# Environmental Assessment Traffic Congestion Technical Memorandum Appendix H

Federal Actions In and Adjacent to Jackson Park:
Urban Park and Recreation Recovery Amendment and Transportation
Improvements
Jackson Park, City of Chicago, Illinois

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National Park Service Federal Highway Administration

# **Table of Contents**

L.O		Introduction	1
2.0		Existing Conditions	2
2	.1	General Characteristics	2
2	.2	Roadway-Specific Characteristics	2
	2.2.1	Cornell Drive/57th Drive	3
	2.2.2	U.S. Route 41 (Lake Shore Drive)/Jeffrey Boulevard	3
	2.2.3	Stony Island Avenue	3
	2.2.4	North and South Midway Plaisance	4
	2.2.5	63rd Street/Hayes Drive	4
	2.2.6	Richards Drive	4
	2.2.7	Marquette Road/Marquette Drive	4
	2.2.8	67th Street	5
2	.3	Existing Traffic Volumes	5
2	.4	Existing Traffic Operations	5
2	.5	Existing Travel Patterns	6
2	.6	Existing Parking Supply	8
3.0		Impacts Analysis	10
3	.1	Alternative A: 2040 No Action	10
	3.1.1	Direct Impacts	10
	3.1.2	Indirect Impacts – City Actions	14
	3.1.3	Cumulative Impacts	14
3	.2	Alternative B: NPS Action (FHWA No Build)	14
	3.2.1	Direct Impacts	14
	3.2.2	Indirect Impacts – City Actions	14
	3.2.3	Cumulative Impacts	19
3	.3	Alternative C: NPS + FHWA Action (Preferred Alternative)	19
	3.3.1	Direct Impacts	19
	3.3.2	Indirect Impacts – City Actions	26
	3.3.3	Cumulative Impacts	26
1.0		2050 Regional Plan Analysis	26
4	.1	2050 Regional Growth and Traffic Impacts	26

4.2	CMAP Plan Amendment	29
5.0	Summary	29
6.0	References	32
List of Tables	S	
Table 1: Anti	cipated Diversions to Alternate North-South Roadways	1
Table 2: Leve	el of Service Criteria – Unsignalized Intersections	5
Table 3: Leve	el of Service Criteria – Signalized Intersections	6
	6 Existing Conditions Operational Performance Summary	
Table 5: Exist	ting Conditions Travel Times	8
	ting On-Street Parking Supply Summary	
	rnative A Travel Times	
	O Alternative A Operational Performance Summary	
	rnative B Travel Times	
	40 Alternative B Operational Performance Summary	
	ernative B Parking Supply Summary	
	ernative C Travel Times	
	40 Alternative C Operational Performance Summary	
	ernative C Parking Supply Summary	
	50 Alternative C Operational Performance Summary	
Table 16: Op	erational Performance Summary	30
Attachments	5	
Average Dail	y Traffic Volume and Travel Patterns – Existing (2016) Conditions	Attachment H-1a
Intersection	Levels of Service – Existing (2016) Conditions	Attachment H-1b
Average Dail	y Traffic Volume and Travel Patterns – Alternative A (2040)	Attachment H-2a
	Levels of Service – Alternative A (2040)	
Average Dail	y Traffic Volume and Travel Patterns – Alternative B (2040)	Attachment H-3a
Intersection	Levels of Service – Alternative B (2040)	Attachment H-3b
Average Dail	y Traffic Volume and Travel Patterns – Alternative C (2040)	Attachment H-4a
Intersection	Levels of Service – Alternative C (2040)	Attachment H-4b
CMAP Coord	ination	Attachment H-5
_	y Traffic Volume and Travel Patterns – Alternative A (2050)	
	y Traffic Volume and Travel Patterns – Alternative B (2050)	
_	y Traffic Volume and Travel Patterns – Alternative C (2050)	
Intersection	Levels of Service – Alternative C (2050)	Attachment H-8b

#### Introduction 1.0

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

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

The Chicago Metropolitan Agency for Planning (CMAP) assisted with the development of future traffic volumes for the TIS with 2040 traffic projections for No-Build and Build scenarios developed from their regional travel demand model developed for their GO TO 2040 regional plan (CMAP 2014). CMAP is the regional Metropolitan Planning Organization (MPO) for Northeastern Illinois. The results of the travel demand modeling for the TIS indicated that traffic diversion to roadways outside Jackson Park would not require adding additional capacity to those roadways. As shown in Table 1, sufficient reserve capacity exists on parallel arterials to absorb any diversions that would occur without adverse neighborhood impacts.

Table 1: Anticipated Diversions to Alternate North-South Roadways

	2016 AADT <sup>1</sup>	Diverted Traffic	2040 4 4 5
Roadway	2016 AAD1-	Due to Closures	2040 AAD
Noauway	(vob (day)	Due to closures	luch Idas

Roadway	2016 AADT¹ (veh./day)	Diverted Traffic  Due to Closures  (veh./day)	2040 AADT (veh./day)	Maximum Projected Capacity (veh./day)
Dan Ryan Expressway	314,600	3,500	318,100	360,000
State Street	4,300	500	4,800	18,000
Dr. Martin Luther King, Jr. Drive	11,100	700	11,800	12,400
Cottage Grove Avenue	18,400	1,200	19,600	25,000
Woodlawn Avenue	3,500	700	4,200	10,000
Stony Island Avenue	13,800	5,400	19,200	30,000
Cornell Drive	27,000	27,000	0	-
Lake Shore Drive	46,300	14,600	60,900	88,900

<sup>&</sup>lt;sup>1</sup>AADT = Annual Average Daily Traffic

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

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

Cornell Drive between 63rd Street and 57th Drive,

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

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

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

The results of the 2050 sensitivity analysis found that the need for the proposed improvements does not change under anticipated year 2050 traffic volumes. The alternatives needed to address the change in traffic patterns remain the same, and the proposed alternative is anticipated to operate similarly under anticipated 2050 traffic volumes as it does under 2040 traffic volumes.

## 2.0 Existing Conditions

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

#### 2.1 General Characteristics

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

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

# 2.2 Roadway-Specific Characteristics

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

#### 2.2.1 Cornell Drive/57th Drive

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

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

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

#### 2.2.3 Stony Island Avenue

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

#### 2.2.4 North and South Midway Plaisance

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

#### 2.2.5 63rd Street/Hayes Drive

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

#### 2.2.6 Richards Drive

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

#### 2.2.7 Marquette Road/Marquette Drive

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

#### 2.2.8 67th Street

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

## 2.3 Existing Traffic Volumes

Existing Average Daily Traffic (ADT) and peak hour traffic volumes were collected in October 2016 in support of the *Jackson Park Revitalization TIS* that was completed in 2018. The summarized ADT volume data is included in Attachment H-1a for reference. From the existing traffic volume data, the A.M. peak hour was found to occur between 7:30 A.M. and 8:30 A.M., and the P.M. peak hour occurred between 4:00 P.M. and 5:00 P.M.

## 2.4 Existing Traffic Operations

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

The ability of an intersection to accommodate traffic flow is expressed in terms of Level-of-Service (LOS), which is assigned a letter grade from A to F based on the average control delay experienced by vehicles passing through the intersection. Control delay is that portion of the total delay attributed to the traffic signal or stop sign control operation, and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. LOS A is the highest grade (best traffic flow and least delay), LOS E represents saturated or at-capacity conditions, and LOS F is the lowest grade (oversaturated conditions, extensive delays). The Highway Capacity Manual definitions for LOS and the corresponding control delay are shown in Tables 2 and 3 for unsignalized intersections and for signalized intersections, respectively. In the Chicago region, motorists are generally accustomed to some delays at unsignalized intersections and will tolerate LOS values of E and sometimes F provided that they are not experiencing more than one to two minutes of delay. At signalized intersections, LOS D is generally considered the lowest desirable level of traffic operations by most transportation agencies in the Chicago region.

 Level of Service
 Average Control Delay (seconds per vehicle)

 A
 0 - 10

 B
 > 10 - 15

 C
 > 15 - 25

 D
 > 25 - 35

 E
 > 35 - 50

Table 2: Level of Service Criteria – Unsignalized Intersections

Source: 2010 Highway Capacity Manual.

> 50 or volume to capacity (v/c) ratio  $\geq 1.0$ 

Table 3: Level of Service Criteria – Signalized Intersections

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

Source: 2010 Highway Capacity Manual.

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

The results of the operational analysis for existing conditions are shown on Attachment H-1b and summarized in Table 4. As indicated in Table 4, most intersections operate at LOS C or better during both peak hours. Some intersections (Stony Island Avenue at 64th Street, 57th Street at Cornell Drive, and 57th Drive at Hyde Park Boulevard) have one or more movements with traffic volumes that exceed capacity under existing conditions, resulting in congestion and queuing within the roadway network near those intersections.

## 2.5 Existing Travel Patterns

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

Table 4: 2016 Existing Conditions Operational Performance Summary

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

<sup>\*</sup>Indicates All-way Stop-Controlled Intersection

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

- 67th Street/Stony Island Avenue to Lake Shore Drive/57th Drive
- 67th Street/Stony Island Avenue to 56th Street/Stony Island Avenue

<sup>\*\*</sup>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.

<sup>&</sup>lt;sup>†</sup> Indicates unsignalized intersection with stop control on the minor approach.

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

The existing travel times along these routes are shown in Table 5.

Table 5: Existing Conditions Travel Times

Direction/Peak Period	67th/Stony to 57th/LSD Travel Time (minutes)	67th/Stony to 56th/Stony Travel Time (minutes)	Midway/Stony NB to 57th/LSD Travel Time (minutes)	Midway/Stony SB to 67th/Stony Travel Time (minutes)
Northbound AM	4.5	3.7	2.7	-
Northbound PM	4.7	3.8	2.9	-
Southbound AM	4.1	4.5	-	2.7
Southbound PM	4.8	4.8	-	3.2

## 2.6 Existing Parking Supply

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

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

An inventory of the available existing on-street parking was conducted as part of the *Jackson Park Revitalization TIS*. The existing on-street parking supply is summarized in Table 6. Based on the parking inventory, there are currently 841 available on-street parking spaces within Jackson Park. Please note that while parking is legally permitted on Marquette Drive between Lake Shore Drive and Stony Island Avenue, parking does not occur on this section of roadway.

Table 6: Existing On-Street Parking Supply Summary

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

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

## 3.0 Impacts Analysis

The following sections present the impact analysis for potential impacts on traffic congestion and parking for the three alternatives considered.

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

The cumulative impacts analysis will assess the synergistic effect of combining the impacts of the Federal Actions, any indirect impacts following the Federal Actions, and the impacts of the following past, present, or reasonably foreseeable actions that are unrelated to the Federal Actions. Section 5.2.1 of the EA considers certain other past, present, or reasonably foreseeable projects, unrelated to the OPC project, that potentially impact the same resources. The Stony Island Avenue Traffic Improvements and Midway Plaisance Resurfacing projects have the potential to impact traffic congestion.

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

#### 3.1 Alternative A: 2040 No Action

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

#### 3.1.1 Direct Impacts

#### 3.1.1.1 Anticipated Traffic Volumes

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

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

Woodlawn Residential and Dining Commons located at Woodlawn Avenue and 61st Street

No roadway network changes were included in this alternative. The ADT volumes for this alternative are shown on Attachment H-2a.

#### 3.1.1.2 Anticipated Travel Patterns

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

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

Table 7 depicts a comparative table of travel time changes between Alternative A and the existing conditions. Travel times along the analyzed routes are not expected to increase more than 36 seconds (0.6 minutes).

Table 7: Alternative A Travel Times

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

Alternative	Direction/ Peak Period	67th/Stony to 57th/LSD Travel Time (minutes)	67th/Stony to 56th/Stony Travel Time (minutes)	Midway/Stony NB to 57th/LSD Travel Time (minutes)	Midway/Stony SB to 67th/Stony Travel Time (minutes)
Difference Alt. A to Existing	Southbound PM	0.2	0.6	-	0.1

## 3.1.1.3 Operational Performance

The results of the operational analysis from the *Jackson Park Revitalization TIS* for Alternative A are shown on Attachment H-2b and summarized in Table 8. The operational analysis results for 2016 Existing Conditions are also shown in the table for comparison purposes.

Table 8: 2040 Alternative A Operational Performance Summary

Intersection	2016 Existing Conditions Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2016 Existing Conditions Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour	2040 Alternative A Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative A Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour
Lake Shore Dr at Marquette Dr	C (24)	C (24)	C (24)	C (24)
Lake Shore Dr at Hayes Dr	B (17)	B (16)	B (17)	B (17)
Lake Shore Dr at Science Dr	A (3)	A (5)	A (3)	A (6)
Lake Shore Dr at 57th Street	C (28)	B (19)	D (35)	C (23)
Stony Island Ave at 67th St	B (18)	D (50)	B (19)	F (**)
Stony Island Ave at Marquette Dr	B (12)	B (14)	B (13)	B (14)
Stony Island Ave at 65th PI/Cornell Dr (SB)	B (10)	B (15)	B (10)	B (16)
Stony Island Ave at 64th St *	F (**)	F (**)	F (**)	F (**)
Stony Island Ave at 63rd St/Hayes Dr	B (16)	B (13)	B (16)	B (13)
Stony Island Ave at 62nd St <sup>+</sup>	C (17) [EB]	C (21) [EB]	C (17) [EB]	C (22) [EB]
Stony Island Ave at 60th St	B (11)	B (10)	B (11)	B (10)
Stony Island Ave at S Midway Plaisance (EB)	B (11)	C (26)	B (11)	F (**)
Stony Island Ave at N Midway Plaisance (WB)	C (31)	A (9)	D (48)	A (9)
Stony Island Ave at 59th St	B (19)	A (9)	B (19)	A (9)
Stony Island Ave at 57th St	C (25)	D (36)	C (25)	D (37)
Stony Island Ave at 56th St *	E (35)	D (28)	E (40)	D (29)
Cornell Dr/57th Dr at 67th St	C (26)	C (22)	C (26)	C (23)
Cornell Dr/57th Dr at Marquette Dr	A (7)	A (10)	A (8)	A (10)
Cornell Dr/57th Dr at Hayes Dr	B (11)	B (11)	B (11)	B (11)
Cornell Dr/57th Dr at S Midway Plaisance (EB)	A (7)	A (7)	A (7)	A (7)
Cornell Dr/57th Dr at 57th St/MSI Drop off	F (**)	F (**)	F (**)	F (**)
Cornell Dr/57th Dr at Hyde Park Blvd	F (**)	C (22)	F (**)	C (23)
67th St at East End Ave *	B (10)	B (10)	B (11)	B (11)
67th St at Cregier Ave *	B (10)	B (10)	B (10)	B (11)
67th St at Jeffery Ave	B (20)	B (16)	C (20)	B (16)
67th St at South Shore Dr	B (14)	B (18)	B (15)	B (18)
Marquette Dr at Richards Dr (West)	B (10)	A (9)	B (10)	A (9)
Marquette Dr at Richards Dr (East)	A (10)	B (15)	A (10)	B (16)
Marquette Dr at La Rabida Entrance	B (14)	A (7)	B (14)	A (7)
Richards Dr at Marquette Dr (North)	A (1)	A (1)	A (1)	A (1)
Richards Dr at Hayes Dr *	A (9)	B (14)	A (8)	B (14)
56th St at Hyde Park Blvd *	B (12)	B (12)	B (12)	B (13)
56th St at Everett Ave *	A (8)	A (7)	A (8)	A (7)

<sup>\*</sup>Indicates All-way Stop-Controlled Intersection

<sup>\*\*</sup> 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.

<sup>†</sup>Indicates unsignalized intersection with stop control on the minor approach.

As shown in Table 8, most intersections would continue to operate at similar LOS as under Existing Conditions if Alternative A is implemented and no roadway or intersection improvements are constructed prior to 2040. However, some intersections do experience a degradation of traffic operations due to the increase in background traffic and the additional traffic generated by University of Chicago near-term campus development projects. Two intersections degrade to a LOS F during at least one peak hour due to traffic growth, as described below:

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

#### 3.1.1.4 Parking Supply

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

#### 3.1.2 Indirect Impacts – City Actions

There would be no indirect traffic or parking impacts under Alternative A, because the proposed actions would not occur.

#### 3.1.3 Cumulative Impacts

As discussed in Section 5.2.1 of the EA, the Stony Island Avenue Traffic Improvements and Midway Plaisance Resurfacing projects have the potential to cause traffic congestion impacts. These projects would be expected to have short term adverse impacts to congestion, but long term beneficial impacts once implemented. Alternative A would not contribute to any cumulative impacts, as no additional federal action occurs under this alternative.

## 3.2 Alternative B: NPS Action (FHWA No Build)

Alternative B includes National Park Service (NPS) approval of the partial conversion of recreation due to the construction of Obama Presidential Center (OPC) and replacement of recreation opportunities on the east end of the Midway Plaisance.

This alternative assumes that no roadway or intersection improvements would be constructed prior to 2040 to accommodate background traffic growth.

## 3.2.1 Direct Impacts

There are no direct traffic or parking impacts associated with Alternative B.

#### 3.2.2 Indirect Impacts – City Actions

Replacement of recreational opportunities on the Midway under Alternative B would allow certain roadways within Jackson Park to be closed, the OPC site to be developed and the track and field to be relocated. Thus, indirect impacts associated with Alternative B include the proposed roadway closures,

development of the OPC and relocation of the track and field. The indirect impacts associated with these actions are evaluated below.

#### 3.2.2.1 Anticipated Travel Patterns

The roadway closures would result in a change in travel patterns in the project study area and would redistribute traffic to the surrounding roadway network. An initial study conducted by the CMAP as part of the *Jackson Park Revitalization TIS* estimated approximately 24-28 percent of all vehicle trips will reroute to alternate roadways outside of the project study area. As a result of closing Cornell Drive, some of the remaining vehicles within the network would divert to Stony Island Avenue to the west; however, the majority of the remaining vehicles would divert to Lake Shore Drive to the east. With the closure of Marquette Drive, many vehicles would reroute onto Hayes Drive to ultimately travel to and from Lake Shore Drive. Table 9 depicts a comparative table of travel time changes between Alternative B versus Alternative A.

Table 9: Alternative B Travel Times

Alternative	Direction/ Peak Period	67th/Stony to 57th/LSD Travel Time (minutes)	67th/Stony to 56th/Stony Travel Time (minutes)	Midway/Stony NB to 57th/LSD Travel Time (minutes)	Midway/Stony SB to 67th/Stony Travel Time (minutes)
Alternative A No Action	Northbound AM	4.6	8.0	2.8	-
Alternative A No Action	Northbound PM	4.8	5.2	3.0	-
Alternative A No Action	Southbound AM	4.5	5.1	-	3.0
Alternative A No Action	Southbound PM	5.3	8.2	-	3.6
Alternative B	Northbound AM	12.8	36.5	12.1	-
Alternative B	Northbound PM	7.5	10.1	4.3	-
Alternative B	Southbound AM	6.1	5.4	-	3.4
Alternative B	Southbound PM	12.8	13.4	-	11.7
Difference Alt. B to Alt. A	Northbound AM	8.2	28.5	9.3	-
Difference Alt. B to Alt. A	Northbound PM	2.7	4.9	1.3	-
Difference Alt. B to Alt. A	Southbound AM	1.6	0.3	-	0.4
Difference Alt. B to Alt. A	Southbound PM	7.5	5.2	-	8.1

As shown in the table, travel times between 67th Street/Stony Island Avenue and 57th Street/Lake Shore Drive increased by more than 8 minutes headed northbound in the morning peak hour and by 7.5 minutes southbound in the evening peak hour due to the closure of Cornell Drive. Along Stony Island Avenue in the morning peak hour, travel times between 67th Street and 56th Street increase by over 28 minutes.

Temporary traffic impacts during construction are anticipated to be localized areas of congestion due to temporary lane closures and temporary detour routings. Some through traffic is anticipated to divert to parallel north-south arterials or the Dan Ryan Expressway in response to the temporary lane closures and resultant congestion.

#### 3.2.2.2 Anticipated Traffic Volumes

The 2040 traffic volumes developed for Alternative B assumed the CMAP reduction in traffic volumes as described above, additional visitor and employee traffic for the OPC, and reassignment of traffic as described previously to reflect diversions to other roadways due to the proposed closures. Because no roadway improvements are being constructed for this alternative, it is assumed that the remaining section of Cornell Drive between Hayes Drive and Stony Island Avenue would remain one-way southbound although the northbound split alignment section is closed. Additionally, North Midway Plaisance would remain one-way westbound east of Stony Island Avenue, resulting in Cornell Drive being one-way southbound south of 57th Street.

The closure of northbound Cornell Drive would increase the northbound through volume by 925 vehicles during the A.M. peak hour along Stony Island Avenue. Northbound vehicles that are destined for Lake Shore Drive will either turn right onto Hayes Drive, or remain on Stony Island Avenue and turn right onto 57th Street. During the P.M. peak hour, 915 additional southbound vehicles along Lake Shore Drive will turn right onto Hayes Drive. With the closure of Cornell Drive, the north leg of the Hayes Drive at Cornell Drive intersection would be removed, resulting in a T-intersection configuration and causing an additional 725 westbound left turns from diverted traffic. The ADT volumes for this alternative are shown on Attachment H-3a.

#### 3.2.2.3 Operational Performance

The results of the operational analysis for Alternative B are shown on Attachment H-3b and summarized in Table 10. The operational analysis results for Alternative A are also shown in the table for comparison purposes. As shown in the table, nine additional signalized intersections within the roadway network experience a LOS F and/or operate over capacity during either the morning or the evening peak hour compared to Alternative A. These additional LOS F intersections are a result of traffic diversions and traffic redistribution caused by the roadway closures.

Roadways experiencing the greatest traffic impacts include Stony Island Avenue during the A.M. peak hour and Lake Shore Drive during the P.M. peak hour. Stony Island Avenue currently has only one travel lane in each direction north of 65th Street and does not have available capacity for the amount of anticipated Cornell Drive traffic diversions during the A.M. peak hour. Similarly, Lake Shore Drive under existing conditions only has two southbound travel lanes south of 57th Drive, and the diverted Cornell Drive traffic during the P.M. peak hour exceeds the available capacity of the roadway.

The traffic analysis results indicate that under Alternative B conditions, many intersections would experience considerable increases in delay and operate over capacity.

Table 10: 2040 Alternative B Operational Performance Summary

Lake Shore Dr at Marquette Dr	Intersection	2040 Alternative A Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative A Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour	2040 Alternative B Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative B Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour
Lake Shore Dr at Science Dr	Lake Shore Dr at Marquette Dr	C (24)	C (24)	C (22)	C (26)
Lake Shore Dr at 57th Street	·	B (17)	B (17)	F (**)	. ,
Stony Island Ave at 67th St	Lake Shore Dr at Science Dr	A (3)	A (6)	B (19)	. ,
Stony Island Ave at Marquette Dr	Lake Shore Dr at 57th Street	D (35)			
Stony Island Ave at 65th PI/Cornell Dr (SB)   B (10)   B (16)   F (**)   C (30)	Stony Island Ave at 67th St	B (19)	F (**)	F (**)	F (**)
Dr (SB)   Stony Island Ave at 64th St *   F(**)   F(	Stony Island Ave at Marquette Dr	B (13)	B (14)	D (50)	B (15)
Stony Island Ave at 63rd St/Hayes Dr	1	B (10)	B (16)	F (**)	C (30)
Stony Island Ave at 62nd St	Stony Island Ave at 64th St *	F (**)	F (**)	F (**)	F (**)
Stony Island Ave at 60th St         B (11)         B (10)         B (17)         B (14)           Stony Island Ave at S Midway Plaisance (EB)         B (11)         F (**)         B (13)         C (31)           Stony Island Ave at N Midway Plaisance (WB)         D (48)         A (9)         F (**)         C (32)           Stony Island Ave at 59th St         B (19)         A (9)         F (**)         C (24)           Stony Island Ave at 57th St         C (25)         D (37)         F (**)         F (**)           Stony Island Ave at 57th St         C (25)         D (37)         F (**)         F (**)           Stony Island Ave at 57th St         C (25)         D (37)         F (**)         F (**)           Stony Island Ave at 56th St         E (40)         D (29)         D (32)         D (29)           Cornell Dr/57th Dr at 67th St         C (26)         C (23)         Closed         Closed           Cornell Dr/57th Dr at Hayes Dr         B (11)         B (11)         F (**)         F (**)         F (**)           Cornell Dr/57th Dr at 57th St/MSI Drop off         F (**)         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         F (**)         F (**)         D (53)	Stony Island Ave at 63rd St/Hayes Dr	B (16)	B (13)	F (**)	F (**)
Stony Island Ave at S Midway Plaisance (EB)	Stony Island Ave at 62nd St <sup>+</sup>	C (17) [EB]	C (22) [EB]	F (84) [EB]	F (**)
Stony Island Ave at S Midway Plaisance (EB)	Stony Island Ave at 60th St				B (14)
Plaisance (WB)		B (11)		B (13)	C (31)
Stony Island Ave at 57th St         C (25)         D (37)         F (**)         F (**)           Stony Island Ave at 56th St *         E (40)         D (29)         D (32)         D (29)           Cornell Dr/57th Dr at 67th St         C (26)         C (23)         Closed         Closed           Cornell Dr/57th Dr at Marquette Dr         A (8)         A (10)         Closed         Closed           Cornell Dr/57th Dr at Hayes Dr         B (11)         B (11)         F (**)         F (**)         F (**)           Cornell Dr/57th Dr at S Midway Plaisance (EB)         A (7)         A (7)         Closed         Closed           Cornell Dr/57th Dr at 57th St/MSI Drop off         F (**)         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         F (**)         F (**) <td></td> <td>D (48)</td> <td>A (9)</td> <td>F (**)</td> <td>C (32)</td>		D (48)	A (9)	F (**)	C (32)
Stony Island Ave at 56th St *         E (40)         D (29)         D (32)         D (29)           Cornell Dr/57th Dr at 67th St         C (26)         C (23)         Closed         Closed           Cornell Dr/57th Dr at Marquette Dr         A (8)         A (10)         Closed         Closed           Cornell Dr/57th Dr at Hayes Dr         B (11)         B (11)         F (**)         F (**)           Cornell Dr/57th Dr at S Midway Plaisance (EB)         A (7)         A (7)         Closed         Closed           Cornell Dr/57th Dr at 57th St/MSI Drop off         F (**)         F (**)         F (**)         F (**)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         F (**)         F (**)         D (53)           Drop off         F (**)         F (**)         F (**)         F (**)         D (53)           Drop off         F (**)         F (**)         F (**)         D (53)         D (53)           Gornell Dr/57	Stony Island Ave at 59th St	B (19)	A (9)	F (**)	C (24)
Cornell Dr/57th Dr at 67th St         C (26)         C (23)         Closed         Closed           Cornell Dr/57th Dr at Marquette Dr         A (8)         A (10)         Closed         Closed           Cornell Dr/57th Dr at Hayes Dr         B (11)         B (11)         F (**)         F (**)           Cornell Dr/57th Dr at S Midway Plaisance (EB)         A (7)         A (7)         Closed         Closed           Cornell Dr/57th Dr at 57th St/MSI Drop off         F (**)         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         C (23)         C (21)         B (20)           67th St at East End Ave *         B (11)         B (11)         B (13)         B (14)           67th St at Jeffery Ave         B (10)         B (11)         B (13)         B (14)           67th St at South Shore Dr         B (15)         B (18)         B (17)         B (19)           Marquette Dr at Richards Dr (West)         B (10)         A (9)         Closed         Closed           Marquette Dr at La Rabida Entrance         B (14)         A (7)         B (14)         A (7)           Richards Dr at Hayes Dr *         A (8)         B (14)         A (9)         B (15)	Stony Island Ave at 57th St	C (25)	D (37)	F (**)	F (**)
Cornell Dr/57th Dr at Marquette Dr         A (8)         A (10)         Closed         Closed           Cornell Dr/57th Dr at Hayes Dr         B (11)         B (11)         F (**)         F (**)           Cornell Dr/57th Dr at S Midway Plaisance (EB)         A (7)         A (7)         Closed         Closed           Cornell Dr/57th Dr at 57th St/MSI Drop off         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         C (23)         C (21)         B (20)           67th St at East End Ave *         B (11)         B (11)         B (13)         B (14)           67th St at Cregier Ave *         B (10)         B (11)         B (13)         B (14)           67th St at Jeffery Ave         C (20)         B (16)         B (20)         C (20)           67th St at South Shore Dr         B (15)         B (18)         B (17)         B (19)           Marquette Dr at Richards Dr (West)         B (10)         A (9)         Closed         Closed           Marquette Dr at Richards Dr (East)         A (10)         B (16)         Closed         Closed           Marquette Dr at La Rabida Entrance         B (14)         A (7)         B (14)         A (7)           Richards Dr at Hayes Dr *         A (8)	Stony Island Ave at 56th St *	E (40)	D (29)	D (32)	D (29)
Cornell Dr/57th Dr at Hayes Dr         B (11)         B (11)         F (**)         F (**)           Cornell Dr/57th Dr at S Midway Plaisance (EB)         A (7)         A (7)         Closed         Closed           Cornell Dr/57th Dr at 57th St/MSI Drop off         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         C (23)         C (21)         B (20)           67th St at East End Ave *         B (11)         B (11)         B (13)         B (14)           67th St at Cregier Ave *         B (10)         B (11)         B (13)         B (14)           67th St at Jeffery Ave         C (20)         B (16)         B (20)         C (20)           67th St at South Shore Dr         B (15)         B (18)         B (17)         B (19)           Marquette Dr at Richards Dr (West)         B (10)         A (9)         Closed         Closed           Marquette Dr at Richards Dr (East)         A (10)         B (16)         Closed         Closed           Marquette Dr at La Rabida Entrance         B (14)         A (7)         B (14)         A (7)           Richards Dr at Marquette Dr (North)         A (1)         A (1)         Closed         Closed           Richards Dr at Hayes Dr *         A (8)	Cornell Dr/57th Dr at 67th St	C (26)	C (23)	Closed	Closed
Cornell Dr/57th Dr at S Midway Plaisance (EB)         A (7)         Closed         Closed           Cornell Dr/57th Dr at 57th St/MSI Drop off         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         C (23)         C (21)         B (20)           67th St at East End Ave *         B (11)         B (11)         B (13)         B (14)           67th St at Cregier Ave *         B (10)         B (11)         B (13)         B (14)           67th St at Jeffery Ave         C (20)         B (16)         B (20)         C (20)           67th St at South Shore Dr         B (15)         B (18)         B (17)         B (19)           Marquette Dr at Richards Dr (West)         B (10)         A (9)         Closed         Closed           Marquette Dr at Richards Dr (East)         A (10)         B (16)         Closed         Closed           Marquette Dr at La Rabida Entrance         B (14)         A (7)         B (14)         A (7)           Richards Dr at Marquette Dr (North)         A (1)         A (1)         Closed         Closed           Richards Dr at Hayes Dr *         A (8)         B (14)         A (9)         B (15)	Cornell Dr/57th Dr at Marquette Dr	A (8)	A (10)	Closed	Closed
Plaisance (EB)         A (7)         Closed         Closed           Cornell Dr/57th Dr at 57th St/MSI Drop off         F (**)         F (**)         F (**)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         C (23)         C (21)         B (20)           67th St at East End Ave *         B (11)         B (11)         B (13)         B (14)           67th St at Cregier Ave *         B (10)         B (11)         B (13)         B (14)           67th St at Jeffery Ave         C (20)         B (16)         B (20)         C (20)           67th St at South Shore Dr         B (15)         B (18)         B (17)         B (19)           Marquette Dr at Richards Dr (West)         B (10)         A (9)         Closed         Closed           Marquette Dr at Richards Dr (East)         A (10)         B (16)         Closed         Closed           Marquette Dr at La Rabida Entrance         B (14)         A (7)         B (14)         A (7)           Richards Dr at Marquette Dr (North)         A (1)         A (1)         A (2)         B (15)           Richards Dr at Hayes Dr *         A (8)         B (14)         A (9)         B (15)	Cornell Dr/57th Dr at Hayes Dr	B (11)	B (11)	F (**)	F (**)
Drop off         F (**)         F (**)         F (**)         D (53)           Cornell Dr/57th Dr at Hyde Park Blvd         F (**)         C (23)         C (21)         B (20)           67th St at East End Ave *         B (11)         B (11)         B (13)         B (14)           67th St at Cregier Ave *         B (10)         B (11)         B (13)         B (14)           67th St at Jeffery Ave         C (20)         B (16)         B (20)         C (20)           67th St at South Shore Dr         B (15)         B (18)         B (17)         B (19)           Marquette Dr at Richards Dr (West)         B (10)         A (9)         Closed         Closed           Marquette Dr at Richards Dr (East)         A (10)         B (16)         Closed         Closed           Marquette Dr at La Rabida Entrance         B (14)         A (7)         B (14)         A (7)           Richards Dr at Marquette Dr (North)         A (1)         A (1)         Closed         Closed           Richards Dr at Hayes Dr *         A (8)         B (14)         A (9)         B (15)	•	A (7)	A (7)	Closed	Closed
67th St at East End Ave *       B (11)       B (11)       B (13)       B (14)         67th St at Cregier Ave *       B (10)       B (11)       B (13)       B (14)         67th St at Jeffery Ave       C (20)       B (16)       B (20)       C (20)         67th St at South Shore Dr       B (15)       B (18)       B (17)       B (19)         Marquette Dr at Richards Dr (West)       B (10)       A (9)       Closed       Closed         Marquette Dr at Richards Dr (East)       A (10)       B (16)       Closed       Closed         Marquette Dr at La Rabida Entrance       B (14)       A (7)       B (14)       A (7)         Richards Dr at Marquette Dr (North)       A (1)       A (1)       Closed       Closed         Richards Dr at Hayes Dr *       A (8)       B (14)       A (9)       B (15)		F (**)	F (**)	F (**)	D (53)
67th St at Cregier Ave *       B (10)       B (11)       B (13)       B (14)         67th St at Jeffery Ave       C (20)       B (16)       B (20)       C (20)         67th St at South Shore Dr       B (15)       B (18)       B (17)       B (19)         Marquette Dr at Richards Dr (West)       B (10)       A (9)       Closed       Closed         Marquette Dr at Richards Dr (East)       A (10)       B (16)       Closed       Closed         Marquette Dr at La Rabida Entrance       B (14)       A (7)       B (14)       A (7)         Richards Dr at Marquette Dr (North)       A (1)       A (1)       Closed       Closed         Richards Dr at Hayes Dr *       A (8)       B (14)       A (9)       B (15)	Cornell Dr/57th Dr at Hyde Park Blvd	F (**)	C (23)	C (21)	B (20)
67th St at Jeffery Ave         C (20)         B (16)         B (20)         C (20)           67th St at South Shore Dr         B (15)         B (18)         B (17)         B (19)           Marquette Dr at Richards Dr (West)         B (10)         A (9)         Closed         Closed           Marquette Dr at Richards Dr (East)         A (10)         B (16)         Closed         Closed           Marquette Dr at La Rabida Entrance         B (14)         A (7)         B (14)         A (7)           Richards Dr at Marquette Dr (North)         A (1)         A (1)         Closed         Closed           Richards Dr at Hayes Dr *         A (8)         B (14)         A (9)         B (15)	67th St at East End Ave *	B (11)	B (11)	B (13)	B (14)
67th St at South Shore Dr B (15) B (18) B (17) B (19)  Marquette Dr at Richards Dr (West) B (10) A (9) Closed Closed  Marquette Dr at Richards Dr (East) A (10) B (16) Closed Closed  Marquette Dr at La Rabida Entrance B (14) A (7) B (14) A (7)  Richards Dr at Marquette Dr (North) A (1) A (1) Closed Closed  Richards Dr at Hayes Dr * A (8) B (14) A (9) B (15)	67th St at Cregier Ave *	B (10)	B (11)	B (13)	B (14)
Marquette Dr at Richards Dr (West)B (10)A (9)ClosedClosedMarquette Dr at Richards Dr (East)A (10)B (16)ClosedClosedMarquette Dr at La Rabida EntranceB (14)A (7)B (14)A (7)Richards Dr at Marquette Dr (North)A (1)A (1)ClosedClosedRichards Dr at Hayes Dr *A (8)B (14)A (9)B (15)	67th St at Jeffery Ave	C (20)	B (16)	B (20)	C (20)
Marquette Dr at Richards Dr (East)A (10)B (16)ClosedClosedMarquette Dr at La Rabida EntranceB (14)A (7)B (14)A (7)Richards Dr at Marquette Dr (North)A (1)A (1)ClosedClosedRichards Dr at Hayes Dr *A (8)B (14)A (9)B (15)	67th St at South Shore Dr	B (15)	B (18)	B (17)	B (19)
Marquette Dr at La Rabida EntranceB (14)A (7)B (14)A (7)Richards Dr at Marquette Dr (North)A (1)A (1)ClosedClosedRichards Dr at Hayes Dr *A (8)B (14)A (9)B (15)	Marquette Dr at Richards Dr (West)	B (10)	A (9)	Closed	Closed
Marquette Dr at La Rabida EntranceB (14)A (7)B (14)A (7)Richards Dr at Marquette Dr (North)A (1)A (1)ClosedClosedRichards Dr at Hayes Dr *A (8)B (14)A (9)B (15)		A (10)		Closed	Closed
Richards Dr at Marquette Dr (North) A (1) A (1) Closed Closed Richards Dr at Hayes Dr * A (8) B (14) A (9) B (15)	Marquette Dr at La Rabida Entrance			B (14)	A (7)
Richards Dr at Hayes Dr * A (8) B (14) A (9) B (15)	Richards Dr at Marquette Dr (North)	A (1)	A (1)	Closed	Closed
	Richards Dr at Hayes Dr *		B (14)	A (9)	B (15)
56th St at Hyde Park Blvd * B (12) B (13) B (12) B (13)	56th St at Hyde Park Blvd *				
56th St at Everett Ave * A (8) A (7) A (8) A (7)	56th St at Everett Ave *				

<sup>\*</sup>Indicates All-way Stop-Controlled Intersection

<sup>\*\*</sup> 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.

<sup>&</sup>lt;sup>+</sup> Indicates unsignalized intersection with stop control on the minor approach(es).

#### 3.2.2.4 Parking Supply

The proposed roadway closures in Alternative B would result in a reduction in the amount of on-street parking available within and adjacent to Jackson Park. Table 11 summarizes the available on-street parking supply under Alternative B. The parking supply available under Alternative A is also shown for comparison purposes.

Roadway	From	То	On-Street Parking Spaces¹ Alternative A	On-Street Parking Spaces¹ Alternative B	On-Street Parking Spaces <sup>1</sup> Change
56th St	Shore Dr	Stony Island Ave	101	101	0
Everett Ave	56th St	Cornell Dr	18	18	0
Stony Island Ave	56th St	59th St	102	102	0
Stony Island Ave	60th St	61st St	41	38	-3
Stony Island Ave	61st St	62nd St	19	19	0
Stony Island Ave	62nd St	63rd St	42	42	0
Stony Island Ave	63rd St	67th St	76	76	0
Hayes Dr	Lake Shore Dr	Richards Dr	65	65	0
Hayes Dr	Richards Dr	Cornell Dr	82	82	0
Richards Dr	Hayes Dr	Marquette Dr	78	78	0
Marquette Dr	Lake Shore Dr	Richards Dr	40	40	0
Marquette Dr	Richards Dr	Stony Island Ave	125	0	-125
S. Midway Plaisance	Rail Viaduct	Stony Island Ave	52	52	0
		Total	841	713	-128

Table 11: Alternative B Parking Supply Summary

The roadway closures in Alternative B would result in a loss of 128 public on-street parking spaces. Of the 128 spaces lost, 125 are within the section of Marquette Drive between Richards Drive and Stony Island Avenue. Although this section of Marquette Drive is currently signed to permit parking, it does not function as having on-street parking. Marquette Drive in this section is striped for two travel lanes in each direction, with no existing parking demand noted. Therefore, removal of this section of Marquette Drive in Alternative B: NPS Action (FHWA No Build) would not impact existing parking demand.

Additional off-street parking is proposed under Alternative B as part of the OPC development to accommodate anticipated parking demand resulting from visitors to the center. The amount of off-street parking was evaluated as part of the Jackson Park Revitalization TIS. The number of off-street spaces proposed meets City zoning regulations and is sufficient to accommodate visitors to the OPC and its employees. The proposed off-street parking design has been approved by the City.

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

#### 3.2.3 Cumulative Impacts

Alternative B would result in long-term negative impacts to traffic congestion within the project study area as a result of the roadway closures, traffic diversions and traffic redistribution caused by the roadway closures. As evaluated in Alternative A, the reasonably foreseeable projects with the potential to impact traffic contribute long-term, beneficial impacts. The actions in Alternative B would be the only long-term negative contribution to an overall negative cumulative impact.

## 3.3 Alternative C: NPS + FHWA Action (Preferred Alternative)

This alternative incorporates impacts associated with Alternative B, in addition to those encountered by improving roadways and bicyclist/pedestrian facilities and additional changes to the UPARR boundary. The analysis of impacts in this section will only discuss the <u>additional</u> impacts associated with Alternative C.

#### 3.3.1 Direct Impacts

#### 3.3.1.1 Arterial Capacity Improvements

#### Lake Shore Drive – 57th Drive to Hayes Drive

The existing section of Lake Shore Drive between 57th Drive and Hayes Drive consists of three
northbound and two southbound travel lanes. This section would be widened to add an additional
southbound travel lane, resulting in a proposed section that consists of three northbound and
three southbound travel lanes.

#### Hayes Drive - Cornell Drive to Lake Shore Drive

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

#### Cornell Drive - Hayes Drive to Stony Island Avenue

 The existing section of Cornell Drive between Hayes Drive and Stony Island Avenue consists of three southbound-only travel lanes. This section would be widened to accommodate an additional lane and converted to two-way traffic, resulting in a proposed section that consists of two southbound and two northbound lanes.

#### Stony Island Avenue - Midway Plaisance to 65th Street

The existing section of Stony Island Avenue between Midway Plaisance and 65th Street consists
of one lane each direction with on-street parking on each side. This section would be widened to
add one southbound lane, one northbound lane, a center raised median with left turn lanes, and
space for bus loading lanes. The proposed Stony Island Avenue section then consists of two lanes

in each direction, a raised median with left turn lanes, and on-street parking/bus loading lanes on each side of the street.

#### Stony Island Avenue – 65th Street to 67th Street

• The existing section of Stony Island Avenue from 65th Street to 67th Street consists of two northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side. This section would be widened to add one northbound through lane along Stony Island Avenue to result in a proposed section that consists of three northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side.

#### 3.3.1.2 Intersection Capacity Improvements

#### **Lake Shore Drive**

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

#### **Hayes Drive**

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

#### **Stony Island Avenue**

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

- direction on North Midway Plaisance east of Stony Island Avenue. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), widen the intersection to accommodate the additional lanes on Stony Island Avenue. Remove 14 on-street parking spaces on the west leg to provide an additional eastbound left-turn lane. Re-time the traffic signal to optimize signal operations.
- At 60th Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only. Widen the intersection to accommodate the additional lanes on Stony Island Avenue.
- At 62nd Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue and install a traffic signal to reduce delays on 62nd Street and to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 63rd Street/Hayes Drive, widen the intersection to accommodate the additional lanes on
- Stony Island Avenue and shift the east leg to the north to provide better alignment for the
  westbound through movement across the intersection. Modernize the traffic signal installation
  and re-time the signal to optimize operations.
- At 64th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65th Place/Cornell Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue and Cornell Drive, to convert Cornell Drive east of Stony Island Avenue to two-way, and to provide two additional northbound right turn lanes. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At Marquette Street, widen the intersection to accommodate the additional lanes on Stony Island. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67th Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue. Modernize the traffic signal installation and re-time the signal to optimize operations.

#### 57th Drive

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

#### **Marquette Drive**

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

#### 67th Drive

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

#### 3.3.1.3 Anticipated Travel Patterns

The diverted traffic due to the roadway closures described in Alternative B predominantly travels along Lake Shore Drive, Hayes Drive and Stony Island Avenue in Alternative C. However, due to the proposed roadway improvements in Alternative C, the diverted traffic is dispersed among the improved roadways more evenly without overburdening any one roadway.

Table 12 depicts a comparative table of travel time changes between Alternative C versus Alternative B and Alternative A.

Table 12: Alternative C Travel Times

Alternative	Direction/ Peak Period	67th/Stony to 57th/LSD Travel Time (minutes)	67th/Stony to 56th/Stony Travel Time (minutes)	Midway/Stony NB to 57th/LSD Travel Time (minutes)	Midway/Stony SB to 67th/Stony Travel Time (minutes)
Alternative A No Action	Northbound AM	4.6	8.0	2.8	-
Alternative A No Action	Northbound PM	4.8	5.2	3.0	-
Alternative A No Action	Southbound AM	4.5	5.1	-	3.0
Alternative A No Action	Southbound PM	5.3	8.2	-	3.6
Alternative B	Northbound AM	12.8	36.5	12.1	-
Alternative B	Northbound PM	7.5	10.1	4.3	-
Alternative B	Southbound AM	6.1	5.4	-	3.4
Alternative B	Southbound PM	12.8	13.4	-	11.7
Alternative C	Northbound AM	5.3	5.2	3.0	-
Alternative C	Northbound PM	5.2	5.1	3.0	-
Alternative C	Southbound AM	4.7	5.1	-	3.2
Alternative C	Southbound PM	4.6	5.2	-	3.2
Difference Alt. C to Alt. B	Northbound AM	-7.6	-31.2	-9.1	-
Difference Alt. C to Alt. B	Northbound PM	-2.3	-5.1	-1.3	-
Difference Alt. C to Alt. B	Southbound AM	-1.4	-0.3	-	-0.2
Difference Alt. C to Alt. B	Southbound PM	-8.2	-8.2	-	-8.4
Difference Alt. C to Alt. A	Northbound AM	0.7	-2.8	0.2	-

Alternative	Direction/ Peak Period	67th/Stony to 57th/LSD Travel Time (minutes)	67th/Stony to 56th/Stony Travel Time (minutes)	Midway/Stony NB to 57th/LSD Travel Time (minutes)	Midway/Stony SB to 67th/Stony Travel Time (minutes)
Difference Alt. C to Alt. A	Northbound PM	0.4	-0.1	0.0	-
Difference Alt. C to Alt. A	Southbound AM	0.2	0.0	-	0.2
Difference Alt. C to Alt. A	Southbound PM	-0.7	-3.0	-	-0.4

As shown in the table, Alternative C improved traffic congestion and travel times along the majority of the routes depicted. Between 67th Street/Stony Island Avenue and 57th Drive/Lake Shore Drive, travel times improve by 1.4 to over 8 minutes in the peak hour travel periods. Along Stony Island Avenue, northbound travel to 56th Street in the morning peak hour improves by over 31 minutes. In comparison to Alternative A, Alternative C sees generally the same travel times along these routes, with the maximum travel time increase being just over 40 seconds (0.7 minutes).

Temporary traffic impacts during construction are anticipated to be localized areas of congestion due to temporary lane closures and detour routings. Some through traffic is anticipated to divert to parallel north-south arterials or the Dan Ryan Expressway in response to the temporary lane closures and resultant congestion.

#### 3.3.1.4 Anticipated Traffic Volumes

The 2040 traffic volumes developed for this alternative included reassigning trips from Stony Island Avenue that are destined to northbound Lake Shore Drive onto the new two-way sections of Cornell Drive so that those trips could more easily access Lake Shore Drive from either Hayes Drive or 57th Drive. The magnitude of the traffic reassignments was determined based on CMAP traffic projections for Alternative C as discussed in Section 1. Based on these projections, it is anticipated that 1,280 vehicles would use the new northbound section of Cornell Drive between Stony Island Avenue and Hayes Drive during the A.M. peak hour, and that 200 vehicles would use the new northbound lanes on N. Midway Plaisance/Cornell Drive between Stony Island Avenue and 57th Drive during the A.M. peak hour. All other traffic volume assignments from Alternative B, including employee and visitor traffic generated by the OPC, were retained for this alternative. The ADT volumes for this alternative are shown on Attachment H-4a.

#### 3.3.1.5 Operational Performance

The results of the operational analysis for Alternative C are shown on Attachment H-4b and summarized in Table 13. The operational analysis results for Alternatives A and B are also shown in the table for comparison purposes. As shown in the table, the roadway improvements proposed in Alternative C mitigate the impacts of Alternative B. Alternative C results in all major intersections operating at desirable Levels of Service.

Table 13: 2040 Alternative C Operational Performance Summary

Intersection	2040 Alternative B Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative B Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour	2040 Alternative C Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative C Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour
Lake Shore Dr at Marquette Dr	C (22)	C (26)	C (35)	C (25)
Lake Shore Dr at Hayes Dr	F (**)	F (**)	C (21)	B (14)
Lake Shore Dr at Science Dr	B (19)	F (**)	A (3)	A (2)
Lake Shore Dr at 57th Street	B (16)	F (**)	A (8)	B (17)
Stony Island Ave at 67th St	F (**)	F (**)	C (25)	B (18)
Stony Island Ave at Marquette Dr	D (50)	B (15)	B (12)	B (14)
Stony Island Ave at 65th PI/Cornell Dr (SB)	F (**)	C (30)	A (6)	B (16)
Stony Island Ave at 64th St *	F (**)	F (**)	A (5)	A (5)
Stony Island Ave at 63rd St/Hayes Dr	F (**)	F (**)	B (17)	B (13)
Stony Island Ave at 62nd St <sup>+</sup>	F (84) [EB]	F (**)	B (12)	B (13)
Stony Island Ave at 60th St	B (17)	B (14)	Right-in/Right- out	Right-in/Right- out
Stony Island Ave at S Midway Plaisance (EB)	B (13)	C (31)	B (15)	B (15)
Stony Island Ave at N Midway Plaisance (WB)	F (**)	C (32)	C (22)	B (19)
Stony Island Ave at 59th St	F (**)	C (24)	Right-in/Right- out	Right-in/Right- out
Stony Island Ave at 57th St	F (**)	F (**)	C (22)	C (20)
Stony Island Ave at 56th St *	D (32)	D (29)	D (32)	D (29)
Cornell Dr/57th Dr at 67th St	Closed	Closed	Closed	Closed
Cornell Dr/57th Dr at Marquette Dr	Closed	Closed	Closed	Closed
Cornell Dr/57th Dr at Hayes Dr	F (**)	F (**)	A (10)	B (15)
Cornell Dr/57th Dr at S Midway Plaisance (EB)	Closed	Closed	Closed	Closed
Cornell Dr/57th Dr at 57th St/MSI Drop off	F (**)	D (53)	A (8)	C (21)
Cornell Dr/57th Dr at Hyde Park Blvd	C (21)	B (20)	B (19)	B (14)
67th St at East End Ave *	B (13)	B (14)	B (13)	B (14)
67th St at Cregier Ave *	B (13)	B (14)	B (13)	B (14)
67th St at Jeffery Ave	B (20)	C (20)	C (21)	B (19)
67th St at South Shore Dr	B (17)	B (19)	B (14)	B (19)
Marquette Dr at Richards Dr (West)	Closed	Closed	Closed	Closed
Marquette Dr at Richards Dr (East)	Closed	Closed	Closed	Closed
Marquette Dr at La Rabida Entrance	B (14)	A (7)	A (5)	A (7)
Richards Dr at Marquette Dr (North)	Closed	Closed	Closed	Closed
Richards Dr at Hayes Dr *	A (9)	B (15)	B (16)	A (9)
56th St at Hyde Park Blvd *	B (12)	B (13)	B (12)	B (12)
*Indicates All-way Ston-Controlled Intersect	A (8)	A (7)	A (8)	A (7)

<sup>\*</sup>Indicates All-way Stop-Controlled Intersection

<sup>\*\*</sup> 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.

#### 3.3.1.6 Parking Supply

The roadway improvements proposed in Alternative C would result in changes in the amount of on-street parking available within and adjacent to Jackson Park. Table 14 summarizes the available on-street parking supply upon completion of the roadway improvements proposed in Alternative C. The parking supply available under Alternative B is also shown for comparison purposes.

Roadway	From	То	On-Street Parking Spaces¹ Alternative B	On-Street Parking Spaces <sup>1</sup> Alternative C	On-Street Parking Spaces <sup>1</sup> Change
56th St	Shore Dr	Stony Island Ave	101	101	0
Everett Ave	56th St	Cornell Dr	18	18	0
Stony Island Ave	56th St	59th St	102	102	0
Stony Island Ave	60th St	61st St	38	28	-10
Stony Island Ave	61st St	62nd St	19	11	-8
Stony Island Ave	62nd St	63rd St	42	54	+12
Stony Island Ave	63rd St	67th St	76	103	+27
Hayes Dr	Lake Shore Dr	Richards Dr	65	0	-65
Hayes Dr	Richards Dr	Cornell Dr	82	0	-82
Richards Dr	Hayes Dr	Marquette Dr	78	92	+14
Marquette Dr	Lake Shore Dr	Richards Dr	40	71	+31
Marquette Dr	Richards Dr	Stony Island Ave	0	0	0
S. Midway Plaisance	Rail Viaduct	Stony Island Ave	52	28	-24
	·	Total	713	608	-105

Table 14: Alternative C Parking Supply Summary

As shown in the table, the proposed roadway improvements in Alternative C would result in a loss of 105 public on-street parking spaces in addition to Alternative B.

As part of Alternative C, the proposed transportation improvements include the addition of 84 new onstreet parking spaces to offset the loss of on-street parking spaces to accommodate proposed vehicle capacity improvements. Based on the parking study completed as part of the SSE Traffic Study, even with the loss of 105 parking spaces, there is still an excess parking supply based on parking demands.

As the implementation of the South Lakefront Framework Plan continues in Jackson Park, the City will continue to work with the CPD to implement additional parking supply in Jackson Park. The plan includes 60 additional spaces at the East Meadow (Driving Range), 170 at the 63rd Street Beach, 200 at the golf course, 90 at the boat launch, 101 in the Promontory Drive Lot and 19 more on Promontory Drive, and 40 at the South Shore Cultural Center, totaling an additional 680 parking spaces. These additions to parking supply, when fully implemented, would more than offset the loss of 105 on-street parking spaces lost due to the transportation improvements.

<sup>&</sup>lt;sup>+</sup> Indicates unsignalized intersection with stop control on the minor approach(es).

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

#### 3.3.2 Indirect Impacts – City Actions

The indirect impacts of Alternative C are the same as those described in Alternative B. Alternative C addresses the long-term negative impacts of Alternative B by providing capacity improvements to address the redistributed traffic volumes and congestion caused by the roadway closures. Therefore, there are no additional indirect impacts that result from implementing Alternative C.

#### 3.3.3 Cumulative Impacts

Several other ongoing or reasonably foreseeable projects have been identified in the project study area, as described in Alternative A. As evaluated in Alternative A, the reasonably foreseeable projects with the potential to impact traffic contribute long-term, beneficial impacts. The actions proposed in Alternative C would have beneficial impacts and mitigate the majority of adverse impacts that result from Alternative B, resulting in negligible cumulative impacts to traffic congestion by implementing Alternative C.

## 4.0 2050 Regional Plan Analysis

CMAP's adoption of the *ON TO 2050* plan anticipates changes in the traffic forecasting model utilized to develop traffic projections. Additional analyses were performed to determine if the proposed roadway network improvements in Alternative C would continue to satisfactorily mitigate the impacts of the proposed roadway closures within Jackson Park under year 2050 projected traffic volumes.

A request for 2050 projections was submitted by CDOT to CMAP in November 2018. Coordination with CMAP was conducted following the request and final 2050 traffic projections were concurred upon by CMAP on May 6, 2019. See Attachment H-5 for correspondence. The following section provides analysis of the 2050 projected traffic volumes.

## 4.1 2050 Regional Growth and Traffic Impacts

The *ON TO 2050* regional plan anticipates additional population and employment growth in the areas surrounding Jackson Park as a result of commercial and residential redevelopment and new occupancies within existing vacant housing stock. As a result, background traffic volumes are anticipated to increase by about 10 percent between 2016 and 2050 under Alternative A conditions, as compared to the 2.4 percent originally projected in the *GO TO 2040* regional plan. These increases in ADT volumes under Alternative A are shown on Attachment H-6.

As a result of the higher traffic growth rates anticipated in the 2050 plan, the proposed roadway closures also created an increased volume of diverted traffic to parallel routes under Alternative B conditions. The distribution of diverted traffic from Cornell Drive to Stony Island Avenue and Lake Shore Drive is more balanced in the 2050 plan than under the *GO TO 2040* regional plan. The 2050 ADT volumes under Alternative B are shown on Attachment H-7.

Utilizing the same procedures as the 2040 analyses, 2050 ADT volumes were developed for Alternative C. The 2050 ADT volumes for Alternative C are shown on Attachment H-8a. Based on the 2050 ADT projections, peak hour volumes were developed and analyzed for Alternative C to determine the

operation performance of the proposed improvements. Table 15 and Attachment H-8b summarize the results of the operational analysis of the Alternative C roadway network under 2050 traffic conditions. The operational analysis results from 2040 for Alternative C are also shown in Table 15 for comparison purposes.

Table 15: 2050 Alternative C Operational Performance Summary

Intersection	2040 Alternative C Intersection Level of Service	2040 Alternative C Intersection Level of Service	2050 Alternative C Intersection Level of Service	2050 Alternative C Intersection Level of Service
intersection	and Delay	and Delay	and Delay	and Delay
	(sec./veh.)	(sec./veh.)	(sec./veh.)	(sec./veh.)
	A.M. Peak Hour	P.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour
Lake Shore Dr at Marquette Dr	C (35)	C (25)	C (32)	D (37)
Lake Shore Dr at Hayes Dr	C (21)	B (14)	C (21)	B (13)
Lake Shore Dr at Science Dr	A (3)	A (2)	A (3)	A (2)
Lake Shore Dr at 57th Street	A (8)	B (17)	B (18)	C (23)
Stony Island Ave at 67th St	C (25)	B (18)	C (26)	C (24)
Stony Island Ave at Marquette Dr	B (12)	B (14)	B (10)	B (13)
Stony Island Ave at 65th PI/Cornell Dr (SB)	A (6)	В (16)	A (6)	B (13)
Stony Island Ave at 64th St *	A (5)	A (5)	A (3)	B (10)
Stony Island Ave at 63rd St/Hayes Dr	B (17)	B (13)	C (22)	C (20)
Stony Island Ave at 62nd St <sup>+</sup>	B (12)	B (13)	B (16)	B (14)
Stony Island Ave at 60th St	Right-in/Right-	Right-in/Right-	Right-in/Right-	Right-in/Right-
	out	out	out	out
Stony Island Ave at S Midway Plaisance (EB)	B (15)	B (15)	B (13)	B (17)
Stony Island Ave at N Midway	C (22)	D (40)	D (40)	D (40)
Plaisance (WB)	C (22)	B (19)	B (18)	B (19)
Stony Island Ave at 59th St	Right-in/Right-	Right-in/Right-	Right-in/Right-	Right-in/Right-
	out	out	out	out
Stony Island Ave at 57th St	C (22)	C (20)	C (20)	C (20)
Stony Island Ave at 56th St *	D (32)	D (29)	E (38)	E (42)
Cornell Dr/57th Dr at 67th St	Closed	Closed	Closed	Closed
Cornell Dr/57th Dr at Marquette Dr	Closed	Closed	Closed	Closed
Cornell Dr/57th Dr at Hayes Dr	A (10)	B (15)	B (13)	B (18)
Cornell Dr/57th Dr at S Midway Plaisance (EB)	Closed	Closed	Closed	Closed
Cornell Dr/57th Dr at 57th St/MSI Drop off	A (8)	C (21)	A (6)	B (19)
Cornell Dr/57th Dr at Hyde Park Blvd	B (19)	B (14)	C (27)	B (14)
67th St at East End Ave *	B (13)	B (14)	C (15)	C (20)
67th St at Cregier Ave *	B (13)	B (14)	B (14)	C (20)
67th St at Jeffery Ave	C (21)	B (19)	B (19)	C (22)
67th St at South Shore Dr	B (14)	B (19)	B (14)	B (19)
Marquette Dr at Richards Dr (West)	Closed	Closed	Closed	Closed
Marquette Dr at Richards Dr (East)	Closed	Closed	Closed	Closed
Marquette Dr at La Rabida Entrance	A (5)	A (7)	A (6)	A (6)
Richards Dr at Marquette Dr (North)	Closed	Closed	Closed	Closed
Richards Dr at Hayes Dr *	B (16)	A (9)	B (11)	A (8)
56th St at Hyde Park Blvd *	B (12)	B (12)	C (15)	B (13)
*Indicates All-way Ston-Controlled Intersect	A (8)	A (7)	A (8)	A (7)

<sup>\*</sup>Indicates All-way Stop-Controlled Intersection

<sup>\*\*</sup> 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.

The results in the table indicate that, while several intersections have lower LOSs in 2050 compared to 2040 projected traffic, none of the signalized intersections perform worse than LOS D. At signalized intersections, LOS D is generally considered the lowest desirable level of traffic operations by most transportation agencies in the Chicago region. Additionally, no individual movements degrade to LOS F or have a v/c ratio greater than 1.0, which would represent a vehicle movement that is over capacity. Therefore, the proposed roadway network improvements in Alternative C are anticipated to continue to provide desirable traffic performance to accommodate 2050 projected traffic volumes.

#### 4.2 CMAP Plan Amendment

The ON TO 2050 regional plan includes a set of fiscally constrained Regionally Significant Projects (RSPs) that support the plan's key principles. Projects that have the potential for regional impacts that meet certain threshold criteria are required to undergo a CMAP Plan Amendment process (CMAP 2019a). This project involving improvements to the roadway network within Jackson Park was required to complete the CMAP Plan Amendment process in order to be formally included in the ON TO 2050 regional plan.

In November 2018, the City formally requested an amendment to the plan for the inclusion of this project. The amendment process included presentations to CMAP staff and committees to demonstrate the project continues to meet the goals of the *ON TO 2050* regional plan. A 30-day public comment period for the amendment was held, and on March 6, 2019, CMAP staff provided a recommendation for the project's inclusion as an amendment to the plan (CMAP 2019b). This recommendation was approved by the CMAP Board and MPO Policy Committee on March 13 and 14, 2019, respectively<sup>1</sup>.

## 5.0 Summary

A summary of traffic performance of the three alternatives is shown in Table 16.

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<sup>&</sup>lt;sup>+</sup> Indicates unsignalized intersection with stop control on the minor approach(es).

<sup>&</sup>lt;sup>1</sup> https://www.cmap.illinois.gov/updates/proposed-amendments.

Table 16: Operational Performance Summary

Intersection	2040 Alternative A Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative A Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour	2040 Alternative B Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative B Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour	2040 Alternative C Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative C Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour
Lake Shore Dr at Marquette Dr	C (24)	C (24)	C (22)	C (26)	C (35)	C (25)
Lake Shore Dr at Hayes Dr	B (17)	B (17)	F (**)	F (**)	C (21)	B (14)
Lake Shore Dr at Science Dr	A (3)	A (6)	B (19)	F (**)	A (3)	A (2)
Lake Shore Dr at 57th Street	D (35)	C (23)	B (16)	F (**)	A (8)	B (17)
Stony Island Ave at 67th St	B (19)	F (**)	F (**)	F (**)	C (25)	B (18)
Stony Island Ave at Marquette Dr	B (13)	B (14)	D (50)	B (15)	B (12)	B (14)
Stony Island Ave at 65th PI/Cornell Dr (SB)	B (10)	B (16)	F (**)	C (30)	A (6)	B (16)
Stony Island Ave at 64th St *	F (**)	F (**)	F (**)	F (**)	A (5)	A (5)
Stony Island Ave at 63rd St/Hayes Dr	B (16)	B (13)	F (**)	F (**)	B (17)	B (13)
Stony Island Ave at 62nd St <sup>+</sup>	C (17) [EB]	C (22) [EB]	F (84) [EB]	F (**)	B (12)	B (13)
Stony Island Ave at 60th St	B (11)	B (10)	B (17)	B (14)	Right-in/Right- out	Right-in/Right- out
Stony Island Ave at S Midway Plaisance (EB)	B (11)	F (**)	B (13)	C (31)	B (15)	B (15)
Stony Island Ave at N Midway Plaisance (WB)	D (48)	A (9)	F (**)	C (32)	C (22)	B (19)
Stony Island Ave at 59th St	B (19)	A (9)	F (**)	C (24)	Right-in/Right- out	Right-in/Right- out
Stony Island Ave at 57th St	C (25)	D (37)	F (**)	F (**)	C (22)	C (20)
Stony Island Ave at 56th St *	E (40)	D (29)	D (32)	D (29)	D (32)	D (29)
Cornell Dr/57th Dr at 67th St	C (26)	C (23)	Closed	Closed	Closed	Closed
Cornell Dr/57th Dr at Marquette Dr	A (8)	A (10)	Closed	Closed	Closed	Closed
Cornell Dr/57th Dr at Hayes Dr	B (11)	B (11)	F (**)	F (**)	A (10)	B (15)
Cornell Dr/57th Dr at S Midway Plaisance (EB)	A (7)	A (7)	Closed	Closed	Closed	Closed
Cornell Dr/57th Dr at 57th St/MSI Drop off	F (**)	F (**)	F (**)	D (53)	A (8)	C (21)

Intersection	2040 Alternative A Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative A Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour	2040 Alternative B Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative B Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour	2040 Alternative C Intersection Level of Service and Delay (sec./veh.) A.M. Peak Hour	2040 Alternative C Intersection Level of Service and Delay (sec./veh.) P.M. Peak Hour
Cornell Dr/57th Dr at Hyde Park Blvd	F (**)	C (23)	C (21)	B (20)	B (19)	B (14)
67th St at East End Ave *	B (11)	B (11)	B (13)	B (14)	B (13)	B (14)
67th St at Cregier Ave *	B (10)	B (11)	B (13)	B (14)	B (13)	B (14)
67th St at Jeffery Ave	C (20)	B (16)	B (20)	C (20)	C (21)	B (19)
67th St at South Shore Dr	B (15)	B (18)	B (17)	B (19)	B (14)	B (19)
Marquette Dr at Richards Dr (West)	B (10)	A (9)	Closed	Closed	Closed	Closed
Marquette Dr at Richards Dr (East)	A (10)	B (16)	Closed	Closed	Closed	Closed
Marquette Dr at La Rabida Entrance	B (14)	A (7)	B (14)	A (7)	A (5)	A (7)
Richards Dr at Marquette Dr (North)	A (1)	A (1)	Closed	Closed	Closed	Closed
Richards Dr at Hayes Dr *	A (8)	B (14)	A (9)	B (15)	B (16)	A (9)
56th St at Hyde Park Blvd *	B (12)	B (13)	B (12)	B (13)	B (12)	B (12)
56th St at Everett Ave *	A (8)	A (7)	A (8)	A (7)	A (8)	A (7)

<sup>\*</sup>Indicates All-way Stop-Controlled Intersection

<sup>\*\*</sup> 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.

<sup>&</sup>lt;sup>+</sup> Indicates unsignalized intersection with stop control on the minor approach(es).

## 6.0 References

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