
•	Jeffery Ave	B (20)	B (19)	B (19)	C (23)	
•	South Shore Dr	B (17)	B (19)	A (9)	B (18)	
Marque						
•	Richards Dr (West)	Closed		Closed		
•	Richards Dr (East)	Closed		Closed		
•	La Rabida Entrance	B (14)	A (7)	A (7)	A (7)	
Richard						
•	Marquette Dr (North)	Closed		Closed		
•	Hayes Dr	A* (9)	B* (15)	A (8)	A (9)	
56 th St				T		
•	Hyde Park Blvd *	B (12)	B (12)	B (12)	B (12)	
•	Everett Ave *	A (8)	A (7)	A (8)	A (7)	

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

Alternative 8 will also improve pedestrian and bicycle access and circulation by grade separating pedestrian and bicycle movements from heavy traffic flows along Hayes Drive, Jeffrey Drive and South Shore Drive/67th Street, providing new trails along Cornell Drive and Hayes Drive, as well as by installing curb extensions and refuge islands along Stony Island Avenue.

5.9.4. Conclusion

As shown in Table 10, improving capacity along Stony Island Avenue and Hayes Drive does not fully address the operational needs in the project area, as Alternative 8 results in multiple failing intersection levels of service. Therefore, Alternative 8 fails to fully meet the project purpose of accommodating changes in travel patterns resulting from closing roadways in Jackson Park. It is recommended that Alternative 8 be dropped from further consideration.

5.10. Alternative 9 – Mobility Improvement: Widen Lake Shore Drive/Widen Stony Island Avenue/Reconfigure Hayes Drive

Alternative 9 converts 5.6 acres of Section 4(f) land to a transportation use to construct an additional southbound travel lane along Lake Shore Drive, to widen Stony Island Avenue between 67th Street and 59th Street, to reconfigure Hayes Drive at the Lake Shore Drive, Richards Drive and Cornell Drive intersections, and to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation. This alternative also involves 3.6 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection. Alternative 9 meets the project's Purpose and Need by providing improvements to bicyclist and pedestrian access and circulation while also performing with acceptable operations throughout the study area. Therefore, Alternative 9 is recommended to be carried forward for further detailed study.

The analysis of Alternative 9 is described below.

5.10.1. Objective of Alternative

Alternative 9 combines the features of Alternatives 3 (Widen Lake Shore Drive), 4 (Widen Stony Island Avenue) and 5 (Reconfigure Hayes Drive) to mitigate the impacts of traffic pattern and volume changes resulting from the roadway closures. Separately, Alternatives 3, 4, and 5 do not satisfy the Purpose and Need and result in failing levels of service. The primary objective of Alternative 9 is to combine alternatives to redistribute traffic that currently uses Cornell Drive onto Lake Shore Drive, Stony Island Avenue and Hayes Drive without affecting other roadways located within Jackson Park to achieve

acceptable levels of service. Alternative 9 also incorporates a combination of CMP strategies and operational changes from Alternative 2.

5.10.2. Description of Alternative

The improvements included in Alternative 9 can be found on Exhibit 34 and are described below:

Capacity Improvements

Lake Shore Drive – 57th Drive to Hayes Drive

• This existing section of Lake Shore Drive consists of three northbound and two southbound travel lanes. This section would be widened to the west to add an additional southbound travel lane, resulting in a proposed section that consists of three northbound and three southbound travel lanes. No work will occur east of Lake Shore Drive to avoid impacts to the Pitcher's (Dune) thistle, a native endangered plant species.

Hayes Drive - Cornell Drive to Lake Shore Drive

• This existing section of Hayes Drive consists of one lane in each direction with on-street parking along both sides. In this alternative, 147 on-street parking spaces would be removed to increase the number of travel lanes to two lanes in each direction with a raised barrier median.

Cornell Drive – Hayes Drive to Stony Island Avenue

This existing section of Cornell Drive consists of three southbound-only travel lanes. This section
would be widened to the east to accommodate an additional lane and converted to two-way
traffic, resulting in the proposed section that consists of two southbound and two northbound
lanes.

Stony Island Avenue – Midway Plaisance to 65th Street

• This existing section of Stony Island Avenue consists of one lane each direction with on-street parking on each side. This section would be widened to the east to avoid impacts to residential properties on the west side of Stony Island Avenue. The widening consists of adding one southbound lane, one northbound lane, a center raised median with left turn lanes, and space for bus loading lanes. The proposed Stony Island Avenue section then consists of two lanes in each direction, a raised median with left turn lanes, and on-street parking/bus loading lanes on each side of the street.

Stony Island Avenue – 65th Street to 67th Street

• This existing section of Stony Island Avenue consists of two northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side. This section would be widened to the east to avoid impacts to residential and commercial properties on the west side of Stony Island Avenue. The widening will add one northbound through lane along

Stony Island Avenue to result in a proposed section that consists of three northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side.

Bridge Modifications

Lake Shore Drive

Widen the 59th Street underpass, the 59th Street Lagoon Inlet Bridge, and the 63rd Street underpass to accommodate the additional southbound lane proposed along the west side of Lake Shore Drive. No work will occur east of Lake Shore Drive to avoid impacts to the Pitcher's (Dune) thistle, a native endangered plant species.

Intersection Modifications

Lake Shore Drive

- At 57th Drive, widen the intersection to accommodate the new third southbound lane, and retime the traffic signal to optimize signal operations.
- At Science Drive, widen the intersection to accommodate the new third southbound lane, and re-time the traffic signal to optimize signal operations.
- At Hayes Drive, widen the intersection to accommodate the new third southbound lane on Lake Shore Drive, the two new through lanes on Hayes Drive, and new turn lanes. Also, modernize the traffic signal installation and re-time the signal to optimize operations. Provide a new pedestrian crossing on across south leg.

Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, reconfigure the intersection to provide a through movement for the
 predominant travel through the intersection (reference Exhibit 35). Realign the existing section
 of Hayes Drive between Stony Island Avenue and Cornell Drive to create a signalized Tintersection with the realigned Hayes Drive-Cornell Drive through movement.

Stony Island Avenue

- At 57th Street, re-time the traffic signal to optimize signal operations.
- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), widen the intersection to accommodate additional through and turning lanes on Stony Island Avenue, to convert North Midway Plaisance east of Stony Island Avenue to two-way traffic, and provide two lanes in each direction on North Midway Plaisance east of Stony Island Avenue. Re-time the traffic signal to optimize signal operations.

- At South Midway Plaisance (eastbound), widen the intersection to accommodate the additional lanes on Stony Island Avenue. Remove 14 on-street parking spaces on the west leg to provide an additional eastbound left-turn lane. Re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only. Widen the intersection to accommodate the additional lanes on Stony Island Avenue.
- At 63rd Street/Hayes Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and shift the east leg to the north to provide better alignment for the westbound through movement across the intersection. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue and Cornell Drive, to convert Cornell Drive east of Stony Island Avenue to two-way, and to provide additional turn lanes. Modernize the traffic signal installation and retime the signal to optimize operations.
- At Marquette Street, widen the intersection to accommodate the additional lanes on Stony Island. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue. Modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Other Capacity Modifications

Cornell Drive

 Remove excess capacity ("road diet") from existing Cornell Drive between 57th Street/MSI Dropoff and Stony Island Avenue by reducing from two lanes in each direction to one lane in each direction with a center median and 80 new on-street parking spaces.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's Streets for Cycling 2020 plan) along Cornell Drive and Hayes Drive
- Pedestrian underpasses at the following locations:
 - o Two legs of the Cornell Drive/Hayes Drive intersection
 - Along Hayes Drive between Richards Drive and Lake Shore Drive
 - o Along Jeffery Drive between Marquette Drive and 67th Street
 - South Shore Drive/67th Street intersection
- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 63rd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street
 - Stony Island Avenue at 67th Street
 - o Mid-Block Crossing of Cornell Drive between 57th Street and Stony Island Avenue
- Pedestrian refuge islands at the following intersections or mid-block crossings:
 - Hayes Drive at Richards Drive
 - Stony Island Avenue at North Midway Plaisance
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marguette Street
 - o Mid-Block Crossing of Cornell Drive between 57th Street and Stony Island Avenue

5.10.3. Performance Analysis of Alternative 9

The mobility improvement that improves Lake Shore Drive and Stony Island Avenue and which reconfigures Hayes Drive into a 4-lane roadway (Alternative 9) attempts to accommodate diverted traffic flows on all three of those roadways (see Exhibit 34). Also included is realigning and signalizing the Hayes Drive intersection with Richards Drive.

Exhibit 35 depicts the predominant travel patterns and average daily traffic volumes on area roadways that are expected for Alternative 9. Diverted traffic in Alternative 9 is predominantly travels along Lake Shore Drive, Hayes Drive and Stony Island Avenue, however, diverted traffic is dispersed among the improved roadways without overburdening any one roadway. Exhibit 36 depicts intersection Levels of Service at key locations within the project area. Table 11 summarizes the intersection Levels of Service and compares them to levels expected for the No-Action Alternative.

Table 11
Alternative 9 Operational Performance Summary (2040)

	Alternative 3 Opera	Intersection Level of Service and Delay (sec./veh.)				
	No-Action Alternative 9					
Intersection		Alternative		Mobility Improvements		
		A.M.	P.M.	A.M.	P.M.	
		Peak	Peak	Peak	Peak	
Lake Sh	ore Drive				l	
•	Marquette Dr	C (22)	C (24)	C (34)	C (30)	
•	Hayes Dr	F (**)	F (**)	C (24)	C (24)	
•	Science Dr	B (19)	F (**)	A (4)	A (2)	
•	57 th Dr	B (13)	F (**)	A (8)	B (17)	
Stony Is	sland Avenue	, ,	, ,	. , ,	. , ,	
•	67 th St	F (**)	F (**)	C (30)	B (19)	
•	Marquette Dr	D (50)	B (15)	C (21)	B (11)	
•	65 th Pl	F (**)	C (30)	A (7)	B (14)	
•	64 th St	F* (**)	F* (**)	A (7)	A (6)	
•	63 rd St/Hayes Dr	F (**)	F (**)	C (23)	B (15)	
•	60 th St	C (20)	B (12)	· · ·	Right-out	
•	S Midway Plaisance (EB)	B (13)	C (31)	B (15)	B (19)	
•	N Midway Plaisance (WB)	F (**)	C (32)	B (18)	B (12)	
•	59 th St	F (**)	C (24)	Right-in/	Right-out	
•	57 th St	F (**)	F (**)	C (21)	B (19)	
•	56 th St *	D (32)	D (31)	D (32)	D (31)	
Cornell	Drive/57 th Drive			, ,	, ,	
•	67 th St	Clo	sed	Closed		
•	Marquette Drive	Clo	sed	Cla	osed	
•	Hayes Dr	F (**)	F (**)	B (11)	B (14)	
•	S Midway Plaisance (EB)	Clo	sed	Clo	osed	
•	57 th St/MSI Drop off	F (**)	D (54)	A (8)	B (19)	
•	Hyde Park Blvd	C (23)	B (20)	B (19)	B (14)	
67 th St	•					
•	East End Ave *	B (12)	B (14)	B (12)	B (14)	
•	Cregier Ave *	B (13)	B (13)	B (13)	B (13)	
•	Jeffery Ave	B (20)	B (19)	C (22)	C (22)	
•	South Shore Dr	B (17)	B (19)	A (9)	A (9)	
Marque						
•	Richards Dr (West)	Closed Close		osed		
•	Richards Dr (East)	Closed		Closed		
•	La Rabida Entrance	B (14) A (7) A (8)		A (8)	A (7)	
Richard						
•	Marquette Dr (North)	Closed		Clo	osed	
•	Hayes Dr	A* (9)	B* (15)	B (11)	A (9)	
56 th St		•	•		-	
•	Hyde Park Blvd *	B (12)	B (12)	B (12)	B (12)	
•	Everett Ave *	A (8)	A (7)	A (8)	A (7)	

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

Alternative 9 will also improve pedestrian and bicycle access and circulation by grade separating pedestrian and bicycle movements from heavy traffic flows along Hayes Drive, Jeffrey Drive and South Shore Drive/67th Street, providing new trails along Cornell Drive and Hayes Drive, as well as by installing curb extensions and refuge islands along Stony Island Avenue.

5.10.4. Conclusion

As shown in Table 11, improving capacity along Lake Shore Drive, Stony Island Avenue and Hayes Drive fully addresses the operational needs in the project area. All major intersections would operate at desirable Levels of Service with limited traffic congestion. Therefore, Alternative 9 fully meets the project purpose of accommodating changes in travel patterns resulting from closing roadways in Jackson Park and improving pedestrian and bicyclist access and circulation to and from Jackson Park. It is recommended that Alternative 9 be carried forward for further detailed study.

6. Section 4(f) Use and Attainment of Purpose and Need

Each of the preliminary alternatives were evaluated to determine if Section 4(f) land would be converted to a transportation use and their ability to meet the project's Purpose and Need. Alternatives that avoided permanently incorporating of Section 4(f) land into a transportation facility were considered first, including the No-Action Alternative and CMP Strategies.

The avoidance alternatives do not meet the project Purpose and Need which would make it unreasonable to proceed with those alternatives. Therefore, additional planning efforts were made to evaluate alternatives to meet the Purpose and Need and minimize the permanent incorporation of Section 4(f) lands into the transportation network. Alternatives that do not satisfy the criteria outlined in the Purpose and Need were dismissed from further consideration.

Table 12 lists all of the alternatives that were considered, the acres of Section 4(f) property that would be required for transportation purposes, the potential acres of Section 4(f) property that would be temporarily occupied during construction of the project, whether the alternatives meet the Purpose and Need, and identifies if the alternatives are being carried forward for further evaluation. The No-Action alternative and Alternative 9 – Widen LSD/Widen Stony Island/Reconfigure Hayes are being carried forward for detailed evaluation.

Table 12
Attainment of Purpose & Need Summary

		.	Purpose & Need Criteria		
Range of Alternatives	Section 4(f) Land Use for Transportation (acre)	Temporary Occupancy of Section 4(f) Land (acre)	Accommodate Changes in Travel Patterns	Improve Bicycle & Pedestrian Access & Circulation	Further Evaluation
No-Action	0.0	0.0	No	No	Yes
Congestion Management Process Strategies	0.0	2.7	No	Yes	No
Alternative 1 - Alternative Avoiding Parkland Use and Widen Stony Island Avenue*	0.0	0.8	No	No	No
Alternative 2 - Operational Changes to Roadways	0.6	2.7	No	Yes	No
Alternative 3 - Widen	2.0	2.6	No	Yes	No
Alternative 4 - Widen Stony Island	3.1	2.7	No	Yes	No
Alternative 5 - Reconfigure Hayes	1.5	3.7	No	Yes	No
Alternative 6 - Widen LSD/Widen Stony Island	4.5	2.6	No	Yes	No
Alternative 7 - Widen LSD/Reconfigure Hayes	3.2	3.6	No	Yes	No
Alternative 8 - Widen Stony Island/ Reconfigure Hayes	3.9	3.7	No	Yes	No
Alternative 9 - Widen LSD/ Widen Stony Island/ Reconfigure Hayes	5.6	3.6	Yes	Yes	Yes

^{*} This alternative involves removal of two historic buildings protected under Section 4(f).

7. Impact Evaluation

A comparison of the impacts associated with the No-Action Alternative and Alternative 9: Mobility Improvements (Lake Shore Drive/Stony Island Avenue/Hayes Drive) is summarized in Table 13. The impacts outlined below are based upon conceptual improvement plans and further design refinements will be made in an effort to reduce overall impacts to the environment.

Table 13
Evaluation Summary

No Action Alternative	Alternative 9 Mobility
	Improvements
0.0	0.032
0.0	0.0
0.0	0.040
aces 0	81
0	5.6
0	0
0	0
No	No
No	Yes
ptors 0	10 to 20
ees 0	350 to 400
tions 0	5
tions 0	9
tions 0	10
ions 0	6
tions 0	2
No	Yes
tions 0	6
tions 0	2
tions 0	9
	1

7.1. Evaluation of No-Action Alternative

As summarized in Table 13, the No-Action Alternative does not impact floodplains, wetlands, Waters of the United States (WOUS), archaeological sites, historic architecture/landscape, or trees. The No-Action Alternative does not improve vehicular, pedestrian, and bicyclist safety and mobility.

Exhibit 6 shows the Intersection Levels of Service (LOS) associated with the No-Action Alternative under 2040 Projected Traffic Conditions. Nine signalized intersection LOSs and one all-way stop-controlled intersection LOS in the study area reach an LOS F in the morning peak hour, evening peak hour, or both. At these locations, overall intersection delay has reached or exceeded the delay criteria for an LOS F, or at least one through or turning movement has exceeded its available capacity.

Based upon the evaluation criteria, the No-Action Alternative does not meet the Purpose and Need for the Proposed Action. While the No-Action Alternative does not address the needs for the project, it is presented with the awareness that any Build Alternative would result in impacts to the surrounding environment. The No-Action Alternative is therefore presented as a benchmark by which all proposed Build Alternatives will be compared to determine if roadway improvement benefits outweigh the impacts.

7.2. Evaluation of Alternative 9 – Mobility Improvements - Widen Lake Shore Drive/Widen Stony Island/Reconfigure Hayes

Table 13 shows Alternative 9 is anticipated to impact floodplains, and WOUS as a result of the 59th Street Harbor Inlet Bridge widening to provide an additional southbound lane along Lake Shore Drive. There are no impacts to wetlands associated with Alternative 9. Parking loss is associated primarily with providing two lanes in each direction along Hayes Drive. Even with the modifications on Cornell Drive between the Midway Plaisance and 57th Drive to add 80 free on-street parking spaces, there would be a net loss of 81 parking spaces. The widening and reconfiguring of the roadways results in a conversion of 5.6 acres of Section 4(f) land to transportation use. It is anticipated that historic properties will be affected by Alternative 9. Between 10 to 20 receptors would be impacted by noise. Alternative 9 will require between 350 to 400 tree removals.

Alternative 9 improves pedestrian and bicyclist safety and mobility by providing five grade separations within the park as well as providing trail facilities along Cornell Drive and Hayes Drive. Curb extensions and refuge islands will be provided along Stony Island Avenue to reduce crossing exposure distances and traffic signals will be modernized to provide pedestrian countdown timers and push buttons.

Exhibit 36 shows the intersection LOS within the study area for Alternative 9. Under this alternative, all signalized intersections within the study area operate at LOS C or better during both peak hours. These capacity improvements provide acceptable levels of service in the design year of 2040.

Based upon these evaluation criteria, Alternative 9 acceptably accommodates changes in travel patterns throughout the study area and provides improved pedestrian and bicyclist access and circulation. Therefore, it is determined that Alternative 9 meets the Purpose and Need for the Proposed Action and is recommended to be carried forward for further study.

8. Summary

The Table 14 summarizes the alternatives that will be carry forward, those alternatives that will be dismissed, and the rationale for each decision.

The No-Action Alternative is carried forward to serve as a comparison benchmark. To address the needs identified for the Proposed Action, it is recommended that Alternative 9: Mobility Improvement – Lake Shore Drive/Stony Island Avenue/Hayes Drive be carried forward for detailed evaluation. Additional avoidance and minimization measures will be considered for Section 4(f) resources and other environmental resources during the further development and refinement of the alternatives to be carried forward.

Table 14
Alternatives Summary

Alternative	Recommended Action	Reasoning
No-Action	Carry Forward	Serves as a benchmark to determine if benefits of a Build Alternative outweigh associated impacts.
Congestion Management Process Strategies	Dismiss	Does not meet Purpose & Need as a standalone alternative due to poor operations.
Alternative 1: Alternative Avoiding Park Use	Dismiss	Does not meet Purpose & Need due to poor operations and permanent use of historic properties.
Alternative 2: Operational Changes to Roadways	Dismiss	Does not meet Purpose & Need due to poor operations.
Alternative 3: Mobility Improvement –Lake Shore Drive	Dismiss	Does not meet Purpose & Need due to poor operations.
Alternative 4: Mobility Improvement – Stony Island Avenue	Dismiss	Does not meet Purpose & Need due to poor operations.
Alternative 5: Mobility Improvement – Hayes Drive	Dismiss	Does not meet Purpose & Need due to poor operations.
Alternative 6: Mobility Improvement – Lake Shore Drive/Stony Island Avenue	Dismiss	Does not meet Purpose & Need due to poor operations.
Alternative 7: Mobility Improvement –Lake Shore Drive/Hayes Drive	Dismiss	Does not meet Purpose & Need due to poor operations.
Alternative 8: Mobility Improvement – Stony Island Avenue/Hayes Drive	Dismiss	Does not meet Purpose & Need due to poor operations.
Alternative 9: Mobility Improvement – Lake Shore Drive/Stony Island Avenue/Hayes Drive	Carry Forward	Meets Purpose & Need by accommodating changes in travel patterns and improving bicycle and pedestrian access and circulation.

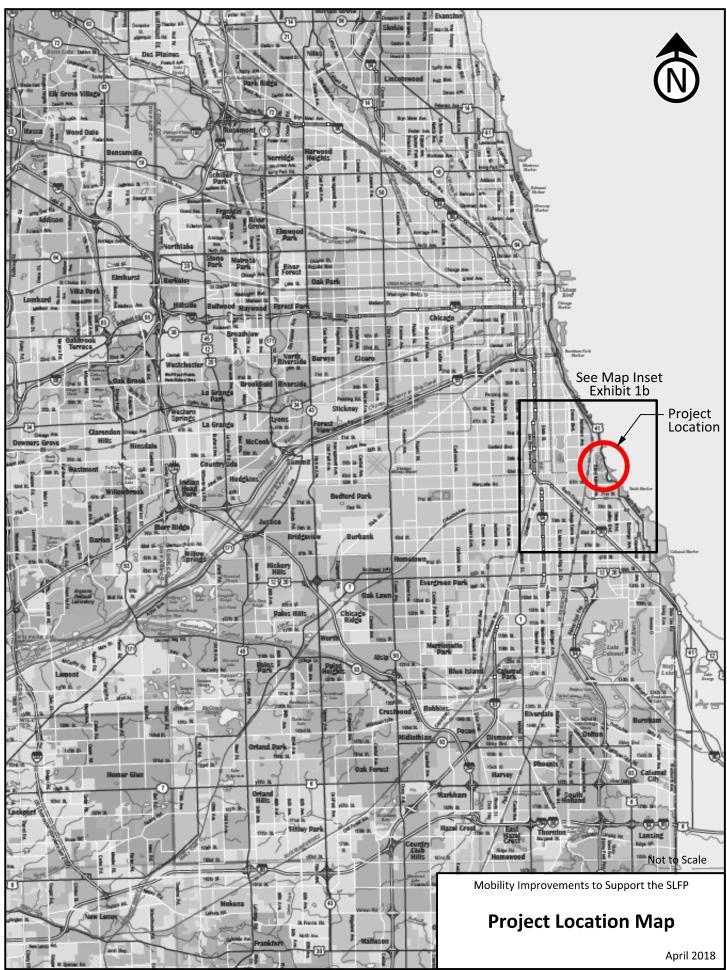


Exhibit 1A

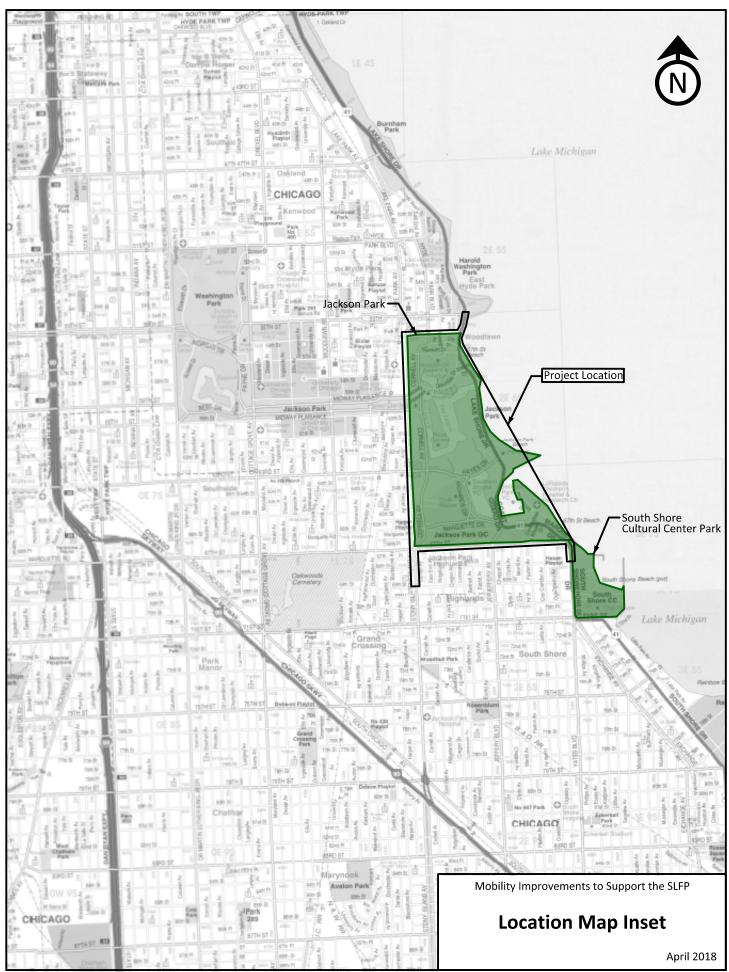


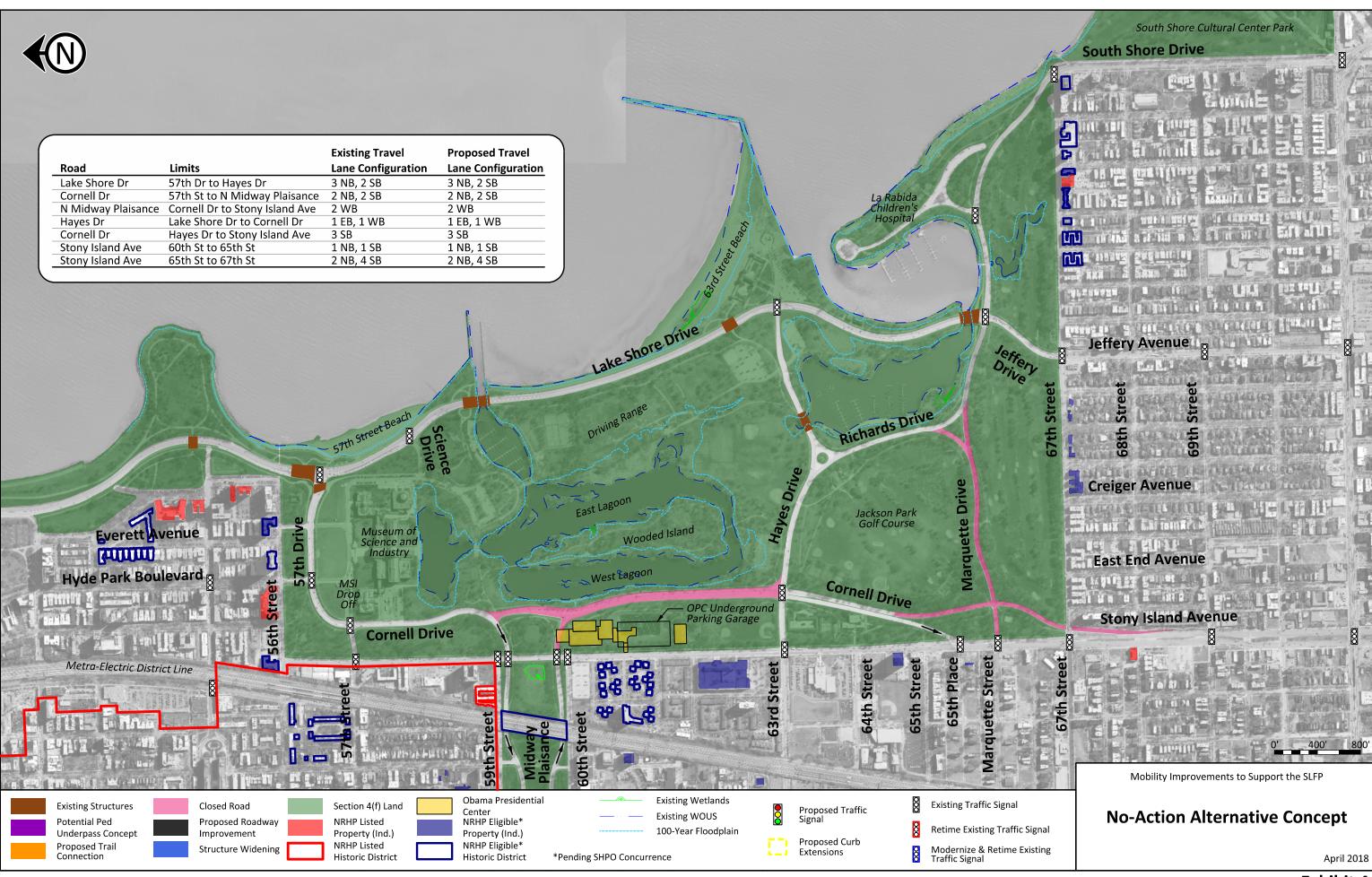
Exhibit 1B



Exhibit 2



Exhibit 3



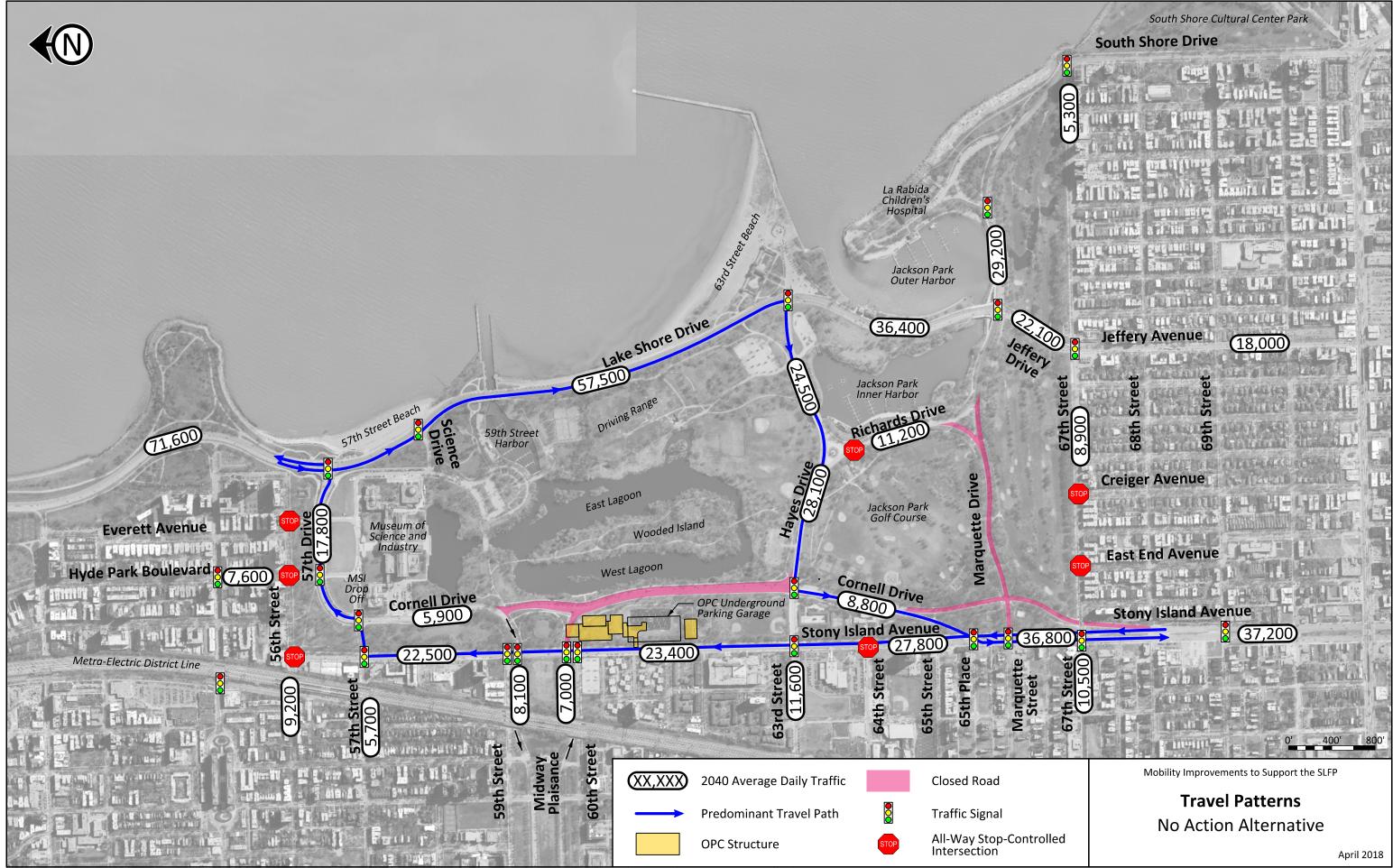


Exhibit 5

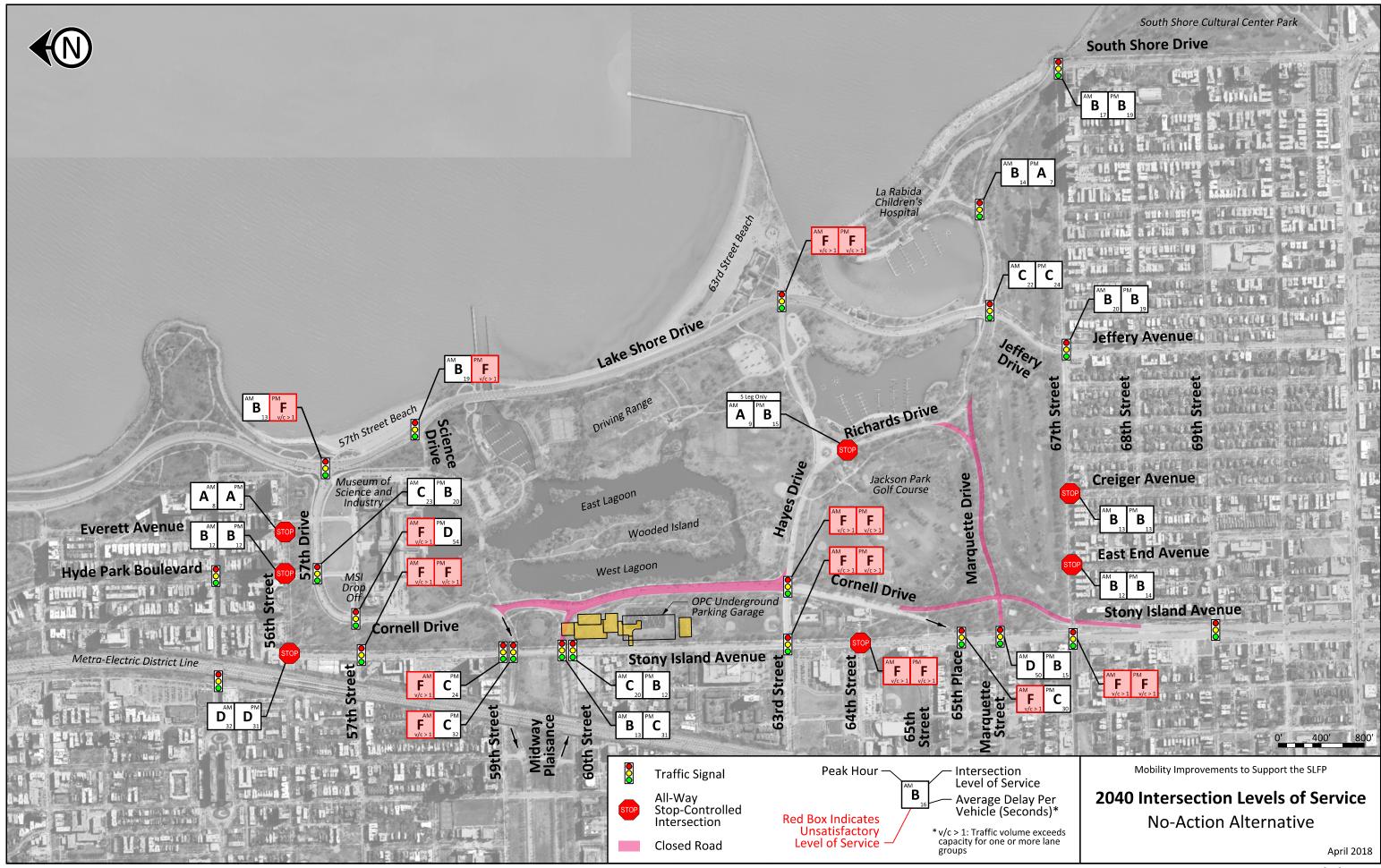


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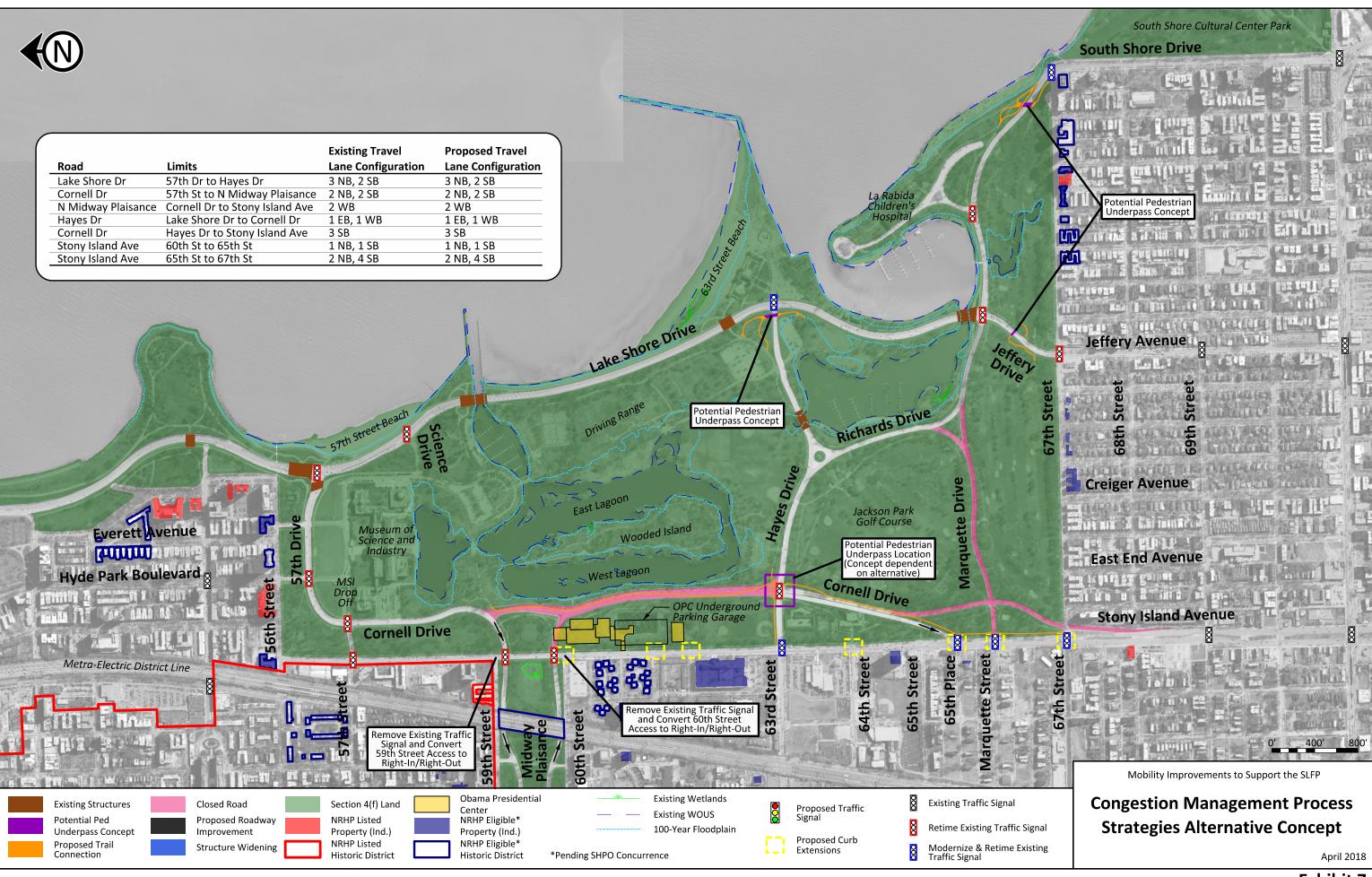




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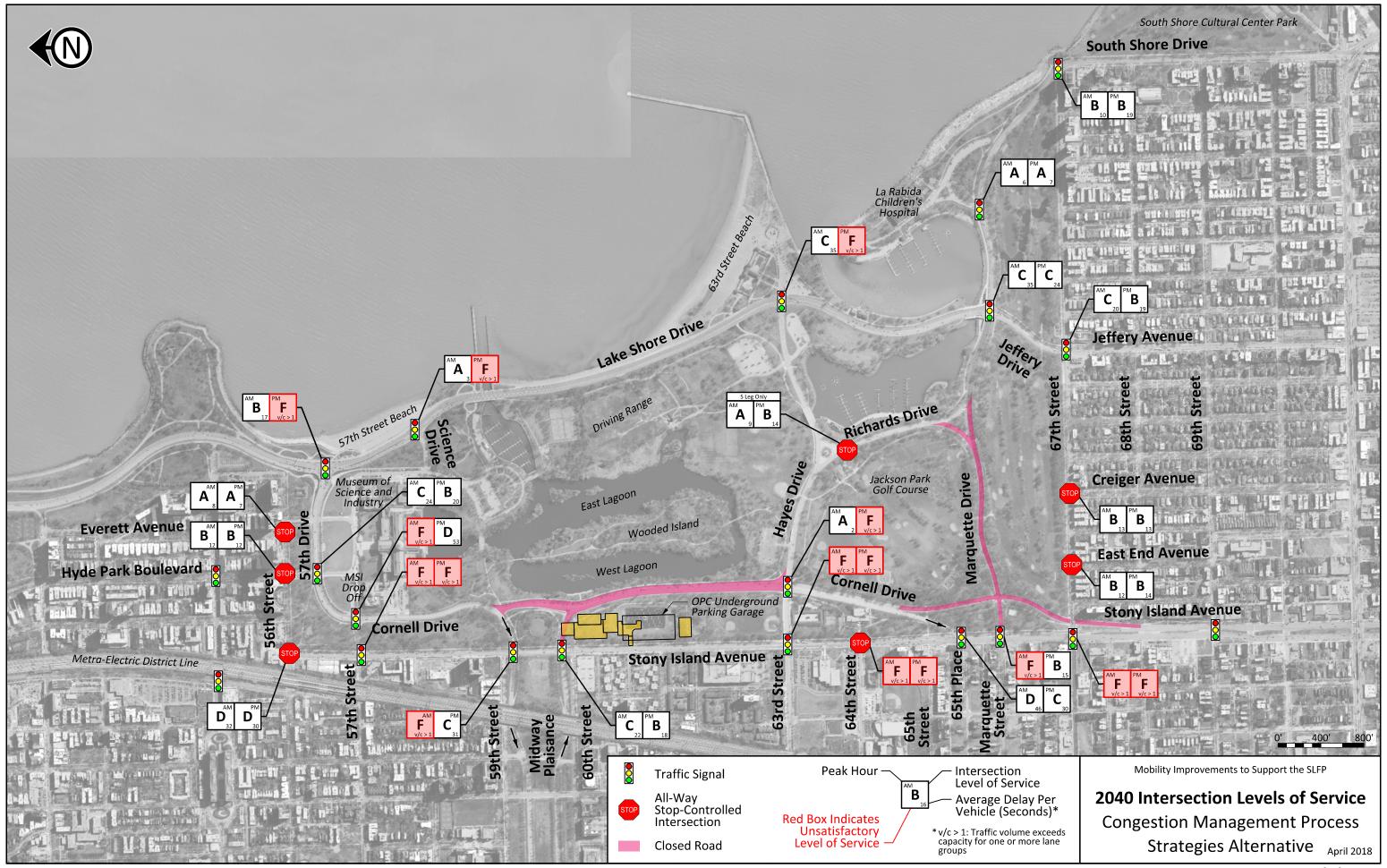
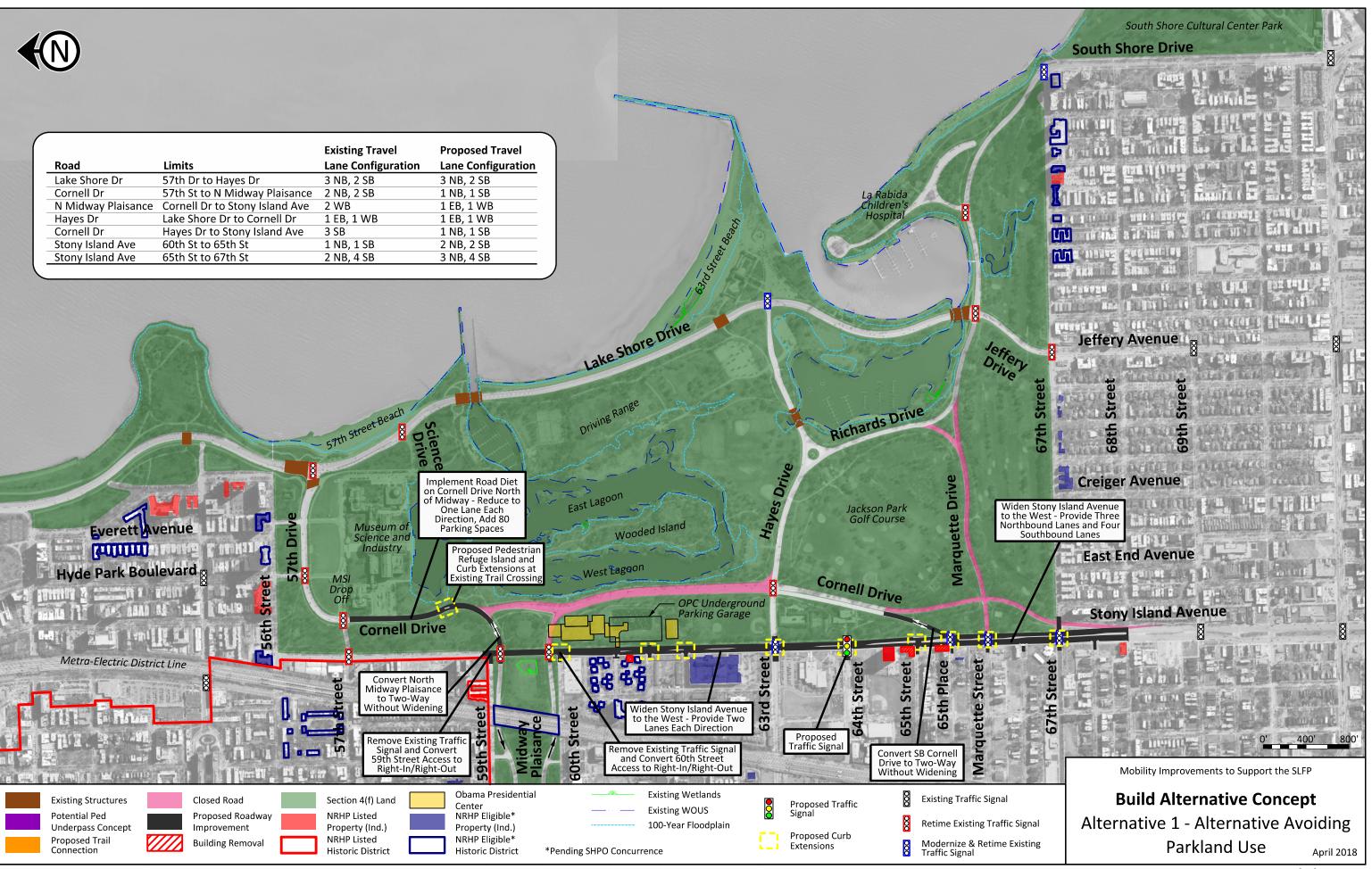


Exhibit 9



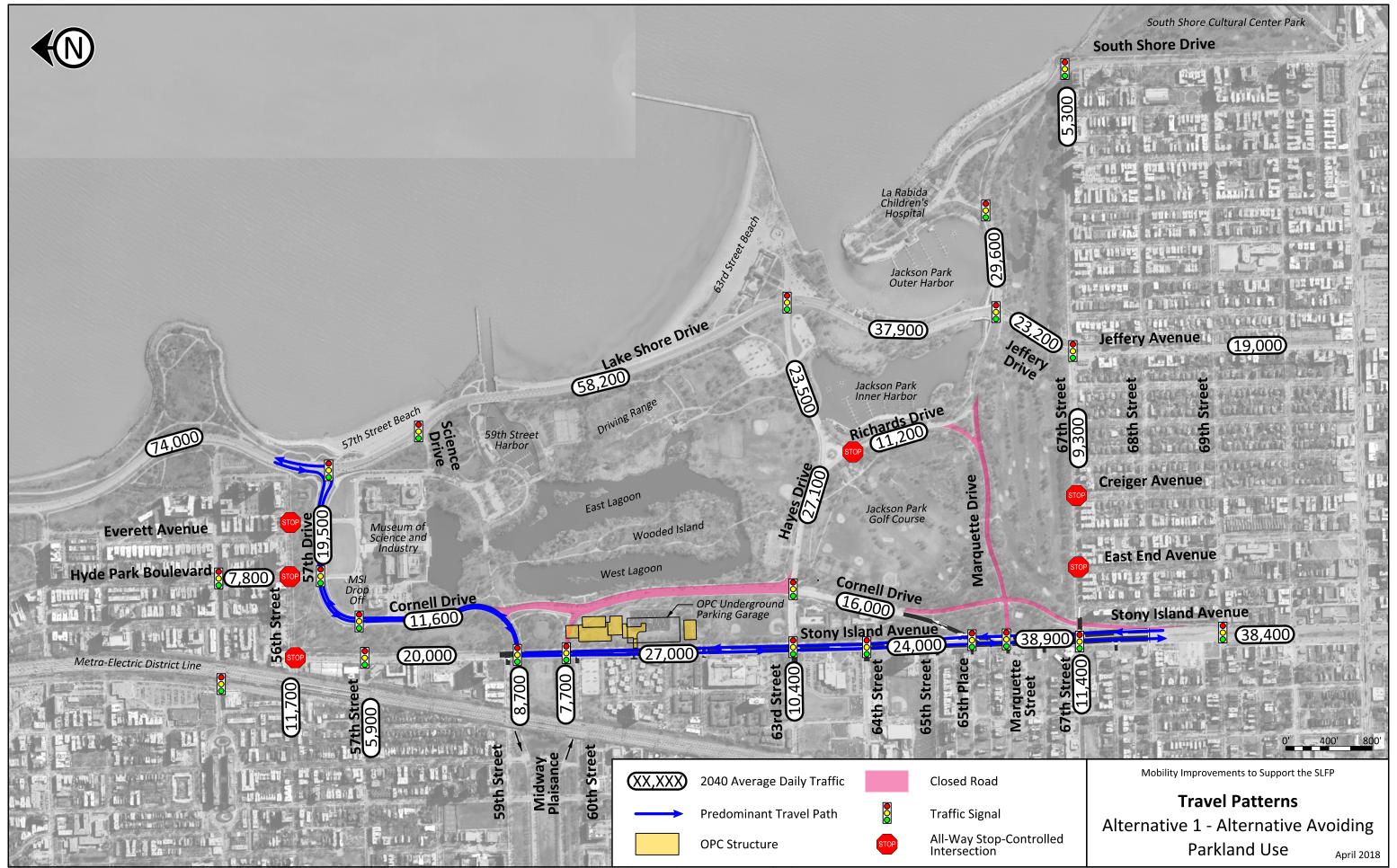


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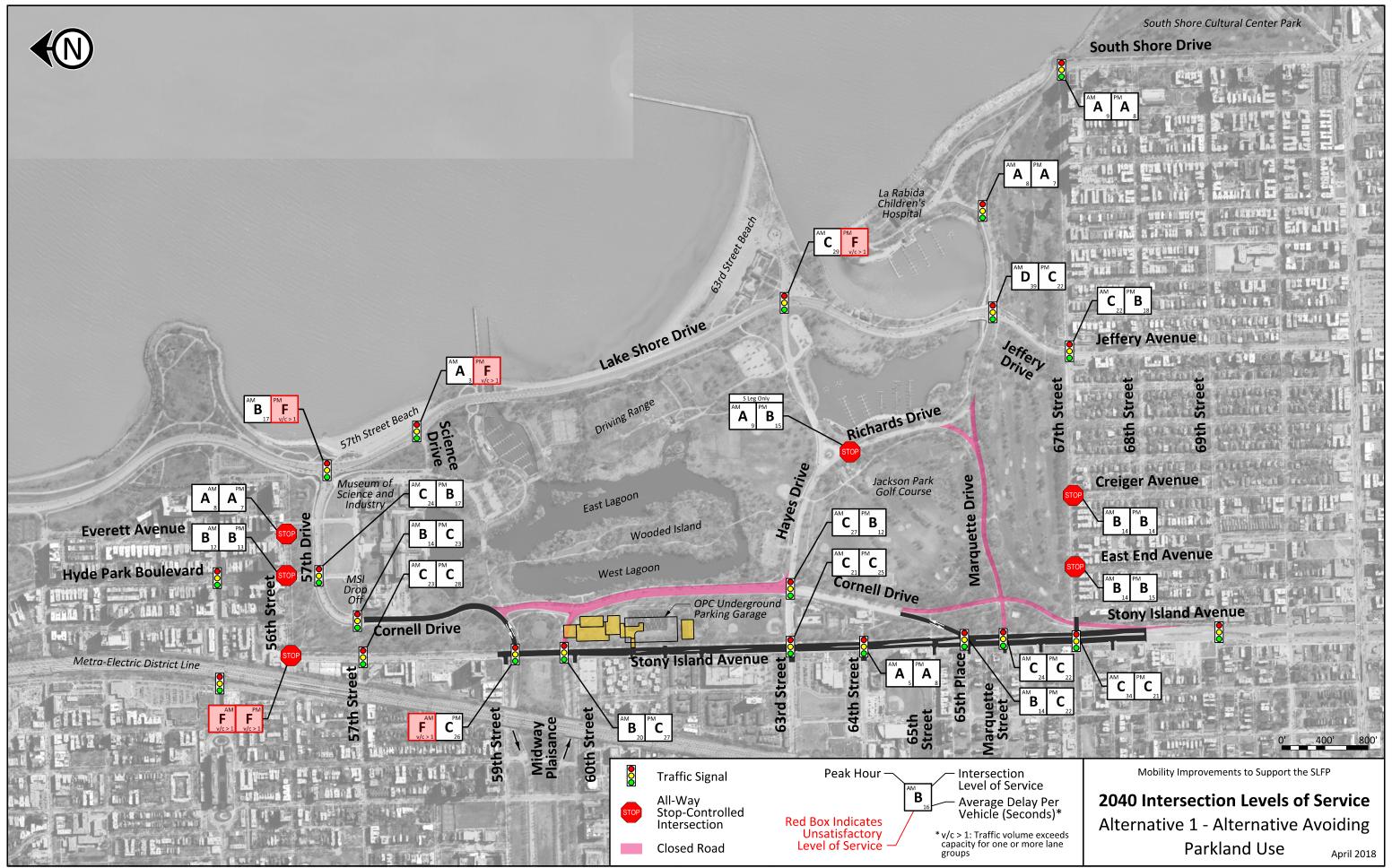


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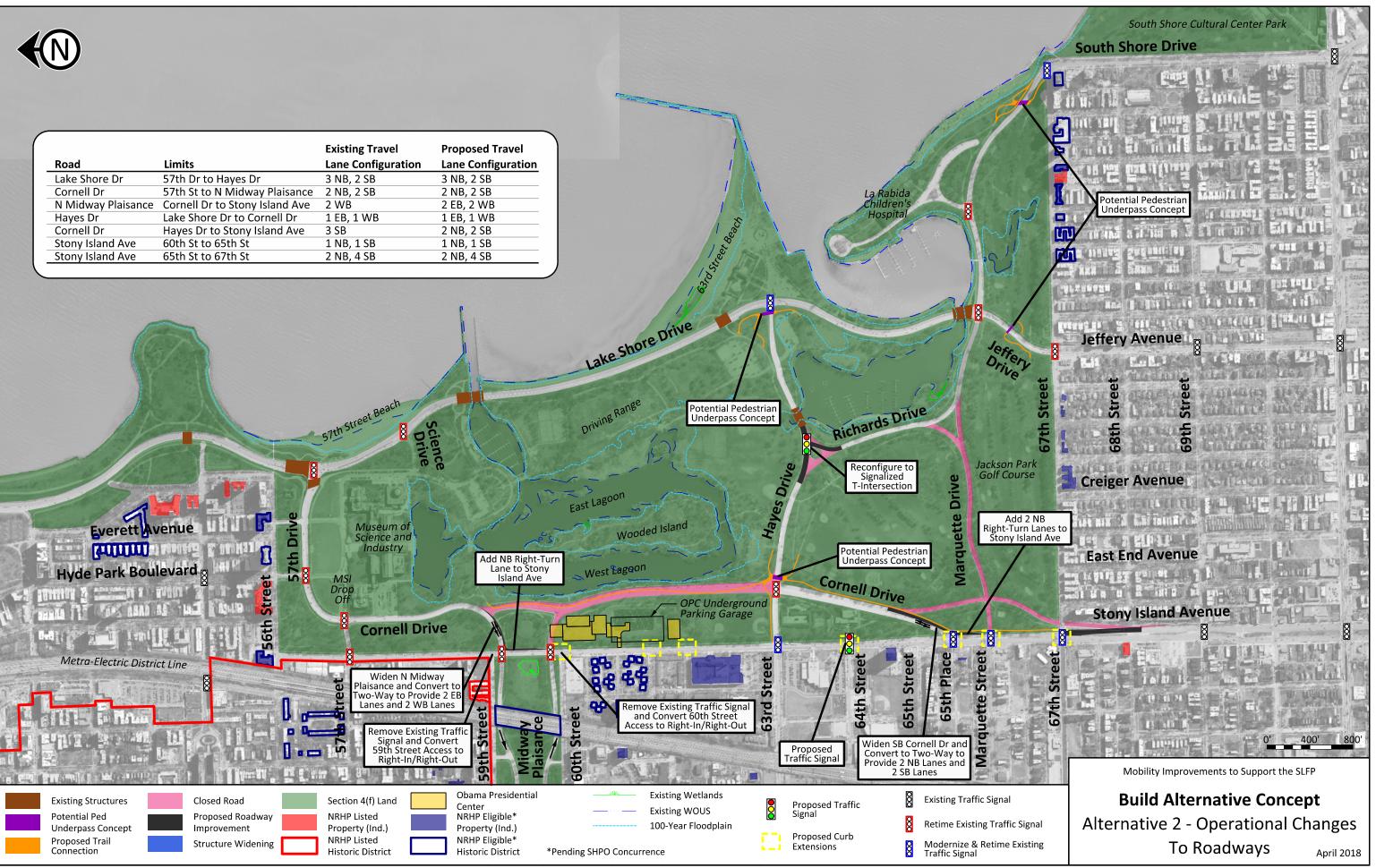


Exhibit 13

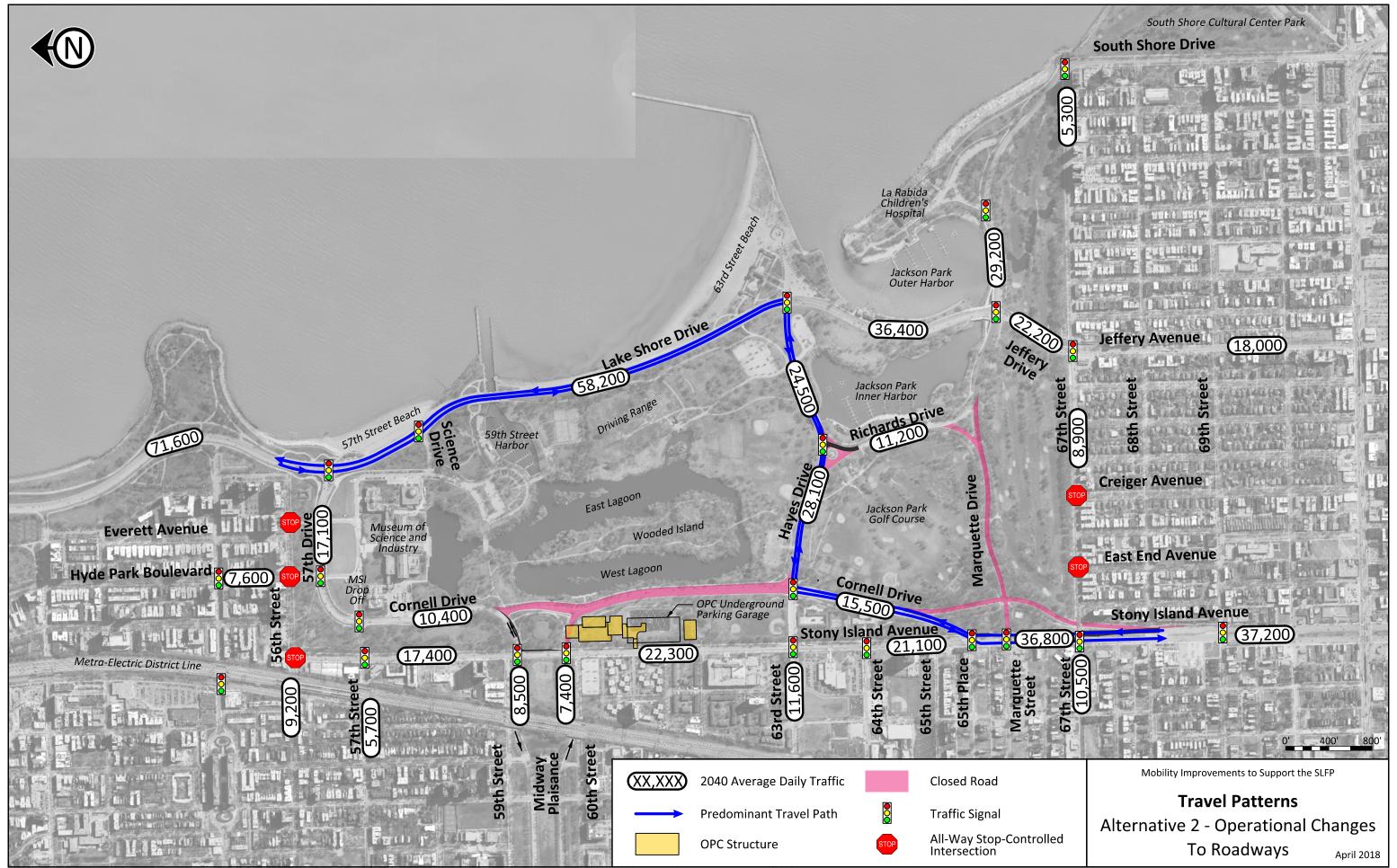


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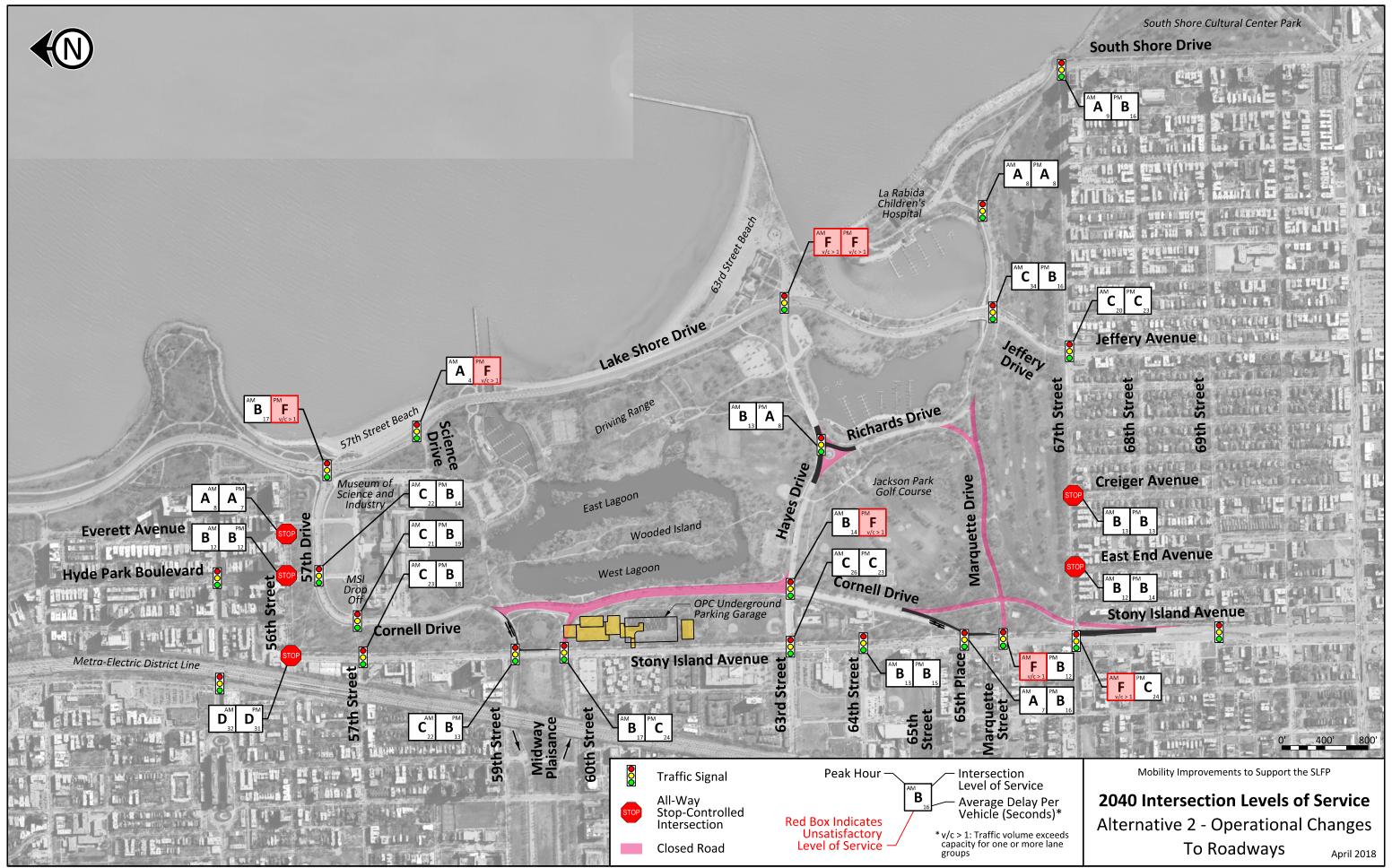


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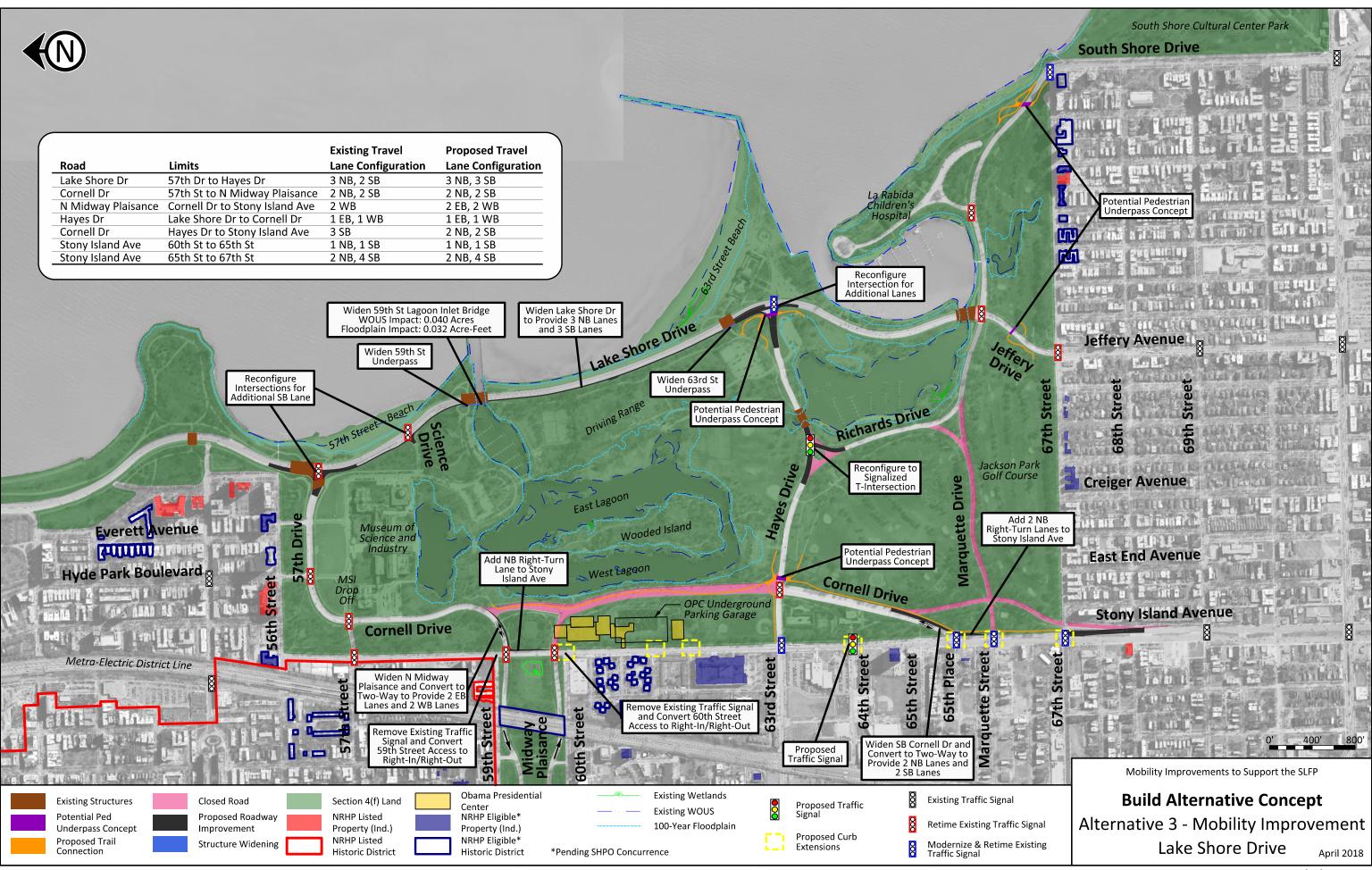


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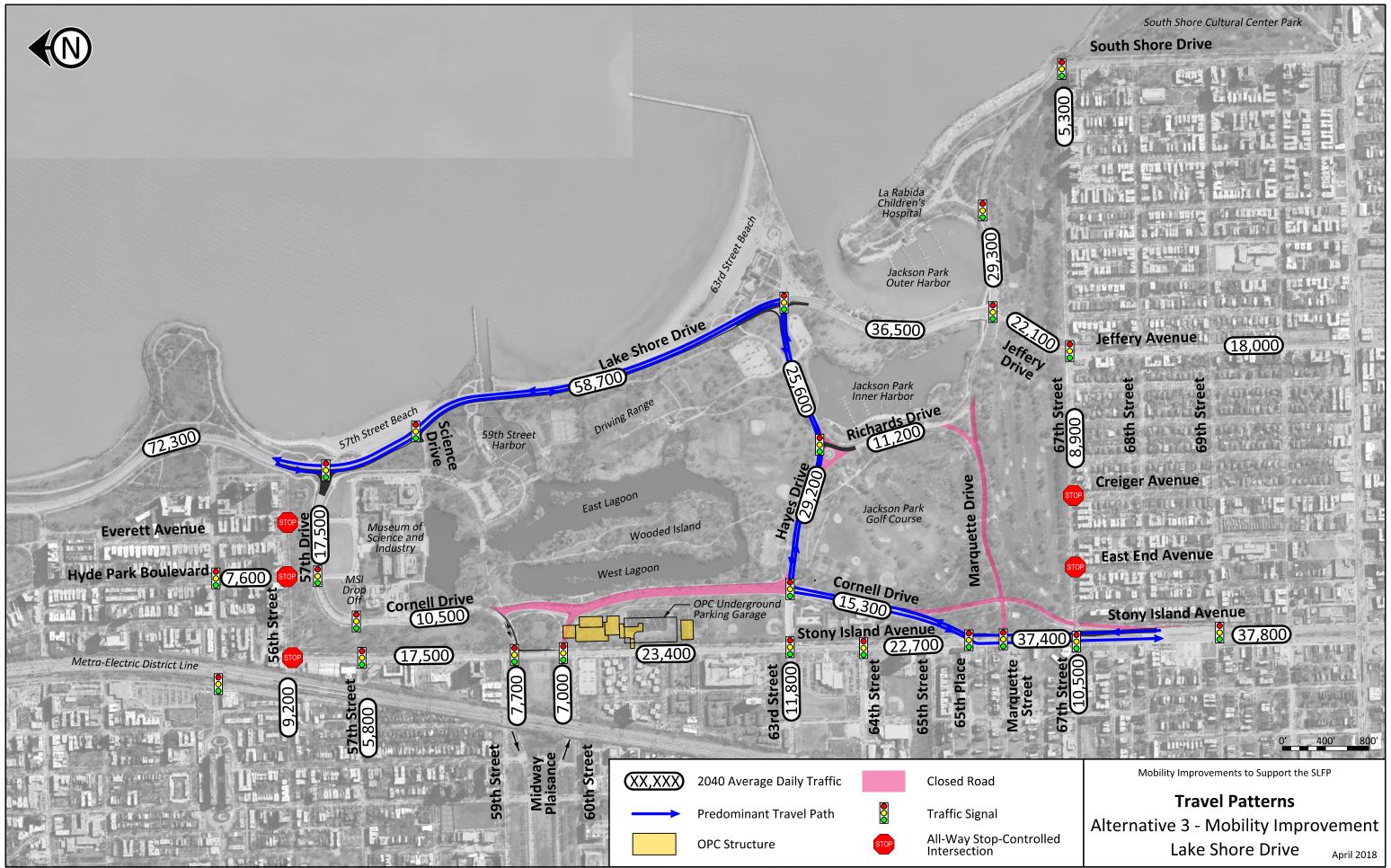


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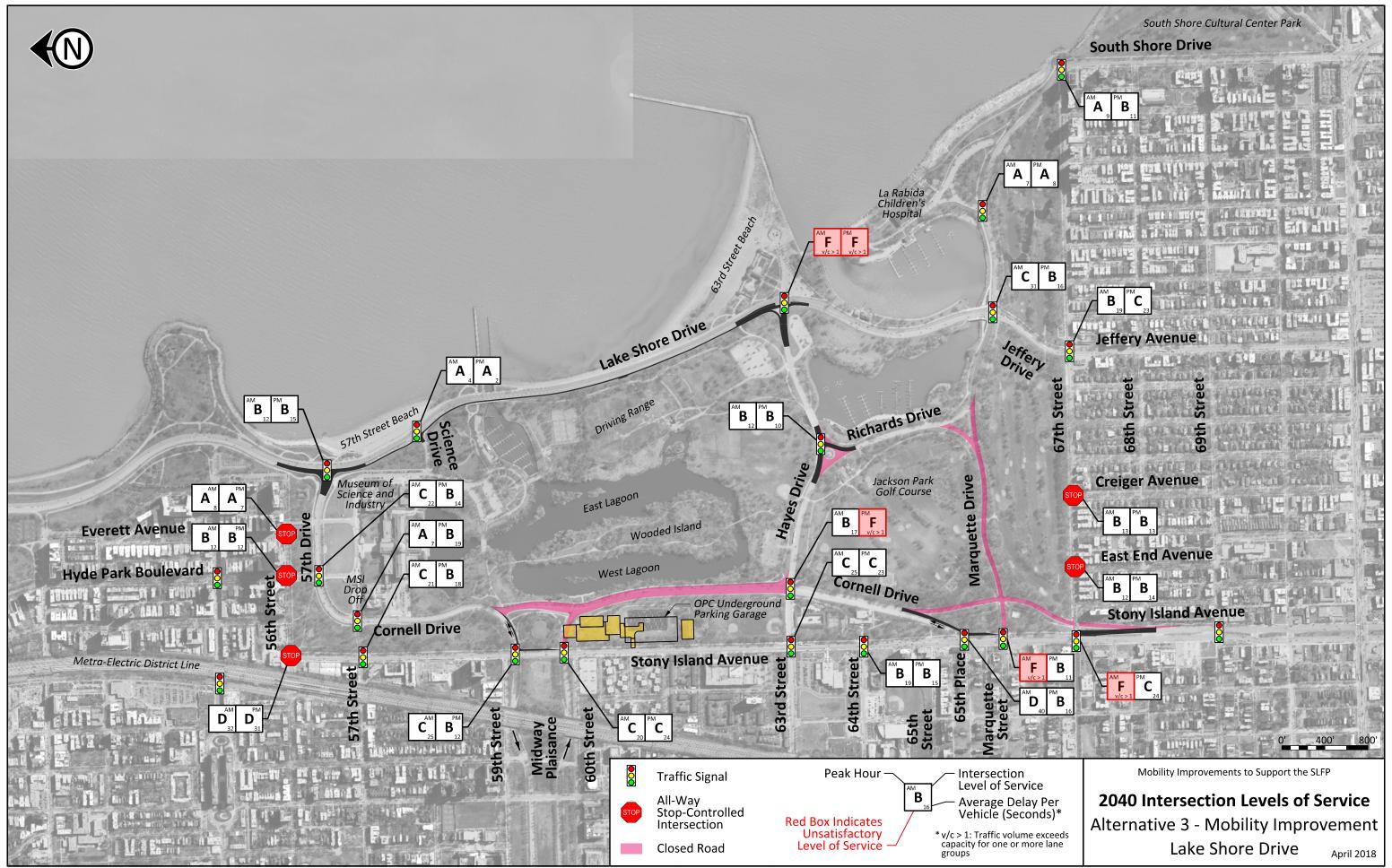


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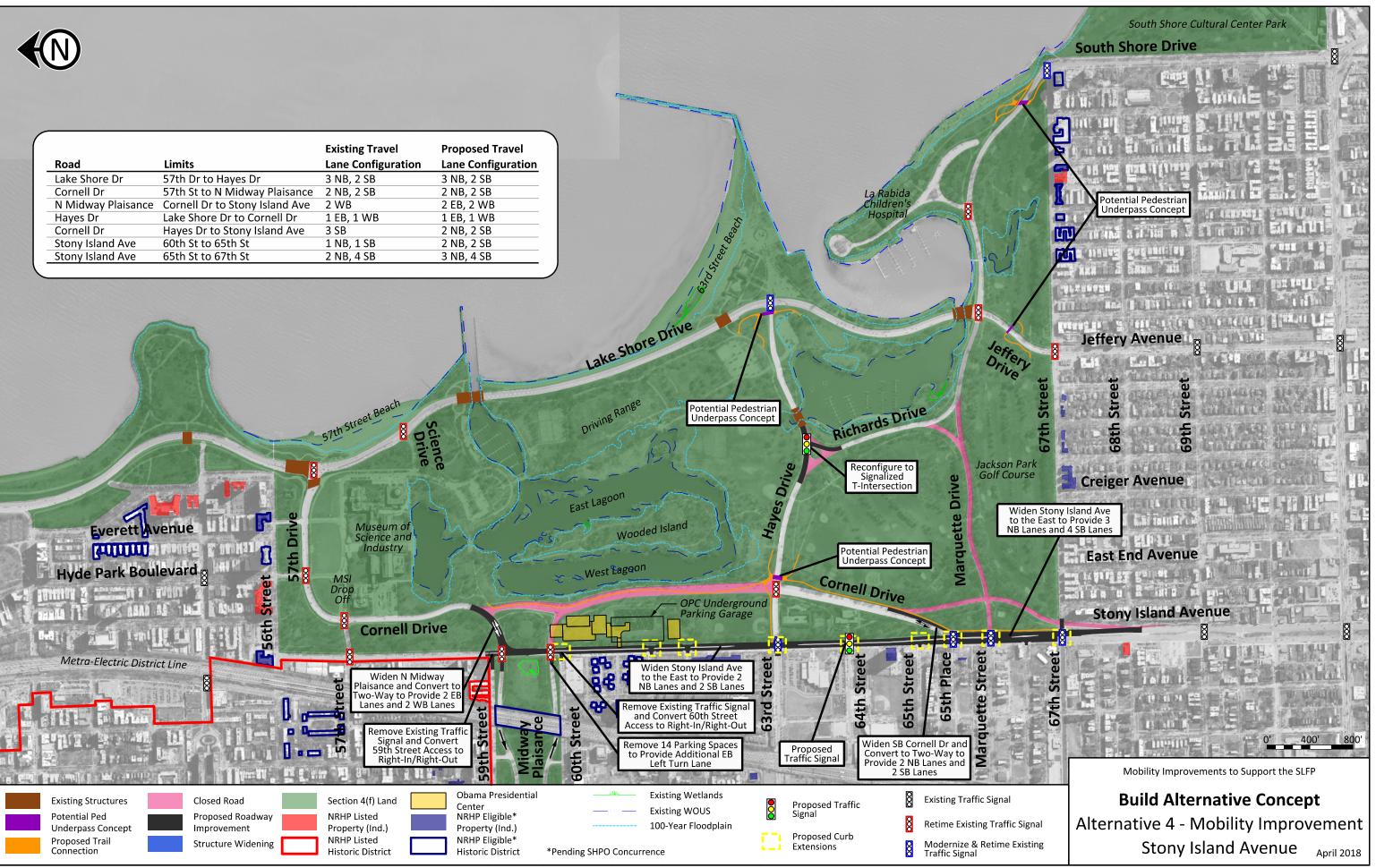


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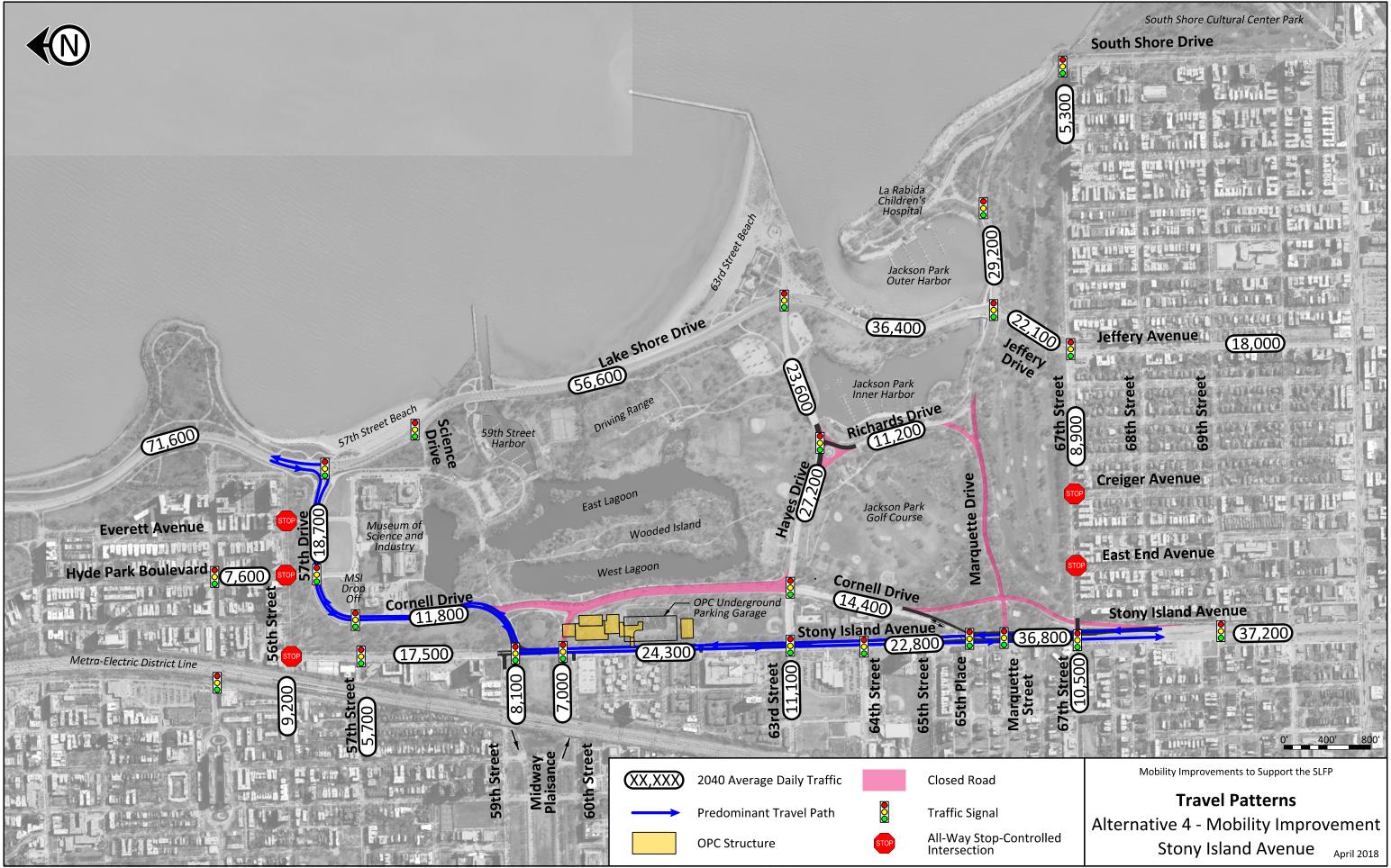


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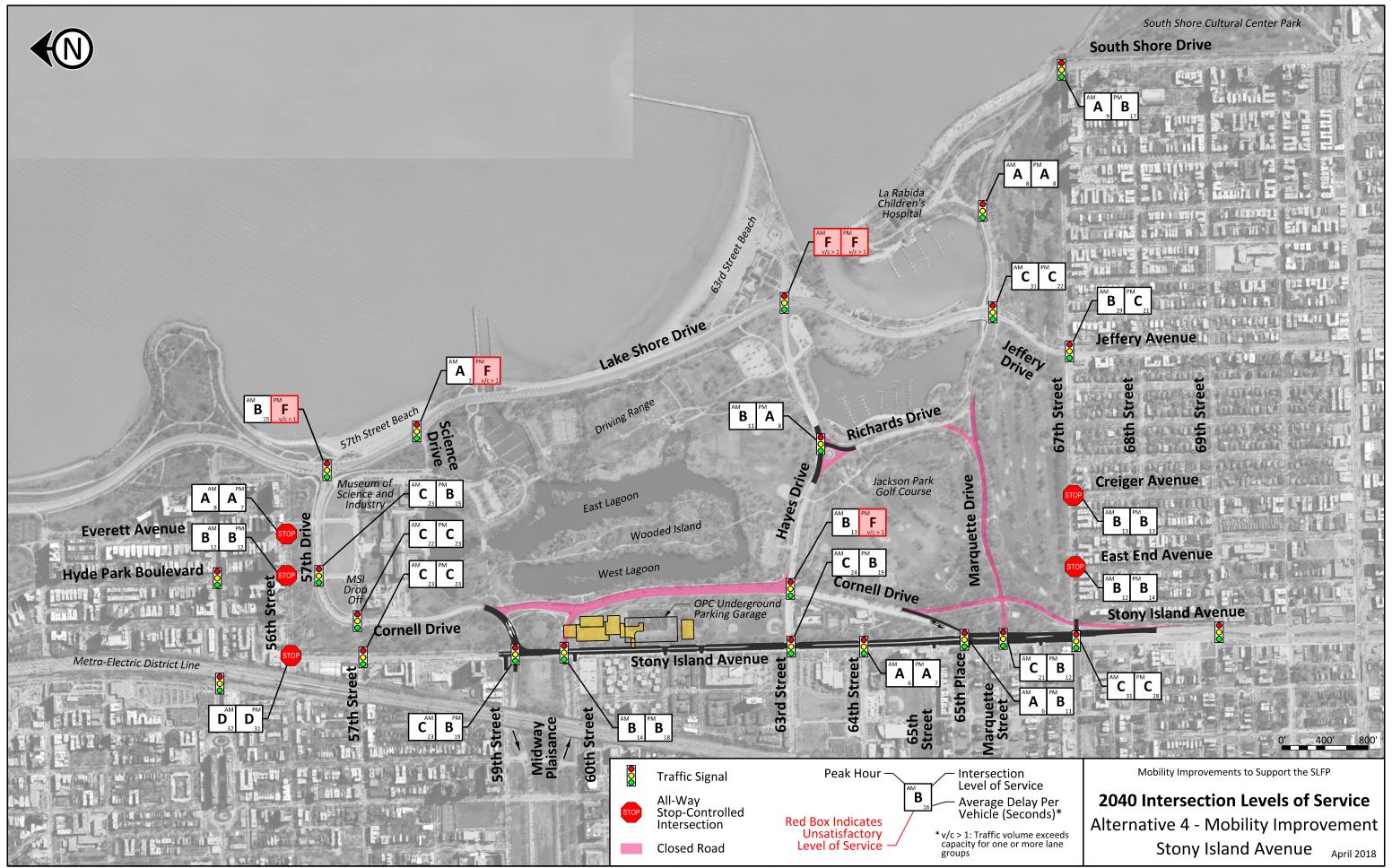


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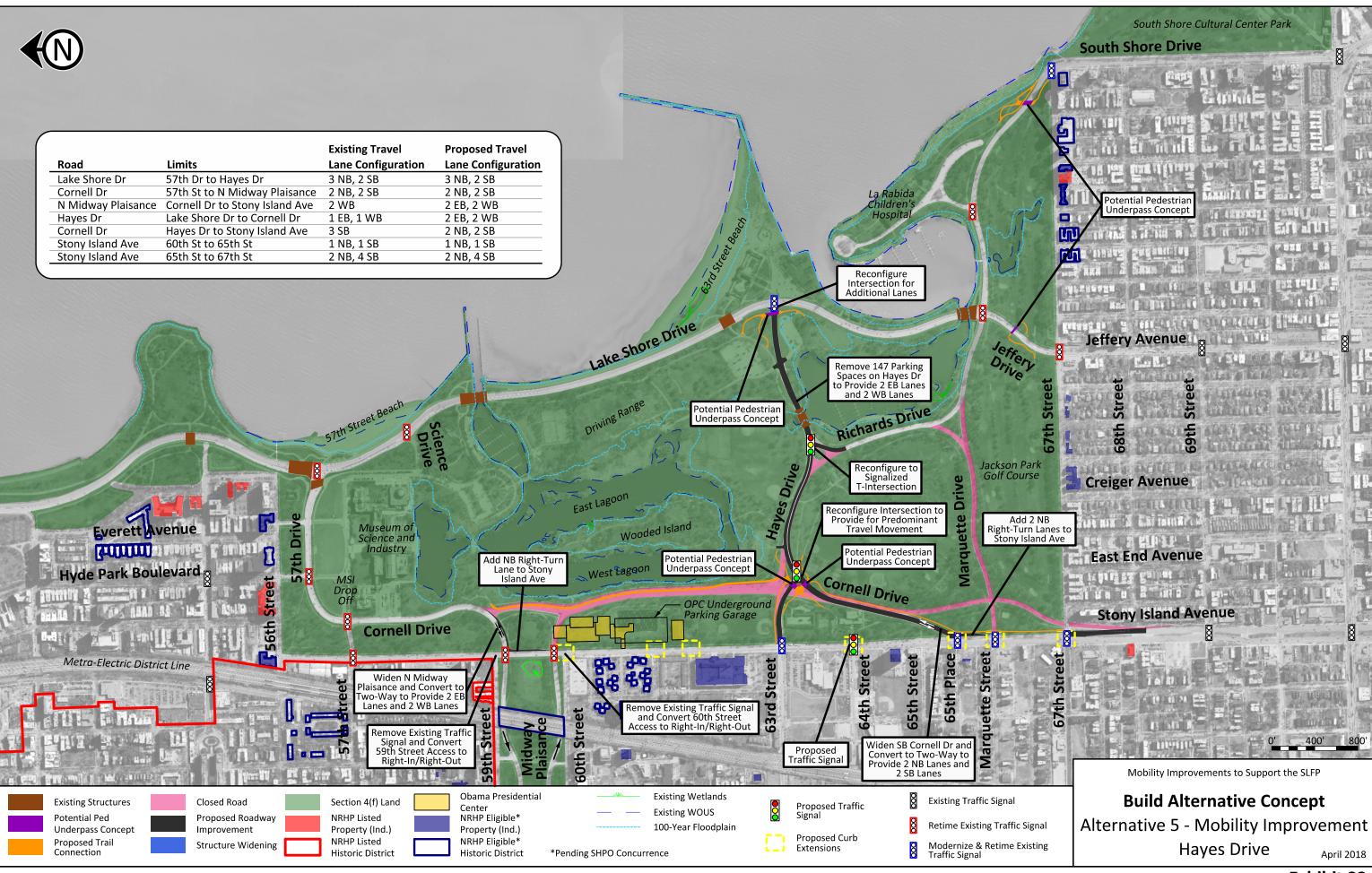


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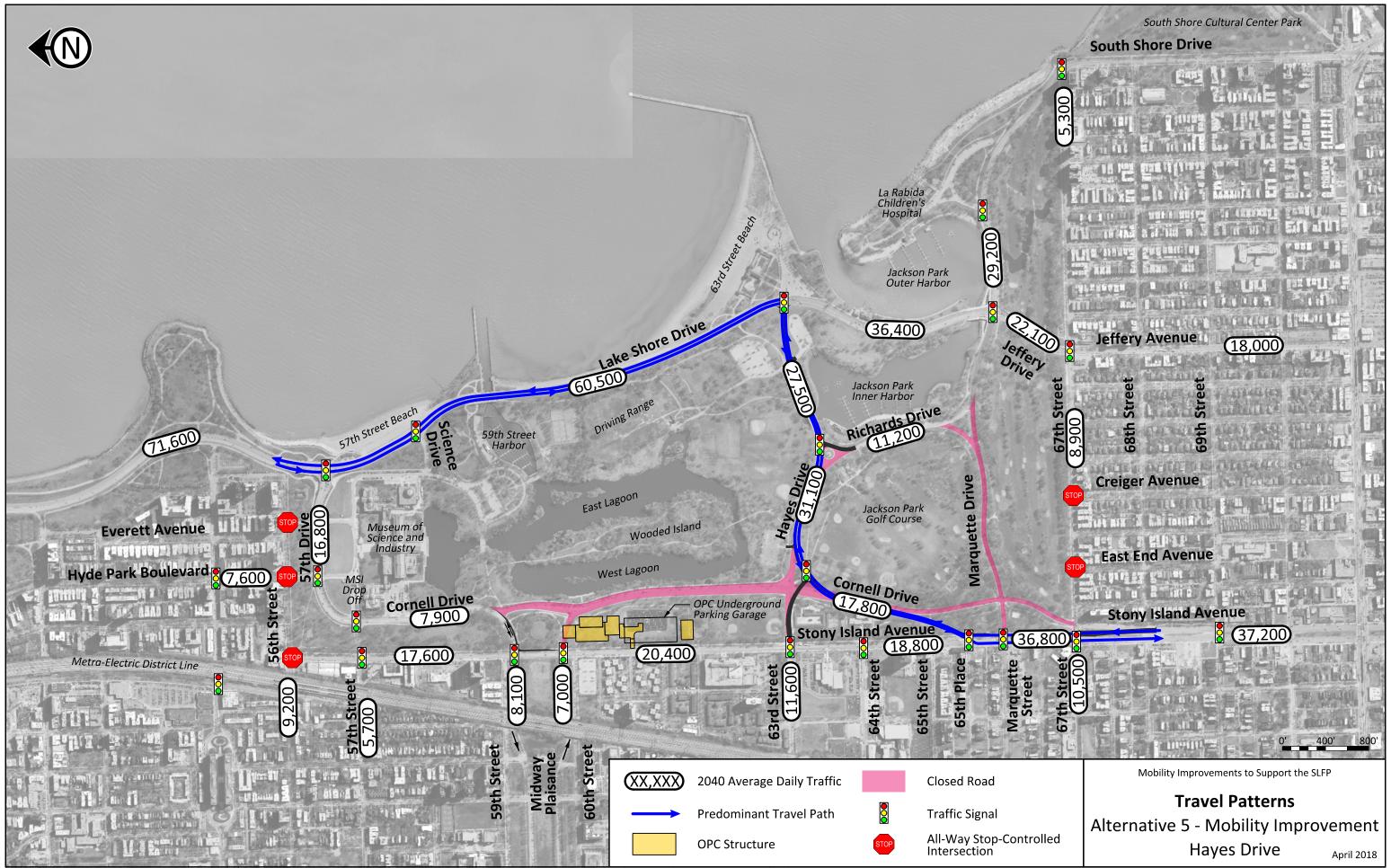


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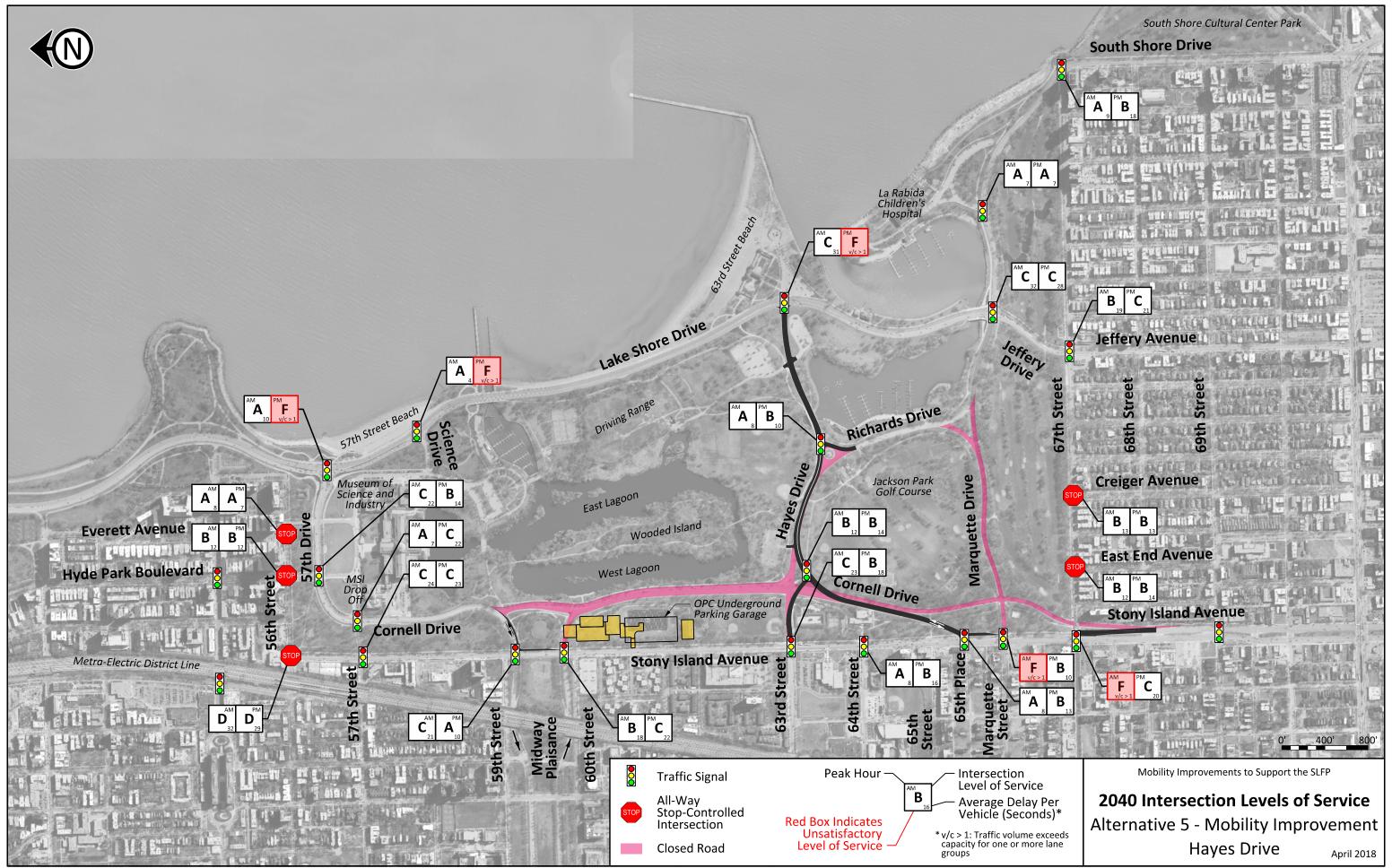
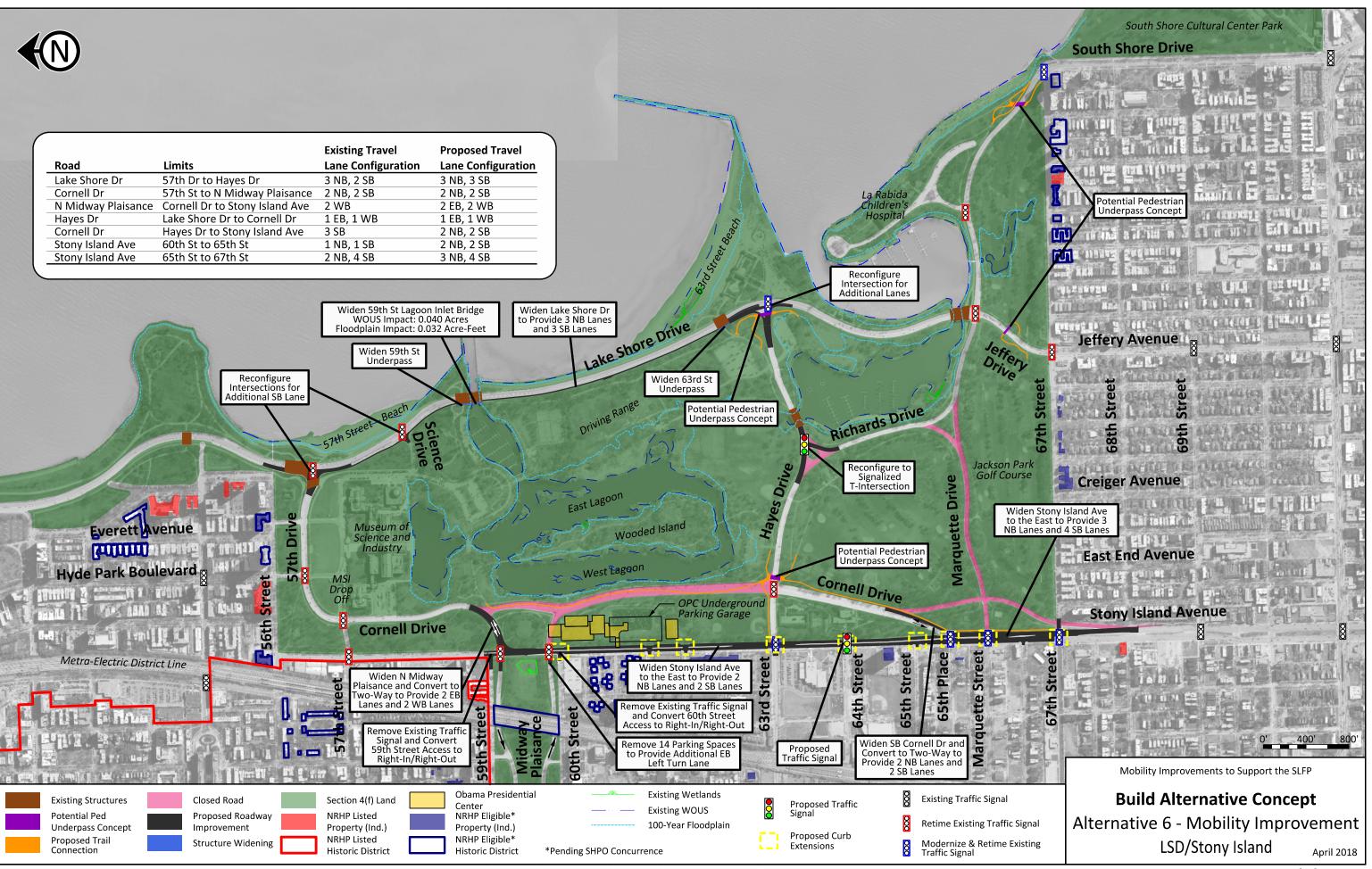


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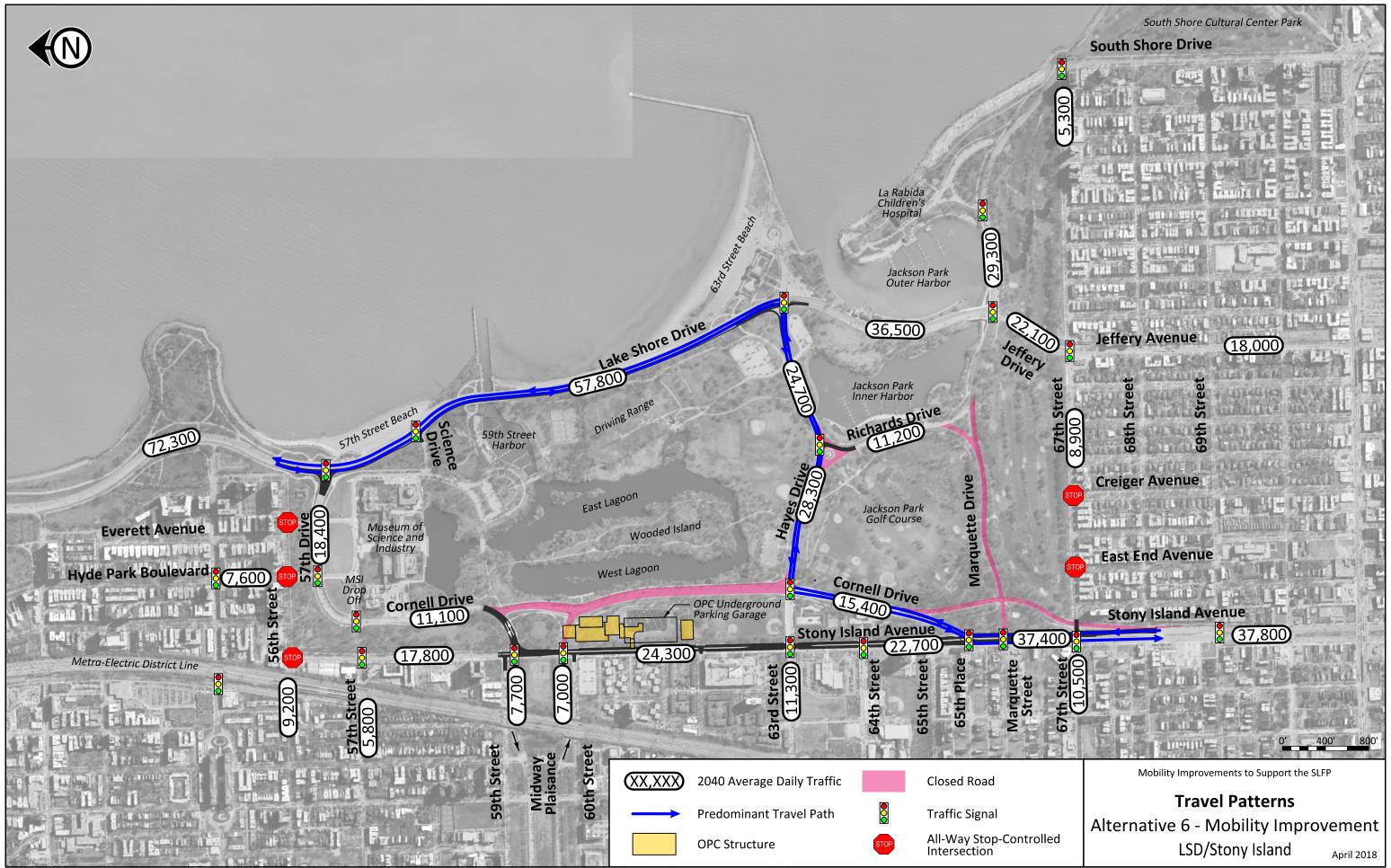


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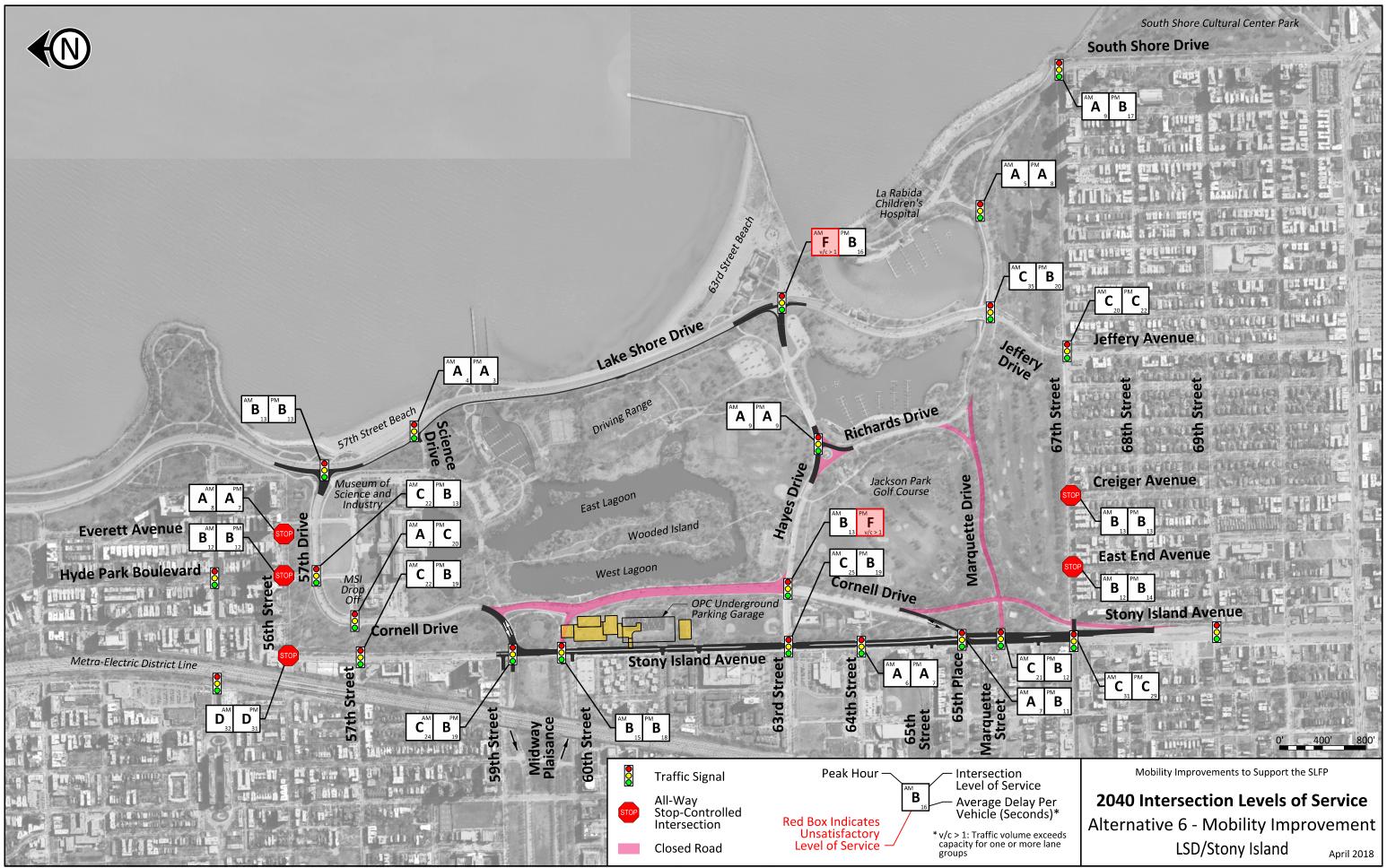


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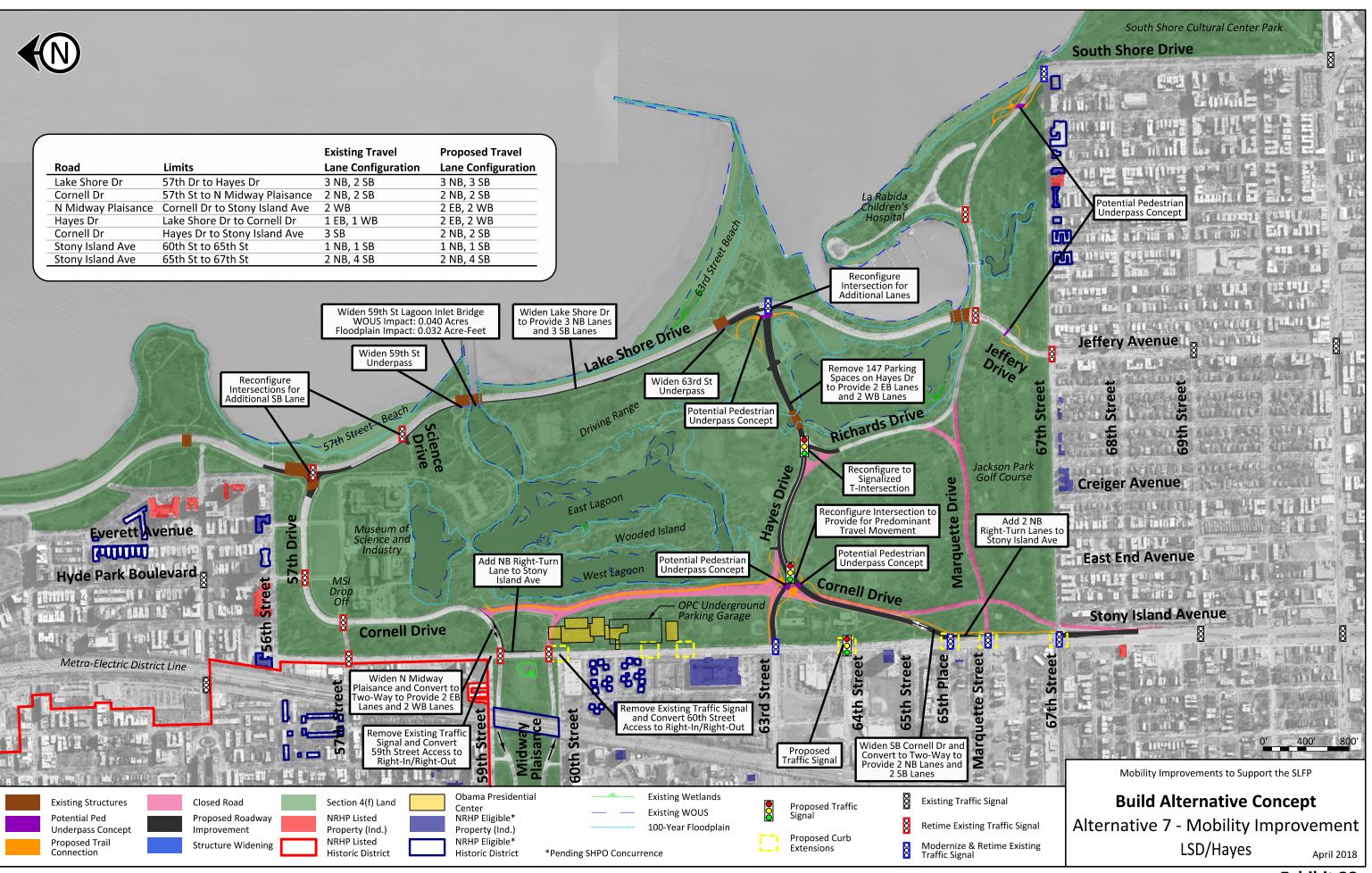


Exhibit 28



Exhibit 29

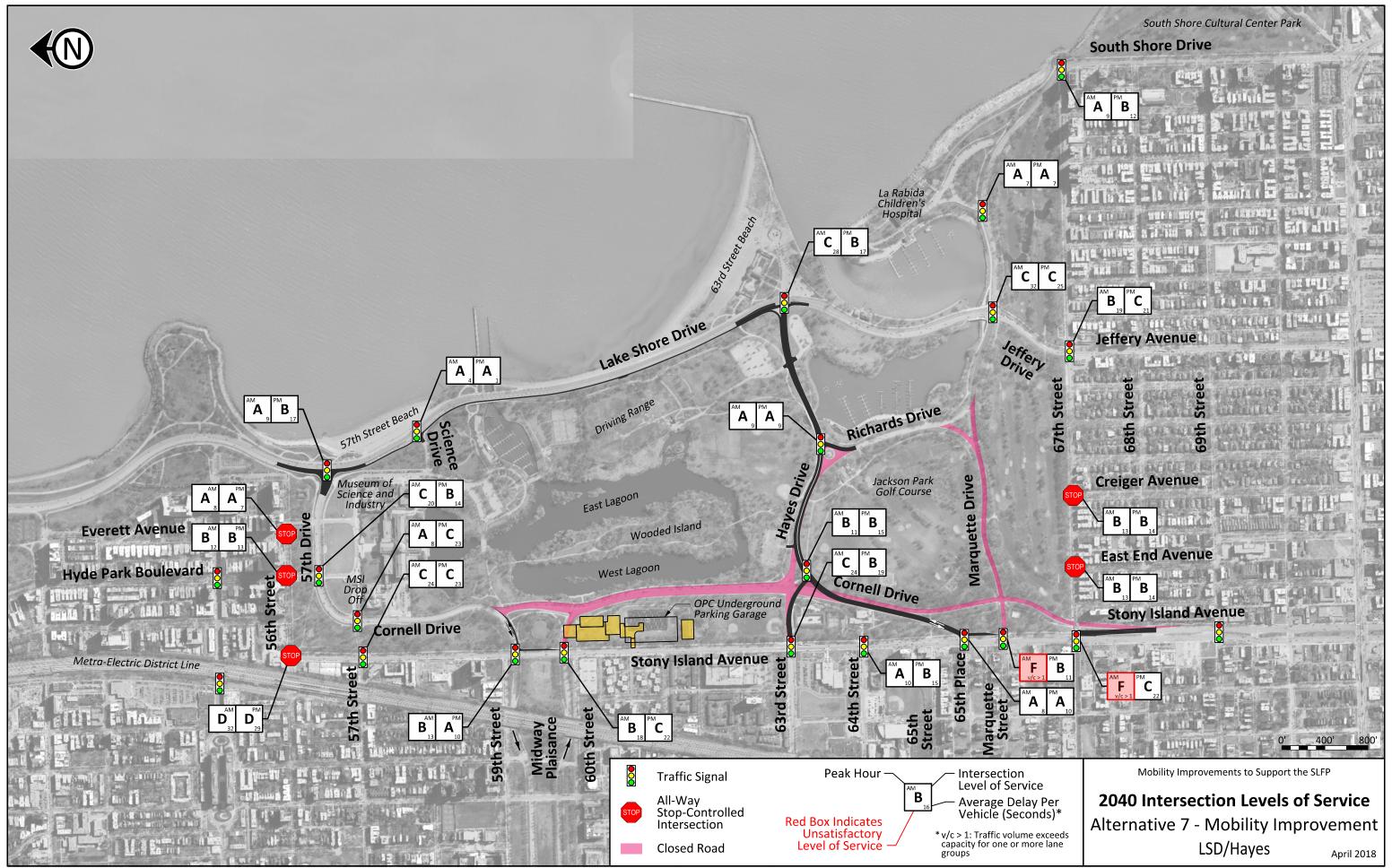


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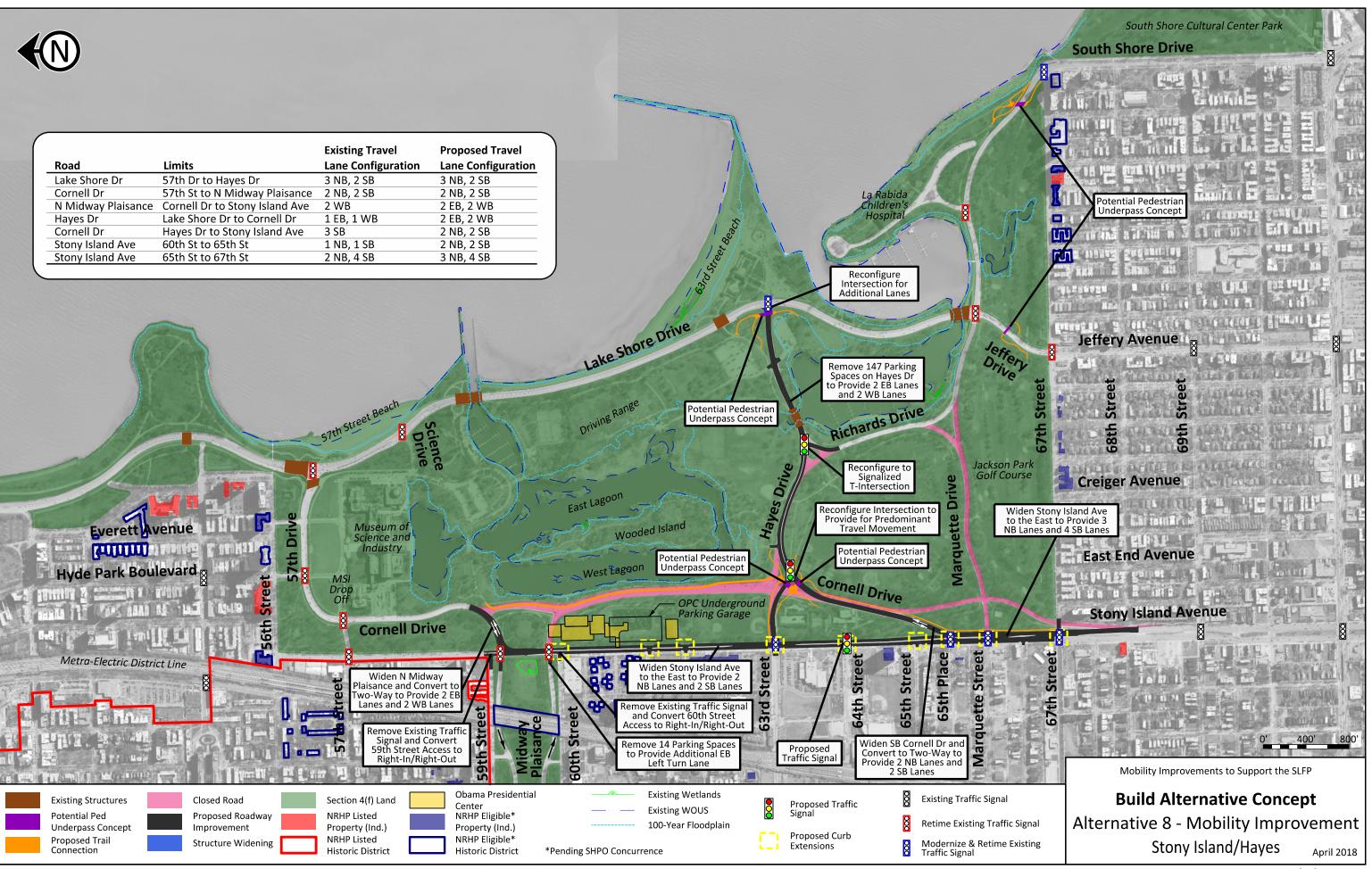


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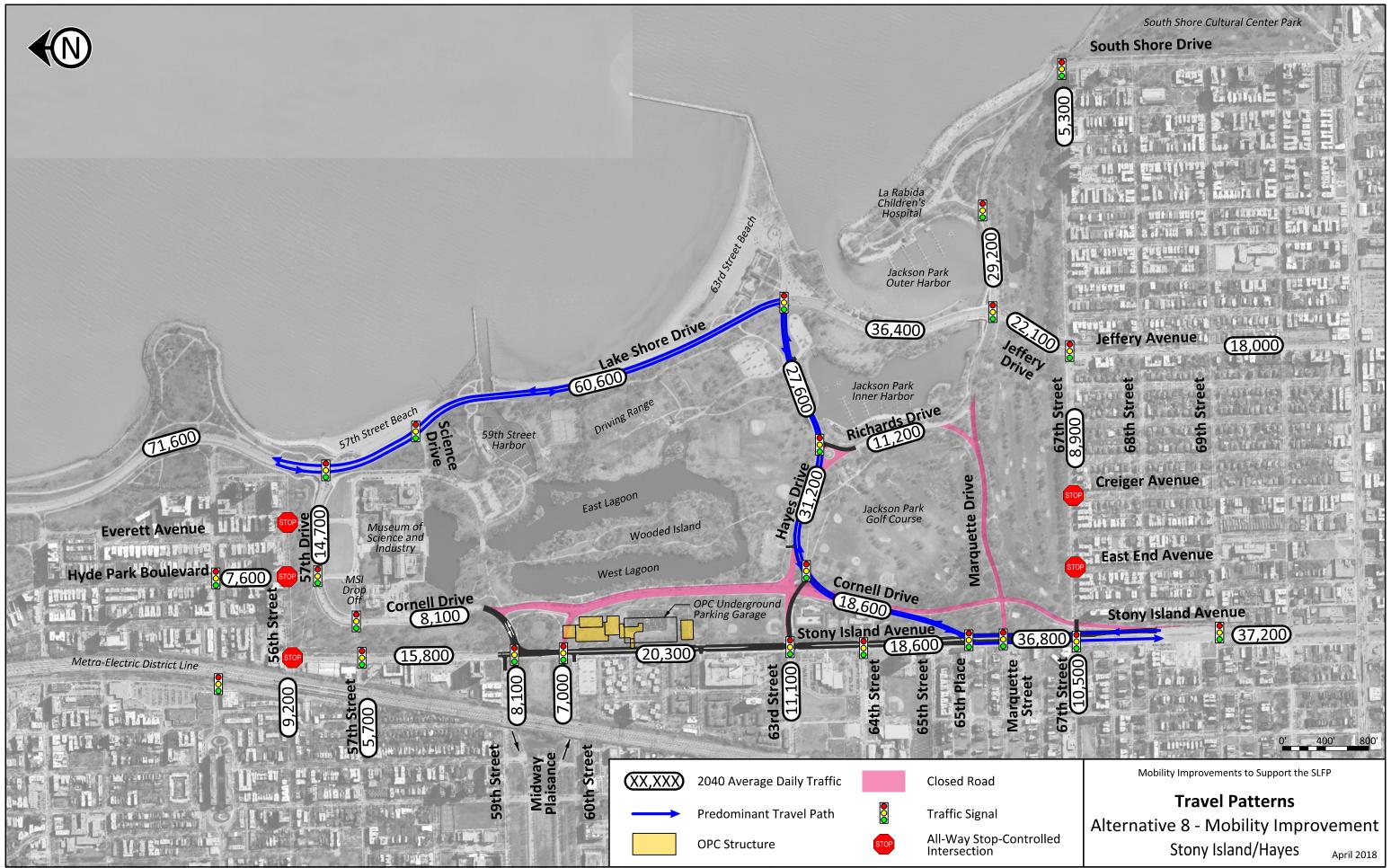


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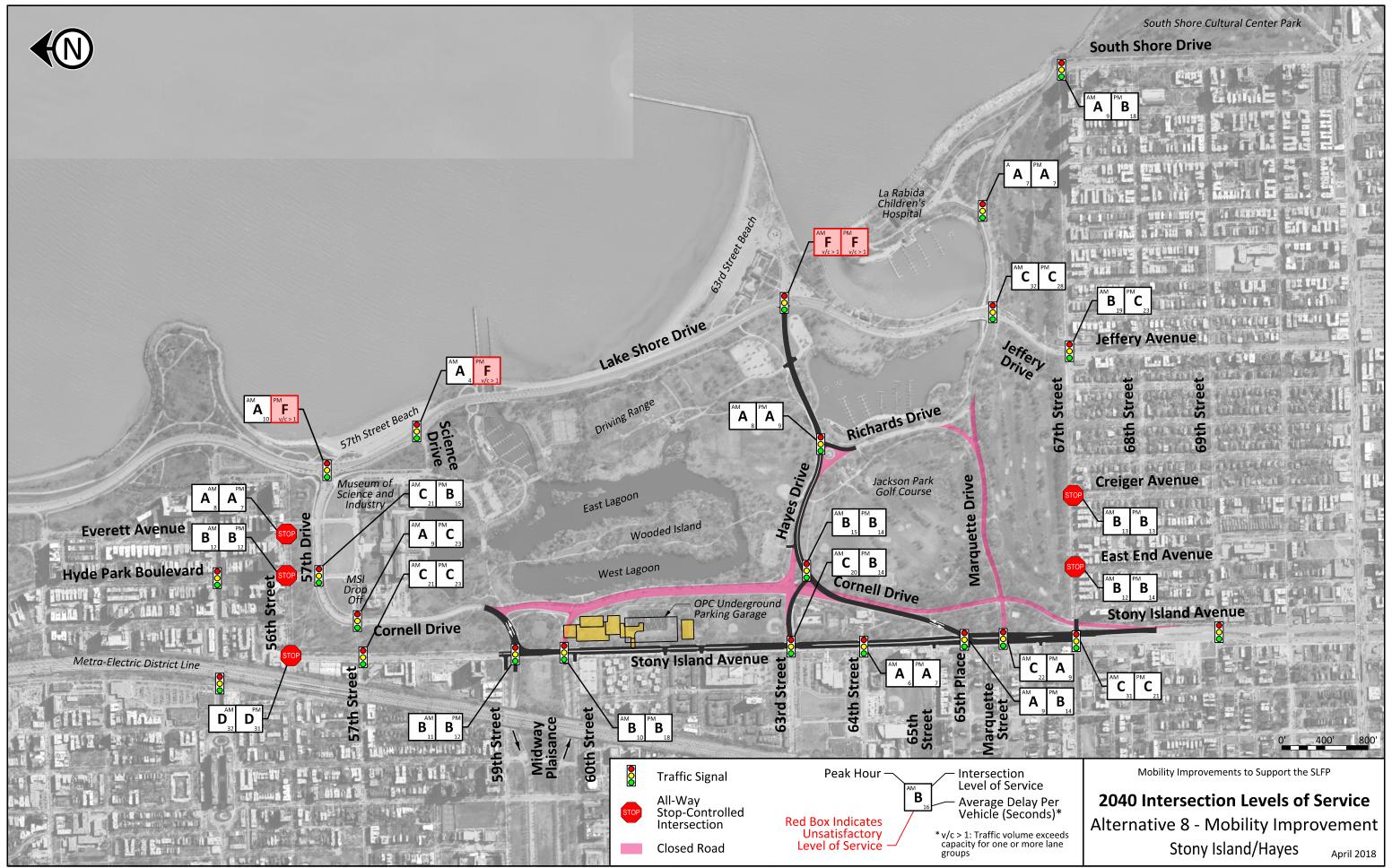


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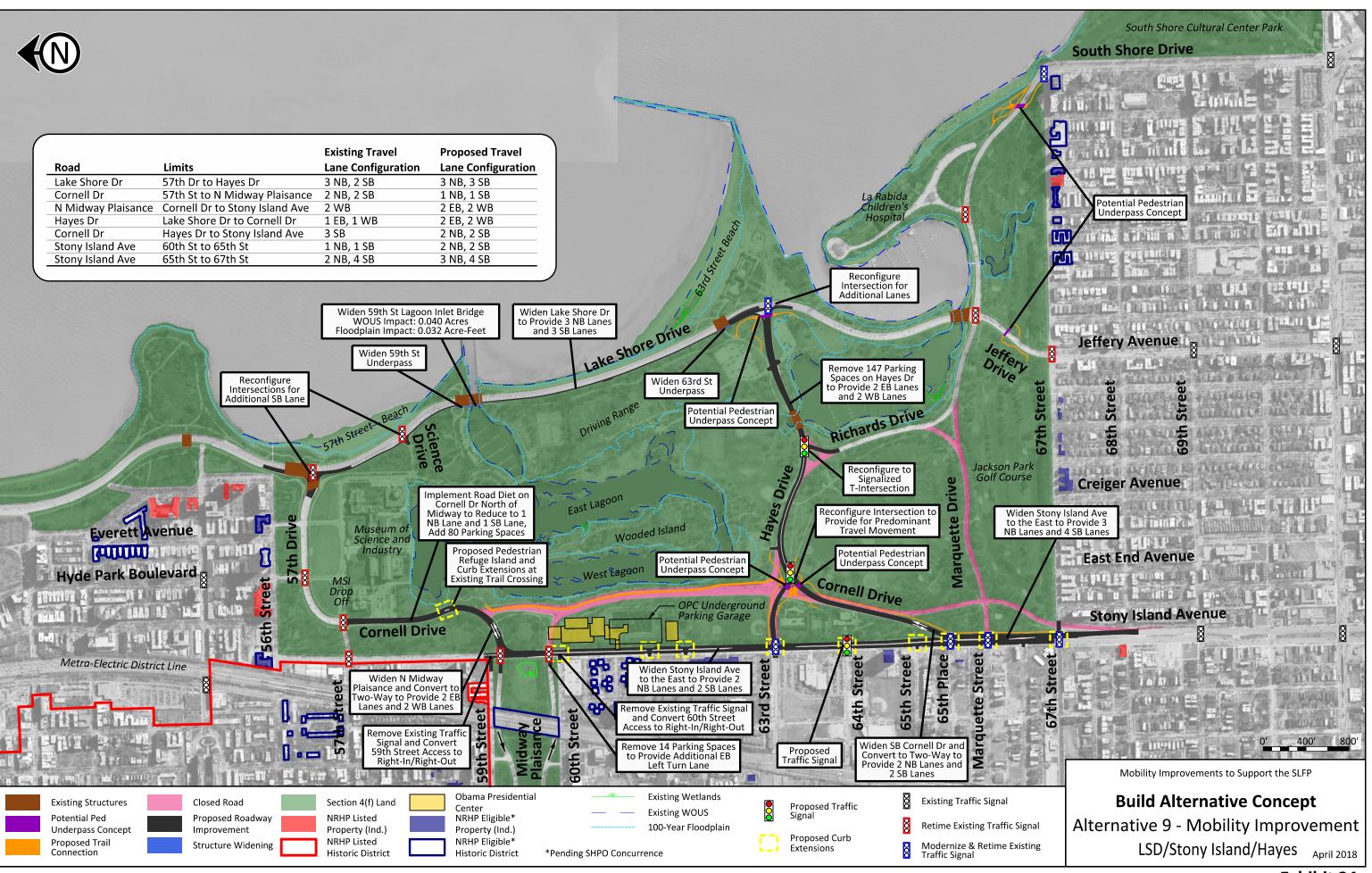


Exhibit 34



Exhibit 35

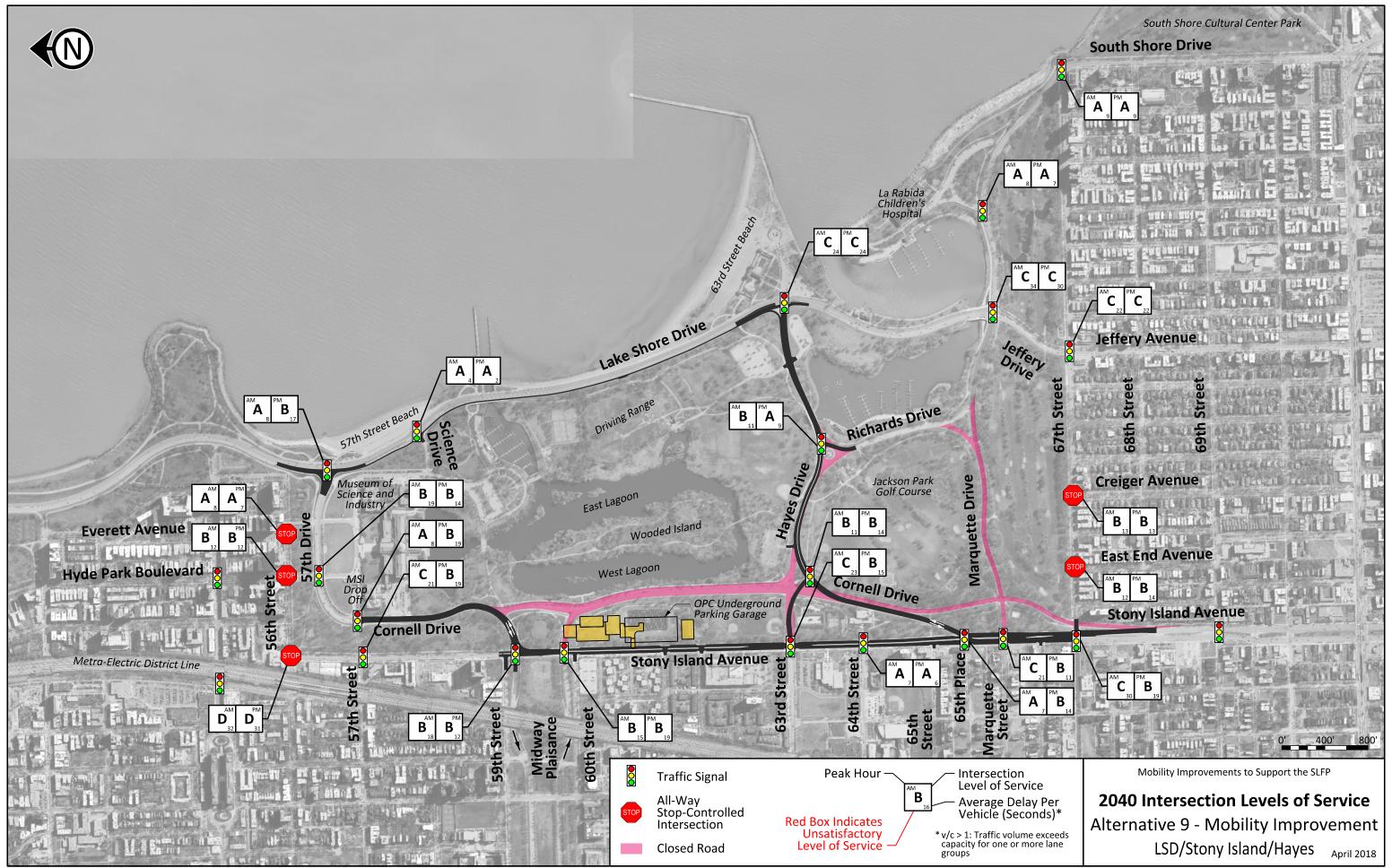


Exhibit 36

Appendix D – Alternatives Studied in Detail

Preferred Alternative Documentation

SELECTION OF THE PREFERRED ALTERNATIVE

1. Introduction

This document describes and evaluates the Alternatives Carried Forward for detailed study as part of the Mobility Improvements to Support the South Lakefront Framework Plan (SLFP) project. The evaluation of the detailed alternatives will result in a recommendation of a Preferred Alternative. The following alternatives to be studied in detail include:

- No-Action Alternative
- Alternative 9 Mobility Improvement Widen Lake Shore Drive/Widen Stony Island
 Avenue/Reconfigure Hayes Drive

Efforts to avoid and minimize use of Section 4(f) resources for each of these alternatives are discussed and evaluated. Impacts of each alternative to environmental resources are also evaluated and compared.

1.1. Study Area

The Study Area is located in Chicago, Illinois, and encompasses Jackson Park. See Exhibits 1A, 1B and 2 in Appendix A. Jackson Park is bounded by 67th Street, Stony Island Avenue, 56th Street and Lake Michigan. See Exhibits 1 and 2 in Appendix A. Jackson Park is served by heavily travelled arterial roadways, including Lake Shore Drive (US Route 41) to the east and Stony Island Avenue to the west. Within Jackson Park, 57th Drive carries east-west traffic from Lake Shore Drive to the Museum of Science and Industry (MSI). South of the Museum, 57th Drive becomes Cornell Drive which carries north-south traffic from the Museum toward park recreational facilities and beyond to residential neighborhoods. These roadway facilities provide an important route for westbound morning commuters and eastbound evening commuters between major commuter expressways and the City's Central Business District. Collector roadways within Jackson Park include Hayes Drive and Marquette Drive. Lake Shore Drive north of 57th Drive and Stony Island Avenue south of 57th Street are on the National Highway System, which consists of roadways that are important to the nation's economy, defense and mobility. The Lakefront Trail is parallel to the east side of Lake Shore Drive and serves recreational users, commuters, and tourists.

2. Purpose and Need

2.1. Proposed Action

The City of Chicago (City) is proposing to close roadways within Jackson Park, Chicago, Illinois to meet the planning and development objectives for Jackson Park as described in the 2018 South Lakefront Framework Plan¹. The permanent roadway closures include: Cornell Drive between 63rd Street (Hayes Drive) and 59th Street, the northbound section of Cornell Drive between 68th Street and 65th Street, Marquette Drive between Stony Island Avenue and Richards Drive, and South Midway Plaisance (eastbound only) between Stony Island Avenue and Cornell Drive. See Exhibit 3. Closures of South Midway Plaisance and Cornell Drive between 63rd Street and 59th Street are necessary to accommodate the development of the Obama Presidential Center. The additional roadway closures will allow for continuous parkland within Jackson Park. The roadway closures are separate independent actions that do not require any Federal approvals and are therefore considered the baseline condition as well as the No-Action alternative.

The roadway closures may require improvements to other roadways to mitigate traffic impacts. The potential roadway improvements may be funded through the Federal Highway Administration (FHWA) Federal-Aid Highway Program, which would require approval from FHWA.

2.2. Project Need

The Proposed Action relates to the potential roadway improvements that are necessary to address traffic impacts that will result from roadway closures within Jackson Park. Improvement needs vary within the project area, but fall into two broad categories:

- Accommodate changes in travel patterns.
- Improve bicyclist and pedestrian access and circulation.

A full description and analysis of these identified needs can be found in the Purpose and Need documentation, under separate cover.

2.3. Project Purpose

The purpose of the Proposed Action is to (1) address changes in travel patterns resulting from closing roadways in Jackson Park and (2) improve bicycle and pedestrian access and circulation.

Preferred Alternative 2 June 27, 2018

¹ The 2018 South Lakefront Framework Plan was approved by the Chicago Park District in April 2018.

3. Alternatives Analysis

A range of preliminary project alternatives were evaluated to determine if the alternative met the project's Purpose and Need. Alternatives that avoided permanently incorporating Section 4(f) land into a transportation facility were considered first, including the No-Action Alternative, Congestion Management Process Strategies, and Alternative 1 – Alternative Avoiding Section 4(f) Use. The alternatives analysis considered a tiered approach to satisfy the Purpose and Need, as described in Section 2.0. If any alternative failed to meet the Purpose and Need, components of that alternative would be included in successive alternatives in addition to incremental improvements to determine the necessary facilities to meet the Purpose and Need while minimizing impacts to environmental resources. The preliminary alternatives included:

- No-Action Alternative
- Congestion Management Process Strategies
- Alternative 1 Alternative Avoiding Section 4(f) Use
- Alternative 2 Operational Changes to Roadways
- Alternative 3 Mobility Improvement Widen Lake Shore Drive
- Alternative 4 Mobility Improvement Widen Stony Island Avenue
- Alternative 5 Mobility Improvement Reconfigure Hayes Drive
- Alternative 6 Mobility Improvement Widen Lake Shore Drive and Widen Stony Island Avenue
- Alternative 7 Mobility Improvement Widen Lake Shore Drive and Reconfigure Hayes Drive
- Alternative 8 Mobility Improvement Widen Stony Island Avenue Reconfigure Hayes Drive
- Alternative 9 Mobility Improvement Widen Lake Shore Drive/Widen Stony Island Avenue/ Reconfigure Hayes Drive

The amount of permanent incorporation of Section 4(f) land into a transportation facility and potential temporary occupancy was quantified for each alternative. For this project, proposed trails and underpasses within Jackson Park may qualify as a temporary occupancy and would be considered excepted from Section 4(f) approval².

A summary table of each preliminary alternative evaluation and recommended action is provided in Table 1.

Preferred Alternative 3 June 27, 2018

² A temporary occupancy does not require a Section 4(f) approval if the criteria in 23 CRF 774.13(d) are satisfied.

Table 1
Preliminary Alternatives Summary

			Purpose & No		
Range of Alternatives	Section 4(f) Land Use for Transportation (acre)	Temporary Occupancy of Section 4(f) Land (acre)	Accommodate Changes in Travel Patterns	Improve Bicycle & Pedestrian Access & Circulation	Carried Forward for Detailed Analysis
No-Action	0.0	0.0	No	No	YES
Congestion Management Process Strategies	0.0	2.7	No	Yes	NO
Alternative 1 - Alternative Avoiding Section 4(f) Use	0.0	0.0	No	No	NO
Alternative 2 - Operational Changes to Roadways	0.6	2.7	No	Yes	NO
Alternative 3 - Widen LSD	2.0	2.6	No	Yes	NO
Alternative 4 - Widen Stony Island	3.1	2.7	No	Yes	NO
Alternative 5 - Reconfigure Hayes	1.5	3.7	No	Yes	NO
Alternative 6 - Widen LSD/Widen Stony Island	4.5	2.6	No	Yes	NO
Alternative 7 - Widen LSD/Reconfigure Hayes	3.2	3.6	No	Yes	NO
Alternative 8 - Widen Stony Island/ Reconfigure Hayes	3.9	3.7	No	Yes	NO
Alternative 9 - Widen LSD/ Widen Stony Island/ Reconfigure Hayes	5.6	3.6	Yes	Yes	YES

3.1. Alternatives to be Carried Forward

As shown in Table 1, the No-Action Alternative would not convert any Section 4(f) land to a transportation use, nor would it involve any potential temporary occupancy of Section 4(f) properties. The No-Action Alternative does not provide sufficient pedestrian and bicyclist accommodations to improve access and circulation to and within Jackson Park. Unacceptable operational performance within the study area results from the No-Action Alternative. Therefore, the No-Action Alternative does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. However, the No-Action Alternative is required to be analyzed in detail and will be carried forward as a benchmark to compare against Build alternatives.

Alternative 9 converts 5.6 acres of Section 4(f) land to a transportation use to construct an additional southbound travel lane along Lake Shore Drive, to widen Stony Island Avenue between 67th Street and 59th Street, to reconfigure Hayes Drive at the Lake Shore Drive, Richards Drive and Cornell Drive intersections, and to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation. This alternative also involves 3.6 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection. Alternative 9 meets the project's Purpose and Need by providing improvements to bicyclist and pedestrian access and circulation while also performing with acceptable operations throughout the study area. Therefore, Alternative 9 is carried forward for further detailed study.

In summary, the following alternatives were carried forward for detailed evaluation:

- No-Action Alternative
- Alternative 9 Mobility Improvement Widen Lake Shore Drive/Widen Stony Island Avenue/ Reconfigure Hayes Drive

A full description of the preliminary alternatives and analysis can be found in the Alternatives to be Carried Forward documentation, under separate cover.

4. Alternatives Studied in Detail

Each of the Alternatives to be Carried Forward have been refined based on further design studies and additional efforts to avoid or minimize a transportation use of Section 4(f) resources. This section discusses the improvements included in each alternative studied in detail. Section 5 discusses the efforts completed to minimize transportation use of Section 4(f) resources for the Build Alternative. An evaluation of the alternatives studied in detail is included in Section 6.

4.1. No-Action Alternative

The No-Action Alternative is depicted on Exhibit 4. The No-Action Alternative represents future conditions that assume the following:

- The Obama Presidential Center (OPC) site is constructed within Jackson Park as proposed by the City of Chicago. The OPC site can be found on Exhibit 2.
- The City closes roadways within Jackson Park, Chicago, Illinois to implement a portion of their South Lakefront Framework Plan (SLFP), as described in Section 2.1 and depicted on Exhibit 3.
- No roadway improvements are made in response to changing conditions caused by the roadway closures.

4.2. Alternative 9: Mobility Improvement – Widen Lake Shore Drive/Widen Stony Island Avenue/Reconfigure Hayes Drive

Alternative 9 improvements include providing additional capacity along Lake Shore Drive and Stony Island Avenue as well as a reconfiguration of Hayes Drive in order to accommodate changes in travel patterns as a result of the roadway closures. As part of the preliminary alternatives analysis, each of these improvements were assessed individually as well as in various combinations to determine the minimum improvements needed to achieve acceptable operational performance. The combination of improvements along all three roadways was determined necessary to achieve acceptable Levels of Service at all intersections in the study area. The specific improvements included in Alternative 9 are detailed below:

Capacity Improvements

Lake Shore Drive – 57th Drive to Hayes Drive

 This existing section of Lake Shore Drive consists of three northbound and two southbound travel lanes. This section would be widened to add an additional southbound travel lane, resulting in a proposed section that consists of three northbound and three southbound travel lanes.

Haves Drive - Cornell Drive to Lake Shore Drive

• This existing section of Hayes Drive consists of one lane in each direction with on-street parking along both sides. In this alternative, 147 on-street parking spaces would be removed to increase the number of travel lanes to two lanes in each direction with a raised barrier median.

Cornell Drive - Hayes Drive to Stony Island Avenue

• This existing section of Cornell Drive consists of three southbound-only travel lanes. This section would be widened to accommodate an additional lane and converted to two-way traffic, resulting in the proposed section that consists of two southbound and two northbound lanes.

Stony Island Avenue - Midway Plaisance to 65th Street

This existing section of Stony Island Avenue consists of one lane each direction with on-street
parking on each side. This section would be widened to add one southbound lane, one
northbound lane, a center raised median with left turn lanes, and space for bus loading lanes.
The proposed Stony Island Avenue section then consists of two lanes in each direction, a raised
median with left turn lanes, and on-street parking/bus loading lanes on each side of the street.

Stony Island Avenue – 65th Street to 67th Street

• This existing section of Stony Island Avenue consists of two northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side. This section would be widened to add one northbound through lane along Stony Island Avenue to result in a proposed section that consists of three northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side.

Bridge Modifications

Lake Shore Drive

• Widen the 59th Street underpass, the 59th Street Lagoon Inlet Bridge, and the 63rd Street underpass to accommodate the additional southbound lane proposed along Lake Shore Drive.

Intersection Modifications

Lake Shore Drive

- At 57th Drive, widen the intersection to accommodate the new third southbound lane, and retime the traffic signal to optimize signal operations.
- At Science Drive, widen the intersection to accommodate the new third southbound lane, and re-time the traffic signal to optimize signal operations.
- At Hayes Drive, widen the intersection to accommodate the new third southbound lane on Lake Shore Drive, the two new through lanes on Hayes Drive, and new turn lanes. Also, modernize the traffic signal installation and re-time the signal to optimize operations. Provide a new pedestrian crossing on the south leg.

Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, reconfigure the intersection to provide a through movement for the
 predominant travel through the intersection. Realign the existing section of Hayes Drive
 between Stony Island Avenue and Cornell Drive to create a signalized T-intersection with the
 realigned Hayes Drive-Cornell Drive through movement.

Stony Island Avenue

- At 57th Street, re-time the traffic signal to optimize signal operations.
- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), widen the intersection to accommodate additional through and turning lanes on Stony Island Avenue, to convert North Midway Plaisance east of Stony Island Avenue to two-way traffic, and provide two lanes in each direction on North Midway Plaisance east of Stony Island Avenue. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), widen the intersection to accommodate the additional lanes on Stony Island Avenue. Remove 14 on-street parking spaces on the west leg to provide an additional eastbound left-turn lane. Re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only. Widen the intersection to accommodate the additional lanes on Stony Island Avenue.
- At 63rd Street/Hayes Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and shift the east leg to the north to provide better alignment for the westbound through movement across the intersection. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue and Cornell Drive, to convert Cornell Drive east of Stony Island Avenue to two-way, and to provide additional turn lanes. Modernize the traffic signal installation and retime the signal to optimize operations.
- At Marquette Street, widen the intersection to accommodate the additional lanes on Stony Island. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue. Modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

• At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.

• At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's Streets for Cycling 2020 plan) along Cornell Drive and Haves Drive
- Pedestrian underpasses at the following locations:
 - o Two legs of the Cornell Drive/Hayes Drive intersection
 - o Along Hayes Drive between Richards Drive and Lake Shore Drive
 - o Along Jeffery Drive between Marquette Drive and 67th Street
 - South Shore Drive/67th Street intersection
- Curb extensions at the following intersections or mid-block crossings:
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 61st Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 63rd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street
 - Stony Island Avenue at 65th Place
 - Stony Island Avenue at Marquette Street
 - Stony Island Avenue at 67th Street
 - o Mid-Block Crossing of Cornell Drive between 57th Street and Stony Island Avenue
- Pedestrian refuge islands at the following intersections or mid-block crossings:
 - Haves Drive at Richards Drive
 - Stony Island Avenue at North Midway Plaisance
 - Stony Island Avenue at 60th Street
 - Stony Island Avenue at 62nd Street
 - Stony Island Avenue at 64th Street
 - Stony Island Avenue at 65th Street

- Stony Island Avenue at 65th Place
- Stony Island Avenue at Marquette Street
- Mid-Block Crossing of Cornell Drive between 57th Street and Stony Island Avenue

Alternative Refinements

Cornell Drive

• The Alternatives to be Carried Forward document proposed the removal of excess capacity ("road diet") from existing Cornell Drive between 57th Street/MSI Drop-off and Stony Island Avenue by reducing travel lanes from two lanes in each direction to one lane in each direction with a center median to add 80 new on-street parking spaces. Based on public opposition to reducing capacity along the corridor, options were investigated that would improve pedestrian crossings while maintaining two lanes in each direction. Based on this input, the reduction of travel lanes and addition of on-street parking has been eliminated from Alternative 9. Removal of the road diet does not affect the performance of the alternative (i.e., the intersection capacity results do not change) and it does not result in an increase (or decrease) in the amount of Section 4(f) land required for a transportation use. Alternative 9 includes a proposed pedestrian refuge island at the existing unsignalized crossing to reduce crossing exposure distance at this location.

5. Efforts to Avoid or Minimize Use of Section 4(f) Resources

As documented in the Alternatives to be Carried Forward (under separate cover), the avoidance alternatives, including the No-Action Alternative, Congestion Management Process Strategies, and Alternative 1 – Alternative Avoiding Section 4(f) Use, do not meet the project Purpose and Need which would make it unreasonable to proceed with those alternatives. As previously mentioned, the No-Action Alternative is required to be analyzed in detail and is carried forward as a benchmark to compare against Build alternatives.

Additional planning efforts were made to minimize the permanent incorporation of Section 4(f) lands into the transportation network for the Alternatives Studied in Detail, which include the No-Action Alternative and Alternative 9. As the No-Action Alternative does not include any proposed improvements that would require use of Section 4(f) properties, as demonstrated in Exhibit 6, minimization efforts were only considered for Alternative 9 and are detailed below.

Lake Shore Drive

- To provide a third southbound travel lane, an 11'-4" travel lane (versus a desired lane width of 12 feet) is proposed to minimize permanent use of Section 4(f) land while providing a safe and efficient travel lane.
- Intersection modifications at 57th Drive are contained to the existing roadway footprint.
- Turn lane widths at intersections are proposed to be 10 feet wide (versus a desired lane width of 12 feet) to minimize permanent use of Section 4(f) land.
- Additional turn lanes and storage at Science Drive and Hayes Drive are minimized to avoid excess capacity while providing sufficient operations.

59th Street Lagoon Inlet Bridge

• To provide a third southbound travel lane along Lake Shore Drive, bridge widening and modifications are minimized to 11 feet 4 inches (versus 12 feet to provide a desired lane width).

Hayes Drive

- Parking along Hayes Drive will be removed to allow Hayes Drive to be reconfigured for two lanes in each direction with less than 2 feet of widening occurring between Richards Drive and Lake Shore Drive. Between Richards Drive and the proposed realignment of Hayes Drive, the removal of parking allows the improvement to remain within the existing roadway footprint.
- Turn lane widths at intersections are proposed to be 10 feet wide (versus a desired lane width of 12 feet) to minimize permanent use of Section 4(f) land.
- At the Richards Drive and Cornell Drive/63rd Street intersections, additional turn lanes and storage have been minimized to avoid excess capacity while providing sufficient operations.
- The proposed 5'-6" median barrier has been minimized (versus a desired 16-18 foot median) to decrease the total proposed cross-section width.

• The Hayes Drive curved realignment at Hayes Drive/Cornell Drive/63rd Street is optimized to reduce conversion of Section 4(f) land while providing a safe facility to accommodate through movements for predominant travel.

Stony Island Avenue

- Additional through lanes are proposed to be 11 feet wide (versus a desired lane width of 12 feet) to minimize permanent use of Section 4(f) land while providing a safe and efficient travel lane.
- Turn lanes are proposed to be 10 feet wide (versus a desired lane width of 12 feet) to minimize permanent use of Section 4(f) land while providing a safe and efficient turn lane.
- Proposed medians typically shadow left turn lanes which are proposed to be 10 feet (versus a
 desired lane width of 12 feet) and have been minimized to decrease the total proposed crosssection width.
- Additional turn lanes and storage at intersections with Stony Island Avenue are minimized to avoid excess capacity while providing sufficient operations.

In addition to the above minimization efforts, sub-alternatives of each of these corridor improvements were investigated to explore further opportunities to reduce permanent conversion of Section 4(f) land to transportation use. All improvements along Lake Shore Drive will occur to the west of the existing roadway to avoid impact to the Pitcher's (Dune) thistle, a native endangered species. As Section 4(f) parkland is present at the backs of curb along both sides of Lake Shore Drive, widening to the east would equally impact Section 4(f) parkland.

The reconfiguration of Hayes Drive is generally contained within the existing roadway footprint. Therefore, analysis of sub-alternatives was focused on reducing use of Section 4(f) resources along Stony Island Avenue. Alternative 9A proposes to widen Stony Island Avenue to the west (Exhibit 5A) and Alternative 9B proposes to widen Stony Island Avenue to the east (Exhibit 5B). Both sub-alternatives will consider the same cross-section along Stony Island Avenue, as well as the improvements discussed in Section 4.2 and the minimization efforts above, to provide the necessary facilities to meet the project's Purpose and Need while attempting to reduce Section 4(f) use.

ALTERNATIVE 9A

As shown on Exhibit 7, Alternative 9A converts 3.4 acres of Section 4(f) land consisting of open green space, trails, trees, and benches within the NRHP boundary of Jackson Park to a transportation use. The conversion is needed to construct an additional southbound travel lane along Lake Shore Drive, to widen Stony Island Avenue between 67th Street and 59th Street to the west, to reconfigure Hayes Drive at the Lake Shore Drive, Richards Drive and Cornell Drive intersections, and to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation. Widening along Stony Island Avenue at the North Midway Plaisance converts 0.2 acres of open-space Section 4(f) land from the Midway Plaisance. This alternative also involves 7.4 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive

between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection.

In order to provide the necessary cross-section along Stony Island Avenue to obtain sufficient operations, widening the roadway to the west in Alternative 9A involves the removal of four buildings, including one three-story building of the Jackson Park Terrace housing complex (6 units), the 21-story Island Terrace apartment building (264 units), a two-story mixed residential/commercial building (24 units), and one three story apartment building (16 units). This widening results in 1.6 acres of proposed right-of-way acquisition, including 0.4 acres from properties eligible for the NRHP. Greater than 90% of residents in the two Census blocks where these properties are located include low-income and minority populations (compared within the state of Illinois, 2012-2016 American Community Survey (ACS) 5-year estimate). The Jackson Park Terrace housing complex and Island Terrace apartment building provide housing for low-income residents in accordance with Section 8 of the U.S. Department of Housing Program and are considered eligible properties for listing on the National Register of Historic Places (NRHP)³ and Section 4(f) properties.

ALTERNATIVE 9B

As shown on Exhibit 8, Alternative 9B converts 5.7 acres of Section 4(f) land consisting of open green space, trails, trees, and benches within the NRHP boundary of Jackson Park to a transportation use to construct an additional southbound travel lane along Lake Shore Drive, to widen Stony Island Avenue between 67th Street and 59th Street to the west, to reconfigure Hayes Drive at the Lake Shore Drive, Richards Drive and Cornell Drive intersections, and to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation. There is no conversion of use to the Midway Plaisance or proposed right-of-way acquisition from private properties as a result of widening Stony Island Avenue to the east. This alternative also involves 8.1 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67th Street, and the South Shore Drive/67th Street intersection.

As shown in Exhibit 8 and summarized in Table 3 below, Alternative 9B involves more permanent use of Section 4(f) resources. However, Alternative 9B does not require building demolition or right-of-way acquisition on properties eligible for the NRHP, which are Section 4(f) resources. It does not require the removal of any other residential or commercial properties, nor will it affect the low-income and minority populations that reside along Stony Island Avenue.

Each sub-alternative and their impact to environmental resources, including Section 4(f) resources, is further evaluated in Section 6.

Preferred Alternative 13 June 27, 2018

³ Pending concurrence from the State Historic Preservation Officer (SHPO).

A summary of the minimization efforts completed for Alternatives 9A and 9B is included in Table 2. This includes a comparison of the Section 4(f) uses associated with providing standard and/or desired design criteria versus the proposed design.

Table 2 Summary of Minimization Efforts

Criterion	Impact	Desired/Standard Criteria		Proposed Design		Amount of Section 4(f) Use Minimized	
Citterion	Measure	Alt. 9A	Alt. 9B	Alt. 9A	Alt. 9B	Alt. 9A	Alt. 9B
Section 4(f) Land Permanent Use (Jackson Park)							
Lake Shore Drive	Acre	1.8	1.8	1.4	1.4	0.4	0.4
Stony Island Avenue	Acre	0.2	3.3	0.1	2.5	0.2	0.8
Hayes Drive	Acre	1.7	1.7	1.5	1.4	0.2	0.3
Other Roadways	Acre	0.5	0.5	0.4	0.4	0.1	0.1
Total (Jackson Park)		4.2	7.3	3.4	5.7	0.9	1.6
Section 4(f) Land Permanent Use (Midway Plaisance)	Acre	0.3	0	0.2	0	0.1	-
Right-of-way Acquisition from Historic Properties	Acre	0.5	0	0.4	0	0.1	-
Building Demolition of Historic Properties	Each	2	0	2	0	-	-

6. Evaluation of Alternatives Studied in Detail

Each of the alternatives studied in detail were evaluated to determine any impacts to environmental resources that may result from their implementation. The evaluated environmental impacts and their quantifiable impact measure are described below:

- **Floodplains** Acre-feet impacted by the alternative based upon Flood Insurance Maps published by the Federal Emergency Management Agency (FEMA) and drainage studies.
- **Wetlands** Acres of wetlands impacted by the alternative based upon delineations from field studies.
- **Waterways** Acres of waterway impacted by the alternative based upon aerial photographs and field studies.
- Parking Loss Number of unmarked on-street parking spaces lost, assuming one parking space per 20 feet of continuous available curb length.
- Section 4(f) Land Permanent Use (Jackson Park) Acres of Section 4(f) land converted to permanent transportation use within Jackson Park.
- Section 4(f) Temporary Occupancy (Jackson Park) Acres of Section 4(f) land to be used for temporary occupancy. For this project, proposed trails and underpasses may qualify as temporary occupancy exception.
- **Section 4(f) Land Permanent Use (Midway Plaisance)** Acres of Section 4(f) land converted to permanent transportation use within the Midway Plaisance.
- Residential Displacements Number of residential units displaced.
- Commercial Displacements Number of non-residential units displaced.
- **Proposed Right-of-Way Acquisition** Acres of right-of-way acquisition from private properties.
- Archaeological Sites Impacts to potential archaeological sites.
- **Historic Properties** Impacts to historic properties
- Noise Number of impacted receptors.
- Trees Number of trees removed by the project.
- Pedestrian & Bicycle Safety and Mobility Number of locations improved.
- Vehicular Safety Number of locations improved.

A comparison of the impacts associated with the No-Action Alternative, Alternative 9A, and Alternative 9B is summarized in Table 3. The impacts outlined below are based upon conceptual improvement plans and further design refinements will be made in an effort to reduce overall impacts to the environment.

Table 3
Evaluation Summary

Criterion	Impact Measure	No-Action Alternative	Alternative 9A	Alternative 9B
Floodplain Impacts	Acre-Feet	0.0	0.032	0.032
Wetland Impacts	Acres Filled	0.0	0.0	0.0
Waterway Impacts	Acres Filled	0.0	0.040	0.040
Parking Loss - On-Street	Number of Spaces	0	161	161
Section 4(f) Land Permanent Use (Jackson Park)	Acres	0	3.4	5.7
Section 4(f) Temporary Occupancy (Jackson Park)	Acres	0	7.4	8.1
Section 4(f) Land Permanent Use (Midway Plaisance)	Acres	0	0.2	0
Residential Displacements	Number of units	0	306	0
Commercial Displacements	Number of units	0	4	0
Proposed Right-of-Way Acquisition	Acres	0	1.6	0
Archaeological Sites listed/eligible for the NRHP Effected		No	No	No
Historic Properties Affected		No	Yes	Yes
Historic Properties Demolished	Number of properties	0	2	0
Right-of-Way Acquisition from Historic Properties	Acres	0	0.4	0
Noise Impacts	Number of receptors impacted	0	10	10
Trees Removed	Number of trees	0	250 to 300	350 to 400
Pedestrian & Bike Safety and Mobility				
Pedestrian underpasses	Number of underpasses	0	5	5
Refuge islands	Number of locations	0	8	8
Curb extensions	Number of locations	0	9	9
Signalized intersection modernization	Number of locations	0	6	6
Convert intersection from stop- controlled to signalized	Number of locations	0	2	2
Additional Trails		No	Yes	Yes

Table 3 (Continued)

Criterion	Impact Measure	No-Action Alternative	Alternative 9A	Alternative 9B
Vehicular Safety				
Signalized intersection modernization	Number of locations	0	6	6
Convert intersection from stop controlled to signalized	Number of locations	0	2	2
Exclusive turn lanes provided at intersection	Number of locations	0	9	9
Provide additional capacity	Number of locations	0	15	15

6.1. Evaluation of No-Action Alternative

As summarized in Table 3, the No-Action Alternative does not impact floodplains, wetlands, waterways, archaeological sites, historic architecture/landscape, or trees. The No-Action Alternative does not improve vehicular, pedestrian, and bicyclist safety and mobility.

As described in the Alternatives to be Carried Forward document, the No-Action Alternative results in nine signalized intersections and one all-way stop-controlled intersection failing during the morning peak hour, evening peak hour, or both. At these locations, overall intersection delay has reached or exceeded the delay criteria for an LOS F, or at least one through or turning movement has exceeded its available capacity.

Based upon the evaluation criteria, the No-Action Alternative does not meet the Purpose and Need for the Proposed Action.

6.2. Evaluation of Alternative 9A – Mobility Improvements - Widen Lake Shore Drive/Widen Stony Island West/Reconfigure Hayes

Table 3 shows Alternative 9A is anticipated to impact floodplains and waterways as a result of the 59th Street Harbor Inlet Bridge widening to provide an additional southbound lane along Lake Shore Drive. The banded killifish, a state threatened species, is present near the area of this bridge. Based on the scope of work, the Illinois Department of Natural Resources (IDNR) has concluded that the project will not affect the banded killifish. There are no impacts to wetlands associated with Alternative 9A. This alternative results in a net parking loss of 3,220 feet of unmarked parking equivalent to 161 spaces, primarily due to providing two lanes in each direction along Hayes Drive. The widening and reconfiguring of the roadways, including minimization efforts to widen Stony Island Avenue to the west, results in a conversion of 3.6 acres of Section 4(f) land consisting of open green space, trails, trees, and

benches within the NRHP boundary of Jackson Park to transportation use. Alternative 9A requires 0.2 acres of conversion of open space land within the Midway Plaisance. The widening of Stony Island Avenue to the west to minimize use of Section 4(f) parkland results in the removal of 306 residential and 4 commercial units, including the required demolition of two eligible properties for the National Register of Historic Places. There is 1.6 acres of proposed right-of-way acquisition required from private properties, including 0.4 acres from historic properties. Ten receptors would be impacted by noise. Alternative 9A will require between 250 to 300 tree removals.

Alternative 9A improves pedestrian and bicyclist safety and mobility by providing four grade separation locations within the park as well as providing trail facilities along Cornell Drive, Hayes Drive, and Marquette Drive. Curb extensions and refuge islands will be provided along Stony Island Avenue to reduce crossing exposure distances and traffic signals will be modernized to provide pedestrian countdown timers and push buttons.

The Alternatives to be Carried Forward document includes the performance of Alternative 9. The performance of Alternatives 9A and 9B are identical to the performance of Alternative 9 as they provide the same facilities needed to achieve the results presented. Under this alternative, all signalized intersections within the study area operate at LOS C or better during both peak hours. These capacity improvements provide acceptable levels of service in the design year of 2040.

6.3. Evaluation of Alternative 9B – Mobility Improvements - Widen Lake Shore Drive/Widen Stony Island East/Reconfigure Hayes

Table 3 shows Alternative 9B is anticipated to impact floodplains and waterways as a result of the 59th Street Harbor Inlet Bridge widening to provide an additional southbound lane along Lake Shore Drive. The banded killifish, a state threatened species, is present near the area of this bridge. Based on the scope of work, the Illinois Department of Natural Resources (IDNR) has concluded that the project will not affect the banded killifish. There are no impacts to wetlands associated with Alternative 9B. This alternative results in a net parking loss of 161 spaces, primarily due to providing two lanes in each direction along Hayes Drive. The widening and reconfiguring of the roadways, including widening Stony Island Avenue to the east, results in a conversion of 5.7 acres of Section 4(f) land consisting of open green space, trails, trees, and benches within the NRHP boundary of Jackson Park to transportation use. The widening of Stony Island Avenue to the east involves a greater use of Section 4(f) parkland, however, it does not require the displacement of any residential, commercial, or eligible NRHP properties, nor does it require conversion of Section 4(f) use in the Midway Plaisance. Alternative 9B is anticipated to affect historic properties. Ten receptors would be impacted by noise. Alternative 9B will require between 350 to 400 tree removals.

Alternative 9B improves pedestrian and bicyclist safety and mobility by providing four grade separation locations within the park as well as providing trail facilities along Cornell Drive, Hayes Drive, and Marquette Drive. Curb extensions and refuge islands will be provided along Stony Island Avenue to

reduce crossing exposure distances and traffic signals will be modernized to provide pedestrian countdown timers and push buttons.

The Alternatives to be Carried Forward document includes the performance of Alternative 9. The performance of Alternatives 9A and 9B are identical to the performance of Alternative 9 as they provide the same facilities needed to achieve the results presented. Under this alternative, all signalized intersections within the study area operate at LOS C or better during both peak hours. These capacity improvements provide acceptable levels of service in the design year of 2040.

7. Selection of the Preferred Alternative

The evaluation of the No-Action Alternative concluded that the alternative does not meet the Purpose and Need for the Proposed Action. Poor operations and multiple failing intersections were observed with the No-Action Alternative, and opportunities to enhance bicyclist and pedestrian access and circulation to and within the park are not accomplished through this alternative.

Both Alternative 9A and 9B include components to achieve acceptable operations and improve bicyclist and pedestrian access and circulation within Jackson Park, therefore meeting the Purpose and Need for the Proposed Action. However, while Alternative 9A converts fewer acres of Section 4(f) land compared to Alternative 9B (3.6 acres vs. 5.7 acres), Alternative 9A has 306 residential replacements and requires the demolition of four buildings, two of which are eligible for the NRHP and Section 4(f) properties.

As a result of these factors, **Alternative 9B - Mobility Improvements - Widen Lake Shore Drive/Widen Stony Island East/Reconfigure Hayes has been selected as the Preferred Alternative.**

As further design studies are completed for the Preferred Alternative, additional opportunities to reduce impacts to environmental resources will be investigated.

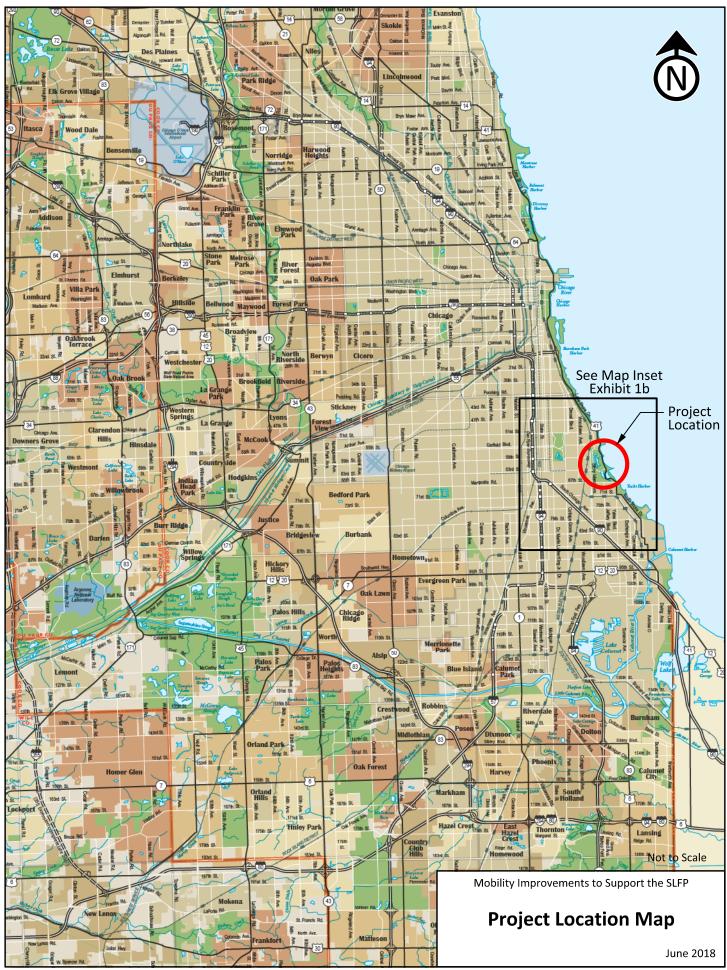


Exhibit 1A



Exhibit 1B





Exhibit 3



Exhibit 4

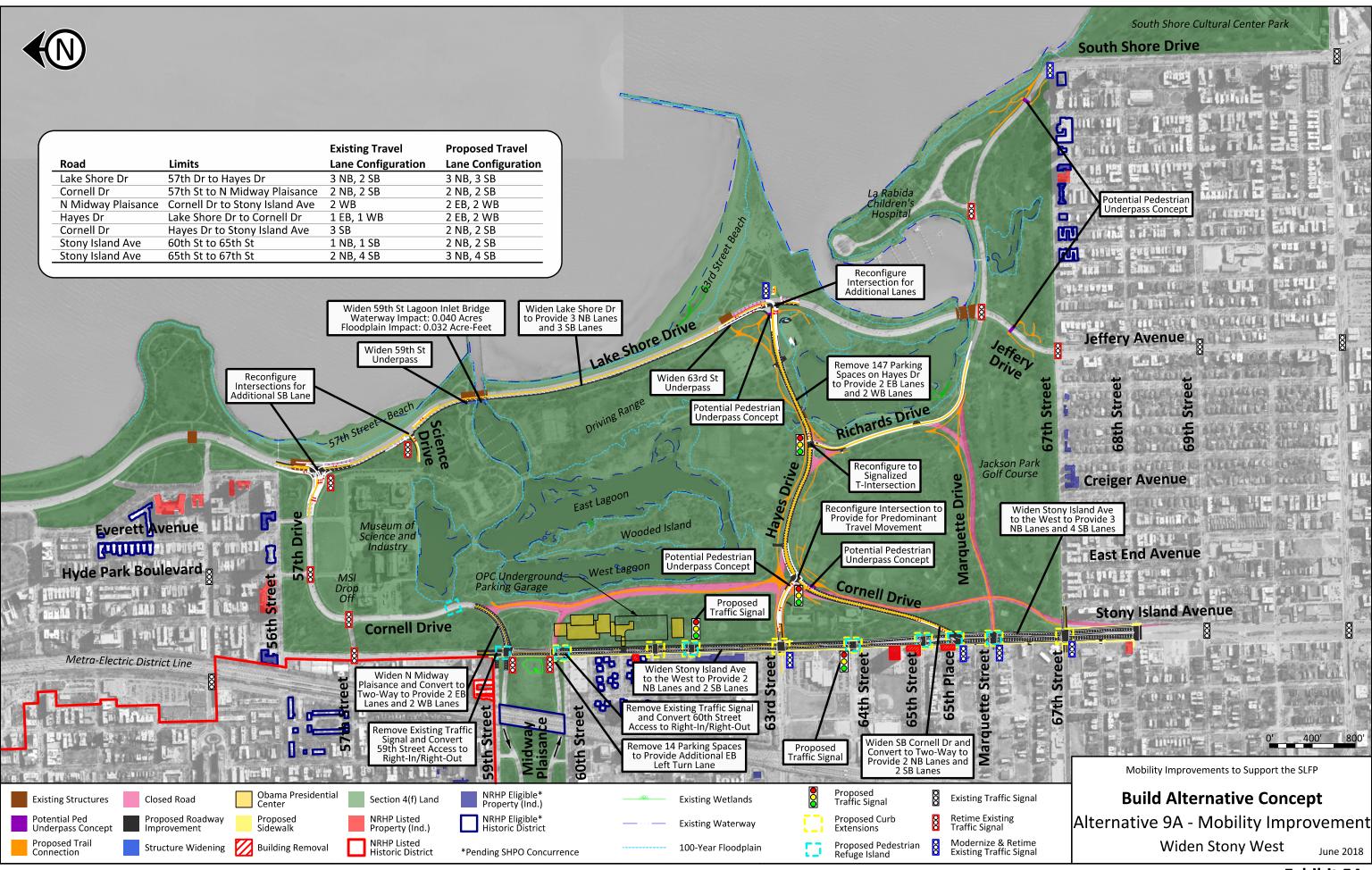
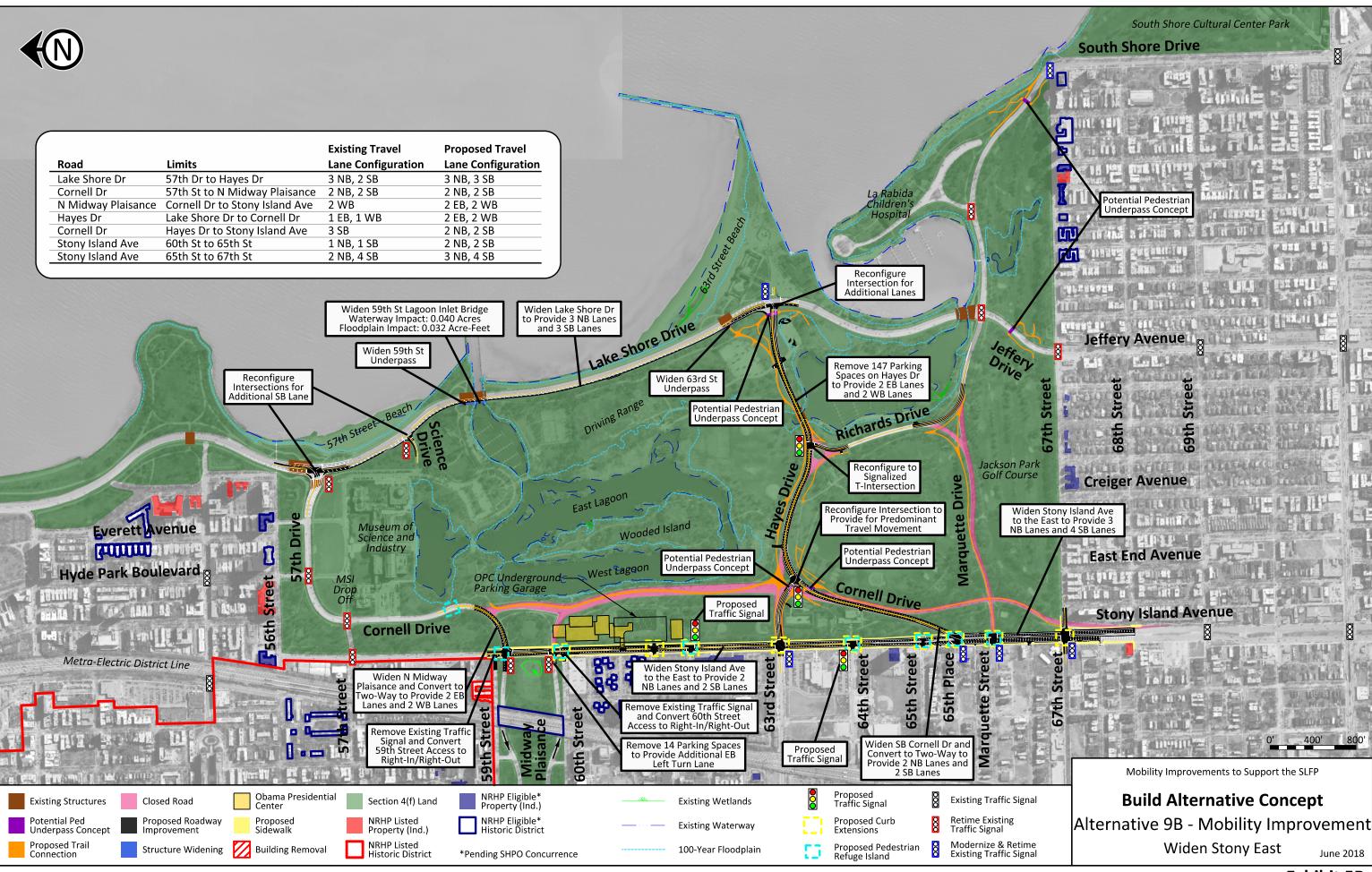


Exhibit 5A



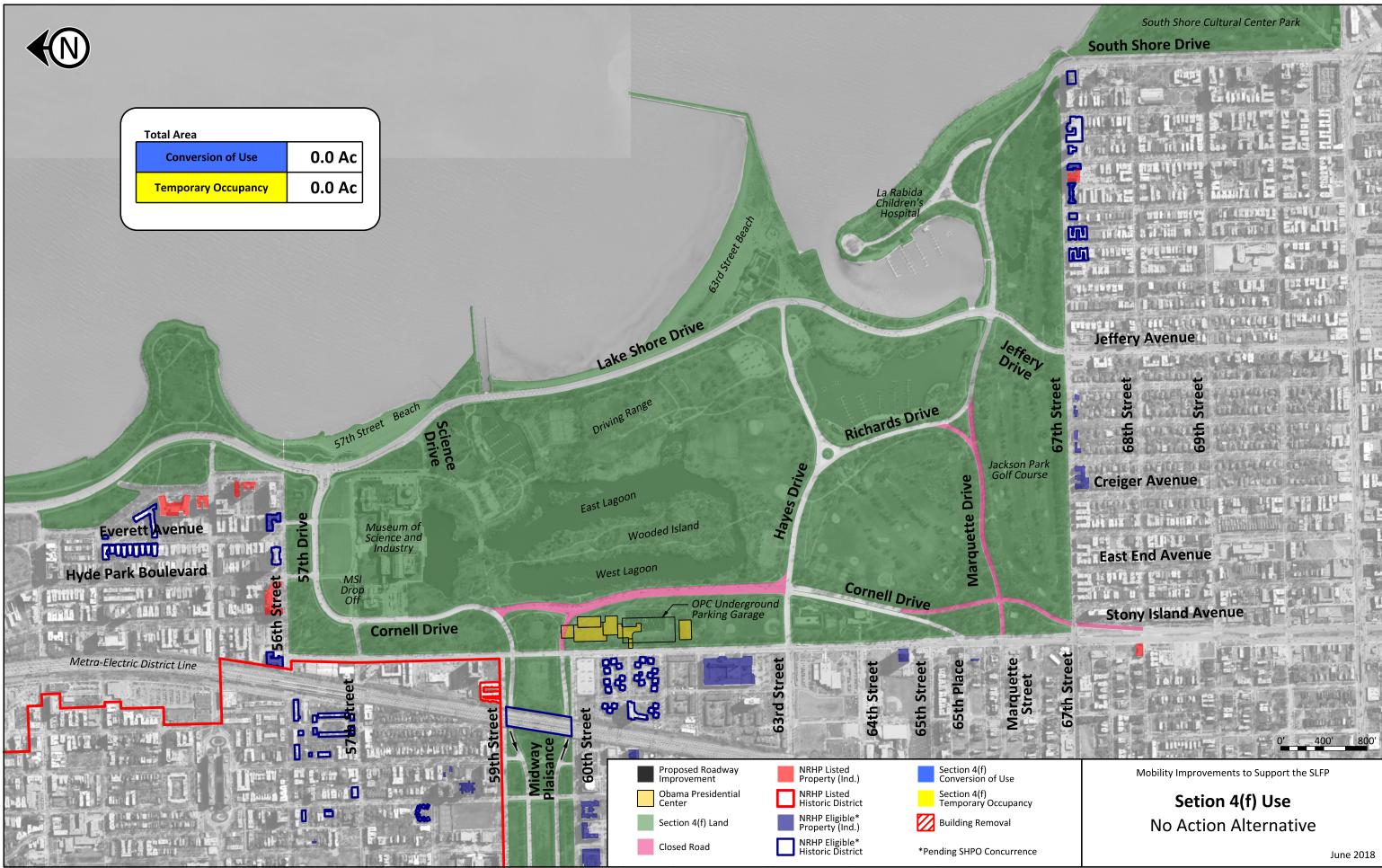


Exhibit 6



Exhibit 7



Exhibit 8

Appendix E – Least Harms Analysis

Alternative 9A: Widen Stony Island Avenue West	. E-	.1
Alternative 9B: Widen Stony Island Avenue East	. E-	.2



Exhibit E-1

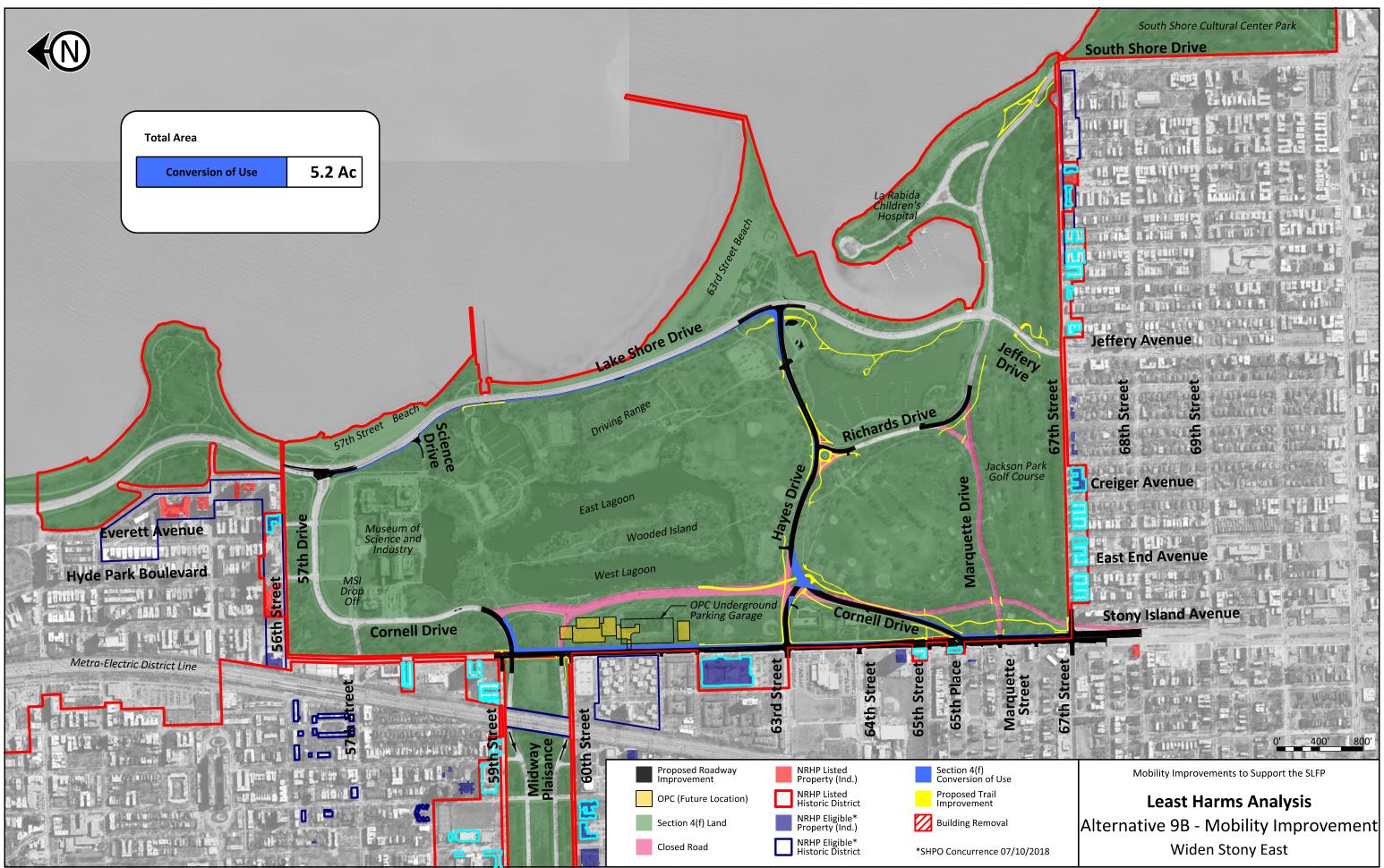
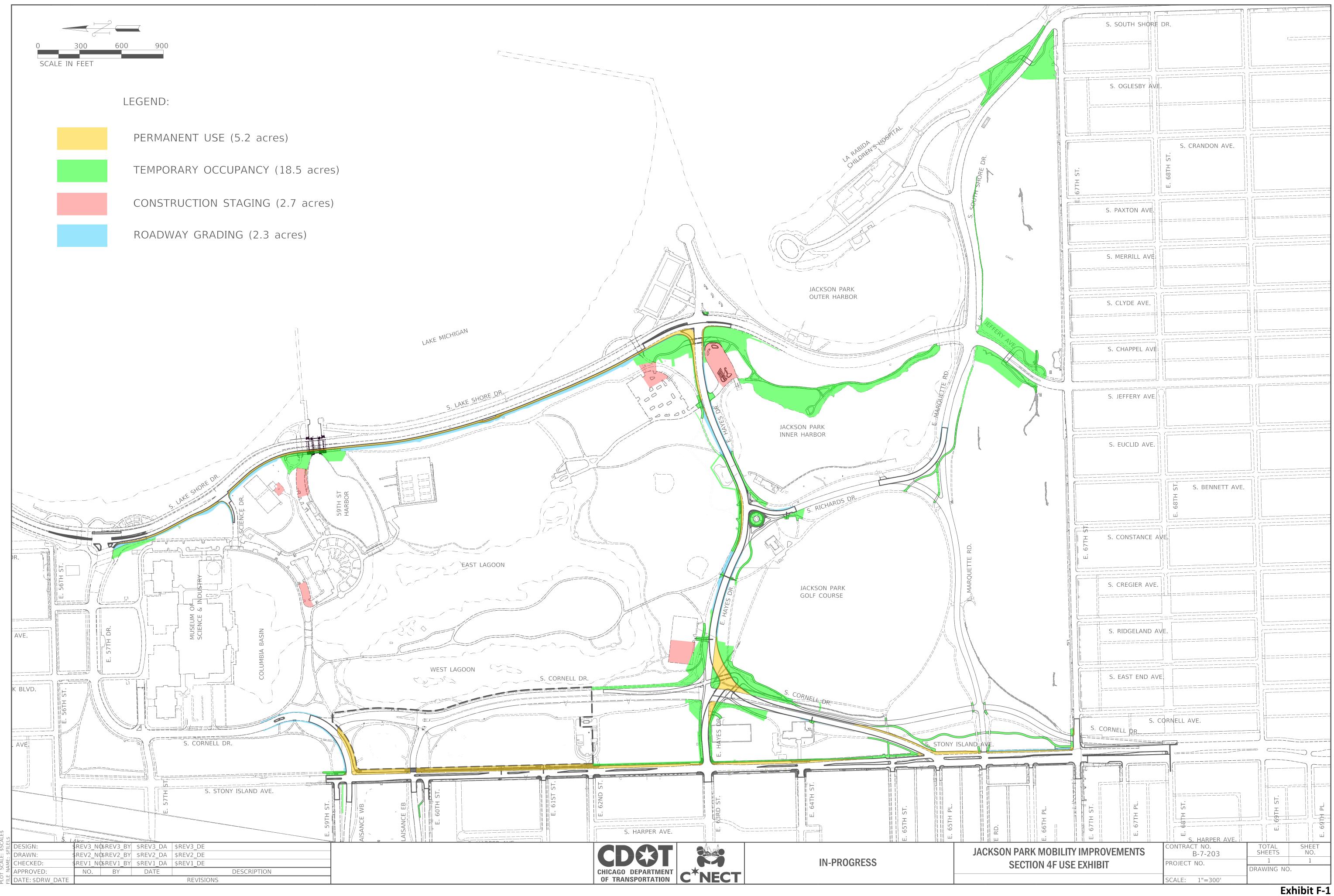


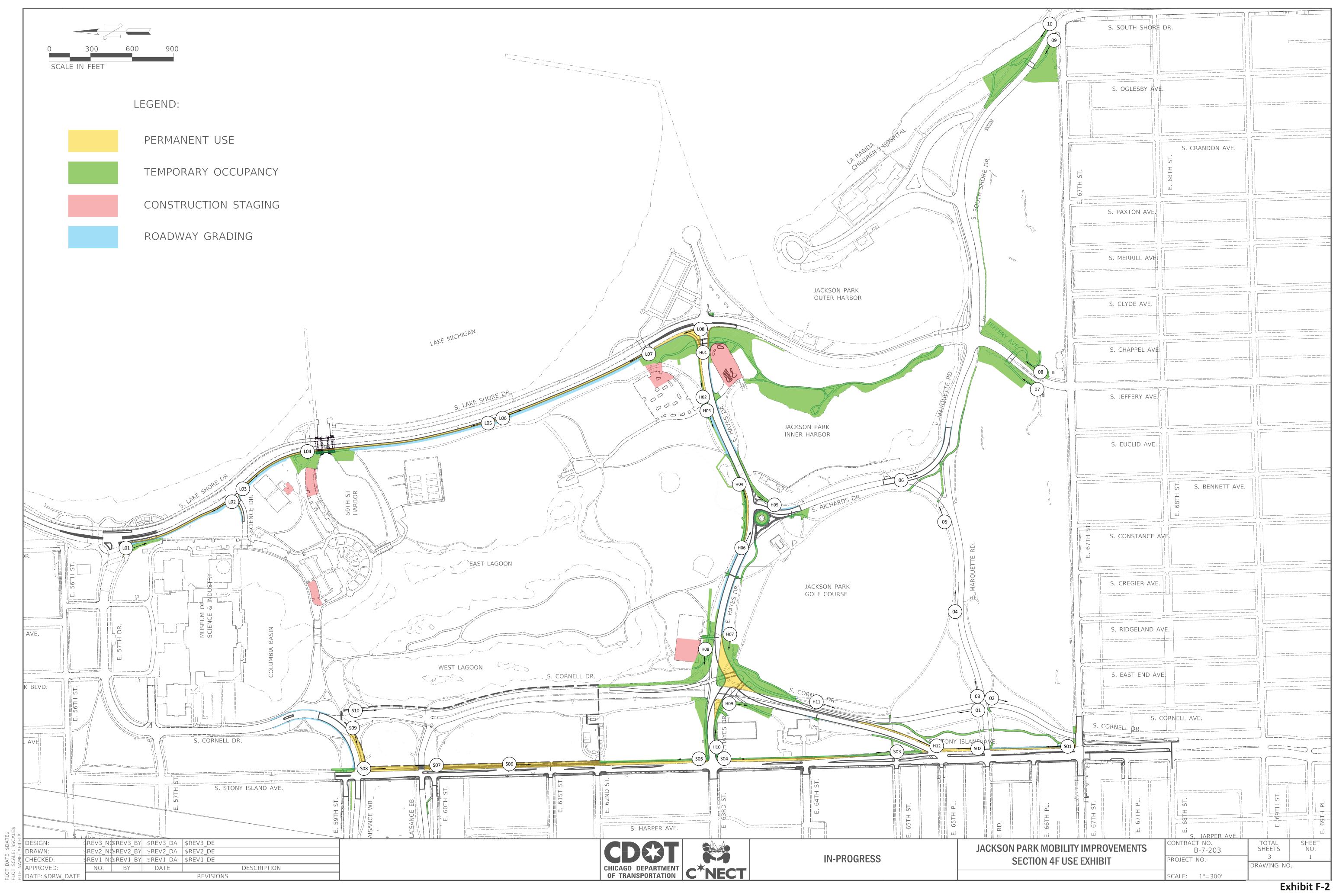
Exhibit E-2

Appendix F – Impacts to Section 4(f) Resources: Alternative 9B

Section 4(f) Use	F-1
Existing Conditions Photologs – Anticipated Use of Section 4(f) Resource Areas	
Existing Conditions Photologs – Anticipated Use of Section 4(f) Resource Areas Photolog Exhibit – Picture Locations	F-2
Stony Island Avenue	F-2a
Lake Shore Drive	F-2b
Hayes Drive	F-20
Other Areas	
Proposed Tree Removals	F-3
Temporary and Permanent Impacts: Lake Michigan	F-4a
Floodplain Encroachments	F-4b



Existing Conditions Photologs Anticipated Use of Section 4(f) Resource Areas





East side of Stony Island Avenue north of 67th Street, looking north

Description

S01



Caption

East side of Stony Island Avenue north of Marquette Road, looking North

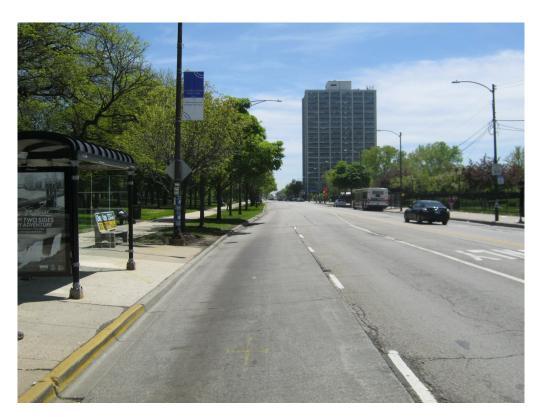
Description



East side of Stony Island Ave at 65th Street, looking north

Description

S03



Caption

East side of Stony Island Avenue at Hayes Drive, looking south

Description



East of Stony Island Avenue north of Hayes Drive, looking north

Description

S05



Caption

East side of Stony Island Avenue north of 61st Street (approx. OPC garage entrance), looking south

Description



East side of Stony Island Avenue at S. Midway Plaisance (EB), looking north

Description

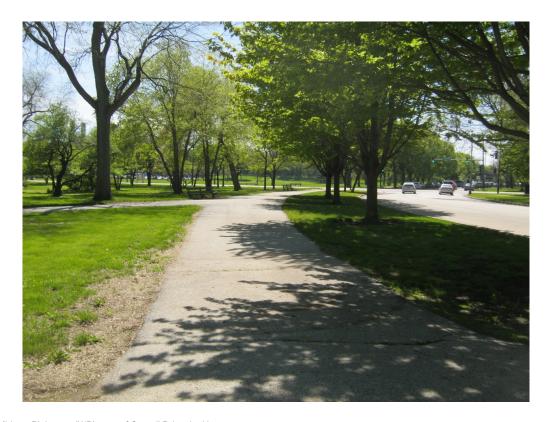
S07



Caption

East side of Stony Island Avenue at N. Midway Plaisance (WB), looking south

Description



South side of N. Midway Plaisance (WB) west of Cornell Drive, looking west

Description

S09



Caption

East side of Cornell Drive at S. Midway Plaisance (EB), looking south

Description



West side of Lake Shore Drive south of 57th Drive, looking south from 57th Drive Underpass

Description

L01



Caption

West side of Lake Shore Drive north of Science Drive, looking north

Description



West side of Lake Shore Drive south of Science Drive, looking south

Description

L03



Caption

West side of Lake Shore Drive north of the 59th Street Inlet Bridge, looking south

Descriptio



West side of Lake Shore Drive at pullout, looking north

Description

L05



Caption

West side of Lake Shore Drive at pullout, looking south

Description



West side of Lake Shore Drive at 63rd Street Underpass, looking north

Description

L07



Caption

West side of Lake Shore Drive at Hayes Drive (northwest corner), looking north

Description



North side of Hayes Drive west of Lake Shore Drive, looking east

Description

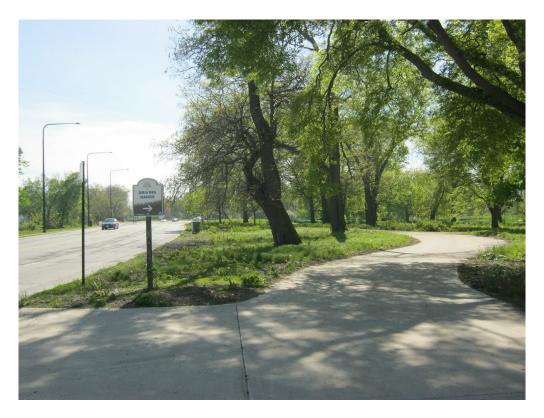
H01



Caption

North side of Hayes Drive west of Lake Shore Drive, looking east

Description



North side of Hayes Drive west of parking lot entrance, looking west

Description

H03



Caption

North side of Hayes Drive at the Statue of the Republic, looking west

Descriptio



East of Richards Drive south of Hayes Drive (southeast corner near Statue of the Republic, along yacht club fence), looking northeast

H05



Caption

North side of Hayes Drive heading eastbound toward Statue of the Republic, looking southeast

Descriptio



Southeast of Hayes Drive/Cornell Drive intersection, near realigned Hayes Drive, looking west

Description

H07



Caption

North side of Hayes Drive, east leg of Cornell Drive intersection, looking west

Descriptio



West of Cornell Drive south of Hayes Drive, looking south

Description

30

Caption

South side of 63rd Street at Stony Island Avenue, looking east

Descriptio



West side of Cornell Drive at the Jackson Park Fieldhouse, looking south

Description

H11



Caption

East of Cornell Drive (SB), looking north east

Descriptio



Cantion

West side of NB Cornell Drive at Marquette Drive, looking north

Description

01



Caption

East side of NB Cornell Drive south of Marquette Road, looking south

Description



North side of Marquette Drive, east leg of NB Cornell Drive intersection, looking east

Description

03



Caption

North side of Marquette Drive south of Jackson Park Golf Course, looking east

Description



North side of Marquette Drive, west of Richards Drive western intersection, looking east

Description

05



Caption

Richards Drive at Marquette Drive, northern intersection, looking south

Description



Cantion

West side of Jeffrey Avenue north of 67th Street, near proposed underpass, looking northeast

Description

07



Caption

East side of Jeffrey Avenue north of 67th Street, near proposed underpass, looking northeast

Description



South side of Marquette Drive north of 67th Street, near proposed underpass, looking northwest

escription





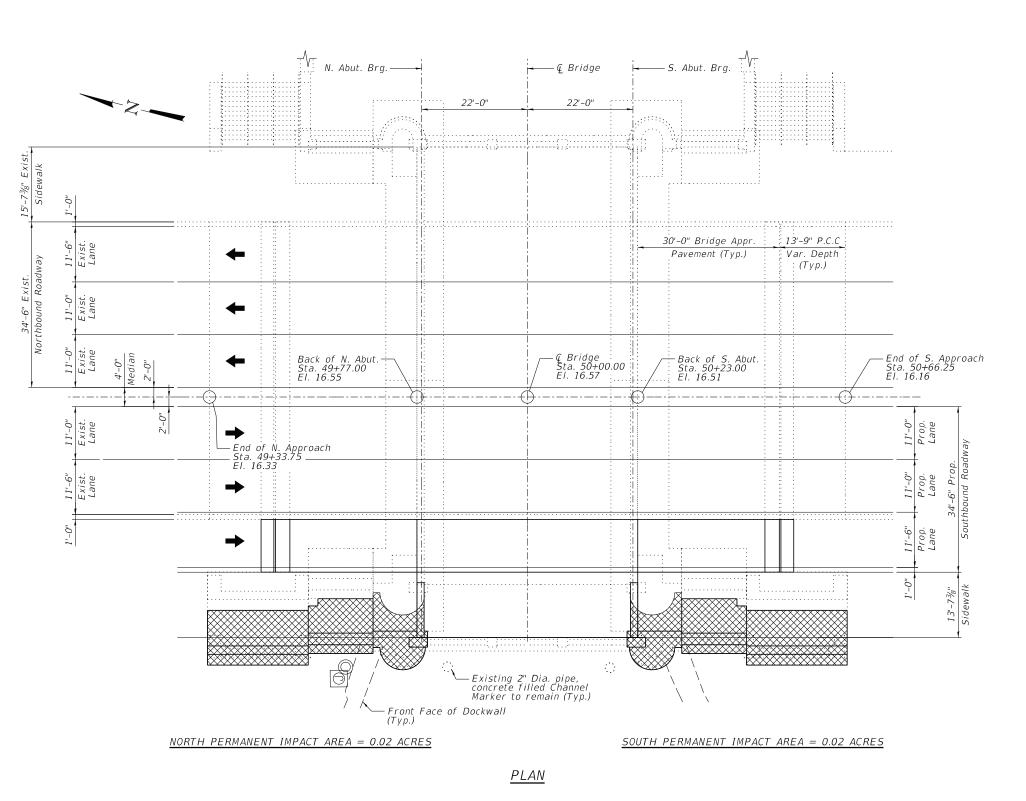
Caption

North side of Marquette Drive north of 67th Street, near proposed underpass, looking northwest

Description



Exhibit F-3



CITY OF CHICAGO

DEPARTMENT OF TRANSPORATION

DIVISION OF ENGINEERING

Alfred Benesch & Company 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60601 312-565-0450 Job No. 10641.00

DESIGNED - JLS

CHECKED - AJK

JLS

REVISED

REVISED

REVISED

USBR NAMB = jsurber

PLOT DATE = 9/29/2017

benesch

9th St. Lagoon Inlet_Wetland Exhibit.dgn PLOT SCALE =

<u>LEGEND</u>

Permanent Wetland Impact Area

Range 14E - 3rd P.M. - Proposed Rehabilitation

LOCATION SKETCH

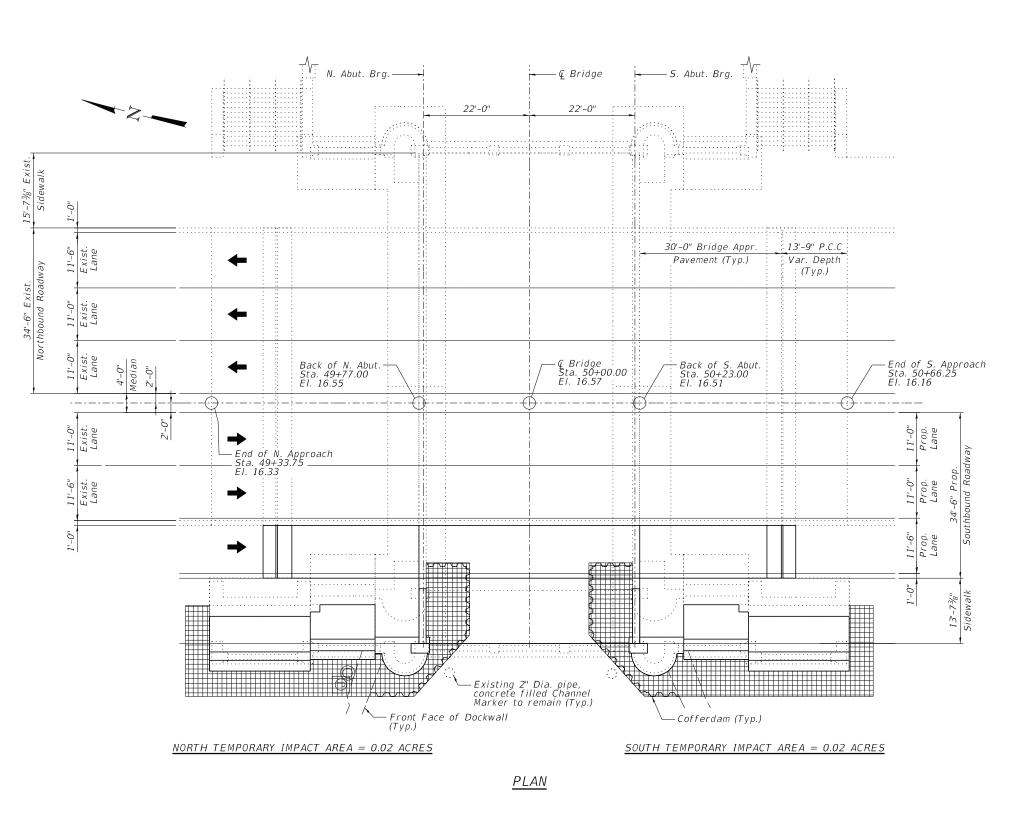
GENERAL PLAN - PERMANENT WETLAND IMPACTS S. LAKE SHORE DRIVE OVER 59TH ST LAGOON INLET F.A.U. 2873 - SEC. 80-E-418-00-BR

COOK COUNTY STATION 50+00.00

SHEET NO. 1 OF 2 SHEETS

STRUCTURE NO. 016-6195

COUNTY TOTAL SHEETS NO. COOK 2 1 COUNTY SN 016-6195 CDOT PROJECT NO



LEGEND

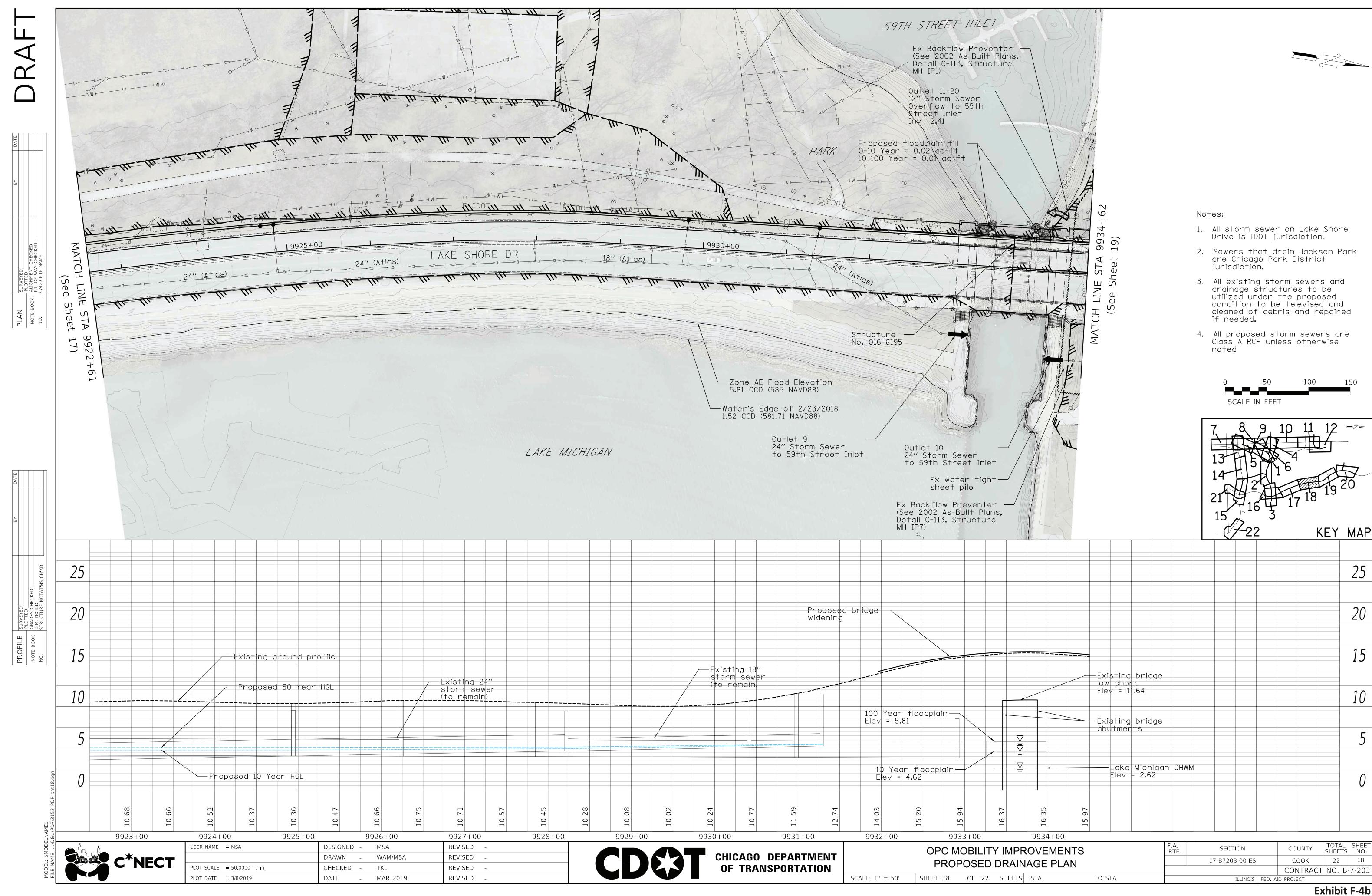
Temporary Wetland Impact Area

GENERAL PLAN - TEMPORARY WETLAND IMPACTS
S. LAKE SHORE DRIVE OVER 59TH ST LAGOON INLET
F.A.U. 2873 - SEC. 80-E-418-00-BR

COOK COUNTY
STATION 50+00.00
STRUCTURE NO. 016-6195

SHEET NO. 2 OF 2 SHEETS

CITY OF CHICAGO DEPARTMENT OF TRANSPORATION DIVISION OF ENGINEERING



Appendix G – Minimization and Mitigation Measures

Section 4(f) Minimization Efforts: Roadway Footprint	G-1
Preliminary Tree Replacements	G-2



Exhibit G-1

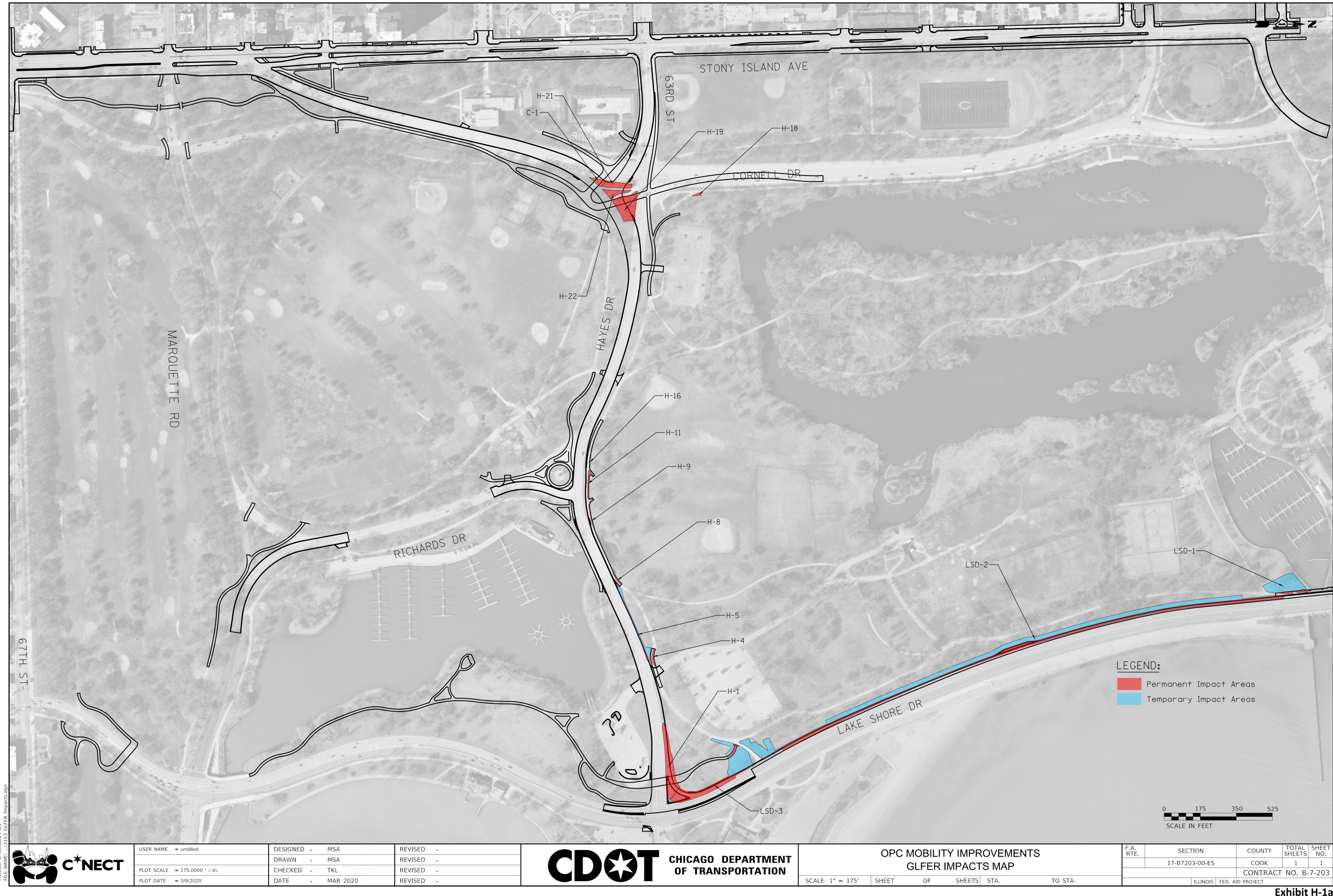


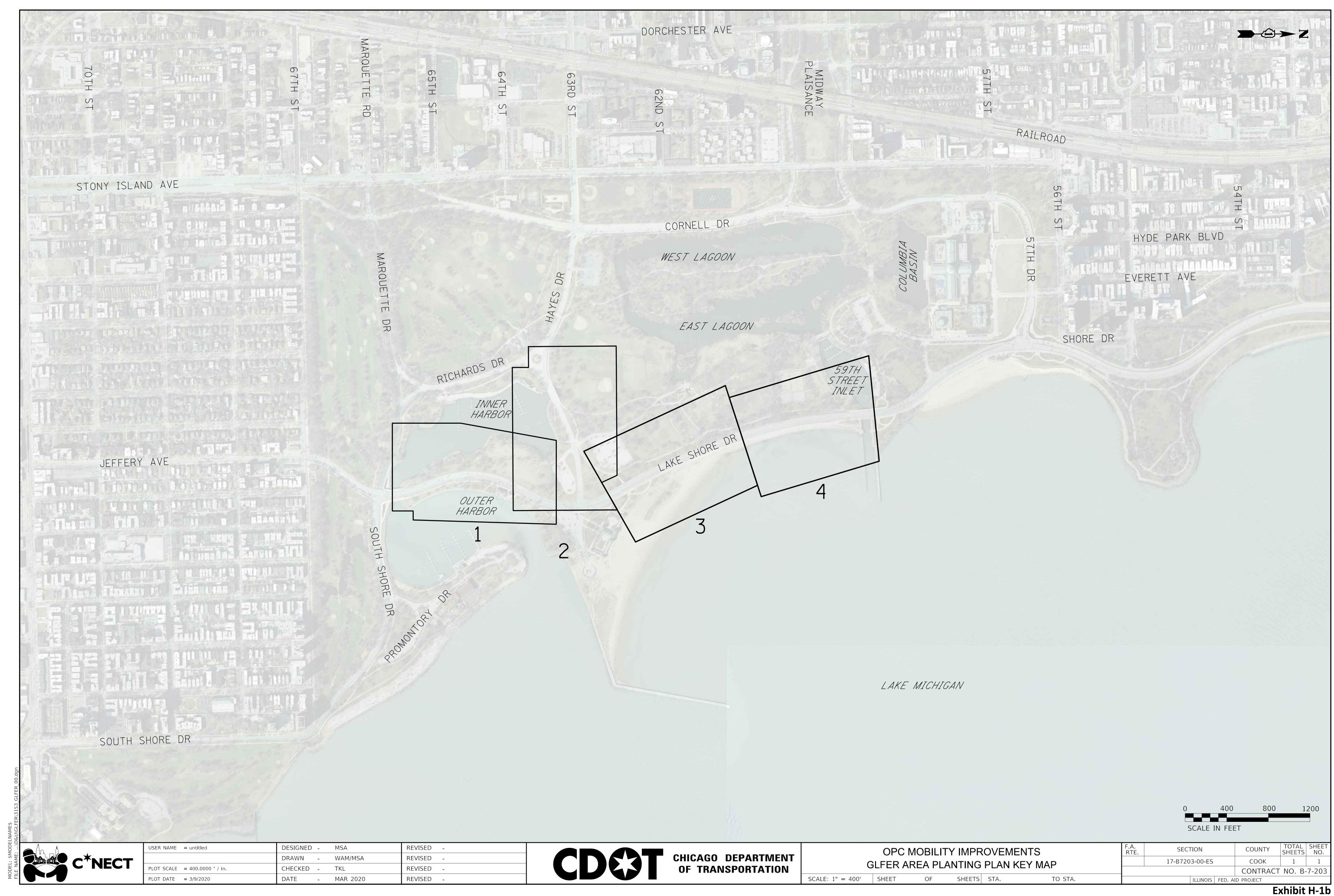
Exhibit G-2

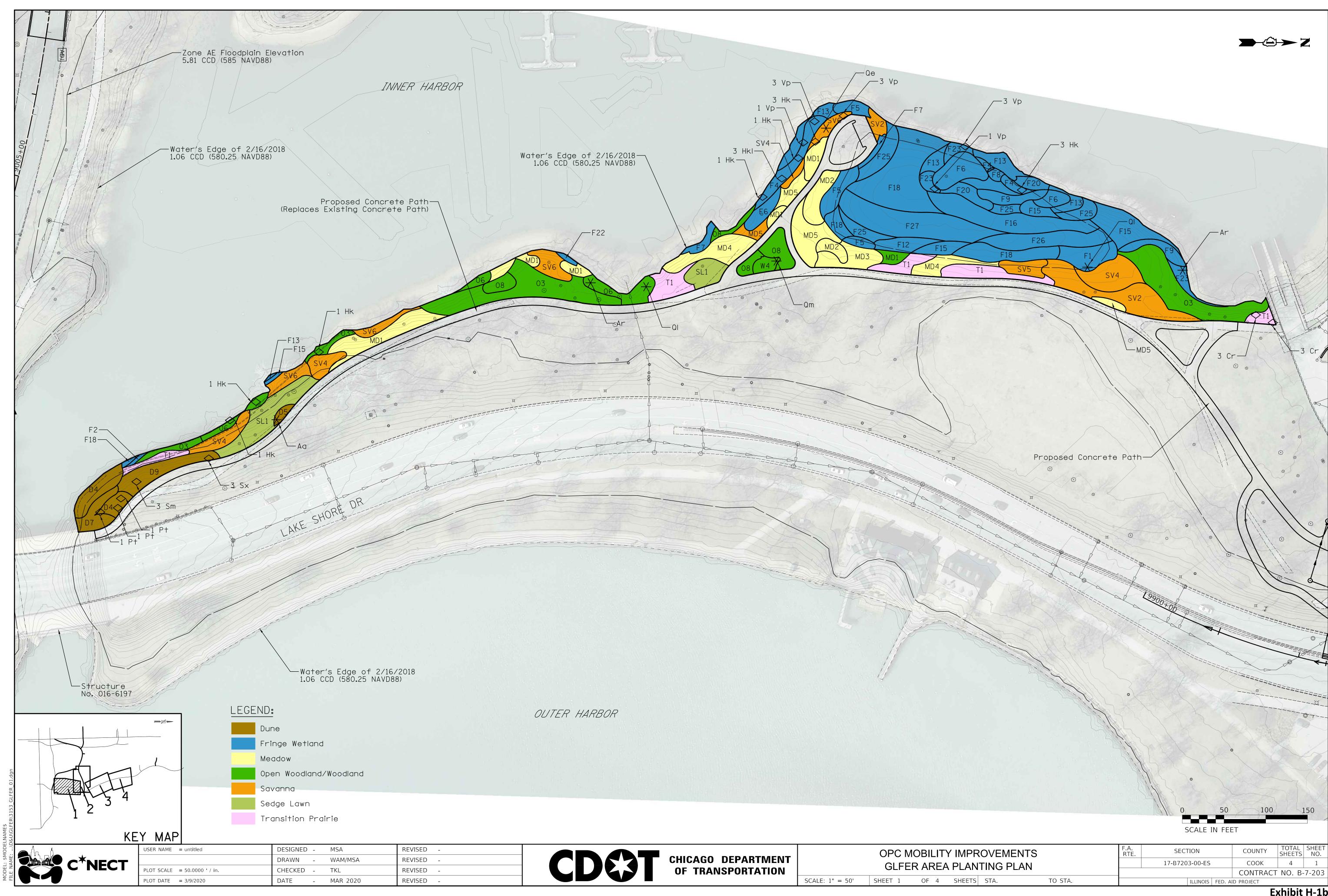
Appendix H – Coordination

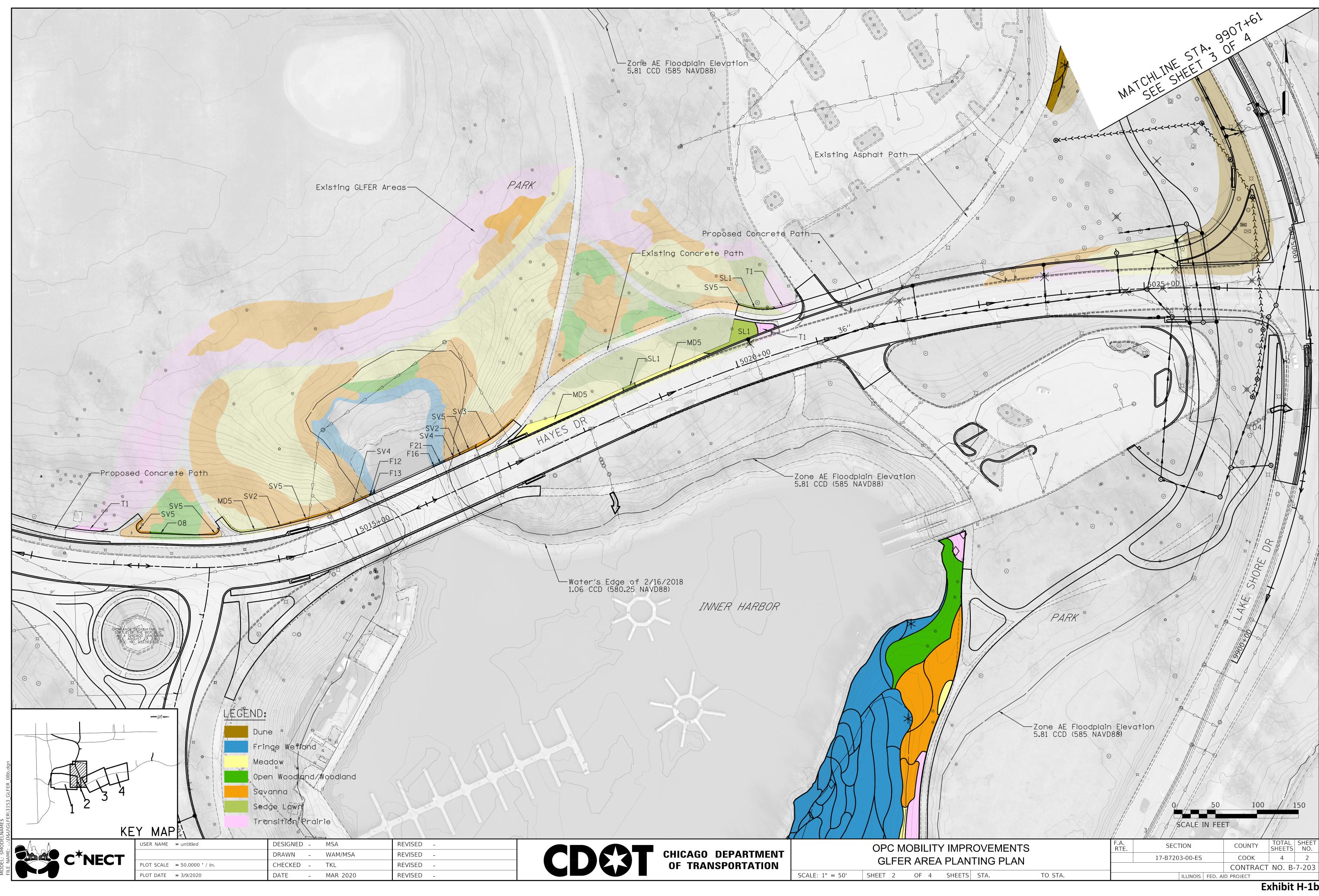
Coordination documentation ongoing. Appendix will be updated as coordination is completed.

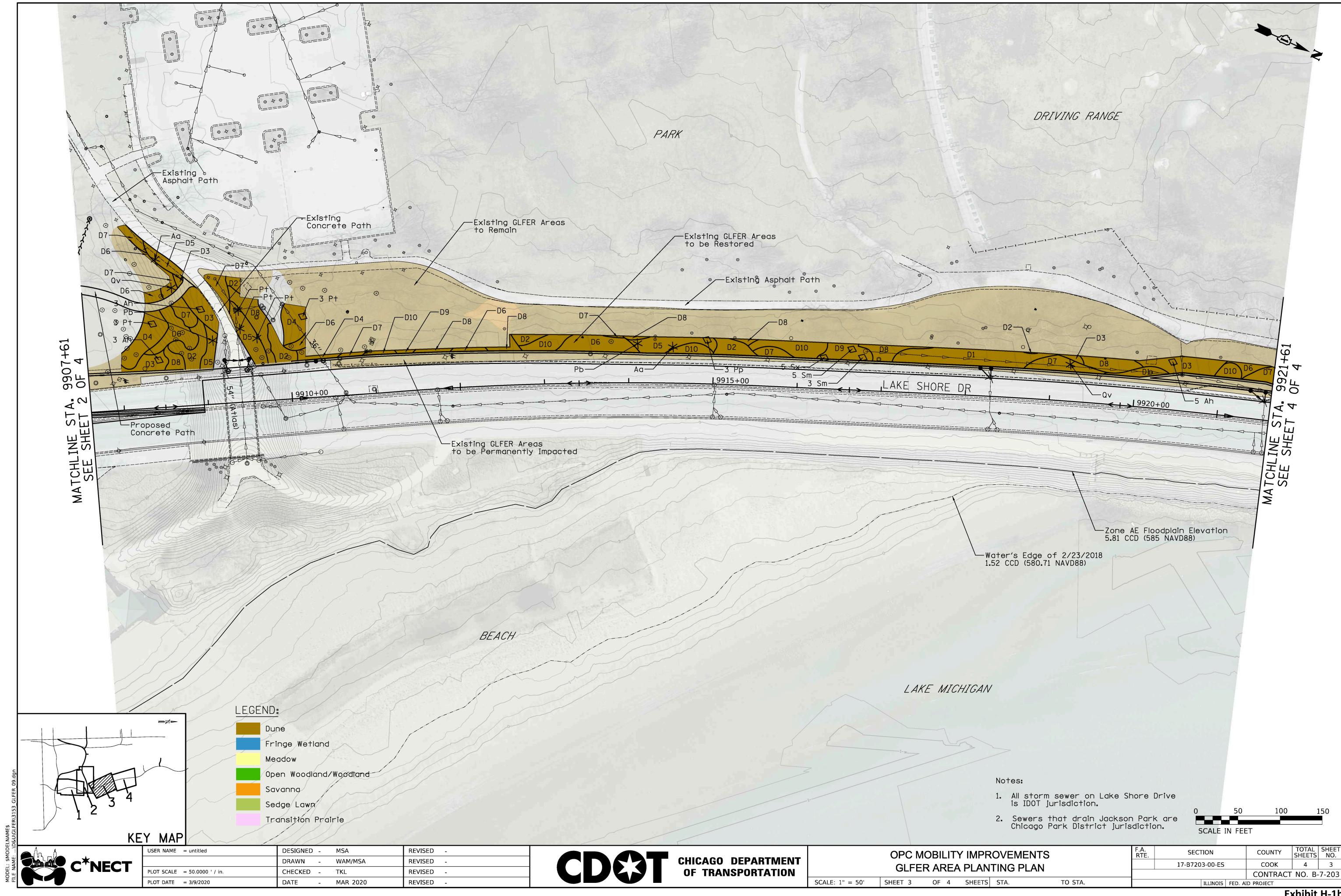
USACE GLFER Coordination	
GLFER Impacts	H-1a
GLFER Replacement Area	H-1k
NPS UPARR Coordination	
UPARR Areas, Impacts, and Replacement	H-2











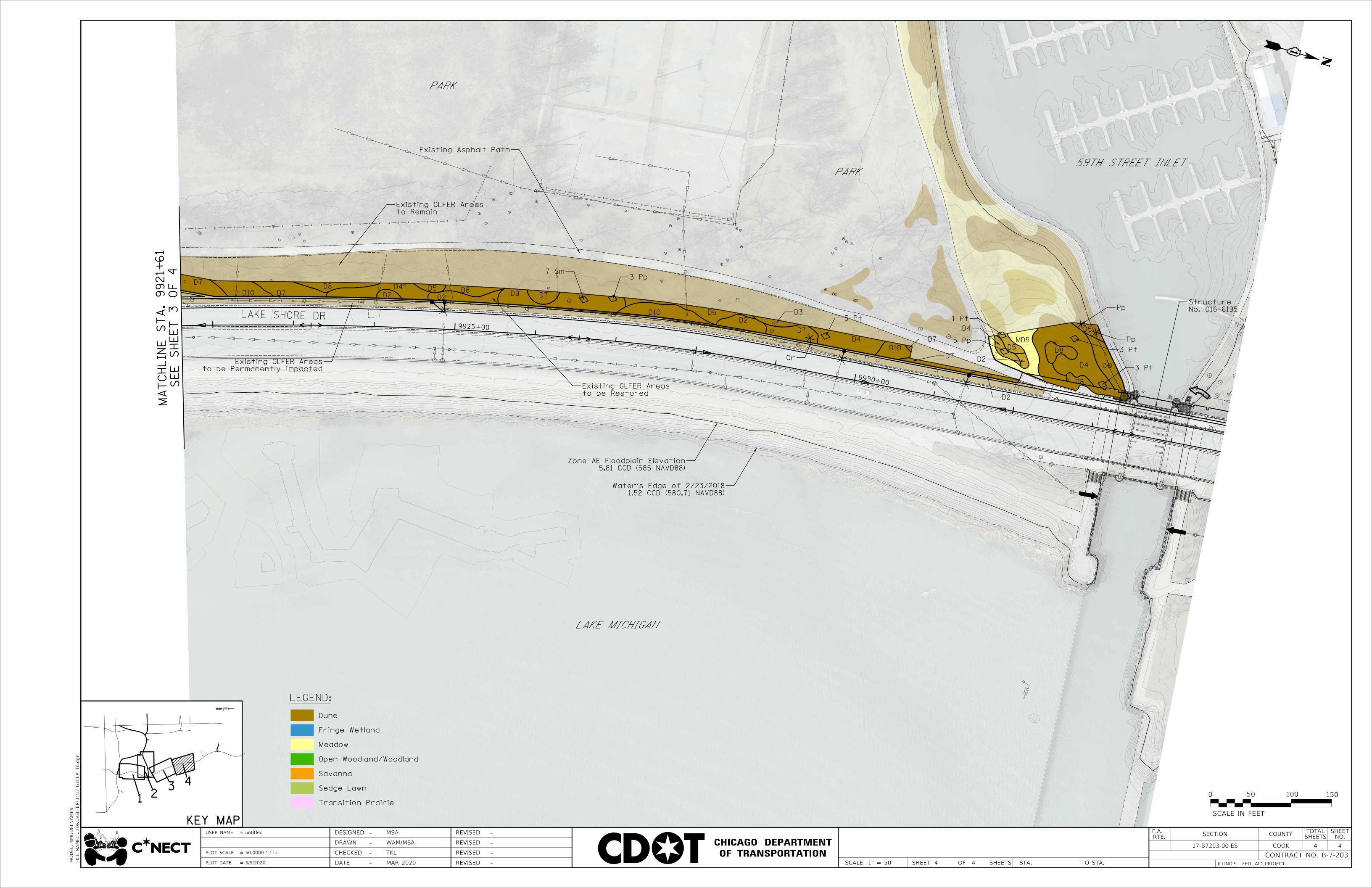
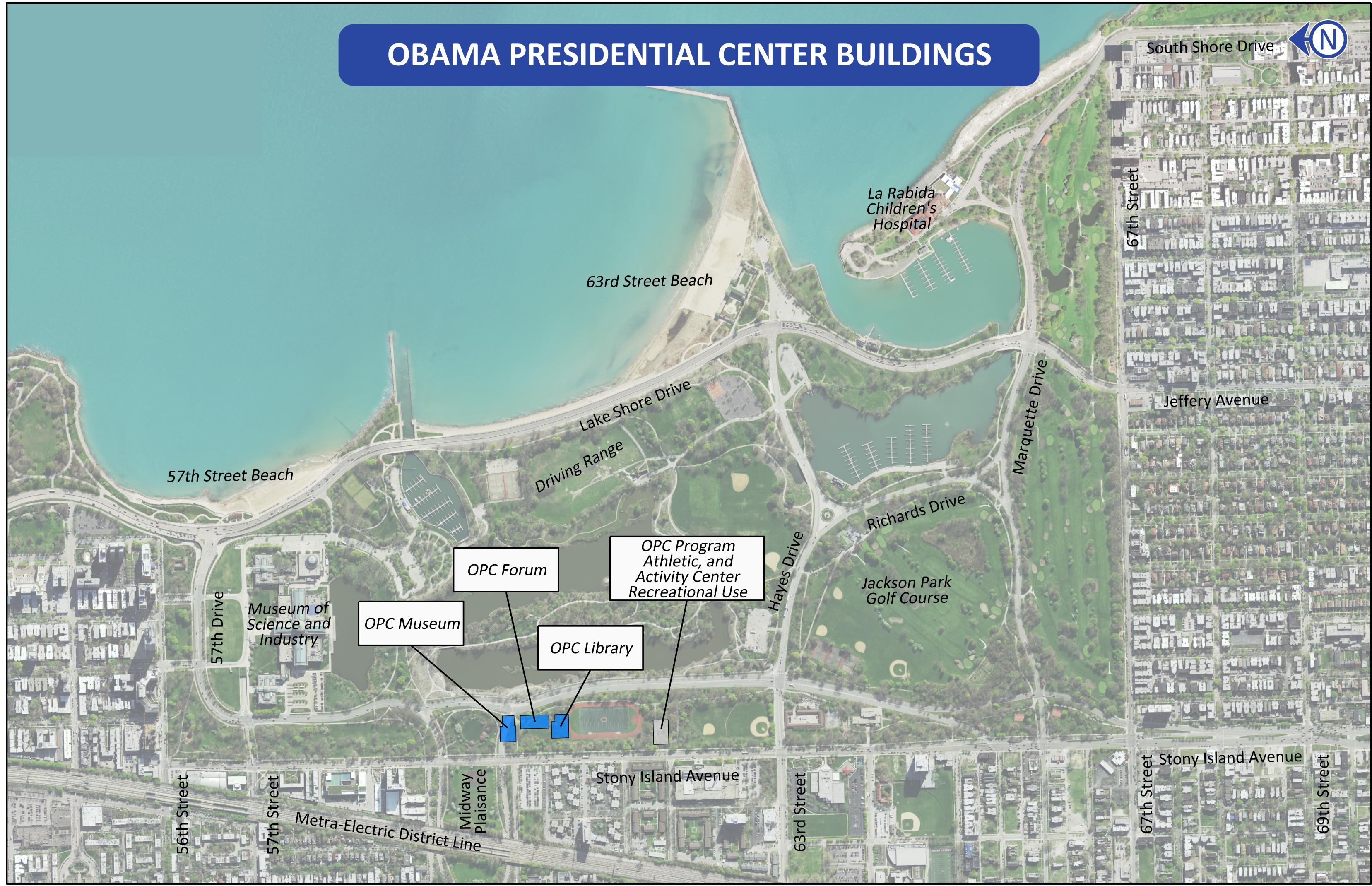
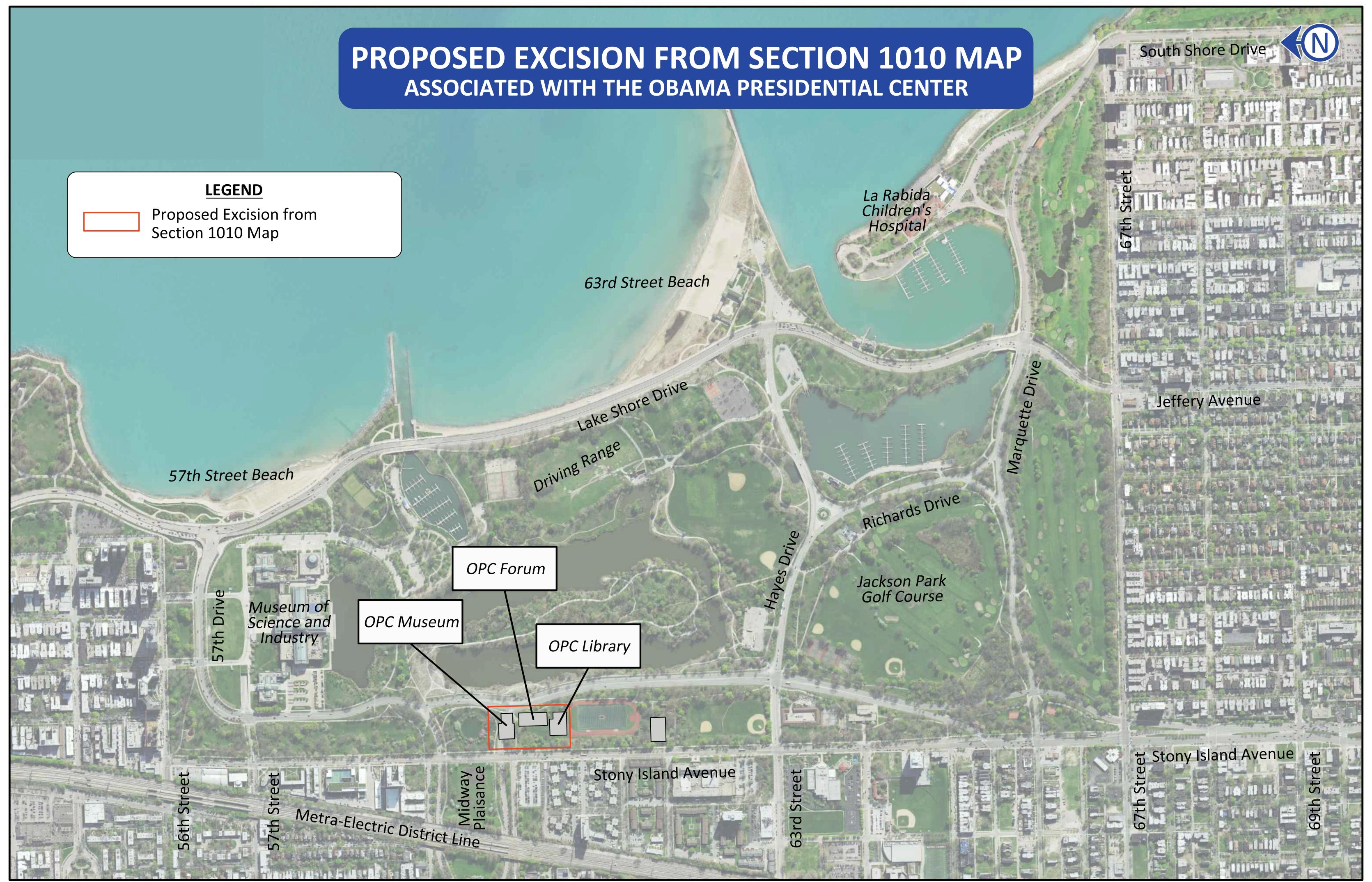
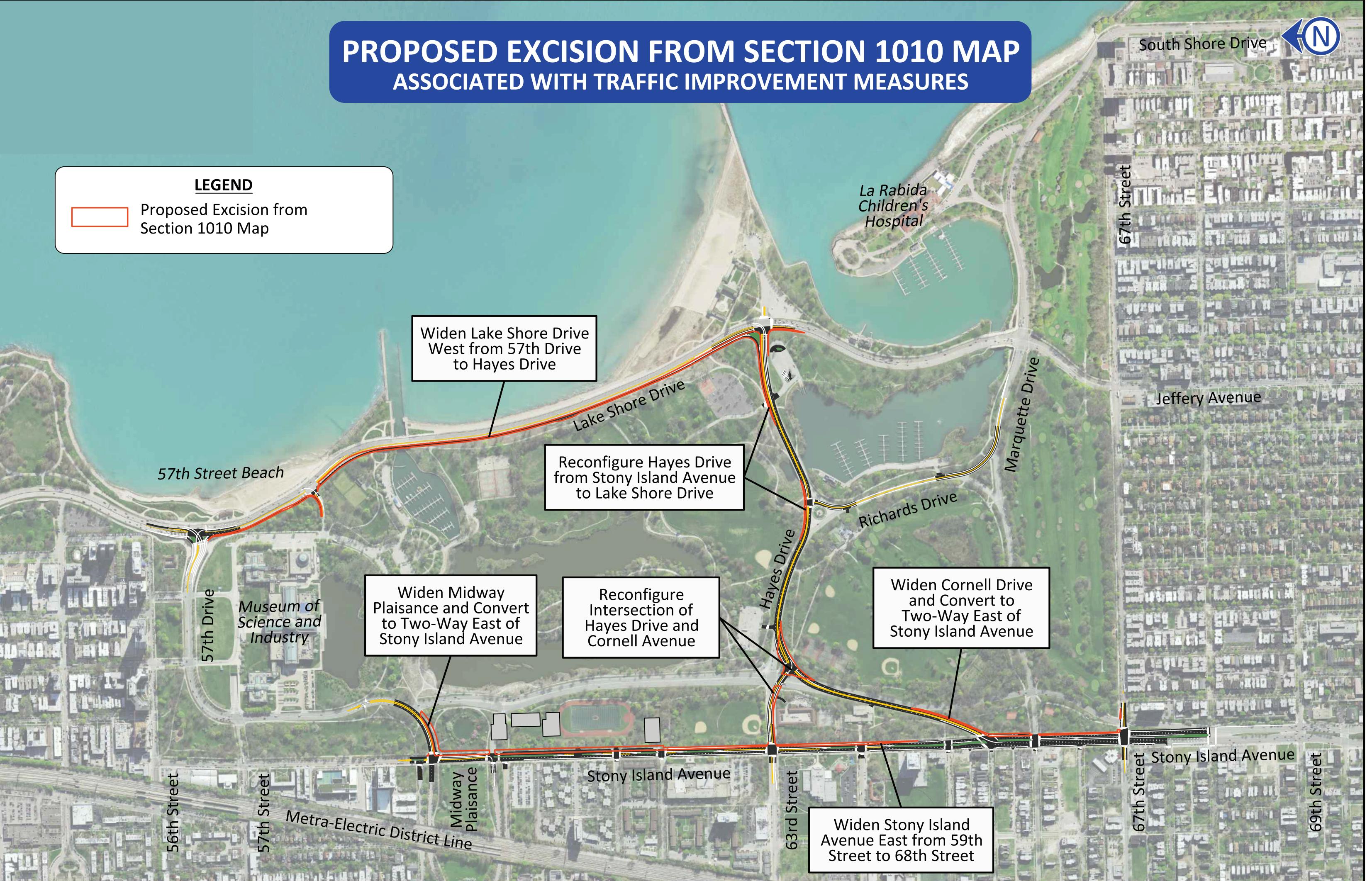




Exhibit H-2 MAP 1







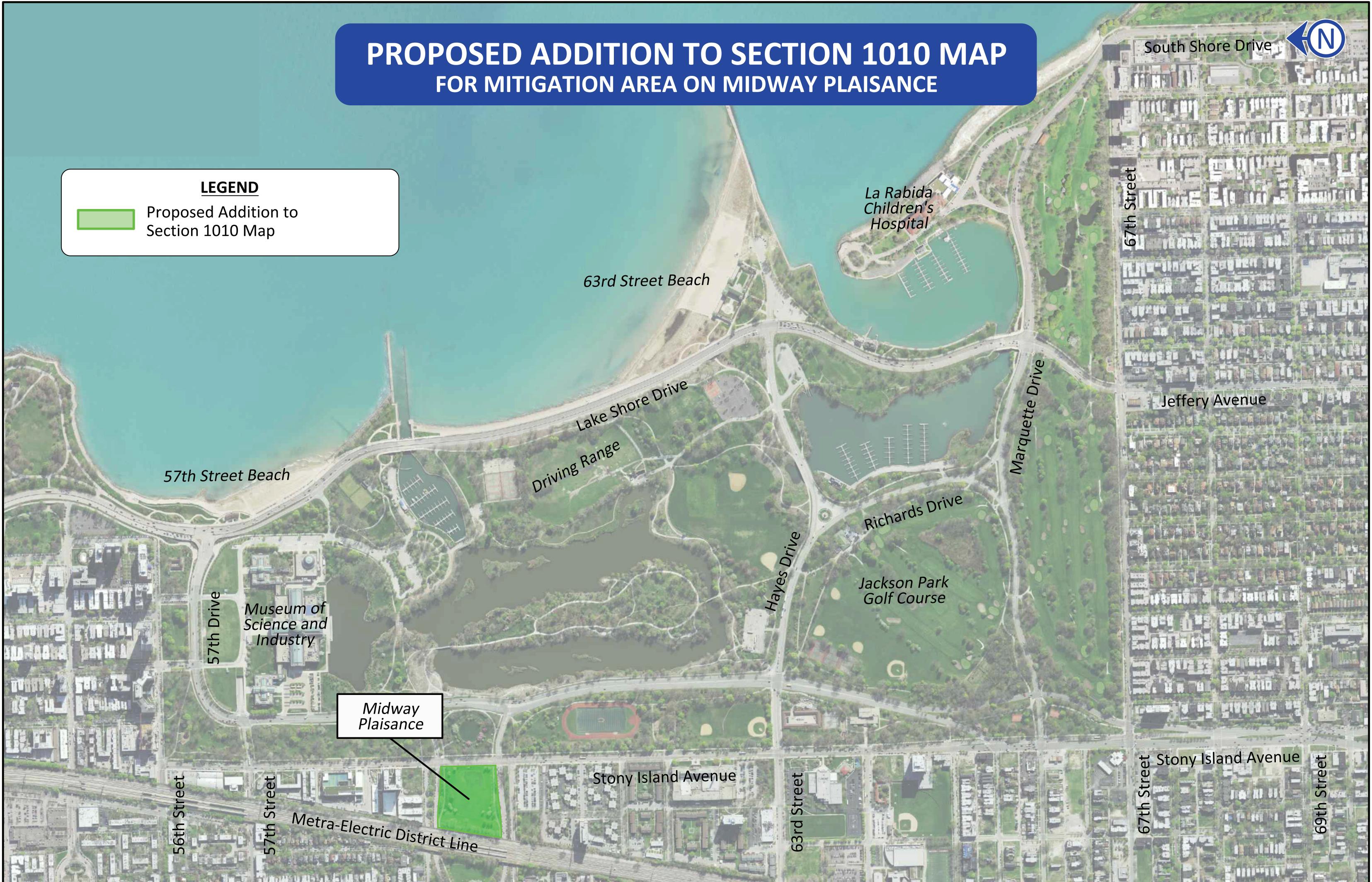
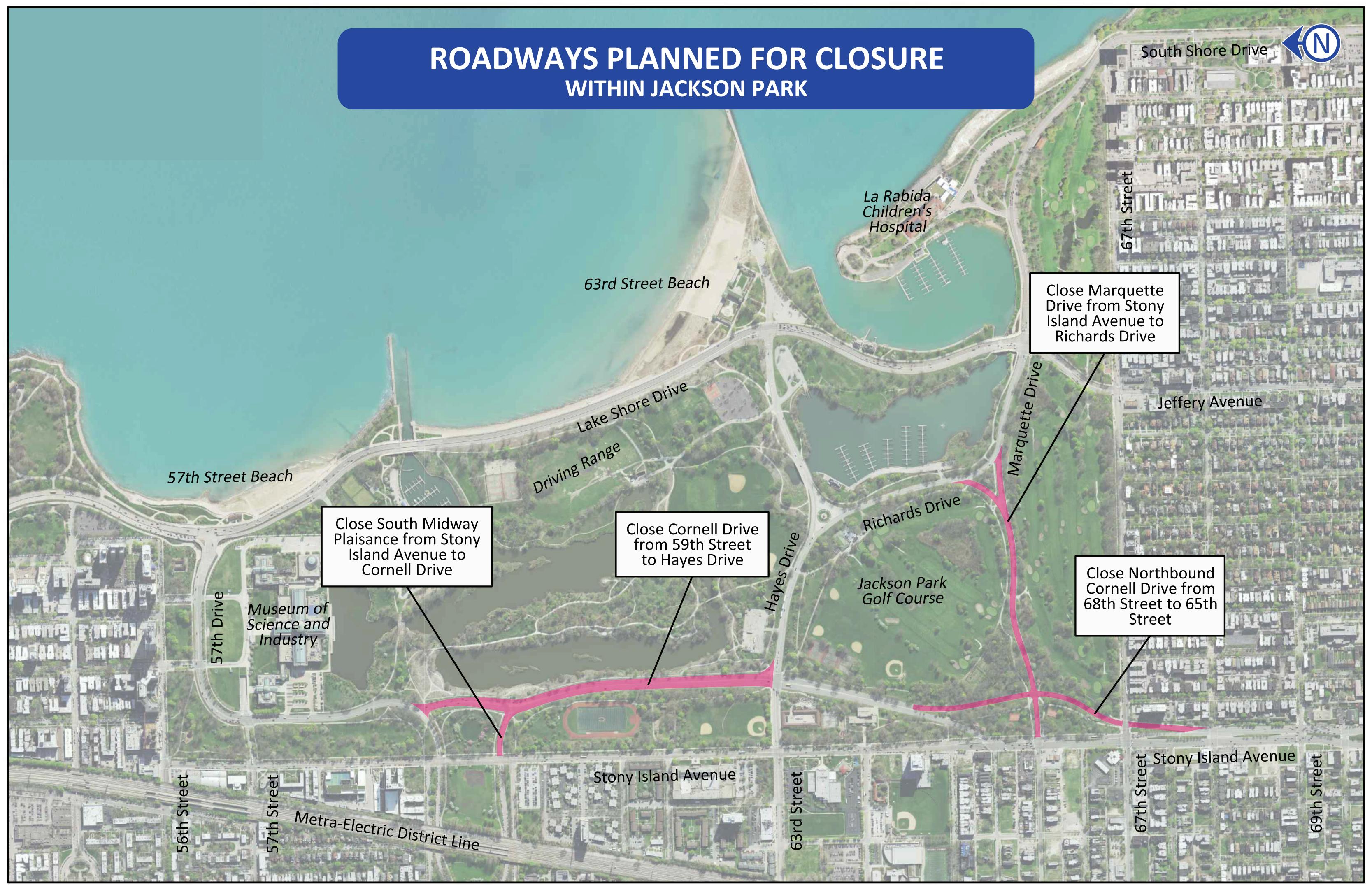


Exhibit H-2 MAP 4



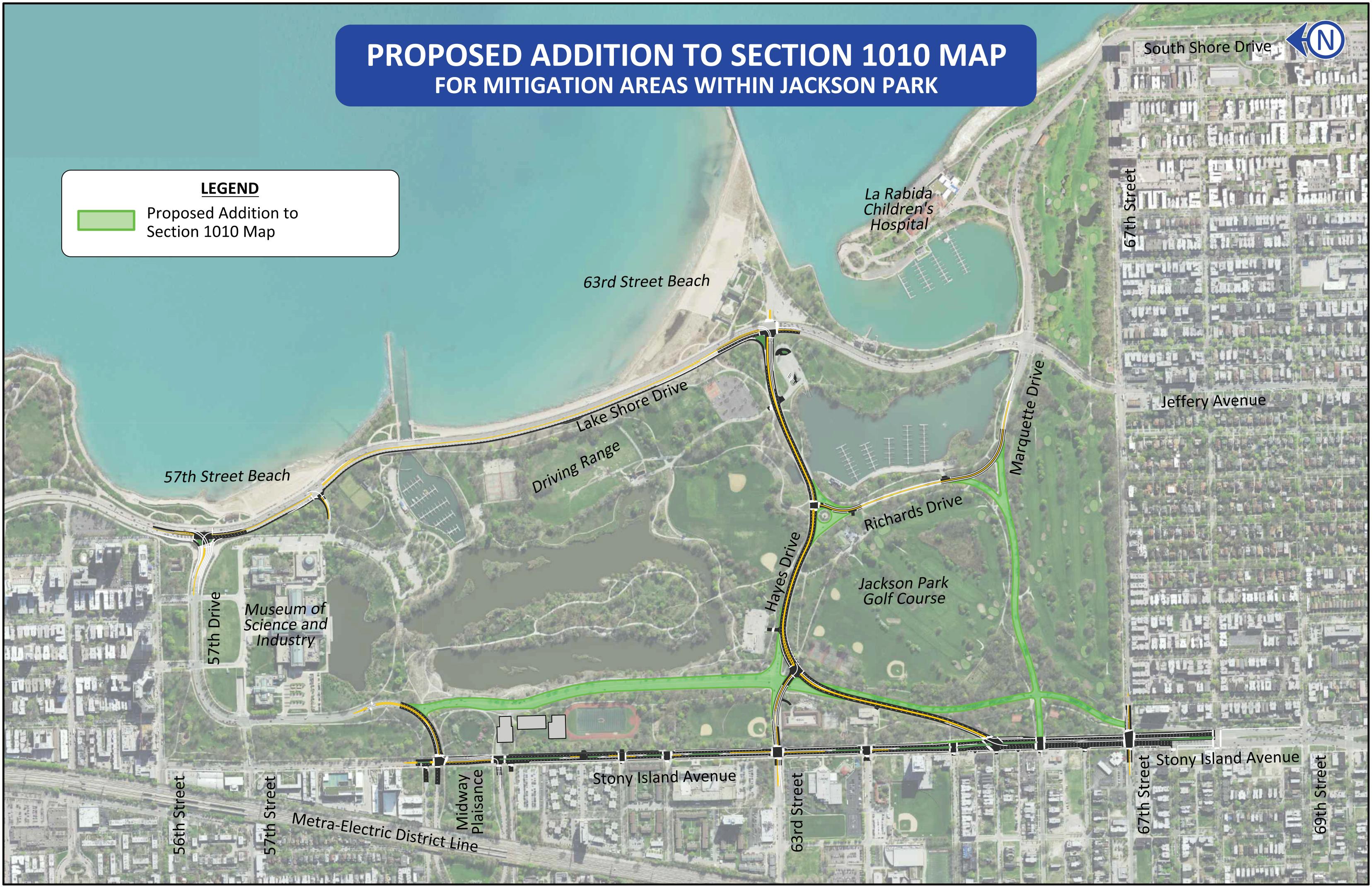




Exhibit H-2 MAP 6

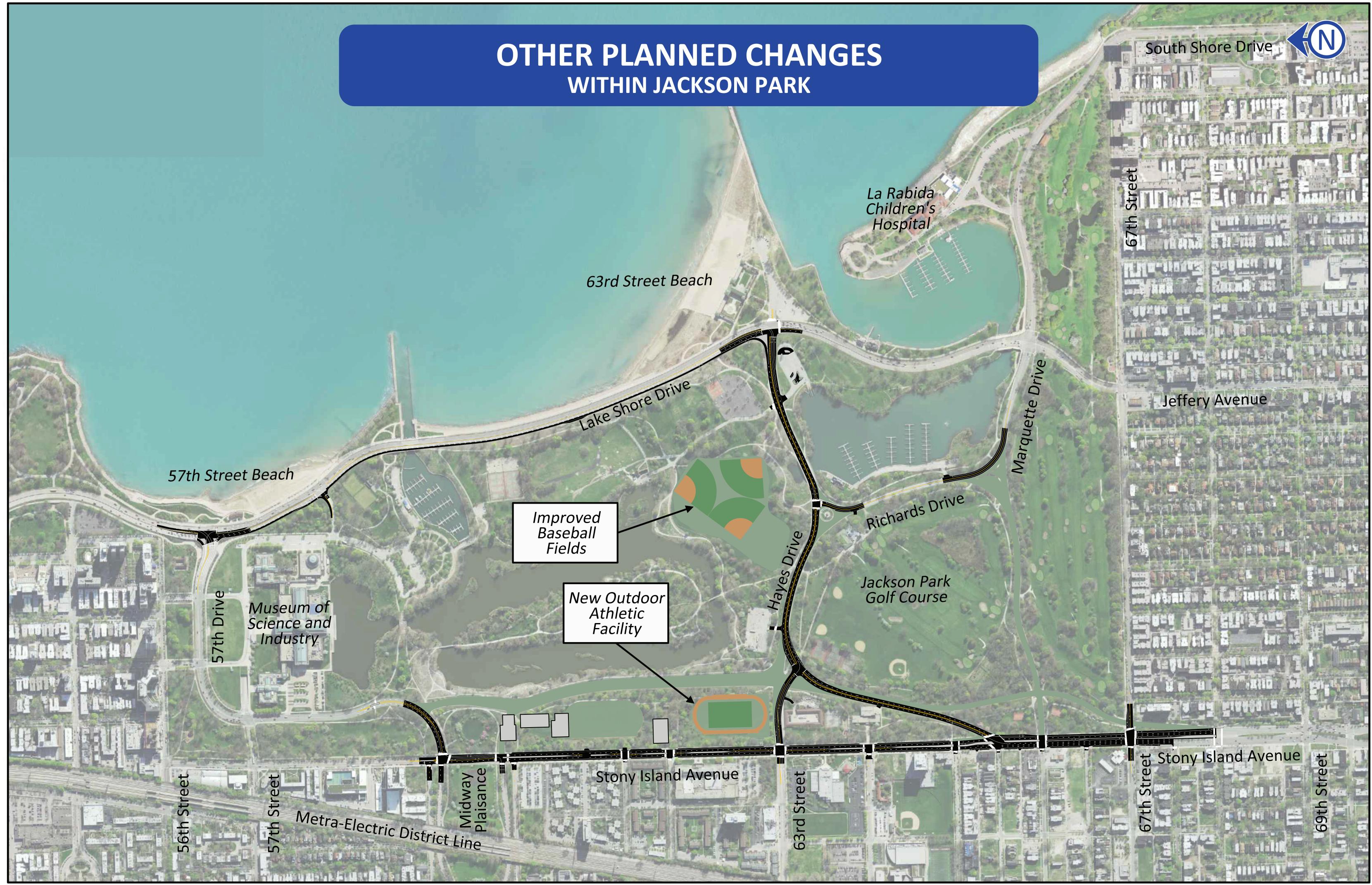


Exhibit H-2 MAP 7

Appendix I – South Lakefront Framework Plan

South Lakefront Framework PlanI-1



antents

OVERVIEW

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DEAR FELLOW CHICAGOANS,

I am proud to share with you the South Lakefront Framework Plan. This plan is a community-based vision for the future of Jackson Park and South Shore Park. Residents and local stakeholders played a pivotal role in designing and shaping a better future for the South Lakefront. Through this planning process, insights from park users helped develop a Framework Plan that is sound and steadfast for the enjoyment of current residents and future generations.

The plan sets a course for the evolution of the south lakefront parks and provides a flexible structure allowing it to evolve with future demands and outlines recommendations for land use and management over the next ten years.

Through an extensive community process, the Park District and its partners have hosted 13 meetings to discuss various topics, including passive and active recreation, water use and ecology, connectivity as well as culture and history on Chicago's south lakefront. Public input from these meetings has resulted in a long-term vision for future park improvements that allows residents and visitors new opportunities to play, learn, and relax.

This framework plan summarizes the ideas and vision of Chicagoans for the South Lakefront, and will be used to guide the design and stewardship of Jackson and South Shore Park. Confirmed park elements include the creation of new playing fields, 16.5 acres of new parkland, 20 picnic groves, 13 acres of new natural area, a hydrological connection of the lagoon to Inner Harbor and improved trail connections and lakefront trail separation.

I invite you to explore this document that your input helped create. This is just the beginning. We look forward to working with the community as future projects emerge and the planning vision is realized.

Chicago Park District | General Superintendent & CEO

acknowledgements

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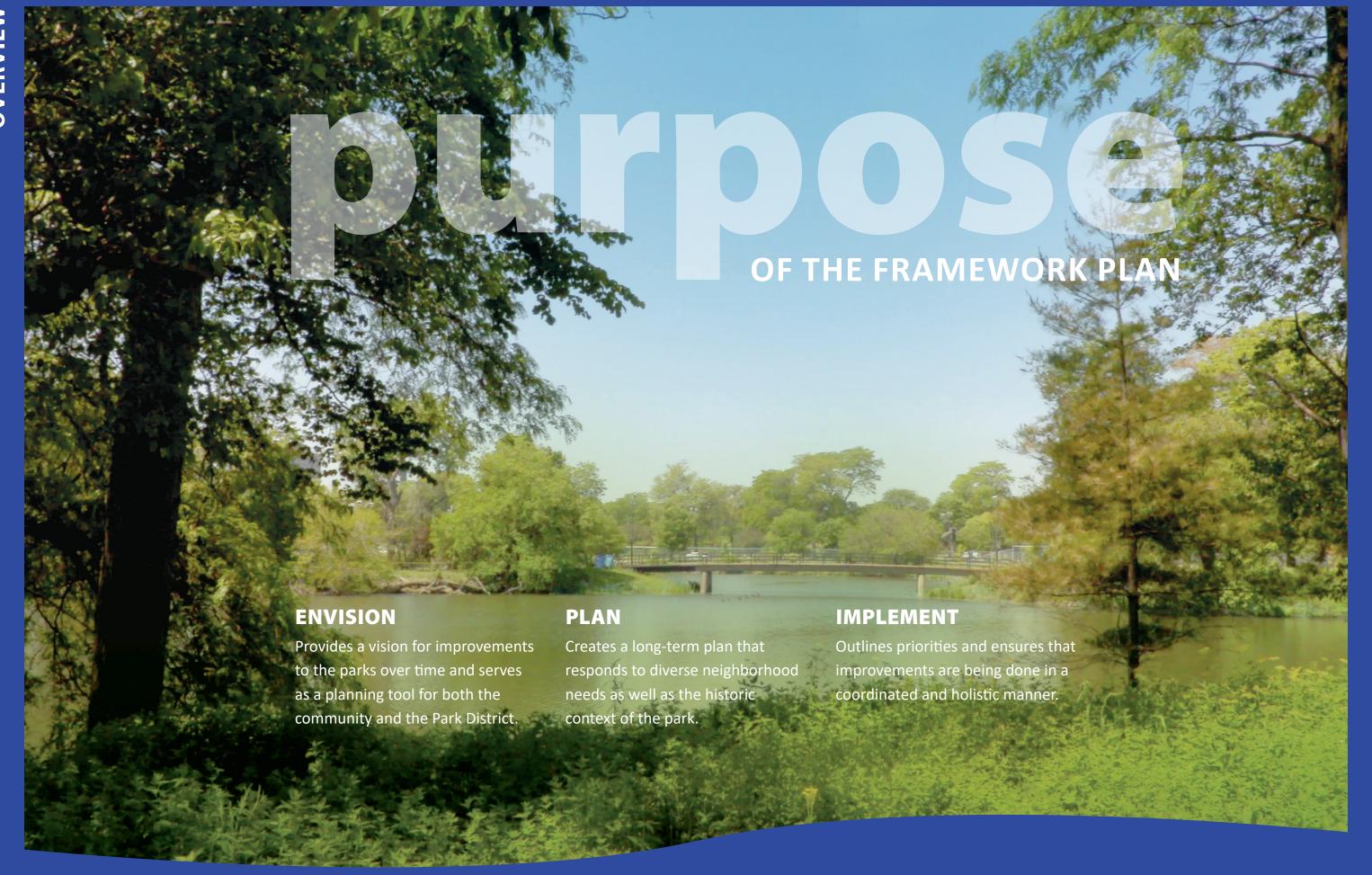
Carol Yetken Landscape Architect

Studio V Desig

Mimi Productions

SMR Pictures





The 2018 Framework Plan for the South Lakefront reflects a community-based vision for the combined 628 acres of Jackson Park and South Shore Cultural Center. For nearly 150 years, these two parks have played a vital role in the life of Chicago, providing highly valued recreational spaces for the local community, hosting city-wide events, and attracting visitors from around the globe. The South Lakefront reflects both the continuity of Frederick Law Olmsted's original 1871 vision and the changing needs of park users and the community over time. This plan builds on this legacy of serving contemporary park users within a closely-knit fabric of historically significant cultural, recreational, and natural landscapes.

This Framework Plan respects the 1999 plan for Jackson Park and South Shore Cultural Center. It respects the previous foundation while addressing new needs and opportunities for these cherished community resources. A key impetus for updating the plan was to integrate several major projects that had been proposed for the South Lakefront: the Obama Presidential Center in Jackson Park; the merger and restoration of the Jackson and South Shore golf courses into one premier 18-hole community course; and necessary roadway changes to facilitate these projects. The Park District and the community recognized the need to address these individual projects as part of a comprehensive, holistic vision for the South Lakefront.

Through an intensive 10-month process, the Park District engaged the community to help develop a vision for the South Lakefront's future. The resulting plan reflects the voices and opinions of a multitude of users who deeply value Jackson Park and South Shore Cultural Center. The Plan seeks to balance this broad diversity of park users – from those who use the parks for exuberant recreation to those who seek quiet refuge; from visitors across the street to visitors from across the globe.

The 2018 Framework Plan envisions a future for Jackson Park and South Shore Cultural Center that is fully informed by the communities and people who cherish and use these parks. It is a future that renews the South Lakefront's 10.5 miles of lake and lagoon shoreline, leveraging unique recreational and ecological opportunities along the water. It embraces the commitment to the historic and cultural legacy of the South Lakefront.

COMPONENTS OF THE FRAMEWORK PLAN

The South Lakefront Framework Plan documents the 10-month-long community-driven process and the resulting recommendations for charting the future of Jackson Park and South Shore Cultural Center. The parks are treasured assets of their communities, and park users were active in shaping the Plan. The voices of community participants are reflected throughout the document, displayed as direct quotes and embodied in every change proposed in the Plan.

In order to create a holistic long-term plan for complex existing parks, a vision was established, and guiding principles developed to enact changes that fulfill the vision. Program elements for the plan, determined by the park users, are knitted together in the design through implementation of design strategies. Changes to the parks are presented by systems which incorporate the guiding principles and design strategies in locating program elements. Each system explains the changes proposed to achieve the future envisioned by the community members.

A VISION

The community vision describes WHAT the parks should be in the future.

THE GUIDING PRINCIPLES

The guiding principles explain HOW the parks will achieve the vision.

PROGRAM ELEMENTS & DESIGN STRATEGIES

The program is the collection of uses and activities that must be accommodated within the parks. Design strategies guide how the many program elements are best integrated into the physical plan.

SYSTEMS & RECOMMENDATIONS

This document provides an in-depth look at each holistic park system and identifies recommended actions to shape the future parks envisioned by the community. The images and text describe Jackson and South Shore parks in their envisioned future state, calling out characteristics shaped by the proposed changes integrated with existing structures and landscapes.

Community feedback collected through the planning process is reflected across the systems, represented in speech bubbles. The system recommendations are tied back to the Plan's principles, presented throughout the systems as a constant measuring stick for the Framework Plan.

THE PLAN

The Plan illustrates how the program elements can fit together in the physical constraints of the parks. This section of the document provides enlarged portions of the plan for a closer look.

IMPLEMENTATION

The changes proposed by the Framework Plan will be implemented over time, as funding is allocated and design completed. The listed recommendations should be considered by projects for the South Lakefront.



13 community meetings 10 months 860 verbal comments 2300 attendees 24 stakeholder meetings 60 open house boards 333 live poll responses

90 stakeholder participants 65 evaluation notes

254 website comments 430 comment cards 350 post-it notes



COMMUNITY-DRIVEN PROCESS

The planning process continually engaged community members through meetings with stakeholder groups, a series of interactive public meetings, and a project website. Each phase of the process gathered and synthesized extensive community input to develop and refine the plan.

The **DISCOVERY** phase focused on understanding the concerns of residents and the existing conditions in the parks. Break-out sessions utilized real-time polling to inform community conversations about the South Lakefront's ecology and aesthetics, mobility and transportation, use and programming, and culture and history.

The **VISIONING** phase engaged stakeholder groups to share how they currently use the parks, what works well and what could be improved, and their concerns about proposed changes. These stakeholder sessions helped identify key programmatic needs and shape the overall community vision for the future of the South Lakefront.

A detailed analysis was also conducted during the Visioning phase, mapping the existing conditions of recreation systems, water use and quality, ecology, connectivity, and culture and history. The results of this analysis were shared with the public and used to solicit observations and ideas for park improvements. The feedback from these meetings helped inform a strong understanding of the parks' existing functions and the community's desires and priorities for the future.

The **SCENARIOS** phase synthesized all this input and information to create three distinct options illustrating a range of future possibilities for the parks. Each of the three scenario plans highlighted different unifying themes while still offering a balance of uses reflecting public desires and priorities. A public open house invited participants to evaluate the scenarios and share their preferences for park programming and improvements. Focused stakeholder meetings provided additional feedback on the three scenarios, informing the creation of one preferred framework plan.

This preferred plan was presented to the community during the final **FRAMEWORK PLAN** phase. This document reflects the information shared with the public, and community input gathered in the Framework

THE VISION

To help inform and build a community vision, participants at stakeholder and public meetings during the Visioning phase were invited to complete this prompt: "In the future, Jackson Park and South Shore Cultural Center should be"

The diverse responses were collected as a collage of sticky notes, and organized into the three themes:

- A Balance of Activity & Nature
- A Welcoming Place for All
- A Beacon of the Community

The aggregated community responses are depicted in the following visioning graphic. The speech bubbles reflect the aspirational ideas expressed by individual members of the community. These unique perspectives were brought together to create a cohesive, guiding vision for the future of the South Lakefront.

Vegetation around Natural and bird-friendly athletic fields to cut back on high winds Renewing; building Fun space near Lake Quality, maintained facilities, A perfect balance of A case study for natural/ Park filled better community-Michigan spaces at all times culture and nature social healing New state of with active human and the art music ecological physical court activity Natural Recognized as Increased boats and revenue one of the last Open A balance of activities/recreation natural areas and green space; an urban park area, Outdoor concert New and up-graded field house Awesome pickleball courts respecting along the lake area for classical and to share with friends space popular concerts Two football fields. A Balance of baseball complex, turf A progressive model Positive park field, seating, lights, for community-nature A place for concession stand activity in every integration fitness, art, **Activity & Nature** part of the park culture, special events Combined recreation and nature Epicenter Fulfilling the for pickleball A park with spaces for people that are Olmsted ideal of tournaments Natural areas are enhanced relieving tension integrated with natural ecological richness and lessons and access to them developed A space where people can to provide healing experiences access nature balanced with and a full range of activity - active and community needs People-friendly passive - balanced, and in-tune with and lakefront park Facility for education Upgraded field house in-service of its community. Kids Days every day on the 59th Street Harbor as an Richness; needs Wonderful natural Nature and harbors: As much activity as extension of the OPC mission of people and Inviting to nature and the Natural areas that areas supporting quiet open possible!!! of community engagement, nature; a jewel for neighboring community have volunteers birds, butterflies, space training, youth outreach, the city working daily to and elderly walkers boating and beyond maintain Lakefront café with table and Community horse riding days Indoor/ **Ecologically-rich** chairs with umbrellas to enjoy outdoor sports coffee, snacks, food Integrate nature stewardship, Track multi-plex local communities, and historic and field heritage A dog park on the lakefront with storage New state of the art and equipment indoor and outdoor to run full multi-use multiplex Facilities to provide more meets **Exhibit hall classes** programs, leagues, tournaments, Fun, and special events active. natural harbors





The guiding principles for the South Lakefront Framework Plan are a product of community input, the 1999 Framework Plan, contemporary planning best practices, and the mission of the Chicago Park District.

The guiding principles for the Plan integrate new thinking and community input while carefully considering the South Lakefront's planning legacy and historic role in the city. The 1999 South Lakefront Framework Plan was carefully reviewed, carrying over many of the relevant ideas identified there. Input from community members established important themes early in the planning process. Contemporary best practices in park planning and design were factored in, accounting for changes over the past 20 years. Finally, the principles were vetted to ensure that they align with the mission of the Chicago Park District.

The guiding principles served as a tool to guide and evaluate proposed changes throughout the planning process. The design elements incorporated into the plan shape spaces that embody the guiding principles, and deliver on the community vision.

The 11 guiding principles of the Framework Plan outline actions for making the vision for the future become a reality. The principles are grouped into three categories to highlight overarching themes.

SERVE THE COMMUNITY, **INSPIRE THE WORLD**

Maximize recreation and leisure opportunities

for children and families.

- Serve the local community through a balance of diverse programmatic spaces
 - active to contemplative, athletics to arts.
- **Strengthen connections** within the parks and with the community through improved programming, access, and

engagement.

STEWARD ENVIRONMENTAL INTEGRITY & BEAUTY

- **Establish healthy ecosystems** supporting a diversity of green spaces, wildlife, and water systems.
- Integrate buildings and landscapes to shape **beautiful parks** that provide an enhanced quality **of life** for their users.
- Underscore the many natural assets of the lakefront park landscape.
- Celebrate and reconnect with the water

RENEW & MAINTAIN PARK LEGACY

- Reinvigorate the parks as a global attraction with cultural destinations and historically significant landscapes.
- Draw on historic use, character, and design **philosophy** to inform the future.
- Leverage infrastructure improvements and catalytic projects to springboard the parks to another century of greatness.
- Continue to promote spaces that connect the **community** with nature.

DESIGN STRATEGIES

The South Lakefront Framework Plan is centered on the people who use the parks, serving a broad spectrum of users fishermen and athletes, historians and boaters, festival attendees, school groups, and families. The Plan strives to serve the needs of these many users with a balance of activity and nature for visitors from near and far.

The program for Jackson Park and South Shore Cultural Center was developed through input from the community during the planning process. During the Visioning phase, park users shared their desires for specific programming and activities in the parks and made suggestions for how best to balance them. The Scenarios phase combined these program elements into three distinct plan options. Each option illustrated a range of possibilities for the future, emphasizing different aspects of the parks while offering a balance of uses to provide the greatest public benefit. Community feedback on the three scenarios informed the balance of uses and programmatic elements included the Framework Plan.

Several design strategies emerged during the detailed site design of the parks as the vision, guiding principles and program were applied and tested. These strategies help shape the parks' physical design, recognize the many competing needs of future users, and provide flexibility to evolve over time.

PLAN PARKS FOR PEOPLE

The South Lakefront's legacy is rooted in the idea that parks serve a democratic and restorative role in city life. The framework plan embraces this philosophy, and the mission of the Chicago Park District, to create spaces that enhance the quality of life for their users. The framework plan keeps park users at the forefront as it shapes a future for Jackson Park and South Shore Cultural Center. Natural areas allow visitors to experience the restorative value of reconnecting with nature while supporting stewardship and education. Playing fields, picnic groves, park paths, and programming invite users to relax in the park through social interactions, physical activity, appreciation of the arts, or simply an escape from city life.

INTEGRATE LAND AND WATER

The intersection of land and water in the South Lakefront pre-dates human settlement here and captivated Frederick Law Olmsted in his designs for Jackson Park. The South Lakefront has 6.5 miles of interior shoreline and 3.9 miles of Lake Michigan coastline. 16% of the South Lakefront planning area's 628 acres is made up of interior water bodies. The interface of land and water is a defining and foundational feature of the South Lakefront, and celebrated through the framework plan.

MAXIMIZE EVERY MOVE

In order to serve the widest range of users and realize the greatest community benefit, the South Lakefront maximizes every proposed change to serve multiple end-goals. For example, the Framework Plan proposes lakefill park space at 63rd Street Beach that addresses the wave impacts and sedimentation that occur at Jackson Outer Harbor, while also providing improved parking, a new promontory nature sanctuary, and new waterfront picnic groves and fishing access. Maximizing every move will allow more of the goals for the South Lakefront to be realized.

ESTABLISH PERFORMANCE LANDSCAPES

The South Lakefront is a part of a network of integrated ecosystems serving the environment and public health. In Jackson Park and South Shore Cultural Center, soccer fields and picnic groves can help absorb and hold stormwater to prevent flooding. The lagoons that offer natural beauty and animal habitat can also filter stormwater to remove pollutants before they reach Lake Michigan. Thoughtful design can embrace design principles while also integrating the level of performance engineering that is required by the modern urban landscape.

PROGRAM ELEMENTS

ABOUT THE PLAN

The Framework Plan resulted from an intensive consensus-building process. The Plan is a guide for the future development of the parks, reflecting the vision of the community and balancing diverse user needs. As a framework, this document does not go to the same level of detail as a development master plan. Rather, it depicts the built-out potential of the parks to realize the community vision for the South Lakefront. The plan serves as a guide for integrating, phasing, and funding the proposed improvements over time.

The overall program and plan for Jackson Park and South Shore Cultural Center is illustrated here. Recommendations for steps to realize the plan are summarized in the sections that follow, each focusing on one of the park systems of recreation, water and ecology, connectivity, and culture and history.

Each system reflects the community input collected through the planning process, applies the design strategies, and outlines recommendations for physical changes to achieve the principles and goals.

RECREATION



Basketball Courts



Senior Baseball Diamonds



Track and Turf Field 400m Track with Multi-Sport Field



Soccer/ Football Fields



Tennis Courts



Pickleball Courts



Bowling & Croquet Greens



Field House Renovate Existing Alternate for New Construction



Special Events East Meadow & Hayes Fields, 63rd Street Beach, Museum of Science & Industry, South Shore **Cultural Center**



Dog Park Adjacent to Inner Harbor



Picnic Groves



Formal Gardens



Play Areas



Spray Pads 56th Street Playground 63rd Street Beach



Restrooms at Comfort Stations and Community Buildings



Driving Range Expanded in Current Location 370 yards



Combined 18-hole Course 7,161 yards, par 70



Golf Pavilion with Parking New Golf Pavilion on Jeffery Avenue



Teaching Facility with Parking Short Course at Cecil Partee

WATER & ECOLOGY



Bayou Connection with Islands Connecting Lagoon & Harbor



New Peninsula Breakwater +7.0 acres at 63rd Street Beach



La Rabida Shoreline

+9.4 acres of Habitat Beach and Stone Breakwater



Natural Area 90 acres



Fishing Points



Non-Motorized Craft Inner Harbor and Bayou



Outer Harbor Slips





Inner Harbor Slips 120 Slips + Rentals



59th Street Harbor

Water Taxi Dock 125 Slips New Harbor Building



Columbia Basin Paddle Boats



Beach House at South Shore

CONNECTIVITY



Regional Bike Trail 5.3 miles



Sidewalks & Paths 18.9 miles



Nature Trails 2.7 miles



New Underpasses



Boardwalk

CULTURE & HISTORY



South Shore Cultural Center Renovated



Coast Guard Building Relocated, Restaurant



Obama Presidential Center New Museum and Grounds



Adaptive Reuse of Burnham and Iowa Buildings

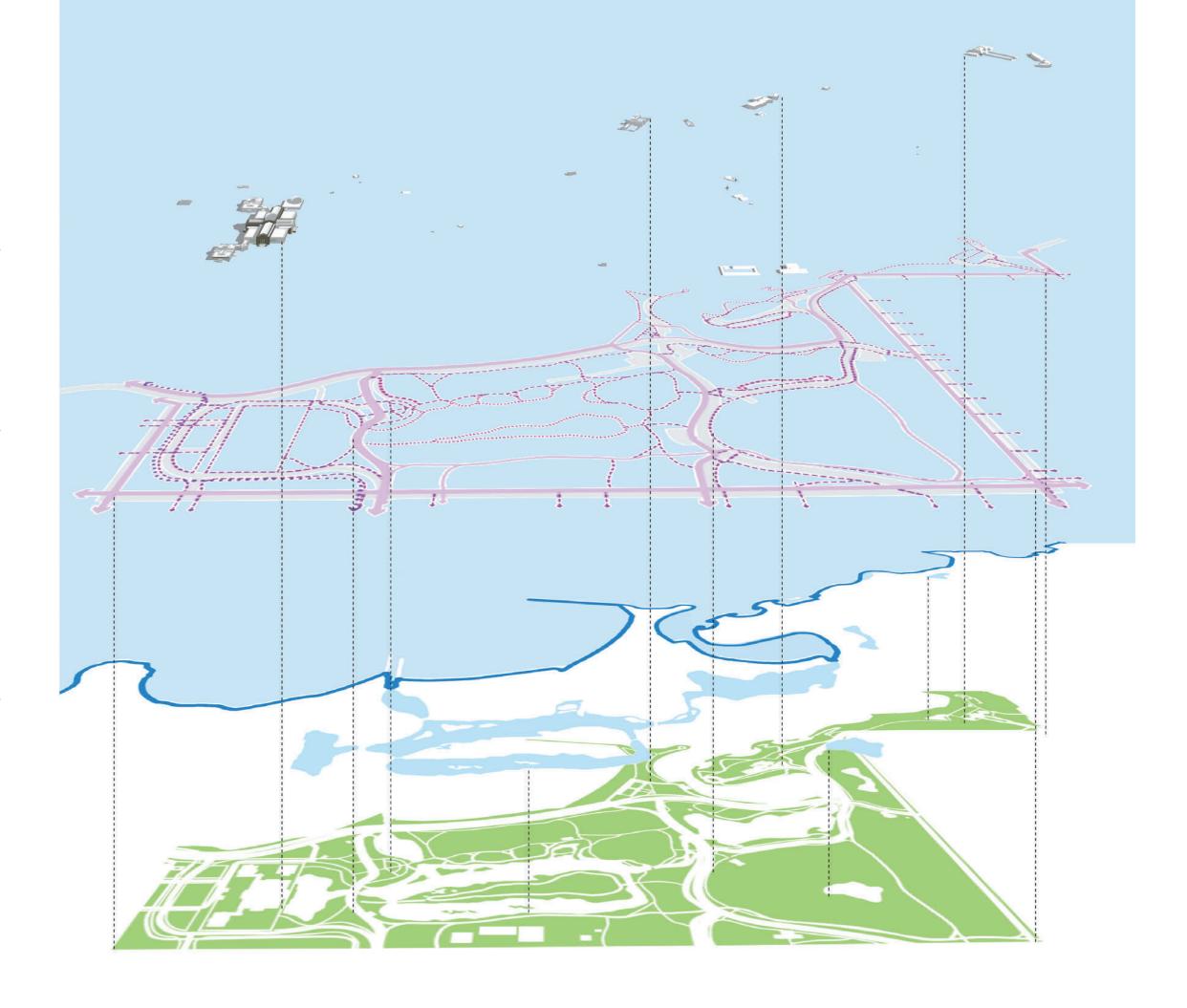


CULTURE & HISTORY

CONNECTIVITY

WATER & ECOLOGY

RECREATION



The Framework Plan synthesizes its recommendations for park use and improvements into four distinct yet interconnected systems: Recreation; Water and Ecology; Connectivity; and Culture and History. This system-based organization of recommendations was developed and refined during the public process to better focus and clarify the complex range of improvements required to achieve the plan vision.

RECREATION

Jackson Park and South Shore Cultural Center support a wide range of recreational spaces and activities, making Recreation a key system for the framework plan. Active recreation spaces include the running track and interior turf field, baseball/softball diamonds, soccer/ football fields, basketball courts, tennis courts, lawn bowling/croquet greens, pickleball courts, the golf course and driving range, playgrounds, and the field house. The diverse areas for passive recreation include picnic groves, gardens, and natural areas, as well as open meadows and walking paths. The ability to host special events such as the Chosen Few music festival or the Chicago Half Marathon is also addressed as part of the Recreation system, as they share spaces that must support multiple uses.

WATER & ECOLOGY

The Lake Michigan coastline and internal water bodies in the South Lakefront offer a unique assortment of programming and activities, from its three different beaches and three distinct harbors to its lagoons, bayou, and basin. Water activities span beach-going, motor boating and sailing, kayaking, canoing and paddle boarding, paddle boating, fishing, and passive activities that are specifically related to being near the water. The water bodies are also intrinsically linked to the ecology of the parks, the two working in unison to shape the South Lakefront's ecosystems. Considered as part of a unified system, the Plan's recommendations for integrated shoreline, Lake Michigan coastline, and land-based improvements maximize landscape performance potential along with environmental stewardship and beauty.

CONNECTIVITY

Connectivity in the South Lakefront occurs on many different levels and scales. The Plan's mobility-centered system addresses how people come to the parks and how they move through them. The Framework Plan examines vehicular movement through the street hierarchy and parking; transit options currently serving the parks; and a network of multi-use paths and pedestrian connections ranging from regional scale to more intimate nature trails and boardwalks. Programmatic uses are also addressed in relation to Connectivity, and the capacity of the South Lakefront's systems to bring together runners, walkers, cyclists, horseback riders, students, and seniors from adjacent neighborhoods and around the region.

CULTURE & HISTORY

Dating back to Frederick Law Olmsted's design for the Columbian Exposition of 1893, the South Lakefront has long been a destination for national and international visitors. This legacy continues today and into the future. School groups, families, artists, and educators come to Jackson Park and South Shore Cultural Center. They visit the Museum of Science and Industry, take classes or attend performances at the South Shore Cultural Center, walk through the historic Wooded Island and Osaka Garden, and may soon visit the Obama Presidential Center. Cultural uses and historic legacy represent a key system for the South Lakefront Framework Plan.





dog walkers golfers tennis players kids coaches ball players lawn bowlers seniors picnickers festival attendees students athletes campers pick-up game players families



RECREATION SUMMARY

The Framework Plan builds upon the success of recreation in Jackson and South Shore parks through a variety of spaces for activity, from active to social to contemplative and restorative. These spaces abut and blend together, uniting a diversity of users.

The urban edge – the periphery of the park close to the neighborhoods – functions well as passive space, its form dating back to the Olmsted plan. The gentle berms and trees shape spaces comfortable for picnicking, casual games, family gatherings, and playgrounds. Neighboring residents value this unprogrammed space. The Framework Plan builds on the successes of the urban edge. A new splash pad adds to the **56th Street playground.** Activation of the lowa Pavilion offers a new picnic pavilion.

The Music Court and Bowling Green offer another mix of recreation spaces. The Music Court provides picnicking, bird watching, and community gathering space supported by the new 59th Street Harbor building. The Bowling Green continues its long history and value as the city's only lawn bowling and croquet greens. The addition of pickleball in this area creates a balanced center of activity with sports that cater to an older generation. Proximity of bathrooms and parking contribute to a successful activity zone.

The **East Meadow** is home to the Jackson Park Driving Range, expanded Bobolink Meadow, and flexible meadows. The expanded driving range meets the contemporary needs of golfers. Bobolink Meadow's expanded natural area encompasses the driving range, and offers more habitat, bird watching, stewardship, and educational opportunities. The flexible meadows can accommodate up to two full soccer/football fields, host special events, and contain picnic groves. An access road places parking close to the areas of activity while the Driving Range Building provides restrooms nearby.

The **Hayes Fields** provide a complex of playing fields and flexible meadows. The meadow can host three senior baseball fields and a soccer/ football field. The baseball backstops are tucked into the edges of the meadow to create wide open spaces that can serve athletics, or host large events. Natural areas and shaded lawn surround the meadows to create picnic groves and blend together the active and passive recreation spaces.

Sports courts, playgrounds, and the track and field are clustered close to Stony Island Avenue where they are easily accessible to the nearby schools and residents. The **Jackson Park Track and Field** is grouped with tennis courts to provide a synergy for camps and coaches. The **Field House** grounds offer tennis, basketball, and a playground creating an activity zone for all ages. Should funds become available for a new field house, the plan designates a location for the new facility. Building a new field house north of Hayes Drive creates a strong relationship between the active recreation spaces and field house. Removal of the existing structure could open more flexible space close to the adjacent neighborhood.

The renovated **golf course** merges Jackson Park and South Shore courses into a single 18-hole course meeting contemporary play and safety standards. Park trails weave through and around the course. The edge along 67th Street maintains park space for the community of South Shore. The golf pavilion on Jeffery Avenue enlivens the street edge and engages the community. Cecil Partee becomes a golf education facility.

South Shore Cultural Center boasts a mix of recreation spaces. It has dramatic lakefront golf holes; natural areas for habitat, bird watching, and stewardship; a formal garden; lawn for picnicking and gatherings; and nature play for the children.

PROGRAM ELEMENTS



Picnic Groves



Formal Gardens



Senior Baseball Diamonds



Soccer/ **Football Fields**

SERVE THE COMMUNITY INSPIRE THE WORLD

Strengthen connections within the parks and with the community through improved programming, access, and engagement.

> "Creating it in a way so that you feel like you're in a natural space to get away from the city...if we can start creating small, natural, communal spaces within this large space that would be fantastic."

barbecuing/gathering."



Draw on historic use, character, and design philosophy to inform the future.



RECOMMENDATIONS FOR PICNIC GROVES & UNPROGRAMMED SPACE



Build upon the existing success of picnic groves.

Continue the parks' legacy of great picnicking through improving connection between picnicking spaces and other park amenities. Access to parking and restrooms or adjacency to the neighborhood makes groves desirable and successful.



Maintain unprogrammed areas in the parks.

The users of Jackson and South Shore parks desire flexible park space without a specific function — a place for people to enjoy the outdoors, sit on a bench, talk with a neighbor. A mix of lawn and shade, benches, and paths shape successful unprogrammed park spaces.



RECOMMENDATIONS FOR FLEXIBLE MEADOWS

Integrate passive and active use spaces.

> Integrating picnicking and natural areas with playing fields contributes to longer visitor stays in the parks and to use by people of all ages.

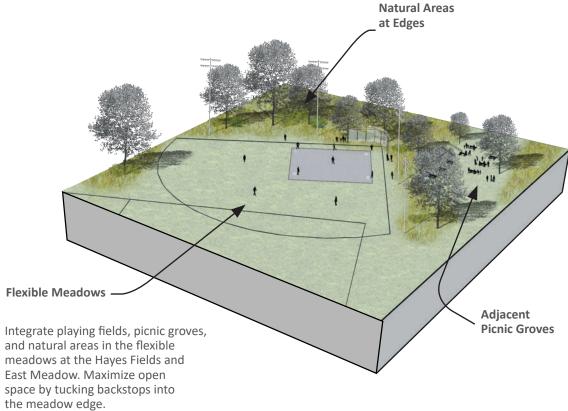
Provide restrooms close to areas of activities.

> Engagement with park users revealed that access to restrooms can determine the success of spaces in the parks. Comfort stations encourage longer stays and multi-generational enjoyment of the parks.

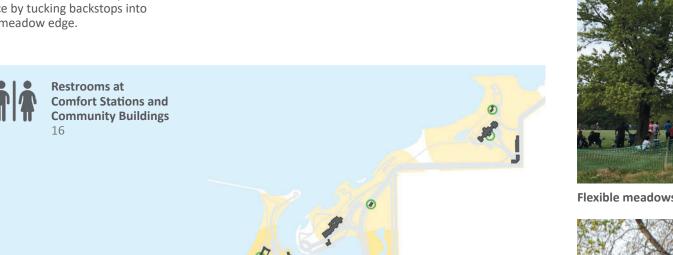


Accommodate larger special events.

Contiguous open space provides large footprints for special events, such as Chosen Few, Bike the Drive, and the Chicago Half Marathon. A mix of shaded spaces and open lawns shape ideal spaces for all-day events.



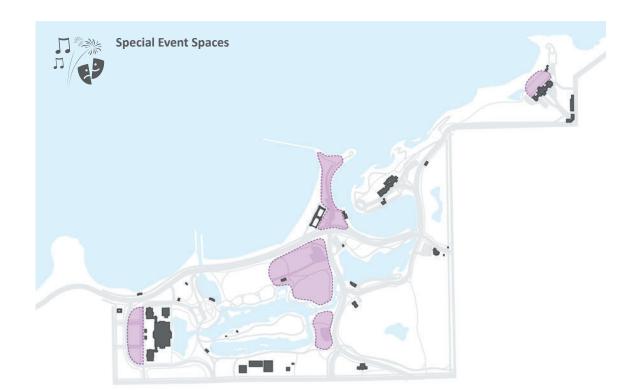




Flexible meadows at East Meadow & Hayes Fields

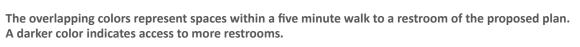


Picnic grove at South Shore Cultural Center



The area outlined indicates open space ideal for permitting special events.

Special Event Space



Color scale indicates the number of restrooms within a 5-minute walk.



Restroom Location

PROGRAM ELEMENTS



Basketball Courts



Senior Baseball Diamonds



Track and Turf Field 400m Track w/ Multi-Sport Field



Soccer/ Football Fields



Tennis Courts 9



Pickleball Courts 8



Bowling/ Croquet Greens



Field HouseRenovate Existing

Alternate to Build New

"If a good facility is built and well maintained, people will keep coming back."

SERVE THE COMMUNITY INSPIRE THE WORLD

Maximize recreational and leisure opportunities for children and families.

"It is good that the track area is conveniently located and easily accessible from the street area."

RENEW & MAINTAIN PARK LEGACY

Continue to promote spaces that connect the community to nature.



RECOMMENDATIONS FOR COURTS & PLAYING FIELDS

6 Provide quality facilities to maximize playing time.

Lights, field drainage, and flexibility of use will extend the hours of use of facilities and serve the needs of many users.

Group recreation facilities along Stony Island to allow for easy access from the schools and neighborhoods.

Locate the track and turf field and tennis together provides a complex to better serve the nearby schools and community users. 8 Renovate the Field House; or alternate option to build new.

Renovate the existing Field House in place. If funds become available, a new Field House could be constructed north of Hayes to connect with the adjacent recreation facilities.

Design the track and field to accommodate a multi-sport turf field.

A wider field can host more sports, including soccer, football, and lacrosse. The wider track will allow for faster running speeds and include more field events.

Co-locate lawn bowling/croquet and pickle ball.

Diversifying the bowling green area will maximize the use of the building and serve more users.

Create a baseball/softball field complex in meadow near Hayes Drive.

Contiguous fields allow for multiple school teams to practice together.



The Hayes Fields, Field House, track and field, and tennis courts will create a recreational spine

along Hayes Drive from Stony Island Avenue to

Lake Shore Drive.

RECOMMENDATIONS FOR THE GOLF COURSE

Combine the Jackson and South Shore courses to create one 18-hole course that meets contemporary levels of safety and play standards.

> The flow of play will allow for a returning nine-hole course to maintain the short game option that many locals enjoy at the current course.

The routing plan allows for park paths through and around the course and maintains unprogrammed park space at the edges.

A teaching facility at Cecil Partee will introduce new generations to the legacy of golf in Jackson Park.

Integrate biodiversity throughout the golf course.

> Natural areas and biodiversity throughout the course will contribute to a healthy ecosystem overall, and create natural beauty on the course for golfers and neighbors.

Create visual and physical community connections.

> Provide paths around the golf course to allow community use at the perimeter. Minimize fencing where compatible with safety measures.

Locate golf facilities strategically to serve the golf course and the community.

> Placing the golf pavilion on Jeffery Avenue will bring together the adjacent community, golfers, and other park users.

Cecil Partee becomes a educational center for the next generation of golfers.

Keep the golf course accessible to Chicago residents and youth.

> Consider tiered pricing structure to ensure the course remains accessible to the community and residents of the city of Chicago. Residents outside of Chicago will face premium fees.

Driving Range Expanded in Current Location 370 yards

> **Combined 18-hole Course** 7,161 yards, par 70



Teaching Facility with Parking Short Course at Cecil Partee





SCORECARD									
Hole	Par	Tee 1	Tee 2	Tee 3		Tee 5	Tee 6		
1	5	667	634	581	520	471	281		
2	4	441	432	412	351	307	203		
3	4	429	408	373	328	299	176		
4	4	453	430	384	353	316	216		
5	3	204	193	177	161	142	71		
6	4	467	444	406	364	325	225		
7	5	579	551	514	452	404	259		
8	3	136	131	123	104	89	52		
9	4	425	412	370	328	296	106		
FRONT	36	3801	3635	3340	2961	2649	1589		
10	4	368	350	319	287	256	139		
11	3	189	180	161	147	132	63		
12	4	382	363	332	298	266	164		
13	4	488	464	418	381	340	229		
14	4	504	479	436	393	351	246		
15	3	211	200	184	165	147	80		
16	4	365	359	334	301	254	152		
17	3	199	191	168	155	125	68		
18	5	654	618	552	507	449	268		
BACK	34	3360	3204	2904	2634	2320	1409		
TOTAL	70	7161	6839	6244	5595	4969	2298		



Score card and routing plan for the new 18-hole golf course.



becomes even more of a

"I am a huge supporter of the golf course renovation plan in the city. As a young child my grandfather and father taught me the game. The game's cornerstone is one of integrity and the lessons from golf are lessons I live by. "

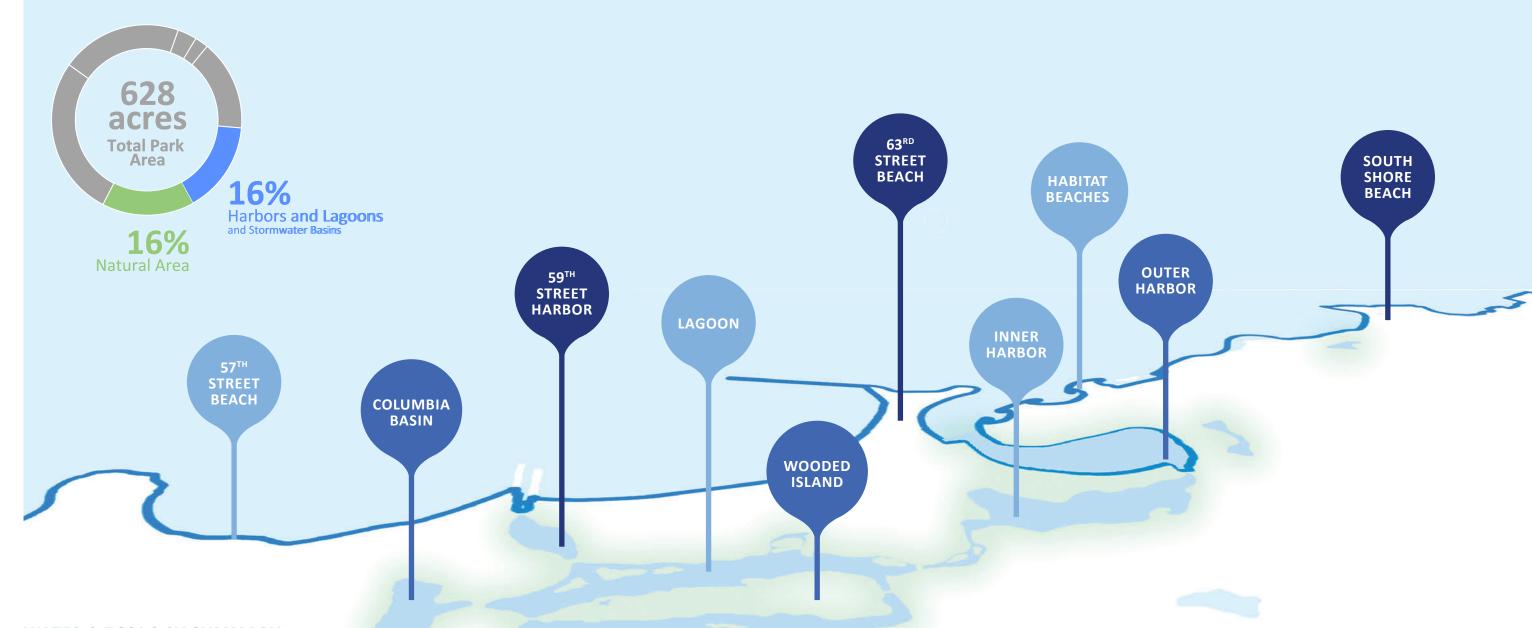
> "Excited about the restoration, looking forwarded to a challenging course with beautiful trails throughout."

STEWARD ENVIRONMENTAL INTEGRITY & BEAUTY

Establish healthy ecosystems supporting a diversity of green spaces and water systems.



beach-goers kayakers park stewards *fishermen seniors* ecologists *families* nature enthusiasts boaters kids educators bird-watchers



WATER & ECOLOGY SUMMARY

Water use, quality and ecology throughout the parks are intrinsically intertwined. Together the water bodies and land area provide habitat for many species of birds, animals, fish, and plant life. These spaces also support activities in a wide range of boating and bathing, stewardship, and education. Each portion of the parks offers a range of experiences to support users and steward healthy environments.

The **57th Street beach** continues its success as a lakefront destination with a beach house and close proximity to the Hyde Park neighborhood.

The **Columbia Basin** builds on its popular activities of picnicking and fishing. Deepening the basin allows for paddle boats to introduce new recreational activity while creating better fish habitat.

The **59th Street Harbor** is home to the Museum Shores Yacht Club. The plan calls for repairing the breakwall at the harbor mouth. A new harbor building is located on the edge of the Music Court to serve both the needs of the yacht club and be an amenity to the community.

The **lagoon** and **Wooded Island** are treasures of Jackson Park. Recent work by the U.S. Army Corps of Engineers restored the banks of the lagoon. A new boardwalk connects Bobolink Meadow to the Darrow Bridge, inviting park users to experience the lagoon without disturbing the restoration work or habitat areas. A new physical connection, called the bayou, unites the lagoon and the Inner Harbor. Naturalized shorelines along the bayou and parts of the Inner Harbor provide canoers or kayakers the intimate experience of a water body while protecting the restoration of the

lagoon shores. A small dam called a weir keeps the paddle craft and fish from entering the lagoon, maintains the precise water levels, and harnesses the lagoon's role in water treatment. Paths and bridges around and across the bayou connect users with nature and a variety of experience near, over, or on the water.

The **Inner Harbor** strikes a balance of motorpowered and human-powered boating. The slips for the South Shores Yacht Club are right-sized to match anticipated demand, with the addition of a dock for rental boats. Paddle craft such as canoes, kayaks, and paddle boards will have access to the calmer waters of the Inner Harbor with parking, a rental concession, and restrooms. The Inner Harbor blends paddle craft, motor boating, and water safety and educational opportunities. Reflecting its growth, the **Outer Harbor** increases in slips for

the Jackson Park Yacht Club, with a dock designated for transient boaters and fuel. Minimal lakefill along the mouth of the harbor creates space for expansion of harbor parking, close to the docks. Both harbors adopt contemporary harbor best-practices for security and access from head piers. This allows for less fencing, improved integration into the park, and a continuous harborwalk bringing people to the water's edge on a hardscaped walk.

To address the existing problem of sedimentation and wave action in the Outer Harbor, new lakefill creates habitat beaches and a peninsula at the 63rd street beach to temper wave action. Rubble breakwalls along the Lake Michigan coastline by La Rabida will naturally form cellular beaches to support wildlife. Trails lead to look-out points, offering quiet moments on the lake. The lakefill at

63rd Street Beach supplements a popular beach destination with new picnic groves, improved parking, and promontory nature sanctuary to support migratory birds and offer views of the city. The peninsula creates an ideal fishing location.

Both 63rd Street Beach and South Shore Cultural Center offer balanced beach destinations for families. Lakefront beach, natural areas, picnic groves, a play area, and a new beach house with restrooms and concessions at South Shore invite users to stay the whole day.

PROGRAM ELEMENTS



Bayou Connection with Islands

Connecting Lagoon & Harbor



Inner Harbor and Bayou



Outer Harbor Slips 130 Slips Transient & Fuel Dock





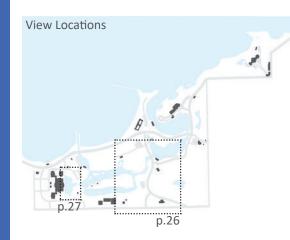
with Islands

Inner Harbor and Bayou

creating more water space – revitalizing an

SERVE THE COMMUNITY INSPIRE THE WORLD

Maximize recreation and leisure opportunities for children and families.



Non-Motorized Craft

Inner Harbor Slips 120 Slips + Rentals

Bayou Connection

Connecting Lagoon & Harbor

Non-Motorized Craft

RECOMMENDATIONS FOR HARBORS & LAGOON

- Re-introduce paddle boats on the Columbia Basin.
- Right-size the Inner Harbor for anticipated demands.

Provide a slip-count reflecting current and anticipated demand, and incorporate a dock for power boat rentals.

Embrace a diversity of boating on the Inner Harbor with recreational amenities and educational opportunities.

> Kayaks, canoes, and paddle boards can be rented or launched in the Inner Harbor and into the bayou. The quiet waters of the Inner Harbor are ideal for water safety and boating education.

Expand the Outer Harbor to accommodate on-going growth. Increase slips, modify dock access through a head pier configuration and provide expanded parking on lakefill

adjacent to docks.

Construct new harbor building at Museum Shores Yacht Club.

> Support yacht club's efforts to construct new harbor building.

Provide secure access for yacht clubs, opportunities for rental or transient docks, and access for the whole community to engage with the water.

> Use of head piers can facilitate security for yacht club members and transient or rental boaters.

Create publicly accessible harborwalks.

The Inner Harbor is right-sized to accommodate power boats and paddle craft. The bayou connects the lagoon to the harbor with control structures to

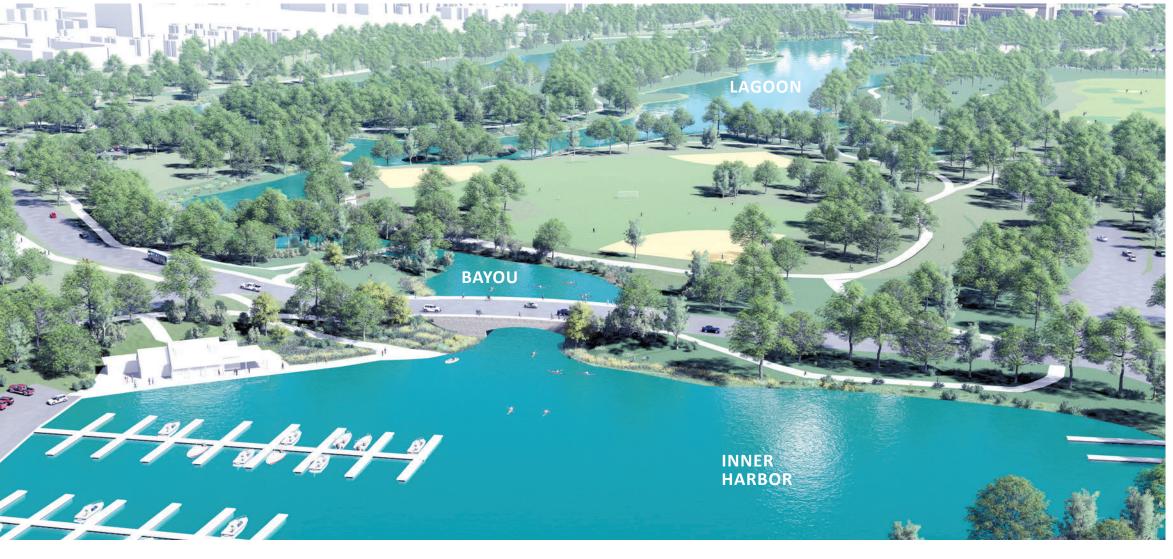
protect the sensitive ecology of the

lagoon and its shores.

Harborwalks bring people to the water's edge on a hardscaped surface, connect with the yacht clubs, and create a variety of ways to experience the water from land.

Provide boardwalks and bridges on the lagoon.

> These create opportunities to connect to nature without disturbing shoreline habitat and offer vantage points for viewing the lagoons and educational moments.



STEWARD ENVIRONMENTAL INTEGRITY & BEAUTY

Underscore the many natural assets Island and Bobolink of the lakefront park landscape.

PROGRAM ELEMENTS

Columbia Basin Paddle Boats

Fishing





RENEW & MAINTAIN PARK LEGACY

Draw on historic use, character, and design philosophy to inform the future.

RECOMMENDATIONS FOR BEACHES & LAKEFRONT

Provide well-rounded beach destinations.

> Beach houses with restrooms and concessions serve beach-goers for the entire day.

Blending beach with adjacent lawn for picnicking, nature areas, and play spaces provide a multi-generational park space.

- Build a new beach house at South **Shore Cultural Center.**
- Support the fishing community. Designated locations identify ideal places for recreational fishing.
- Build new lakefill at the 63rd Street Beach/mouth of the Outer Harbor to minimize wave action and sedimentation in the harbors.

The lakefill peninsula will protect the Outer Harbor and provide new park space for the community.

Create habitat beaches along the La Rabida peninsula coastline.

> Rubble breakwaters will address littoral drift and reduce wave impact in the Outer Harbor. Created beach cells will provide new lakefront habitat, paths, and educational opportunities for park-goers. The breakwater and habitat beaches will create a new edge at one of the oldest segments of lakefront revetment.





Continue to promote spaces that connect the community to nature.

Water quality and access are extremely important to me, as is green space and a healthy, extensive tree canopy."

INSPIRE THE WORLD

Serve the local community through a balance of diverse programmatic spaces — active to contemplative, athletics to arts.

PROGRAM ELEMENTS





63rd Street Beach 7.0 acres of new park at Lakefill Peninsula



Fishing



Natural Areas



"I would like the changes to maintain or increase the natural areas, and leave space for butterflies and birds so that they can thrive just as people do, when they have contact with nature."

STEWARD ENVIRONMENTAL INTEGRITY & BEAUTY

Establish healthy ecosystems supporting a diversity of green spaces and water systems.



Beach at South Shore Cultural Center



STEWARD ENVIRONMENTAL INTEGRITY & BEAUTY

Integrate buildings and landscapes to shape beautiful parks that provide an enhanced quality of life for their users.

RECOMMENDATIONS FOR PERFORMANCE LANDSCAPE

Enhance natural areas to provide measurable sustainable performance benefits.

> The naturalized areas of the South Lakefront can serve the Olmsted aesthetic of framing space and views while also serving an important environmental function. These zones play a vital role in stormwater management, strengthening the parks' capacity to handle heavy rainstorms while improving water quality within the lagoons, harbors, and basin.

Add native plant communities to provide critical habitat while increasing natural area acreage in the parks.

> Increasing the park's natural areas will contribute to the Park District's goal of adding 2,020 acres of natural areas to Chicago's park and open space system by the year 2020.

Manage and treat stormwater through natural green infrastructure systems.

> Expand and integrate best practices in performance landscape design throughout the South Lakefront.

Increase green infrastructure capacity to slow, hold and filter stormwater runoff before it enters Lake Michigan.

> Leverage land and water-based practices to provide educational opportunities for park visitors as well as to enhance aesthetics and sense of place.

Create landscape features that can temporarily provide stormwater detention during heavy rain events.

> Integrate bioswales, biofiltration basins, and rain gardens with the parks' flexible meadows, picnic groves, and natural areas. These systems can capture runoff from playing fields and parking lots, enhancing stormwater infiltration and filtration.

Build stormwater structures as an integrated part of streets and parking lots.

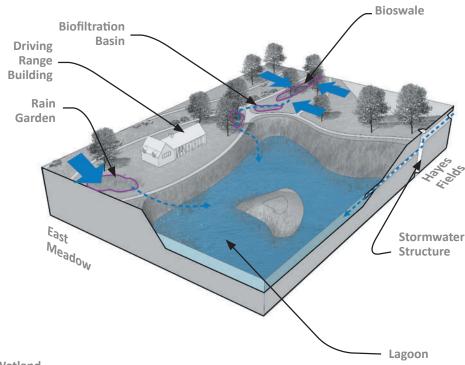
> These structures collect and separate debris and pollutants from runoff before it enters the water bodies.

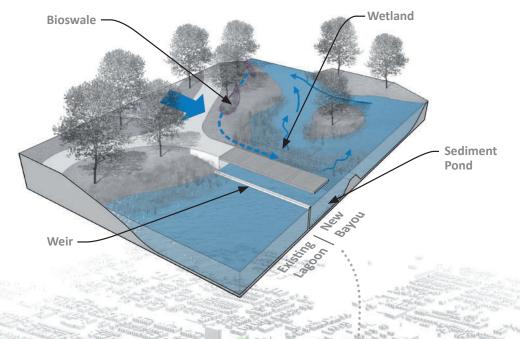
Use living shoreline strategies, wetlands, and sediment ponds along the South Lakefront's bayou, lagoons, and harbor.

> Aquatic plants help clean the water, sediment ponds collect runoff particles, and wetlands provide filtration and aeration benefits.

These diagrams use specific park locations to demonstrate how land and water-based features can be incorporated with park design to handle heavy rains and stormwater runoff, remove water-borne pollutants, and improve ecological and human health. The application of these features creates a performance landscape.

At the junction of the bayou and the lagoon, a low dam, call a weir will control the flow of water, fish, and paddle craft from the lake into the lagoons. A sediment pond can be integrated with the weir. Features such as the bioswale and wetlands are shown edging the bayou, but can be applied in multiple locations along the living shoreline. Rain gardens and biofiltration basins can be integrated with natural areas or around picnic groves and playing fields, like the example of the East Meadow shown.





Integrated water and land systems form a network of ecological spaces along the South Lakefront. The network establishes healthy ecosystems and integrates green infrastructure features to create a performance landscape.

RECOMMENDATIONS FOR LAGOON, BAYOU, AND HARBOR SHORELINES

Expand the network of living shorelines within the parks.

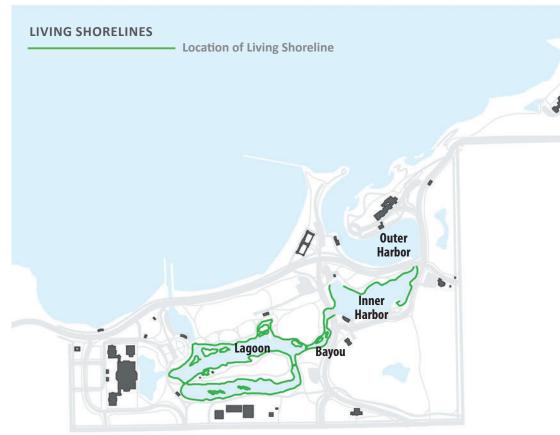
Ecological planting strategies will naturalize the edges of the bayou and parts of the existing harbors. A twolevel riparian edge supports various plant, animal, and insect species as a resource for food, shelter, and/or mating. A mix of Sedge Meadow, Savanna Woodland and Fringe Wetland communities on the shore extends the recent habitat restoration along the

lagoon edges and Wooded Island. Underwater aquatic plant-beds and habitat structures support various fish and amphibian species in the lagoon, bayou, and inner harbor.

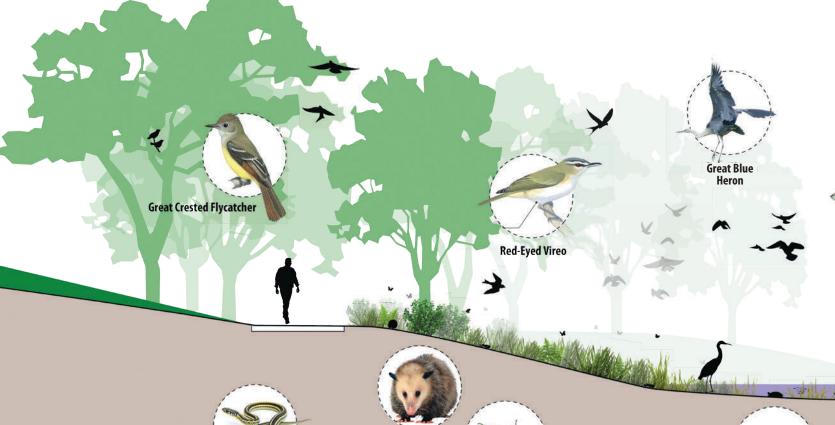
Align habitat improvements with potential funding opportunities.

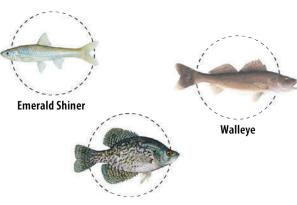
New waterfront edges along the bayou and rebuilt shorelines at La Rabida Peninsula and South Shore Cultural Center present opportunities to further naturalize riparian and coastal edges.

These environments support great lakes conservation efforts for water quality, habitat and fishery health, and align with the priorities of regional conservation organizations like the Great Lakes Restoration Initiative and the Great Lakes Protection Fund to help pre-position future implementation projects for funding opportunities.



Naturalized edges of the lagoon, bayou, and sections of the Inner Harbor comprise the living shorelines.





animal, and plant habitat, and provide park users with nature paths, stewardship opportunities, and educational opportunities.

American Toad







Painted Turtle

Passive and Active Recreation

Garter Snake

Extension of USACE Restoration

Treatment & Habitat Wetlands

Open Lagoon

RECOMMENDATIONS FOR LAKE MICHIGAN COASTLINE

23

Protect and soften lakefront areas with nature-based shorelines.

Offshore breakwaters along the La Rabida peninsula will absorb and deflect the impact of waves from Lake Michigan, creating spaces of "quiet" water behind them that form the conditions for "softer" and more bio-diverse waterfront environments to flourish. These areas of calm water

serve as nursery habitat for certain species of fish, and the crevices and gaps in the breakwaters serve as protective cover for mudpuppies and aquatic reptiles. The establishment of gravel beaches and grassland dune communities will provide critical and unique lakefront habitat for a variety of bird, mammal, reptile and insect species.



Reconstruct the Lake Michigan coastline at South Shore Cultural Center with stone revetment.

As the La Rabida peninsula transitions to the coastline of South Shore Cultural Center, a more armored revetment is recommended to best protect against wave erosion and provide the experience of a lakefront golf course.

SHORELINE

Edges of interior water bodies: the harbors, bayou, lagoon, and basin

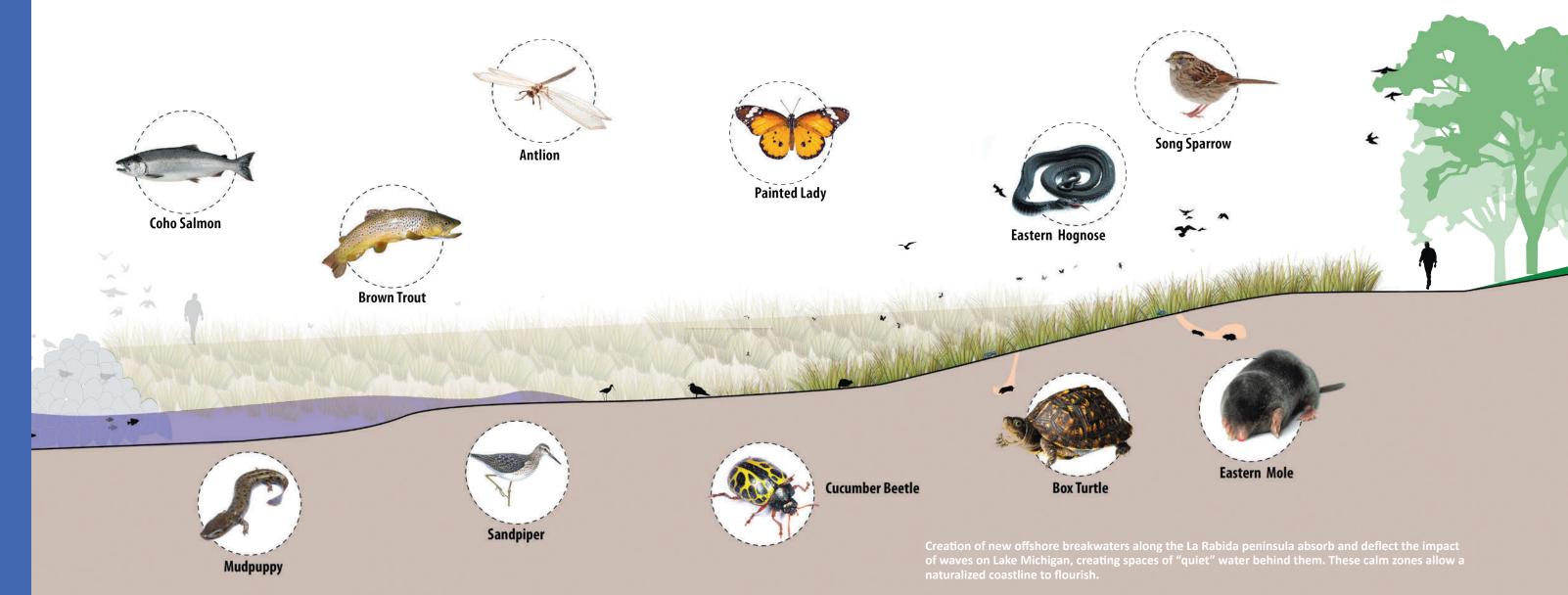
6.54 mi

COASTLINE

Lake Michigan water's edge

3.95 mi

The Lake Michigan coastline and internal water bodies are defining features of the South Lakefront. New lakefill, breakwalls forming habitat beaches, and the bayou connection add to the overall length of water's edge in Jackson and South Shore. In total, the parks contain more internal shoreline than Lake Michigan coastline.

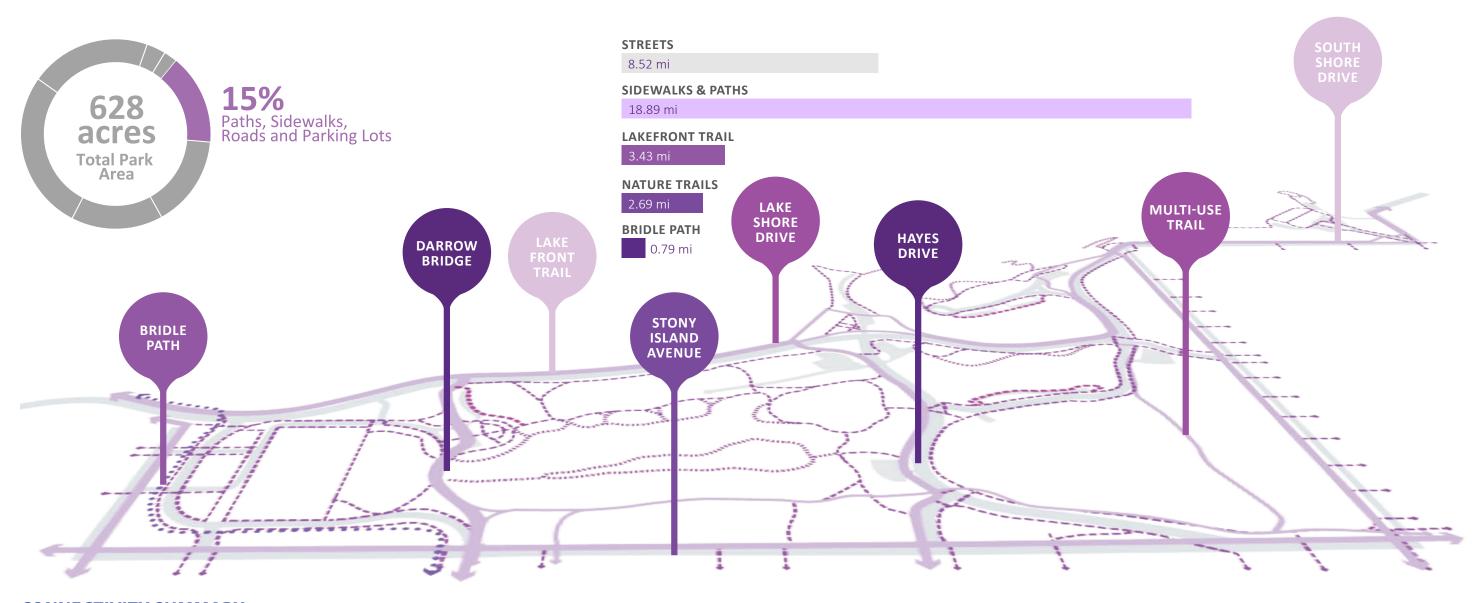


Lake Michigan Gravel Beach Natural Coastline





drivers bike riders youth transit riders walkers horseback riders families *runners* neighbors joggers students cyclists *seniors*



CONNECTIVITY SUMMARY

The Framework Plan provides a holistic look at connectivity to, through, and within the parks. The connectivity systems includes the street network, transit, parking, multi-use trails, sidewalks and park paths, and specialty trails.

The Framework Plan illustrates proposed changes to connectivity within the parks including the closure of four roadway segments: eastbound Midway Plaisance between Stony Island and Cornell Drive, Cornell Drive between Midway Plaisance and Hayes Drive, Marquette Drive between Stony Island and Richards Drive, and northbound Cornell Drive between 65th and 67th Streets. Concurrent to this framework plan, the Chicago Department of Transportation is proposing targeted improvements to mitigate traffic impacts resulting from the roadway closures. The roadway closures were presented and discussed with the public during the framework planning process. With the roadway closures, the Park District

anticipates improved park cohesiveness through better connected parkland; opportunities for expanded multi-use trails within the park; and improved accessibility within the park as a result of this increased trail system.

The regional Lakefront Trail parallels **Lake Shore** and **South Shore Drives**, providing 3.43 miles within the parks of bike and pedestrian paths for recreational use and active transportation. The plan incorporates the **Lakefront Trail** separation project and proposes enhancements to alleviate pinch points.

A multi-use trail will connect the Lakefront Trail to Stony Island over the **Darrow Bridge.** A multi-use path will bring cyclists and pedestrians past the lagoon and the proposed Obama Presidential Center from the Midway Plaisance to 63rd Street. Marguette Drive is proposed to become a multi-use trail through the golf course from **Stony Island Avenue** to

Richards Drive. Planned restoration of the Darrow Bridge will enable better east-west connections through Jackson Park for pedestrians and cyclists.

Sidewalks and park paths are unified in a hierarchy of connections through the parks. **Primary paths** are made up of sidewalks following the major roads and multi-use paths forming non-vehicular east-west connections. **Sidewalks and paths** knit together the primary paths, forming loops throughout the park to provide a variety of interconnected pathways for walking, running, or biking. Specialty trails offer unique experiences in the parks; nature **trails,** and harborwalks offer park users an intimate experience with nature and the water, while bridle paths continue the legacy of horseback riding in the parks.

The Framework Plan includes four new **underpasses.** In addition to the existing connections, the proposed underpasses facilitate better connectivity and safety. An underpass at Hayes Drive and Lake Shore Drive connects the 63rd Street Beach, to the East Meadow and Inner Harbor while accommodating a free-flowing right-hand turn from Lake Shore Drive onto Hayes Drive. At the intersection of 63rd Street, Hayes Drive, and Cornell Drive a new underpass provides a continuous connection for the multi-use path. New underpasses at 67th Street and South Shore Drive, and mid-block on Jeffery Avenue allow for safe connections for all park users, including pedestrians, cyclists, and golfers.

The function of roads has changed since the early designs of the South Lakefront, and as the needs of the parks and streets evolve they must balance traffic concerns with park functions. Lake Shore Drive (US 41) weaves through Jackson Park and continues along the bounding

edge of South Shore Cultural Center as South Shore Drive. Changes proposed include widening Lake Shore Drive by one southbound lane from 57th Street to Hayes Drive. Portions of Cornell Drive and Marquette Drive are proposed to be closed with multi-use trails for walking and biking connections. Stony Island Avenue and Hayes Drive would also see changes with the proposed roadway improvements.

Parking close to areas of activities bolsters successful park spaces. Stewarding beautiful parks requires balancing spaces for cars with spaces for people and nature. The Framework Plan gives careful consideration to parking, outlining locations for additional parking and reconfiguration of existing lots to increase parking needed by park users. Continued collaboration with transit operators can offset the need for parking through a diversity of mobility options to serve the parks.

PROGRAM ELEMENTS



Regional Bike Trail 5.3 miles



Sidewalks & Paths 18.9 miles



Nature Trails 2.7 miles



New Underpasses

RECOMMENDATIONS FOR CONNECTIVITY

1 Implement lakefront trail separation.

Relieve pinch points of the Lakefront Trail to accommodate better trail alignment for safety and enjoyment of trail users.

Create a hierarchy of paths.

Use intuitive wayfinding through path hierarchy and paving materials to build clarity to park circulation.

Integrate signage and wayfinding.

Locate interpretive signage for history and nature, and wayfinding throughout the park.

Construct new underpasses to improve safety and connectivity.

New underpasses will seamlessly link areas of high activity across streets.

Emphasize park gateways.

Incorporate signage, artwork, and open space design to highlight the gateways, identified by primary entry points from all means of connectivity.

Provide specialty trails for a diversity of park experiences.

Provide nature trails, harborwalks, and bridle paths to invite a broad array of users and provide different experiences for park visitors.

Integrate streets and parking lots into the landscape.

Incorporate streets and parking lots into comfortable, safe, and beautiful park spaces with walkways, signage, and plantings.

8 Provide parking close to areas of activity.

Locate dispersed parking lots close to areas of high activity to minimize the distance from parking to park destinations, improving user experience.

9 Encourage multi-modal access.

Strategically incorporate recent and growing transportation modes—bikeshare nodes, rideshare drop-off points—to create better internal park connections, and complement and promote transit and pedestrian travel to the park.

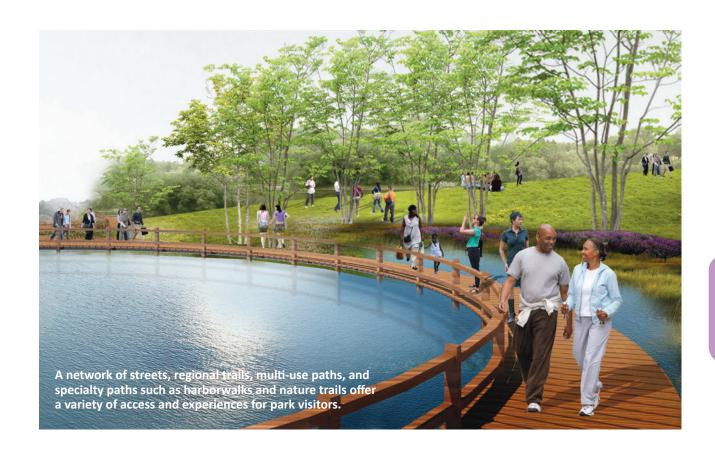
Design spaces that are safe, comfortable, and accessible for everyone.

Projects in the parks are subject to review and compliance with best practices for universal accessibility.

Strengthen urban connections by positioning the park for future generations.

Continue to incorporate innovations that can deliver connectivity and urban mobility, including WiFi in the parks, bikeshare infrastructure and app-based rideshare accommodations such as geo-fencing and clear ride share pick-up/drop-off locations.





"Increased access to the lakeshore and sanctuaries for bikes."

> "Please consider safe access for pedestrians/ kids crossing Stony Island it's a big road!"

SERVE THE COMMUNITY INSPIRE THE WORLD

Strengthen connections within the parks and with the community through improved programming, access, and engagement.

RENEW & MAINTAIN PARK LEGACY

Leverage infrastructure improvements and catalytic projects to springboard the parks to another century of greatness.

OFF-STREET PARKING	EXISTING CONDITIONS	FRAMEWORK PLAN	
MSI East	85	85	
Music Court	215	215	
Bowling Green	4	0	
Tennis & Dog Park	20	0	
East Meadow (Driving Range)	20	80	
Hayes & Lake Shore	205	205	
63rd Street Beach	150	320	
Hayes & Cornell	180	160	
Golf: Cecil Partee	20	40	
Golf: Pavilion	-	180	
Boat Launch	-	90	
La Rabida Peninsula	220	340	
Promontory Drive Lot	99	200	
Promontory Drive	121	140	
South Shore Cultural Center	260	300	
TOTAL	1599	2355	
Net Gain		756	
PASSHOLDER PARKING	EXISTING CONDITIONS	FRAMEWORK PLAN	
59th Street Harbor	80	90	
Inner Harbor	65	65	
Outer Harbor	75	150	
TOTAL	220	305	
Net Gain		85	

GRAND TOTAL	1819	2660	
Net Gain		841	









CULTURE & HISTORY SUMMARY

The framework plan builds on the legacy of serving contemporary park users while respecting a fabric of historically significant cultural, recreational, and natural landscapes.

Historic buildings and institutions contribute to the cultural value of the parks and attract visitors from near and far.

CULTURAL INSTITUTIONS

Jackson and South Shore parks are home to several noteworthy cultural destinations. The Museum of Science and Industry occupies a building from the Columbian Exposition. Its exhibits and events attracted 1.5 million visitors in 2016.

The Obama Presidential Center, in design at the time of this planning process, will bring a new influx of visitors from around the globe while bolstering the local community.

The South Shore Cultural Center hosts classes in the arts and cooking, holds performances and concerts, serves as a hub for the local community, and is a popular wedding and event venue.

The Osaka Garden on Wooded Island is another historic treasure that dates to the Columbian Exposition and continues a longlasting relationship with Japan. The plan looks to foster connections with its cultural institutions, continuing the legacy of cultural destinations and balanced activity in the parks. A detailed action plan for Osaka Garden lists desired improvements to the perimeter fence and main gate, tea house, plantings, lighting,

gardens, shoreline, and arched bridge as well as adding interpretative elements, and staff for security and education.

HISTORIC BUILDINGS & STRUCTURE

The South Lakefront parks are home to many historic buildings, structures, and objects. The buildings include many small comfort stations, the Iowa Pavilion, Cecil Partee, the 9th Hole Golf Shelter /Burnham Building, and the 63rd Street Beach House. Historic structures include the Promontory Drive (La Rabida) seawall and the six bridges in Jackson Park. On-going preventative maintenance of these structures will ensure their longevity. The **Statue of the Republic,** the Osaka Torii Gate, and a few specific lamp posts and lanterns comprise the historic objects.

The plan integrates these objects and structures into a cohesive landscape and breathes new life into some of the historic buildings. Many of the historic comfort stations throughout the park continue to serve park users as public restrooms. Buildings such as the **Iowa Pavilion, Cecil Partee,** and the **Burnham Building** are rehabilitated to serve contemporary park users as a picnic pavilion, golf education center, and comfort station respectively. Any rehabilitation work will follow applicable state and federal review processes.

South Shore Cultural Center has on-going plans for building improvements. These include restoring the outdoor theater, pergola, balustrades, and stucco; repairing and repainting all windows and doors; repainting the dining room; repairing water damage in the

entry and lobby; repairing the roof; and replacing the north elevator and service entry doors. The Plan anticipates the implementation of these improvements. An additional facility study is recommended to assess space utilization within the building and identify potential programming.

PROGRAM ELEMENTS



South Shore Cultural Center



Coast Guard Building Relocated, Restaurant



Obama Presidential Center New Museum and Grounds



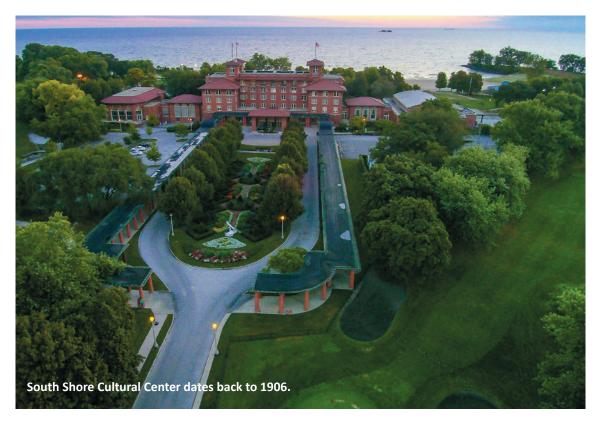
Historic Structures Adaptive Reuse of Burnham and Iowa Buildings

SERVE THE COMMUNITY INSPIRE THE WORLD

Serve the local community through a balance of diverse programmatic spaces: active to contemplative; athletics to arts.

RENEW & MAINTAIN PARK LEGACY

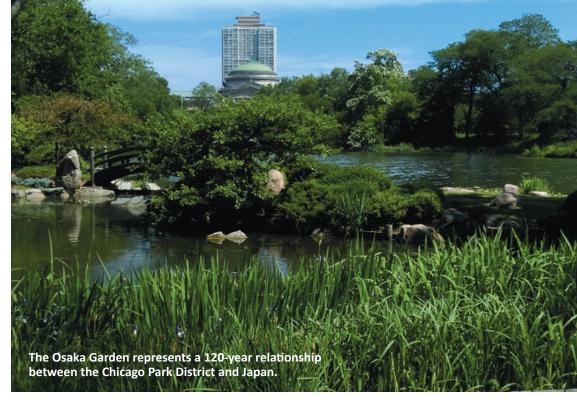
Reinvigorate the parks as a global attraction through cultural destinations and historically significant landscapes.



La Rabida Children's Hospital is another historic South Lakefront building with a unique purpose. Situated on a promontory, the building reflects infrastructure and roadways plans dating back to 1906. Much like the park it is located in, the building has evolved over time to serve the changing needs of its users while retaining its historic value. The Framework Plan seeks to embrace and enhance the functions of the institution. Improved parking on the La Rabida peninsula will better serve hospital staff, patients, and visitors, and the naturalized coastline will be designed to be sensitive to the hospital's function and security.

While the Jackson Park Maintenance Building has occupied the corner of 63rd Street and Stony Island since the 1930's, it does not serve a highest and best use for the park and its patrons. Its position at a prominent park gateway could be better utilized through adaptive reuse or demolition of the building to make way for more flexible lawn. The proposal to remove the building in favor of open lawn space received community support. This open space would provide an offset to the reduction in field space from the golf course redevelopment. The future use or demolition of this building should be carefully studied, and any subsequent work completed in accordance with state and federal review processes.

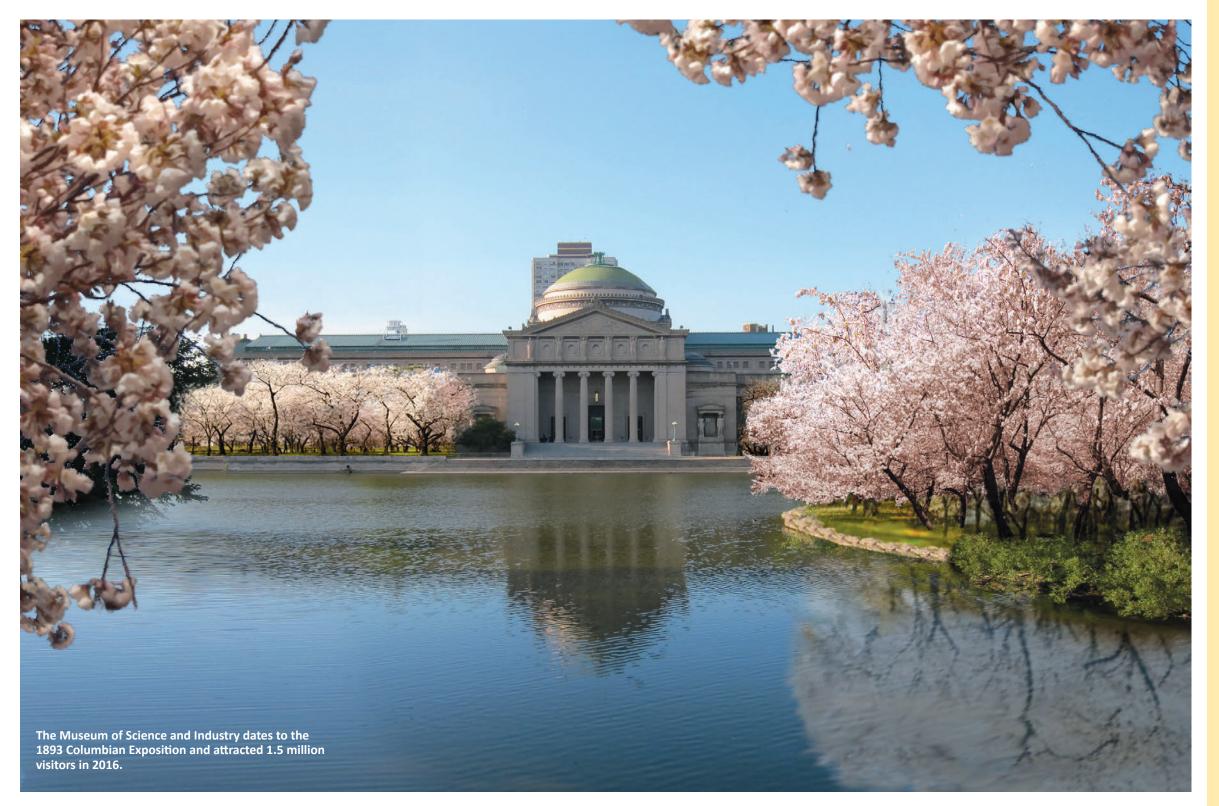
The Coast Guard Building, dating back to the early 1900s, sits near the mouth of Jackson Outer Harbor. This location has limited its adaptive reuse potential due to lack of parking and access for deliveries and operations. Vehicles serving the building often park on the Lakefront Trail, obstructing recreational users. The plan suggests relocating the Coast Guard Building, moving it a few hundred feet to be closer to 63rd Street Beach. This move would locate the building closer to parking and areas of activity. It would relieve a pinch point for the Lakefront Trail, allowing for a greater separation of bicycle and pedestrian trails. This relocation would still preserve the building's historic legacy as a guardian of the mouth of the Outer Harbor, but better positions the building for successful adaptive reuse to serve the community moving forward.



NATURAL LANDSCAPES

The landscape of Jackson Park is itself a noteworthy historic and cultural asset. Frederick Law Olmsted selected and designed the site for the 1893 Columbian Exposition, and again in 1895 to transition from the fair grounds to an urban park. While only partially implemented, the key elements of Olmsted's design - long vistas across the landscape, large tree-lined flexible meadows for recreation, and a celebration of the lakefront, lagoons, harbor, and basin- have been a consistent component in the historic development of the park. The role of these historic design elements will continue to guide this living landscape as it evolves to meet the contemporary needs of its users. Future projects should be selected and located to preserve and maintain areas of high historical integrity to continue the design inspiration and legacy of Jackson Park.

The landscape of **South Shore Cultural Center** is the product of a different design intent, reflecting its history as a private club turned public park and community center. The building architecture and site design represent a highly formal core of carefully framed open spaces surrounded by a more informal golf landscape of turf lawns and trees. Continuity with this design aesthetic will sustain the park's history while also supporting evolution to better serve contemporary users.



HISTORIC SIGNIFICANCE

Jackson Park plays a role in Chicago that is very typical of significant historic sites in the United States. It is listed on the U.S. National Register of Historic Places and continues to provide a living reflection of Chicago's urban transformation as well as park trends over the past century. While much of its renowned design remains intact, its active and highly utilized public landscapes will continue to evolve over time to serve the changing needs and priorities of park users and the surrounding community. This plan seeks to balance the park's historic significance while striving for forward-looking strategies to ensure its legacy as an active, living landscape serving its community.

RENEW & MAINTAIN PARK LEGACY

Draw on historic use, character, and design philosophy to inform the future.

STEWARD ENVIRONMENTAL INTEGRITY & BEAUTY

Integrate buildings and landscapes to shape beautiful parks that provide an enhanced quality of life for their users.

View Locations

RECOMMENDATIONS FOR CULTURAL DESTINATIONS

Welcome the Obama Presidential Center.

> Integrate the Obama Presidential Center with Jackson Park to create a cohesive, continuous park environment to serve the local community and worldwide visitors.

Foster relationships with cultural institutions in the parks.

> Collaborate with institutions in the park for indoor/outdoor programming.

Conduct a facility study for the **South Shore Cultural Center.**

> Utilize the facility study to identify ways to strengthen cultural and arts programming.

Implement the planned construction improvements for **South Shore Cultural Center.**

> As funding is allocated, implement the planned interior and exterior improvements to ensure longevity of the structure.

Relocate Coast Guard Building. Facilitate adaptive reuse of the Coast Guard Building by locating closer to parking and park activities near the 63rd Street Beach.

- Activate the Iowa Pavilion as a picnic pavilion.
- Continue improvements to the Osaka Garden.

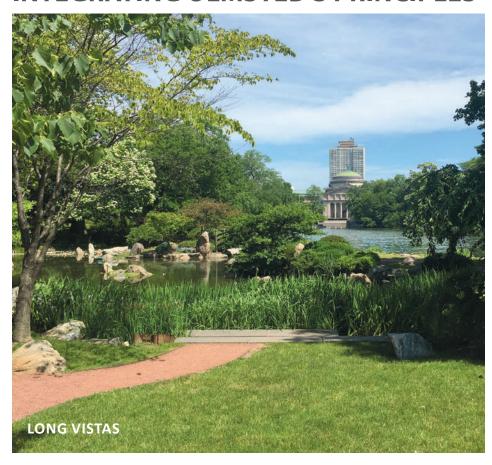
On-going maintenance and improvements outlined in the Osaka Garden detailed action plan will continue a world-class cultural experience and century-long relationship with Japan.

REHABILITATION & REUSE OF EXISTING STRUCTURES





INTEGRATING OLMSTED'S PRINCIPLES







RECOMMENDATIONS FOR HISTORIC STRUCTURES & LANDSCAPES

Recognize the role of parks as adaptive landscapes.

> Parks, as cultural landscapes, continually evolve in the way they respond to community and cultural needs. The South Lakefront Plan responds to the need to adapt over time to serve the park users.

Draw on historic use, character, and design philosophies.

> Refer to Olmsted's principles of urban park design in shaping spaces to serve the contemporary needs of the parks.

Rehabilitate and adaptively reuse existing structures.

> Embrace existing and historic structures in the parks through regular maintenance, rehabilitation, and adaptive reuse in ways that serve the community now and for the future.

Position the parks for future greatness.

> Integrate innovative strategies in landscape design, recreation, and cultural destinations to embrace the spirit of greatness established by the Columbian Exposition and continue the legacy of the parks.

Consider development of a **Cultural Landscape Report** for the parks.

> A Cultural Landscape Report (CLR) documents the history, existing conditions, and historically significant landscapes and offers recommendations for future treatment.

Proposed changes in the parks should be evaluated in the context of the CLR to understand potential adverse effects and determine the appropriate preservation, restoration, rehabilitation, or reconstruction strategies in accordance with the U.S. Department of the Interior standards.

Consider updating the existing National Register Nomination.

Consult with the State Historic Preservation Officer (SHPO).

> Work with the SHPO regarding changes to park landscapes, buildings, structures, or objects.

IMPROVED SEPARATION LAKEFRONT TRAIL • ADDITIONAL WATER RECREATION • IMPROVED PLAYING FIELDS CONTEMPORARY HARBORS • WORLD CLASS CULTURAL DESTINATIONS • RICH HISTORY • INTERCONNECTED WATER

+13
ACRES NATURAL AREA

380
HARBOR SLIPS

+16.5
ACRE PARK VIA LAKEFILL

20
PICNIC GROVES

25.8
MILES TRAILS & SIDEWALKS



JACKSON PARK NORTH



The illustrative plan demonstrates how the many program elements come together in the physical bounds of the parks. The systems of recreation, water and ecology, connectivity, and culture and history are intertwined, each contributing to the cohesive whole of Jackson Park and South Shore Cultural Center. These enlarged views of the plan give a closer look at the composition of the future of the parks shaped through the Framework Plan.

PROGRAM ELEMENTS



Picnicking

6 Picnic groves Existing: 5 picnic groves



Bowling Green

2 Lawn bowling/croquet greens 8 Pickleball courts



59th Street Harbor

New harbor building at to serve yacht club and community Repaired breakwall Water taxi dock



Lagoon

Boardwalk connecting Bobolink Meadow to the Lagoon



Columbia Basin

Deepen for paddle boats and fishing Existing: Seasonally stocked fishing



Museum of Science & Industry Lawn

Hosts Special Events
Existing: Lawn is host for
Bike the Drive



Multi-Use Path

Ped/Bike trail connection across Darrow Bridge



()

Play Areas
1 Play Area
1 Splash Pad
Existing: 1 play area



Existing program elements



PROGRAM ELEMENTS



Picnicking

7 Picnic groves Existing: 4 picnic groves



Football/Soccer Fields

Existing: 5 fields



Driving Range

370 yards



Dog Park

At Inner harbor Existing: on tennis courts



Ball Diamonds

3 Senior Diamonds Existing: 2 senior, 6 junior



Track & Field

400m Track and Multi-Sport Turf Existing: 400m Track and Turf



Natural Area

Football Field

Expanded Bobolink Meadow and new living shoreline natural areas



Lagoon Connection

Bayou connection with islands



Multi-Use Path

Ped/Bike trail west of lagoon



Underpass

2 underpasses along Hayes Drive



Play Areas

1 Play Areas



Tennis Courts

9 Courts Existing: 20 courts



Basketball Courts

4 Courts Existing: 4 courts



Field House

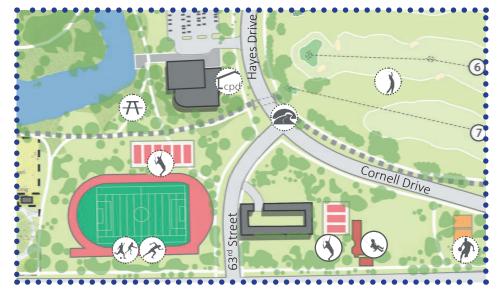
Renovate in place; site for potential new construction



Obama Presidential Center

Museum & Grounds

Alternate: New Field House



JACKSON PARK CENTRAL



JACKSON PARK HARBORS



PROGRAM ELEMENTS



Picnicking

2 Picnic groves Existing: 1 picnic groves



Dog Park

Adjacent to Inner harbor Existing: on tennis courts





Inner Harbor

125 Slips + Dock for Rentals Non-motorized Craft share the water Existing: 149 slips



Outer Harbor

130 Slips + Dock for Transients and Fuel Improved Wave and sediment protection Expanded parking Existing: 92 slips



Natural Area

Naturalized lagoon edges and increased natural area; new nature sanctuary at 63rd Street Beach



Coastline

Nature-based coastline with rubble breakwater to form habitat beaches Lakefill at 63rd Street Beach



Coast Guard Building

Relocated along harbor mouth



Lakefront Trail

Improved separation of Lakefront Trail



Underpass

1 on Jeffery, 1 at 67th Street & South Shore Drive



Fishing

2 Fishing Locations Existing: 1 fishing location



Harborwalk

Publicly-accessible promenade along Inner and Outer Harbors



New program elements



Existing program elements



JACKSON PARK SOUTH

PROGRAM ELEMENTS





Golf Course

Combined 18-hole course 7,161 yards, Par 70 Teaching facility & short course at Cecil Partee Pavilion building on Jeffery Avenue

Existing: 18-hole course & 9-hole course

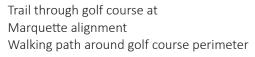


Natural Area

Natural area integrated into the course



Park Paths





Multi-Use Trail

Off-street ped/bike trail connecting to Stony Island



Play Areas

2 Play Areas Existing: 2 play areas



Underpass at Jeffrey



SOUTH SHORE CULTURAL CENTER



PROGRAM ELEMENTS



Picnicking

4 Picnic groves Existing: 4 picnic groves



Natural Area

Nature sanctuary wetlands and dune habitat New natural area integrated with golf course



Park Paths

Trail through golf course at to Cultural Center



Lakefront Trail

Enhanced Lakefront Trail separation



Underpass

1 at 67th Street & South Shore Drive



South Shore Cultural Center

Implement planned renovations Conduct space planning study





Golf Course

Combined 18-hole course 7,161 yards, Par 70 Teaching facility & short course at Cecil Partee Pavilion building on Jeffery Avenue Existing: 18-hole course & 9-hole course



Play Areas

1 Nature Play Area



Beach House

New beach house



New program elements



Existing program elements



implementation

This Framework Plan serves as a guide to future development in Jackson Park and South Shore Cultural Center. The Plan looks forward to the next 10 or more years of the parks. It anticipates that changes will be implemented over time; some projects will begin sooner than others that may come years into the future. This plan establishes the community's collective vision for the future of the parks and provides a method of evaluating changes through the guiding principles.

Projects will be implemented as funding becomes available. At that point, each individual project will proceed with design and any applicable local, state, or federally mandated review processes. Design of a specific project may vary from what is shown in the illustrative plan for the framework, but will be weighed against the principles to make sure they are in alignment with the Plan. As any design evolves, the Park District will continue to engage with the community.

While the Framework Plan does not identify funding, it does include design elements that align with potential funding sources. The plan's systems of Recreation, Water and Ecology, Connectivity, and Culture and History also reflect potential funding sources. Recommendations identified under Water and Ecology may coordinate with U.S. Army Corps of Engineer (USACE) initiatives. For example, the USACE Great Lakes Restoration Initiative (GLRI) aligns funding to plan, design, and construct restoration projects in the Great Lakes watershed. Elements of the Framework Plan, such as the living shoreline and nature-based coastline reflect this type of project. Recommendations captured in Culture and History may be applicable for grants from the US Department of the Interior.

The Plan recommendations, grouped by system, provide a holistic guide for Jackson and South Shore parks. The Plan does not outline a specific schedule for phasing each change. Rather, implementation of any single recommendation may trigger others from the interconnected systems. In this way the Plan's systems provide strategies for comprehensively achieving the principles and making the vision a reality.

LIST OF ALL THE RECOMMENDATIONS

RECREATION RECOMMENDATIONS

- **1** Build upon the existing success of picnic groves.
- 2 Maintain unprogrammed areas in the parks.
- 3 Integrate passive and active use spaces.
- 4 Provide restrooms close to areas of activities.
- **5** Accommodate larger special events.
- **6** Provide quality facilities to maximize playing time.
- **7** Group recreation facilities along Stony Island to allow for easy access from the schools and neighborhoods.
- 8 Renovate the Field House; or alternate option to build new.
- **9** Design the track and field to accommodate a multi-sport turf field.
- **10** Co-locate lawn bowling/croquet and pickle ball.
- 11 Create a baseball/softball field complex in meadow near Hayes Drive.
- 12 Combine the Jackson and South Shore courses to create one 18-hole course that meets contemporary levels of safety and play standards.
- **13** Integrate biodiversity throughout the golf course.
- **14** Create visual and physical community connections.
- **15** Locate golf facilities strategically to serve the golf course and the community.
- **16** Keep the golf course accessible to Chicago residents and vouth.

WATER & ECOLOGY RECOMMENDATIONS

- 1 Re-introduce paddle boats on the Columbia Basin.
- 2 Right-size the Inner Harbor for anticipated demands.
- **3** Embrace a diversity of boating on the Inner Harbor with recreational amenities and educational opportunities.
- 4 Expand the Outer Harbor to accommodate on-going growth. Provide expanded parking on lakefill adjacent to docks.
- **5** Construct new harbor building at Museum Shores Yacht Club.
- 6 Provide secure access for yacht clubs, opportunities for rental or transient docks. and access for the whole community to engage with the water.
- 7 Create publicly accessible harborwalks.
- **8** Provide boardwalks and bridges on the lagoon.
- **9** Provide well-rounded beach destinations.
- 10 Build a new beach house at South Shore Cultural Center.
- **11** Support the fishing community.
- 12 Build new lakefill at the 63rd Street Beach/ mouth of the Outer Harbor to minimize wave action and sedimentation in the harbors.
- 13 Create habitat beaches along the La Rabida peninsula coastline.

- **14** Enhance natural areas to provide measurable sustainable performance benefits.
- **15** Add native plant communities to provide critical habitat while increasing natural area acreage in the parks.
- **16** Manage and treat stormwater through natural green infrastructure systems.
- 17 Increase green infrastructure capacity to slow, hold and filter stormwater runoff before it enters Lake Michigan.
- **18** Create landscape features that can temporarily provide stormwater detention during heavy rain events.
- **19** Build stormwater structures as an integrated part of streets and parking lots.
- 20 Use living shoreline strategies, wetlands, and sediment ponds along the South Lakefront's bayou, lagoons, and harbor.
- **21** Expand the network of living shorelines within the parks.
- 22 Align habitat improvements with potential funding opportunities.
- 23 Protect and soften lakefront areas with nature-based shorelines.
- **24** Reconstruct the Lake Michigan coastline at South Shore Cultural Center with stone revetment.

CONNECTIVITY RECOMMENDATIONS

- 1 Implement lakefront trail separation.
- **2** Create a hierarchy of paths.
- **3** Integrate signage and wayfinding.
- **4** Construct new underpasses to improve safety and connectivity.
- **5** Emphasize park gateways.
- **6** Provide specialty trails for a diversity of park experiences.
- 7 Integrate streets and parking lots into the landscape.
- **8** Provide parking close to areas of activity.
- **9** Encourage multi-modal access.
- **10** Design spaces that are safe, comfortable, and accessible for everyone.
- **11** Strengthen urban connections by positioning the park for future generations.

CULTURE & HISTORY RECOMMENDATIONS

- 1 Welcome the Obama Presidential Center.
- **2** Foster relationships with cultural institutions in the parks.
- **3** Conduct a facility study for the South Shore Cultural Center.
- 4 Implement the planned construction improvements for South Shore Cultural Center.
- 5 Relocate Coast Guard Building.
- 6 Activate the Iowa Pavilion as a picnic pavilion.
- **7** Continue improvements to the Osaka Garden.
- **8** Recognize the role of parks as adaptive landscapes.
- **9** Draw on historic use, character, and design philosophies.
- **10** Rehabilitate and adaptively reuse existing structures.
- **11** Position the parks for future greatness.
- 12 Consider development of a Cultural Landscape Report for the parks.
- 13 Consider updating the existing National Register Nomination.
- **14** Consult with the State Historic Preservation Officer (SHPO).











Appendix J – Traffic Congestion Technical Memorandum

Traffic Congestion Technical Memorandum......J-1

Draft Environmental Assessment Traffic Congestion Technical Memorandum Appendix H

Federal Actions In and Adjacent to Jackson Park Cook County, Illinois

> Prepared For: National Park Service Federal Highway Administration

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Attachment A – Average Daily Traffic Volume Diagrams and Level of Service Exhibits

Attachment B – CMAP Coordination for 2050 Traffic Projections

1.0 Introduction

A Traffic Impact Study (TIS) was completed to evaluate the potential traffic impacts as a result of proposed changes within and adjacent to Jackson Park, which include both roadway closures and improvements to remaining roadways in the network. As part of the TIS, traffic operations within Jackson Park were evaluated for three scenarios: 2016 Existing Conditions, 2040 No-Build Conditions (assuming future traffic volumes and proposed roadway closures), and 2040 Build Conditions (assuming future traffic volumes, proposed roadway closures, and proposed roadway improvements). The roadway closures in the final TIS include:

- Cornell Drive between 63rd Street and 57th Drive and
- the eastbound portion of Midway Plaisance between Stony Island Avenue and Cornell Drive.

The Chicago Metropolitan Agency for Planning (CMAP) assisted with the development of future traffic volumes for the TIS with 2040 traffic projections for No-Build and Build scenarios developed from their regional travel demand model developed for their *GO TO 2040* regional plan. CMAP is the regional Metropolitan Planning Organization (MPO) for Northeastern Illinois. The results of the travel demand modeling for the TIS indicated that traffic diversion to roadways outside Jackson Park would not require adding additional capacity to those roadways. As shown in Table 1, sufficient reserve capacity exists on parallel arterials to absorb any diversions that would occur without adverse neighborhood impacts.

Roadway	2016 AADT ¹	Diverted Traffic	2040 AADT	Maximum
	(veh./day)	Due to Closures	(veh./day)	Projected Capacity
		(veh./day)		(veh./day)
Dan Ryan Expressway	314,600	3,500	318,100	360,000
State Street	4,300	500	4,800	18,000
Dr. Martin Luther King, Jr. Drive	11,100	700	11,800	12,400
Cottage Grove Avenue	18,400	1,200	19,600	25,000
Woodlawn Avenue	3,500	700	4,200	10,000
Stony Island Avenue	13,800	5,400	19,200	30,000
Cornell Drive	27,000	27,000	0	-
Lake Shore Drive	46,300	14,600	60,900	88,900

Table 1: Anticipated Diversions to Alternate North-South Roadways

As summarized in the table, roadway diversions are not projected to exceed the capacity of the parallel north-south roadways. As a result of these findings, the project study area in the TIS was limited to only those roadways within Jackson Park. The *Jackson Park Revitalization TIS* was finalized in February of 2018.

On April 11, 2018, the Chicago Park District presented their final 2018 SLFP update to the CPD Board. The final plan proposes the permanent roadway closures of the following roadways:

¹AADT = Annual Average Daily Traffic

- Cornell Drive between 63rd Street and 57th Drive,
- the northbound section of Cornell Drive between 68th Street and 65th Street,
- Marquette Drive between Stony Island Avenue and Richards Drive, and
- the eastbound portion of Midway Plaisance between Stony Island Avenue and Cornell Drive.

This memorandum expands on the traffic analyses performed for the *Jackson Park Revitalization TIS* by evaluating potential traffic impacts resulting from the proposed Marquette Drive and Northbound Cornell Drive closures that are needed to accomplish the goals of the SLFP. As such, the 2016 and 2040 traffic data and subsequent traffic analyses contained in the Sam Schwartz Engineering (SSE) study were used as a starting point for the traffic analyses performed for this technical memorandum (SSE 2018).

In October 2018, CMAP formally adopted their *ON TO 2050* regional plan. In accordance with the adoption of the new regional plan, year 2050 traffic projections were obtained from CMAP and the traffic analyses were re-evaluated to ensure that traffic impacts would not substantially increase under year 2050 traffic volumes. The sensitivity analysis for projected 2050 traffic is addressed in Section 4.

2.0 Existing Conditions

The following sections describe the existing geometrics and operational characteristics for the roadways within Jackson Park. Characteristics common to most of the roadways within the park are summarized, followed by roadway-specific characteristics. Existing traffic volumes and operational performance of the roadway network is also summarized and discussed.

2.1 General Characteristics

The following general characteristics are common to most of the roadways within Jackson Park. Any exceptions to each of the general characteristics described below are also noted.

- Posted speed of 30 mph per City of Chicago (City) ordinance (Lake Shore Drive is posted at 35 mph north of Hayes Drive)
- Trucks are prohibited from roadways within the park boundaries (East of Stony Island Avenue, north of 67th Street, and south of 57th Drive)
- On-street parking is permitted on most roadways within the project study area (Lake Shore Drive, Cornell Drive, and 57th Drive do not permit on-street parking)

2.2 Roadway-Specific Characteristics

The following sections describe specific characteristics of each roadway within Jackson Park.

2.2.1 Cornell Drive/57th Drive

Cornell Drive/57th Drive is a principal arterial roadway that is designated a Strategic Regional Arterial (SRA) by the Illinois Department of Transportation (IDOT). The SRA designation is given to roadways that are important for regional mobility, with greater control of local access and longer distances between signalized intersections. The south end of Cornell Drive is a split alignment, with three northbound lanes splitting from Stony Island Avenue at 68th Street and three southbound lanes ending at Stony Island Avenue south of 65th Street. The split alignment merges together between 64th and 65th Street. Between 65th Street and North Midway Plaisance, Cornell Drive has three lanes in each direction with a barrier median. Between North Midway Plaisance and Lake Shore Drive, Cornell Drive is undivided, with two through lanes in each direction. North of 57th Street, Cornell Drive becomes 57th Drive, and the roadway curves eastward to its terminus at Lake Shore Drive (U.S. Route 41). Cornell Drive and 57th Drive west and south of Hyde Park Boulevard are under IDOT jurisdiction, and the section of 57th Drive between Hyde Park Boulevard and Lake Shore Drive is under Chicago Department of Transportation (CDOT) jurisdiction.

2.2.2 U.S. Route 41 (Lake Shore Drive)/Jeffrey Boulevard

U.S. Route 41 (Lake Shore Drive) is designated by IDOT as a principal arterial roadway and SRA to the north of 57th Drive, and is part of the National Highway System (NHS) in this section. The roadway is

classified as a minor arterial between 57th Drive and Marquette Drive. Lake Shore Drive serves dual functions along the Chicago lakefront, as it is both a park boulevard serving the lakefront park system and a critical arterial corridor for both local and regional travel. Lake Shore Drive has three lanes in each direction north of 57th Drive, two southbound and three northbound lanes between 57th Drive and Hayes Drive, and two lanes in each direction between Hayes Drive and Marquette Drive. Opposing lanes on Lake Shore Drive are separated by either a decorative "Chicago Barrier" wall or with a landscaped barrier median within Jackson Park. South of Marquette Drive, the roadway name changes to Jeffrey Boulevard and is no longer designated as U.S. Route 41, which follows Marquette Drive to the east. Jeffrey Boulevard has two travel lanes in each direction with a barrier landscaped median between Marquette Drive and 67th Street. This section is classified as a major collector roadway and is under CDOT jurisdiction.

2.2.3 Stony Island Avenue

Stony Island Avenue is a principal arterial roadway and SRA under IDOT jurisdiction south of 67th Street and is a minor arterial under CDOT jurisdiction north of 67th Street. Stony Island Avenue has one lane in each direction with on-street parallel parking from 56th Street to 59th Street and from 60th Street to 65th Street. Between 59th Street and 60th Street (Midway Plaisance area), parking is prohibited and two travel lanes in each direction are provided. Between 65th Street and 68th Street, four southbound lanes and two northbound lanes are provided, as the southbound Cornell Drive alignment merges into southbound Stony Island Avenue just south of 65th Street. On-street parking is permitted in the southbound direction in this section. South of 68th Street, four travel lanes in each direction are provided with on-street parking in both directions. Further to the south, Stony Island Avenue provides access to the Chicago Skyway (Interstate 90) to and from the east as well as Interstate 94. As a result of this connectivity to the Interstate system, Stony Island Avenue serves as a regional travel corridor connecting the City with the south suburbs and northwest Indiana, and is designated as part of the NHS south of 68th Street.

2.2.4 North and South Midway Plaisance

North and South Midway Plaisance are a one-way principal arterial couplet (North Midway Plaisance is one-way westbound and South Midway Plaisance is one-way eastbound) running along the perimeter of the Midway Plaisance park. Both North and South Midway Plaisance have two travel lanes in their designated direction of travel. On-street parking is permitted along both sides of both roadways. Both roadways are under CDOT jurisdiction.

2.2.5 63rd Street/Hayes Drive

63rd Street is an east-west, two-lane, minor arterial roadway that is under CDOT jurisdiction. On-street parking is permitted along both sides of the roadway west of Stony Island Avenue, but is prohibited between Stony Island Avenue and Cornell Drive. East of Cornell Drive, it becomes Hayes Drive and has one travel lane in each direction with on-street parking along both sides between Cornell Drive and

Richards Drive. Between the Richards Drive triangle and Lake Shore Drive, the roadway widens to two travel lanes in each direction and on-street parking is prohibited.

2.2.6 Richards Drive

Richards Drive is a north-south roadway under CDOT jurisdiction that is located entirely within Jackson Park. Richards Drive serves as a connector between Hayes Drive and Marquette Drive and provides access to park facilities and parking areas. Both the Hayes Drive and Marquette Drive intersections triangles including three intersections, with the Hayes Drive intersections surrounding the historic Statue of the Republic near the center of Jackson Park. Between Hayes Drive and Marquette Drive, Richards Drive has two narrow (9 to 10 foot wide) travel lanes striped in each direction. On-street parking is permitted in both directions in this section, which restricts the roadway from operating as a conventional four-lane roadway.

2.2.7 Marquette Road/Marquette Drive

Marquette Road is an east-west oriented roadway that is located midway between 65th Street and 67th Street. West of Stony Island Avenue, Marquette Road has one travel lane in each direction with buffered bicycle lanes. On-street parking and truck traffic is prohibited along this section. East of Stony Island Avenue, the roadway becomes Marquette Drive. Between Stony Island Avenue and northbound Cornell Drive, Marquette Drive has one 16 foot wide travel lane in each direction. Between Cornell Drive and Lake Shore Drive, Marquette Drive is striped to provide two narrow (9 to 10 foot wide) travel lanes in each direction. It should be noted that on-street parking is permitted on Marquette Drive in this section, so the roadway does not function as a true four-lane cross-section. East of Lake Shore Drive, Marquette Drive is signed as U.S. Route 41 and has a four-lane undivided cross-section with two 11-foot travel lanes in each direction. On-street parking is prohibited east of Lake Shore Drive. Marquette Road is classified as a minor collector west of Stony Island Avenue, a local street between Stony Island Avenue and Richards Drive, a major collector between Richards Drive and Lake Shore Drive, and a minor arterial between Lake Shore Drive and 67th Street/South Shore Drive. The roadway is under the jurisdiction of CDOT west of Lake Shore Drive/Coast Guard Drive and is under IDOT jurisdiction east of Lake Shore Drive/Coast Guard Drive.

2.2.8 67th Street

67th Street is an east-west oriented, two-lane major collector roadway that separates Jackson Park to the north and the Jackson Park Highlands neighborhood to the south. Parking is permitted along both sides of the street within the project study area. 67th Street is under the jurisdiction of CDOT within the project study area.

2.3 Existing Traffic Volumes

Existing Average Daily Traffic (ADT) and peak hour traffic volumes were collected in October 2016 in support of the *Jackson Park Revitalization TIS* that was completed in 2018. The summarized ADT volume

data is included in Attachment A-1 for reference. From the existing traffic volume data, the A.M. peak hour was found to occur between 7:30 A.M. and 8:30 A.M., and the P.M. peak hour occurred between 4:00 P.M. and 5:00 P.M.

2.4 Existing Traffic Operations

As part of the *Jackson Park Revitalization TIS*, existing traffic operations were evaluated using the Highway Capacity Manual (HCM) methodology for signalized and unsignalized intersections within the project study area as implemented in the Synchro capacity analysis software (SSE 2018).

The ability of an intersection to accommodate traffic flow is expressed in terms of Level-of-Service (LOS), which is assigned a letter grade from A to F based on the average control delay experienced by vehicles passing through the intersection. Control delay is that portion of the total delay attributed to the traffic signal or stop sign control operation, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Level-of-Service A is the highest grade (best traffic flow and least delay), Level-of-Service E represents saturated or at-capacity conditions, and Level-of-Service F is the lowest grade (oversaturated conditions, extensive delays). The Highway Capacity Manual definitions for Levels-of-Service and the corresponding control delay for both signalized and unsignalized intersections are shown in Table 2. In the Chicago region, motorists are generally accustomed to some delays at unsignalized intersections and will tolerate LOS values of E and sometimes F provided that they are not experiencing more than one to two minutes of delay. At signalized intersections, LOS D is generally considered the lowest desirable level of traffic operations by most transportation agencies in the Chicago region.

Table 2: Level of Service Criteria

Unsignalize	ed Intersections	
Level of Service	Average Control Delay (seconds per vehicle)	
А	0 - 10	
В	> 10 – 15	
С	> 15 – 25	
D	> 25 – 35	
Е	> 35 – 50	
F	> 50 or volume to capacity (v/c) ratio ≥ 1.0	
Signalized	Intersections	
Level of Service	Description	Avg. Control Delay (sec/veh)
А	Minimal control delay; traffic operates at primarily free-flow conditions; unimpeded movement within traffic stream.	≤ 10
В	Minor control delay; traffic operates at a fairly unimpeded level with slightly restricted movement within traffic stream.	> 10 – 20
С	Moderate control delay; movement within traffic stream more restricted than at LOS B; formation of queues contributes to lower average travel speeds.	> 20 – 35
D	Considerable control delay that may be substantially increased by small increases in traffic volume; average travel speeds continue to decrease.	> 35 – 55
E	High control delay; average travel speed no more than 33 percent of free-flow speed.	> 55 – 80
F	Extremely high control delay; extensive queuing and high volumes create exceedingly restricted traffic flow.	≥ 80 or v/c ≥ 1.0

Source: 2010 Highway Capacity Manual.

The HCM methodology assigns a LOS F to any intersection movement where the volume exceeds the available capacity (volume to capacity (v/c) ratio greater than 1.0), regardless of the movement delay per vehicle. Additionally, the overall intersection is then assigned a LOS F regardless of the overall control delay. In this report, any intersection with a movement that is over capacity is considered to be LOS F (per HCM methodology). In this case, the overall intersection delay is not reported since the overall delay could be representative of a higher LOS, especially if the over-capacity movement is on a minor intersection approach or is a left turn movement.

The results of the operational analysis for existing conditions are shown on Attachment A-2 and summarized in Table 3. As indicated in Table 3, most intersections operate at Level of Service (LOS) C or better during both peak hours. Some intersections (Stony Island Avenue at 64th Street, 57th Street at Cornell Drive, and 57th Drive at Hyde Park Boulevard) have one or more movements with traffic volumes that exceed capacity under existing conditions, resulting in congestion and queuing within the roadway network near those intersections.

2.5 Existing Travel Patterns

Currently, the majority of traffic through Jackson Park is concentrated on Cornell Drive/57th Drive and Lake Shore Drive. Lake Shore Drive carries 46,000 to 48,000 vehicles per day south of 57th Drive, and provides access to the lakefront and downtown Chicago for those neighborhoods located along the south and southeast sections of the City. Cornell Drive/57th Drive carries between 27,000 and 32,000 vehicles per day north of Hayes Drive. Cornell Drive/57th Drive serves as a connector between Stony Island Avenue and Lake Shore Drive, providing connectivity between the lakefront and downtown Chicago to the Chicago Skyway and Interstate 94 to the south. Peak travel patterns generally follow commuter traffic flows, with the morning peak period having higher traffic volumes northbound towards downtown Chicago, and the evening peak period having higher southbound traffic volumes.

Table 3: 2016 Existing Conditions Operational Performance Summary

	Intersection LOS and			
Intersection	2016 Existing Conditions			
	A.M. Peak	P.M. Peak		
Lake Shore Drive				
 Marquette Dr 	C (24)	C (24)		
 Hayes Dr 	B (17)	B (16)		
 Science Dr 	A (3)	A (5)		
• 57 th Dr	C (28)	B (19)		
Stony Island Avenue				
• 67 th St	B (18)	D (50)		
 Marquette Dr 	B (12)	B (14)		
• 65 th PI/Cornell Dr (SB)	B (10)	B (15)		
• 64 th St *	F (**)	F (**)		
• 63 rd St/Hayes Dr	B (16)	B (13)		
• 62 nd St ⁺	C (17) [Eastbound]	C (21) [Eastbound]		
• 60 th St	B (11)	B (10)		
S Midway Plaisance (EB)	B (11)	C (26)		
N Midway Plaisance (WB)	C (31)	A (9)		
• 59 th St	B (19)	A (9)		
• 57 th St	C (25)	D (36)		
• 56 th St *	E (35)	D (28)		
Cornell Drive/57 th Drive	, ,	, ,		
• 67 th St	C (26)	C (22)		
Marquette Drive	A (7)	A (10)		
Hayes Dr	B (11)	B (11)		
S Midway Plaisance (EB)	A (7)	A (7)		
• 57 th St/MSI Drop off	F (**)	F (**)		
Hyde Park Blvd	F (**)	C (22)		
67 th St		, ,		
East End Ave *	B (10)	B (10)		
Cregier Ave *	B (10)	B (10)		
Jeffery Ave	B (20)	B (16)		
South Shore Dr	B (14)	B (18)		
Marquette Dr		(- /		
Richards Dr (West)	B (10)	A (9)		
Richards Dr (Fast)	A (10)	B (15)		
La Rabida Entrance	B (14)	A (7)		
Richards Drive		1		
Marquette Dr (North)	A (1)	A (1)		
Hayes Dr *	A (9)	B (14)		
56 th St	1(5)	- ()		
Hyde Park Blvd *	B (12)	B (12)		
Everett Ave *	A (8)	A (7)		

^{*}Indicates All-way Stop-Controlled Intersection

^{**}Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

[†]Indicates unsignalized intersection with stop control on the minor approach.

In addition to intersection traffic operations, the impact analysis will evaluate travel times on routes that are expected to experience travel pattern or travel time changes. These routes are:

- 67th Street/Stony Island Avenue to Lake Shore Drive/57th Drive
- 67th Street/Stony Island Avenue to 56th Street/Stony Island Avenue
- Midway Plaisance/Stony Island Avenue to 57th Drive/Lake Shore Drive (Northbound)
- Midway Plaisance/Stony Island Avenue to 67th Street/Stony Island Avenue (Southbound)

The existing travel times along these routes are shown in Table 4.

Table 4: Existing Conditions Travel Times

		Route			
Alternative	Direction/Peak Period	67th/Stony to 57th/LSD	67th/Stony to 56th/Stony	Midway/Stony NB to 57th/LSD	Midway/Stony SB to 67 th /Stony
	Northbound AM	4.5	3.7	2.7	-
Existing	Northbound PM	4.7	3.8	2.9	-
Conditions	Southbound AM	4.1	4.5	-	2.7
	Southbound PM	4.8	4.8	-	3.2

2.6 Existing Parking Supply

On-street parking is currently permitted along the following roadways within Jackson Park:

- 56th Street between Lake Shore Drive and Stony Island Avenue
- Everett Avenue between 56th Street and Cornell Drive
- Stony Island Avenue between 56th Street and 59th Street, and between 60th Street and 67th
 Street
- Hayes Drive between Cornell Drive and Lake Shore Drive
- Richards Drive between Hayes Drive and Marquette Drive
- Marquette Drive between Lake Shore Drive and Stony Island Avenue
- South Midway Plaisance between the railroad viaduct and Stony Island Avenue

An inventory of the available existing on-street parking was conducted as part of the *Jackson Park Revitalization TIS*. The existing on-street parking supply is summarized in Table 5. Based on the parking inventory, there are currently 801 available on-street parking spaces within Jackson Park. Please note that while parking is legally permitted on Marquette Drive between Lake Shore Drive and Stony Island Avenue, parking does not occur on this section of roadway.

Table 5. Existing On-Street Parking Supply Summary

Roadway	From	То	Existing On-Street Parking Spaces ¹
56 th St	Shore Dr	Stony Island Ave	101
Everett Ave	56 th St	Cornell Dr	18
	56 th St	59 th St	102
	59 th St	60 th St	0
Ctony Island Ava	60 th St	61 st St	41
Stony Island Ave	61 st St	62 nd St	19
	62 nd St	63 rd St	42
	63 rd St	67 th St	76
Hayos Dr	Lake Shore Dr	Richards Dr	65
Hayes Dr	Richards Dr	Cornell Dr	82
Richards Dr	Hayes Dr	Marquette Dr	78
Manage the Dr	Lake Shore Dr	Richards Dr	40
Marquette Dr	Richards Dr	Stony Island Ave	125
S. Midway Plaisance	Rail Viaduct	Stony Island Ave	52
		Total	841

¹Number of on-street parking spaces is approximate based on a 20 foot stall length *as per the Jackson Park Revitalization TIS*, as individual stalls are generally not striped within the project study area.

3.0 Impacts Analysis

The following sections present the impact analysis for potential impacts on trees for the three alternatives considered.

Potential impacts can be direct, indirect, or cumulative. Direct impacts occur as a result of the proposed action, at the same time and place of implementation. Indirect impacts occur as a result of the proposed action, but later in time or farther in distance from the action. Cumulative impacts result from the "incremental impact of the action when added to other past, present, or reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions" (40 CFR 1508.7).

The cumulative impacts analysis will assess the synergistic effect of combining the impacts of the Federal Actions, any indirect impacts following the Federal Actions, and the impacts of the following past, present, or reasonably foreseeable actions that are unrelated to the Federal Actions. The following projects are included in the cumulative impacts:

Stony Island Avenue Traffic Improvements
CDOT is upgrading the signal and communication equipment along Stony Island / Cornell Drive / 57th Drive from 95th and Stony Island to 57th and Lake Shore Drive. The project will upgrade existing traffic signal equipment (poles, mast arms, lens, cabinet, conduit) and will interconnect the traffic signals to improve operations along Stony Island, connecting into Lake Shore Drive. Where restoration is required for new traffic signal poles / conduit runs, the project will also upgrade existing pedestrian ramps consistent with the Americans with Disabilities Act (ADA).

Lakefront Trail Separation

The Lakefront Trail connects 2,792 acres of parkland in six parks along Chicago's lakefront including Jackson Park. The trail is located east of Lake Shore Drive from 56th Street to Marquette Drive and north of Marquette Drive from Lake Shore Drive to 67th Street within Jackson Park. Considered a major recreational component in the lakefront parks and a transportation network, the Lakefront Trail Separation project sought to alleviate areas of congestion by separating bicyclists from other trail users. The newly separated trail includes an 18-mile bike trail and lakefront path. The separation project is complete.

Baseball Facilities

The SLFP South Lakefront Framework plan includes improvements to the area north of Hayes Drive and east of the Wooded Island in Jackson Park. Currently there are two natural grass baseball fields and an overlapping natural grass soccer / football field. Preliminary design is in the early stages for two new senior baseball fields and renovations of one senior baseball field.

Great Lakes Fishery and Ecosystem Restoration (GLFER)
 As part of an effort to restore bird, fish and wildlife habitat within the natural areas of Jackson Park, the CPD and the USACE entered into a Project Partnership Agreement signed in August 2014. The Water Resources Development Act, Section 506, Great Lakes Fishery and Ecosystem

Restoration (GLFER), authorized the ecological project. The project aims to create or enhance nearly 147 acres of native habitat within Jackson Park and along the Lake Michigan shoreline. The project includes 24 acres of new natural areas and the installation of over 600,000 native plants. The improvements will increase the biological diversity of the Jackson Park and provide critical habitat and beautiful scenery for park visitors. In addition, to improve access and circulation throughout Jackson Park, the project includes installation of overlooks along the water's edge, new pathways, and the reconstruction of existing pathways on Wooded Island.

Osaka Garden and Other Improvements on the Wooded Island Improvements to the Wooded Island and Osaka Garden are part of the Wooded Island Plan and incorporated into the SLFP. The plan includes improvements to the perimeter fence, a new main gate, pathway enhancements, new plantings and tree pruning, landscape lighting, feature stone placements in the garden, and a new teahouse. The plan also includes the addition of an overlook that will allow for viewing of an existing art installation and new berms surrounding the installation to integrate the site with the adjacent natural areas. These plans are still in design and are subject to funding availability and continued design refinement.

• Clarence Darrow Bridge

The Clarence Darrow Bridge is currently closed to all pedestrian and vehicular traffic. CDOT is evaluating potential alternatives to accommodate bicyclists and pedestrians. Built in 1880 and modified in 1895, CDOT is considering rehabilitation or replacement of the bridge with plans to retain or reproduce historic design elements and materials to the maximum extent possible. CDOT intends follow the Secretary of the Interior's (SOI) Standards for the Treatment of Historic Properties for Federal Actions in and Adjacent to Jackson Park.

Midway Plaisance Resurfacing

As part of the 2021 Arterial Resurfacing Program, CDOT will resurface both eastbound and westbound Midway Plaisance between S. Payne Drive and S. Blackstone Avenue. The work will include milling existing pavement, installing new asphalt, installing ADA compliant curb ramps, replacing sidewalk in need of repair, filling missing sidewalk gaps, and Complete Streets/safety improvements within the existing curb lines.

Potential impacts are generally described in terms of context and intensity. Context refers to the setting, situation, or circumstances surrounding a particular resource. Intensity refers to the severity of the impact.

Detailed descriptions of alternatives are provided in the EA and referenced in this technical memorandum.

3.1 Alternative A – 2040 No-Action

Alternative A (2040 No-Action) represents future conditions assuming none of the actions proposed in this EA are taken. This alternative is analyzed in the *Jackson Park Revitalization TIS*. Traffic projections and traffic analyses from that project study are summarized in this section.

3.1.1 Direct Impacts

3.1.1.1 Anticipated Traffic Volumes

As discussed previously, the CMAP assisted with the development of future traffic volumes for the *Jackson Park Revitalization TIS* with 2040 traffic projections for future scenarios developed from the regional travel demand model. The traffic volume projections for the Alternative A (2040 No-Action) scenario included traffic growth forecast by CMAP as a result of regional plan implementation ("background" traffic growth) and anticipated site-specific traffic growth associated with proposed University of Chicago campus improvements that were determined as part of the SSE study. These proposed University of Chicago improvements are as follows:

- Parking garage and fitness facility located at Kimbark Avenue and 61st Street
- The Study hotel and restaurant located on west side of Kimbark Avenue at 60th Street
- Renovations to the David M. Rubenstein Forum located at Woodlawn Avenue and 60th Street
- Renovations to the Keller Center located on 60th Street between Kimbark Avenue and Kenwood Avenue
- Woodlawn Residential and Dining Commons located at Woodlawn Avenue and 61st Street

No roadway network changes were included in this alternative. The ADT volumes for this alternative are shown on Attachment A-3.

3.1.1.2 Anticipated Travel Patterns

Under Alternative A, travel patterns within Jackson Park will remain stable, with no shifts in traffic due to planned roadway capacity improvements or major proposed developments. About a 2.4% background traffic growth increase is projected by CMAP within Jackson Park between 2016 and 2040.

Minor increases in traffic are anticipated in conjunction with proposed University of Chicago campus improvements. For these improvements, the development traffic during peak hours would be concentrated on North/South Midway Plaisance and 57th Drive. The magnitude of traffic generated by these campus improvement projects (no more than 100 vehicles per hour (vph) during peak hours) will not be large enough to fundamentally shift travel patterns.

Table 6 depicts a comparative table of travel time changes between Alternative A and the existing conditions. Travel times along the analyzed routes are not expected to increase more than 36 seconds (0.6 minutes).

Table 6: Alternative A Travel Times

			Ro	ute	
Alternative	Direction/Peak Period	67th/Stony to 57th/LSD	67th/Stony to 56th/Stony	Midway/Stony NB to 57th/LSD	Midway/Stony SB to 67 th /Stony
			Travel Tim	e (minutes)	
	Northbound AM	4.5	7.4	2.7	-
Evicting	Northbound PM	4.7	5.1	2.9	-
Existing	Southbound AM	4.5	5.1	-	3.0
	Southbound PM	5.2	7.5	-	3.5
	Northbound AM	4.6	8.0	2.8	-
Alternative A	Northbound PM	4.8	5.2	3.0	-
No-Action	Southbound AM	4.5	5.1	-	3.0
	Southbound PM	5.3	8.2	-	3.6
	Northbound AM	0.1	0.6	0.0	-
Difference Alt. A to Existing	Northbound PM	0.1	0.1	0.1	-
	Southbound AM	0.0	0.0	-	0.0
	Southbound PM	0.2	0.6	-	0.1

3.1.1.3 Operational Performance

The results of the operational analysis from the *Jackson Park Revitalization TIS* for Alternative A are shown on Attachment A-4 and summarized in Table 7. The operational analysis results for 2016 Existing Conditions are also shown in the table for comparison purposes.

Table 7: 2040 Alternative A Operational Performance Summary

		Intersection LOS and Delay (sec./veh.)				
	late and the	2016 Existing Conditions 2040 Alternation			ernative A	
	Intersection	A.M.	P.M.	A.M.	P.M.	
		Peak	Peak	Peak	Peak	
Lake Sh	nore Drive					
•	Marquette Dr	C (24)	C (24)	C (24)	C (24)	
•	Hayes Dr	B (17)	B (16)	B (17)	B (17)	
•	Science Dr	A (3)	A (5)	A (3)	A (6)	
•	57 th Dr	C (28)	B (19)	D (35)	C (23)	
Stony Is	sland Avenue					
•	67 th St	B (18)	D (50)	B (19)	F (**)	
•	Marquette Dr	B (12)	B (14)	B (13)	B (14)	
•	65 th PI/Cornell Dr (SB)	B (10)	B (15)	B (10)	B (16)	
•	64 th St *	F (**)	F (**)	F (**)	F (**)	
•	63 rd St/Hayes Dr	B (16)	B (13)	B (16)	B (13)	
•	62 nd St ⁺	C (17) [EB]	C (21) [EB]	C (17) [EB]	C (22) [EB]	
•	60 th St	B (11)	B (10)	B (11)	B (10)	
•	S Midway Plaisance (EB)	B (11)	C (26)	B (11)	F (**)	
•	N Midway Plaisance (WB)	C (31)	A (9)	D (48)	A (9)	
•	59 th St	B (19)	A (9)	B (19)	A (9)	
•	57 th St	C (25)	D (36)	C (25)	D (37)	
•	56 th St *	E (35)	D (28)	E (40)	D (29)	
Cornell	Drive/57 th Drive					
•	67 th St	C (26)	C (22)	C (26)	C (23)	
•	Marquette Drive	A (7)	A (10)	A (8)	A (10)	
•	Hayes Dr	B (11)	B (11)	B (11)	B (11)	
•	S Midway Plaisance (EB)	A (7)	A (7)	A (7)	A (7)	
•	57 th St/MSI Drop off	F (**)	F (**)	F (**)	F (**)	
•	Hyde Park Blvd	F (**)	C (22)	F (**)	C (23)	
67 th St		-	•			
•	East End Ave *	B (10)	B (10)	B (11)	B (11)	
•	Cregier Ave *	B (10)	B (10)	B (10)	B (11)	
•	Jeffery Ave	B (20)	B (16)	C (20)	B (16)	
•	South Shore Dr	B (14)	B (18)	B (15)	B (18)	
Marque	ette Dr					
•	Richards Dr (West)	B (10)	A (9)	B (10)	A (9)	
•	Richards Dr (East)	A (10)	B (15)	A (10)	B (16)	
•	La Rabida Entrance	B (14)	A (7)	B (14)	A (7)	
Richard	ds Drive					
•	Marquette Dr (North)	A (1)	A (1)	A (1)	A (1)	
•	Hayes Dr *	A (9)	B (14)	A (8)	B (14)	
56 th St						
•	Hyde Park Blvd *	B (12)	B (12)	B (12)	B (13)	
•	Everett Ave *	A (8)	A (7)	A (8)	A (7)	

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

⁺ Indicates unsignalized intersection with stop control on the minor approach.

As shown in Table 7, most intersections will continue to operate at similar Levels of Service as under Existing Conditions if Alternative A is implemented and no roadway or intersection improvements are constructed prior to 2040. However, some intersections do experience a degradation of traffic operations due to the increase in background traffic and the additional traffic generated by University of Chicago near-term campus development projects. Two intersections degrade to a LOS F during at least one peak hour due to traffic growth, as described below:

- Stony Island Avenue at 67^{th} Street degrades from a LOS D to a LOS F, as the southbound through movement exceeds capacity (v/c = 1.02) during the P.M. peak hour.
- Stony Island Avenue at S. Midway Plaisance degrades from a LOS C to a LOS F due to the eastbound approach exceeding capacity (v/c = 1.06) during the P.M. peak hour.

3.1.1.4 Parking Supply

No changes in the amount of available on-street parking within the project study area is proposed under Alternative A.

3.1.2 Indirect Impacts

There are no indirect impacts associated with Alternative A.

3.1.3 Cumulative Impacts

There are no cumulative impacts associated with Alternative A.

3.1.4 Mitigation

There are no direct or indirect impacts associated with Alternative A, therefore, mitigation is not required.

3.2 Alternative B – NPS Action/FHWA No Build

Alternative B includes National Park Service (NPS) approval of the partial conversion of recreation due to the construction of Obama Presidential Center (OPC) and replacement of recreation opportunities on the Midway.

This alternative assumes that no roadway or intersection improvements will be constructed prior to 2040 to accommodate background traffic growth.

3.2.1 Direct Impacts

3.2.1.1 UPARR Conversion or Replacement

There are no direct traffic impacts associated with Alternative B.

3.2.2 Indirect Impacts

Replacement of recreational opportunities on the Midway under Alternative B will allow certain roadways within Jackson Park to be closed, the OPC site to be developed and the track and field to be relocated. Thus, indirect impacts associated with Alternative B include the proposed roadway closures, development of the OPC and relocation of the track and field. The indirect impacts associated with these actions are evaluated below.

3.2.2.1 Anticipated Travel Patterns

The roadway closures will result in a change in travel patterns in the project study area and will redistribute traffic to the surrounding roadway network. An initial study conducted by the CMAP as part of the *Jackson Park Revitalization TIS* estimated approximately 24-28% of all vehicle trips will reroute to alternate roadways outside of the project study area. As a result of closing Cornell Drive, some of the remaining vehicles within the network will divert to Stony Island Avenue to the west; however, the majority of the remaining vehicles will divert to Lake Shore Drive to the east. With the closure of Marquette Drive, many vehicles will reroute onto Hayes Drive to ultimately travel to and from Lake Shore Drive. Table 8 depicts a comparative table of travel time changes between Alternative B versus Alternative A.

Route Midway/Stony Midway/Stony Direction/Peak 67th/Stony to 67th/Stony to Alternative Period 57th/LSD 56th/Stony to 57th/LSD to 67th/Stony **Travel Time (minutes)** Northbound AM 7.4 4.5 2.7 Northbound PM 4.7 5.1 2.9 Alternative A No Action Southbound AM 4.5 5.1 _ 3.0 Southbound PM 5.2 7.5 3.5 Northbound AM 12.8 36.5 12.1 _ Northbound PM 7.5 10.1 4.3 Alternative B Southbound AM 6.1 5.4 3.4 Southbound PM 12.8 13.4 11.7 Northbound AM 8.3 28.4 9.3 Difference Northbound PM 2.7 4.9 1.3 Alt. B to Alt. Southbound AM 1.6 0.3 0.4 Α Southbound PM 7.5 5.3 8.0

Table 8: Alternative B Travel Times

As shown in the table, travel times between 67th Street/Stony Island Avenue and 57th Street/Lake Shore Drive increased by more than 8 minutes headed northbound in the morning peak hour and by 7.5 minutes southbound in the evening peak hour due to the closure of Cornell Drive. Along Stony Island Avenue in the morning peak hour, travel times between 67th Street and 56th Street increase by over 28 minutes.

3.2.2.2 Anticipated Traffic Volumes

The 2040 traffic volumes developed for Alternative B assumed the CMAP reduction in traffic volumes as described above, additional visitor and employee traffic for the OPC, and reassignment of traffic as described previously to reflect diversions to other roadways due to the proposed closures. Because no roadway improvements are being constructed for this alternative, it is assumed that the remaining section of Cornell Drive between Hayes Drive and Stony Island Avenue will remain one-way southbound although the northbound split alignment section is closed. Additionally, North Midway Plaisance will remain one-way westbound east of Stony Island Avenue, resulting in Cornell Drive being one-way southbound south of 57th Street.

The closure of northbound Cornell Drive will increase the northbound through volume by 925 vehicles during the A.M. peak hour along Stony Island Avenue. Northbound vehicles that are destined for Lake Shore Drive will either turn right onto Hayes Drive, or remain on Stony Island Avenue and turn right onto 57th Street. During the P.M. peak hour, 915 additional southbound vehicles along Lake Shore Drive will turn right onto Hayes Drive. With the closure of Cornell Drive, the north leg of the Hayes Drive at Cornell Drive intersection is removed, resulting in a T-intersection configuration and causing an additional 725 westbound left turns from diverted traffic. The ADT volumes for this alternative are shown on Attachment A-5.

3.2.2.3 Operational Performance

The results of the operational analysis for Alternative B are shown on Attachment A-6 and summarized in Table 9. The operational analysis results for Alternative A are also shown in the table for comparison purposes. As shown in the table, nine additional signalized intersections within the roadway network experience a LOS F and/or operate over capacity during either the morning or the evening peak hour compared to Alternative A. These additional LOS F intersections are a result of traffic diversions and traffic redistribution caused by the roadway closures.

Roadways experiencing the greatest traffic impacts include Stony Island Avenue during the A.M. peak hour and Lake Shore Drive during the P.M. peak hour. Stony Island Avenue currently has only one travel lane in each direction north of 65th Street, and does not have available capacity for the amount of anticipated Cornell Drive traffic diversions during the A.M. peak hour. Similarly, Lake Shore Drive under existing conditions only has two southbound travel lanes south of 57th Drive, and the diverted Cornell Drive traffic during the P.M. peak hour exceeds the available capacity of the roadway.

The traffic analysis results indicate that under Alternative B conditions, many intersections will experience considerable increases in delay and operate over capacity.

Table 9: 2040 Alternative B Operational Performance Summary

	Intersection LOS and Delay (sec./veh.)							
Intersection		ernative A		ernative B				
	A.M. Peak	P.M. Peak	A.M. Peak	P.M. Peak				
Lake Shore Drive								
Marquette Dr	C (24)	C (24)	C (22)	C (26)				
Hayes Dr	B (17)	B (17)	F (**)	F (**)				
Science Dr	A (3)	A (6)	B (19)	F (**)				
• 57 th Dr	D (35)	C (23)	B (16)	F (**)				
Stony Island Avenue	<u>'</u>	•	•					
• 67 th St	B (19)	F (**)	F (**)	F (**)				
Marquette Dr	B (13)	B (14)	D (50)	B (15)				
65 th PI/Cornell Dr (SB)	B (10)	B (16)	F (**)	C (30)				
• 64 th St *	F (**)	F (**)	F (**)	F (**)				
63 rd St/Hayes Dr	B (16)	B (13)	F (**)	F (**)				
62 nd St/OPC Garage ⁺	C (17) [EB]	C (22) [EB]	F (84) [EB]	F (**)				
• 60 th St	B (11)	B (10)	B (17)	B (14)				
S Midway Plaisance (EB)		F (**)	B (13)	C (31)				
N Midway Plaisance (WE		A (9)	F (**)	C (32)				
• 59 th St	B (19)	A (9)	F (**)	C (24)				
• 57 th St	C (25)	D (37)	F (**)	F (**)				
• 56 th St *	E (40)	D (29)	D (32)	D (29)				
Cornell Drive/57 th Drive	, ,	, ,						
• 67 th St	C (26)	C (23)	Closed					
Marquette Drive	A (8)	A (10)	Clo	sed				
Hayes Dr	B (11)	B (11)	F (**)	F (**)				
S Midway Plaisance (EB)	A (7)	A (7)	Clo	sed				
57 th St/MSI Drop off	F (**)	F (**)	F (**)	D (53)				
Hyde Park Blvd	F (**)	C (23)	C (21)	B (20)				
67 th St								
East End Ave *	B (11)	B (11)	B (13)	B (14)				
Cregier Ave *	B (10)	B (11)	B (13)	B (14)				
Jeffery Ave	C (20)	B (16)	B (20)	C (20)				
South Shore Dr	B (15)	B (18)	B (17)	B (19)				
Marquette Dr		•		•				
Richards Dr (West)	B (10)	A (9)	Clo	sed				
Richards Dr (East)	A (10)	B (16)	Closed					
La Rabida Entrance	B (14)	A (7)	B (14)	A (7)				
Richards Drive	•		•	•				
Marquette Dr (North)	A (1)	A (1)	Clo	sed				
Hayes Dr *	A (8)	B (14)	A (9)	B (15)				
56 th St	·							
Hyde Park Blvd *	B (12)	B (13)	B (12)	B (13)				
Everett Ave *	A (8)	A (7)	A (8)	A (7)				

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

⁺ Indicates unsignalized intersection with stop control on the minor approach(es).

3.2.2.4 Parking Supply

The proposed roadway closures in Alternative B will result in a reduction in the amount of on-street parking available within and adjacent to Jackson Park. Table 10 summarizes the available on-street parking supply under Alternative B. The parking supply available under Alternative A is also shown for comparison purposes.

Doodwood	F	т.	On-Street Parking Spaces ¹			
Roadway	From	То	Alternative A			
56 th St	Shore Dr	Stony Island Ave	101	101	0	
Everett Ave	56 th St	Cornell Dr	18	18	0	
	56 th St	59 th St	102	102	0	
	60 th St	61 st St	41	38	-3	
Stony Island Ave	61 st St	62 nd St	19	19	0	
	62 nd St	63 rd St	42	42	0	
	63 rd St	67 th St	76	76	0	
Haves Dr	Lake Shore Dr	Richards Dr	65	65	0	
Hayes Dr	Richards Dr	Cornell Dr	82	82	0	
Richards Dr	Hayes Dr	Marquette Dr	78	78	0	
Marguetta Dr	Lake Shore Dr	Richards Dr	40	40	0	
Marquette Dr	Richards Dr	Stony Island Ave	125	0	-125	
S. Midway Plaisance	Rail Viaduct	Stony Island Ave	52	52	0	
_		Total	841	713	-128	

Table 10. Alternative B Parking Supply Summary

As shown in the table, the proposed roadway closures in Alternative B would result in a loss of 128 public on-street parking spaces. As noted in Section 2.6, Marquette Drive, while currently signed to permit parking west of Richards Drive, does not function as having on-street parking. The roadway is striped for two lanes in each direction and there is no existing parking demand for this section of roadway so the parking loss would not impact existing parking demand.

Additional off-street parking is also proposed under Alternative B as part of the OPC development to accommodate anticipated parking demand resulting from visitors to the center. The amount of off-street parking was evaluated as part of the Jackson Park Revitalization TIS. The number of off-street spaces proposed meets City code and is sufficient to accommodate visitors to the OPC. The proposed off-street parking design has been approved by the City.

3.2.3 Cumulative Impacts

3.2.3.1 Stony Island Avenue Traffic Improvements

The Stony Island Interconnect project aims to improve traffic operations and signal timings along Stony Island Avenue. As this project aims to provide improvements to traffic operations, there are no impacts associated with this alternative.

¹Number of on-street parking spaces is approximate based on a 20 foot stall length per the *Jackson Park Revitalization* TIS, as individual stalls are generally not striped within the project study area.

3.2.3.2 Lakefront Trail Separation

The Lakefront Trail Separation project was completed as a part of the 2018 South Lakefront Framework Plan. Improvements help to alleviate areas of congestion along the lakefront by separating bicyclists from other trail users. This project is not anticipated to impact traffic within the project study area.

3.2.3.3 Baseball Facilities

Improvements for senior baseball fields are outlined in the 2018 South Lakefront Framework Plan. This project is not anticipated to impact traffic within the project study area.

3.2.3.4 GLFER

The GLFER project is part of an effort to restore bird, fish and wildlife habitats within natural areas and will not have an impact on traffic within the project study area.

3.2.3.5 Osaka Garden and Other Improvements on the Wooded Island

Plans for the improvements to the Wooded Island and Osaka Garden are part of the 2018 South Lakefront Framework Plan. Planned improvements will not have an impact on traffic within the project study area.

3.2.3.6 Clarence Darrow Bridge

The Clarence Darrow Bridge is currently being evaluated by CDOT for rehabilitation or replacement of the bridge. Planned improvements may allow the bridge to open to traffic, but will not have a substantial impact on traffic patterns within the project study area.

3.2.3.7 Midway Plaisance Resurfacing

The Midway Plaisance Resurfacing Project will include roadway and pedestrian improvements and is being evaluate in a separate NEPA process. These improvements are not anticipated to have a substantial impact to traffic within the project study area.

3.2.3.8 Summary

The analysis of the Federal Actions in conjunction with past, present and reasonably foreseeable actions identified no impacts to traffic in the project study area. The cumulative effect arises from combining the effects of the Federal Actions on the same project study area at the same time, given the project study area's current existing condition and taking into consideration the effects of past activities. Other current and reasonably foreseeable activities have indeterminate or beneficial effects within the project study area. Some of the reasonably foreseeable activities listed above in Section 4.0 may be further analyzed in a future NEPA process that would take into consideration the potential for cumulative effects with this Federal Action.

The Stony Island Avenue Traffic Improvements would improve traffic operations and signal timings along Stony Island Avenue. Therefore, there are no cumulative impacts associated with Alternative B.

3.2.4 Mitigation

In order to mitigate the effects of traffic that arise from the proposed roadway closures in Jackson Park, various transportation improvement alternatives were considered. The proposed alternative that best met the Purpose and Need of the FHWA while avoiding or minimizing impacts to environmental resources was determined to include improvements along Lake Shore Drive, Stony Island Avenue, and Hayes Drive. These improvements are presented in Alternative C.

3.3 Alternative C - NPS + FHWA Action (Preferred Alternative)

This alternative incorporates impacts associated with Alternative B, in addition to those encountered by improving roadways and bicyclist/pedestrian facilities. The analysis of impacts in this section will only discuss the **additional** impacts associated with Alternative C.

3.3.1 Direct Impacts

3.3.1.1 Arterial Capacity Improvements

Lake Shore Drive – 57th Drive to Hayes Drive

 The existing section of Lake Shore Drive between 57th Drive and Hayes Drive consists of three northbound and two southbound travel lanes. This section would be widened to add an additional southbound travel lane, resulting in a proposed section that consists of three northbound and three southbound travel lanes.

Hayes Drive - Cornell Drive to Lake Shore Drive

 The existing section of Hayes Drive between Cornell Drive and Lake Shore Drive consists of one lane in each direction with on-street parking along both sides. In this alternative, 147 on-street parking spaces would be removed to increase the number of travel lanes to two lanes in each direction with a raised barrier median.

Cornell Drive - Hayes Drive to Stony Island Avenue

 The existing section of Cornell Drive between Hayes Drive and Stony Island Avenue consists of three southbound-only travel lanes. This section would be widened to accommodate an additional lane and converted to two-way traffic, resulting in a proposed section that consists of two southbound and two northbound lanes.

Stony Island Avenue – Midway Plaisance to 65th Street

• The existing section of Stony Island Avenue between Midway Plaisance and 65th Street consists of one lane each direction with on-street parking on each side. This section would be widened to add one southbound lane, one northbound lane, a center raised median with left turn lanes, and space for bus loading lanes. The proposed Stony Island Avenue section then consists of two lanes in each direction, a raised median with left turn lanes, and on-street parking/bus loading lanes on each side of the street.

Stony Island Avenue - 65th Street to 67th Street

• The existing section of Stony Island Avenue from 65th Street to 67th Street consists of two northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side. This section would be widened to add one northbound through lane along Stony Island Avenue to result in a proposed section that consists of three northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side.

3.3.1.2 Intersection Capacity Improvements

Lake Shore Drive

- At 57th Drive, widen the intersection to accommodate the new third southbound lane, and retime the traffic signal to optimize signal operations.
- At Science Drive, widen the intersection to accommodate the new third southbound lane, and re-time the traffic signal to optimize signal operations.
- At Hayes Drive, widen the intersection to accommodate the new third southbound lane on Lake Shore Drive, the two new through lanes on Hayes Drive, and new southbound right turn and eastbound left and right turn lanes. Also, modernize the traffic signal installation and re-time the signal to optimize operations. Provide a new pedestrian crossing on the south leg.

Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, reconfigure the intersection to provide a through movement for the
 predominant travel through the intersection. Realign the existing section of Hayes Drive
 between Stony Island Avenue and Cornell Drive to create a signalized T-intersection with the
 realigned Hayes Drive-Cornell Drive through movement.

Stony Island Avenue

- At 57th Street, re-time the traffic signal to optimize signal operations.
- At 59th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), widen the intersection to accommodate additional through and northbound left and right turn lanes on Stony Island Avenue, to convert North Midway Plaisance east of Stony Island Avenue to two-way traffic, and provide two lanes in each direction on North Midway Plaisance east of Stony Island Avenue. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), widen the intersection to accommodate the additional lanes on Stony Island Avenue. Remove 14 on-street parking spaces on the west leg to provide an additional eastbound left-turn lane. Re-time the traffic signal to optimize signal operations.

- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only. Widen the intersection to accommodate the additional lanes on Stony Island Avenue.
- At 62nd Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue and install a traffic signal to reduce delays on 62nd Street and to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 63rd Street/Hayes Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and shift the east leg to the north to provide better alignment for the westbound through movement across the intersection. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue and Cornell Drive, to convert Cornell Drive east of Stony Island Avenue to two-way, and to provide two additional northbound right turn lanes. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At Marquette Street, widen the intersection to accommodate the additional lanes on Stony Island. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, widen the intersection to accommodate the additional lanes on Stony Island
 Avenue. Modernize the traffic signal installation and re-time the signal to optimize operations.

57th Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.
- At Cornell Drive/57th Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

Marquette Drive

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

67th Drive

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

3.3.1.3 Anticipated Travel Patterns

The diverted traffic due to the roadway closures described in Alternative B predominantly travels along Lake Shore Drive, Hayes Drive and Stony Island Avenue in Alternative C. However,

due to the proposed roadway improvements in Alternative C, the diverted traffic is dispersed among the improved roadways more evenly without overburdening any one roadway.

Table 11 depicts a comparative table of travel time changes between Alternative C versus Alternative B and Alternative A.

Table 11: Alternative C Travel Times

		Route				
Alternative	Direction/Peak Period	67th/Stony to 57th/LSD	67th/Stony to 56th/Stony	Midway/Stony NB to 57th/LSD	Midway/Stony SB to 67th/Stony	
		Travel Time (minutes)				
Alternative A No Action	Northbound AM	4.5	7.4	2.7	-	
	Northbound PM	4.7	5.1	2.9	-	
	Southbound AM	4.5	5.1	-	3.0	
	Southbound PM	5.2	7.5	-	3.5	
Alternative B	Northbound AM	12.8	36.5	12.1	-	
	Northbound PM	7.5	10.1	4.3	-	
	Southbound AM	6.1	5.4	-	3.4	
	Southbound PM	12.8	13.4	-	11.7	
	Northbound AM	5.3	5.2	3.0	-	
Alternative C	Northbound PM	5.2	5.1	3.0	1	
Alternative C	Southbound AM	4.7	5.1	-	3.2	
	Southbound PM	4.6	5.2	-	3.2	
Difference Alt. C to Alt. B	Northbound AM	-7.6	-31.2	-9.1	-	
	Northbound PM	-2.3	-5.1	-1.3	-	
	Southbound AM	-1.4	-0.3	-	-0.2	
	Southbound PM	-8.2	-8.2	-	-8.4	
Difference Alt. C to Alt. A	Northbound AM	0.8	-2.2	0.3	-	
	Northbound PM	0.5	-0.1	0.1	-	
	Southbound AM	0.2	0.1	-	0.2	
	Southbound PM	-0.5	-2.4	-	-0.3	

As shown in the table, Alternative C improved traffic congestion and travel times along the majority of the routes depicted. Between 67th Street/Stony Island Avenue and 57th Drive/Lake Shore Drive, travel times improve by 1.5 to over 8 minutes in the peak hour travel periods. Along Stony Island Avenue, northbound travel to 56th Street in the morning peak hour improves by over 31 minutes. In comparison to Alternative A, Alternative C sees generally the same travel times along these routes, with the maximum travel time increase being just over 45 seconds.

3.3.1.4 Anticipated Traffic Volumes

The 2040 traffic volumes developed for this alternative included reassigning trips from Stony Island Avenue that are destined to northbound Lake Shore Drive onto the new two-way sections of Cornell Drive so that those trips could more easily access Lake Shore Drive from either Hayes Drive or 57th Drive. The magnitude of the traffic reassignments were determined based on CMAP traffic projections for Alternative C as discussed in Section 1. Based on these projections, it is anticipated that 1,280 vehicles will use the new northbound section of Cornell Drive between Stony Island Avenue and Hayes Drive during the A.M. peak hour, and that 200 vehicles will use the new northbound lanes on N. Midway Plaisance/Cornell Drive between Stony Island Avenue and 57th Drive during the A.M. peak hour. All other traffic volume assignments from Alternative B, including employee and visitor traffic generated by the OPC, were retained for this alternative. The ADT volumes for this alternative are shown on Attachment A-7.

3.3.1.5 Operational Performance

The results of the operational analysis for Alternative C are shown on Attachment A-8 and summarized in Table 12. The operational analysis results for Alternatives A and B are also shown in the table for comparison purposes. As shown in the table, the roadway improvements proposed in Alternative C mitigate the impacts of Alternative B. Alternative C results in all major intersections operating at desirable Levels of Service.

Table 12: 2040 Alternative C Operational Performance Summary

		Intersection LOS and Delay (sec./veh.)					
Intersection		2040 Alternative B (NPS UPARR)		2040 Alternative C (FHWA Build)			
		A.M.	P.M.	A.M.	P.M.		
Lake Shore Drive							
• Mar	quette Dr	C (22)	C (26)	C (35)	C (25)		
• Hay	es Dr	F (**)	F (**)	C (21)	B (14)		
• Scie	nce Dr	B (19)	F (**)	A (3)	A (2)		
• 57 th	Dr	B (16)	F (**)	A (8)	B (17)		
Stony Island	Avenue	, ,	, ,	• •	, ,		
• 67 th		F (**)	F (**)	C (25)	B (18)		
	quette Dr	D (50)	B (15)	B (12)	B (14)		
	PI/Cornell Dr	F (**)	C (30)	A (6)	B (16)		
• 64 th		F* (**)	F* (**)	A (5)	A (5)		
	St/Hayes Dr	F (**)	F (**)	B (17)	B (13)		
	St/OPC Garage	F ⁺ (60) [EB]	F ⁺ (**)	B (12)	B (13)		
• 60 th	-	B (17)	B (14)	Right-In/Ri	· · ·		
	idway Plaisance	B (13)	C (31)	B (15)	B (15)		
	lidway Plaisance	F (**)	C (32)	C (22)	B (19)		
• 59 th		F (**)	C (24)	Right-In/Ri			
• 57 th		F (**)	F (**)	C (22)	C (20)		
	St *	D (32)	D (29)	D (32)	D (29)		
Cornell Drive		2 (02)	2 (23)	2 (02)	2 (23)		
			osed	Closed			
	quette Drive	Closed		Closed			
	es Dr	F (**) F (**)		A (10) B (15)			
	idway Plaisance	Closed		Closed			
	St/MSI Drop off	F (**)	D (53)	A (8)	C (21)		
	e Park Blvd	C (21)	B (20)	B (19)	B (14)		
67 th St							
	t End Ave *	B (13)	B (14)	B (13)	B (14)		
	gier Ave *	B (13)	B (14)	B (13)	B (14)		
	ery Ave	B (20)	C (20)	C (21)	B (19)		
	th Shore Dr	B (17)	B (19)	B (14)	B (19)		
Marquette D		- (/	- (20)	- \/	- (20)		
•	nards Dr (West)	C	osed	Close	ed .		
			Closed		Closed		
			A (7)	A (5)	A (7)		
Richards Driv		B (14)	/ /	(=)	(//		
			Closed		Closed		
	es Dr	A* (9)	B* (15)	B (16)	A (9)		
56 th St		(5)	2 (13)	- (10)	(5)		
	e Park Blvd *	B (12)	B (13)	B (12)	B (12)		
	rett Ave *	A (8)	A (7)	A (8)	A (7)		
	Ston-Controlled Inters	` '	,,,,,	, , (0)	, , , , , ,		

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

[†] Indicates unsignalized intersection with stop control on the minor approach(es).

3.3.1.6 Parking Supply

The roadway improvements proposed in Alternative C will result in changes in the amount of on-street parking available within and adjacent to Jackson Park. Table 13 summarizes the available on-street parking supply upon completion of the roadway improvements proposed in Alternative C. The parking supply available under Alternative B is also shown for comparison purposes.

Roadway	From	To	On-Street Parking Spaces ¹			
		То	Alternative B	Alternative C	Change	
56 th St	Lake Shore Dr	Stony Island Ave	101	101	0	
Everett Ave	56 th St	Cornell Dr	18	18	0	
	56 th St	59 th St	102	102	0	
	60 th St	61 st St	38	28	-10	
Stony Island Ave	61 st St	62 nd St	19	11	-8	
	62 nd St	63 rd St	42	54	+12	
	63 rd St	67 th St	76	103	+27	
Hayes Dr	Lake Shore Dr	Richards Dr	65	0	-65	
	Richards Dr	Cornell Dr	82	0	-82	
Richards Dr	Hayes Dr	Marquette Dr	78	92	+14	
Marquette Dr	Lake Shore Dr	Richards Dr	40	71	+31	
	Richards Dr	Stony Island Ave	0	0	0	
S. Midway Plaisance	Rail Viaduct	Stony Island Ave	52	28	-24	
		Total	713	608	-105	

Table 13. Alternative C Parking Supply Summary

As shown in the table, the proposed roadway improvements in Alternative C would result in a net loss of 105 public on-street parking spaces in addition to Alternative B.

3.3.2 Indirect Impacts

There are no indirect impacts associated with Alternative C.

3.3.3 Cumulative Impacts

Several other ongoing or reasonably foreseeable projects have been identified in the project study area, including many park improvements within Jackson Park. Only one of these projects, the Stony Island Interconnect project, has the potential to also impact traffic operations in the project study area. The Stony Island Interconnect project aims to improve traffic operations and signal timings along Stony Island Avenue, and would likely be constructed in concert with any capacity improvements proposed along Stony Island Avenue. As both Alternative C and this project provide improvements to traffic operations, there are no cumulative impacts associated with the Federal Actions.

¹Number of on-street parking spaces is approximate based on a 20 foot stall length per the *Jackson Park Revitalization* TIS, as individual stalls are generally not striped within the project study area.

3.3.4 Mitigation

The proposed improvements included as part of Alternative C are demonstrated to accommodate traffic volumes and provide sufficient operations; therefore, further mitigation of traffic impacts is not required.

As part of Alternative C, the proposed transportation improvements include the addition of 84 new onstreet parking spaces to offset the loss of 189 on-street parking spaces to accommodate proposed vehicle capacity improvements. Based on the parking study completed as part of the SSE Traffic Study, even with the loss of 105 parking spaces there is still an excess parking supply based on parking demands.

As the implementation of the South Lakefront Framework Plan continues in Jackson Park In addition, the City will continue to work with the Chicago Park District to implement additional parking supply in Jackson Park. The plan includes 60 additional spaces at the East Meadow (Driving Range), 170 at the 63rd Street Beach, 200 at the golf course, 90 at the boat launch, 101 in the Promontory Drive Lot and 19 more on Promontory Drive, and 40 at the South Shore Cultural Center, totaling an additional 680 parking spaces. These additions to parking supply, when fully implemented, would more than offset the loss of 105 on-street parking spaces lost due to the transportation improvements.

4.0 2050 Regional Plan Analysis

CMAP's adoption of the *ON TO 2050* plan anticipates changes in the traffic forecasting model utilized to develop traffic projections. Additional analyses were performed to determine if the proposed roadway network improvements in Alternative C would continue to satisfactorily mitigate the impacts of the proposed roadway closures within Jackson Park under year 2050 projected traffic volumes.

A request for 2050 projections was submitted by CDOT to CMAP in November 2018. Coordination with CMAP was conducted following the request and final 2050 traffic projections were concurred upon by CMAP on May 6, 2019. See Attachment B for correspondence. The following section provides analysis of the 2050 projected traffic volumes.

4.1 2050 Regional Growth and Traffic Impacts

The *ON TO 2050* regional plan anticipates additional population and employment growth in the areas surrounding Jackson Park as a result of commercial and residential redevelopment and new occupancies within existing vacant housing stock. As a result, background traffic volumes are anticipated to increase by about 10% between 2016 and 2050 under Alternative A conditions, as compared to the 2.4% originally projected in the *GO TO 2040* regional plan. These increases in ADT volumes under Alternative A are shown on Attachment B-1.

As a result of the higher traffic growth rates anticipated in the 2050 plan, the proposed roadway closures also created an increased volume of diverted traffic to parallel routes under Alternative B conditions. The distribution of diverted traffic from Cornell Drive to Stony Island Avenue and Lake Shore Drive is more balanced in the 2050 plan than under the *GO TO 2040* regional plan. The 2050 ADT volumes under Alternative B are shown on Attachment B-2.

Utilizing the same procedures as the 2040 analyses, 2050 ADT volumes were developed for Alternative C. The 2050 ADT volumes for Alternative C are shown on Attachment B-3. Based on the 2050 ADT projections, peak hour volumes were developed and analyzed for Alternative C to determine the operation performance of the proposed improvements. Table 14 and Attachment B-4 summarize the results of the operational analysis of the Alternative C roadway network under 2050 traffic conditions. The operational analysis results from 2040 for Alternative C are also shown in Table 14 for comparison purposes.

Table 14: 2050 Alternative C Operational Performance Summary

	Intersection LOS and Delay (sec./veh.)					
Intersection	2040 Al	2040 Alternative C		2050 Alternative C		
	A.M.	P.M.	A.M.	P.M.		
Lake Shore Drive			•			
Marquette Dr	C (35)	C (25)	C (32)	D (37)		
Hayes Dr	C (21)	B (14)	C (21)	B (13)		
Science Dr	A (3)	A (2)	A (3)	A (2)		
• 57 th Dr	A (8)	B (17)	B (18)	C (23)		
Stony Island Avenue						
• 67 th St	C (25)	B (18)	C (26)	C (24)		
Marquette Dr	B (12)	B (14)	B (10)	B (13)		
• 65 th Pl/Cornell Dr	A (6)	B (16)	A (6)	B (13)		
• 64 th St	A (5)	A (5)	A (3)	B (10)		
• 63 rd St/Hayes Dr	B (17)	B (13)	C (22)	C (20)		
62 nd St/OPC Garage	B (12)	B (13)	B (16)	B (14)		
• 60 th St	Right-In	Right-In/Right-Out		Right-In/Right-Out		
S Midway Plaisance	B (15)	B (15)	B (13)	B (17)		
N Midway Plaisance	C (22)	B (19)	B (18)	B (19)		
• 59 th St	Right-In	Right-In/Right Out		Right-In/Right Out		
• 57 th St	C (22)	C (20)	C (20)	C (20)		
• 56 th St	D (32)	D (29)	E (38)	E (42)		
Cornell Drive/57 th Drive						
• 67 th St	CI	Closed		Closed		
Marquette Drive	CI	osed	Closed			
Hayes Dr	A (10) B (15)		B (13) B (18)			
S Midway Plaisance	Ci	osed	Closed			
• 57 th St/MSI Drop off	A (8)	C (21)	A (6)	B (19)		
Hyde Park Blvd	B (19)	B (14)	C (27)	B (14)		
67 th St						
 East End Ave 	B (13)	B (14)	C (15)	C (20)		
Cregier Ave	B (13)	B (14)	B (14)	C (20)		
Jeffery Ave	C (21)	B (19)	B (19)	C (22)		
 South Shore Dr 	B (14)	B (19)	B (14)	B (19)		
Marquette Dr						
Richards Dr (West)	Closed		Closed			
 Richards Dr (East) 	Closed		Closed			
La Rabida Entrance	A (5)	A (7)	A (6)	A (6)		
Richards Drive						
 Marquette Dr (N) 	CI	Closed		Closed		
 Hayes Dr 	B (16)	A (9)	B (11)	A (8)		
56 th St						
 Hyde Park Blvd 	B (12)	B (12)	C (15)	B (13)		
 Everett Ave 	A (8)	A (7)	A (8)	A (7)		

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

⁺ Indicates unsignalized intersection with stop control on the minor approach(es).

The results in the table indicate that, while several intersections have lower LOSs in 2050 compared to 2040 projected traffic, none of the signalized intersections perform worse than LOS D. At signalized intersections, LOS D is generally considered the lowest desirable level of traffic operations by most transportation agencies in the Chicago region. Additionally, no individual movements degrade to LOS F or have a v/c ratio greater than 1.0, which would represent a vehicle movement that is over capacity. Therefore, the proposed roadway network improvements in Alternative C are anticipated to continue to provide desirable traffic performance to accommodate 2050 projected traffic volumes.

4.2 CMAP Plan Amendment

The *ON TO 2050* regional plan includes a set of fiscally constrained Regionally Significant Projects (RSPs) that support the plans key principles. Projects that have the potential for regional impacts that meet certain threshold criteria are required to undergo a CMAP Plan Amendment process (CMAP 2019a). This project involving improvements to the roadway network within Jackson Park was required to complete the CMAP Plan Amendment process in order to be formally included in the *ON TO 2050* regional plan.

In November 2018, the City formally requested an amendment to the plan for the inclusion of this project. The amendment process included presentations to CMAP staff and committees to demonstrate the project continues to meet the goals of the *ON TO 2050* regional plan. A 30-day public comment period for the amendment was held and on March 6, 2019, CMAP staff provided a recommendation for the project's inclusion as an amendment to the plan (CMAP 2019b). This recommendation was approved by the CMAP Board and MPO Policy Committee on March 13 and 14, 2019, respectively.

5.0 Summary

A summary table of traffic performance of the three alternatives is shown in Table 15.

Table 15: Operational Performance Summary

		Intersection LOS and Delay (sec./veh.)						
	Intersection	2040 Alternative A		2040 Alternative B		2040 Alternative C		
		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
Lake Sh	ore Drive		•			'		
•	Marquette Dr	C (24)	C (24)	C (22)	C (26)	C (35)	C (25)	
•	Hayes Dr	B (17)	B (17)	F (**)	F (**)	C (21)	B (14)	
•	Science Dr	A (3)	A (6)	B (19)	F (**)	A (3)	A (2)	
•	57 th Dr	D (35)	C (23)	B (16)	F (**)	A (8)	B (17)	
Stony Is	sland Avenue		•			•		
•	67 th St	B (19)	F (**)	F (**)	F (**)	C (25)	B (18)	
•	Marquette Dr	B (13)	B (14)	D (50)	B (15)	B (12)	B (14)	
•	65 th Pl/Cornell Dr	B (10)	B (16)	F (**)	C (30)	A (6)	B (16)	
•	64 th St	F* (**)	F* (**)	F* (**)	F* (**)	A (5)	A (5)	
•	63 rd St/Hayes Dr	B (16)	B (13)	F (**)	F (**)	B (17)	B (13)	
•	62 nd St/OPC Garage	C+ (17) [EB]	C+(22)[EB]	F+ (60) [EB]	F+ (**)	B (12)	B (13)	
•	60 th St	B (11)	B (10)	B (17)	B (14)	Right-In/	Right-Out	
•	S Midway Plaisance	B (11)	F (**)	B (13)	C (31)	B (15)	B (15)	
•	N Midway Plaisance	D (48)	A (9)	F (**)	C (32)	C (22)	B (19)	
•	59 th St	B (19)	A (9)	F (**)	C (24)		Right Out	
•	57 th St	C (25)	D (37)	F (**)	F (**)	C (22)	C (20)	
•	56 th St *	E (40)	D (29)	D (32)	D (29)	D (32)	D (29)	
Cornell	Drive/57 th Drive	,	. ,	. ,	, ,	, ,	, ,	
•	67 th St	C (26)	C (23)	Closed		Closed		
•	Marquette Drive	A (8)	A (10)	Closed		Closed		
•	Hayes Dr	B (11)	B (11)	F (**)	F (**)	A (10)	B (15)	
•	S Midway Plaisance	A (7)	A (7)	Closed		Closed		
•	57 th St/MSI Drop off	F (**)	F (**)	F (**)	D (53)	A (8)	C (21)	
•	Hyde Park Blvd	F (**)	C (23)	C (21)	B (20)	B (19)	B (14)	
67 th St	.,,	,	, ,	, ,	, ,	, ,	, ,	
•	East End Ave *	B (11)	B (11)	B (13)	B (14)	B (13)	B (14)	
•	Cregier Ave *	B (10)	B (11)	B (13)	B (14)	B (13)	B (14)	
•	Jeffery Ave	C (20)	B (16)	B (20)	C (20)	C (21)	B (19)	
•	South Shore Dr	B (15)	B (18)	B (17)	B (19)	B (14)	B (19)	
Marque		. ,	` '		, ,	, ,	, ,	
•	Richards Dr (West)	B (10)	A (9)	Closed		Closed		
•	Richards Dr (East)	A (10)	B (16)	Closed		Closed		
•	La Rabida Entrance	B (14)	A (7)	B (14)	A (7)	A (5)	A (7)	
Richard		. ,		. ,	. ,	. , ,	. , ,	
•	Marquette Dr (N)	A (1)	A (1)	Closed		Closed		
•	Hayes Dr	A* (8)	B* (14)	A* (9)	B* (15)	B (16)	A (9)	
56 th St	1	(- /	. ,	\- /	(- /	/	1 (-7	
	Hyde Park Blvd *	B (12)	B (13)	B (12)	B (13)	B (12)	B (12)	
•								

^{*}Indicates All-way Stop-Controlled Intersection

^{**} Indicates one or more movements operate over capacity (v/c>1). These intersections are listed with an LOS F per the Highway Capacity Manual definition.

[†] Indicates unsignalized intersection with stop control on the minor approach(es).

6.0 References

Chicago Metropolitan Agency for Planning

2019a ON TO 2050 Regionally Significant Projects: Proposed Amendment Process. Accessed on January 3, 2019. https://www.cmap.illinois.gov/documents/10180/965946/PolicyCmteMemo--

RSPAmendmentProcess01-02-2019.pdf/fdf703d0-c5de-9be9-ddc7-6a88bd6467ec

2019b Proposed Amendment to ON TO 2050 – Roadway Improvements to Support the Update to the South Lakefront Framework Plan. Accessed on March 6, 2019. https://www.cmap.illinois.gov/documents/10180/986692/Board-CmteMemo--StaffRecs%28JacksonPark%29%2BAppendices03-06-2019.pdf/f484dc08-5264-b489-6d25-78a7a8cfc69b

Sam Schwartz Engineering, LLC

2018 "Jackson Park Revitalization Traffic Impact Study Final Report." Report preparted for Barack Obama Foundation under contract.

Attachment A



Attachment A-1



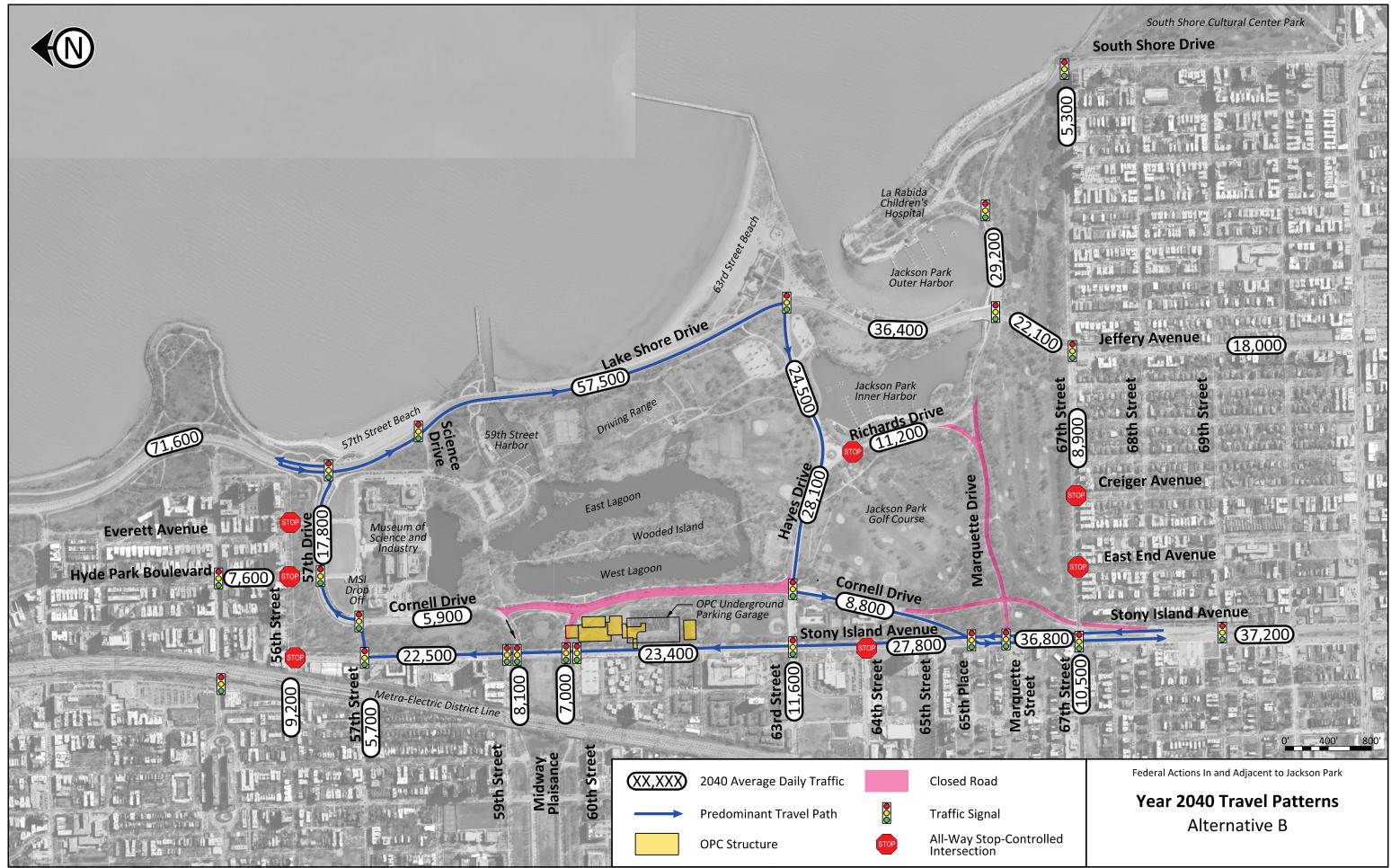
Attachment A-2



Attachment A-3



Attachment A-4



Attachment A-5



Attachment A-6



Attachment A-7



Attachment A-8

Attachment B





I N. LaSalle Street, Suite 325 Chicago, IL 60602

Date: November 21, 2018

To: Jose Rodriguez, PTP, AICP

Senior Planner, Research and Analysis

Attn: Traffic Projections

Chicago Metropolitan Agency for Planning (CMAP)

233 South Wacker Drive, Suite 800

Chicago, IL 60606

From:

CNECT (On behalf of the Chicago Department of Transportation)

Re: Mobility Improvements to Support the South Lakefront Framework Plan

Jackson Park, Chicago, Illinois Section No. 17-B7203-00-ES 2050 Traffic Projection Request

Mr. Rodriguez,

The Illinois Department of Transportation (IDOT) and the City of Chicago, in cooperation with the Federal Highway Administration (FHWA), have initiated a Federal-aid Phase I Study for roadway improvements in and adjacent to Jackson Park in Chicago, Illinois. Previous coordination efforts for this project (dated March 20 and March 22, 2018) have been completed for this study in accordance with the *Go To 2040* regional transportation plan. In accordance with the recent adoption of the *On To 2050* regional transportation plan, we request that your office provide 2050 traffic projections for this project based on the alternatives described below.

Alternative A - No-Action Alternative

- Obama Presidential Center is not constructed
- No roadway or signal improvements in Jackson Park

Alternative B – OPC Build Without Roadway Improvements

- Obama Presidential Center is constructed
- Roadway closures within Jackson Park as follows:
 - o Cornell Drive between 63rd Street and 57th Drive
 - Northbound section of Cornell Drive between 68th Street and 65th Street
 - Marguette Drive between Stony Island Avenue and Richards Drive

- Eastbound portion of Midway Plaisance between Stony Island Avenue and Cornell Drive
- No additional roadway network or traffic signal improvements in Jackson Park

Alternative C – OPC Build With Roadway Improvements

- All proposed roadway closures in place
- Conversion of the North Midway Plaisance between Stony Island Avenue and Cornell Drive (existing is westbound only) to allow two-way traffic
- Conversion of the southbound portion of Cornell Drive between 65th Place and approximately 64th Street to allow two-way traffic
- Modify traffic signal at Stony Island Avenue/59th Street to allow free-flow northbound traffic and convert 59th Street to right-in/right-out access only
- Remove traffic signal at Stony Island Avenue/60th Street and convert to right-in/right-out access only
- Convert the Stony Island Avenue/62nd Street unsignalized intersection to a signalized intersection with a new east leg of the intersection providing access to the OPC underground parking garage.
- Convert the Stony Island Avenue/64th Street all-way stop-controlled intersection to a signalized intersection
- Convert the Hayes Drive/Richards Drive stop-controlled intersection to a signalized Tintersection
- Provide capacity improvements along Lake Shore Drive by adding a third southbound travel lane from north of 57th Drive to Hayes Drive. Three northbound travel lanes will remain
- Provide two lanes in each direction along Hayes Drive between Lake Shore Drive and Cornell Drive
- Provide two lanes in each direction along Stony Island Avenue between 64th Street and 59th Street
- Provide three northbound lanes and four southbound lanes along Stony Island Avenue between 67th Street to 64th Street
- Provide intersection improvements along Lake Shore Drive to accommodate an additional southbound travel lane at 57th Drive, Science Drive, and Hayes Drive
- Provide intersection improvements along Stony Island Avenue to accommodate additional travel lanes along Stony Island Avenue
- Realign Hayes Drive at Cornell Drive to provide a through movement for westbound-southbound/northbound-eastbound movements

- Channelize Cornell Drive between North Midway and 57th Street to provide one lane in each direction with proposed on-street parking
- Provide signal timing or modernization improvements at remaining signalized intersections within the study area

The following exhibits are attached for your reference:

- Exhibit 1 Roadway Network Characteristics Existing Conditions
- Exhibit 2 2016 Average Daily Traffic Volumes
- Exhibit 3 2040 Average Daily Traffic Volumes Alternative A
- Exhibit 4 Roadway Network Characteristics Alternative B
- Exhibit 5 2040 Average Daily Traffic Volumes Alternative B
- Exhibit 6 Roadway Network Characteristics Alternative C
- Exhibit 7 2040 Average Daily Traffic Volumes Alternative C

Please review the enclosed information and provide suggested 2050 ADT volumes based upon CMAP's regional modeling. If you have any questions, please contact Mary Young of CNECT at (630) 735-3943.

Mary L. Young, P.E., PTOE

CNFCT





Memorandum

I N. LaSalle Street, Suite 325 Chicago, IL 60602

Date: May 6, 2019

To: Jose Rodriguez, PTP, AICP

Senior Planner, Research and Analysis

Attn: Traffic Projections

Chicago Metropolitan Agency for Planning (CMAP)

233 South Wacker Drive, Suite 800

Chicago, IL 60606

From: CNECT (On behalf of the Chicago Department of Transportation)

Re: Mobility Improvements to Support the South Lakefront Framework Plan

Jackson Park, Chicago, Illinois Section No. 17-B7203-00-ES

2050 Traffic Projection Concurrence Request

Mr. Rodriguez,

With the recent adoption of the *ON TO 2050* regional transportation plan, we have coordinated with your office to develop Year 2050 traffic projections for FHWA environmental review and project documentation of the above referenced project.

On March 22, 2019, CMAP provided Year 2050 traffic projections for the following alternatives:

- Alternative A No-Action Alternative (No OPC, No Roadway Closures)
- Alternative B No-Build Alternative (OPC and Closures. No Roadway Improvements)
- Alternative C Build Alternative (Roadway Improvements to Support SLFP)

After review of the 2050 traffic projections by CNECT and CDOT staff, adjustments to the 2050 Average Daily Traffic (ADT) projections provided by CMAP have been proposed as shown in Table 1. These adjustments are proposed in order to balance projected traffic volumes across the roadway network and to reflect anticipated roadway geometrics and traffic control.

Table 1. Existing and Projected Average Daily Traffic Volumes (veh/day) By Roadway Segment

Roadway Segment	2016	2050 Projected ADT						
Noadway Segment	Existing	Alt A	Alt B	Alt C				
Lake Shore Drive N of 57th Drive	69,600	77,200	82,400	84,200				
57th Drive from Hyde Park Blvd to Lake Shore Drive	31,300	32,800	21,500	20,200				
Hyde Park Blvd N of 56th St	7,500	7,800	7,100	7,600				
56th Street west of Stony Island Ave	11,000	11,300	12,100	12,300				
57th Street west of Stony Island Ave	2,100	2,100	2,300	2,300				
Cornell Drive from 57th Drive to North Midway Plsc	30,900	33,600	8,600	19,600				
Stony Island Ave from 57th St to North Midway Plsc	11,900	13,300	17,900	13,800				
North Midway Plaisance west of Stony Island Ave	7,600	8,600	9,800	8,400				
South Midway Plaisance west of Stony Island Ave	7,100	7,000	7,200	7,400				
Cornell Drive from South Midway Plsc to Hayes Drive	27,000	31,100	Clos	ed				
Stony Island Ave from South Midway Plsc to 63rd St	12,500	13,900	21,800	22,900				
Lake Shore Drive from Science Drive to Hayes Drive	43,100	47,500	60,600	64,100				
Hayes Drive from Lake Shore Drive to Richards Drive	8,500	10,500	18,200	22,300				
Hayes Drive from Richards Drive to Cornell Drive	13,900	18,000	26,300	25,000				
63rd St west of Stony Island Ave	11,500	13,200	17,600	11,600				
Stony Island Ave from 63rd St to 65th PI/Cornell Drive	13,700	15,100	23,400	19,800				
Cornell Drive from Hayes Dr to 65th Pl/Stony Island	23,400	23,700	7,100	14,700				
Stony Island Ave from 65th PI to 67th St	27,500	29,000	30,500	34,300				
Stony Island Ave south of 68th St/NB Cornell Drive	41,100	46,800	36,800	40,500				
NB Cornell Drive from 67th St to Marquette Rd	9,500	10,600	Closed					
Richards Drive from Hayes Drive to Marquette Rd	7,500	7,900	8,100	7,600				
Lake Shore Drive from Hayes Drive to Marquette Rd	45,400	49,400	47,800	47,700				
Marquette Drive from NB Cornell Dr to Richards Dr	3,300	4,500	Closed					
Marquette Drive from Richards Dr to Lake Shore Dr	9,700	11,000	8,100	7,600				
South Shore Drive from Jeffery/LSD to 67th St	30,800	32,200	33,100	33,100				
Jeffery Blvd from Marquette Drive to 67th St	22,500	25,100	30,700	30,200				
67th St west of Stony Island Ave	7,500	7,700	8,300	8,300				
67th St west of Jeffery Blvd	6,700	7,600	8,500	9,900				
67th St from Jeffery Blvd to South Shore Drive	3,300	4,300	4,900	4,000				
Jeffery Blvd south of 67th St	19,000	20,800	23,300	23,000				
South Shore Drive south of 67th St	32,100	33,800	34,700	35,200				
Note: Volumes adjusted from original CMAD projections are noted with group shading								

Note: Volumes adjusted from original CMAP projections are noted with green shading.

At this time, we are requesting formal CMAP concurrence for the Year 2050 Average Daily Traffic (ADT) volumes as amended in Table 1. Supporting calculations and exhibits are also attached for your reference. If you have any questions, please contact Mary Young of CNECT at (630) 735-3943.

Mary L. Young, P.E., PTOE

CNECT

TRAFFIC FORECAST RECORD

Record Number: ck-73-19

Type of Report: Concurrence

Year Sought: 2050

Analyst: JAR

Organization requesting forecast: Civiltech

Contact: Mary L. Young, P.E., PTOE

Phone number: (630)

Sponsor: CNECT On Behalf of Chicago Department of Transportation

Date request was received: May 6, 2019

Date that response was mailed or faxed: May 6, 2019

Facility Location: Mobility Improvements to Support the South Lakefront

Framework Plan

Municipality: City of Chicago



233 South Wacker Drive Suite 800 Chicago, Illinois 60606

312 454 0400 www.cmap.illinois.gov

May 7, 2019

Mary L. Young, P.E., PTOE CNECT, LLC 1 North LaSalle Street Suite 325 Chicago, IL 60602

Subject: Mobility Improvements to Support the South Lakefront Framework Plan CNECT On Behalf of Chicago Department of Transportation

Dear Ms. Young:

In response to a request made on your behalf and dated May 6, 2019, we have reviewed and concur with CNECT and its consultant's 2050 average daily traffic (ADT) projections.

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2018 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area.

If you have any questions, please call me at (312) 386-8806.

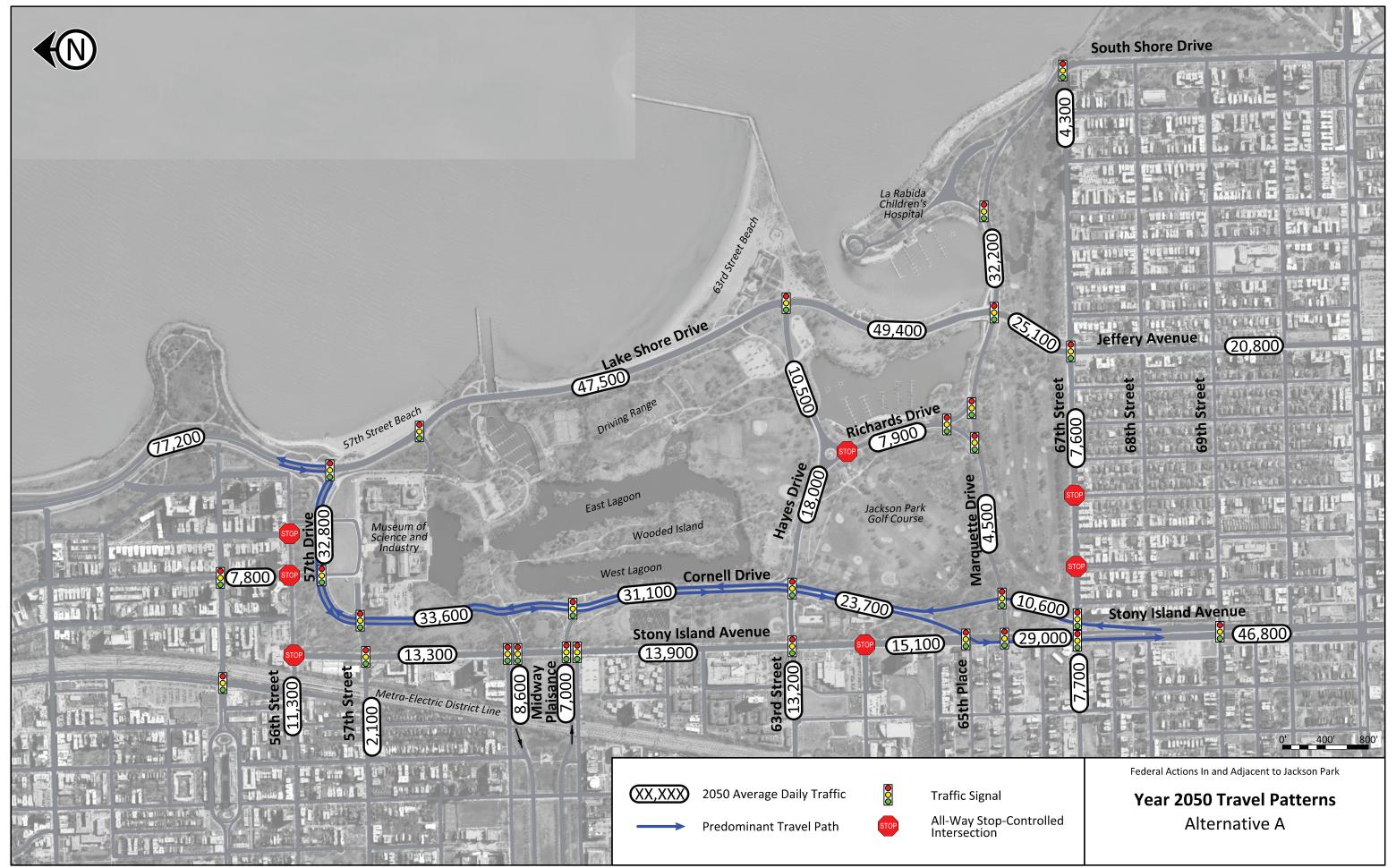
Sincerely,

Jose Rodriguez, PTP, AICP

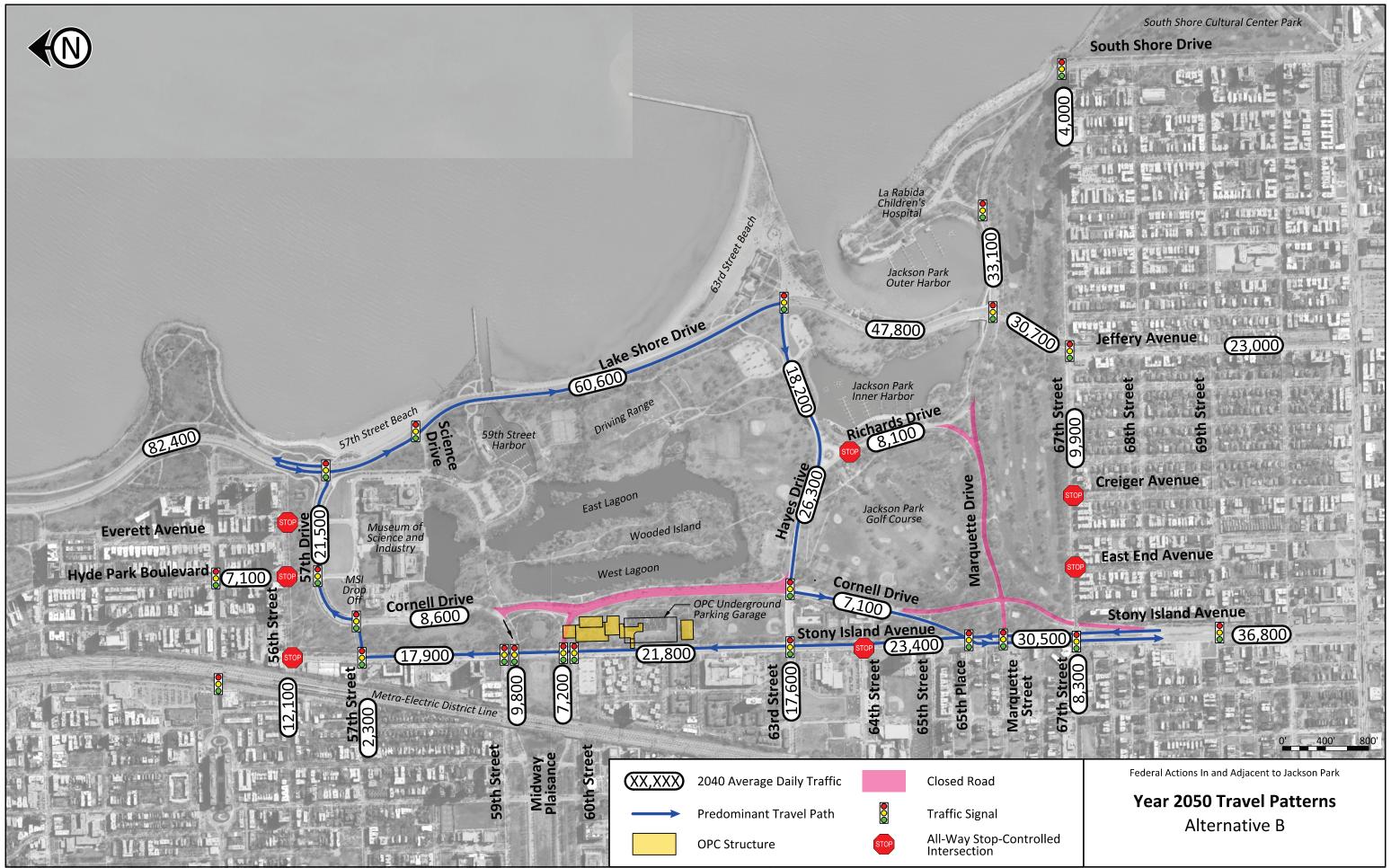
Senior Planner, Research & Analysis

cc: Roseberry (CDOT); DeSalle (Civiltech)

 $S: AdminGroups \ Research Analysis \ 2019_Forecasts Traffic \ Chicago \ ck-73-19 \ ck-73-19. docx$



Attachment B-1



Attachment B-2



Attachment B-3



Attachment B-4