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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 Section 4(f) Use
- Build Alternative – Operational Changes to Roadways
- Build Alternative – Mobility Improvements

The Alternative Avoiding Section 4(f) Use strictly refrains from converting any land from a Section 4(f) resource to a transportation use. 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 Plan[1]. 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 Section 4(f) Use.

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:
    - severe social, economic, or environmental impacts;
    - severe disruption to established communities;
    - 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 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
B	10 – 20 seconds	10 – 15 seconds
C	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

Intersection	Intersection Level of Service and Delay (sec./veh.)	
	No-Action Alternative	
	A.M. Peak	P.M. Peak
Lake Shore Drive		
• Marquette Dr	C (22)	C (24)
• Hayes Dr	F (**)	F (**)
• Science Dr	B (19)	F (**)
• 57th Dr	B (13)	F (**)
Stony Island Avenue		
• 67th St	F (**)	F (**)
• Marquette Dr	D (50)	B (15)
• 65th Pl	F (**)	C (30)
• 64th St	F* (**)	F* (**)
• 63rd St/Hayes Dr	F (**)	F (**)
• 60th St	C (20)	B (12)
• S Midway Plaisance (EB)	B (13)	C (31)
• N Midway Plaisance (WB)	F (**)	C (32)
• 59th St	F (**)	C (24)
• 57th St	F (**)	F (**)
• 56th St *	D (32)	D (31)
Cornell Drive/57th Drive		
• 67th St	*Closed*	
• Marquette Drive	*Closed*	
• Hayes Dr	F (**)	F (**)
• S Midway Plaisance (EB)	*Closed*	
• 57th St/MSI Drop off	F (**)	D (54)
• Hyde Park Blvd	C (23)	B (20)
67th St		
• East End Ave *	B (12)	B (14)
• Cregier Ave *	B (13)	B (13)
• Jeffery Ave	B (20)	B (19)
• South Shore Dr	B (17)	B (19)
Marquette Dr		
• Richards Dr (West)	*Closed*	
• Richards Dr (East)	*Closed*	
• La Rabida Entrance	B (14)	A (7)
Richards Drive		
• Marquette Dr (North)	*Closed*	
• Hayes Dr	A* (9)	B* (15)
56th St		
• 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.

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 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

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	Description
Crosswalk improvements	Upgrade marked and unmarked crossings with high-visibility crosswalk markings at widened or modernized intersections.
Curb extensions	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.
Refuge Islands	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 1: Curb Extension Example

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
    - 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
    - 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	Intersection Level of Service and Delay (sec./veh.)			
	No-Action Alternative		CMP Strategies	
	A.M. Peak	P.M. Peak	A.M. Peak	P.M. 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 (**)
• 57th Dr	B (13)	F (**)	B (17)	F (**)
Stony Island Avenue				
• 67th St	F (**)	F (**)	F (**)	F (**)
• Marquette Dr	D (50)	B (15)	F (**)	B (15)
• 65th Pl	F (**)	C (30)	D (46)	C (30)
• 64th St	F* (**)	F* (**)	F* (**)	F* (**)
• 63rd St/Hayes Dr	F (**)	F (**)	F (**)	F (**)
• 60th 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)
• 59th St	F (**)	C (24)	Right-in/Right-out	
• 57th St	F (**)	F (**)	F (**)	F (**)
• 56th St *	D (32)	D (31)	D (32)	D (30)
Cornell Drive/57th Drive				
• 67th St	*Closed*		*Closed*	
• Marquette Drive	*Closed*		*Closed*	
• Hayes Dr	F (**)	F (**)	A (2)	F(**)
• S Midway Plaisance (EB)	*Closed*		*Closed*	
• 57th St/MSI Drop off	F (**)	D (54)	F (**)	D (53)
• Hyde Park Blvd	C (23)	B (20)	C (24)	B (20)
67th 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)
Marquette Dr				
• Richards Dr (West)	*Closed*		*Closed*	
• Richards Dr (East)	*Closed*		*Closed*	
• 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)
56th 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.

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 Section 4(f) Use

Alternative 1 does not convert any Section 4(f) land to a transportation use, nor does it involve potential temporary occupancy of Section 4(f) land. Unacceptable operational performance within the study area results from Alternative 1. 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

The primary objective of the Alternative 1 is to improve area roadways to mitigate impacts of the roadway closures within Jackson Park and avoids any conversion of Section 4(f) land to transportation use. 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:

<u>Capacity Improvements</u>

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). 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 on-street 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).

<u>Intersection Modifications</u>

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 Drop-off 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 Marquette Street
    - 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)

Intersection	Intersection Level of Service and Delay (sec./veh.)			
	No-Action Alternative		Alternative 1 Alternative Avoiding Section 4(f) Use	
	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 (**)
• 57th Dr	B (13)	F (**)	B (17)	F (**)
Stony Island Avenue				
• 67th St	F (**)	F (**)	C (34)	C (21)
• Marquette Dr	D (50)	B (15)	C (23)	C (22)
• 65th Pl	F (**)	C (30)	B (14)	C (22)
• 64th St	F* (**)	F* (**)	A (5)	A (8)
• 63rd St/Hayes Dr	F (**)	F (**)	C (21)	C (25)
• 60th 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)
• 59th St	F (**)	C (24)	Right-in/Right-out	
• 57th St	F (**)	F (**)	C (23)	C (28)
• 56th St *	D (32)	D (31)	F (**)	F (**)
Cornell Drive/57th Drive				
• 67th St	*Closed*		*Closed*	
• Marquette Drive	*Closed*		*Closed*	
• Hayes Dr	F (**)	F (**)	C (27)	B (12)
• S Midway Plaisance (EB)	*Closed*			
• 57th St/MSI Drop off	F (**)	D (54)	B (14)	C (23)
• Hyde Park Blvd	C (23)	B (20)	C (24)	B (17)
67th 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)
Marquette Dr				
• Richards Dr (West)	*Closed*		*Closed*	
• Richards Dr (East)	*Closed*		*Closed*	
• La Rabida Entrance	B (14)	A (7)	A (8)	A (7)
Richards Drive				
• Marquette Dr (North)	*Closed*		*Closed*	
• Hayes Dr	A* (9)	B* (15)	A* (9)	B* (15)
56th 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.

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, re-

striping/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
    - 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)

Intersection	Intersection Level of Service and Delay (sec./veh.)			
	No-Action Alternative		Alternative 2 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 (**)
• 57th Dr	B (13)	F (**)	B (17)	F (**)
Stony Island Avenue				
• 67th St	F (**)	F (**)	F (**)	C (24)
• Marquette Dr	D (50)	B (15)	F (**)	B (12)
• 65th Pl	F (**)	C (30)	A (7)	B (16)
• 64th St	F* (**)	F* (**)	B (13)	B (15)
• 63rd St/Hayes Dr	F (**)	F (**)	C (26)	C (23)
• 60th 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)
• 59th St	F (**)	C (24)	Right-in/Right-out	
• 57th St	F (**)	F (**)	C (23)	B (18)
• 56th St *	D (32)	D (31)	D (32)	D (31)
Cornell Drive/57th Drive				
• 67th St	*Closed*		*Closed*	
• Marquette Drive	*Closed*		*Closed*	
• Hayes Dr	F (**)	F (**)	B (14)	F (**)
• S Midway Plaisance (EB)	*Closed*		*Closed*	
• 57th St/MSI Drop off	F (**)	D (54)	C (21)	B (19)
• Hyde Park Blvd	C (23)	B (20)	C (22)	B (14)
67th 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)	*Closed*		*Closed*	
• 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)
56th 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 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 re-time 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.

<u>Pedestrian and Bicycle Enhancements</u>

- 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
    - 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

5.4.3. 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)

Intersection	Intersection Level of Service and Delay (sec./veh.)			
	No-Action Alternative		Alternative 3 Mobility Improvement	
	A.M. Peak	P.M. Peak	A.M. Peak	P.M. Peak
Lake Shore 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)
• 57th Dr	B (13)	F (**)	B (12)	B (15)
Stony Island Avenue				
• 67th St	F (**)	F (**)	F (**)	C (24)
• Marquette Dr	D (50)	B (15)	F (**)	B (11)
• 65th Pl	F (**)	C (30)	D (40)	B (16)
• 64th St	F* (**)	F* (**)	B (19)	B (15)
• 63rd St/Hayes Dr	F (**)	F (**)	C (25)	C (23)
• 60th St	C (20)	B (12)	Right-in/Right-out	
• S Midway Plaisance (EB)	B (13)	C (31)	C (20)	C (24)
• N Midway Plaisance (WB)	F (**)	C (32)	C (25)	B (12)
• 59th St	F (**)	C (24)	Right-in/Right-out	
• 57th St	F (**)	F (**)	C (21)	B (18)
• 56th St *	D (32)	D (31)	D (32)	D (31)
Cornell Drive/57th Drive				
• 67th St	*Closed*		*Closed*	
• Marquette Drive	*Closed*		*Closed*	
• Hayes Dr	F (**)	F (**)	B (17)	F (**)
• S Midway Plaisance (EB)	*Closed*		*Closed*	
• 57th St/MSI Drop off	F (**)	D (54)	A (7)	B (19)
• Hyde Park Blvd	C (23)	B (20)	C (22)	B (14)
67th 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)
Marquette Dr				
• Richards Dr (West)	*Closed*		*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)
56th 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 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 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.

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
    - 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
    - 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)

Intersection	Intersection Level of Service and Delay (sec./veh.)			
	No-Action Alternative		Alternative 4 Mobility Improvement	
	A.M. Peak	P.M. Peak	A.M. Peak	P.M. 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 (**)
• 57th Dr	B (13)	F (**)	B (15)	F (**)
Stony Island Avenue				
• 67th St	F (**)	F (**)	C (31)	C (28)
• Marquette Dr	D (50)	B (15)	C (21)	B (12)
• 65th Pl	F (**)	C (30)	A (6)	B (11)
• 64th St	F* (**)	F* (**)	A (6)	A (7)
• 63rd St/Hayes Dr	F (**)	F (**)	C (24)	B (19)
• 60th St	C (20)	B (12)	Right-in/Right-out	
• S Midway Plaisance (EB)	B (13)	C (31)	B (14)	B (18)
• N Midway Plaisance (WB)	F (**)	C (32)	C (23)	B (19)
• 59th St	F (**)	C (24)	Right-in/Right-out	
• 57th St	F (**)	F (**)	C (23)	C (23)
• 56th St *	D (32)	D (31)	D (32)	D (31)
Cornell Drive/57th Drive				
• 67th St	*Closed*		*Closed*	
• Marquette Drive	*Closed*		*Closed*	
• Hayes Dr	F (**)	F (**)	B (13)	F (**)
• S Midway Plaisance (EB)	*Closed*		*Closed*	
• 57th St/MSI Drop off	F (**)	D (54)	C (22)	C (23)
• Hyde Park Blvd	C (23)	B (20)	C (23)	B (15)
67th 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				
• Richards Dr (West)	*Closed*		*Closed*	
• 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 (11)	A (8)
56th 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 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 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), 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.

<u>Pedestrian and Bicycle Enhancements</u>

- 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

  - 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)

Intersection	Intersection Level of Service and Delay (sec./veh.)			
	No-Action Alternative		Alternative 5 Mobility Improvement	
	A.M. Peak	P.M. Peak	A.M. Peak	P.M. 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 (**)
• 57th Dr	B (13)	F (**)	A (10)	F (**)
Stony Island Avenue				
• 67th St	F (**)	F (**)	F (**)	C (20)
• Marquette Dr	D (50)	B (15)	F (**)	B (10)
• 65th Pl	F (**)	C (30)	A (8)	B (13)
• 64th St	F* (**)	F* (**)	A (8)	B (16)
• 63rd St/Hayes Dr	F (**)	F (**)	C (23)	B (18)
• 60th St	C (20)	B (12)	Right-in/Right-out	
• S Midway Plaisance (EB)	B (13)	C (31)	B (18)	C (22)
• N Midway Plaisance (WB)	F (**)	C (32)	C (21)	A (10)
• 59th St	F (**)	C (24)	Right-in/Right-out	
• 57th St	F (**)	F (**)	C (24)	C (23)
• 56th St *	D (32)	D (31)	D (32)	D (29)
Cornell Drive/57th Drive				
• 67th St	*Closed*		*Closed*	
• Marquette Drive	*Closed*		*Closed*	
• Hayes Dr	F (**)	F (**)	B (12)	B (14)
• S Midway Plaisance (EB)	*Closed*		*Closed*	
• 57th St/MSI Drop off	F (**)	D (54)	A (7)	C (22)
• Hyde Park Blvd	C (23)	B (20)	C (22)	B (14)
67th 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*		*Closed*	
• Richards Dr (East)	*Closed*		*Closed*	
• La Rabida Entrance	B (14)	A (7)	A (7)	A (7)
Richards Drive				
• Marquette Dr (North)	*Closed*		*Closed*	
• Hayes Dr	A* (9)	B* (15)	A (8)	B (10)
56th 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 re-time 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 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.

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
    - 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
    - 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)

Intersection	Intersection Level of Service and Delay (sec./veh.)			
	No-Action Alternative		Alternative 6 Mobility Improvement	
	A.M. Peak	P.M. Peak	A.M. Peak	P.M. Peak
Lake Shore Drive				
• 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)
• 57th Dr	B (13)	F (**)	B (13)	B (13)
Stony Island Avenue				
• 67th St	F (**)	F (**)	C (31)	C (29)
• Marquette Dr	D (50)	B (15)	C (21)	B (12)
• 65th Pl	F (**)	C (30)	A (7)	B (11)
• 64th St	F* (**)	F* (**)	A (6)	A (7)
• 63rd St/Hayes Dr	F (**)	F (**)	C (25)	B (19)
• 60th St	C (20)	B (12)	Right-in/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)
• 59th St	F (**)	C (24)	Right-in/Right-out	
• 57th St	F (**)	F (**)	C (22)	B (19)
• 56th St *	D (32)	D (31)	D (32)	D (31)
Cornell Drive/57th Drive				
• 67th St	*Closed*		*Closed*	
• Marquette Drive	*Closed*		*Closed*	
• Hayes Dr	F (**)	F (**)	B (13)	F (**)
• S Midway Plaisance (EB)	*Closed*		*Closed*	
• 57th St/MSI Drop off	F (**)	D (54)	A (7)	C (20)
• Hyde Park Blvd	C (23)	B (20)	C (22)	B (13)
67th 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)
Marquette Dr				
• Richards Dr (West)	*Closed*		*Closed*	
• Richards Dr (East)	*Closed*		*Closed*	
• La Rabida Entrance	B (14)	A (7)	A (5)	A (8)
Richards Drive				
• Marquette Dr (North)	*Closed*		*Closed*	
• Hayes Dr	A* (9)	B* (15)	A (9)	A (9)
56th 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 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 re-time 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 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), 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
    - 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	Intersection Level of Service and Delay (sec./veh.)			
	No-Action Alternative		Alternative 7 Mobility Improvement	
	A.M. Peak	P.M. Peak	A.M. Peak	P.M. Peak
Lake Shore Drive				
• 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)
• 57th Dr	B (13)	F (**)	A (9)	B (17)
Stony Island Avenue				
• 67th St	F (**)	F (**)	F (**)	C (22)
• Marquette Dr	D (50)	B (15)	F (**)	B (11)
• 65th Pl	F (**)	C (30)	A (8)	A (10)
• 64th St	F* (**)	F* (**)	A (10)	B (15)
• 63rd St/Hayes Dr	F (**)	F (**)	C (24)	B (19)
• 60th St	C (20)	B (12)	Right-in/Right-out	
• S Midway Plaisance (EB)	B (13)	C (31)	B (18)	C (22)
• N Midway Plaisance (WB)	F (**)	C (32)	B (13)	A (10)
• 59th St	F (**)	C (24)	Right-in/Right-out	
• 57th St	F (**)	F (**)	C (24)	C (23)
• 56th St *	D (32)	D (31)	D (32)	D (29)
Cornell Drive/57th Drive				
• 67th St	*Closed*		*Closed*	
• Marquette Drive	*Closed*		*Closed*	
• Hayes Dr	F (**)	F (**)	B (11)	B (15)
• S Midway Plaisance (EB)	*Closed*		*Closed*	
• 57th St/MSI Drop off	F (**)	D (54)	A (8)	C (23)
• Hyde Park Blvd	C (23)	B (20)	C (20)	B (14)
67th St				
• East End Ave *	B (12)	B (14)	B (13)	B (14)
• Cregier Ave *	B (13)	B (13)	B (13)	B (14)
• Jeffery Ave	B (20)	B (19)	B (19)	C (21)
• South Shore Dr	B (17)	B (19)	A (9)	B (12)
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*	
• Hayes Dr	A* (9)	B* (15)	A (9)	A (9)
56th 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.

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 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 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.

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
    - 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:
    - 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)

Intersection	Intersection Level of Service and Delay (sec./veh.)			
	No-Action Alternative		Alternative 8 Mobility Improvement	
	A.M. Peak	P.M. Peak	A.M. Peak	P.M. Peak
Lake Shore 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 (**)
• 57th Dr	B (13)	F (**)	A (10)	F (**)
Stony Island Avenue				
• 67th St	F (**)	F (**)	C (31)	C (21)
• Marquette Dr	D (50)	B (15)	C (22)	A (9)
• 65th Pl	F (**)	C (30)	A (9)	B (14)
• 64th St	F* (**)	F* (**)	A (6)	A (7)
• 63rd St/Hayes Dr	F (**)	F (**)	C (20)	B (14)
• 60th 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)
• 59th St	F (**)	C (24)	Right-in/Right-out	
• 57th St	F (**)	F (**)	C (21)	C (23)
• 56th St *	D (32)	D (31)	D (32)	D (31)
Cornell Drive/57th Drive				
• 67th St	*Closed*		*Closed*	
• Marquette Drive	*Closed*		*Closed*	
• Hayes Dr	F (**)	F (**)	B (15)	B (14)
• S Midway Plaisance (EB)	*Closed*		*Closed*	
• 57th St/MSI Drop off	F (**)	D (54)	A (9)	C (23)
• Hyde Park Blvd	C (23)	B (20)	C (21)	B (15)
67th 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)
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*	
• Hayes Dr	A* (9)	B* (15)	A (8)	A (9)
56th 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 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 re-time 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 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 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.

Other Capacity Modifications

Cornell Drive

- Remove excess capacity ("road diet") from existing Cornell Drive between 57th Street/MSI Drop-off 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:
    - Two legs of the Cornell Drive/Hayes Drive intersection
    - 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
    - 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 Marquette Street
    - 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)

Intersection	Intersection Level of Service and Delay (sec./veh.)			
	No-Action Alternative		Alternative 9 Mobility Improvements	
	A.M. Peak	P.M. Peak	A.M. Peak	P.M. Peak
Lake Shore Drive				
• 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)
• 57th Dr	B (13)	F (**)	A (8)	B (17)
Stony Island Avenue				
• 67th St	F (**)	F (**)	C (30)	B (19)
• Marquette Dr	D (50)	B (15)	C (21)	B (11)
• 65th Pl	F (**)	C (30)	A (7)	B (14)
• 64th St	F* (**)	F* (**)	A (7)	A (6)
• 63rd St/Hayes Dr	F (**)	F (**)	C (23)	B (15)
• 60th St	C (20)	B (12)	Right-in/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)
• 59th St	F (**)	C (24)	Right-in/Right-out	
• 57th St	F (**)	F (**)	C (21)	B (19)
• 56th St *	D (32)	D (31)	D (32)	D (31)
Cornell Drive/57th Drive				
• 67th St	*Closed*		*Closed*	
• Marquette Drive	*Closed*		*Closed*	
• Hayes Dr	F (**)	F (**)	B (11)	B (14)
• S Midway Plaisance (EB)	*Closed*		*Closed*	
• 57th St/MSI Drop off	F (**)	D (54)	A (8)	B (19)
• Hyde Park Blvd	C (23)	B (20)	B (19)	B (14)
67th 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)
Marquette Dr				
• Richards Dr (West)	*Closed*		*Closed*	
• Richards Dr (East)	*Closed*		*Closed*	
• La Rabida Entrance	B (14)	A (7)	A (8)	A (7)
Richards Drive				
• Marquette Dr (North)	*Closed*		*Closed*	
• Hayes Dr	A* (9)	B* (15)	B (11)	A (9)
56th 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, CMP Strategies, and Alternative 1 – Alternative Avoiding Section 4(f) Use.

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

Range of Alternatives	Section 4(f) Land Use for Transportation (acre)	Temporary Occupancy of Section 4(f) Land (acre)	Purpose & Need Criteria		Further Evaluation
			Accommodate Changes in Travel Patterns	Improve Bicycle & Pedestrian Access & Circulation	
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

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

Criterion	Impact Measure	No Action Alternative	Alternative 9 Mobility Improvements
Floodplain Impacts	Acre-Feet	0.0	0.032
Wetland Impacts	Acres Filled	0.0	0.0
WOUS Impacts	Acres Filled	0.0	0.040
Parking Loss - On-Street	Number of Spaces	0	81
Section 4(f) Land Conversion – Jackson Park	Acres	0	5.6
Residential Displacements	Number	0	0
Commercial Displacements	Number	0	0
Archaeological Sites listed/eligible for the National Register of Historic Places Effected		No	No
Historic Properties Affected		No	Yes
Noise Impacts	Number of receptors impacted	0	10 to 20
Trees Removed	Number of trees	0	350 to 400
Pedestrian & Bike Safety and Mobility			
Pedestrian underpasses	Number of locations	0	5
Refuge islands	Number of locations	0	9
Curb extensions	Number of locations	0	10
Signalized intersection modernization	Number of locations	0	6
Convert intersection from stop-controlled to signalized	Number of locations	0	2
Additional Trails		No	Yes
Vehicular Safety			
Signalized intersection modernization	Number of locations	0	6
Convert intersection from stop controlled to signalized	Number of locations	0	2
Exclusive turn lanes provided at intersection	Number of locations	0	9
Provide additional capacity	Number of locations	0	15

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.

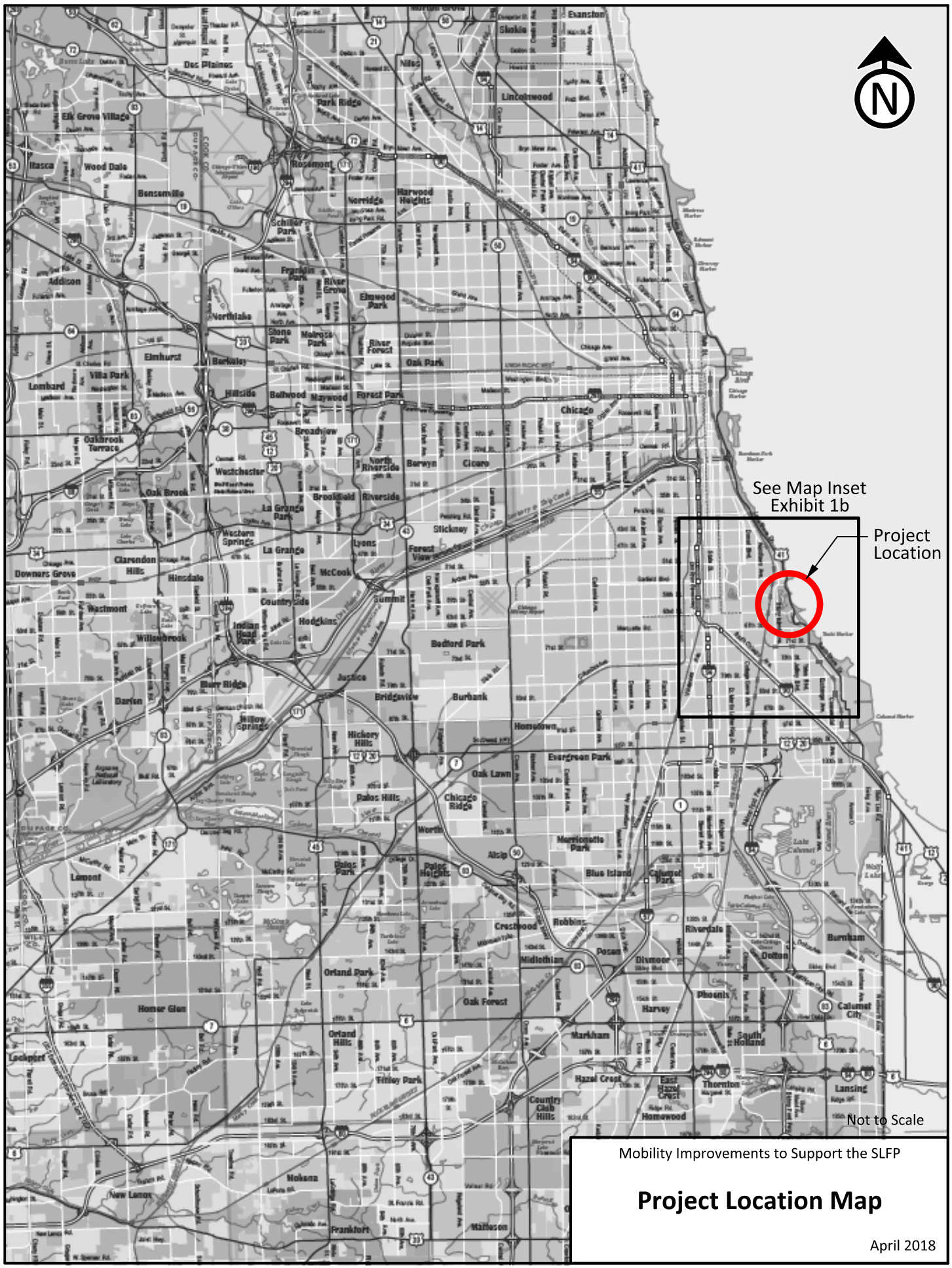
8. Summary

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 Section 4(f) Use	Dismiss	Does not meet Purpose & Need due to poor operations.
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.

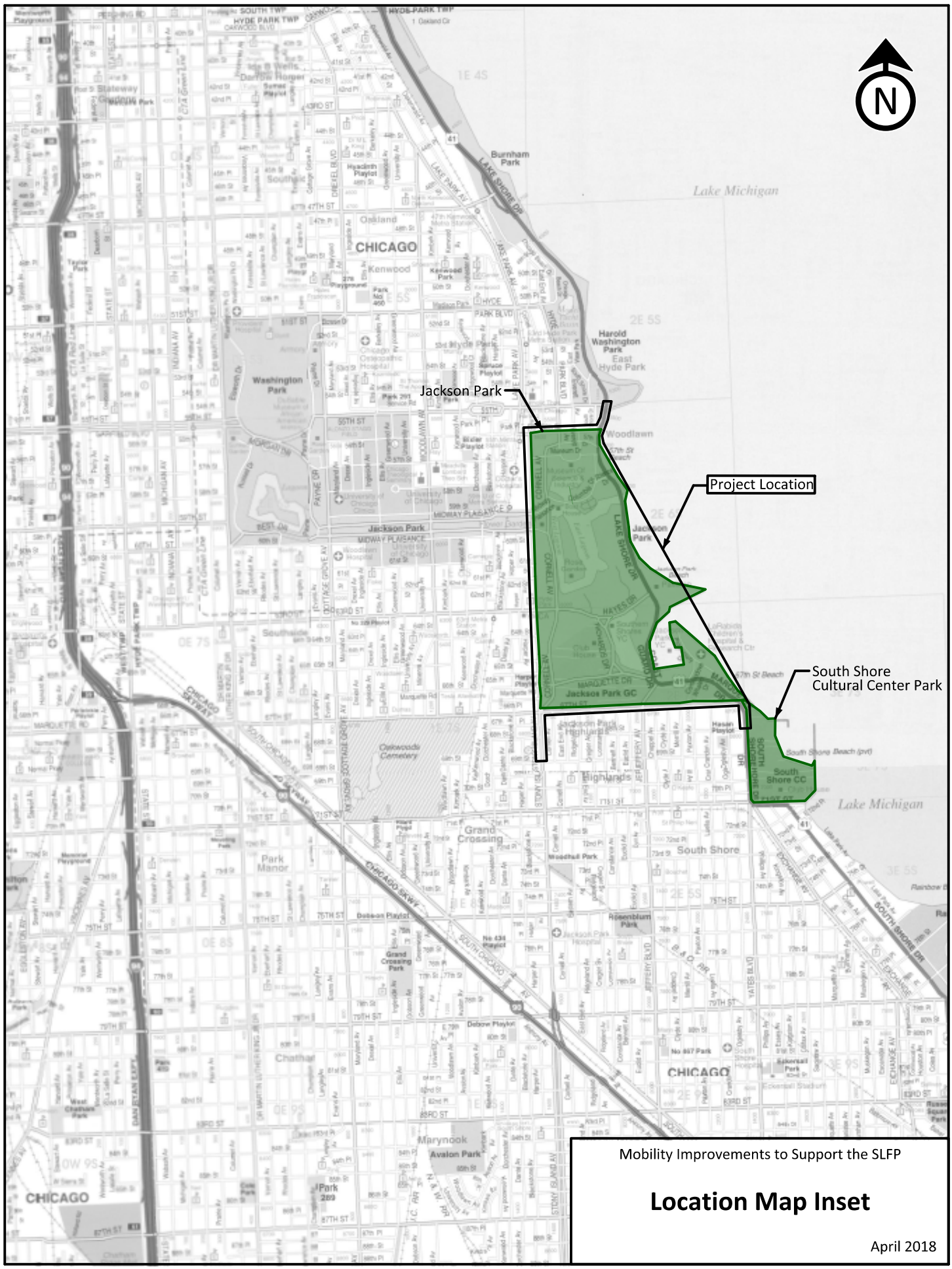


Mobility Improvements to Support the SLFP

Project Location Map

April 2018

Exhibit 1A



Mobility Improvements to Support the SLFP

Location Map Inset

April 2018

Exhibit 1B


N
South Shore Cultural Center Park
South Shore Drive
La Rabida Children's Hospital
63rd Street Beach
Lake Shore Drive
Jeffery Drive
Jeffery Avenue
67th Street
68th Street
69th Street
57th Street Beach
Science Drive
Driving Range
Richards Drive
Music Pavilion
East Lagoon
Hayes Drive
Jackson Park Golf Course
Marquette Drive
Iowa Building
Museum of Science and Industry
Wooded Island
57th Drive
Clarence Darrow Bridge
West Lagoon
Cornell Drive
OPC Underground Parking Garage
Stony Island Avenue
56th Street
Metra-Electric District Line
57th Street
Midway Plaisance
63rd Street
65th Place
DRAFT
0'
400'
800'
Study Limits
Section 4(f) Land
Structures
Lakefront Trail
Other Paths
Existing Traffic Signal
Obama Presidential Center
Mobility Improvements to Support the SLFP
Study Area Map
April 2018

Exhibit 2


N
South Shore Cultural Center Park
South Shore Drive
La Rabida Children's Hospital
63rd Street Beach
Jackson Park Outer Harbor
Marquette Drive from Stony Island Avenue to Richards Drive
Lake Shore Drive
Jeffery Drive
Jeffery Avenue
67th Street
68th Street
69th Street
Jackson Park Inner Harbor
Richards Drive
57th Street Beach
Science Drive
59th Street Harbor
Driving Range
Cornell Drive from 59th Street to 63rd Street (Hayes Drive)
South Midway Plaisance (eastbound) from Stony Island Avenue to Cornell Drive
East Lagoon
Hayes Drive
Jackson Park Golf Course
Marquette Drive
Northbound Cornell Drive from 68th Street to 65th Street
Museum of Science and Industry
Wooded Island
West Lagoon
57th Drive
56th Street
Cornell Drive
OPC Underground Parking Garage
Stony Island Avenue
Stony Island Avenue
Metra-Electric District Line
57th Street
63rd Street
Midway Plaisance
DRAFT
0'
400'
800'
Study Limits
Section 4(f) Land
Structures
Lakefront Trail
Other Paths
Existing Traffic Signal
Roadway Closure
Mobility Improvements to Support the SLFP
Roadway Closures
April 2018

Exhibit 3

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 2 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	1 EB, 1 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	3 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	1 NB, 1 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	2 NB, 4 SB

Mobility Improvements to Support the SLFP

No-Action Alternative Concept

April 2018

Exhibit 4

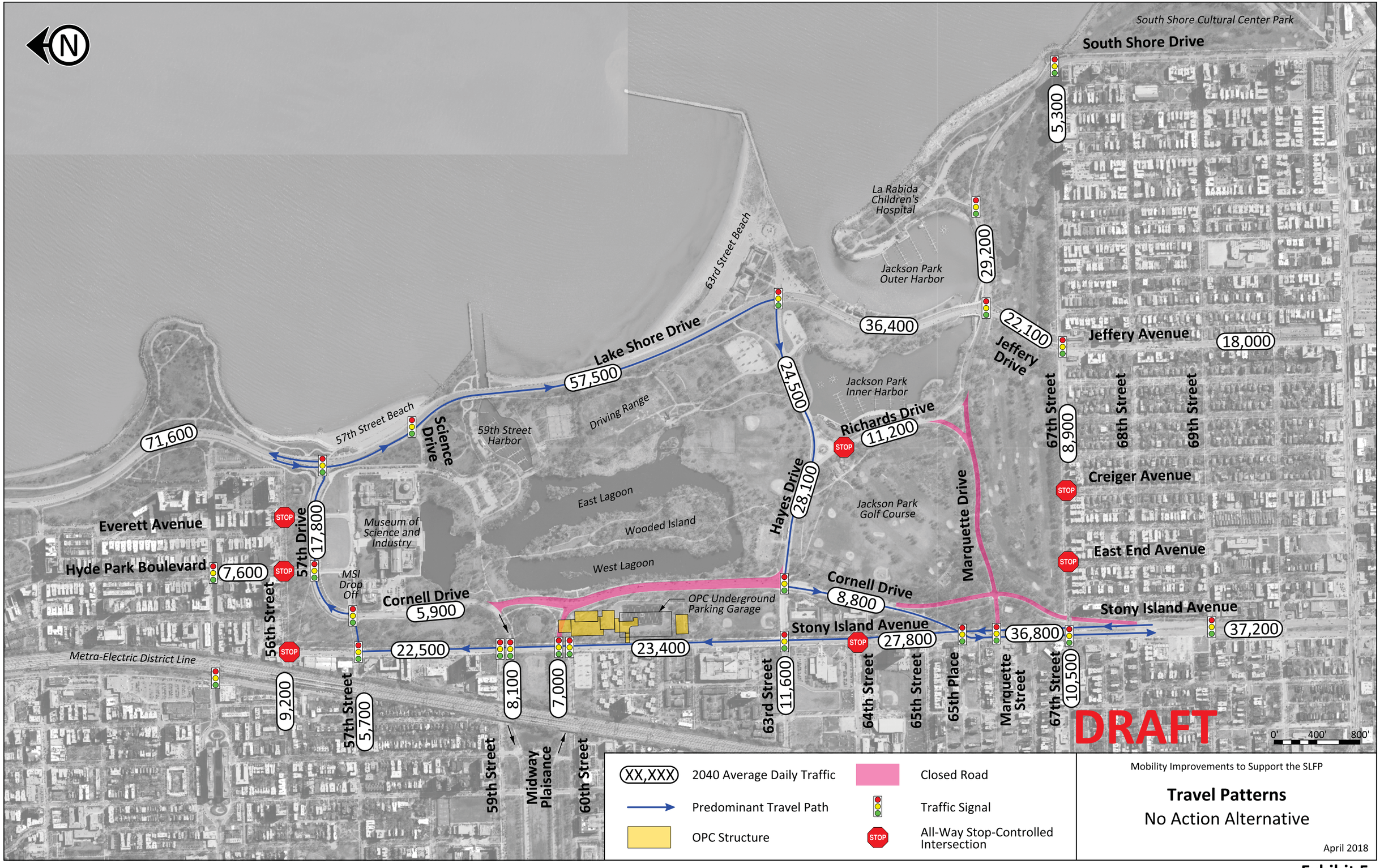
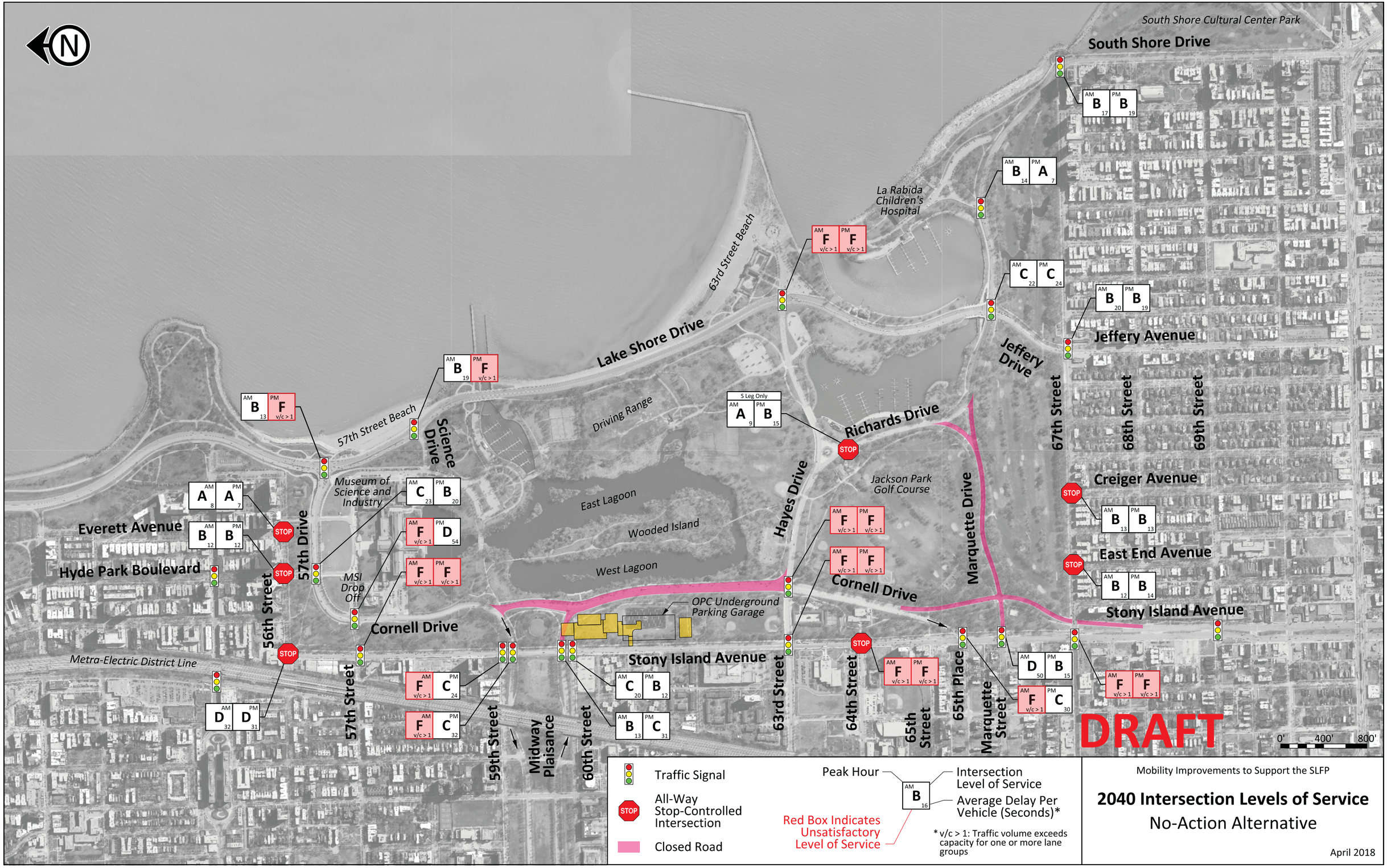

South Shore Cultural Center Park
South Shore Drive
5,300
La Rabida Children's Hospital
29,200
63rd Street Beach
Jackson Park Outer Harbor
36,400
22,100
Jeffery Drive
Jeffery Avenue
18,000
Lake Shore Drive
57,500
24,500
Jackson Park Inner Harbor
67th Street
68th Street
69th Street
8,900
71,600
57th Street Beach
Science Drive
59th Street Harbor
Driving Range
Richards Drive
11,200
Hayes Drive
28,100
Creiger Avenue
East Lagoon
Wooded Island
West Lagoon
Jackson Park Golf Course
Marquette Drive
Everett Avenue
57th Drive
17,800
Museum of Science and Industry
East End Avenue
Hyde Park Boulevard
7,600
MSI Drop Off
Cornell Drive
5,900
OPC Underground Parking Garage
Cornell Drive
8,800
Stony Island Avenue
37,200
Stony Island Avenue
27,800
36,800
22,500
23,400
56th Street
Metra-Electric District Line
9,200
57th Street
5,700
8,100
7,000
59th Street
Midway Plaisance
60th Street
63rd Street
11,600
64th Street
65th Street
65th Place
Marquette Street
67th Street
10,500
DRAFT
0'
400'
800'
XX,XXX
2040 Average Daily Traffic
Predominant Travel Path
OPC Structure
Closed Road
Traffic Signal
All-Way Stop-Controlled Intersection
STOP
Mobility Improvements to Support the SLFP
Travel Patterns
No Action Alternative
April 2018

Exhibit 5


South Shore Cultural Center Park
South Shore Drive
Lake Shore Drive
63rd Street Beach
57th Street Beach
Driving Range
La Rabida Children's Hospital
Jeffery Drive
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Science Drive
Museum of Science and Industry
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Creiger Avenue
East End Avenue
Stony Island Avenue
East Lagoon
Wooded Island
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Everett Avenue
Hyde Park Boulevard
56th Street
57th Drive
MSI Drop Off
Cornell Drive
Metra-Electric District Line
57th Street
59th Street
Midway Plaisance
60th Street
63rd Street
64th Street
65th Street
65th Place
Marquette Street
STOP
S Leg Only
DRAFT
0'
400'
800'
Traffic Signal
All-Way Stop-Controlled Intersection
Closed Road
Peak Hour
Intersection Level of Service
Average Delay Per Vehicle (Seconds)*
Red Box Indicates Unsatisfactory Level of Service
* v/c > 1: Traffic volume exceeds capacity for one or more lane groups
Mobility Improvements to Support the SLFP
2040 Intersection Levels of Service
No-Action Alternative
April 2018

Exhibit 6

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 2 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	1 EB, 1 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	3 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	1 NB, 1 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	2 NB, 4 SB

Existing Structures
Potential Ped Underpass Concept
Proposed Trail Connection
Closed Road
Proposed Roadway Improvement
Structure Widening
Section 4(f) Land
NRHP Listed Property (Ind.)
NRHP Listed Historic District
Obama Presidential Center
NRHP Eligible* Property (Ind.)
NRHP Eligible* Historic District
*Pending SHPO Concurrence
Existing Wetlands
Existing WOUS
100-Year Floodplain
Proposed Traffic Signal
Proposed Curb Extensions
Existing Traffic Signal
Retime Existing Traffic Signal
Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

Congestion Management Process Strategies Alternative Concept

April 2018

Exhibit 7

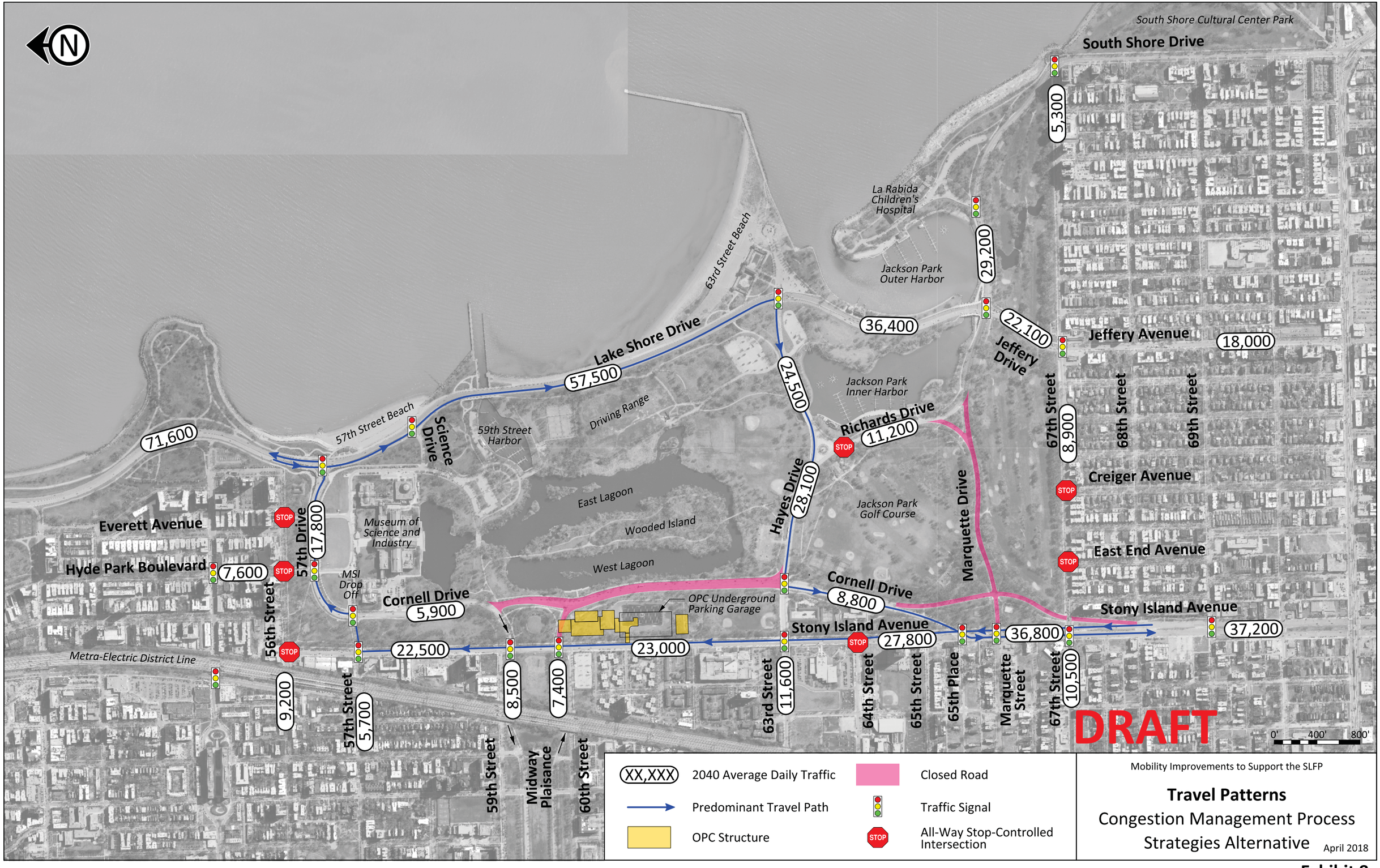

N
South Shore Cultural Center Park
South Shore Drive
5,300
La Rabida Children's Hospital
29,200
63rd Street Beach
Jackson Park Outer Harbor
Lake Shore Drive
57,500
36,400
22,100
Jeffery Drive
Jeffery Avenue
18,000
24,500
Jackson Park Inner Harbor
71,600
57th Street Beach
Science Drive
59th Street Harbor
Driving Range
Richards Drive
11,200
67th Street
8,900
68th Street
69th Street
Creiger Avenue
Hayes Drive
28,100
Jackson Park Golf Course
Marquette Drive
East Lagoon
Wooded Island
West Lagoon
Museum of Science and Industry
Everett Avenue
Hyde Park Boulevard
7,600
57th Drive
17,800
East End Avenue
MSI Drop Off
Cornell Drive
5,900
OPC Underground Parking Garage
Cornell Drive
8,800
Stony Island Avenue
37,200
Stony Island Avenue
27,800
36,800
22,500
23,000
Metra-Electric District Line
56th Street
9,200
57th Street
5,700
8,500
7,400
11,600
10,500
63rd Street
64th Street
65th Street
65th Place
Marquette Street
67th Street
59th Street
Midway Plaisance
60th Street
DRAFT
0'
400'
800'
XX,XXX
2040 Average Daily Traffic
Predominant Travel Path
OPC Structure
Closed Road
Traffic Signal
All-Way Stop-Controlled Intersection
STOP
Mobility Improvements to Support the SLFP
Travel Patterns
Congestion Management Process
Strategies Alternative
April 2018

Exhibit 8

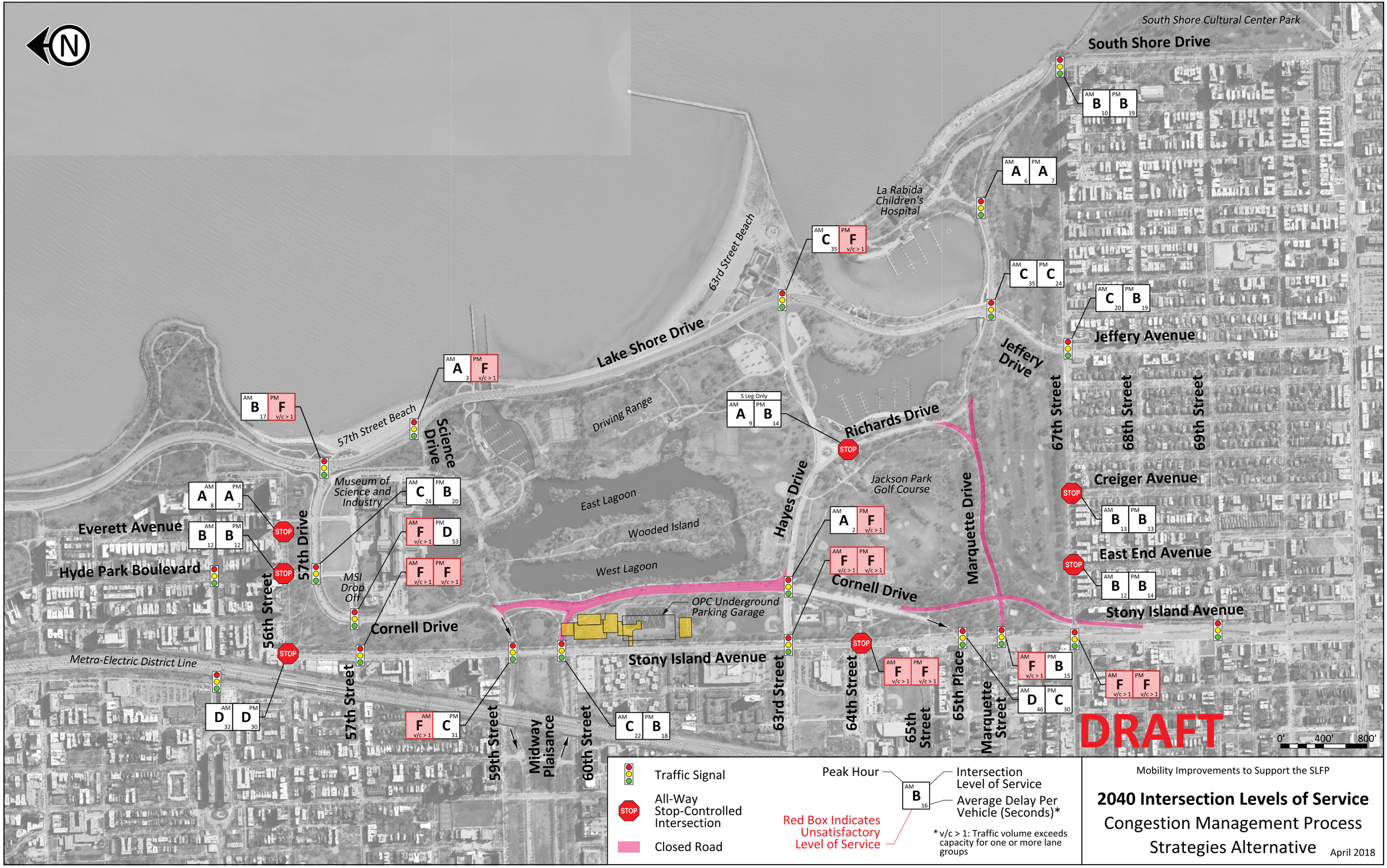

South Shore Cultural Center Park
South Shore Drive
AM B 10 PM B 19
AM A 6 PM A 7
La Rabida Children's Hospital
AM C 35 PM F v/c > 1
AM C 35 PM C 24
AM C 20 PM B 19
Jeffery Avenue
63rd Street Beach
Lake Shore Drive
AM A 3 PM F v/c > 1
AM B 17 PM F v/c > 1
57th Street Beach
Science Drive
Driving Range
S Leg Only AM A 9 PM B 14
Richards Drive
STOP
Jeffery Drive
67th Street
68th Street
69th Street
Hayes Drive
Jackson Park Golf Course
Marquette Drive
Creiger Avenue
AM B 13 PM B 13
East End Avenue
AM B 12 PM B 14
Stony Island Avenue
Museum of Science and Industry
AM C 24 PM B 20
AM A 8 PM A 7
Everett Avenue
AM B 12 PM B 12
Hyde Park Boulevard
57th Drive
56th Street
AM F v/c > 1 PM D 53
AM F v/c > 1 PM F v/c > 1
MSI Drop Off
Cornell Drive
East Lagoon
Wooded Island
West Lagoon
OPC Underground Parking Garage
AM A 2 PM F v/c > 1
AM F v/c > 1 PM F v/c > 1
Cornell Drive
Metra-Electric District Line
AM D 32 PM D 30
57th Street
AM F v/c > 1 PM C 31
59th Street
Midway Plaisance
60th Street
AM C 22 PM B 18
63rd Street
64th Street
AM F v/c > 1 PM F v/c > 1
65th Street
65th Place
Marquette Street
AM F v/c > 1 PM B 15
AM D 46 PM C 30
AM F v/c > 1 PM F v/c > 1
DRAFT
0' 400' 800'
Traffic Signal
All-Way Stop-Controlled Intersection
Closed Road
Peak Hour
AM B 16
Intersection Level of Service
Average Delay Per Vehicle (Seconds)*
Red Box Indicates Unsatisfactory Level of Service
* v/c > 1: Traffic volume exceeds capacity for one or more lane groups
Mobility Improvements to Support the SLFP
2040 Intersection Levels of Service
Congestion Management Process
Strategies Alternative
April 2018

Exhibit 9

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 2 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	1 NB, 1 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	1 EB, 1 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	1 EB, 1 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	1 NB, 1 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	2 NB, 2 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	3 NB, 4 SB

South Shore Cultural Center Park
South Shore Drive
La Rabida Children's Hospital
63rd Street Beach
Lake Shore Drive
Jeffery Drive
Jeffery Avenue
57th Street Beach
Science Drive
Driving Range
Richards Drive
67th Street
68th Street
69th Street
Creiger Avenue
Implement Road Diet on Cornell Drive North of Midway - Reduce to One Lane Each Direction, Add 80 Parking Spaces
East Lagoon
Wooded Island
West Lagoon
Hayes Drive
Jackson Park Golf Course
Marquette Drive
Widen Stony Island Avenue to the West - Provide Three Northbound Lanes and Four Southbound Lanes
East End Avenue
Everett Avenue
Museum of Science and Industry
Proposed Pedestrian Refuge Island and Curb Extensions at Existing Trail Crossing
Hyde Park Boulevard
57th Drive
MSI Drop Off
Cornell Drive
OPC Underground Parking Garage
Stony Island Avenue
56th Street
Metra-Electric District Line
Convert North Midway Plaisance to Two-Way Without Widening
Widen Stony Island Avenue to the West - Provide Two Lanes Each Direction
Proposed Traffic Signal
Convert SB Cornell Drive to Two-Way Without Widening
57th Street
59th Street
Midway Plaisance
60th Street
63rd Street
64th Street
65th Street
65th Place
Marquette Street
67th Street
Remove Existing Traffic Signal and Convert 59th Street Access to Right-In/Right-Out
Remove Existing Traffic Signal and Convert 60th Street Access to Right-In/Right-Out

DRAFT

0' 400' 800'

Existing Structures
Potential Ped Underpass Concept
Proposed Trail Connection
Closed Road
Proposed Roadway Improvement
Building Removal
Section 4(f) Land
NRHP Listed Property (Ind.)
NRHP Listed Historic District
Obama Presidential Center
NRHP Eligible* Property (Ind.)
NRHP Eligible* Historic District
Existing Wetlands
Existing WOUS
100-Year Floodplain
*Pending SHPO Concurrence
Proposed Traffic Signal
Proposed Curb Extensions
Existing Traffic Signal
Retime Existing Traffic Signal
Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

Build Alternative Concept

Alternative 1 - Alternative Avoiding Section 4(f) Use

April 2018

Exhibit 10

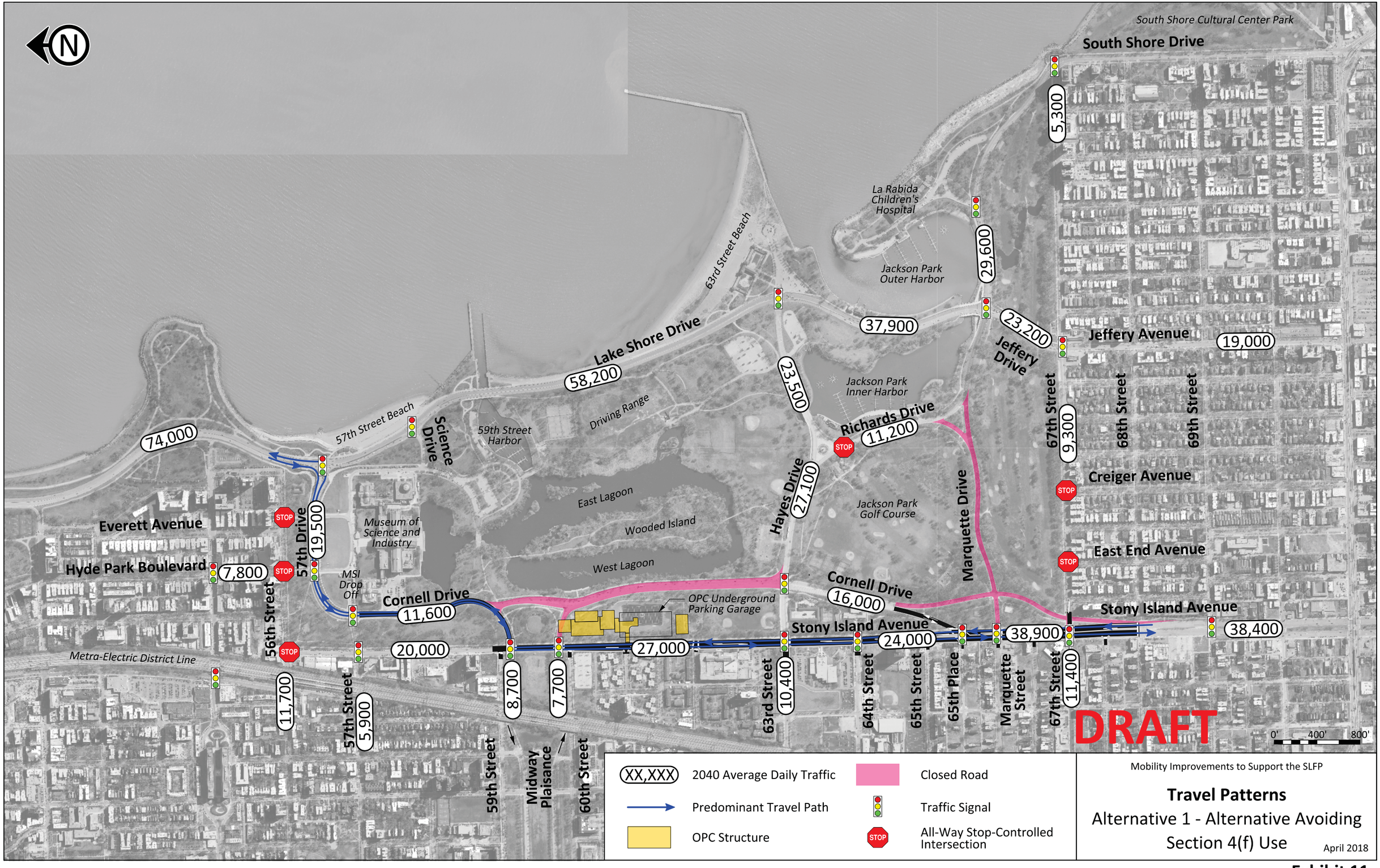

South Shore Cultural Center Park
South Shore Drive
5,300
La Rabida Children's Hospital
29,600
Jackson Park Outer Harbor
63rd Street Beach
Lake Shore Drive
58,200
37,900
23,200
Jeffery Drive
Jeffery Avenue
19,000
23,500
Jackson Park Inner Harbor
67th Street
9,300
68th Street
69th Street
74,000
57th Street Beach
Science Drive
59th Street Harbor
Driving Range
Richards Drive
11,200
Creiger Avenue
Hayes Drive
27,100
Jackson Park Golf Course
Marquette Drive
East Lagoon
Wooded Island
West Lagoon
Everett Avenue
Hyde Park Boulevard
7,800
57th Drive
19,500
Museum of Science and Industry
MSI Drop Off
East End Avenue
Cornell Drive
11,600
OPC Underground Parking Garage
Cornell Drive
16,000
Stony Island Avenue
38,400
Stony Island Avenue
24,000
38,900
56th Street
Metra-Electric District Line
20,000
27,000
11,700
57th Street
5,900
8,700
7,700
63rd Street
10,400
64th Street
65th Street
65th Place
Marquette Street
67th Street
11,400
59th Street
Midway Plaisance
60th Street
DRAFT
0'
400'
800'
XX,XXX
2040 Average Daily Traffic
Predominant Travel Path
OPC Structure
Closed Road
Traffic Signal
All-Way Stop-Controlled Intersection
Mobility Improvements to Support the SLFP
Travel Patterns
Alternative 1 - Alternative Avoiding Section 4(f) Use
April 2018

Exhibit 11

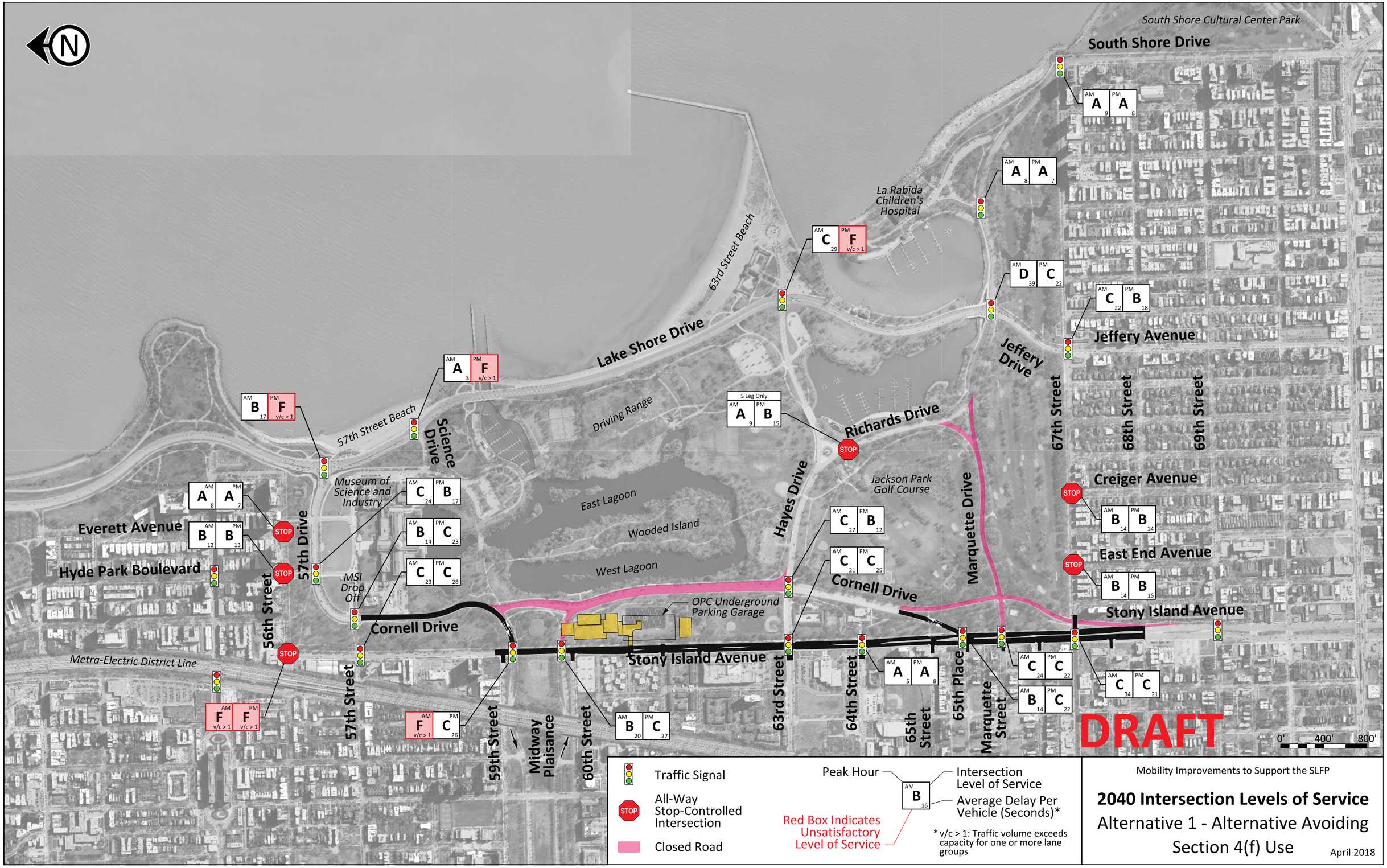

South Shore Cultural Center Park
South Shore Drive
La Rabida Children's Hospital
63rd Street Beach
Lake Shore Drive
57th Street Beach
Science Drive
Driving Range
Richards Drive
Jeffery Drive
67th Street
68th Street
69th Street
Jeffery Avenue
Creiger Avenue
East End Avenue
Stony Island Avenue
Jackson Park Golf Course
Hayes Drive
Marquette Drive
Cornell Drive
OPC Underground Parking Garage
East Lagoon
Wooded Island
West Lagoon
Museum of Science and Industry
MSI Drop Off
Everett Avenue
Hyde Park Boulevard
56th Street
57th Drive
57th Street
Metra-Electric District Line
59th Street
Midway Plaisance
60th Street
63rd Street
64th Street
65th Street
65th Place
Marquette Street
AM A 9 PM A 8
AM A 8 PM A 7
AM C 29 PM F v/c > 1
AM D 39 PM C 22
AM C 22 PM B 18
AM A 3 PM F v/c > 1
AM B 17 PM F v/c > 1
S Leg Only AM A 9 PM B 15
AM A 8 PM A 8
AM B 12 PM B 13
AM C 24 PM B 17
AM B 14 PM C 23
AM C 23 PM C 28
AM F v/c > 1 PM F v/c > 1
AM F v/c > 1 PM C 26
AM B 20 PM C 27
AM C 27 PM B 12
AM C 21 PM C 25
AM A 5 PM A 8
AM B 14 PM B 14
AM B 14 PM B 15
AM C 24 PM C 22
AM B 14 PM C 22
AM C 34 PM C 21
STOP
DRAFT
0' 400' 800'
Traffic Signal
All-Way Stop-Controlled Intersection
Closed Road
Peak Hour
Intersection Level of Service
Average Delay Per Vehicle (Seconds)*
Red Box Indicates Unsatisfactory Level of Service
* v/c > 1: Traffic volume exceeds capacity for one or more lane groups
Mobility Improvements to Support the SLFP
2040 Intersection Levels of Service
Alternative 1 - Alternative Avoiding Section 4(f) Use
April 2018

Exhibit 12

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 2 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 EB, 2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	1 EB, 1 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	2 NB, 2 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	1 NB, 1 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	2 NB, 4 SB

South Shore Cultural Center Park
South Shore Drive
La Rabida Children's Hospital
63rd Street Beach
Lake Shore Drive
Potential Pedestrian Underpass Concept
Jeffery Drive
Jeffery Avenue
67th Street
68th Street
69th Street
Creiger Avenue
57th Street Beach
Science Drive
Driving Range
Richards Drive
Reconfigure to Signalized T-Intersection
Jackson Park Golf Course
Hayes Drive
Marquette Drive
Add 2 NB Right-Turn Lanes to Stony Island Ave
East End Avenue
Everett Avenue
Museum of Science and Industry
East Lagoon
Wooded Island
West Lagoon
Add NB Right-Turn Lane to Stony Island Ave
Potential Pedestrian Underpass Concept
Cornell Drive
Stony Island Avenue
Hyde Park Boulevard
57th Drive
56th Street
MSI Drop Off
OPC Underground Parking Garage
Metra-Electric District Line
Widen N Midway Plaisance and Convert to Two-Way to Provide 2 EB Lanes and 2 WB Lanes
Remove Existing Traffic Signal and Convert 59th Street Access to Right-In/Right-Out
57th Street
59th Street
Midway Plaisance
60th Street
Remove Existing Traffic Signal and Convert 60th Street Access to Right-In/Right-Out
63rd Street
Proposed Traffic Signal
64th Street
65th Street
65th Place
Marquette Street
67th Street
Widen SB Cornell Dr and Convert to Two-Way to Provide 2 NB Lanes and 2 SB Lanes

DRAFT

0' 400' 800'

Existing Structures
Potential Ped Underpass Concept
Proposed Trail Connection
Closed Road
Proposed Roadway Improvement
Structure Widening
Section 4(f) Land
NRHP Listed Property (Ind.)
NRHP Listed Historic District
Obama Presidential Center
NRHP Eligible* Property (Ind.)
NRHP Eligible* Historic District
*Pending SHPO Concurrence
Existing Wetlands
Existing WOUS
100-Year Floodplain
Proposed Traffic Signal
Proposed Curb Extensions
Existing Traffic Signal
Retime Existing Traffic Signal
Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

Build Alternative Concept

Alternative 2 - Operational Changes To Roadways

April 2018

Exhibit 13


South Shore Cultural Center Park
South Shore Drive
5,300
La Rabida Children's Hospital
29,200
Jackson Park Outer Harbor
63rd Street Beach
Lake Shore Drive
58,200
36,400
22,200
Jeffery Drive
Jeffery Avenue
18,000
24,500
Jackson Park Inner Harbor
Richards Drive
11,200
67th Street
8,900
68th Street
69th Street
71,600
57th Street Beach
Science Drive
59th Street Harbor
Driving Range
Creiger Avenue
STOP
East Lagoon
Wooded Island
West Lagoon
Museum of Science and Industry
Jackson Park Golf Course
Hayes Drive
28,100
Marquette Drive
East End Avenue
Everett Avenue
57th Drive
17,100
Hyde Park Boulevard
7,600
MSI Drop Off
Cornell Drive
10,400
OPC Underground Parking Garage
15,500
Stony Island Avenue
21,100
36,800
37,200
56th Street
Metra-Electric District Line
17,400
22,300
63rd Street
11,600
64th Street
65th Street
65th Place
Marquette Street
67th Street
10,500
9,200
57th Street
5,700
8,500
7,400
59th Street
Midway Plaisance
60th Street
DRAFT
0'
400'
800'
XX,XXX
2040 Average Daily Traffic
Predominant Travel Path
OPC Structure
Closed Road
Traffic Signal
All-Way Stop-Controlled Intersection
Mobility Improvements to Support the SLFP
Travel Patterns
Alternative 2 - Operational Changes To Roadways
April 2018

Exhibit 14

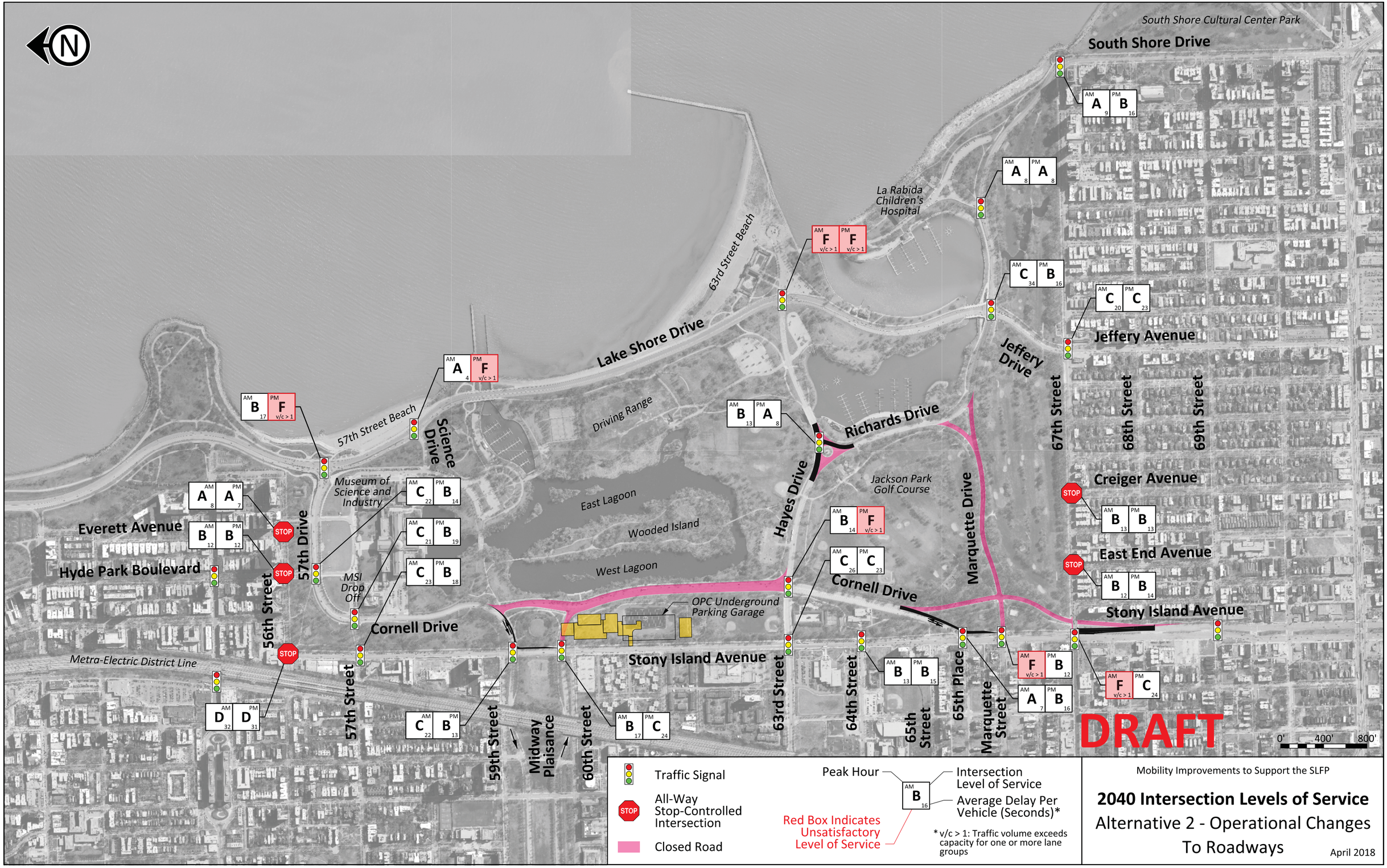

South Shore Cultural Center Park
South Shore Drive
AM A 9 PM B 16
AM A 8 PM A 8
La Rabida Children's Hospital
63rd Street Beach
AM F v/c > 1 PM F v/c > 1
AM C 34 PM B 16
AM C 20 PM C 23
Jeffery Avenue
Lake Shore Drive
Jeffery Drive
67th Street
68th Street
69th Street
AM A 4 PM F v/c > 1
AM B 17 PM F v/c > 1
57th Street Beach
Science Drive
Driving Range
AM B 13 PM A 8
Richards Drive
Hayes Drive
Jackson Park Golf Course
Marquette Drive
Creiger Avenue
STOP
AM B 13 PM B 13
East End Avenue
AM B 12 PM B 14
Stony Island Avenue
AM A 8 PM A 7
AM B 12 PM B 12
Everett Avenue
Hyde Park Boulevard
57th Drive
56th Street
Museum of Science and Industry
AM C 22 PM B 14
AM C 21 PM B 19
AM C 23 PM B 18
MSI Drop Off
East Lagoon
Wooded Island
West Lagoon
AM B 14 PM F v/c > 1
AM C 26 PM C 23
Cornell Drive
OPC Underground Parking Garage
Metra-Electric District Line
AM D 32 PM D 31
57th Street
AM C 22 PM B 13
59th Street
Midway Plaisance
60th Street
AM B 17 PM C 24
Stony Island Avenue
63rd Street
64th Street
AM B 13 PM B 15
65th Street
65th Place
Marquette Street
AM F v/c > 1 PM B 12
AM A 7 PM B 16
AM F v/c > 1 PM C 24
DRAFT
0' 400' 800'
Traffic Signal
All-Way Stop-Controlled Intersection
Closed Road
Peak Hour
AM B 16
Intersection Level of Service
Average Delay Per Vehicle (Seconds)*
Red Box Indicates Unsatisfactory Level of Service
* v/c > 1: Traffic volume exceeds capacity for one or more lane groups
Mobility Improvements to Support the SLFP
2040 Intersection Levels of Service
Alternative 2 - Operational Changes To Roadways
April 2018

Exhibit 15

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 3 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 EB, 2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	1 EB, 1 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	2 NB, 2 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	1 NB, 1 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	2 NB, 4 SB

Widen 59th St Lagoon Inlet Bridge
WOUS Impact: 0.040 Acres
Floodplain Impact: 0.032 Acre-Feet

Widen Lake Shore Dr to Provide 3 NB Lanes and 3 SB Lanes

Widen 59th St Underpass

Reconfigure Intersections for Additional SB Lane

Reconfigure Intersection for Additional Lanes

Widen 63rd St Underpass

Potential Pedestrian Underpass Concept

Potential Pedestrian Underpass Concept

Reconfigure to Signalized T-Intersection

Add 2 NB Right-Turn Lanes to Stony Island Ave

Potential Pedestrian Underpass Concept

Add NB Right-Turn Lane to Stony Island Ave

Widen N Midway Plaisance and Convert to Two-Way to Provide 2 EB Lanes and 2 WB Lanes

Remove Existing Traffic Signal and Convert 59th Street Access to Right-In/Right-Out

Remove Existing Traffic Signal and Convert 60th Street Access to Right-In/Right-Out

Proposed Traffic Signal

Widen SB Cornell Dr and Convert to Two-Way to Provide 2 NB Lanes and 2 SB Lanes

DRAFT

0' 400' 800'

Existing Structures
Potential Ped Underpass Concept
Proposed Trail Connection
Closed Road
Proposed Roadway Improvement
Structure Widening
Section 4(f) Land
NRHP Listed Property (Ind.)
NRHP Listed Historic District
Obama Presidential Center
NRHP Eligible* Property (Ind.)
NRHP Eligible* Historic District
*Pending SHPO Concurrence
Existing Wetlands
Existing WOUS
100-Year Floodplain
Proposed Traffic Signal
Proposed Curb Extensions
Existing Traffic Signal
Retime Existing Traffic Signal
Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

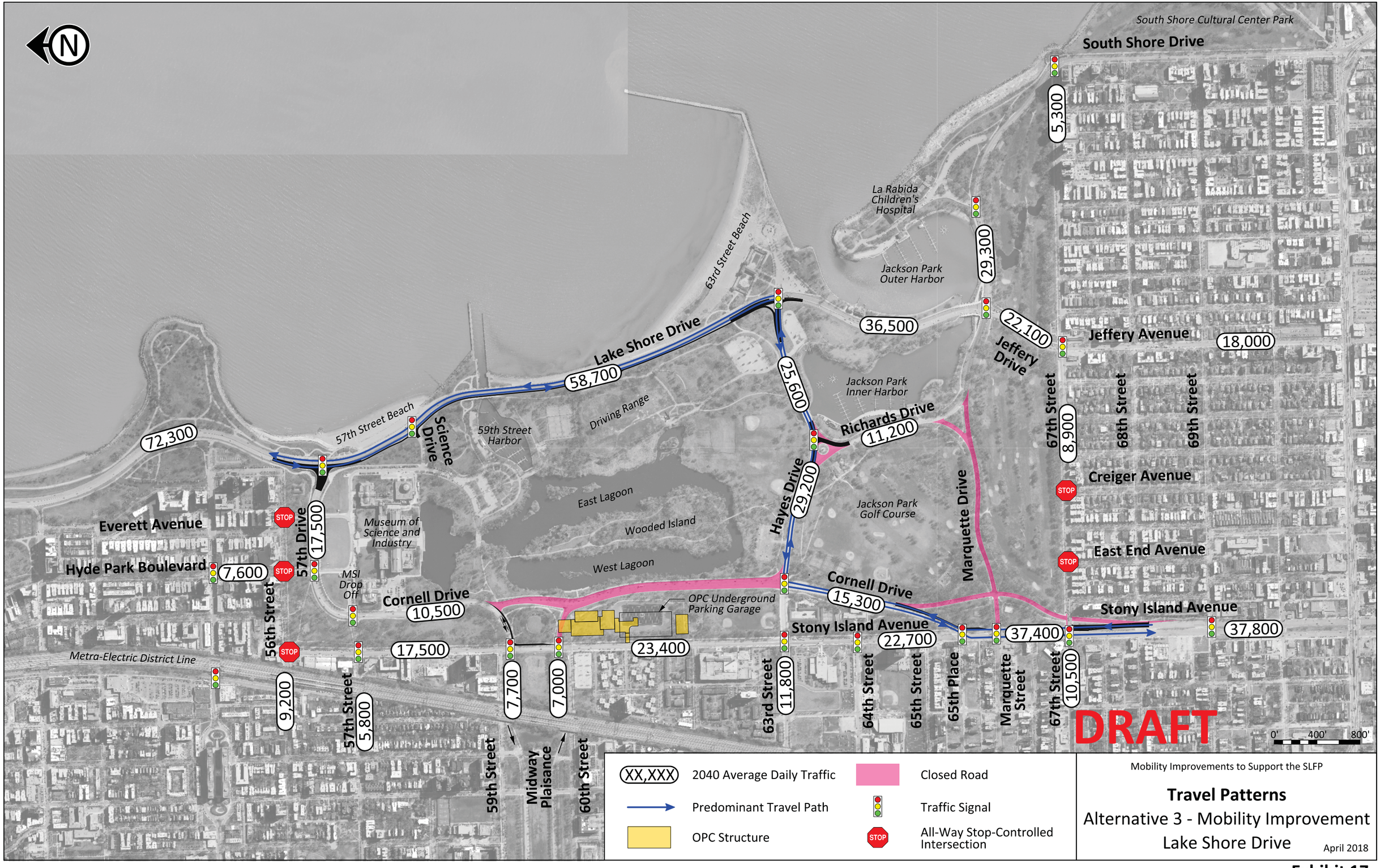
Build Alternative Concept

Alternative 3 - Mobility Improvement

Lake Shore Drive

April 2018

Exhibit 16



Mobility Improvements to Support the SLFP

Travel Patterns

Alternative 3 - Mobility Improvement

Lake Shore Drive

April 2018

Exhibit 17

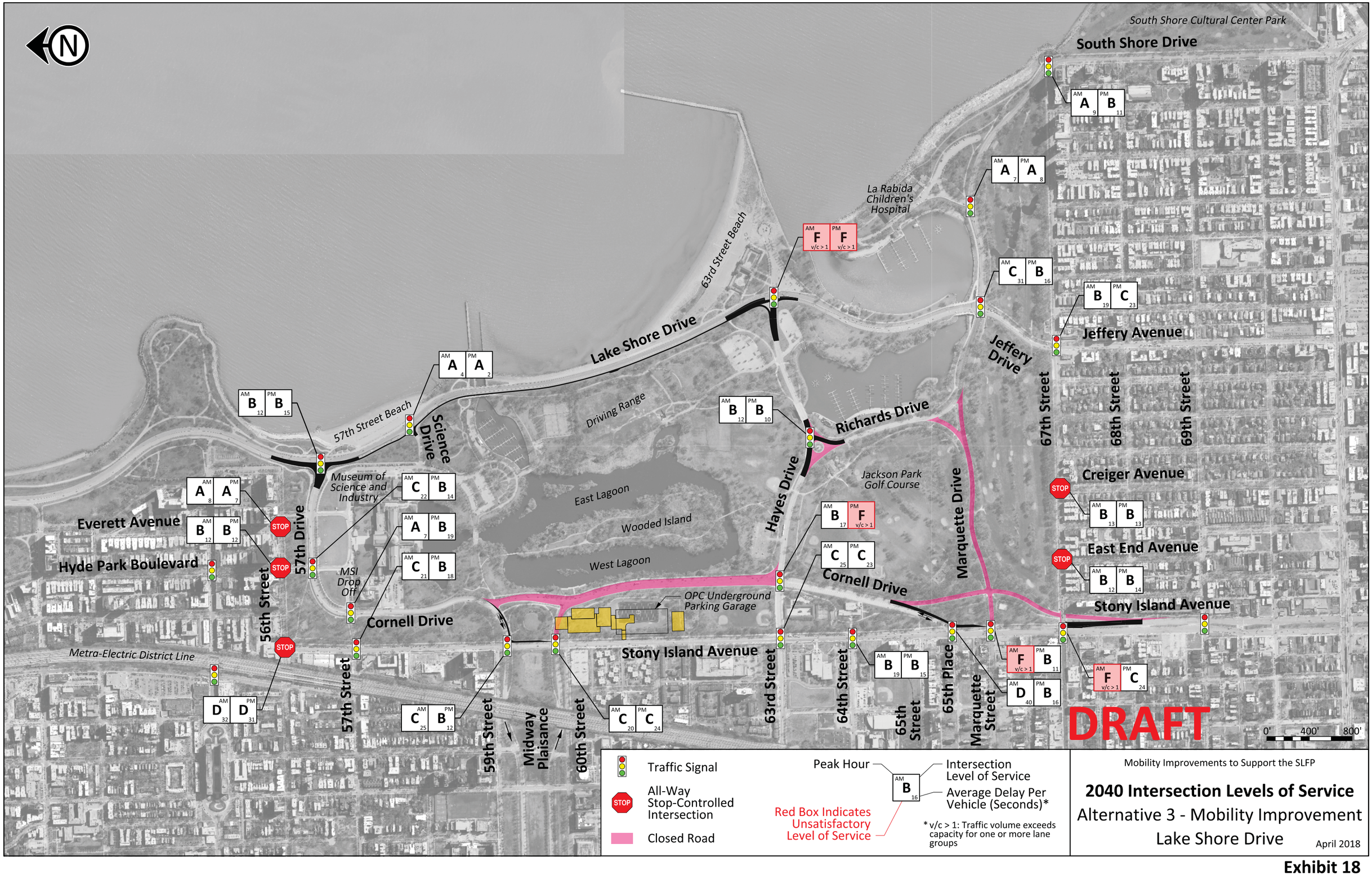

South Shore Cultural Center Park
South Shore Drive
AM A 9 PM B 11
AM A 7 PM A 8
La Rabida Children's Hospital
AM F v/c > 1 PM F v/c > 1
AM C 31 PM B 16
AM B 19 PM C 23
Jeffery Avenue
Jeffery Drive
67th Street
68th Street
69th Street
63rd Street Beach
Lake Shore Drive
AM A 4 PM A 2
AM B 12 PM B 15
57th Street Beach
Science Drive
Driving Range
AM B 12 PM B 10
Richards Drive
Hayes Drive
Jackson Park Golf Course
Marquette Drive
Creiger Avenue
STOP
AM B 13 PM B 13
East End Avenue
AM B 12 PM B 14
Stony Island Avenue
Museum of Science and Industry
AM C 22 PM B 14
AM A 8 PM A 7
Everett Avenue
AM B 12 PM B 12
Hyde Park Boulevard
East Lagoon
Wooded Island
West Lagoon
AM B 17 PM F v/c > 1
AM C 25 PM C 23
Cornell Drive
57th Drive
56th Street
AM A 7 PM B 19
AM C 21 PM B 18
MSI Drop Off
OPC Underground Parking Garage
Metra-Electric District Line
AM D 32 PM D 31
57th Street
AM C 25 PM B 12
59th Street
Midway Plaisance
60th Street
AM C 20 PM C 24
63rd Street
64th Street
AM B 19 PM B 15
65th Street
65th Place
Marquette Street
AM F v/c > 1 PM B 11
AM D 40 PM B 16
AM F v/c > 1 PM C 24
DRAFT
0' 400' 800'
Traffic Signal
All-Way Stop-Controlled Intersection
Closed Road
Peak Hour
Intersection Level of Service
Average Delay Per Vehicle (Seconds)*
Red Box Indicates Unsatisfactory Level of Service
* v/c > 1: Traffic volume exceeds capacity for one or more lane groups
Mobility Improvements to Support the SLFP
2040 Intersection Levels of Service
Alternative 3 - Mobility Improvement
Lake Shore Drive
April 2018

Exhibit 18

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 2 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 EB, 2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	1 EB, 1 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	2 NB, 2 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	2 NB, 2 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	3 NB, 4 SB

South Shore Cultural Center Park
South Shore Drive
La Rabida Children's Hospital
63rd Street Beach
Lake Shore Drive
Potential Pedestrian Underpass Concept
Jeffery Drive
Jeffery Avenue
67th Street
68th Street
69th Street
Richards Drive
Reconfigure to Signalized T-Intersection
Jackson Park Golf Course
Creiger Avenue
57th Street Beach
Science Drive
Driving Range
East Lagoon
Wooded Island
West Lagoon
Hayes Drive
Marquette Drive
Widen Stony Island Ave to the East to Provide 3 NB Lanes and 4 SB Lanes
East End Avenue
Everett Avenue
Hyde Park Boulevard
Museum of Science and Industry
57th Drive
56th Street
MSI Drop Off
Cornell Drive
Potential Pedestrian Underpass Concept
OPC Underground Parking Garage
Stony Island Avenue
Metra-Electric District Line
Widen N Midway Plaisance and Convert to Two-Way to Provide 2 EB Lanes and 2 WB Lanes
Widen Stony Island Ave to the East to Provide 2 NB Lanes and 2 SB Lanes
Remove Existing Traffic Signal and Convert 60th Street Access to Right-In/Right-Out
Remove Existing Traffic Signal and Convert 59th Street Access to Right-In/Right-Out
Remove 14 Parking Spaces to Provide Additional EB Left Turn Lane
57th Street
59th Street
Midway Plaisance
60th Street
63rd Street
64th Street
65th Street
65th Place
Marquette Street
67th Street
Proposed Traffic Signal
Widen SB Cornell Dr and Convert to Two-Way to Provide 2 NB Lanes and 2 SB Lanes
DRAFT
0' 400' 800'

Existing Structures
Potential Ped Underpass Concept
Proposed Trail Connection
Closed Road
Proposed Roadway Improvement
Structure Widening
Section 4(f) Land
NRHP Listed Property (Ind.)
NRHP Listed Historic District
Obama Presidential Center
NRHP Eligible* Property (Ind.)
NRHP Eligible* Historic District
*Pending SHPO Concurrence
Existing Wetlands
Existing WOUS
100-Year Floodplain
Proposed Traffic Signal
Proposed Curb Extensions
Existing Traffic Signal
Retime Existing Traffic Signal
Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

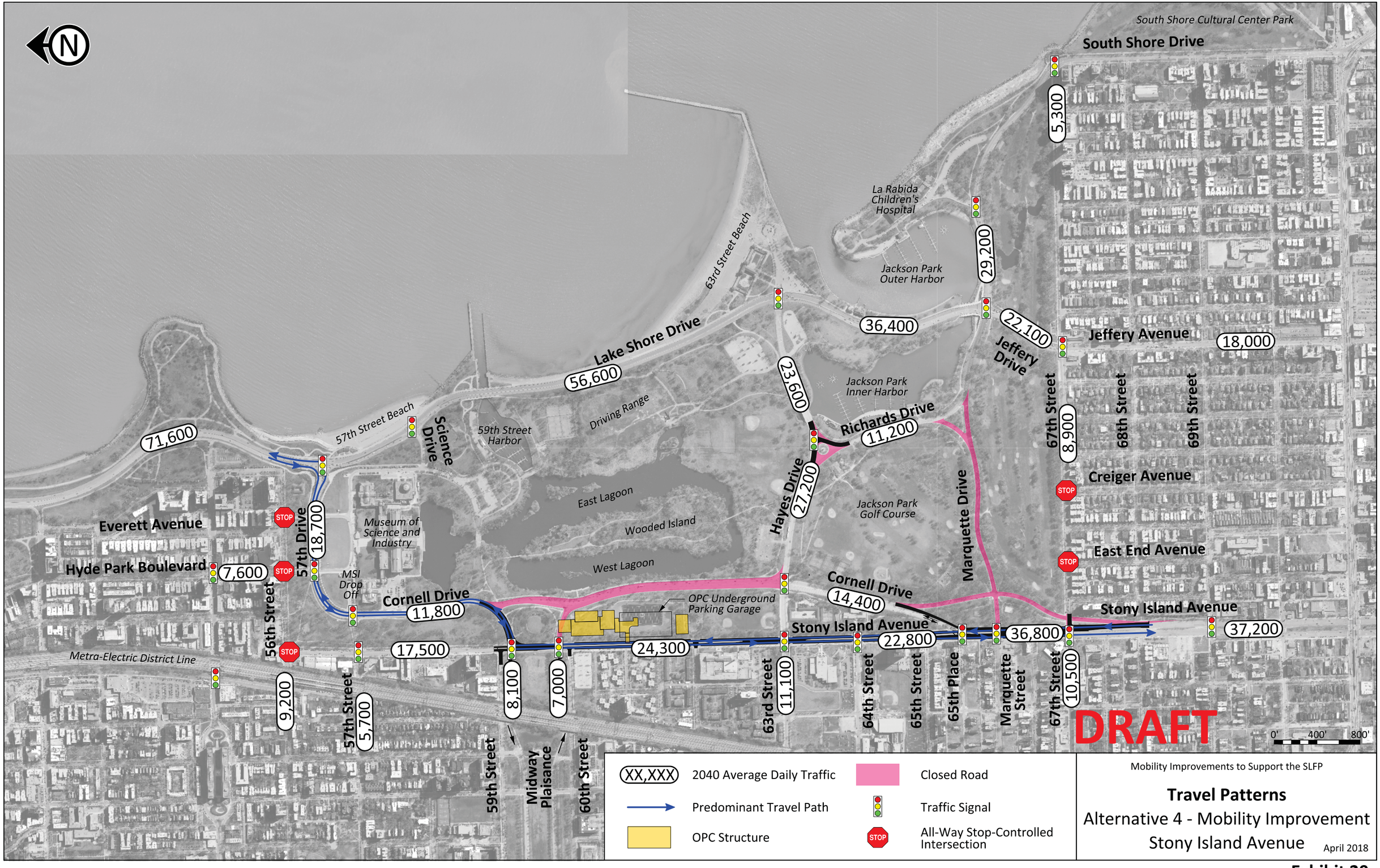
Build Alternative Concept

Alternative 4 - Mobility Improvement

Stony Island Avenue

April 2018

Exhibit 19



Mobility Improvements to Support the SLFP

Travel Patterns

Alternative 4 - Mobility Improvement

Stony Island Avenue

April 2018

Exhibit 20

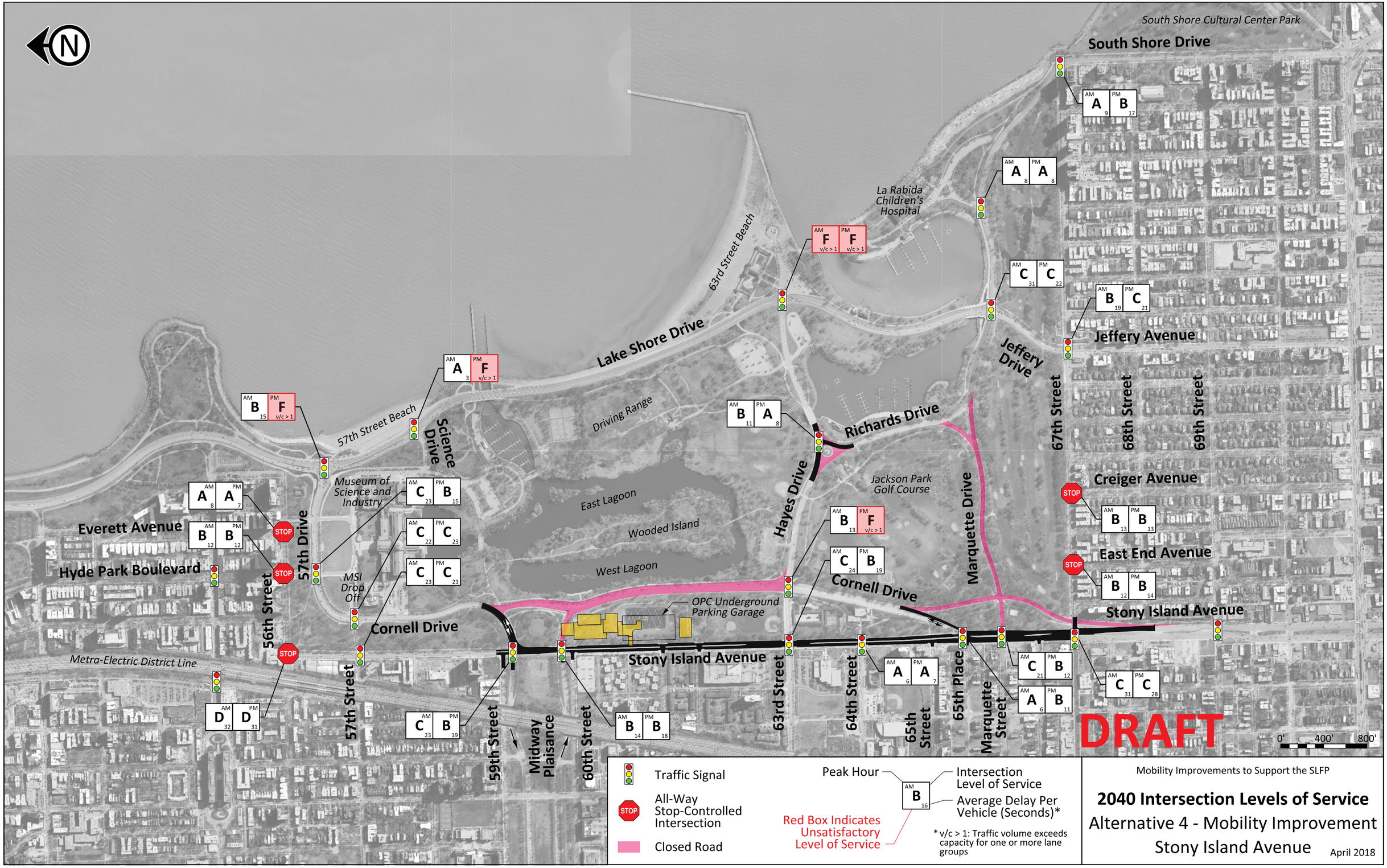

South Shore Cultural Center Park
South Shore Drive
La Rabida Children's Hospital
63rd Street Beach
Lake Shore Drive
57th Street Beach
Science Drive
Driving Range
Jeffery Drive
Jeffery Avenue
67th Street
68th Street
69th Street
Richards Drive
Hayes Drive
Jackson Park Golf Course
Marquette Drive
Creiger Avenue
East End Avenue
Stony Island Avenue
Museum of Science and Industry
East Lagoon
Wooded Island
West Lagoon
OPC Underground Parking Garage
Everett Avenue
Hyde Park Boulevard
56th Street
57th Drive
MSI Drop Off
Cornell Drive
Metra-Electric District Line
57th Street
59th Street
Midway Plaisance
60th Street
63rd Street
64th Street
65th Street
65th Place
Marquette Street
STOP
DRAFT
0'
400'
800'
Traffic Signal
All-Way Stop-Controlled Intersection
Closed Road
Peak Hour
Intersection Level of Service
Average Delay Per Vehicle (Seconds)*
Red Box Indicates Unsatisfactory Level of Service
* v/c > 1: Traffic volume exceeds capacity for one or more lane groups
Mobility Improvements to Support the SLFP
2040 Intersection Levels of Service
Alternative 4 - Mobility Improvement
Stony Island Avenue
April 2018

Exhibit 21

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 2 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 EB, 2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	2 EB, 2 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	2 NB, 2 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	1 NB, 1 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	2 NB, 4 SB

South Shore Cultural Center Park
South Shore Drive
La Rabida Children's Hospital
63rd Street Beach
Lake Shore Drive
Reconfigure Intersection for Additional Lanes
Potential Pedestrian Underpass Concept
Remove 147 Parking Spaces on Hayes Dr to Provide 2 EB Lanes and 2 WB Lanes
Jeffery Drive
Jeffery Avenue
67th Street
68th Street
69th Street
Richards Drive
Reconfigure to Signalized T-Intersection
Jackson Park Golf Course
Creiger Avenue
57th Street Beach
Science Drive
Driving Range
Hayes Drive
Marquette Drive
Add 2 NB Right-Turn Lanes to Stony Island Ave
East End Avenue
Reconfigure Intersection to Provide for Predominant Travel Movement
Potential Pedestrian Underpass Concept
Everett Avenue
Museum of Science and Industry
East Lagoon
Wooded Island
West Lagoon
Hyde Park Boulevard
57th Drive
MSI Drop Off
Add NB Right-Turn Lane to Stony Island Ave
Potential Pedestrian Underpass Concept
Cornell Drive
OPC Underground Parking Garage
Stony Island Avenue
56th Street
Metra-Electric District Line
Widen N Midway Plaisance and Convert to Two-Way to Provide 2 EB Lanes and 2 WB Lanes
57th Street
Remove Existing Traffic Signal and Convert 59th Street Access to Right-In/Right-Out
59th Street
Midway Plaisance
60th Street
Remove Existing Traffic Signal and Convert 60th Street Access to Right-In/Right-Out
63rd Street
Proposed Traffic Signal
64th Street
65th Street
65th Place
Marquette Street
67th Street
Widen SB Cornell Dr and Convert to Two-Way to Provide 2 NB Lanes and 2 SB Lanes

DRAFT

0' 400' 800'

Existing Structures
Potential Ped Underpass Concept
Proposed Trail Connection
Closed Road
Proposed Roadway Improvement
Structure Widening
Section 4(f) Land
NRHP Listed Property (Ind.)
NRHP Listed Historic District
Obama Presidential Center
NRHP Eligible* Property (Ind.)
NRHP Eligible* Historic District
*Pending SHPO Concurrence
Existing Wetlands
Existing WOUS
100-Year Floodplain
Proposed Traffic Signal
Proposed Curb Extensions
Existing Traffic Signal
Retime Existing Traffic Signal
Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

Build Alternative Concept

Alternative 5 - Mobility Improvement

Hayes Drive

April 2018

Exhibit 22

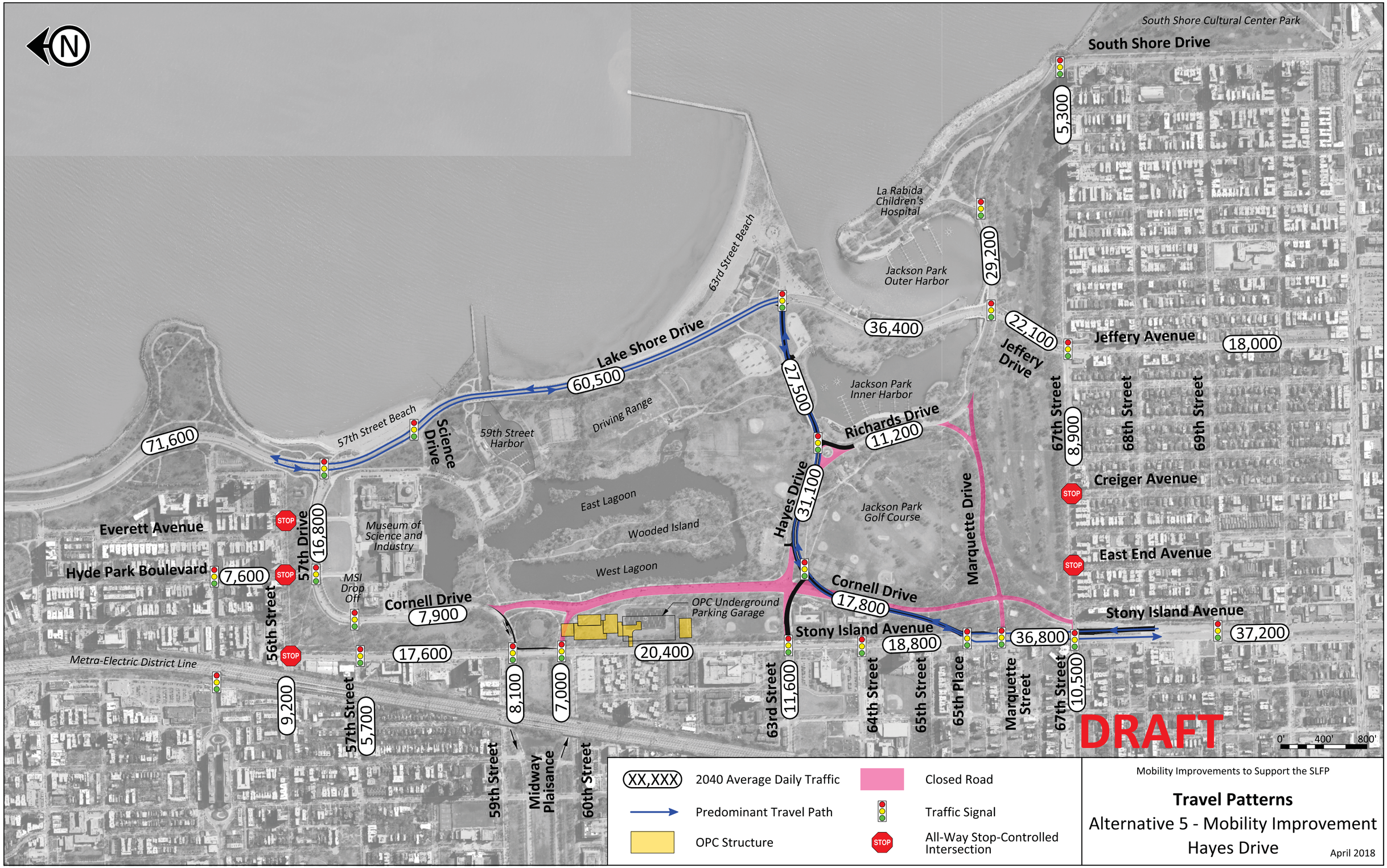

South Shore Cultural Center Park
South Shore Drive
5,300
La Rabida Children's Hospital
29,200
Jackson Park Outer Harbor
63rd Street Beach
Lake Shore Drive
60,500
36,400
22,100
Jeffery Drive
Jeffery Avenue
18,000
27,500
Jackson Park Inner Harbor
Richards Drive
11,200
67th Street
68th Street
69th Street
8,900
71,600
57th Street Beach
Science Drive
59th Street Harbor
Driving Range
Creiger Avenue
STOP
East Lagoon
Wooded Island
West Lagoon
Museum of Science and Industry
Jackson Park Golf Course
Hayes Drive
31,100
Marquette Drive
East End Avenue
Everett Avenue
57th Drive
16,800
Hyde Park Boulevard
7,600
MSI Drop Off
Cornell Drive
7,900
17,800
OPC Underground Parking Garage
Stony Island Avenue
18,800
36,800
37,200
56th Street
Metra-Electric District Line
17,600
20,400
63rd Street
11,600
64th Street
65th Street
65th Place
Marquette Street
67th Street
10,500
9,200
57th Street
5,700
8,100
7,000
59th Street
Midway Plaisance
60th Street
DRAFT
0'
400'
800'
XX,XXX
2040 Average Daily Traffic
Predominant Travel Path
OPC Structure
Closed Road
Traffic Signal
All-Way Stop-Controlled Intersection
Mobility Improvements to Support the SLFP
Travel Patterns
Alternative 5 - Mobility Improvement
Hayes Drive
April 2018

Exhibit 23

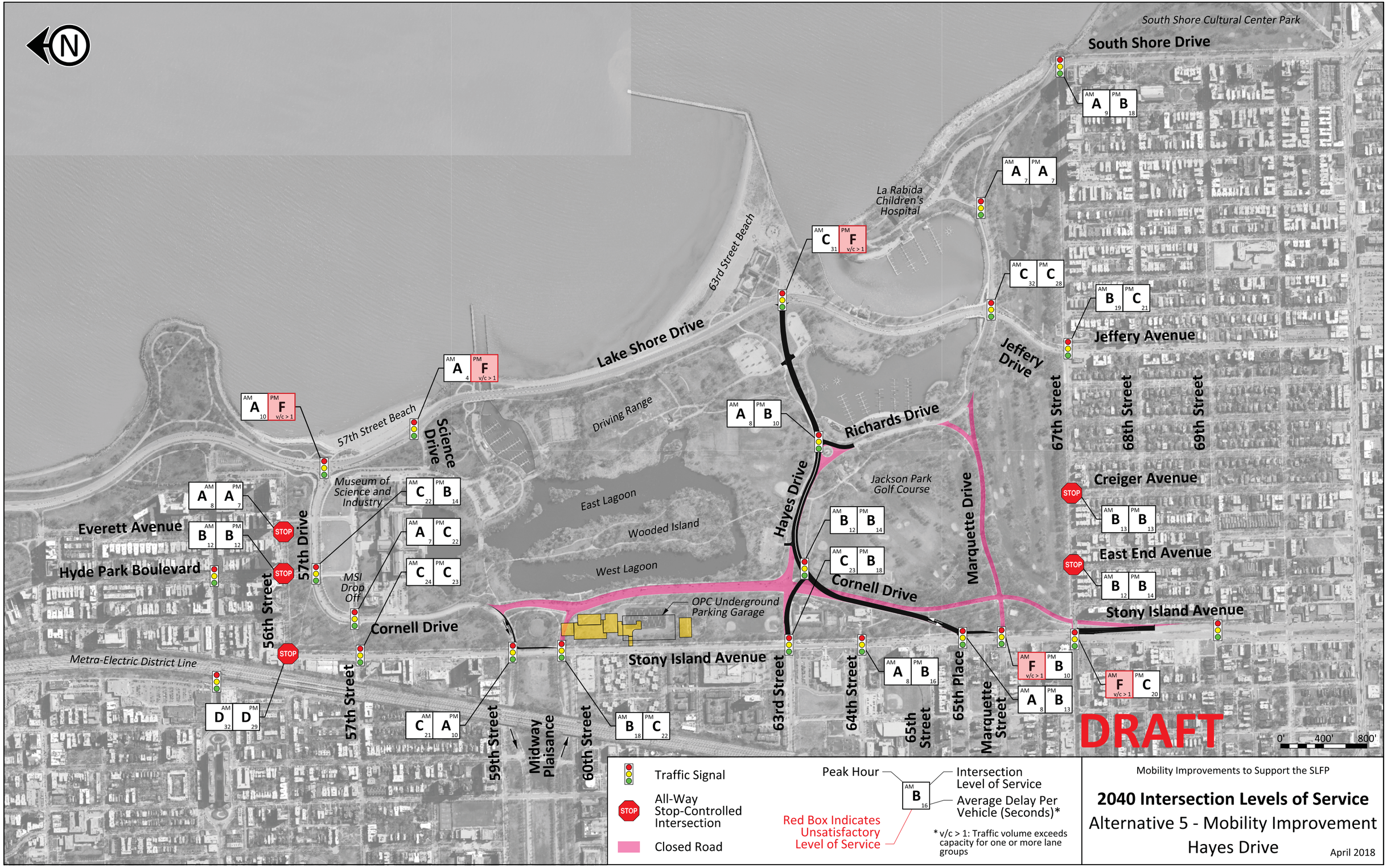

South Shore Cultural Center Park
South Shore Drive
La Rabida Children's Hospital
63rd Street Beach
Lake Shore Drive
57th Street Beach
Science Drive
Driving Range
Museum of Science and Industry
East Lagoon
Wooded Island
West Lagoon
Jackson Park Golf Course
Hayes Drive
Richards Drive
Jeffery Drive
Jeffery Avenue
67th Street
68th Street
69th Street
Creiger Avenue
East End Avenue
Stony Island Avenue
Everett Avenue
Hyde Park Boulevard
57th Drive
56th Street
57th Street
MSI Drop Off
Cornell Drive
OPC Underground Parking Garage
Metra-Electric District Line
59th Street
Midway Plaisance
60th Street
63rd Street
64th Street
65th Street
65th Place
Marquette Drive
Marquette Street
STOP
AM A 9 PM B 18
AM A 7 PM A 7
AM C 31 PM F v/c > 1
AM C 32 PM C 28
AM B 19 PM C 21
AM A 4 PM F v/c > 1
AM A 10 PM F v/c > 1
AM A 8 PM B 10
AM A 8 PM A 7
AM B 12 PM B 12
AM C 22 PM B 14
AM A 7 PM C 22
AM C 24 PM C 23
AM B 12 PM B 14
AM C 23 PM B 18
AM B 13 PM B 13
AM B 12 PM B 14
AM D 32 PM D 29
AM C 21 PM A 10
AM B 18 PM C 22
AM A 8 PM B 16
AM F v/c > 1 PM B 10
AM A 8 PM B 13
AM F v/c > 1 PM C 20
DRAFT
0' 400' 800'
Traffic Signal
All-Way Stop-Controlled Intersection
Closed Road
Peak Hour
AM B 16
Intersection Level of Service
Average Delay Per Vehicle (Seconds)*
Red Box Indicates Unsatisfactory Level of Service
* v/c > 1: Traffic volume exceeds capacity for one or more lane groups
Mobility Improvements to Support the SLFP
2040 Intersection Levels of Service
Alternative 5 - Mobility Improvement
Hayes Drive
April 2018

Exhibit 24

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 3 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 EB, 2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	1 EB, 1 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	2 NB, 2 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	2 NB, 2 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	3 NB, 4 SB

Widen 59th St Lagoon Inlet Bridge
WOUS Impact: 0.040 Acres
Floodplain Impact: 0.032 Acre-Feet

Widen Lake Shore Dr to Provide 3 NB Lanes and 3 SB Lanes

Widen 59th St Underpass

Reconfigure Intersections for Additional SB Lane

Reconfigure Intersection for Additional Lanes

Widen 63rd St Underpass

Potential Pedestrian Underpass Concept

Potential Pedestrian Underpass Concept

Reconfigure to Signalized T-Intersection

Potential Pedestrian Underpass Concept

Widen Stony Island Ave to the East to Provide 3 NB Lanes and 4 SB Lanes

Widen Stony Island Ave to the East to Provide 2 NB Lanes and 2 SB Lanes

Remove Existing Traffic Signal and Convert 60th Street Access to Right-In/Right-Out

Remove 14 Parking Spaces to Provide Additional EB Left Turn Lane

Widen N Midway Plaisance and Convert to Two-Way to Provide 2 EB Lanes and 2 WB Lanes

Remove Existing Traffic Signal and Convert 59th Street Access to Right-In/Right-Out

Proposed Traffic Signal

Widen SB Cornell Dr and Convert to Two-Way to Provide 2 NB Lanes and 2 SB Lanes

DRAFT

0' 400' 800'

Existing Structures
Potential Ped Underpass Concept
Proposed Trail Connection
Closed Road
Proposed Roadway Improvement
Structure Widening
Section 4(f) Land
NRHP Listed Property (Ind.)
NRHP Listed Historic District
Obama Presidential Center
NRHP Eligible* Property (Ind.)
NRHP Eligible* Historic District
*Pending SHPO Concurrence
Existing Wetlands
Existing WOUS
100-Year Floodplain
Proposed Traffic Signal
Proposed Curb Extensions
Existing Traffic Signal
Retime Existing Traffic Signal
Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

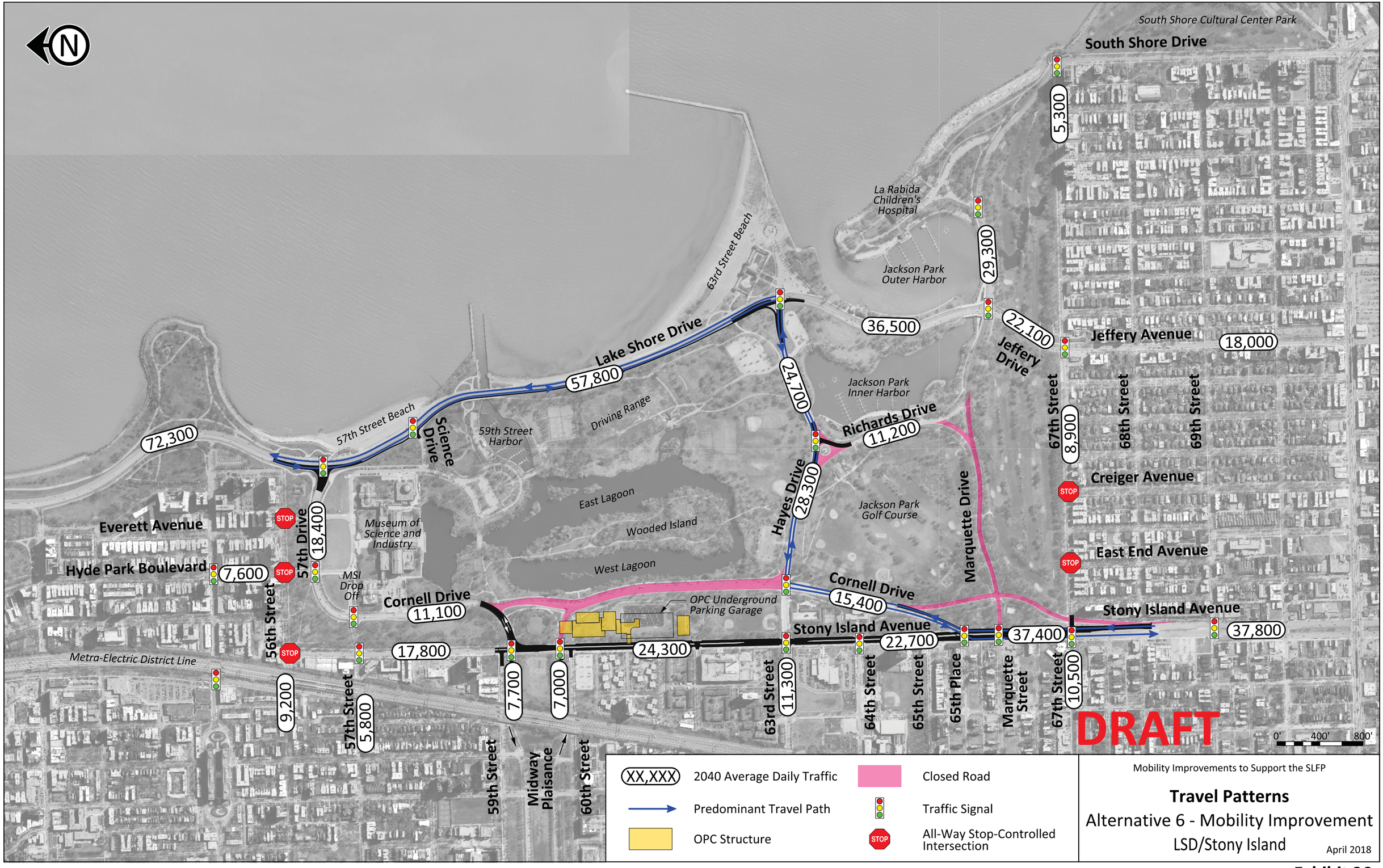
Build Alternative Concept

Alternative 6 - Mobility Improvement

LSD/Stony Island

April 2018

Exhibit 25



Mobility Improvements to Support the SLFP

Travel Patterns

Alternative 6 - Mobility Improvement

LSD/Stony Island

April 2018

Exhibit 26

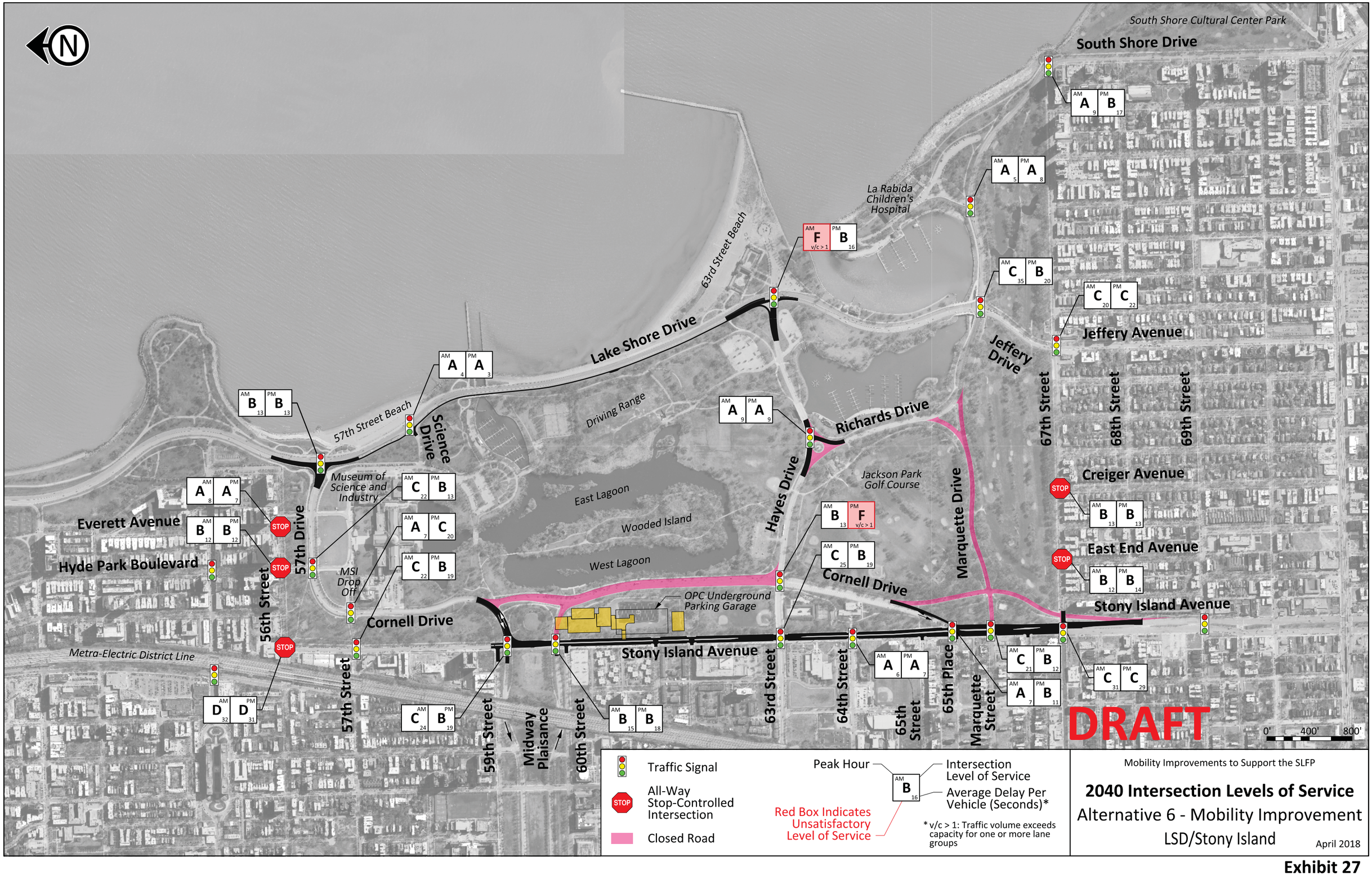

South Shore Cultural Center Park
South Shore Drive
AM A 9 PM B 17
AM A 5 PM A 8
La Rabida Children's Hospital
AM F v/c > 1 PM B 16
63rd Street Beach
AM C 35 PM B 20
AM C 20 PM C 22
Jeffery Avenue
Lake Shore Drive
Jeffery Drive
67th Street
68th Street
69th Street
AM A 4 PM A 3
AM B 13 PM B 13
57th Street Beach
Science Drive
Driving Range
AM A 9 PM A 9
Richards Drive
Museum of Science and Industry
AM C 22 PM B 13
Creiger Avenue
STOP
AM B 13 PM B 13
Everett Avenue
AM A 8 PM A 7
AM B 12 PM B 12
East Lagoon
Wooded Island
West Lagoon
Hayes Drive
Jackson Park Golf Course
Marquette Drive
AM B 13 PM F v/c > 1
East End Avenue
AM B 12 PM B 14
Hyde Park Boulevard
57th Drive
AM A 7 PM C 20
AM C 22 PM B 19
MSI Drop Off
AM C 25 PM B 19
Cornell Drive
OPC Underground Parking Garage
Stony Island Avenue
56th Street
Metra-Electric District Line
AM D 32 PM D 31
57th Street
AM C 24 PM B 19
59th Street
Midway Plaisance
60th Street
AM B 15 PM B 18
63rd Street
64th Street
AM A 6 PM A 7
65th Street
65th Place
AM C 21 PM B 12
AM A 7 PM B 11
Marquette Street
AM C 31 PM C 29
DRAFT
0' 400' 800'
Traffic Signal
All-Way Stop-Controlled Intersection
Closed Road
Peak Hour
Intersection Level of Service
Average Delay Per Vehicle (Seconds)*
Red Box Indicates Unsatisfactory Level of Service
* v/c > 1: Traffic volume exceeds capacity for one or more lane groups
Mobility Improvements to Support the SLFP
2040 Intersection Levels of Service
Alternative 6 - Mobility Improvement
LSD/Stony Island
April 2018

Exhibit 27

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 3 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 EB, 2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	2 EB, 2 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	2 NB, 2 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	1 NB, 1 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	2 NB, 4 SB

Widen 59th St Lagoon Inlet Bridge
WOUS Impact: 0.040 Acres
Floodplain Impact: 0.032 Acre-Feet

Widen Lake Shore Dr to Provide 3 NB Lanes and 3 SB Lanes

Widen 59th St Underpass

Reconfigure Intersections for Additional SB Lane

Reconfigure Intersection for Additional Lanes

Widen 63rd St Underpass

Potential Pedestrian Underpass Concept

Remove 147 Parking Spaces on Hayes Dr to Provide 2 EB Lanes and 2 WB Lanes

Reconfigure to Signalized T-Intersection

Reconfigure Intersection to Provide for Predominant Travel Movement

Potential Pedestrian Underpass Concept

Add 2 NB Right-Turn Lanes to Stony Island Ave

Add NB Right-Turn Lane to Stony Island Ave

Potential Pedestrian Underpass Concept

Widen N Midway Plaisance and Convert to Two-Way to Provide 2 EB Lanes and 2 WB Lanes

Remove Existing Traffic Signal and Convert 59th Street Access to Right-In/Right-Out

Remove Existing Traffic Signal and Convert 60th Street Access to Right-In/Right-Out

Proposed Traffic Signal

Widen SB Cornell Dr and Convert to Two-Way to Provide 2 NB Lanes and 2 SB Lanes

Potential Pedestrian Underpass Concept

South Shore Cultural Center Park

South Shore Drive

La Rabida Children's Hospital

63rd Street Beach

Lake Shore Drive

Jeffery Drive

Jeffery Avenue

67th Street

68th Street

69th Street

Richards Drive

Jackson Park Golf Course

Creiger Avenue

East End Avenue

Stony Island Avenue

Marquette Drive

Hayes Drive

Cornell Drive

57th Street Beach

Science Drive

Driving Range

East Lagoon

Wooded Island

West Lagoon

Museum of Science and Industry

MSI Drop Off

OPC Underground Parking Garage

Everett Avenue

Hyde Park Boulevard

57th Drive

56th Street

57th Street

59th Street

60th Street

63rd Street

64th Street

65th Street

65th Place

Marquette Street

67th Street

Midway Plaisance

Metra-Electric District Line

DRAFT

0' 400' 800'

Existing Structures
Potential Ped Underpass Concept
Proposed Trail Connection
Closed Road
Proposed Roadway Improvement
Structure Widening
Section 4(f) Land
NRHP Listed Property (Ind.)
NRHP Listed Historic District
Obama Presidential Center
NRHP Eligible* Property (Ind.)
NRHP Eligible* Historic District
*Pending SHPO Concurrence
Existing Wetlands
Existing WOUS
100-Year Floodplain
Proposed Traffic Signal
Proposed Curb Extensions
Existing Traffic Signal
Retime Existing Traffic Signal
Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

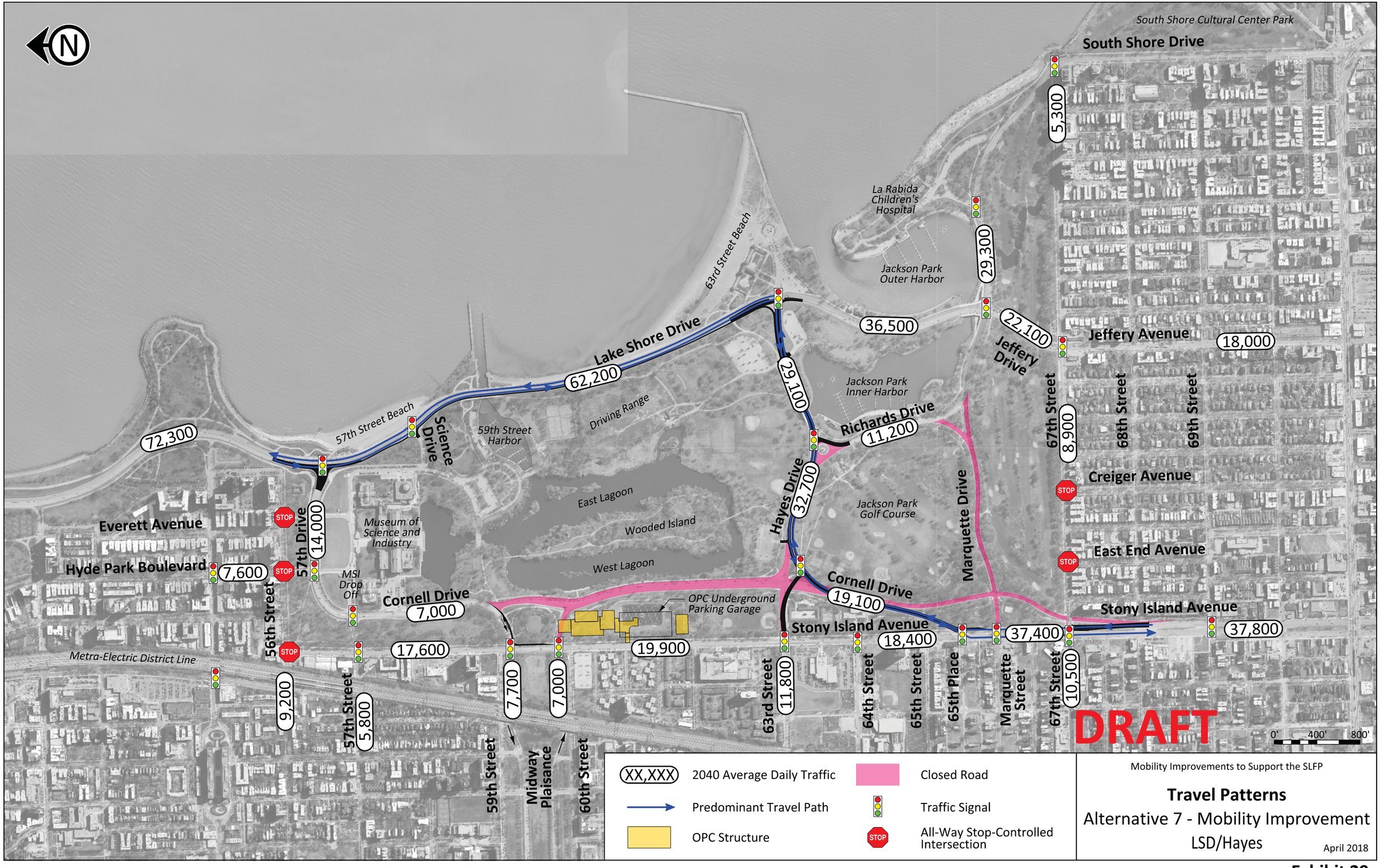
Build Alternative Concept

Alternative 7 - Mobility Improvement

LSD/Hayes

April 2018

Exhibit 28



Mobility Improvements to Support the SLFP

Travel Patterns

Alternative 7 - Mobility Improvement

LSD/Hayes

April 2018

Exhibit 29

South Shore Cultural Center Park

South Shore Drive

AM A 9 PM B 12

AM A 7 PM A 7

La Rabida Children's Hospital

AM C 28 PM B 17

AM C 32 PM C 25

AM B 19 PM C 21

Jeffery Avenue

Jeffery Drive

67th Street

68th Street

69th Street

63rd Street Beach

Lake Shore Drive

AM A 4 PM A 1

AM A 9 PM B 17

57th Street Beach

Science Drive

Driving Range

AM A 9 PM A 9

Richards Drive

Hayes Drive

Jackson Park Golf Course

Marquette Drive

Creiger Avenue

STOP

AM B 13 PM B 14

East End Avenue

AM B 13 PM B 14

Stony Island Avenue

Museum of Science and Industry

AM C 20 PM B 14

AM A 8 PM A 7

Everett Avenue

AM B 12 PM B 13

Hyde Park Boulevard

East Lagoon

Wooded Island

West Lagoon

AM B 11 PM B 15

AM C 24 PM B 19

Cornell Drive

57th Drive

AM A 8 PM C 23

AM C 24 PM C 23

MSI Drop Off

OPC Underground Parking Garage

56th Street

Metra-Electric District Line

AM D 32 PM D 29

Cornell Drive

Stony Island Avenue

57th Street

AM B 13 PM A 10

59th Street

Midway Plaisance

60th Street

AM B 18 PM C 22

63rd Street

64th Street

AM A 10 PM B 15

65th Street

65th Place

Marquette Street

AM F v/c > 1 PM B 11

AM A 8 PM A 10

AM F v/c > 1 PM C 22

DRAFT

0' 400' 800'

Traffic Signal

All-Way Stop-Controlled Intersection

Closed Road

Peak Hour

AM B 16

Intersection Level of Service

Average Delay Per Vehicle (Seconds)*

Red Box Indicates Unsatisfactory Level of Service

* v/c > 1: Traffic volume exceeds capacity for one or more lane groups

Mobility Improvements to Support the SLFP

2040 Intersection Levels of Service

Alternative 7 - Mobility Improvement

LSD/Hayes

April 2018

Exhibit 30

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 2 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 EB, 2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	2 EB, 2 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	2 NB, 2 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	2 NB, 2 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	3 NB, 4 SB

South Shore Cultural Center Park
South Shore Drive
La Rabida Children's Hospital
63rd Street Beach
Lake Shore Drive
Reconfigure Intersection for Additional Lanes
Potential Pedestrian Underpass Concept
Remove 147 Parking Spaces on Hayes Dr to Provide 2 EB Lanes and 2 WB Lanes
Jeffery Drive
Jeffery Avenue
67th Street
68th Street
69th Street
Richards Drive
Reconfigure to Signalized T-Intersection
Jackson Park Golf Course
Creiger Avenue
57th Street Beach
Science Drive
Driving Range
Hayes Drive
Marquette Drive
Widen Stony Island Ave to the East to Provide 3 NB Lanes and 4 SB Lanes
Reconfigure Intersection to Provide for Predominant Travel Movement
East Lagoon
Wooded Island
Museum of Science and Industry
Everett Avenue
Hyde Park Boulevard
57th Drive
56th Street
MSI Drop Off
West Lagoon
Potential Pedestrian Underpass Concept
Potential Pedestrian Underpass Concept
Cornell Drive
East End Avenue
OPC Underground Parking Garage
Stony Island Avenue
Metra-Electric District Line
Widen N Midway Plaisance and Convert to Two-Way to Provide 2 EB Lanes and 2 WB Lanes
Widen Stony Island Ave to the East to Provide 2 NB Lanes and 2 SB Lanes
Remove Existing Traffic Signal and Convert 60th Street Access to Right-In/Right-Out
Remove Existing Traffic Signal and Convert 59th Street Access to Right-In/Right-Out
Remove 14 Parking Spaces to Provide Additional EB Left Turn Lane
57th Street
59th Street
Midway Plaisance
60th Street
63rd Street
64th Street
65th Street
65th Place
Marquette Street
67th Street
Proposed Traffic Signal
Widen SB Cornell Dr and Convert to Two-Way to Provide 2 NB Lanes and 2 SB Lanes
DRAFT
0' 400' 800'

Existing Structures
Potential Ped Underpass Concept
Proposed Trail Connection
Closed Road
Proposed Roadway Improvement
Structure Widening
Section 4(f) Land
NRHP Listed Property (Ind.)
NRHP Listed Historic District
Obama Presidential Center
NRHP Eligible* Property (Ind.)
NRHP Eligible* Historic District
*Pending SHPO Concurrence
Existing Wetlands
Existing WOUS
100-Year Floodplain
Proposed Traffic Signal
Proposed Curb Extensions
Existing Traffic Signal
Retime Existing Traffic Signal
Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

Build Alternative Concept

Alternative 8 - Mobility Improvement

Stony Island/Hayes

April 2018

Exhibit 31

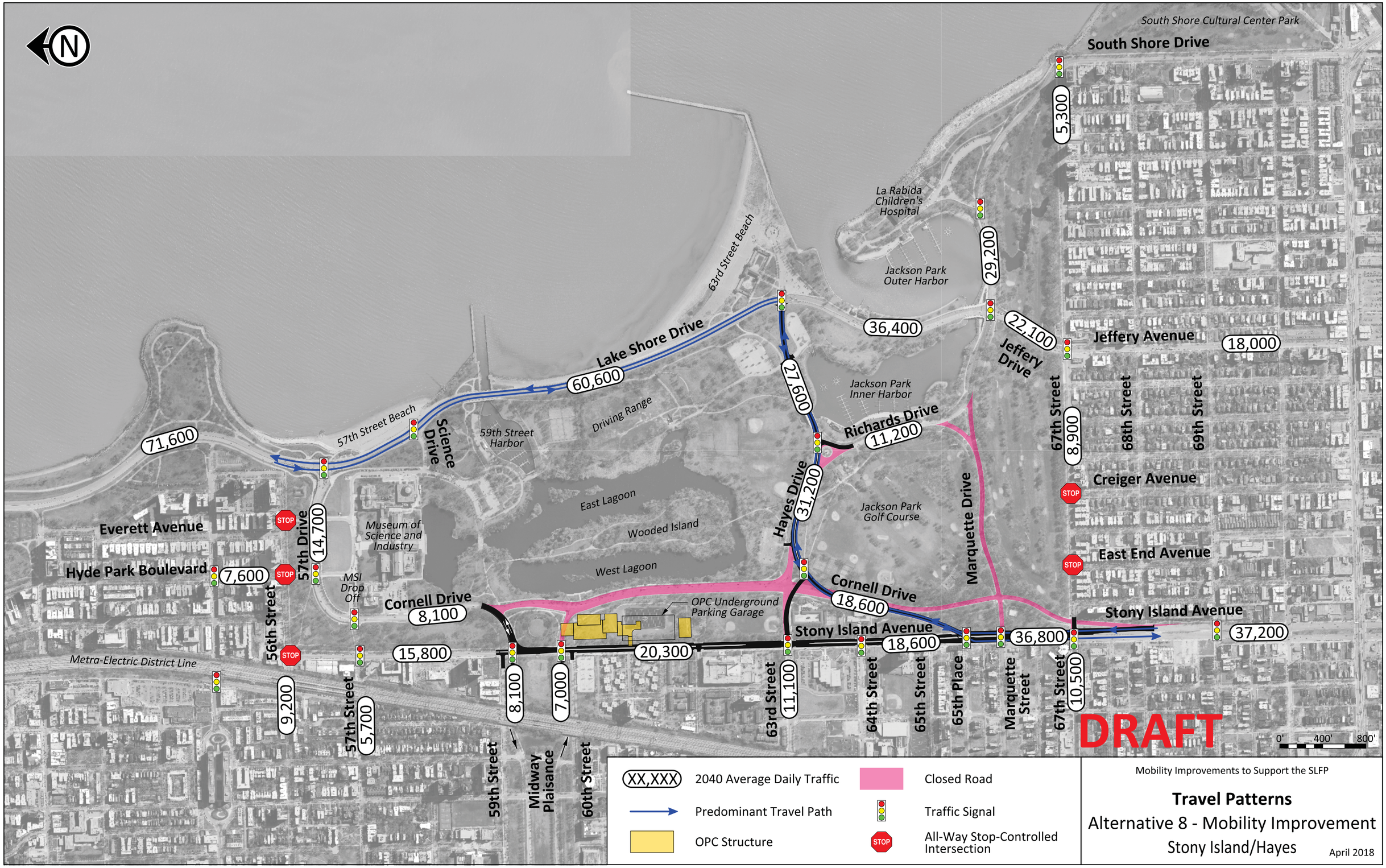

South Shore Cultural Center Park
South Shore Drive
5,300
La Rabida Children's Hospital
29,200
Jackson Park Outer Harbor
63rd Street Beach
Lake Shore Drive
60,600
36,400
22,100
Jeffery Avenue
18,000
Jeffery Drive
27,600
Jackson Park Inner Harbor
71,600
57th Street Beach
Science Drive
59th Street Harbor
Driving Range
Richards Drive
11,200
67th Street
8,900
68th Street
69th Street
Creiger Avenue
Hayes Drive
31,200
Jackson Park Golf Course
Marquette Drive
East Lagoon
Wooded Island
West Lagoon
Everett Avenue
14,700
57th Drive
Museum of Science and Industry
East End Avenue
Hyde Park Boulevard
7,600
MSI Drop Off
Cornell Drive
18,600
OPC Underground Parking Garage
Stony Island Avenue
37,200
Cornell Drive
8,100
Stony Island Avenue
18,600
36,800
20,300
15,800
56th Street
Metra-Electric District Line
9,200
57th Street
5,700
8,100
7,000
63rd Street
11,100
64th Street
65th Street
65th Place
Marquette Street
67th Street
10,500
59th Street
Midway Plaisance
60th Street
DRAFT
0'
400'
800'
XX,XXX
2040 Average Daily Traffic
Predominant Travel Path
OPC Structure
Closed Road
Traffic Signal
All-Way Stop-Controlled Intersection
STOP
Mobility Improvements to Support the SLFP
Travel Patterns
Alternative 8 - Mobility Improvement
Stony Island/Hayes
April 2018

Exhibit 32

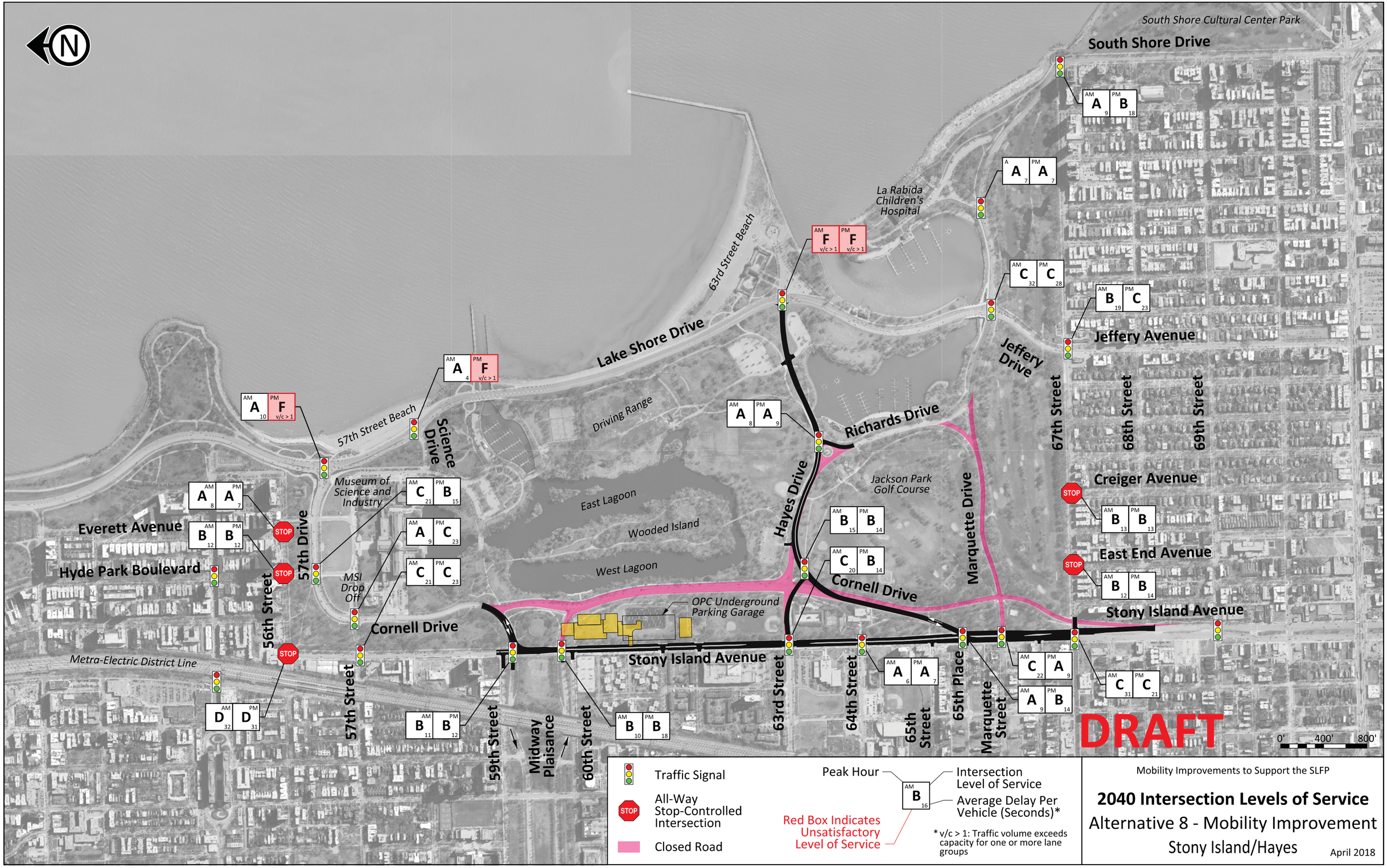

South Shore Cultural Center Park
South Shore Drive
AM A 9 PM B 18
AM A 7 PM A 7
La Rabida Children's Hospital
AM F v/c > 1 PM F v/c > 1
63rd Street Beach
AM C 32 PM C 28
AM B 19 PM C 23
Jeffery Avenue
Lake Shore Drive
AM A 4 PM F v/c > 1
AM A 10 PM F v/c > 1
57th Street Beach
Science Drive
Driving Range
Jeffery Drive
67th Street
68th Street
69th Street
AM A 8 PM A 9
Richards Drive
Hayes Drive
Jackson Park Golf Course
Marquette Drive
Creiger Avenue
STOP
AM B 13 PM B 13
East End Avenue
AM B 12 PM B 14
Stony Island Avenue
AM A 8 PM A 7
Everett Avenue
AM B 12 PM B 12
Hyde Park Boulevard
57th Drive
Museum of Science and Industry
AM C 21 PM B 15
AM A 9 PM C 23
AM C 21 PM C 23
MSI Drop Off
East Lagoon
Wooded Island
West Lagoon
AM B 15 PM B 14
AM C 20 PM B 14
Cornell Drive
OPC Underground Parking Garage
56th Street
Metra-Electric District Line
AM D 32 PM D 31
57th Street
AM B 11 PM B 12
59th Street
Midway Plaisance
60th Street
AM B 10 PM B 18
63rd Street
64th Street
AM A 6 PM A 7
65th Street
65th Place
Marquette Street
AM C 22 PM A 9
AM A 9 PM B 14
AM C 31 PM C 21
DRAFT
0' 400' 800'
Traffic Signal
All-Way Stop-Controlled Intersection
Closed Road
Peak Hour
AM B 16
Intersection Level of Service
Average Delay Per Vehicle (Seconds)*
Red Box Indicates Unsatisfactory Level of Service
* v/c > 1: Traffic volume exceeds capacity for one or more lane groups
Mobility Improvements to Support the SLFP
2040 Intersection Levels of Service
Alternative 8 - Mobility Improvement
Stony Island/Hayes
April 2018

Exhibit 33

Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 3 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	1 NB, 1 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 EB, 2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	2 EB, 2 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	2 NB, 2 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	2 NB, 2 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	3 NB, 4 SB

Widen 59th St Lagoon Inlet Bridge
WOUS Impact: 0.040 Acres
Floodplain Impact: 0.032 Acre-Feet

Widen Lake Shore Dr to Provide 3 NB Lanes and 3 SB Lanes

Widen 59th St Underpass

Reconfigure Intersections for Additional SB Lane

Reconfigure Intersection for Additional Lanes

Widen 63rd St Underpass

Potential Pedestrian Underpass Concept

Remove 147 Parking Spaces on Hayes Dr to Provide 2 EB Lanes and 2 WB Lanes

Reconfigure to Signalized T-Intersection

Reconfigure Intersection to Provide for Predominant Travel Movement

Potential Pedestrian Underpass Concept

Implement Road Diet on Cornell Dr North of Midway to Reduce to 1 NB Lane and 1 SB Lane, Add 80 Parking Spaces

Proposed Pedestrian Refuge Island and Curb Extensions at Existing Trail Crossing

Potential Pedestrian Underpass Concept

Widen Stony Island Ave to the East to Provide 3 NB Lanes and 4 SB Lanes

Widen Stony Island Ave to the East to Provide 2 NB Lanes and 2 SB Lanes

Widen N Midway Plaisance and Convert to Two-Way to Provide 2 EB Lanes and 2 WB Lanes

Remove Existing Traffic Signal and Convert 59th Street Access to Right-In/Right-Out

Remove Existing Traffic Signal and Convert 60th Street Access to Right-In/Right-Out

Remove 14 Parking Spaces to Provide Additional EB Left Turn Lane

Proposed Traffic Signal

Widen SB Cornell Dr and Convert to Two-Way to Provide 2 NB Lanes and 2 SB Lanes

Potential Pedestrian Underpass Concept

DRAFT

0' 400' 800'

Existing Structures
Potential Ped Underpass Concept
Proposed Trail Connection
Closed Road
Proposed Roadway Improvement
Structure Widening
Section 4(f) Land
NRHP Listed Property (Ind.)
NRHP Listed Historic District
Obama Presidential Center
NRHP Eligible* Property (Ind.)
NRHP Eligible* Historic District
*Pending SHPO Concurrence
Existing Wetlands
Existing WOUS
100-Year Floodplain
Proposed Traffic Signal
Proposed Curb Extensions
Existing Traffic Signal
Retime Existing Traffic Signal
Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

Build Alternative Concept

Alternative 9 - Mobility Improvement

LSD/Stony Island/Hayes

April 2018

Exhibit 34

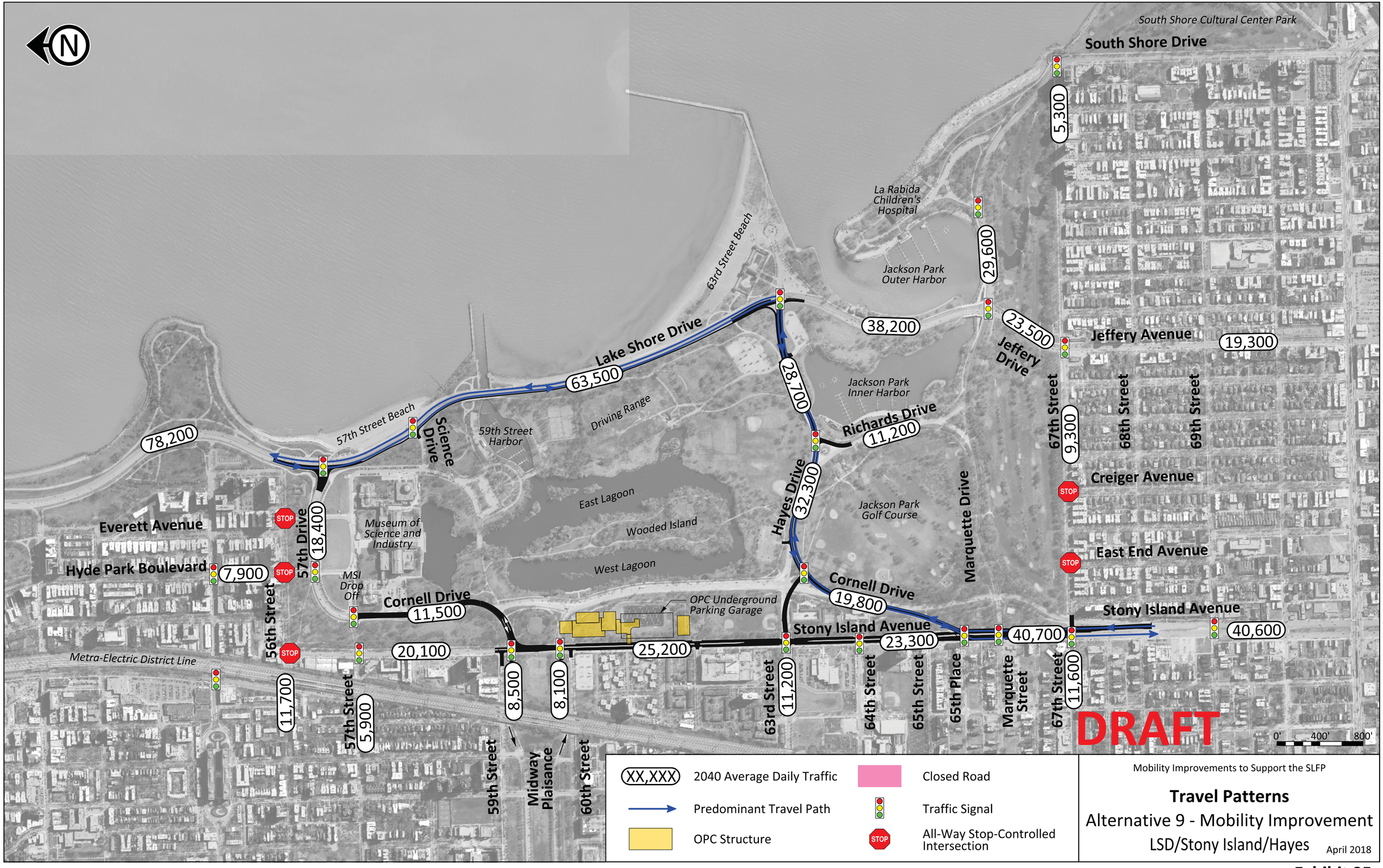

South Shore Cultural Center Park
South Shore Drive
5,300
La Rabida Children's Hospital
29,600
63rd Street Beach
Jackson Park Outer Harbor
38,200
23,500
Jeffery Drive
Jeffery Avenue
19,300
Lake Shore Drive
63,500
28,700
Jackson Park Inner Harbor
Richards Drive
11,200
67th Street
9,300
68th Street
69th Street
78,200
57th Street Beach
Science Drive
59th Street Harbor
Driving Range
East Lagoon
Wooded Island
West Lagoon
Museum of Science and Industry
Jackson Park Golf Course
Hayes Drive
32,300
Marquette Drive
Creiger Avenue
STOP
East End Avenue
Everett Avenue
Hyde Park Boulevard
7,900
57th Drive
18,400
MSI Drop Off
Cornell Drive
11,500
OPC Underground Parking Garage
19,800
Stony Island Avenue
23,300
40,700
40,600
56th Street
Metra-Electric District Line
20,100
25,200
11,700
57th Street
5,900
8,500
8,100
59th Street
Midway Plaisance
60th Street
63rd Street
11,200
64th Street
65th Street
65th Place
Marquette Street
67th Street
11,600
DRAFT
0'
400'
800'
XX,XXX
2040 Average Daily Traffic
Predominant Travel Path
OPC Structure
Closed Road
Traffic Signal
All-Way Stop-Controlled Intersection
Mobility Improvements to Support the SLFP
Travel Patterns
Alternative 9 - Mobility Improvement
LSD/Stony Island/Hayes
April 2018

Exhibit 35

South Shore Cultural Center Park

South Shore Drive

AM A 9 PM A 9

AM A 8 PM A 7

La Rabida Children's Hospital

AM C 24 PM C 24

63rd Street Beach

AM C 34 PM C 30

AM C 22 PM C 22

Jeffery Avenue

Jeffery Drive

67th Street

68th Street

69th Street

Lake Shore Drive

AM A 4 PM A 2

AM A 8 PM B 17

57th Street Beach

Science Drive

Driving Range

AM B 11 PM A 9

Richards Drive

Hayes Drive

Jackson Park Golf Course

Marquette Drive

Creiger Avenue

STOP

AM B 13 PM B 13

East End Avenue

AM B 12 PM B 14

Stony Island Avenue

Museum of Science and Industry

AM B 19 PM B 14

AM A 8 PM A 7

Everett Avenue

AM B 12 PM B 12

Hyde Park Boulevard

East Lagoon

Wooded Island

West Lagoon

AM B 11 PM B 14

AM C 23 PM B 15

Cornell Drive

57th Drive

56th Street

AM A 8 PM B 19

AM C 21 PM B 19

MSI Drop Off

OPC Underground Parking Garage

Cornell Drive

Metra-Electric District Line

AM D 32 PM D 31

57th Street

AM B 18 PM B 12

59th Street

Midway Plaisance

60th Street

AM B 15 PM B 19

Stony Island Avenue

63rd Street

AM A 7 PM A 6

64th Street

65th Street

65th Place

Marquette Street

AM C 21 PM B 11

AM A 7 PM B 14

AM C 30 PM B 19

DRAFT

0' 400' 800'

Traffic Signal

All-Way Stop-Controlled Intersection

Closed Road

Peak Hour

AM B 16

Intersection Level of Service

Average Delay Per Vehicle (Seconds)*

Red Box Indicates Unsatisfactory Level of Service

* v/c > 1: Traffic volume exceeds capacity for one or more lane groups

Mobility Improvements to Support the SLFP

2040 Intersection Levels of Service

Alternative 9 - Mobility Improvement

LSD/Stony Island/Hayes

April 2018

Exhibit 36