Traffic Impact Study
640 W. Irving Park Road Residential Development

Chicago, Illinois

Prepared For:

K Giles, LLC

Prepared By:

KLOA

Kenig, Lindgren, O'Hara, Aboona, Inc.

May 21, 2021

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I. Executive Summary

This report summarizes the results of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed residential development to be located at 640 W. Irving Park Road in Chicago, Illinois. The objectives of the traffic study are as follows:

- Determine the existing vehicular, pedestrian, bicycle, and public transportation conditions in the study area to establish a base condition.

- Assess the impact that the proposed development will have on transportation conditions in the area.

- Determine any street, access, bicycle, and pedestrian modifications and/or improvements that will be necessary to effectively accommodate and mitigate future conditions.

Vehicle, pedestrian, and bicycle counts were conducted during the weekday morning and weekday evening peak periods at the intersections of Irving Park Road with Marine Drive/Lake Shore Drive On-Ramp, Irving Park Road with Recreation Drive/Lake Shore Drive Ramps, Irving Park Road with Clarendon Avenue, Bittersweet Place with Marine and Bittersweet Place with Clarendon Avenue. Due to the ongoing COVID-19 pandemic, historic traffic counts from CDOT were reviewed including counts conducting during Cubs games.

As proposed, the site (which is occupied by American Islamic College) will be renovated with an approximately 265 residential units. Additionally, the parking lot located on the north side of the building will be developed with a residential tower that will be occupied with approximately 230 senior housing units. Access to the site will be provided via the existing access drives off Marine Drive and Bittersweet Place. The Marine Drive access drive will be converted from one-way eastbound (outbound) to one-way westbound (inbound) traffic only, and the access off Bittersweet Place will be widened to allow for inbound and outbound movements.

Based on the preceding analyses and recommendations, the following conclusions have been made:

- Given the location of the site within an urban area and its proximity to alternative modes of transportation, the number of generated trips will be reduced.

- The volume of traffic estimated to be generated by the proposed development will consists of less than two percent of the total traffic traversing the intersection of Irving Park Road with Marine Drive/Lake Shore Drive Southbound Ramp.

- As part of the proposed development, the existing access drive on Marine Drive will be converted to inbound only access drive and the existing access drive on Bittersweet Place will be widened to allow for inbound and outbound traffic.

- Ride-sharing trips for the proposed apartment building will be accommodated via the existing parking lot located in the southwest corner of the site with full access off Irving Park Road.

- All truck loading will occur internally with inbound access from Marine Drive and outbound access to Bittersweet Place. Additionally, truck activity will be scheduled to occur during off-peak hours.

- The turning restriction from Clarendon Avenue onto Bittersweet Place should be simplified to occur between 7:00 A.M. and 9:00 A.M. and between 4:00 P.M. and 7:00 P.M. weekdays.

- To minimize southbound queues on Clarendon Avenue at Irving Park Road, consideration should be given to providing an exclusive southbound green phase.

- Consideration should be given to providing a CTA transit information kiosk within the lobbies in order to further encourage public transit use.

- Consideration should be given to providing on-site car sharing services

- Consideration should be given to providing a shuttle bus serving the senior housing building. The provision of a shuttle will reduce the number of individual passenger vehicle trips generated by the development.

1. Introduction

This report summarizes the results of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed residential development located at 640 W. Irving Park Road in Chicago, Illinois.

As proposed, the site (which is occupied by American Islamic College) will be renovated with approximately 265 residential units. Additionally, the parking lot located in the northwest corner of the site will be developed with a residential tower that will be occupied with approximately 230 senior housing units consisting of 138 independent living units, 60 assisted living units, and 32 memory care units. The site will provide a total of 119 total parking spaces consisting of 20 existing surface parking spaces that are located off Irving Park Road, and 99 proposed parking spaces within a parking garage within the proposed residential tower.

The proposed senior housing residential tower will be served by an entry courtyard that will provide access to the port cochere and the proposed parking garage. Access to this entry courtyard will be provided via the existing access drives off Marine Drive and Bittersweet Place. The Marine Drive access drive will be converted from one-way eastbound (outbound) to one-way westbound (inbound) traffic only, and the access off Bittersweet Place will be widened to allow for inbound and outbound movements.

The purpose of this study was to examine existing traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine recommendations to mitigate any impacts and enhance the area's streets and alternative modes of transportation. **Figure 1** shows the location of the site in relation to the area street system. **Figure 2** shows an aerial view of the site. The sections of this report present the following:

- Existing street conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and weekday evening peak hours
- Evaluation and recommendations with respect to adequacy of the site access, on-site circulation, and adjacent street system.

Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

1. Existing Conditions - Analyze the capacity of the existing street system using existing peak hour traffic volumes in the surrounding area.

2. Projected Conditions – Analyze the capacity of the future street system using the projected traffic volumes that include the existing traffic volumes, background development traffic growth, and the traffic estimated to be generated by the proposed development.

Site Location **Figure 1**

Aerial View of Site **Figure 2**

2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on field visits conducted by KLOA, Inc. in order to obtain a database for projecting future conditions. The information obtained was adjusted utilizing historic CDOT traffic counts to account for the ongoing COVID-19 pandemic. The following provides a description of the geographical location of the site, physical characteristics of the area street system including lane usage and traffic control devices, and existing peak hour traffic volumes.

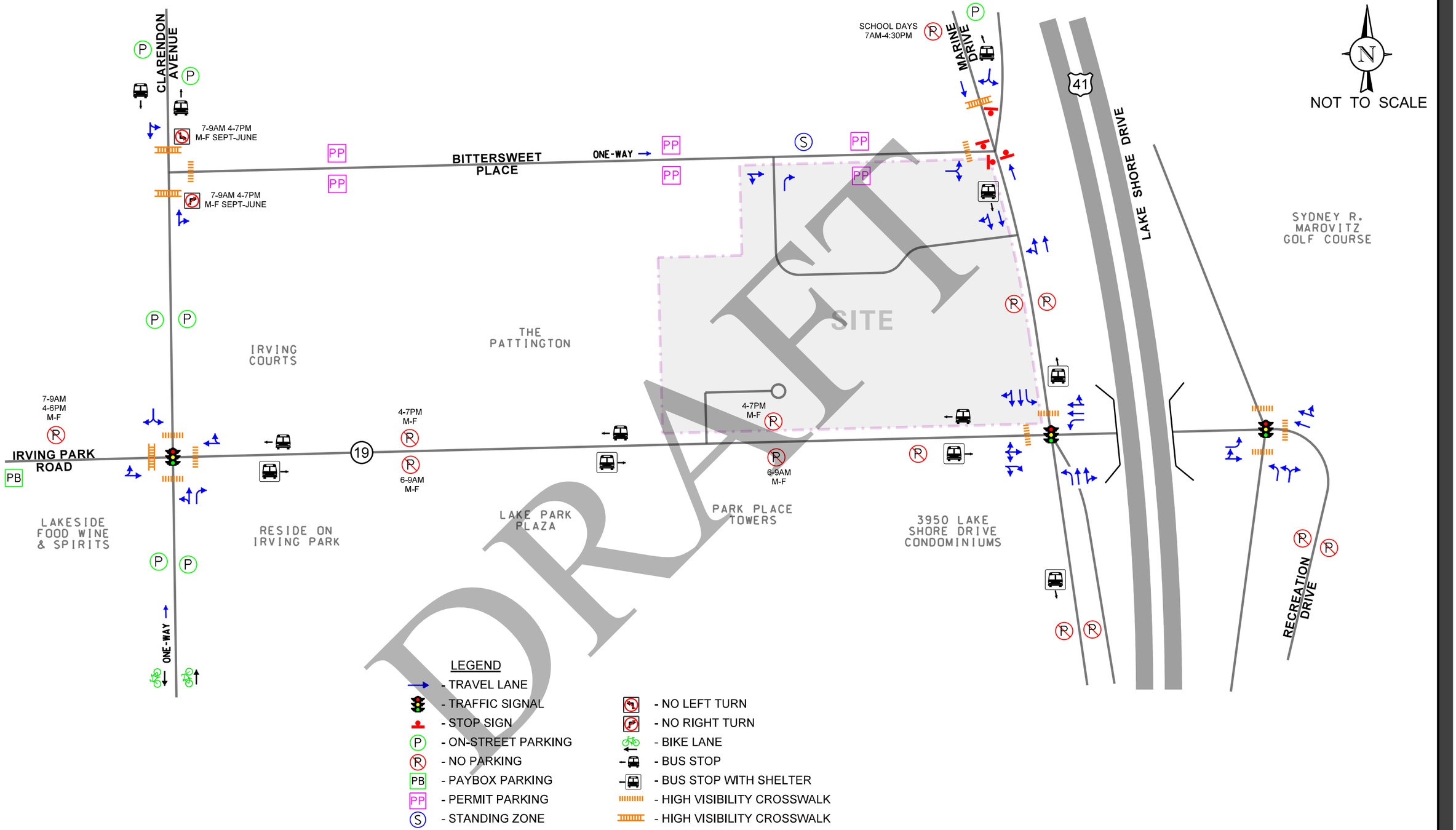
Site Location

The site located on the west side of Marine Drive and is bordered by Irving Park Road on the south, Bittersweet Place on the north, and The Pattington condominium association and residential homes on the west. The site currently contains three buildings that were formerly occupied by Immaculata High School (with a peak occupancy of 1,200 students) and is currently served by an inbound only access drive off Bittersweet Place and an outbound only access drive off Marine Drive. Additionally, there is an approximately 22 space surface parking lot located on the south side of the site that has full access off Irving Park Road. Land uses in the vicinity of the site are primarily residential to the north, west and south, and includes the Sydney R. Marovitz Golf Course to the east.

Existing Street System Characteristics

The characteristics of the existing streets near the development are described below and illustrated in **Figure 3**. All streets are under the jurisdiction of the Chicago Department of Transportation (CDOT) unless otherwise noted.

Irving Park Road is an east-west other principal arterial street that in the vicinity of the site provides one travel lane in each direction. At its signalized intersection with the Lake Shore Drive Northbound Ramps, Irving Park Road provides an exclusive left-turn lane and a shared left/through lane on the eastbound approach. The east leg of this intersection is Recreation Drive, which provides a through lane and a shared through/right-turn lane. At its signalized intersection with Marine Drive/Lake Shore Drive On-Ramp, Irving Park Road provides a shared left/through/right-turn lane and an exclusive right-turn lane on the eastbound approach and an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the eastbound approach. It should be noted that the exclusive right-turn lane provided on the eastbound approach can be utilized to perform right-turns onto both Marine Drive and the Lake Shore Drive On-Ramp. At its signalized intersection with Clarendon Avenue, Irving Park Road provides a shared left-turn/through lane on the eastbound approach and a shared through/right-turn lane on the westbound approach.



640 W IRVING PARK ROAD
CHICAGO, ILLINOIS

EXISTING STREET CHARACTERISTICS

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Parking is generally permitted on both sides of the street between Marine Drive and Clarendon Avenue, however, during the weekday morning peak period no parking is permitted on the south side of the street and during the weekday evening peak hour no parking is permitted on the north side of the street. West of Clarendon Avenue, parking is prohibited on the north side of the street during the weekday morning and weekday evening peak periods and Pay Box parking is provided on the south side of the street. Irving Park Road is under the jurisdiction of the Illinois Department of Transportation (IDOT) and carries an annual average daily traffic (AADT) volume of 19,000 vehicles (IDOT AADT 2019).

Marine Drive is a north-south major collector street that provides one lane in each direction north of Bittersweet Place and two lanes in each direction south of Bittersweet Place. At its signalized intersection with Irving Park Road, Marine Drive provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on the northbound and southbound approaches. It should be noted that the exclusive southbound left-turn lane is utilized to make left-turns onto both Irving Park Road and the Lake Shore Drive southbound on-ramp. At its all-way stop-sign controlled intersection with Bittersweet Place/Lake Shore Drive southbound off-ramp, Marine Drive provides a single northbound lane and a single southbound lane. Given the one-way restrictions of both Bittersweet Place and the Lake Shore Drive southbound off-ramp, the northbound and southbound movements at this intersection are restricted to through movements only. Parking is prohibited on both sides of the street south of Bittersweet Place. North of Bittersweet Place, parking is permitted on both sides of the street, however, parking is prohibited between 7:00 A.M. and 4:30 P.M. on school days. Marine Drive carries an AADT volume of 4,250 vehicles north of Irving Park Road and carries an AADT volume of 8.350 vehicles south of Irving Park Road (IDOT AADT 2018).

Clarendon Avenue is a north-south minor collector street that provides one lane in each direction north of Irving Park Road and is a one-way northbound street south of Irving Park Road. At its signalized intersection with Irving Park Road, Clarendon Avenue provides a shared left/through/right-turn lane on the northbound approach and a shared left/right-turn lane on the southbound approach. At its unsignalized intersection with Bittersweet Place, Clarendon Avenue provides a shared through/right-turn lane on the northbound approach and a shared left-turn/through lane on the southbound approach. It should be noted that southbound left-turns and northbound right-turns from Clarendon Avenue onto Bittersweet Place are prohibited via signage between 7:00 A.M. and 9:00 A.M. and between 4:00 P.M. and 7:00 P.M., Monday through Friday, September to June, except for local traffic. Parking is generally permitted on both sides of the street. Clarendon Avenue carries an AADT volume of 11,800 vehicles south of Irving Park Road (IDOT AADT 2014) and an AADT volume of 3,400 vehicles north of Irving Park Road (IDOT AADT 2018).

Bittersweet Place is a one-way eastbound local street that provides a single travel lane that connects Clarendon Avenue to Marine Drive. At its all-way stop-sign controlled intersection with Marine Drive, Bittersweet Place provides a shared left/right-turn lane. The east leg of this intersection is the off-ramp serving southbound Lake Shore Drive which provides a shared left/right-turn lane. Parking is permitted on both sides of Bittersweet Place but is restricted to residents displaying Permit 827. The Lake Shore Drive off-ramp carries an AADT volume of 4,500 vehicles (IDOT AADT 2019).

Lake Shore Drive is a north-south other principal arterial street that operates as a freeway in the vicinity of the site and provides four travel lanes in each direction. As previously discussed, the southbound off-ramp has an all-way stop sign controlled intersection with Marine Drive/Bittersweet Place and the southbound on-ramp has a signalized intersection with Marine Drive/Irving Park Road. The northbound off and on ramps have a signalized intersection with Irving Park Road/Recreation Drive in which the northbound off ramp provides an exclusive left-turn lane and a shared left/right-turn lane. Lake Shore Drive carries an AADT volume of 129,100 vehicles (IDOT AADT 2019).

Public Transportation

The public transportation serving the area is summarized below and illustrated in **Figure 4**.

CTA Rapid Transit. The area is served by the Chicago Transit Authority (CTA) rapid transit via the Sheridan Red Line station located one-half of a mile to the west of the site. The CTA Red Line operates 24 hours a day, seven days a week between Howard Street and the 95th/Dan Ryan station located along the Dan Ryan Expressway at 95th Street. Additional service is provided via the Green Line tracks between the Cermak-McCormick Place station and the Ashland/63rd station during rush periods only.

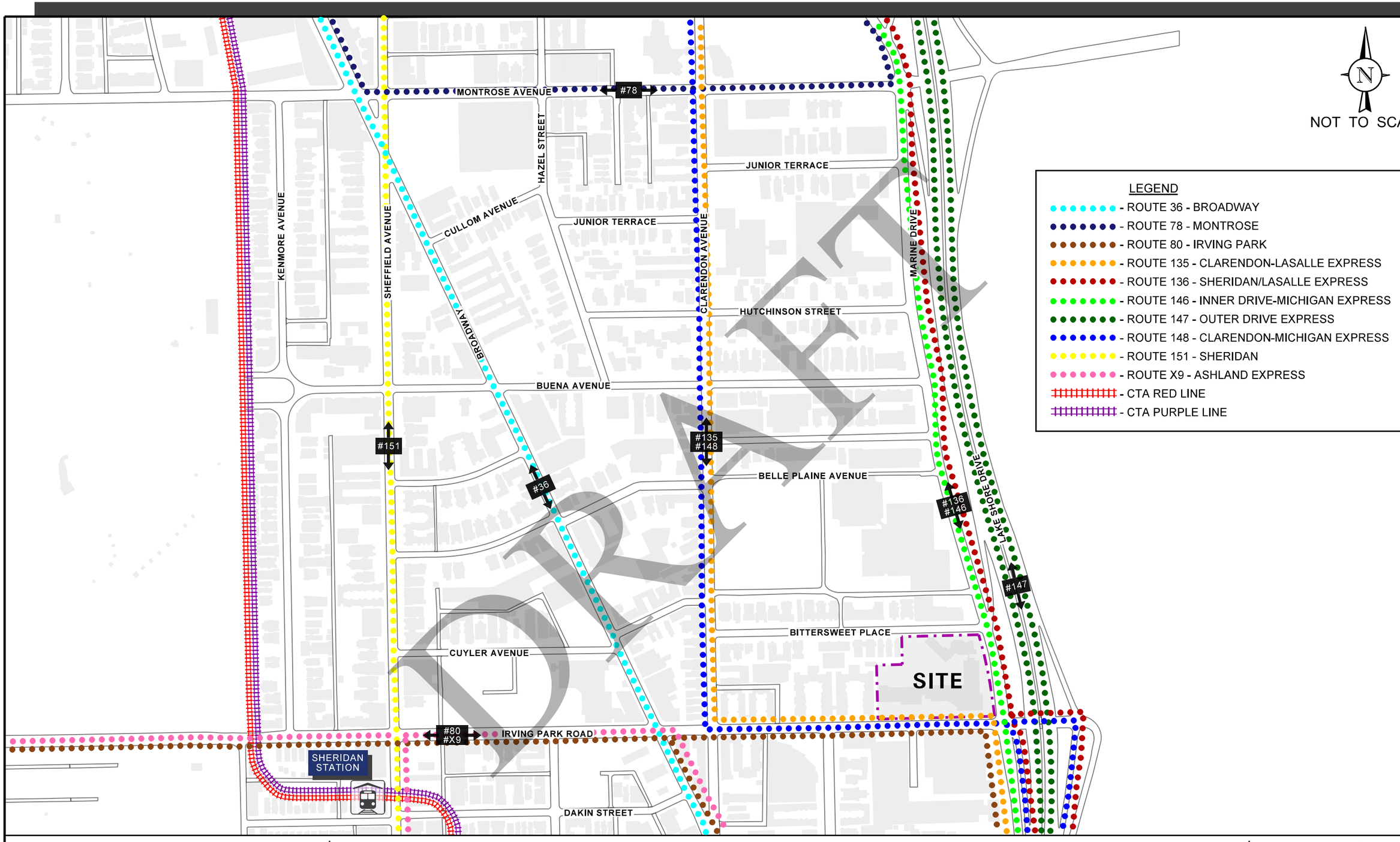
It should be noted that according to the Transit Friendly Development Guide produced in part by CDOT and the CTA, the area surrounding the Sheridan Red Line Station is considered a Dense Urban Neighborhood (DN). This classification describes station areas which are primarily residential in character with some neighborhood retail uses. Dense residential developments, including multifamily buildings greater than three stories, are common in this area.

CTA Bus Routes. The area is also served by the following bus routes, all of which have bus stops within a few blocks of the site:

Route 36 (Broadway) generally operates along State Street, North Broadway, and Clark Street from Loyola University to Congress Parkway. Notable stops include Lincoln Park Zoo, the Chicago History Museum, and the Main Post Office. Service is provided seven days a week, including holidays.

Route 80 (Irving Park) operates primarily along Irving Park Road from Sheridan Road to the east to Harlem Avenue to the west. Service is generally provided from 4:00 A.M. to 12:00 A.M. on weekdays and Saturdays and from 5:15 A.M. to 11:45 P.M. on Sundays. Additionally, the route will extend to serve up to Cumberland Avenue during limited hours.

Route 135 (Clarendon/LaSalle Express) generally provides service along LaSalle Street and Clarendon Avenue from the Weiss Memorial Hospital to Jackson Boulevard. No stops are provided between its stops at the intersections of Columbus Drive with Wacker Drive and Belmont Avenue with Lake Shore Drive. Service is only provided on the weekdays, with southbound service only provided in the morning (approximately 5:45 A.M. to 10:00 A.M.) and only northbound service provided in the evening (approximately 3:00 P.M. to 7:40 P.M.).



640 W IRVING PARK ROAD
CHICAGO, ILLINOIS

PUBLIC TRANSIT

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Job No: 20-076 Figure: 4

Route 136 (Sheridan/LaSalle Express) generally provides service along LaSalle Street and Sheridan Road from Devon Avenue to Jackson Boulevard. No stops are provided between its stops at the intersections of Columbus Drive with Wacker Drive and Marine Drive with Bittersweet Place. Service is only provided on the weekdays, with southbound service only provided in the morning (approximately 5:45 A.M. to 9:50 A.M.) and only northbound service provided in the evening (approximately 3:35 P.M. to 7:30 P.M.).

Route 146 (Inner Drive/Michigan Express) generally runs between Berwyn Avenue and the Museum Campus along Lake Shore Drive, Michigan Avenue, and State Street. No stops are provided between the intersections of Michigan Avenue with Delaware Place and Lake Shore Drive with Belmont Avenue. Service is provided on the weekdays from approximately 6:00 A.M. to 11:30 P.M. Earlier weekend service starting at 5:15 A.M. is also provided.

Route 148 (Clarendon/Michigan Express) provides north-south service from Foster Avenue to Harrison Street primarily along Michigan Avenue, Lake Shore Drive, Clarendon Avenue, and Marine Drive. Service is provided from approximately 6:00 A.M. to 11:00 P.M.

Route X9 (Ashland Express) provides weekday service from 6:00 A.M. to 9:00 A.M. and 3:00 P.M. to 6:00 P.M. The route has a limited number of stops along Ashland Avenue between 95th Street and Irving Park Road. Stops include the 63rd Street Green Line Station, Ashland Avenue Orange Line Station, Lake Street Green/Pink Line Station, Division/Milwaukee Blue Line Station, and the Sheridan Red Line Station.

Alternative Modes of Transportation

The alternate modes of transportation serving the area are summarized below:

Pedestrian Accommodations. Sidewalks are located on both sides of all streets except for along the east side of Marine Drive and on both sides of Recreation Drive. However, Recreation Drive is fronted by the Lakefront Trail. Furthermore, high-visibility crosswalks are provided at all intersections within the study area and pedestrian countdown signals are provided at all of the study area signalized intersections.

Bike Facilities. Within the vicinity of the study area, exclusive bike lanes/buffer protected bike lanes are provided on Clarendon Avenue south of Irving Park Road and "sharrows" are provided on Clarendon Avenue north of Irving Park Road. According to the City of Chicago's *Streets for Cycling Plan 2020*, Broadway Avenue and Irving Park Road between Broadway and Clark Street are designated as Crosstown Bike Routes. Furthermore, the Lakefront Trail is located less than 500 feet east of the site.

Mode-Sharing Transportation Availability. A number of Divvy bike sharing stations are located in the vicinity of the site with the closest station located in the southwest corner of Pine Grove Avenue, south of Irving Park Road which provides 15 docks. Additional stations are located in the northwest corner of the intersection of Broadway with Sheridan Road (14 docks) and in the northeast corner of the intersection of Clarendon Avenue with Gordon Terrace (15 docks).

Existing Traffic Volumes

In order to determine current vehicle, pedestrian, and bicycle conditions within the study area, KLOA, Inc. utilized peak period traffic, pedestrian, and bicycle counts for the following intersections:

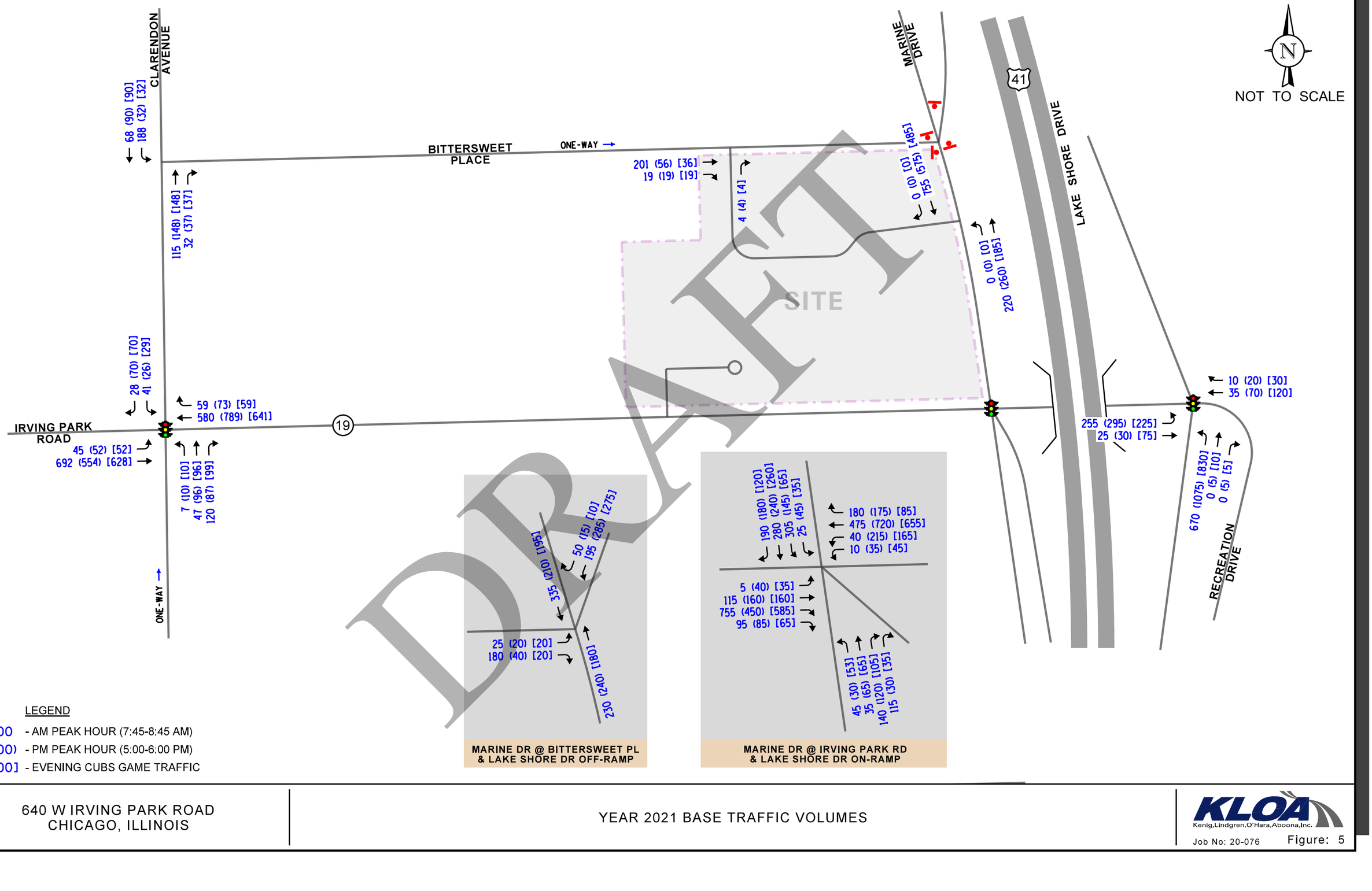
- Irving Park Road with Marine Drive/Lake Shore Drive On-Ramp
- Irving Park Road with Recreation Drive/Lake Shore Drive Ramps
- Irving Park Road with Clarendon Avenue
- Bittersweet Place with Marine
- Bittersweet Place with Clarendon Avenue

The counts were conducted in December 2020 during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.). The results of the traffic counts show that the weekday morning peak hour generally occurs between 7:45 A.M. and 8:45 A.M., the weekday evening peak hour generally occurs between 5:00 P.M. to 6:00 P.M.

Due to the ongoing COVID-19 pandemic, it is anticipated that traffic volumes within the area are not reflective of typical conditions. As such, these traffic counts were supplemented/adjusted with counts previously conducted by the Chicago Department of Transportation at the intersections of Irving Park Road with Marine Drive/Lake Shore Drive On-Ramp, Irving Park Road with Recreation Drive/Lake Shore Drive Ramps, and Marine Drive with Bittersweet Place/Lake Shore Drive Off Ramp. Furthermore, the counts previously conducted by CDOT included the peak hour traffic volumes during a Chicago Cubs baseball game and as such, this peak hour of traffic was also analyzed for the purposes of this evaluation.

Figure 5 illustrates the Year 2021 base traffic volumes. **Figure 6** illustrates the existing pedestrian and bicycle volumes.

As can be seen from Figure 5, the intersection of Irving Park Road with Marine Drive/Lake Shore Drive On-Ramp carries approximately eight percent less traffic during an evening Cubs game traffic than compared to the weekday evening peak hour between 4:00 P.M. and 6:00 P.M. Furthermore, the two-way traffic along Irving Park Road is similar during the weekday evening peak hour between 4:00 P.M. and 6:00 P.M. and during the evening Cubs game traffic.



LEGEND

00 - AM PEAK HOUR (7:45-8:45 AM)
(00) - PM PEAK HOUR (5:00-6:00 PM)
[00] - EVENING CUBS GAME TRAFFIC

640 W IRVING PARK ROAD
CHICAGO, ILLINOIS

YEAR 2021 BASE TRAFFIC VOLUMES

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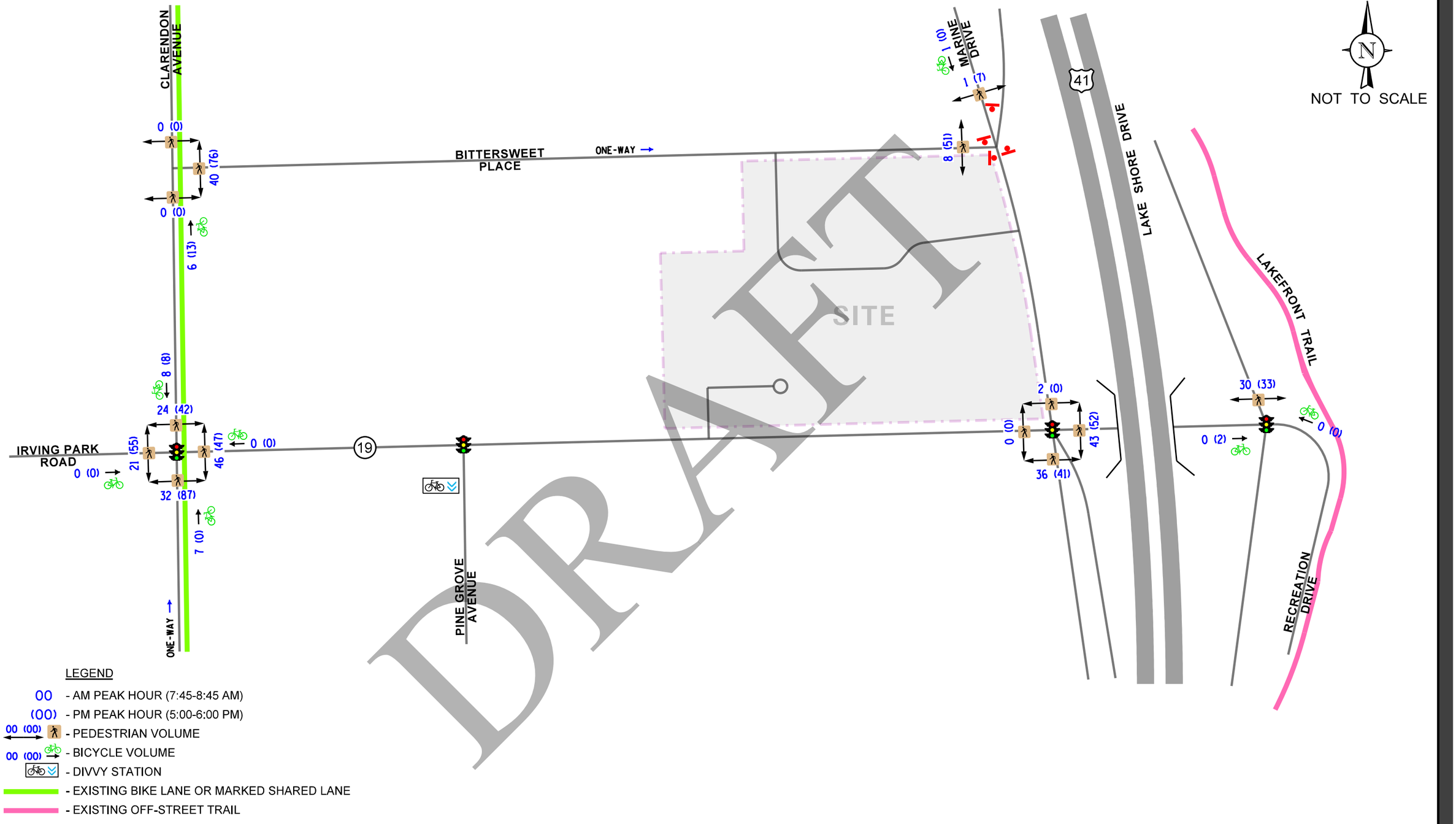

LEGEND

00 - AM PEAK HOUR (7:45-8:45 AM)

(00) - PM PEAK HOUR (5:00-6:00 PM)

00 (00) - PEDESTRIAN VOLUME

00 (00) - BICYCLE VOLUME

- DIVVY STATION

- EXISTING BIKE LANE OR MARKED SHARED LANE

- EXISTING OFF-STREET TRAIL

640 W IRVING PARK ROAD
CHICAGO, ILLINOIS

EXISTING PEDESTRIAN AND BICYCLE TRAFFIC VOLUMES
AND ALTERNATIVE MODES OF TRANSPORTATION

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Job No: 20-076 Figure: 6

3. Traffic Characteristics of the Proposed Development

In order to properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

Existing Site and Proposed Development Plan

The site located on the west side of Marine Drive and is bordered by Irving Park Road on the south, and Bittersweet Place on the north. The site currently contains three buildings that are occupied by American Islamic College and is currently served by an inbound only access drive off Bittersweet Place and an outbound only access drive off Marine Drive. Additionally, there is an approximately 22 space surface parking lot located on the south side of the site that has full access off Irving Park Road. As proposed, the existing buildings will be renovated with approximately 265 residential units. Additionally, the parking lot located in the northwest corner of the site will be developed with a residential tower that will be occupied with approximately 230 senior housing units. Of the total 220 senior housing units, 138 will be independent living units, 60 will assisted living units, and 32 will be memory care units. The proposed senior housing residential tower will be served by an entry courtyard that will provide access to the off-site port cochere and the proposed parking garage.

Proposed Pedestrian Access

Pedestrian access to the 265 residential units within the former Immaculata High School buildings will continue to be provided via the doorways serving the building. Pedestrian access to the proposed senior housing residential tower will be provided via a lobby with the main door located on the north side of the building within the proposed port-cochere.

Proposed Parking and Vehicle Access

The site will provide a total of 119 total parking spaces consisting of 20 existing surface parking spaces that are located off Irving Park Road, and 99 proposed parking spaces within a parking garage within the proposed residential tower. Access to this entry courtyard will be provided via the existing access drives off Marine Drive and Bittersweet Place. The Marine Drive access drive will be converted from one-way eastbound (outbound) to one-way westbound (inbound) traffic only, and the access off Bittersweet Place will be widened to allow for inbound and outbound movements.

Truck Loading

Truck loading for the development will occur on-site within a shared service courtyard. Access to the service courtyard will be provided via the proposed access system serving the site with truck activity being scheduled to occur off peak and will be directed to access the site from the Marine Drive access point. Truck turning movement diagrams, showing the proposed loading zones and proposed truck turning maneuvers are included in the Appendix.

Directional Distribution

The directions from which residents will approach and depart the site was estimated based on existing travel patterns, as determined from the traffic counts, one-way and turning restrictions, and the proposed access system of the development. **Figure 7** illustrates the directional distribution of traffic.

Peak Hour Traffic Volumes

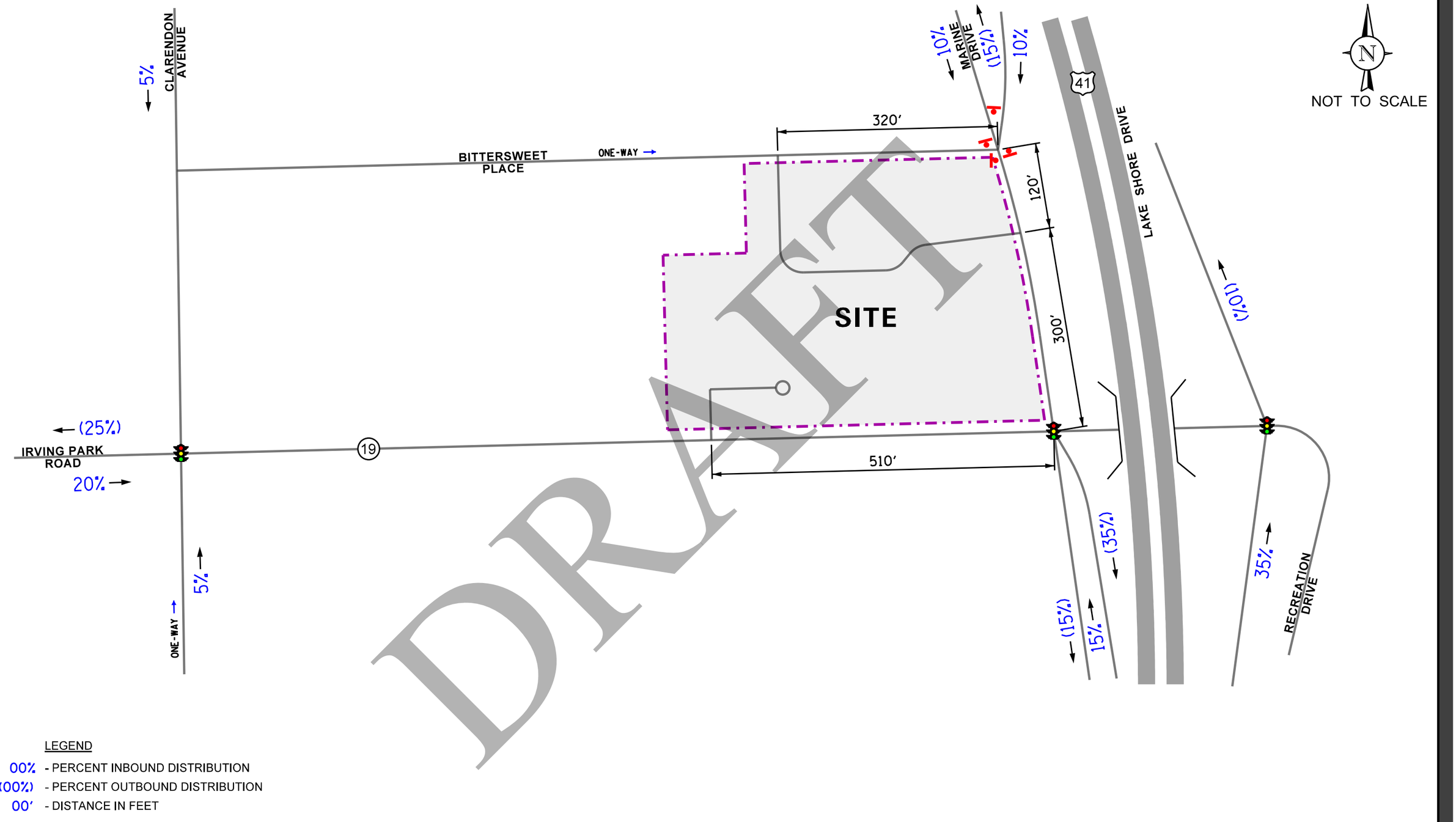
The number of peak hour trips estimated to be generated by the proposed residential development was based on trip generation rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition. It is important to note that the surveys conducted by ITE are generally based on suburban areas where the primary mode of transportation is a personal automobile. Given the location of the development within an urban area and the availability of alternative modes of transportation, the estimated trips that will be generated by the proposed development will be reduced. Based on Census Data available for Census Tracts 314 and 608, approximately 50 percent of residents utilizes public transportation, bicycles, or walks to work. Furthermore, it is anticipated that approximately ten percent of the trips generated by the proposed development will be made by ride-sharing vehicles. As such, the volume of traffic estimated to be generated by the proposed development was reduced accordingly.

Table 1 summarizes the trips projected to be generated by the development.

Table 1
PROJECTED SITE-GENERATED TRAFFIC VOLUMES

ITE Land Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Two-Way Traffic
		In	Out	Total	In	Out	Total	
222	Multifamily Housing High-Rise (265 Units)	22	68	90	62	40	102	1,296
252	Senior Adult Housing – Attached (138 Units)	9	16	25	18	15	33	490
254	Assisted Living/Memory Care (92 Units)	11	6	17	9	15	24	240
	Subtotal	**42**	**90**	**132**	**89**	**70**	**159**	**2,026**
	Ride-Share Trips (10%)	7	7	14	8	8	16	204
	Public Transportation, Bicycle or Walk (50%)	-21	-45	-66	-45	-35	-80	-1,012
	New Passenger Vehicle Trips[1]	**21**	**45**	**66**	**44**	**35**	**79**	**1,014**

1 – Sum of new and ride share trips



LEGEND

00% - PERCENT INBOUND DISTRIBUTION
(00%) - PERCENT OUTBOUND DISTRIBUTION
00' - DISTANCE IN FEET

640 W IRVING PARK ROAD
CHICAGO, ILLINOIS

ESTIMATED DIRECTIONAL DISTRIBUTION

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Job No: 20-076 Figure: 7

4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed subject development.

Development Traffic Assignment

The estimated weekday morning, weekday evening, and Cubs game peak hour traffic volumes that will be generated by the proposed development were assigned to the street system in accordance with the previously described directional distribution (Figure 7). **Figure 8** illustrates the traffic assignment of the development.

Other Area Developments

To account for the traffic to be generated by the other future developments in the area, the traffic impact study also included proposed developments and developments currently under construction in the vicinity of the study area. Vehicle trips were estimated for the following developments and added to the street network.

3660 N. Lake Shore Drive is a proposed apartment development consisting of approximately 332 units and a 5,000 square-foot restaurant. Access to the development will be provided via the existing full movement access drive off Waveland Avenue, and via a proposed full movement access drive off Lake Shore Drive, which will replace an existing inbound only access drive.

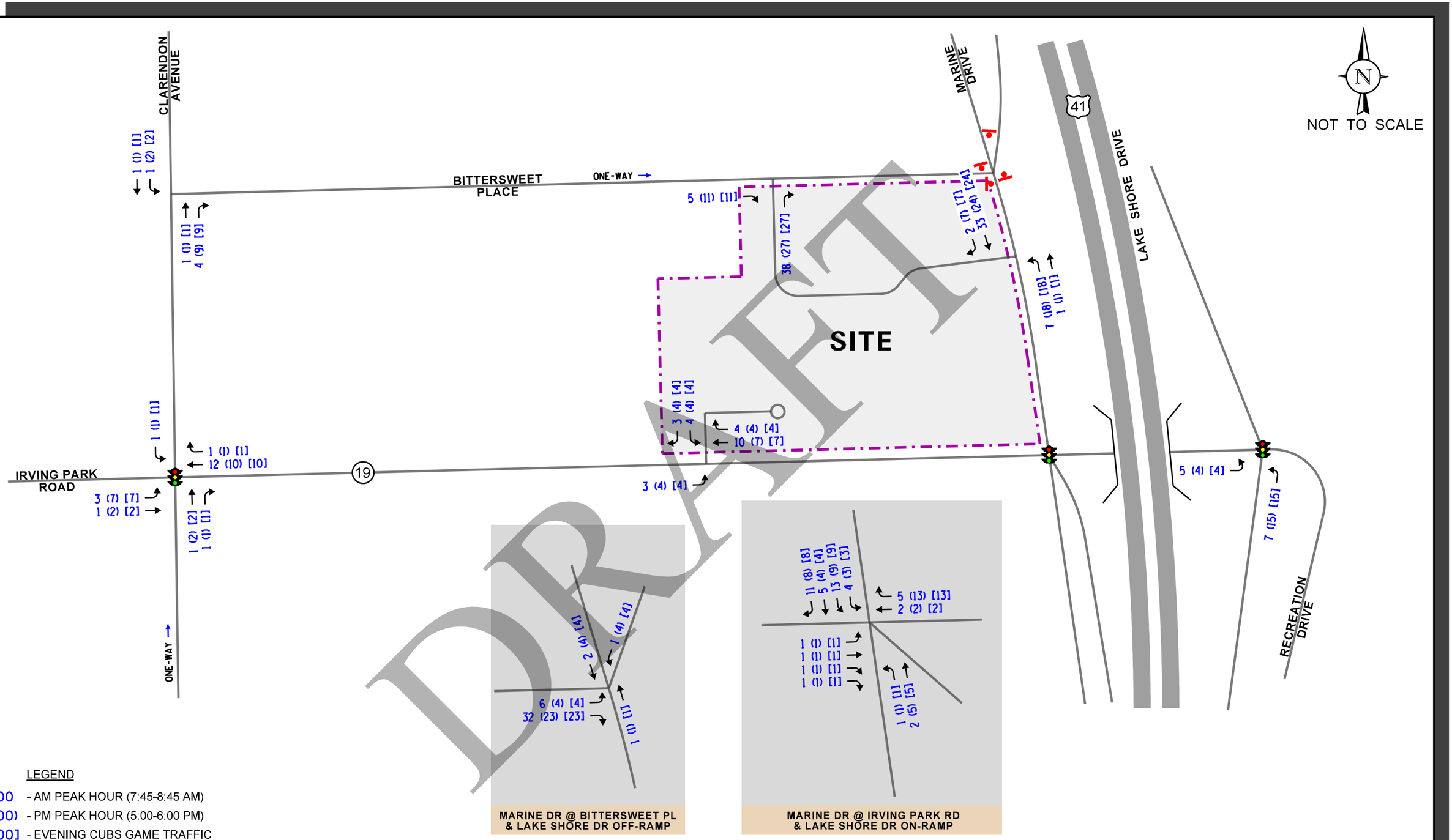
3460 N. Broadway is a proposed apartment development consisting of approximately 208 units and 13,814 square-feet of ground floor retail and an indoor parking garage with 94 parking spaces. Access to the development is proposed via a full movement access drive on Broadway.

Ambient Traffic Growth

To account for any additional increase in traffic due to other factors or developments not previously discussed, an industry standard ambient growth factor of 0.5 percent per year was also applied to the study area over a six-year period to represent Year 2027. Furthermore, in order to account for the increase in population in the study area, bicycle and pedestrian volumes were increased by 10 percent at each intersection.

Total Projected Traffic Volumes

The existing traffic volumes were combined with the traffic from the other developments in the area, the ambient growth in the area, and the new peak hour traffic volumes generated by the subject development to determine the total projected traffic volumes, shown in **Figure 9**.



LEGEND

00 - AM PEAK HOUR (7:45-8:45 AM)

(00) - PM PEAK HOUR (5:00-6:00 PM)

[00] - EVENING CUBS GAME TRAFFIC

640 W IRVING PARK ROAD
CHICAGO, ILLINOIS

ESTIMATED SITE-GENERATED TRAFFIC VOLUMES

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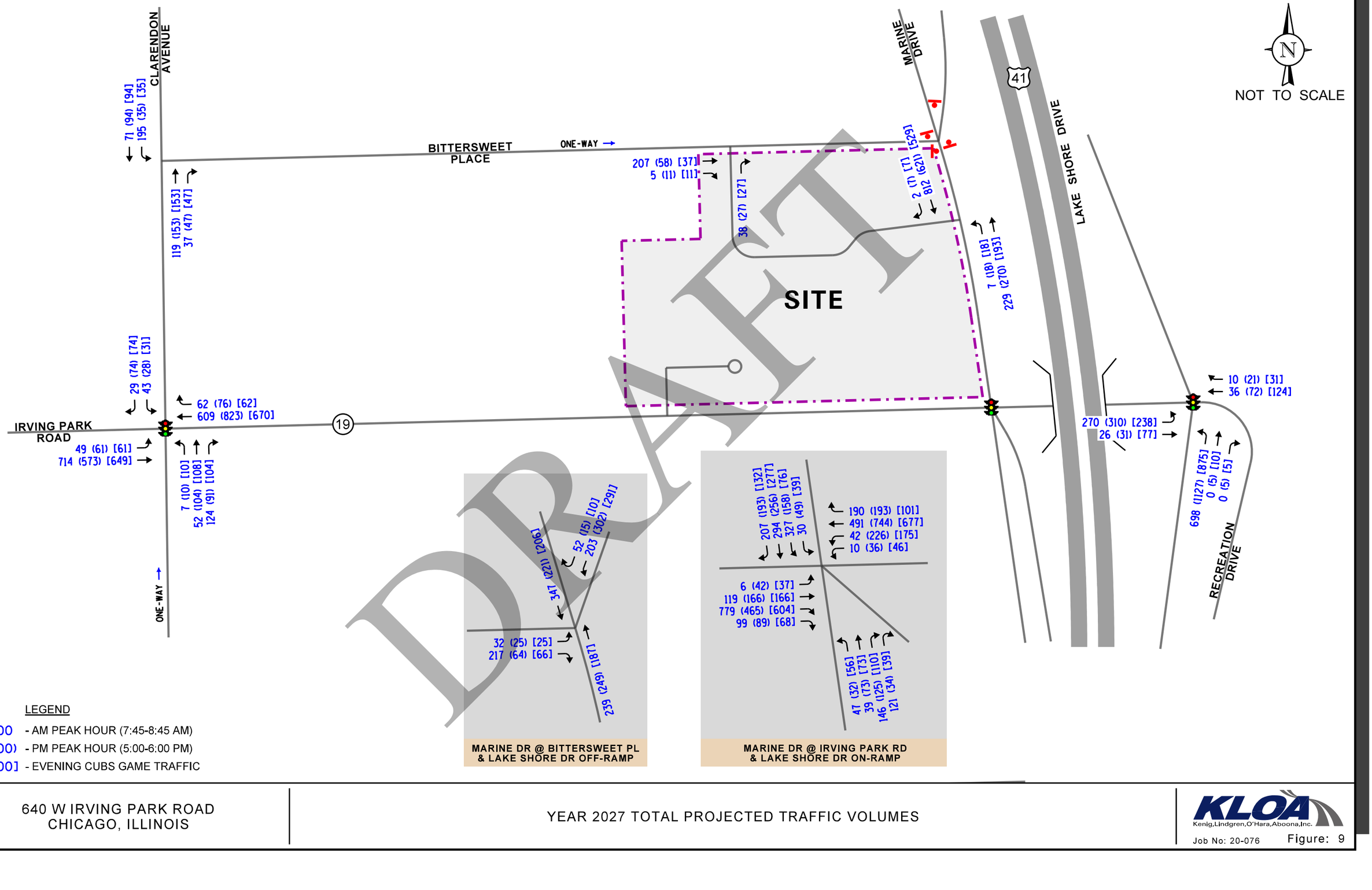
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 20-076 Figure: 8



LEGEND

00 - AM PEAK HOUR (7:45-8:45 AM)

(00) - PM PEAK HOUR (5:00-6:00 PM)

[00] - EVENING CUBS GAME TRAFFIC

640 W IRVING PARK ROAD
CHICAGO, ILLINOIS

YEAR 2027 TOTAL PROJECTED TRAFFIC VOLUMES

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 20-076 Figure: 9

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning, weekday evening, and Cubs game peak hours. The analysis includes conducting capacity analyses to determine how well the street system and access drives are projected to operate and whether any street improvements or modifications are required.

Traffic Analyses

Intersection analyses were performed for the weekday morning and weekday evening peak hours for the existing (Year 2021) and future projected (Year 2027) traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 6th Edition* and analyzed using Synchro/SimTraffic 10 software. The traffic analyses for the signalized intersections of Irving Park Road with Marine Drive/Lake Shore Drive On-Ramp, Irving Park Road with Recreation Drive/Lake Shore Drive Ramps, and Irving Park Road with Clarendon Avenue were accomplished utilizing actual cycle lengths, phasings, and offsets.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report. The design standard for intersections is level of service D.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing and Year 2027 total projected conditions are presented in **Tables 2** and **3**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 2
CAPACITY ANALYSIS RESULTS – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Cubs Game Evening Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Irving Park Road with Marine Drive/Lake Shore Drive Southbound On-Ramp[1]						
• Overall	C	25.1	C	24.9	C	27.7
• Eastbound Approach	C	33.0	D	41.8	D	46.2
• Westbound Approach	A	2.7	A	7.9	A	9.0
• Northbound Approach	C	32.1	C	30.9	C	29.5
• Southbound Approach	C	32.3	C	34.3	C	30.9
Irving Park Road with Recreation Drive/Lake Shore Drive Northbound Ramps[1]						
• Overall	D	35.1	D	37.2	C	32.7
• Eastbound Approach	D	47.7	D	53.8	D	45.9
• Westbound Approach	C	35.0	D	36.8	D	45.8
• Northbound Approach	C	29.9	C	32.2	C	25.7
Irving Park Road with Clarendon Avenue[1]						
• Overall	D	47.3	B	16.2	C	31.5
• Eastbound Approach	E	60.3	C	25.9	E	60.0
• Westbound Approach	D	39.0	A	4.8	A	4.1
• Northbound Approach	C	31.1	C	31.4	C	32.4
• Southbound Approach	C	27.2	C	27.6	C	27.8
Marine Drive with Bittersweet Place/Irving Park Southbound Off-Ramp[2]						
• Overall	C	20.6	B	11.4	B	10.6
• Eastbound Approach	B	13.4	A	8.4	A	8.1
• Westbound Approach	C	18.0	B	13.0	B	11.8
• Northbound Approach	B	11.6	A	9.0	A	8.3
• Southbound Approach	D	32.8	B	12.4	B	11.4
Clarendon Avenue with Bittersweet Place[2]						
• Southbound Left-Turn	A	6.4	A	2.2	A	2.2

1 – Signalized
2 – Unsignalized
LOS = Level of Service
Delay is measured in seconds

Table 3
CAPACITY ANALYSIS RESULTS – PROJECTED CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Cubs Game Evening Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Irving Park Road with Marine Drive/Lake Shore Drive Southbound On-Ramp[1]						
• Overall	C	27.5	C	28.3	C	31.4
• Eastbound Approach	D	36.9	D	50.4	D	53.3
• Westbound Approach	A	2.8	A	9.5	B	11.7
• Northbound Approach	C	33.5	C	31.5	C	30.6
• Southbound Approach	D	35.2	D	36.0	C	33.0
Irving Park Road with Recreation Drive/Lake Shore Drive Northbound Ramps[1]						
• Overall	D	36.6	D	40.0	C	34.5
• Eastbound Approach	D	50.3	E	56.5	D	49.2
• Westbound Approach	D	35.2	D	36.9	D	47.6
• Northbound Approach	C	30.8	D	35.4	C	27.0
Irving Park Road with Clarendon Avenue[1]						
• Overall	D	49.4	B	17.9	C	30.3
• Eastbound Approach	E	60.0	C	29.6	E	60.0
• Westbound Approach	D	44.6	A	5.2	A	6.1
• Northbound Approach	C	31.8	C	32.3	C	33.8
• Southbound Approach	C	27.6	C	28.0	C	28.2
Marine Drive with Bittersweet Place/Irving Park Southbound Off-Ramp[2]						
• Overall	D	25.9	B	12.0	B	11.3
• Eastbound Approach	B	16.5	A	8.7	A	8.3
• Westbound Approach	C	21.4	B	14.1	B	12.9
• Northbound Approach	B	12.6	A	9.3	A	8.8
• Southbound Approach	E	45.2	B	13.2	B	12.3
Clarendon Avenue with Bittersweet Place[2]						
• Southbound Left Turn	A	6.4	A	2.4	A	2.4
Marine Drive with Site Access Drive[2]						
• Northbound Left Turn	A	0.9	A	1.7	A	2.0
Bittersweet Place with Site Access Drive[2]						
• Northbound Approach	B	10.6	A	9.1	A	9.0

1 – Signalized
2 – Unsignalized
LOS = Level of Service
Delay is measured in seconds

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any street and traffic control improvements necessary to accommodate the development-generated traffic.

Irving Park Road with Marine Drive/Lake Shore Drive Southbound On-Ramp

The results of the capacity analysis indicate that overall, this intersection currently operate at level of service (LOS) C during the weekday morning and weekday evening peak hours and at LOS C during evening Cubs game peak hour traffic. Furthermore, all of the approaches currently operate at LOS D or better during the peak hours. Under future conditions, this intersection overall is projected to continue operating at LOS C during the peak hours with increase in delay of approximately four seconds or less. Furthermore, all of the approaches are projected to continue operating at LOS D or better during the peak hours with increases in delay of approximately nine seconds or less.

It should be noted that the 95th percentile queues for the southbound approach are projected to be 241 feet during the weekday morning peak hour, 178 feet during the weekday evening peak hour, and 162 feet during the evening Cubs game peak hour which are not projected to extend beyond the inbound only access drive off Marine Drive. Additionally, a review of the simulation indicates that southbound queues on Marine Drive occasionally extend beyond the access drive and to the intersection of Marine Drive with Bittersweet Place. However, these queues clear the access drive with each southbound green phase. As discussed later, the southbound queues are primarily the result of vehicles utilizing Bittersweet Place to bypass eastbound queueing on Irving Park Road to access the Lake Shore Drive ramps.

Overall, the proposed development is only projected to increase the volume of traffic traversing this intersection by less than two percent during the peak hours. As such, the volume of traffic estimated to be generated by the proposed development will not have a notable impact on the operations of this intersection

Irving Park Road with Recreation Drive/Lake Shore Drive Northbound Ramps

The results of the capacity analysis indicate that overall, this intersection currently operates at LOS D during the weekday morning and weekday evening peak hours and at LOS C during evening Cubs game peak hour traffic. Furthermore, all of the approaches currently operate at LOS D or better during the peak hours. Under future conditions, this intersection is projected to continue operating at LOS D during the weekday morning and weekday evening peak hours and at LOS C during the evening Cubs game peak hour traffic with increases in delay of approximately three seconds or less. All of the approaches are projected to continue operating at LOS D or better during the peak hours with the exception of the eastbound approach which is projected to operate on the threshold of LOS D/E during the weekday evening peak hour. As such, the volume of traffic estimated to be generated by the proposed development will have a minimal impact on the operations of this intersection.

Irving Park Road with Clarendon Avenue

The results of the capacity analysis indicate that overall, this intersection currently operate at LOS D during the weekday morning peak hour, LOS B during the weekday evening peak hour and at LOS C during the evening Cubs game peak hour. Under future conditions, this intersection is projected to continue operating at existing levels of service during the peak hours with increase in delay of approximately two seconds or less. Furthermore, all the approaches are projected to continue operating at existing levels of service during the peak hours with increases in delay of approximately five seconds or less. As such, the traffic estimated to be generated by the proposed development will have a minimal impact on the operations of this intersection.

Marine Drive with Bittersweet Place/Irving Park Road Southbound Off-Ramp

The results of the capacity analysis indicate that overall, this intersection currently operates at LOS C during the weekday morning peak hour and at LOS B during the weekday evening and evening Cubs game peak hours. Furthermore, all the approaches currently operate at LOS D or better during the peak hours. Under future conditions, this intersection overall is projected to operate at LOS D during the weekday morning peak hour and is projected to continue operating at LOS B during the weekday evening and evening Cubs game peak hours with increases in delay of approximately five seconds or less. Furthermore, all the approaches are projected to continue operating at LOS D or better during the peak hours except for the southbound approach which is projected to operate on the threshold of LOS D/E during the weekday morning peak hour. The 95th percentile queues for the northbound approach are projected to be one to two vehicles which will not extend beyond the proposed inbound only access drive on Marine Drive. As such, the traffic estimated to be generated by the proposed development will have a limited impact on the operations of this intersection.

Clarendon Avenue with Bittersweet Place

The results of the capacity analyses indicate that southbound left-turning movements from Clarendon Avenue onto Bittersweet Place currently operate at LOS A during the weekday morning, weekday evening and evening Cubs game peak hours. Under future conditions, southbound left-turning movements from Clarendon Avenue onto Bittersweet Place are projected to continue operating at LOS A during the peak hours with increases in delay of less than one second.

It should be noted that southbound left-turning movements and northbound right-turning movements from Clarendon Avenue onto Bittersweet Place are currently prohibited between 7:00 A.M. and 9:00 A.M. and between 4:00 P.M. and 7:00 P.M., Monday through Friday, September to June, except for local traffic. However, based on the results of the traffic counts this signed restriction is not effective during the weekday morning peak hour particularly in the southbound direction.

This high southbound left-turning volume during the weekday morning peak hour is likely the result of drivers avoiding southbound Clarendon Avenue at its signalized intersection with Irving Park Road given the lack of a protected phase. Additionally, given the many varying characteristics of the restriction this signage may be ignored based on confusion.

In order to enhance the signage, the restriction should be simplified to occur between 7:00 A.M. and 9:00 A.M. and between 4:00 P.M. and 7:00 P.M. weekdays. The simplification of the restriction will allow drivers to quickly distinguish and acknowledge the restriction.

Furthermore, in order to improve the traffic operations on Clarendon Avenue at its approach to Irving Park Road, consideration should be given to providing an exclusive southbound phase for Clarendon Avenue at its signalized intersection with Irving Park Road to minimize southbound queues. This will provide additional capacity allowing more vehicles traverse the intersection and access Irving Park Road limiting the need for southbound traffic to travel on Bittersweet Place.

Marine Drive with Inbound Only Access Drive

The results of the capacity analyses indicate that northbound left-turning movements from Marine Drive onto the inbound only access drive are projected to operate at LOS A during the weekday morning, weekday evening and evening cubs game peak hours. As previously indicated, a review of the simulation indicated that southbound queues on Marine Drive occasionally extend beyond the inbound only access drive, however, these queues clear the access drive with each green phase. Additionally, northbound queues on Marine Drive at Bittersweet Place are projected to be one to two vehicles which will not impact the operations of this access drive. Overall, this access drive will be adequate in accommodating the traffic estimated to be generated by the proposed development and will minimize the volume of traffic circulating the area street system and utilizing Bittersweet Place.

Bittersweet Place with Site Access Drive

The results of the capacity analyses indicate that outbound movements from the access drive on Bittersweet Place are projected to operate at LOS B during the weekday morning peak hour and at LOS A during the weekday evening and evening Cubs game peak hours. As previously indicated, this access drive will allow for inbound and outbound movements from the proposed development, however, given the one-way restriction of Bittersweet Place, these movements will be restricted to right-turns only. Additionally, given the one-way restriction of Bittersweet Place and with the provision of the inbound only access drive off Marine Drive, most of the site generated traffic will only traverse the 300-foot segment of Bittersweet Place between the access drive and Marine Drive. Based on the directional distribution, only 30 percent of the inbound traffic volumes will utilize the segment of Bittersweet Place between Clarendon Avenue and the access drive. Overall, this access drive will be adequate in accommodating the traffic estimated to be generated by the proposed development and will have a limited impact on the operations of Bittersweet Place.

6. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- Given the location of the site within an urban area and its proximity to alternative modes of transportation, the number of generated trips will be reduced.

- The volume of traffic estimated to be generated by the proposed development will consists of less than two percent of the total traffic traversing the intersection of Irving Park Road with Marine Drive/Lake Shore Drive Southbound Ramp.

- As part of the proposed development, the existing access drive on Marine Drive will be converted to inbound only access drive and the existing access drive on Bittersweet Place will be widened to allow for inbound and outbound traffic.

- Ride-sharing trips for the proposed apartment building will be accommodated via the existing parking lot located in the southwest corner of the site with full access off Irving Park Road.

- All truck loading will occur internally with inbound access from Marine Drive and outbound access to Bittersweet Place. Additionally, truck activity will be scheduled to occur during off-peak hours.

- The turning restriction from Clarendon Avenue onto Bittersweet Place should be simplified to occur between 7:00 A.M. and 9:00 A.M. and between 4:00 P.M. and 7:00 P.M. weekdays.

- To minimize southbound queues on Clarendon Avenue at Irving Park Road, consideration should be given to providing an exclusive southbound green phase.

- Consideration should be given to providing a CTA transit information kiosk within the lobbies in order to further encourage public transit use.

- Consideration should be given to providing on-site car sharing services

- Consideration should be given to providing a shuttle bus serving the senior housing building. The provision of a shuttle will reduce the number of individual passenger vehicle trips generated by the development.

Appendix

Traffic Count Summary Sheets
Site Plan
Truck Turning Diagrams
Level of Service Criteria
Capacity Analysis Summary Sheets

Traffic Count Summary Sheets

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Irving Park Road with Lake Shore Drive Northbound Ramps
Site Code:
Start Date: 12/17/2020

Turning Movement Data

Start Time	Irving Park Road Eastbound						Recreation Drive Westbound						Northbound Off Ramp Northbound						Northbound On Ramp Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	34	3	0	0	37	0	0	0	2	0	2	0	67	0	1	0	68	0	0	0	0	7	0	107
7:15 AM	1	36	2	0	0	39	0	0	3	2	0	5	0	66	0	1	0	67	0	0	0	0	13	0	111
7:30 AM	0	41	2	0	0	43	0	0	4	1	0	5	0	79	0	4	0	83	0	0	0	0	12	0	131
7:45 AM	0	37	2	0	0	39	0	0	3	0	0	3	0	128	1	3	0	132	0	0	0	0	11	0	174
Hourly Total	1	148	9	0	0	158	0	0	10	5	0	15	0	340	1	9	0	350	0	0	0	0	43	0	523
8:00 AM	0	34	2	0	0	36	0	0	2	1	0	3	0	109	0	5	0	114	0	0	0	1	12	1	154
8:15 AM	0	57	3	0	0	60	0	0	5	2	0	7	0	101	2	0	0	103	0	0	0	0	3	0	170
8:30 AM	0	39	3	0	0	42	0	0	3	0	0	3	0	108	0	0	0	108	0	0	0	0	4	0	153
8:45 AM	0	37	1	0	0	38	0	0	0	1	0	1	0	89	0	1	1	90	0	0	0	0	5	0	129
Hourly Total	0	167	9	0	0	176	0	0	10	4	0	14	0	407	2	6	1	415	0	0	0	1	24	1	606
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	65	8	0	0	73	0	0	10	2	0	12	0	132	0	3	0	135	0	0	0	0	13	0	220
4:15 PM	0	67	4	0	0	71	0	0	14	0	0	14	0	168	1	3	0	172	0	0	0	0	7	0	257
4:30 PM	0	53	3	0	0	56	0	0	5	3	0	8	0	168	1	3	0	172	0	0	0	0	14	0	236
4:45 PM	0	63	0	0	0	63	0	0	7	0	0	7	0	151	1	2	0	154	0	0	0	0	6	0	224
Hourly Total	0	248	15	0	0	263	0	0	36	5	0	41	0	619	3	11	0	633	0	0	0	0	40	0	937
5:00 PM	0	61	1	0	0	62	0	0	2	0	0	2	0	179	0	3	0	182	0	0	0	0	1	0	246
5:15 PM	0	64	2	0	0	66	0	0	3	0	0	3	0	159	0	2	0	161	0	0	0	0	8	0	230
5:30 PM	0	58	3	0	0	61	0	0	4	0	0	4	0	158	0	4	0	162	0	0	0	0	13	0	227
5:45 PM	0	62	1	0	0	63	0	0	5	0	1	5	0	176	1	6	0	183	0	0	0	0	11	0	251
Hourly Total	0	245	7	0	0	252	0	0	14	0	1	14	0	672	1	15	0	688	0	0	0	0	33	0	954
Grand Total	1	808	40	0	0	849	0	0	70	14	1	84	0	2038	7	41	1	2086	0	0	0	1	140	1	3020
Approach %	0.1	95.2	4.7	0.0	-	-	0.0	0.0	83.3	16.7	-	-	0.0	97.7	0.3	2.0	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	26.8	1.3	0.0	-	28.1	0.0	0.0	2.3	0.5	-	2.8	0.0	67.5	0.2	1.4	-	69.1	0.0	0.0	0.0	0.0	-	0.0	-
Lights	1	805	35	0	-	841	0	0	69	13	-	82	0	2011	7	40	-	2058	0	0	0	0	-	0	2981
% Lights	100.0	99.6	87.5	-	-	99.1	-	-	98.6	92.9	-	97.6	-	98.7	100.0	97.6	-	98.7	-	-	-	0.0	-	0.0	98.7
Buses	0	0	0	0	-	0	0	0	0	1	-	1	0	20	0	0	-	20	0	0	0	0	-	0	21
% Buses	0.0	0.0	0.0	-	-	0.0	-	-	0.0	7.1	-	1.2	-	1.0	0.0	0.0	-	1.0	-	-	-	0.0	-	0.0	0.7
Single-Unit Trucks	0	3	1	0	-	4	0	0	0	0	-	0	0	6	0	1	-	7	0	0	0	0	-	0	11
% Single-Unit Trucks	0.0	0.4	2.5	-	-	0.5	-	-	0.0	0.0	-	0.0	-	0.3	0.0	2.4	-	0.3	-	-	-	0.0	-	0.0	0.4
Articulated Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	2
% Articulated Trucks	0.0	0.0	2.5	-	-	0.1	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	0.0	-	0.0	0.1
Bicycles on Road	0	0	3	0	-	3	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	1	-	1	5

% Bicycles on Road	0.0	0.0	7.5	-	-	0.4	-	-	1.4	0.0	-	1.2	-	0.0	0.0	0.0	-	0.0	-	-	-	100.0	-	100.0	0.2
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	140	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Irving Park Road with Lake Shore Drive Northbound Ramps
Site Code:
Start Date: 12/17/2020

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Irving Park Road Eastbound						Recreation Drive Westbound						Northbound Off Ramp Northbound						Northbound On Ramp Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:45 AM	0	37	2	0	0	39	0	0	3	0	0	3	0	128	1	3	0	132	0	0	0	0	11	0	174
8:00 AM	0	34	2	0	0	36	0	0	2	1	0	3	0	109	0	5	0	114	0	0	0	1	12	1	154
8:15 AM	0	57	3	0	0	60	0	0	5	2	0	7	0	101	2	0	0	103	0	0	0	0	3	0	170
8:30 AM	0	39	3	0	0	42	0	0	3	0	0	3	0	108	0	0	0	108	0	0	0	0	4	0	153
Total	0	167	10	0	0	177	0	0	13	3	0	16	0	446	3	8	0	457	0	0	0	1	30	1	651
Approach %	0.0	94.4	5.6	0.0	-	-	0.0	0.0	81.3	18.8	-	-	0.0	97.6	0.7	1.8	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	25.7	1.5	0.0	-	27.2	0.0	0.0	2.0	0.5	-	2.5	0.0	68.5	0.5	1.2	-	70.2	0.0	0.0	0.0	0.2	-	0.2	-
PHF	0.000	0.732	0.833	0.000	-	0.738	0.000	0.000	0.650	0.375	-	0.571	0.000	0.871	0.375	0.400	-	0.866	0.000	0.000	0.000	0.250	-	0.250	0.935
Lights	0	166	10	0	-	176	0	0	13	3	-	16	0	441	3	8	-	452	0	0	0	0	-	0	644
% Lights	-	99.4	100.0	-	-	99.4	-	-	100.0	100.0	-	100.0	-	98.9	100.0	100.0	-	98.9	-	-	-	0.0	-	0.0	98.9
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Buses	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.2	0.0	0.0	-	0.2	-	-	-	0.0	-	0.0	0.2
Single-Unit Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	3	0	0	-	3	0	0	0	0	-	0	4
% Single-Unit Trucks	-	0.6	0.0	-	-	0.6	-	-	0.0	0.0	-	0.0	-	0.7	0.0	0.0	-	0.7	-	-	-	0.0	-	0.0	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.2	0.0	0.0	-	0.2	-	-	-	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	1
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	100.0	-	100.0	0.2
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	30	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Irving Park Road with Lake Shore Drive Northbound Ramps
Site Code:
Start Date: 12/17/2020

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Irving Park Road Eastbound						Recreation Drive Westbound						Northbound Off Ramp Northbound						Northbound On Ramp Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
5:00 PM	0	61	1	0	0	62	0	0	2	0	0	2	0	179	0	3	0	182	0	0	0	0	1	0	246
5:15 PM	0	64	2	0	0	66	0	0	3	0	0	3	0	159	0	2	0	161	0	0	0	0	8	0	230
5:30 PM	0	58	3	0	0	61	0	0	4	0	0	4	0	158	0	4	0	162	0	0	0	0	13	0	227
5:45 PM	0	62	1	0	0	63	0	0	5	0	1	5	0	176	1	6	0	183	0	0	0	0	11	0	251
Total	0	245	7	0	0	252	0	0	14	0	1	14	0	672	1	15	0	688	0	0	0	0	33	0	954
Approach %	0.0	97.2	2.8	0.0	-	-	0.0	0.0	100.0	0.0	-	-	0.0	97.7	0.1	2.2	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	25.7	0.7	0.0	-	26.4	0.0	0.0	1.5	0.0	-	1.5	0.0	70.4	0.1	1.6	-	72.1	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.957	0.583	0.000	-	0.955	0.000	0.000	0.700	0.000	-	0.700	0.000	0.939	0.250	0.625	-	0.940	0.000	0.000	0.000	0.000	-	0.000	0.950
Lights	0	244	5	0	-	249	0	0	14	0	-	14	0	665	1	15	-	681	0	0	0	0	-	0	944
% Lights	-	99.6	71.4	-	-	98.8	-	-	100.0	-	-	100.0	-	99.0	100.0	100.0	-	99.0	-	-	-	-	-	-	99.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	7	0	0	-	7	0	0	0	0	-	0	7
% Buses	-	0.0	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	1.0	0.0	0.0	-	1.0	-	-	-	-	-	-	0.7
Single-Unit Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Single-Unit Trucks	-	0.4	0.0	-	-	0.4	-	-	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-	-	0.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Road	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	28.6	-	-	0.8	-	-	0.0	-	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-	-	0.2
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	33	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Study Name Irving Park Road with Lake Shore Drive/Marine Drive - Full
Start Date Thursday, December 17, 2020 7:00 AM
End Date Thursday, December 17, 2020 7:00 PM
Site Code

Report Summary

		Eastbound							Westbound							Northbound							Southbound							Northwestbound									Crosswalk	
Time Period	Class.	U	L	T	BR	R	I	O	U	HL	L	T	R	I	O	U	L	T	R	HR	I	O	U	L	BL	T	R	I	O	U	HL	BL	BR	HR	I	O	Total		destria	Total
Peak 1	Lights	0	8	99	491	42	640	516	0	13	36	378	24	451	178	0	20	21	71	60	172	204	0	8	89	126	118	341	53	0	0	0	0	0	0	653	1604	W	43	43
Specified Period	%	0%	89%	99%	98%	75%	96%	99%	0%	100%	97%	99%	100%	99%	99%	0%	100%	84%	100%	100%	98%	88%	0%	100%	94%	91%	98%	94%	91%	0%	0%	0%	0%	0%	0%	98%	97%		100%	
7:00 AM - 10:00 AM	Buses	0	0	0	9	14	23	1	0	0	1	0	0	1	0	0	0	4	0	0	4	25	0	0	6	10	1	17	4	0	0	0	0	0	0	15	45	E	0	0
One Hour Peak	%	0%	0%	0%	2%	25%	3%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	16%	0%	0%	2%	11%	0%	0%	6%	7%	1%	5%	7%	0%	0%	0%	0%	0%	0%	2%	3%		0%	
8:45 AM - 9:45 AM	ngle-Unit Truc	0	1	1	0	0	2	4	0	0	0	3	0	3	1	0	0	0	0	0	0	1	0	0	0	1	1	2	1	0	0	0	0	0	0	0	7	S	2	2
	%	0%	11%	1%	0%	0%	0%	1%	0%	0%	0%	1%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	2%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	ticulated Truc	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	N	36	36
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	icycles on Roa	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	SE	2	2
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	Total	**0**	**9**	**100**	**500**	**56**	**665**	**523**	**0**	**13**	**37**	**383**	**24**	**457**	**179**	**0**	**20**	**25**	**71**	**60**	**176**	**231**	**0**	**8**	**95**	**138**	**120**	**361**	**58**	**0**	**0**	**0**	**0**	**0**	**0**	**668**	**1659**		**83**	**83**
	PHF	0	0.75	0.86	0.93	0.74	0.9	0.98	0	0.65	0.77	0.94	0.75	0.95	0.86	0	0.83	0.62	0.68	0.94	0.85	0.95	0	0.67	0.82	0.84	0.86	0.89	0.85	0	0	0	0	0	0	0.94	0.99			
	Approach %						40%	32%						28%	11%						11%	14%						22%	3%						0%	40%				
Peak 2	Lights	0	29	132	479	60	700	633	0	14	121	471	77	683	245	0	27	34	103	39	203	383	0	10	75	202	135	422	140	0	0	0	0	0	0	607	2008	W	52	52
Specified Period	%	0%	97%	99%	99%	87%	98%	98%	0%	100%	100%	99%	96%	99%	99%	0%	82%	87%	99%	100%	94%	97%	0%	100%	100%	98%	100%	99%	94%	0%	0%	0%	0%	0%	0%	99%	98%		100%	
4:00 PM - 7:00 PM	Buses	0	0	0	6	8	14	10	0	0	0	5	3	8	0	0	5	5	0	0	10	12	0	0	0	4	0	4	8	0	0	0	0	0	0	6	36	E	0	0
One Hour Peak	%	0%	0%	0%	1%	12%	2%	2%	0%	0%	0%	1%	4%	1%	0%	0%	15%	13%	0%	0%	5%	3%	0%	0%	0%	2%	0%	1%	5%	0%	0%	0%	0%	0%	0%	1%	2%		0%	
6:00 PM - 7:00 PM	ngle-Unit Truc	0	1	0	0	1	2	1	0	0	0	0	0	0	1	0	1	0	1	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	S	0	0
	%	0%	3%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%		0%	
	ticulated Truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N	41	41
	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		100%	
	icycles on Roa	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	SE	0	0
	%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%		0%	
	Total	**0**	**30**	**133**	**485**	**69**	**717**	**644**	**0**	**14**	**121**	**476**	**80**	**691**	**248**	**0**	**33**	**39**	**104**	**39**	**215**	**396**	**0**	**10**	**75**	**206**	**135**	**426**	**149**	**0**	**0**	**0**	**0**	**1**	**1**	**613**	**2050**		**93**	**93**
	PHF	0	0.75	0.85	0.87	0.91	0.94	0.95	0	0.88	0.84	0.92	0.87	0.94	0.97	0	0.82	0.75	0.76	0.81	0.87	0.98	0	0.5	0.78	0.92	0.87	0.92	0.91	0	0	0	0	0.25	0.25	0.91	0.98			
	Approach %						35%	31%						34%	12%						10%	19%						21%	7%						0%	30%				

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Irving Park Road with Clarendon Avenue
Site Code:
Start Date: 12/17/2020

Turning Movement Data

Start Time	Irving Park Road Eastbound						Irving Park Road Westbound						Clarendon Avenue Northbound						Clarendon Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	7	66	0	2	73	0	0	68	4	6	72	0	2	7	7	3	16	0	4	0	7	3	11	172
7:15 AM	0	3	96	0	2	99	0	0	75	2	7	77	0	1	2	21	5	24	0	8	0	6	5	14	214
7:30 AM	0	10	96	0	5	106	0	0	96	2	8	98	0	2	10	17	3	29	0	7	4	14	6	25	258
7:45 AM	0	16	104	0	3	120	0	0	107	10	12	117	0	2	11	14	4	27	0	12	0	6	7	18	282
Hourly Total	0	36	362	0	12	398	0	0	346	18	33	364	0	7	30	59	15	96	0	31	4	33	21	68	926
8:00 AM	0	10	97	0	8	107	0	0	113	16	13	129	0	4	20	23	9	47	0	11	0	4	7	15	298
8:15 AM	0	8	136	0	6	144	0	0	127	13	12	140	0	0	10	25	10	35	0	10	2	8	3	20	339
8:30 AM	0	11	129	0	4	140	1	0	111	6	9	118	0	1	13	19	9	33	0	9	5	10	7	24	315
8:45 AM	0	14	121	0	6	135	0	0	97	5	8	102	0	2	10	19	14	31	0	4	1	10	4	15	283
Hourly Total	0	43	483	0	24	526	1	0	448	40	42	489	0	7	53	86	42	146	0	34	8	32	21	74	1235
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	13	118	0	7	131	0	0	127	9	14	136	0	1	19	32	13	52	0	6	1	12	18	19	338
4:15 PM	0	12	123	0	11	135	0	0	135	13	13	148	0	2	19	23	15	44	0	6	2	19	12	27	354
4:30 PM	0	8	126	0	15	134	0	0	137	23	24	160	0	4	22	22	20	48	0	4	1	25	18	30	372
4:45 PM	0	11	128	0	27	139	0	0	128	15	26	143	0	2	25	29	21	56	0	6	1	27	5	34	372
Hourly Total	0	44	495	0	60	539	0	0	527	60	77	587	0	9	85	106	69	200	0	22	5	83	53	110	1436
5:00 PM	0	14	146	0	8	160	0	0	121	12	16	133	0	3	20	22	19	45	0	8	1	18	5	27	365
5:15 PM	0	15	136	0	18	151	0	0	147	21	13	168	0	2	27	21	20	50	0	8	2	12	11	22	391
5:30 PM	0	13	139	0	9	152	0	0	136	10	28	146	0	2	28	22	19	52	0	7	3	25	10	35	385
5:45 PM	0	10	133	0	20	143	0	0	139	7	17	146	0	3	21	22	29	46	0	3	1	16	16	20	355
Hourly Total	0	52	554	0	55	606	0	0	543	50	74	593	0	10	96	87	87	193	0	26	7	71	42	104	1496
Grand Total	0	175	1894	0	151	2069	1	0	1864	168	226	2033	0	33	264	338	213	635	0	113	24	219	137	356	5093
Approach %	0.0	8.5	91.5	0.0	-	-	0.0	0.0	91.7	8.3	-	-	0.0	5.2	41.6	53.2	-	-	0.0	31.7	6.7	61.5	-	-	-
Total %	0.0	3.4	37.2	0.0	-	40.6	0.0	0.0	36.6	3.3	-	39.9	0.0	0.6	5.2	6.6	-	12.5	0.0	2.2	0.5	4.3	-	7.0	-
Lights	0	175	1841	0	-	2016	1	0	1845	148	-	1994	0	31	237	332	-	600	0	86	0	211	-	297	4907
% Lights	-	100.0	97.2	-	-	97.4	100.0	-	99.0	88.1	-	98.1	-	93.9	89.8	98.2	-	94.5	-	76.1	0.0	96.3	-	83.4	96.3
Buses	0	0	35	0	-	35	0	0	3	19	-	22	0	0	0	1	-	1	0	22	0	0	-	22	80
% Buses	-	0.0	1.8	-	-	1.7	0.0	-	0.2	11.3	-	1.1	-	0.0	0.0	0.3	-	0.2	-	19.5	0.0	0.0	-	6.2	1.6
Single-Unit Trucks	0	0	13	0	-	13	0	0	12	1	-	13	0	2	4	5	-	11	0	2	0	5	-	7	44
% Single-Unit Trucks	-	0.0	0.7	-	-	0.6	0.0	-	0.6	0.6	-	0.6	-	6.1	1.5	1.5	-	1.7	-	1.8	0.0	2.3	-	2.0	0.9
Articulated Trucks	0	0	4	0	-	4	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	5
% Articulated Trucks	-	0.0	0.2	-	-	0.2	0.0	-	0.1	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	1	0	-	1	0	0	3	0	-	3	0	0	23	0	-	23	0	3	24	3	-	30	57

% Bicycles on Road	-	0.0	0.1	-	-	0.0	0.0	-	0.2	0.0	-	0.1	-	0.0	8.7	0.0	-	3.6	-	2.7	100.0	1.4	-	8.4	1.1
Pedestrians	-	-	-	-	151	-	-	-	-	-	226	-	-	-	-	-	213	-	-	-	-	-	137	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Irving Park Road with Clarendon Avenue
Site Code:
Start Date: 12/17/2020

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Irving Park Road Eastbound						Irving Park Road Westbound						Clarendon Avenue Northbound						Clarendon Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:45 AM	0	16	104	0	3	120	0	0	107	10	12	117	0	2	11	14	4	27	0	12	0	6	7	18	282
8:00 AM	0	10	97	0	8	107	0	0	113	16	13	129	0	4	20	23	9	47	0	11	0	4	7	15	298
8:15 AM	0	8	136	0	6	144	0	0	127	13	12	140	0	0	10	25	10	35	0	10	2	8	3	20	339
8:30 AM	0	11	129	0	4	140	1	0	111	6	9	118	0	1	13	19	9	33	0	9	5	10	7	24	315
Total	0	45	466	0	21	511	1	0	458	45	46	504	0	7	54	81	32	142	0	42	7	28	24	77	1234
Approach %	0.0	8.8	91.2	0.0	-	-	0.2	0.0	90.9	8.9	-	-	0.0	4.9	38.0	57.0	-	-	0.0	54.5	9.1	36.4	-	-	-
Total %	0.0	3.6	37.8	0.0	-	41.4	0.1	0.0	37.1	3.6	-	40.8	0.0	0.6	4.4	6.6	-	11.5	0.0	3.4	0.6	2.3	-	6.2	-
PHF	0.000	0.703	0.857	0.000	-	0.887	0.250	0.000	0.902	0.703	-	0.900	0.000	0.438	0.675	0.810	-	0.755	0.000	0.875	0.350	0.700	-	0.802	0.910
Lights	0	45	450	0	-	495	1	0	450	45	-	496	0	7	44	79	-	130	0	31	0	27	-	58	1179
% Lights	-	100.0	96.6	-	-	96.9	100.0	-	98.3	100.0	-	98.4	-	100.0	81.5	97.5	-	91.5	-	73.8	0.0	96.4	-	75.3	95.5
Buses	0	0	10	0	-	10	0	0	1	0	-	1	0	0	0	0	-	0	0	10	0	0	-	10	21
% Buses	-	0.0	2.1	-	-	2.0	0.0	-	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	23.8	0.0	0.0	-	13.0	1.7
Single-Unit Trucks	0	0	5	0	-	5	0	0	6	0	-	6	0	0	3	2	-	5	0	0	0	1	-	1	17
% Single-Unit Trucks	-	0.0	1.1	-	-	1.0	0.0	-	1.3	0.0	-	1.2	-	0.0	5.6	2.5	-	3.5	-	0.0	0.0	3.6	-	1.3	1.4
Articulated Trucks	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.2	-	-	0.2	0.0	-	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	7	0	-	7	0	1	7	0	-	8	15
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	13.0	0.0	-	4.9	-	2.4	100.0	0.0	-	10.4	1.2
Pedestrians	-	-	-	-	21	-	-	-	-	-	46	-	-	-	-	-	32	-	-	-	-	-	24	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Irving Park Road with Clarendon Avenue
Site Code:
Start Date: 12/17/2020

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Irving Park Road Eastbound						Irving Park Road Westbound						Clarendon Avenue Northbound						Clarendon Avenue Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	14	146	0	8	160	0	0	121	12	16	133	0	3	20	22	19	45	0	8	1	18	5	27	365
5:15 PM	0	15	136	0	18	151	0	0	147	21	13	168	0	2	27	21	20	50	0	8	2	12	11	22	391
5:30 PM	0	13	139	0	9	152	0	0	136	10	28	146	0	2	28	22	19	52	0	7	3	25	10	35	385
5:45 PM	0	10	133	0	20	143	0	0	139	7	17	146	0	3	21	22	29	46	0	3	1	16	16	20	355
Total	0	52	554	0	55	606	0	0	543	50	74	593	0	10	96	87	87	193	0	26	7	71	42	104	1496
Approach %	0.0	8.6	91.4	0.0	-	-	0.0	0.0	91.6	8.4	-	-	0.0	5.2	49.7	45.1	-	-	0.0	25.0	6.7	68.3	-	-	-
Total %	0.0	3.5	37.0	0.0	-	40.5	0.0	0.0	36.3	3.3	-	39.6	0.0	0.7	6.4	5.8	-	12.9	0.0	1.7	0.5	4.7	-	7.0	-
PHF	0.000	0.867	0.949	0.000	-	0.947	0.000	0.000	0.923	0.595	-	0.882	0.000	0.833	0.857	0.989	-	0.928	0.000	0.813	0.583	0.710	-	0.743	0.957
Lights	0	52	542	0	-	594	0	0	543	40	-	583	0	10	96	85	-	191	0	26	0	68	-	94	1462
% Lights	-	100.0	97.8	-	-	98.0	-	-	100.0	80.0	-	98.3	-	100.0	100.0	97.7	-	99.0	-	100.0	0.0	95.8	-	90.4	97.7
Buses	0	0	9	0	-	9	0	0	0	10	-	10	0	0	0	0	-	0	0	0	0	0	-	0	19
% Buses	-	0.0	1.6	-	-	1.5	-	-	0.0	20.0	-	1.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	1.3
Single-Unit Trucks	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	2	-	2	0	0	0	2	-	2	7
% Single-Unit Trucks	-	0.0	0.5	-	-	0.5	-	-	0.0	0.0	-	0.0	-	0.0	0.0	2.3	-	1.0	-	0.0	0.0	2.8	-	1.9	0.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	7	1	-	8	8
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	100.0	1.4	-	7.7	0.5
Pedestrians	-	-	-	-	55	-	-	-	-	-	74	-	-	-	-	-	87	-	-	-	-	-	42	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Marine Drive with Bittersweet Place
Site Code:
Start Date: 12/17/2020

Turning Movement Data

Start Time	Bittersweet Place Eastbound				Lake Shore Drive Southbound Off Ramp Westbound				Marine Drive Northbound				Marine Drive Southbound				
	Left	Right	Peds	App. Total	Left	Right	Peds	App. Total	U-Turn	Thru	Peds	App. Total	U-Turn	Thru	Peds	App. Total	Int. Total
7:00 AM	1	2	1	3	13	0	0	13	0	1	0	1	0	13	0	13	30
7:15 AM	0	10	1	10	20	0	0	20	0	14	0	14	0	19	0	19	63
7:30 AM	0	8	2	8	15	2	0	17	0	6	0	6	0	23	0	23	54
7:45 AM	0	11	5	11	37	2	0	39	0	6	0	6	0	19	0	19	75
Hourly Total	1	31	9	32	85	4	0	89	0	27	0	27	0	74	0	74	222
8:00 AM	5	9	1	14	41	0	0	41	0	13	0	13	0	17	1	17	85
8:15 AM	3	5	5	8	42	2	0	44	1	9	0	10	0	31	0	31	93
8:30 AM	1	7	7	8	44	1	0	45	0	14	0	14	0	40	0	40	107
8:45 AM	3	7	5	10	55	2	0	57	0	16	0	16	0	35	0	35	118
Hourly Total	12	28	18	40	182	5	0	187	1	52	0	53	0	123	1	123	403
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	3	11	12	14	42	3	0	45	1	36	0	37	0	32	1	32	128
4:15 PM	8	10	7	18	54	4	0	58	0	31	1	31	0	31	0	31	138
4:30 PM	2	11	7	13	59	2	0	61	0	26	0	26	0	19	0	19	119
4:45 PM	7	12	4	19	59	2	0	61	0	39	0	39	0	23	0	23	142
Hourly Total	20	44	30	64	214	11	0	225	1	132	1	133	0	105	1	105	527
5:00 PM	10	6	11	16	64	4	0	68	0	36	0	36	0	28	2	28	148
5:15 PM	4	10	16	14	61	4	0	65	0	32	0	32	0	39	1	39	150
5:30 PM	3	10	12	13	60	2	0	62	0	29	0	29	0	39	2	39	143
5:45 PM	5	14	12	19	68	0	0	68	0	28	0	28	0	24	2	24	139
Hourly Total	22	40	51	62	253	10	0	263	0	125	0	125	0	130	7	130	580
Grand Total	55	143	108	198	734	30	0	764	2	336	1	338	0	432	9	432	1732
Approach %	27.8	72.2	-	-	96.1	3.9	-	-	0.6	99.4	-	-	0.0	100.0	-	-	-
Total %	3.2	8.3	-	11.4	42.4	1.7	-	44.1	0.1	19.4	-	19.5	0.0	24.9	-	24.9	-
Lights	54	140	-	194	731	30	-	761	2	311	-	313	0	386	-	386	1654
% Lights	98.2	97.9	-	98.0	99.6	100.0	-	99.6	100.0	92.6	-	92.6	-	89.4	-	89.4	95.5
Buses	0	1	-	1	1	0	-	1	0	17	-	17	0	38	-	38	57
% Buses	0.0	0.7	-	0.5	0.1	0.0	-	0.1	0.0	5.1	-	5.0	-	8.8	-	8.8	3.3
Single-Unit Trucks	1	1	-	2	2	0	-	2	0	7	-	7	0	5	-	5	16
% Single-Unit Trucks	1.8	0.7	-	1.0	0.3	0.0	-	0.3	0.0	2.1	-	2.1	-	1.2	-	1.2	0.9
Articulated Trucks	0	0	-	0	0	0	-	0	0	1	-	1	0	0	-	0	1
% Articulated Trucks	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.3	-	0.3	-	0.0	-	0.0	0.1
Bicycles on Road	0	1	-	1	0	0	-	0	0	0	-	0	0	3	-	3	4
% Bicycles on Road	0.0	0.7	-	0.5	0.0	0.0	-	0.0	0.0	0.0	-	0.0	-	0.7	-	0.7	0.2
Pedestrians	-	-	108	-	-	-	0	-	-	-	1	-	-	-	9	-	-
% Pedestrians	-	-	100.0	-	-	-	-	-	-	-	100.0	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Marine Drive with Bittersweet Place
Site Code:
Start Date: 12/17/2020

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Bittersweet Place Eastbound				Lake Shore Drive Southbound Off Ramp Westbound				Marine Drive Northbound				Marine Drive Southbound				
	Left	Right	Peds	App. Total	Left	Right	Peds	App. Total	U-Turn	Thru	Peds	App. Total	U-Turn	Thru	Peds	App. Total	Int. Total
7:45 AM	0	11	5	11	37	2	0	39	0	6	0	6	0	19	0	19	75
8:00 AM	5	9	1	14	41	0	0	41	0	13	0	13	0	17	1	17	85
8:15 AM	3	5	5	8	42	2	0	44	1	9	0	10	0	31	0	31	93
8:30 AM	1	7	7	8	44	1	0	45	0	14	0	14	0	40	0	40	107
Total	9	32	18	41	164	5	0	169	1	42	0	43	0	107	1	107	360
Approach %	22.0	78.0	-	-	97.0	3.0	-	-	2.3	97.7	-	-	0.0	100.0	-	-	-
Total %	2.5	8.9	-	11.4	45.6	1.4	-	46.9	0.3	11.7	-	11.9	0.0	29.7	-	29.7	-
PHF	0.450	0.727	-	0.732	0.932	0.625	-	0.939	0.250	0.750	-	0.768	0.000	0.669	-	0.669	0.841
Lights	8	32	-	40	163	5	-	168	1	36	-	37	0	88	-	88	333
% Lights	88.9	100.0	-	97.6	99.4	100.0	-	99.4	100.0	85.7	-	86.0	-	82.2	-	82.2	92.5
Buses	0	0	-	0	0	0	-	0	0	4	-	4	0	15	-	15	19
% Buses	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	9.5	-	9.3	-	14.0	-	14.0	5.3
Single-Unit Trucks	1	0	-	1	1	0	-	1	0	1	-	1	0	3	-	3	6
% Single-Unit Trucks	11.1	0.0	-	2.4	0.6	0.0	-	0.6	0.0	2.4	-	2.3	-	2.8	-	2.8	1.7
Articulated Trucks	0	0	-	0	0	0	-	0	0	1	-	1	0	0	-	0	1
% Articulated Trucks	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	2.4	-	2.3	-	0.0	-	0.0	0.3
Bicycles on Road	0	0	-	0	0	0	-	0	0	0	-	0	0	1	-	1	1
% Bicycles on Road	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	-	0.9	-	0.9	0.3
Pedestrians	-	-	18	-	-	-	0	-	-	-	0	-	-	-	1	-	-
% Pedestrians	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Marine Drive with Bittersweet Place
Site Code:
Start Date: 12/17/2020

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Bittersweet Place Eastbound				Lake Shore Drive Southbound Off Ramp Westbound				Marine Drive Northbound				Marine Drive Southbound				
	Left	Right	Peds	App. Total	Left	Right	Peds	App. Total	U-Turn	Thru	Peds	App. Total	U-Turn	Thru	Peds	App. Total	Int. Total
5:00 PM	10	6	11	16	64	4	0	68	0	36	0	36	0	28	2	28	148
5:15 PM	4	10	16	14	61	4	0	65	0	32	0	32	0	39	1	39	150
5:30 PM	3	10	12	13	60	2	0	62	0	29	0	29	0	39	2	39	143
5:45 PM	5	14	12	19	68	0	0	68	0	28	0	28	0	24	2	24	139
Total	22	40	51	62	253	10	0	263	0	125	0	125	0	130	7	130	580
Approach %	35.5	64.5	-	-	96.2	3.8	-	-	0.0	100.0	-	-	0.0	100.0	-	-	-
Total %	3.8	6.9	-	10.7	43.6	1.7	-	45.3	0.0	21.6	-	21.6	0.0	22.4	-	22.4	-
PHF	0.550	0.714	-	0.816	0.930	0.625	-	0.967	0.000	0.868	-	0.868	0.000	0.833	-	0.833	0.967
Lights	22	38	-	60	253	10	-	263	0	116	-	116	0	124	-	124	563
% Lights	100.0	95.0	-	96.8	100.0	100.0	-	100.0	-	92.8	-	92.8	-	95.4	-	95.4	97.1
Buses	0	1	-	1	0	0	-	0	0	7	-	7	0	5	-	5	13
% Buses	0.0	2.5	-	1.6	0.0	0.0	-	0.0	-	5.6	-	5.6	-	3.8	-	3.8	2.2
Single-Unit Trucks	0	1	-	1	0	0	-	0	0	2	-	2	0	1	-	1	4
% Single-Unit Trucks	0.0	2.5	-	1.6	0.0	0.0	-	0.0	-	1.6	-	1.6	-	0.8	-	0.8	0.7
Articulated Trucks	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Bicycles on Road	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	51	-	-	-	0	-	-	-	0	-	-	-	7	-	-
% Pedestrians	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Clarendon Avenue with Bittersweet Place
Site Code:
Start Date: 12/17/2020

Turning Movement Data

Start Time	Bittersweet Place Westbound					Clarendon Avenue Northbound					Clarendon Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:00 AM	0	0	0	9	0	0	13	5	3	18	0	8	11	0	19	37
7:15 AM	0	0	0	11	0	1	5	3	3	9	0	2	14	0	16	25
7:30 AM	0	0	0	10	0	0	16	6	2	22	0	3	24	1	27	49
7:45 AM	0	0	0	6	0	0	29	7	1	36	0	1	16	2	17	53
Hourly Total	0	0	0	36	0	1	63	21	9	85	0	14	65	3	79	164
8:00 AM	0	0	0	9	0	2	30	12	2	44	0	5	17	3	22	66
8:15 AM	0	0	0	11	0	0	24	7	3	31	0	8	18	2	26	57
8:30 AM	0	1	0	14	1	0	21	8	6	29	0	4	23	1	27	57
8:45 AM	0	0	0	4	0	0	20	9	0	29	0	5	16	1	21	50
Hourly Total	0	1	0	38	1	2	95	36	11	133	0	22	74	7	96	230
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	20	0	0	34	7	2	41	0	3	20	2	23	64
4:15 PM	0	0	0	17	0	1	35	9	1	45	0	8	26	2	34	79
4:30 PM	0	0	0	19	0	1	47	9	2	57	0	6	29	5	35	92
4:45 PM	0	0	0	16	0	0	41	10	4	51	0	7	38	4	45	96
Hourly Total	0	0	0	72	0	2	157	35	9	194	0	24	113	13	137	331
5:00 PM	0	0	0	20	0	1	36	12	5	49	0	13	25	1	38	87
5:15 PM	0	0	0	17	0	0	47	12	4	59	0	6	24	2	30	89
5:30 PM	0	1	0	18	1	0	43	9	6	52	0	8	33	4	41	94
5:45 PM	0	0	0	21	0	0	34	5	3	39	0	6	17	4	23	62
Hourly Total	0	1	0	76	1	1	160	38	18	199	0	33	99	11	132	332
Grand Total	0	2	0	222	2	6	475	130	47	611	0	93	351	34	444	1057
Approach %	0.0	100.0	0.0	-	-	1.0	77.7	21.3	-	-	0.0	20.9	79.1	-	-	-
Total %	0.0	0.2	0.0	-	0.2	0.6	44.9	12.3	-	57.8	0.0	8.8	33.2	-	42.0	-
Lights	0	0	0	-	0	6	422	125	-	553	0	87	291	-	378	931
% Lights	-	0.0	-	-	0.0	100.0	88.8	96.2	-	90.5	-	93.5	82.9	-	85.1	88.1
Buses	0	0	0	-	0	0	18	0	-	18	0	0	23	-	23	41
% Buses	-	0.0	-	-	0.0	0.0	3.8	0.0	-	2.9	-	0.0	6.6	-	5.2	3.9
Single-Unit Trucks	0	0	0	-	0	0	5	0	-	5	0	5	6	-	11	16
% Single-Unit Trucks	-	0.0	-	-	0.0	0.0	1.1	0.0	-	0.8	-	5.4	1.7	-	2.5	1.5
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	2	0	-	2	0	30	5	-	35	0	1	31	-	32	69
% Bicycles on Road	-	100.0	-	-	100.0	0.0	6.3	3.8	-	5.7	-	1.1	8.8	-	7.2	6.5
Pedestrians	-	-	-	222	-	-	-	-	47	-	-	-	-	34	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Clarendon Avenue with Bittersweet Place
Site Code:
Start Date: 12/17/2020

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Bittersweet Place Westbound					Clarendon Avenue Northbound					Clarendon Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:45 AM	0	0	0	6	0	0	29	7	1	36	0	1	16	2	17	53
8:00 AM	0	0	0	9	0	2	30	12	2	44	0	5	17	3	22	66
8:15 AM	0	0	0	11	0	0	24	7	3	31	0	8	18	2	26	57
8:30 AM	0	1	0	14	1	0	21	8	6	29	0	4	23	1	27	57
Total	0	1	0	40	1	2	104	34	12	140	0	18	74	8	92	233
Approach %	0.0	100.0	0.0	-	-	1.4	74.3	24.3	-	-	0.0	19.6	80.4	-	-	-
Total %	0.0	0.4	0.0	-	0.4	0.9	44.6	14.6	-	60.1	0.0	7.7	31.8	-	39.5	-
PHF	0.000	0.250	0.000	-	0.250	0.250	0.867	0.708	-	0.795	0.000	0.563	0.804	-	0.852	0.883
Lights	0	0	0	-	0	2	97	32	-	131	0	17	56	-	73	204
% Lights	-	0.0	-	-	0.0	100.0	93.3	94.1	-	93.6	-	94.4	75.7	-	79.3	87.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	10	-	10	10
% Buses	-	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	13.5	-	10.9	4.3
Single-Unit Trucks	0	0	0	-	0	0	3	0	-	3	0	1	2	-	3	6
% Single-Unit Trucks	-	0.0	-	-	0.0	0.0	2.9	0.0	-	2.1	-	5.6	2.7	-	3.3	2.6
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	1	0	-	1	0	4	2	-	6	0	0	6	-	6	13
% Bicycles on Road	-	100.0	-	-	100.0	0.0	3.8	5.9	-	4.3	-	0.0	8.1	-	6.5	5.6
Pedestrians	-	-	-	40	-	-	-	-	12	-	-	-	-	8	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
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(847)518-9990

Count Name: Clarendon Avenue with Bittersweet Place
Site Code:
Start Date: 12/17/2020

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Bittersweet Place Westbound					Clarendon Avenue Northbound					Clarendon Avenue Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
5:00 PM	0	0	0	20	0	1	36	12	5	49	0	13	25	1	38	87
5:15 PM	0	0	0	17	0	0	47	12	4	59	0	6	24	2	30	89
5:30 PM	0	1	0	18	1	0	43	9	6	52	0	8	33	4	41	94
5:45 PM	0	0	0	21	0	0	34	5	3	39	0	6	17	4	23	62
Total	0	1	0	76	1	1	160	38	18	199	0	33	99	11	132	332
Approach %	0.0	100.0	0.0	-	-	0.5	80.4	19.1	-	-	0.0	25.0	75.0	-	-	-
Total %	0.0	0.3	0.0	-	0.3	0.3	48.2	11.4	-	59.9	0.0	9.9	29.8	-	39.8	-
PHF	0.000	0.250	0.000	-	0.250	0.250	0.851	0.792	-	0.843	0.000	0.635	0.750	-	0.805	0.883
Lights	0	0	0	-	0	1	138	37	-	176	0	32	89	-	121	297
% Lights	-	0.0	-	-	0.0	100.0	86.3	97.4	-	88.4	-	97.0	89.9	-	91.7	89.5
Buses	0	0	0	-	0	0	10	0	-	10	0	0	0	-	0	10
% Buses	-	0.0	-	-	0.0	0.0	6.3	0.0	-	5.0	-	0.0	0.0	-	0.0	3.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	1
% Single-Unit Trucks	-	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	1.0	-	0.8	0.3
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	1	0	-	1	0	12	1	-	13	0	1	9	-	10	24
% Bicycles on Road	-	100.0	-	-	100.0	0.0	7.5	2.6	-	6.5	-	3.0	9.1	-	7.6	7.2
Pedestrians	-	-	-	76	-	-	-	-	18	-	-	-	-	11	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Bittersweet Place with Parking Lot Access Drive
Site Code:
Start Date: 12/17/2020

Turning Movement Data

Start Time	Bittersweet Place Eastbound					Bittersweet Place Westbound					Access Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:00 AM	0	10	2	1	12	0	0	0	1	0	0	0	1	5	1	13
7:15 AM	0	6	1	0	7	1	0	0	2	1	0	0	0	2	0	8
7:30 AM	0	7	0	0	7	0	0	0	3	0	0	0	0	6	0	7
7:45 AM	0	6	1	0	7	0	0	0	5	0	0	0	0	6	0	7
Hourly Total	0	29	4	1	33	1	0	0	11	1	0	0	1	19	1	35
8:00 AM	0	9	6	1	15	0	0	0	2	0	0	0	0	4	0	15
8:15 AM	0	9	3	0	12	0	0	0	3	0	0	0	2	2	2	14
8:30 AM	0	9	9	0	18	0	0	0	2	0	0	0	2	5	2	20
8:45 AM	0	10	6	0	16	0	0	0	0	0	0	0	0	0	0	16
Hourly Total	0	37	24	1	61	0	0	0	7	0	0	0	4	11	4	65
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	13	0	0	13	0	0	0	0	0	0	0	2	4	2	15
4:15 PM	0	10	1	0	11	0	0	0	1	0	0	0	1	5	1	12
4:30 PM	1	7	0	3	8	0	0	0	0	0	0	0	0	4	0	8
4:45 PM	0	13	4	1	17	0	0	0	3	0	0	0	2	4	2	19
Hourly Total	1	43	5	4	49	0	0	0	4	0	0	0	5	17	5	54
5:00 PM	0	22	4	1	26	0	0	0	1	0	0	0	0	1	0	26
5:15 PM	0	8	4	1	12	0	0	0	0	0	0	0	1	2	1	13
5:30 PM	0	14	4	2	18	0	0	0	5	0	0	0	1	2	1	19
5:45 PM	0	8	1	4	9	0	0	0	4	0	0	0	0	10	0	9
Hourly Total	0	52	13	8	65	0	0	0	10	0	0	0	2	15	2	67
Grand Total	1	161	46	14	208	1	0	0	32	1	0	0	12	62	12	221
Approach %	0.5	77.4	22.1	-	-	100.0	0.0	0.0	-	-	0.0	0.0	100.0	-	-	-
Total %	0.5	72.9	20.8	-	94.1	0.5	0.0	0.0	-	0.5	0.0	0.0	5.4	-	5.4	-
Lights	1	154	46	-	201	1	0	0	-	1	0	0	12	-	12	214
% Lights	100.0	95.7	100.0	-	96.6	100.0	-	-	-	100.0	-	-	100.0	-	100.0	96.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	0.0	-	0.0	0.0	-	-	-	0.0	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	5	0	-	5	0	0	0	-	0	0	0	0	-	0	5
% Single-Unit Trucks	0.0	3.1	0.0	-	2.4	0.0	-	-	-	0.0	-	-	0.0	-	0.0	2.3
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	-	-	-	0.0	-	-	0.0	-	0.0	0.0
Bicycles on Road	0	2	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Bicycles on Road	0.0	1.2	0.0	-	1.0	0.0	-	-	-	0.0	-	-	0.0	-	0.0	0.9
Pedestrians	-	-	-	14	-	-	-	-	32	-	-	-	-	62	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Bittersweet Place with Parking Lot Access Drive
Site Code:
Start Date: 12/17/2020

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Bittersweet Place Eastbound					Bittersweet Place Westbound					Access Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:45 AM	0	6	1	0	7	0	0	0	5	0	0	0	0	6	0	7
8:00 AM	0	9	6	1	15	0	0	0	2	0	0	0	0	4	0	15
8:15 AM	0	9	3	0	12	0	0	0	3	0	0	0	2	2	2	14
8:30 AM	0	9	9	0	18	0	0	0	2	0	0	0	2	5	2	20
Total	0	33	19	1	52	0	0	0	12	0	0	0	4	17	4	56
Approach %	0.0	63.5	36.5	-	-	0.0	0.0	0.0	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	58.9	33.9	-	92.9	0.0	0.0	0.0	-	0.0	0.0	0.0	7.1	-	7.1	-
PHF	0.000	0.917	0.528	-	0.722	0.000	0.000	0.000	-	0.000	0.000	0.000	0.500	-	0.500	0.700
Lights	0	32	19	-	51	0	0	0	-	0	0	0	4	-	4	55
% Lights	-	97.0	100.0	-	98.1	-	-	-	-	-	-	-	100.0	-	100.0	98.2
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	-	-	-	-	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Single-Unit Trucks	-	3.0	0.0	-	1.9	-	-	-	-	-	-	-	0.0	-	0.0	1.8
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	-	-	-	-	-	-	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	-	-	-	-	-	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	1	-	-	-	-	12	-	-	-	-	17	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

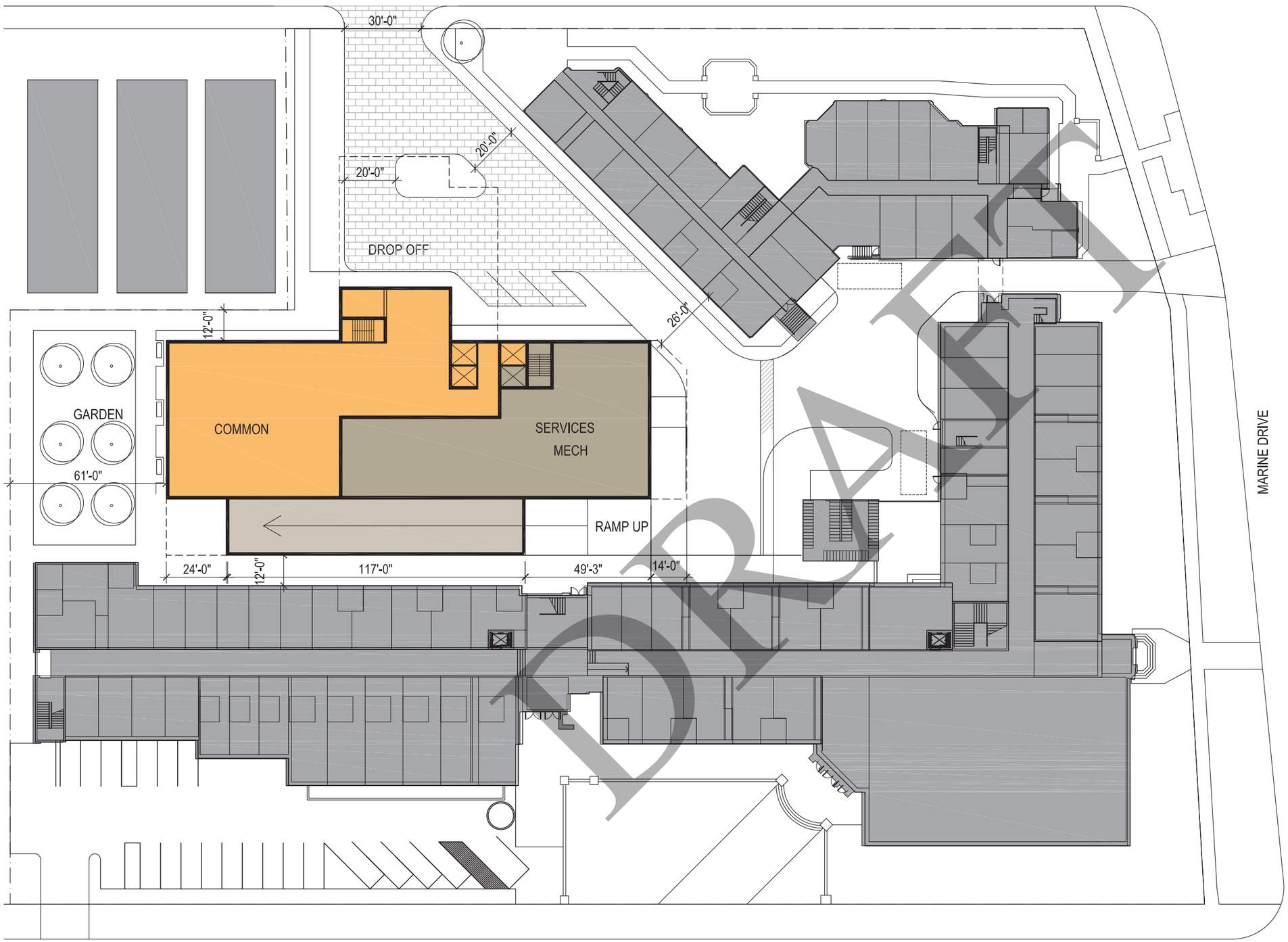
Count Name: Bittersweet Place with Parking Lot Access Drive
Site Code:
Start Date: 12/17/2020

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Bittersweet Place Eastbound					Bittersweet Place Westbound					Access Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
5:00 PM	0	22	4	1	26	0	0	0	1	0	0	0	0	1	0	26
5:15 PM	0	8	4	1	12	0	0	0	0	0	0	0	1	2	1	13
5:30 PM	0	14	4	2	18	0	0	0	5	0	0	0	1	2	1	19
5:45 PM	0	8	1	4	9	0	0	0	4	0	0	0	0	10	0	9
Total	0	52	13	8	65	0	0	0	10	0	0	0	2	15	2	67
Approach %	0.0	80.0	20.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	77.6	19.4	-	97.0	0.0	0.0	0.0	-	0.0	0.0	0.0	3.0	-	3.0	-
PHF	0.000	0.591	0.813	-	0.625	0.000	0.000	0.000	-	0.000	0.000	0.000	0.500	-	0.500	0.644
Lights	0	50	13	-	63	0	0	0	-	0	0	0	2	-	2	65
% Lights	-	96.2	100.0	-	96.9	-	-	-	-	-	-	-	100.0	-	100.0	97.0
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	-	-	-	-	-	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Single-Unit Trucks	-	1.9	0.0	-	1.5	-	-	-	-	-	-	-	0.0	-	0.0	1.5
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	0.0	-	-	-	-	-	-	-	0.0	-	0.0	0.0
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	-	1.9	0.0	-	1.5	-	-	-	-	-	-	-	0.0	-	0.0	1.5
Pedestrians	-	-	-	8	-	-	-	-	10	-	-	-	-	15	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Site Plan

PROPOSED GROUND FLOOR PLAN



kGiles

CA PERKINS EASTMAN

Truck Turning Diagrams

BITTERSWEET PL

IRVING PARK RD

MARINE DR

SCALE: 1" = 50'

DROP OFF

20'-0"

12'-0"

GARDEN

61'-0"

COMMON

SERVICES
MECH

RAMP UP

24'-0"

24'-0"

117'-0"

49'-3"

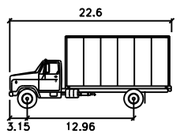
14'-0"

35'-0"

ZONE

SAFETY

DESIGN VEHICLE



Custom Med. Truck	Feet
Width	: 7.12
Track	: 7.12
Lock to Lock Time	: 6.00
Steering Angle	: 40.0

Body of Vehicle -

Front Tires Path -

Rear Tires Path -

640 IRVING PARK ROAD
CHICAGO, ILLINOIS

TRUCK INBOUND MANEUVERS

DRAWN: MD CHECKED: LA
DATE: 03-31-21 REV:
PROJECT # 20-076
EXHIBIT: B1

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

BITTERSWEET PL

30'-0"

20'-0"

20'

DROP OFF

12'-0"

GARDEN

61'-0"

COMMON

SERVICES
MECH

RAMP UP

24'-0"

24'-0"

117'-0"

49'-3"

14'-0"

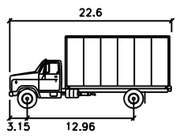
IRVING PARK RD

MARINE DR

ZONE

SCALE: 1" = 50'

DESIGN VEHICLE



Custom Med. Truck	Feet
Width	: 7.12
Track	: 7.12
Lock to Lock Time	: 6.00
Steering Angle	: 40.0

Body of Vehicle -

Front Tires Path -

Rear Tires Path -

640 IRVING PARK ROAD
CHICAGO, ILLINOIS

TRUCK OUTBOUND MANEUVERS

DRAWN: MD CHECKED: LA
DATE: 03-31-21 REV:
PROJECT # 20-076
EXHIBIT: B2

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

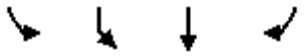
Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80.0

Unsignalized Intersections	
Level of Service	Average Total Delay (SEC/VEH)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	5	115	755	95	10	40	475	180	45	35	140	115
Future Volume (vph)	5	115	755	95	10	40	475	180	45	35	140	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%					0%			0%		
Storage Length (ft)	0		0			50		0	65		0	
Storage Lanes	0		1			1		0	1		0	
Taper Length (ft)	25					90			90			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Ped Bike Factor		0.96	0.90			0.97	1.00			0.87		
Frt		0.887	0.850				0.959			0.868		
Flt Protected		0.999				0.950			0.950			
Satd. Flow (prot)	0	1404	1344	0	0	1645	3195	0	1685	2501	0	0
Flt Permitted		0.994				0.280			0.337			
Satd. Flow (perm)	0	1397	1211	0	0	471	3195	0	598	2501	0	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30					30			30		
Link Distance (ft)		177					279			398		
Travel Time (s)		4.0					6.3			9.0		
Confl. Peds. (#/hr)	2		36	36	36	36		2			43	43
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	11%	1%	2%	25%	0%	3%	1%	0%	0%	16%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%					0%			0%		
Shared Lane Traffic (%)			49%									
Lane Group Flow (vph)	0	495	485	0	0	50	662	0	45	292	0	0
Turn Type	Perm	NA	Perm		Perm	Perm	NA		pm+pt	NA		
Protected Phases		3					3		4	1		
Permitted Phases	3		3		3	3			1			
Detector Phase	3	3	3		3	3	3		4	1		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0		6.0	5.0		
Minimum Split (s)	44.0	44.0	44.0		44.0	44.0	44.0		15.0	22.0		
Total Split (s)	44.0	44.0	44.0		44.0	44.0	44.0		15.0	22.0		
Total Split (%)	48.9%	48.9%	48.9%		48.9%	48.9%	48.9%		16.7%	24.4%		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0		
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0		0.0	2.0		
Lost Time Adjust (s)		0.0	0.0			0.0	0.0		0.0	0.0		
Total Lost Time (s)		5.0	5.0			5.0	5.0		3.0	5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max		Max	Max	Max		None	C-Max		
Act Effct Green (s)		39.0	39.0			39.0	39.0		40.0	20.7		
Actuated g/C Ratio		0.43	0.43			0.43	0.43		0.44	0.23		



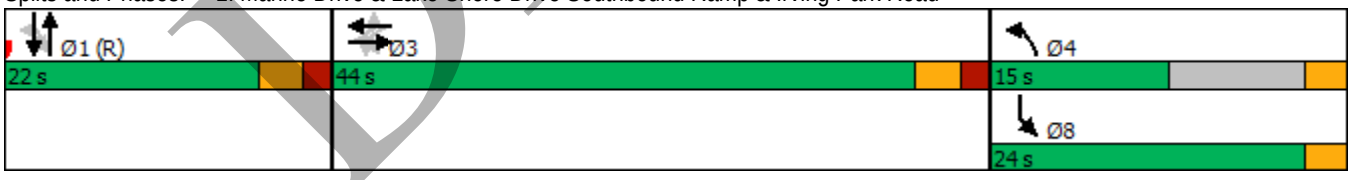
Lane Group	SBL2	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	25	305	280	190
Future Volume (vph)	25	305	280	190
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10
Grade (%)			0%	
Storage Length (ft)		150		0
Storage Lanes		1		0
Taper Length (ft)		115		
Lane Util. Factor	0.95	1.00	0.95	0.95
Ped Bike Factor		0.91		
Frt			0.939	
Flt Protected		0.950		
Satd. Flow (prot)	0	1596	2997	0
Flt Permitted		0.532		
Satd. Flow (perm)	0	817	2997	0
Right Turn on Red				No
Satd. Flow (RTOR)				
Link Speed (mph)			30	
Link Distance (ft)			271	
Travel Time (s)			6.2	
Confl. Peds. (#/hr)	43	43		
Confl. Bikes (#/hr)				
Peak Hour Factor	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	8%	2%
Bus Blockages (#/hr)	0	0	0	0
Parking (#/hr)				
Mid-Block Traffic (%)			0%	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	333	475	0
Turn Type		pm+pt	NA	
Protected Phases		8	1	
Permitted Phases		1		
Detector Phase		8	1	
Switch Phase				
Minimum Initial (s)		6.0	5.0	
Minimum Split (s)		24.0	22.0	
Total Split (s)		24.0	22.0	
Total Split (%)		26.7%	24.4%	
Yellow Time (s)		3.0	3.0	
All-Red Time (s)		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0	
Total Lost Time (s)		3.0	5.0	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode		None	C-Max	
Act Effct Green (s)		40.0	20.7	
Actuated g/C Ratio		0.44	0.23	

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
v/c Ratio		0.82	0.93			0.25	0.48		0.09	0.85dr		
Control Delay		26.8	39.4			2.8	2.4		13.3	35.0		
Queue Delay		0.0	0.0			0.0	0.3		0.0	0.0		
Total Delay		26.8	39.4			2.8	2.7		13.3	35.0		
LOS		C	D			A	A		B	C		
Approach Delay		33.0					2.7			32.1		
Approach LOS		C					A			C		
Queue Length 50th (ft)		180	175			0	1		13	77		
Queue Length 95th (ft)		m298	m#406			m0	1		32	124		
Internal Link Dist (ft)		97					199			318		
Turn Bay Length (ft)						50			65			
Base Capacity (vph)		605	524			204	1384		531	575		
Starvation Cap Reductn		0	0			0	232		0	0		
Spillback Cap Reductn		0	0			0	0		0	0		
Storage Cap Reductn		0	0			0	0		0	0		
Reduced v/c Ratio		0.82	0.93			0.25	0.57		0.08	0.51		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 80 (89%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 25.1 Intersection LOS: C
Intersection Capacity Utilization 105.4% ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 1: Marine Drive & Lake Shore Drive Southbound Ramp & Irving Park Road



Lane Group	SBL2	SBL	SBT	SBR
v/c Ratio		0.65	0.69	
Control Delay		22.3	39.2	
Queue Delay		0.0	0.0	
Total Delay		22.3	39.2	
LOS		C	D	
Approach Delay			32.3	
Approach LOS			C	
Queue Length 50th (ft)		120	131	
Queue Length 95th (ft)		190	#219	
Internal Link Dist (ft)			191	
Turn Bay Length (ft)		150		
Base Capacity (vph)		561	690	
Starvation Cap Reductn		0	0	
Spillback Cap Reductn		0	0	
Storage Cap Reductn		0	0	
Reduced v/c Ratio		0.59	0.69	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	255	25	0	0	35	10	670	0	0	0	0	0
Future Volume (vph)	255	25	0	0	35	10	670	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	10	10	10	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor					0.97							
Frt					0.966							
Flt Protected	0.950	0.961					0.950	0.950				
Satd. Flow (prot)	1641	1663	0	0	3372	0	1585	1585	0	0	0	0
Flt Permitted	0.154	0.140					0.950	0.950				
Satd. Flow (perm)	266	242	0	0	3372	0	1585	1585	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		279			446			375			433	
Travel Time (s)		6.3			10.1			8.5			9.8	
Confl. Peds. (#/hr)	30					30						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%						50%					
Lane Group Flow (vph)	149	149	0	0	48	0	356	357	0	0	0	0
Turn Type	custom	NA			NA		Perm	NA				
Protected Phases	3	2 3			4			1				
Permitted Phases	2						1					
Detector Phase	3	2 3			4		1	1				
Switch Phase												
Minimum Initial (s)	5.0				5.0		5.0	5.0				
Minimum Split (s)	14.0				11.0		36.0	36.0				
Total Split (s)	14.0				11.0		36.0	36.0				
Total Split (%)	15.6%				12.2%		40.0%	40.0%				
Yellow Time (s)	3.0				3.0		3.0	3.0				
All-Red Time (s)	2.0				2.0		4.0	4.0				
Lost Time Adjust (s)	0.0				0.0		0.0	0.0				
Total Lost Time (s)	5.0				5.0		7.0	7.0				
Lead/Lag	Lead				Lag		Lead	Lead				
Lead-Lag Optimize?	Yes				Yes		Yes	Yes				
Recall Mode	Max				None		C-Max	C-Max				
Act Effct Green (s)	33.0	37.0			5.9		33.4	33.4				
Actuated g/C Ratio	0.37	0.41			0.07		0.37	0.37				

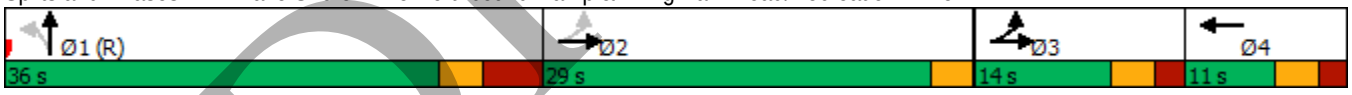
Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	32%
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.63	0.55			0.21		0.61	0.61				
Control Delay	51.9	42.8			35.0		29.9	29.9				
Queue Delay	0.0	0.7			0.0		0.0	0.0				
Total Delay	51.9	43.5			35.0		29.9	29.9				
LOS	D	D			C		C	C				
Approach Delay		47.7			35.0			29.9				
Approach LOS		D			C			C				
Queue Length 50th (ft)	70	60			10		184	185				
Queue Length 95th (ft)	m127	m117			28		291	292				
Internal Link Dist (ft)		199			366			295			353	
Turn Bay Length (ft)												
Base Capacity (vph)	235	273			235		588	588				
Starvation Cap Reductn	0	22			0		0	0				
Spillback Cap Reductn	0	0			0		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.63	0.59			0.20		0.61	0.61				

Intersection Summary

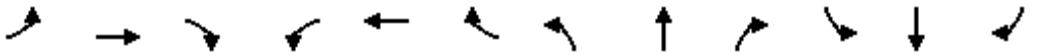
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 12 (13%), Referenced to phase 1:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 35.1 Intersection LOS: D
Intersection Capacity Utilization 42.1% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Lake Shore Drive Northbound Ramp & Irving Park Road/Recreation Drive



Lane Group	Ø2
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	692	0	0	580	59	7	47	120	41	0	28
Future Volume (vph)	45	692	0	0	580	59	7	47	120	41	0	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	0		55	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98					0.91		0.94			0.95	
Frt						0.850		0.907			0.945	
Flt Protected	0.950							0.998			0.971	
Satd. Flow (prot)	1685	1550	0	0	1565	1507	0	1406	0	0	1328	0
Flt Permitted	0.311							0.991			0.798	
Satd. Flow (perm)	543	1550	0	0	1565	1377	0	1395	0	0	1063	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)						31						
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		224			816			349			393	
Travel Time (s)		5.1			18.5			7.9			8.9	
Confl. Peds. (#/hr)	24		32	32		24	21		46	46		21
Confl. Bikes (#/hr)									7			8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	0%	0%	2%	0%	0%	6%	3%	24%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	760	0	0	637	65	0	192	0	0	76	0
Turn Type	Perm	NA			NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					8	2			6		
Detector Phase	4	4			8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	25.0	25.0			25.0	25.0	25.0	25.0		25.0	25.0	
Total Split (s)	59.0	59.0			59.0	59.0	31.0	31.0		31.0	31.0	
Total Split (%)	65.6%	65.6%			65.6%	65.6%	34.4%	34.4%		34.4%	34.4%	
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	4.0	4.0			4.0	4.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)	7.0	7.0			7.0	7.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max		Max	Max	
Act Effct Green (s)	52.0	52.0			52.0	52.0		26.0			26.0	
Actuated g/C Ratio	0.58	0.58			0.58	0.58		0.29			0.29	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.16	0.85			0.70	0.08		0.48			0.25	
Control Delay	5.0	14.5			24.7	8.4		31.1			27.2	
Queue Delay	0.0	49.4			17.4	0.0		0.0			0.0	
Total Delay	5.0	63.9			42.1	8.4		31.1			27.2	
LOS	A	E			D	A		C			C	
Approach Delay		60.3			39.0			31.1			27.2	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)	5	129			287	19		90			33	
Queue Length 95th (ft)	m4	m59			388	m34		155			70	
Internal Link Dist (ft)		144			736			269			313	
Turn Bay Length (ft)	25					55						
Base Capacity (vph)	313	895			904	808		403			307	
Starvation Cap Reductn	0	227			0	0		0			0	
Spillback Cap Reductn	0	0			265	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.16	1.14			1.00	0.08		0.48			0.25	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 38 (42%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 47.3 Intersection LOS: D
Intersection Capacity Utilization 71.9% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Clarendon Avenue & Irving Park Road

Intersection	
Intersection Delay, s/veh	20.6
Intersection LOS	C

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	0	180	0	230	0	0	335	0	195	0
Future Vol, veh/h	0	180	0	230	0	0	335	0	195	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	0	0	14	0	0	17	0	1	0
Mvmt Flow	0	214	0	274	0	0	399	0	232	0
Number of Lanes	0	1	0	2	0	0	1	0	1	0

Approach	NB	SB	SW
Opposing Approach	SB	NB	
Opposing Lanes	1	2	0
Conflicting Approach Left	EB	SW	NB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	SW	EB	EB
Conflicting Lanes Right	1	2	2
HCM Control Delay	11.6	32.8	18
HCM LOS	B	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	80%
Vol Thru, %	100%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	115	115	25	180	335	245
LT Vol	0	0	25	0	0	195
Through Vol	115	115	0	0	335	0
RT Vol	0	0	0	180	0	50
Lane Flow Rate	137	137	30	214	399	292
Geometry Grp	7	7	7	7	6	2
Degree of Util (X)	0.285	0.21	0.067	0.4	0.795	0.552
Departure Headway (Hd)	7.5	5.51	8.15	6.725	7.175	6.81
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	478	646	438	534	503	528
Service Time	5.276	3.284	5.924	4.498	5.239	4.879
HCM Lane V/C Ratio	0.287	0.212	0.068	0.401	0.793	0.553
HCM Control Delay	13.3	9.8	11.5	14	32.8	18
HCM Lane LOS	B	A	B	B	D	C
HCM 95th-tile Q	1.2	0.8	0.2	1.9	7.4	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	115	32	188	68
Future Volume (Veh/h)	0	0	115	32	188	68
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	131	36	214	77
Pedestrians	40					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			393			
pX, platoon unblocked						
vC, conflicting volume	694	189			207	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	694	189			207	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	100			84	
cM capacity (veh/h)	346	858			1341	

Direction, Lane #	NB 1	SB 1
Volume Total	167	291
Volume Left	0	214
Volume Right	36	0
cSH	1700	1341
Volume to Capacity	0.10	0.16
Queue Length 95th (ft)	0	14
Control Delay (s)	0.0	6.4
Lane LOS		A
Approach Delay (s)	0.0	6.4
Approach LOS		

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	32.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	40	160	450	85	35	215	720	175	30	65	120	30
Future Volume (vph)	40	160	450	85	35	215	720	175	30	65	120	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%					0%			0%		
Storage Length (ft)	0		0			50		0	65		0	
Storage Lanes	0		1			1		0	1		0	
Taper Length (ft)	25					90			90			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Ped Bike Factor		0.98	0.89			0.97				0.88		
Frt		0.949	0.850				0.971			0.895		
Flt Protected		0.993				0.950			0.950			
Satd. Flow (prot)	0	1543	1385	0	0	1685	3220	0	1428	2536	0	0
Flt Permitted		0.815				0.321			0.376			
Satd. Flow (perm)	0	1266	1232	0	0	551	3220	0	565	2536	0	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30					30			30		
Link Distance (ft)		177					279			398		
Travel Time (s)		4.0					6.3			9.0		
Confl. Peds. (#/hr)			41	41	41	41					52	52
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	0%	1%	13%	0%	0%	1%	4%	18%	13%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%					0%			0%		
Shared Lane Traffic (%)			23%									
Lane Group Flow (vph)	0	310	440	0	0	255	914	0	31	219	0	0
Turn Type	Perm	NA	Perm		Perm	Perm	NA		pm+pt	NA		
Protected Phases		3					2 3		4	1		
Permitted Phases	3		3		2 3	2 3			1			
Detector Phase	3	3	3		2 3	2 3	2 3		4	1		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0						6.0	5.0		
Minimum Split (s)	41.0	41.0	41.0						9.0	22.0		
Total Split (s)	41.0	41.0	41.0						9.0	25.0		
Total Split (%)	45.6%	45.6%	45.6%						10.0%	27.8%		
Yellow Time (s)	3.0	3.0	3.0						3.0	3.0		
All-Red Time (s)	2.0	2.0	2.0						0.0	2.0		
Lost Time Adjust (s)		0.0	0.0						0.0	0.0		
Total Lost Time (s)		5.0	5.0						3.0	5.0		
Lead/Lag										Lead		
Lead-Lag Optimize?										Yes		
Recall Mode	Max	Max	Max						None	C-Max		
Act Effct Green (s)		36.0	36.0			53.0	53.0		28.0	20.0		
Actuated g/C Ratio		0.40	0.40			0.59	0.59		0.31	0.22		

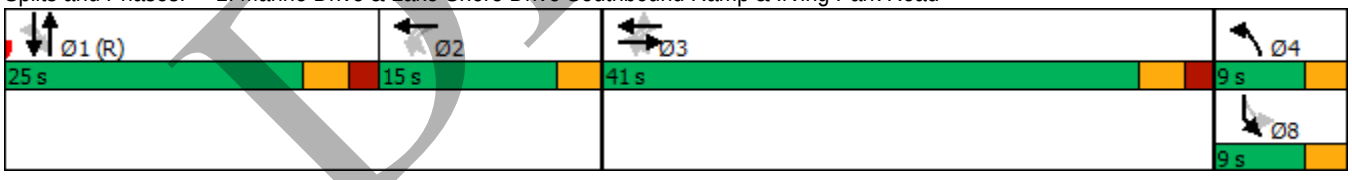
Lane Group	SBL2	SBL	SBT	SBR	Ø2
Lane Configurations					
Traffic Volume (vph)	45	145	240	180	
Future Volume (vph)	45	145	240	180	
Ideal Flow (vphpl)	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	
Grade (%)			0%		
Storage Length (ft)		150		0	
Storage Lanes		1		0	
Taper Length (ft)		115			
Lane Util. Factor	0.95	1.00	0.95	0.95	
Ped Bike Factor		0.88			
Frt			0.936		
Flt Protected		0.950			
Satd. Flow (prot)	0	1685	3118	0	
Flt Permitted		0.615			
Satd. Flow (perm)	0	958	3118	0	
Right Turn on Red				No	
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			271		
Travel Time (s)			6.2		
Confl. Peds. (#/hr)	52	52			
Confl. Bikes (#/hr)					
Peak Hour Factor	0.98	0.98	0.98	0.98	
Growth Factor	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	2%	0%	
Bus Blockages (#/hr)	0	0	0	0	
Parking (#/hr)					
Mid-Block Traffic (%)			0%		
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	194	429	0	
Turn Type	custom	pm+pt	NA		
Protected Phases		8	1		2
Permitted Phases	8	1			
Detector Phase	8	8	1		
Switch Phase					
Minimum Initial (s)	6.0	6.0	5.0		5.0
Minimum Split (s)	9.0	9.0	22.0		15.0
Total Split (s)	9.0	9.0	25.0		15.0
Total Split (%)	10.0%	10.0%	27.8%		17%
Yellow Time (s)	3.0	3.0	3.0		3.0
All-Red Time (s)	0.0	0.0	2.0		0.0
Lost Time Adjust (s)		0.0	0.0		
Total Lost Time (s)		3.0	5.0		
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	C-Max		Max
Act Effct Green (s)		28.0	20.0		
Actuated g/C Ratio		0.31	0.22		

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
v/c Ratio		0.61	0.89			0.79	0.48		0.13	0.39		
Control Delay		30.8	49.5			18.5	1.6		21.3	32.2		
Queue Delay		0.0	0.0			8.7	0.9		0.0	0.0		
Total Delay		30.8	49.5			27.2	2.5		21.3	32.2		
LOS		C	D			C	A		C	C		
Approach Delay		41.8					7.9			30.9		
Approach LOS		D					A			C		
Queue Length 50th (ft)		166	243			26	15		12	56		
Queue Length 95th (ft)		238	#425			m#207	15		31	90		
Internal Link Dist (ft)		97					199			318		
Turn Bay Length (ft)						50			65			
Base Capacity (vph)		506	492			324	1896		233	563		
Starvation Cap Reductn		0	0			44	639		0	0		
Spillback Cap Reductn		0	0			0	0		0	0		
Storage Cap Reductn		0	0			0	0		0	0		
Reduced v/c Ratio		0.61	0.89			0.91	0.73		0.13	0.39		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 68 (76%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 24.9 Intersection LOS: C
Intersection Capacity Utilization 90.7% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Marine Drive & Lake Shore Drive Southbound Ramp & Irving Park Road



Lane Group	SBL2	SBL	SBT	SBR	Ø2
v/c Ratio		0.56	0.62		
Control Delay		30.3	36.1		
Queue Delay		0.0	0.0		
Total Delay		30.3	36.1		
LOS		C	D		
Approach Delay			34.3		
Approach LOS			C		
Queue Length 50th (ft)		81	116		
Queue Length 95th (ft)		137	166		
Internal Link Dist (ft)			191		
Turn Bay Length (ft)		150			
Base Capacity (vph)		346	692		
Starvation Cap Reductn		0	0		
Spillback Cap Reductn		0	0		
Storage Cap Reductn		0	0		
Reduced v/c Ratio		0.56	0.62		

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	30	0	0	70	20	1075	5	5	0	0	0
Future Volume (vph)	295	30	0	0	70	20	1075	5	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	10	10	10	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.98			0.97							
Frt					0.967			0.999				
Flt Protected	0.950	0.961					0.950	0.953				
Satd. Flow (prot)	1641	1663	0	0	3369	0	1585	1588	0	0	0	0
Flt Permitted	0.250	0.227					0.950	0.953				
Satd. Flow (perm)	421	385	0	0	3369	0	1585	1588	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					21			1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		279			446			375			433	
Travel Time (s)		6.3			10.1			8.5			9.8	
Confl. Peds. (#/hr)	33					33						
Confl. Bikes (#/hr)			2									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%						50%					
Lane Group Flow (vph)	171	172	0	0	95	0	566	576	0	0	0	0
Turn Type	custom	NA			NA		Perm	NA				
Protected Phases	3	2 3			4			1				
Permitted Phases	2						1					
Detector Phase	3	2 3			4		1	1				
Switch Phase												
Minimum Initial (s)	5.0				5.0		5.0	5.0				
Minimum Split (s)	14.0				11.0		36.0	36.0				
Total Split (s)	14.0				11.0		46.0	46.0				
Total Split (%)	15.6%				12.2%		51.1%	51.1%				
Yellow Time (s)	3.0				3.0		3.0	3.0				
All-Red Time (s)	2.0				2.0		4.0	4.0				
Lost Time Adjust (s)	0.0				0.0		0.0	0.0				
Total Lost Time (s)	5.0				5.0		7.0	7.0				
Lead/Lag	Lead				Lag		Lead	Lead				
Lead-Lag Optimize?	Yes				Yes		Yes	Yes				
Recall Mode	Max				None		C-Max	C-Max				
Act Effct Green (s)	23.0	27.0			5.9		41.2	41.2				
Actuated g/C Ratio	0.26	0.30			0.07		0.46	0.46				

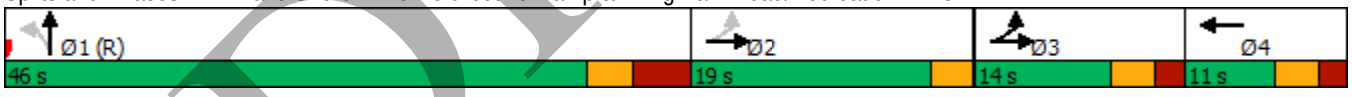
Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.75	0.63			0.40		0.78	0.79				
Control Delay	61.6	46.2			36.8		31.1	31.7				
Queue Delay	0.0	0.0			0.0		0.8	0.8				
Total Delay	61.6	46.2			36.8		31.8	32.6				
LOS	E	D			D		C	C				
Approach Delay		53.8			36.8			32.2				
Approach LOS		D			D			C				
Queue Length 50th (ft)	94	84			21		289	296				
Queue Length 95th (ft)	#196	#154			46		#490	#503				
Internal Link Dist (ft)		199			366			295			353	
Turn Bay Length (ft)												
Base Capacity (vph)	229	271			244		725	727				
Starvation Cap Reductn	0	0			0		0	0				
Spillback Cap Reductn	0	0			0		32	32				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.75	0.63			0.39		0.82	0.83				

Intersection Summary

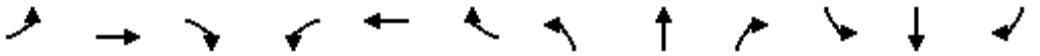
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 1:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 37.2 Intersection LOS: D
Intersection Capacity Utilization 54.9% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Lake Shore Drive Northbound Ramp & Irving Park Road/Recreation Drive



Lane Group	Ø2
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	554	0	0	789	73	10	96	87	26	0	70
Future Volume (vph)	52	554	0	0	789	73	10	96	87	26	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	0		55	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97				0.99			0.91			0.90	
Frt					0.987			0.939			0.901	
Flt Protected	0.950							0.998			0.987	
Satd. Flow (prot)	1685	1565	0	0	3071	0	0	1443	0	0	1381	0
Flt Permitted	0.277							0.987			0.892	
Satd. Flow (perm)	478	1565	0	0	3071	0	0	1423	0	0	1210	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)					18							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		224			816			349			393	
Travel Time (s)		5.1			18.5			7.9			8.9	
Confl. Peds. (#/hr)	42		87	87		42	55		74	74		55
Confl. Bikes (#/hr)												8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	0%	20%	0%	0%	2%	0%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	577	0	0	898	0	0	201	0	0	100	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	59.0	59.0			59.0		31.0	31.0		31.0	31.0	
Total Split (s)	59.0	59.0			59.0		31.0	31.0		31.0	31.0	
Total Split (%)	65.6%	65.6%			65.6%		34.4%	34.4%		34.4%	34.4%	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	7.0	7.0			7.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max	Max	
Act Effct Green (s)	52.0	52.0			52.0			26.0			26.0	
Actuated g/C Ratio	0.58	0.58			0.58			0.29			0.29	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.20	0.64			0.50			0.49			0.29	
Control Delay	5.3	7.9			4.5			31.4			27.6	
Queue Delay	0.0	19.9			0.3			0.0			0.0	
Total Delay	5.3	27.8			4.8			31.4			27.6	
LOS	A	C			A			C			C	
Approach Delay		25.9			4.8			31.4			27.6	
Approach LOS		C			A			C			C	
Queue Length 50th (ft)	6	64			66			94			44	
Queue Length 95th (ft)	m5	m50			86			162			87	
Internal Link Dist (ft)		144			736			269			313	
Turn Bay Length (ft)	25											
Base Capacity (vph)	276	904			1781			411			349	
Starvation Cap Reductn	0	328			0			0			0	
Spillback Cap Reductn	0	0			331			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.20	1.00			0.62			0.49			0.29	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 76 (84%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 16.2 Intersection LOS: B
Intersection Capacity Utilization 63.2% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

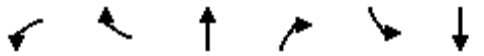
Splits and Phases: 3: Clarendon Avenue & Irving Park Road

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	0	40	0	240	0	0	210	0	285	0
Future Vol, veh/h	0	40	0	240	0	0	210	0	285	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	5	0	7	0	0	5	0	0	0
Mvmt Flow	0	41	0	247	0	0	216	0	294	0
Number of Lanes	0	1	0	2	0	0	1	0	1	0

Approach	NB	SB	SW
Opposing Approach	SB	NB	
Opposing Lanes	1	2	0
Conflicting Approach Left	EB	SW	NB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	SW	EB	EB
Conflicting Lanes Right	1	2	2
HCM Control Delay	9	12.4	13
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	95%
Vol Thru, %	100%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	120	20	40	210	300
LT Vol	0	0	20	0	0	285
Through Vol	120	120	0	0	210	0
RT Vol	0	0	0	40	0	15
Lane Flow Rate	124	124	21	41	216	309
Geometry Grp	7	7	7	7	6	2
Degree of Util (X)	0.206	0.143	0.039	0.064	0.36	0.464
Departure Headway (Hd)	6.007	4.165	6.724	5.591	5.991	5.406
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	598	860	533	640	602	668
Service Time	3.739	1.897	4.463	3.329	4.022	3.434
HCM Lane V/C Ratio	0.207	0.144	0.039	0.064	0.359	0.463
HCM Control Delay	10.3	7.6	9.7	8.7	12.4	13
HCM Lane LOS	B	A	A	A	B	B
HCM 95th-tile Q	0.8	0.5	0.1	0.2	1.6	2.5

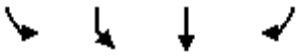


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	148	37	32	90
Future Volume (Veh/h)	0	0	148	37	32	90
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	168	42	36	102
Pedestrians	76					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			393			
pX, platoon unblocked						
vC, conflicting volume	439	265			286	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	439	265			286	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			97	
cM capacity (veh/h)	563	779			1288	

Direction, Lane #	NB 1	SB 1
Volume Total	210	138
Volume Left	0	36
Volume Right	42	0
cSH	1700	1288
Volume to Capacity	0.12	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	2.2
Lane LOS		A
Approach Delay (s)	0.0	2.2
Approach LOS		

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	26.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	35	160	585	65	45	165	655	85	35	65	105	35
Future Volume (vph)	35	160	585	65	45	165	655	85	35	65	105	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%					0%			0%		
Storage Length (ft)	0		0			50		0	65		0	
Storage Lanes	0		1			1		0	1		0	
Taper Length (ft)	25					90			90			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Ped Bike Factor		0.97	0.89							0.88		
Frt		0.925	0.850				0.983			0.897		
Flt Protected		0.995				0.950			0.950			
Satd. Flow (prot)	0	1492	1394	0	0	1685	3268	0	1428	2545	0	0
Flt Permitted		0.891				0.251			0.430			
Satd. Flow (perm)	0	1336	1240	0	0	445	3268	0	646	2545	0	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30					30			30		
Link Distance (ft)		177					279			398		
Travel Time (s)		4.0					6.3			9.0		
Confl. Peds. (#/hr)			41	41	41	41					52	52
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	0%	1%	13%	0%	0%	1%	4%	18%	13%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%					0%			0%		
Shared Lane Traffic (%)			33%									
Lane Group Flow (vph)	0	396	466	0	0	214	755	0	36	209	0	0
Turn Type	Perm	NA	Perm		Perm	Perm	NA		pm+pt	NA		
Protected Phases		3					2 3		4	1		
Permitted Phases	3		3		2 3	2 3			1			
Detector Phase	3	3	3		2 3	2 3	2 3		4	1		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0						6.0	5.0		
Minimum Split (s)	41.0	41.0	41.0						9.0	25.0		
Total Split (s)	41.0	41.0	41.0						9.0	25.0		
Total Split (%)	45.6%	45.6%	45.6%						10.0%	27.8%		
Yellow Time (s)	3.0	3.0	3.0						3.0	3.0		
All-Red Time (s)	2.0	2.0	2.0						0.0	2.0		
Lost Time Adjust (s)		0.0	0.0						0.0	0.0		
Total Lost Time (s)		5.0	5.0						3.0	5.0		
Lead/Lag										Lead		
Lead-Lag Optimize?										Yes		
Recall Mode	Max	Max	Max						None	C-Max		
Act Effct Green (s)		36.0	36.0			51.0	51.0		28.6	21.8		
Actuated g/C Ratio		0.40	0.40			0.57	0.57		0.32	0.24		



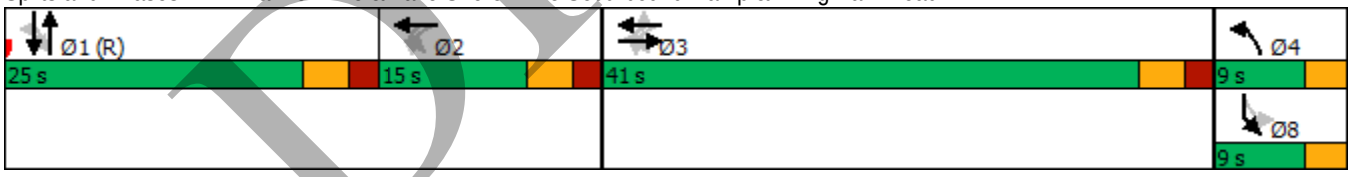
Lane Group	SBL2	SBL	SBT	SBR	Ø2
Lane Configurations					
Traffic Volume (vph)	35	65	260	120	
Future Volume (vph)	35	65	260	120	
Ideal Flow (vphpl)	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	
Grade (%)			0%		
Storage Length (ft)		150		0	
Storage Lanes		1		0	
Taper Length (ft)		115			
Lane Util. Factor	0.95	1.00	0.95	0.95	
Ped Bike Factor		0.88			
Frt			0.953		
Flt Protected		0.950			
Satd. Flow (prot)	0	1685	3168	0	
Flt Permitted		0.621			
Satd. Flow (perm)	0	965	3168	0	
Right Turn on Red				No	
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			271		
Travel Time (s)			6.2		
Confl. Peds. (#/hr)	52	52			
Confl. Bikes (#/hr)					
Peak Hour Factor	0.98	0.98	0.98	0.98	
Growth Factor	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	2%	0%	
Bus Blockages (#/hr)	0	0	0	0	
Parking (#/hr)					
Mid-Block Traffic (%)			0%		
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	102	387	0	
Turn Type	custom	pm+pt	NA		
Protected Phases		8	1		2
Permitted Phases	8	1			
Detector Phase	8	8	1		
Switch Phase					
Minimum Initial (s)	6.0	6.0	5.0		5.0
Minimum Split (s)	9.0	9.0	25.0		15.0
Total Split (s)	9.0	9.0	25.0		15.0
Total Split (%)	10.0%	10.0%	27.8%		17%
Yellow Time (s)	3.0	3.0	3.0		3.0
All-Red Time (s)	0.0	0.0	2.0		2.0
Lost Time Adjust (s)		0.0	0.0		
Total Lost Time (s)		3.0	5.0		
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	C-Max		Max
Act Effct Green (s)		28.6	21.8		
Actuated g/C Ratio		0.32	0.24		

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
v/c Ratio		0.74	0.94			0.85	0.41		0.14	0.34		
Control Delay		35.5	55.4			34.3	1.4		21.4	31.0		
Queue Delay		0.0	0.0			0.0	0.5		0.0	0.0		
Total Delay		35.5	55.4			34.3	1.9		21.4	31.0		
LOS		D	E			C	A		C	C		
Approach Delay		46.2					9.0			29.5		
Approach LOS		D					A			C		
Queue Length 50th (ft)		212	255			122	27		14	53		
Queue Length 95th (ft)		#305	#466			#255	23		35	86		
Internal Link Dist (ft)		97					199			318		
Turn Bay Length (ft)						50			65			
Base Capacity (vph)		534	496			252	1851		257	616		
Starvation Cap Reductn		0	0			0	598		0	0		
Spillback Cap Reductn		0	0			0	0		0	0		
Storage Cap Reductn		0	0			0	0		0	0		
Reduced v/c Ratio		0.74	0.94			0.85	0.60		0.14	0.34		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 68 (76%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 27.7 Intersection LOS: C
Intersection Capacity Utilization 86.6% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Marine Drive & Lake Shore Drive Southbound Ramp & Irving Park Road



Lane Group	SBL2	SBL	SBT	SBR	Ø2
v/c Ratio		0.29	0.50		
Control Delay		23.3	32.9		
Queue Delay		0.0	0.0		
Total Delay		23.3	32.9		
LOS		C	C		
Approach Delay			30.9		
Approach LOS			C		
Queue Length 50th (ft)		40	103		
Queue Length 95th (ft)		77	150		
Internal Link Dist (ft)			191		
Turn Bay Length (ft)		150			
Base Capacity (vph)		354	767		
Starvation Cap Reductn		0	0		
Spillback Cap Reductn		0	0		
Storage Cap Reductn		0	0		
Reduced v/c Ratio		0.29	0.50		

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	75	0	0	120	30	830	10	5	0	0	0
Future Volume (vph)	225	75	0	0	120	30	830	10	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	10	10	10	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.99			0.97							
Frt					0.970			0.998				
Flt Protected	0.950	0.975					0.950	0.954				
Satd. Flow (prot)	1641	1693	0	0	3390	0	1585	1589	0	0	0	0
Flt Permitted	0.250	0.213					0.950	0.954				
Satd. Flow (perm)	422	366	0	0	3390	0	1585	1589	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					27			1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		279			446			375			433	
Travel Time (s)		6.3			10.1			8.5			9.8	
Confl. Peds. (#/hr)	33					33						
Confl. Bikes (#/hr)			2									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	35%						49%					
Lane Group Flow (vph)	154	162	0	0	158	0	446	444	0	0	0	0
Turn Type	custom	NA			NA		Perm	NA				
Protected Phases	3	2 3			4			1				
Permitted Phases	2						1					
Detector Phase	3	2 3			4		1	1				
Switch Phase												
Minimum Initial (s)	5.0				5.0		5.0	5.0				
Minimum Split (s)	14.0				11.0		36.0	36.0				
Total Split (s)	14.0				11.0		46.0	46.0				
Total Split (%)	15.6%				12.2%		51.1%	51.1%				
Yellow Time (s)	3.0				3.0		3.0	3.0				
All-Red Time (s)	2.0				2.0		4.0	4.0				
Lost Time Adjust (s)	0.0				0.0		0.0	0.0				
Total Lost Time (s)	5.0				5.0		7.0	7.0				
Lead/Lag	Lead				Lag		Lead	Lead				
Lead-Lag Optimize?	Yes				Yes		Yes	Yes				
Recall Mode	Max				None		C-Max	C-Max				
Act Effct Green (s)	23.0	27.0			6.0		39.0	39.0				
Actuated g/C Ratio	0.26	0.30			0.07		0.43	0.43				

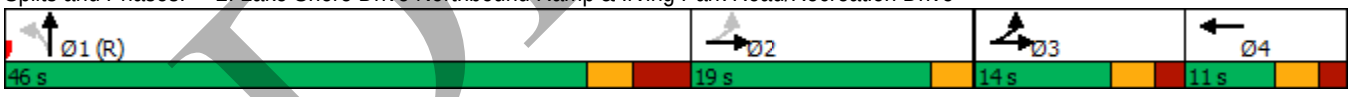
Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.67	0.60			0.63		0.65	0.64				
Control Delay	51.3	40.8			45.8		25.6	25.3				
Queue Delay	0.0	0.0			0.1		0.3	0.3				
Total Delay	51.3	40.8			45.8		25.9	25.6				
LOS	D	D			D		C	C				
Approach Delay		45.9			45.8			25.7				
Approach LOS		D			D			C				
Queue Length 50th (ft)	83	77			38		204	202				
Queue Length 95th (ft)	m#116	m110			#76		316	313				
Internal Link Dist (ft)		199			366			295			353	
Turn Bay Length (ft)												
Base Capacity (vph)	229	271			251		686	689				
Starvation Cap Reductn	0	0			0		0	0				
Spillback Cap Reductn	0	0			1		30	30				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.67	0.60			0.63		0.68	0.67				

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 1:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 32.7 Intersection LOS: C
Intersection Capacity Utilization 49.8% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Lake Shore Drive Northbound Ramp & Irving Park Road/Recreation Drive



Lane Group	Ø2
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	628	0	0	641	59	10	96	99	29	0	70
Future Volume (vph)	52	628	0	0	641	59	10	96	99	29	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	0		55	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96				0.99			0.90			0.90	
Frt					0.987			0.935			0.904	
Flt Protected	0.950							0.998			0.986	
Satd. Flow (prot)	1685	1565	0	0	3072	0	0	1427	0	0	1389	0
Flt Permitted	0.351							0.988			0.878	
Satd. Flow (perm)	598	1565	0	0	3072	0	0	1408	0	0	1197	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)					18							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		224			816			349			393	
Travel Time (s)		5.1			18.5			7.9			8.9	
Confl. Peds. (#/hr)	42		87	87		42	55		74	74		55
Confl. Bikes (#/hr)												8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	0%	20%	0%	0%	2%	0%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	654	0	0	729	0	0	213	0	0	103	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (s)	59.0	59.0			59.0		31.0	31.0		31.0	31.0	
Total Split (%)	65.6%	65.6%			65.6%		34.4%	34.4%		34.4%	34.4%	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	7.0	7.0			7.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max	Max	
Act Effct Green (s)	52.0	52.0			52.0			26.0			26.0	
Actuated g/C Ratio	0.58	0.58			0.58			0.29			0.29	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.16	0.72			0.41			0.52			0.30	
Control Delay	5.2	11.5			3.6			32.4			27.8	
Queue Delay	0.0	53.0			0.5			0.0			0.0	
Total Delay	5.2	64.5			4.1			32.4			27.8	
LOS	A	E			A			C			C	
Approach Delay		60.0			4.1			32.4			27.8	
Approach LOS		E			A			C			C	
Queue Length 50th (ft)	5	79			45			101			45	
Queue Length 95th (ft)	m3	m42			45			173			90	
Internal Link Dist (ft)		144			736			269			313	
Turn Bay Length (ft)	25											
Base Capacity (vph)	345	904			1782			406			345	
Starvation Cap Reductn	0	390			0			0			0	
Spillback Cap Reductn	0	0			588			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.16	1.27			0.61			0.52			0.30	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 76 (84%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Pretimed			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 63.6%		ICU Level of Service B	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Clarendon Avenue & Irving Park Road

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	0	20	0	180	0	0	195	0	275	0
Future Vol, veh/h	0	20	0	180	0	0	195	0	275	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	5	0	7	0	0	5	0	0	0
Mvmt Flow	0	21	0	186	0	0	201	0	284	0
Number of Lanes	0	1	0	2	0	0	1	0	1	0

Approach	NB	SB	SW
Opposing Approach	SB	NB	
Opposing Lanes	1	2	0
Conflicting Approach Left	EB	SW	NB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	SW	EB	EB
Conflicting Lanes Right	1	2	2
HCM Control Delay	8.3	11.4	11.8
HCM LOS	A	B	B

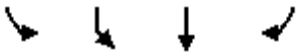
Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	96%
Vol Thru, %	100%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	90	20	20	195	285
LT Vol	0	0	20	0	0	275
Through Vol	90	90	0	0	195	0
RT Vol	0	0	0	20	0	10
Lane Flow Rate	93	93	21	21	201	294
Geometry Grp	7	7	7	7	6	2
Degree of Util (X)	0.148	0.1	0.037	0.03	0.317	0.416
Departure Headway (Hd)	5.736	3.899	6.437	5.307	5.672	5.095
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	619	904	560	679	627	699
Service Time	3.527	1.689	4.137	3.007	3.762	3.172
HCM Lane V/C Ratio	0.15	0.103	0.037	0.031	0.321	0.421
HCM Control Delay	9.5	7.1	9.4	8.2	11.4	11.8
HCM Lane LOS	A	A	A	A	B	B
HCM 95th-tile Q	0.5	0.3	0.1	0.1	1.4	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	148	37	32	90
Future Volume (Veh/h)	0	0	148	37	32	90
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	168	42	36	102
Pedestrians	76					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			393			
pX, platoon unblocked						
vC, conflicting volume	439	265			286	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	439	265			286	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			97	
cM capacity (veh/h)	563	779			1288	

Direction, Lane #	NB 1	SB 1
Volume Total	210	138
Volume Left	0	36
Volume Right	42	0
cSH	1700	1288
Volume to Capacity	0.12	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	2.2
Lane LOS		A
Approach Delay (s)	0.0	2.2
Approach LOS		

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	26.3%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	6	119	779	99	10	42	491	190	47	39	146	121
Future Volume (vph)	6	119	779	99	10	42	491	190	47	39	146	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%					0%			0%		
Storage Length (ft)	0		0			50		0	65		0	
Storage Lanes	0		1			1		0	1		0	
Taper Length (ft)	25					90			90			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Ped Bike Factor		0.96	0.89			0.97	1.00			0.86		
Frt		0.887	0.850				0.958			0.869		
Flt Protected		0.999				0.950			0.950			
Satd. Flow (prot)	0	1400	1343	0	0	1645	3192	0	1685	2473	0	0
Flt Permitted		0.992				0.264			0.300			
Satd. Flow (perm)	0	1390	1201	0	0	444	3192	0	532	2473	0	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30					30			30		
Link Distance (ft)		177					279			398		
Travel Time (s)		4.0					6.3			9.0		
Confl. Peds. (#/hr)	2		39	39	39	39		2			47	47
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	11%	1%	2%	25%	0%	3%	1%	0%	0%	16%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%					0%			0%		
Shared Lane Traffic (%)			49%									
Lane Group Flow (vph)	0	512	501	0	0	52	688	0	47	308	0	0
Turn Type	Perm	NA	Perm		Perm	Perm	NA		pm+pt	NA		
Protected Phases		3					3		4	1		
Permitted Phases	3		3		3	3			1			
Detector Phase	3	3	3		3	3	3		4	1		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0		6.0	5.0		
Minimum Split (s)	44.0	44.0	44.0		44.0	44.0	44.0		15.0	22.0		
Total Split (s)	44.0	44.0	44.0		44.0	44.0	44.0		15.0	22.0		
Total Split (%)	48.9%	48.9%	48.9%		48.9%	48.9%	48.9%		16.7%	24.4%		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0		
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.0		0.0	2.0		
Lost Time Adjust (s)		0.0	0.0			0.0	0.0		0.0	0.0		
Total Lost Time (s)		5.0	5.0			5.0	5.0		3.0	5.0		
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max		Max	Max	Max		None	C-Max		
Act Effct Green (s)		39.0	39.0			39.0	39.0		40.0	20.1		
Actuated g/C Ratio		0.43	0.43			0.43	0.43		0.44	0.22		



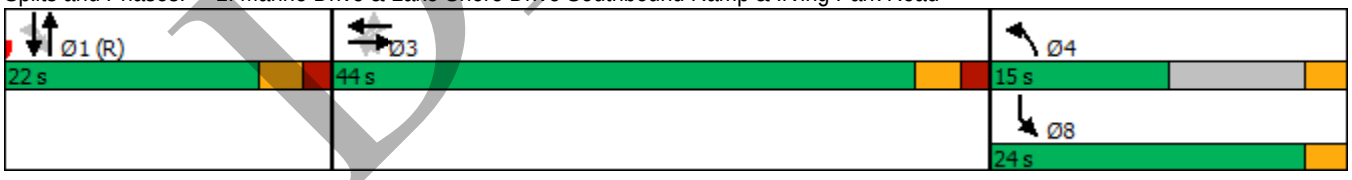
Lane Group	SBL2	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	30	327	294	207
Future Volume (vph)	30	327	294	207
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10
Grade (%)			0%	
Storage Length (ft)		150		0
Storage Lanes		1		0
Taper Length (ft)		115		
Lane Util. Factor	0.95	1.00	0.95	0.95
Ped Bike Factor		0.91		
Frt			0.938	
Flt Protected		0.950		
Satd. Flow (prot)	0	1597	2995	0
Flt Permitted		0.511		
Satd. Flow (perm)	0	781	2995	0
Right Turn on Red				No
Satd. Flow (RTOR)				
Link Speed (mph)			30	
Link Distance (ft)			271	
Travel Time (s)			6.2	
Confl. Peds. (#/hr)	47	47		
Confl. Bikes (#/hr)				
Peak Hour Factor	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	8%	2%
Bus Blockages (#/hr)	0	0	0	0
Parking (#/hr)				
Mid-Block Traffic (%)			0%	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	360	506	0
Turn Type		pm+pt	NA	
Protected Phases		8	1	
Permitted Phases		1		
Detector Phase		8	1	
Switch Phase				
Minimum Initial (s)		6.0	5.0	
Minimum Split (s)		24.0	22.0	
Total Split (s)		24.0	22.0	
Total Split (%)		26.7%	24.4%	
Yellow Time (s)		3.0	3.0	
All-Red Time (s)		0.0	2.0	
Lost Time Adjust (s)		0.0	0.0	
Total Lost Time (s)		3.0	5.0	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode		None	C-Max	
Act Effct Green (s)		40.0	20.1	
Actuated g/C Ratio		0.44	0.22	

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
v/c Ratio		0.85	0.96			0.27	0.50		0.10	0.93dr		
Control Delay		28.6	45.4			3.2	2.5		13.3	36.6		
Queue Delay		0.0	0.0			0.0	0.3		0.0	0.0		
Total Delay		28.6	45.4			3.2	2.8		13.3	36.6		
LOS		C	D			A	A		B	D		
Approach Delay		36.9					2.8			33.5		
Approach LOS		D					A			C		
Queue Length 50th (ft)		190	206			0	1		14	83		
Queue Length 95th (ft)		m#311	m#413			m0	0		32	131		
Internal Link Dist (ft)		97					199			318		
Turn Bay Length (ft)						50			65			
Base Capacity (vph)		602	520			192	1383		514	551		
Starvation Cap Reductn		0	0			0	232		0	0		
Spillback Cap Reductn		0	0			0	0		0	0		
Storage Cap Reductn		0	0			0	0		0	0		
Reduced v/c Ratio		0.85	0.96			0.27	0.60		0.09	0.56		

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 80 (89%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 27.5 Intersection LOS: C
Intersection Capacity Utilization 109.0% ICU Level of Service H
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 1: Marine Drive & Lake Shore Drive Southbound Ramp & Irving Park Road



Lane Group	SBL2	SBL	SBT	SBR
v/c Ratio		0.71	0.76	
Control Delay		24.6	42.7	
Queue Delay		0.0	0.0	
Total Delay		24.6	42.7	
LOS		C	D	
Approach Delay			35.2	
Approach LOS			D	
Queue Length 50th (ft)		132	144	
Queue Length 95th (ft)		208	#241	
Internal Link Dist (ft)			191	
Turn Bay Length (ft)		150		
Base Capacity (vph)		551	667	
Starvation Cap Reductn		0	0	
Spillback Cap Reductn		0	0	
Storage Cap Reductn		0	0	
Reduced v/c Ratio		0.65	0.76	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	26	0	0	36	10	698	0	0	0	0	0
Future Volume (vph)	270	26	0	0	36	10	698	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	10	10	10	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor					0.96							
Frt					0.966							
Flt Protected	0.950	0.961					0.950	0.950				
Satd. Flow (prot)	1641	1663	0	0	3364	0	1585	1585	0	0	0	0
Flt Permitted	0.154	0.140					0.950	0.950				
Satd. Flow (perm)	266	242	0	0	3364	0	1585	1585	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		279			446			375			433	
Travel Time (s)		6.3			10.1			8.5			9.8	
Confl. Peds. (#/hr)	33					33						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%						50%					
Lane Group Flow (vph)	158	157	0	0	49	0	371	372	0	0	0	0
Turn Type	custom	NA			NA		Perm	NA				
Protected Phases	3	2 3			4			1				
Permitted Phases	2						1					
Detector Phase	3	2 3			4		1	1				
Switch Phase												
Minimum Initial (s)	5.0				5.0		5.0	5.0				
Minimum Split (s)	14.0				11.0		36.0	36.0				
Total Split (s)	14.0				11.0		36.0	36.0				
Total Split (%)	15.6%				12.2%		40.0%	40.0%				
Yellow Time (s)	3.0				3.0		3.0	3.0				
All-Red Time (s)	2.0				2.0		4.0	4.0				
Lost Time Adjust (s)	0.0				0.0		0.0	0.0				
Total Lost Time (s)	5.0				5.0		7.0	7.0				
Lead/Lag	Lead				Lag		Lead	Lead				
Lead-Lag Optimize?	Yes				Yes		Yes	Yes				
Recall Mode	Max				None		C-Max	C-Max				
Act Effct Green (s)	33.0	37.0			5.9		33.4	33.4				
Actuated g/C Ratio	0.37	0.41			0.07		0.37	0.37				

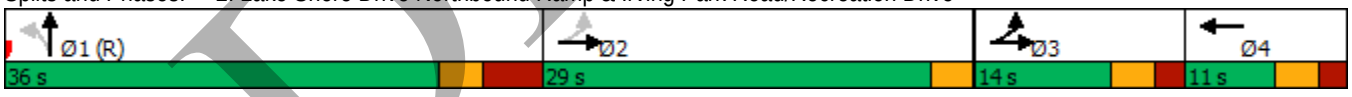
Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	32%
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.67	0.58			0.21		0.63	0.63				
Control Delay	54.7	45.0			35.2		30.8	30.9				
Queue Delay	0.0	0.8			0.0		0.0	0.0				
Total Delay	54.7	45.8			35.2		30.8	30.9				
LOS	D	D			D		C	C				
Approach Delay		50.3			35.2			30.8				
Approach LOS		D			D			C				
Queue Length 50th (ft)	81	70			11		194	195				
Queue Length 95th (ft)	m131	m121			28		#309	#312				
Internal Link Dist (ft)		199			366			295			353	
Turn Bay Length (ft)												
Base Capacity (vph)	235	273			234		588	588				
Starvation Cap Reductn	0	21			0		0	0				
Spillback Cap Reductn	0	0			0		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.67	0.62			0.21		0.63	0.63				

Intersection Summary

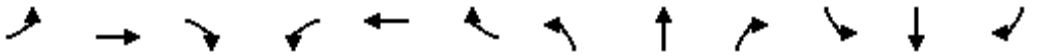
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 12 (13%), Referenced to phase 1:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 36.6 Intersection LOS: D
Intersection Capacity Utilization 43.3% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Lake Shore Drive Northbound Ramp & Irving Park Road/Recreation Drive



Lane Group	Ø2
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	714	0	0	609	62	7	52	124	43	0	29
Future Volume (vph)	49	714	0	0	609	62	7	52	124	43	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	0		55	0		0	0		0
Storage Lanes	1		0	0		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99					0.91		0.94			0.95	
Frt						0.850		0.909			0.945	
Flt Protected	0.950							0.998			0.971	
Satd. Flow (prot)	1685	1550	0	0	1565	1507	0	1402	0	0	1325	0
Flt Permitted	0.288							0.991			0.788	
Satd. Flow (perm)	503	1550	0	0	1565	1369	0	1391	0	0	1045	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)						31						
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		224			816			349			393	
Travel Time (s)		5.1			18.5			7.9			8.9	
Confl. Peds. (#/hr)	26		35	35		26	23		51	51		23
Confl. Bikes (#/hr)									8			9
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	0%	0%	2%	0%	0%	6%	3%	24%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	785	0	0	669	68	0	201	0	0	79	0
Turn Type	Perm	NA			NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					8	2			6		
Detector Phase	4	4			8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	25.0	25.0			25.0	25.0	25.0	25.0		25.0	25.0	
Total Split (s)	59.0	59.0			59.0	59.0	31.0	31.0		31.0	31.0	
Total Split (%)	65.6%	65.6%			65.6%	65.6%	34.4%	34.4%		34.4%	34.4%	
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	4.0	4.0			4.0	4.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)	7.0	7.0			7.0	7.0		5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max		Max	Max	
Act Effct Green (s)	52.0	52.0			52.0	52.0		26.0			26.0	
Actuated g/C Ratio	0.58	0.58			0.58	0.58		0.29			0.29	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.19	0.88			0.74	0.08		0.50			0.26	
Control Delay	5.2	15.3			25.5	8.4		31.8			27.6	
Queue Delay	0.0	48.5			22.7	0.0		0.0			0.0	
Total Delay	5.2	63.7			48.3	8.4		31.8			27.6	
LOS	A	E			D	A		C			C	
Approach Delay		60.0			44.6			31.8			27.6	
Approach LOS		E			D			C			C	
Queue Length 50th (ft)	6	144			298	20		95			34	
Queue Length 95th (ft)	m4	m66			401	m34		163			73	
Internal Link Dist (ft)		144			736			269			313	
Turn Bay Length (ft)	25					55						
Base Capacity (vph)	290	895			904	804		401			301	
Starvation Cap Reductn	0	216			0	0		0			0	
Spillback Cap Reductn	0	0			248	0		0			0	
Storage Cap Reductn	0	0			0	0		0			0	
Reduced v/c Ratio	0.19	1.16			1.02	0.08		0.50			0.26	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 38 (42%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Pretimed
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 49.4 Intersection LOS: D
Intersection Capacity Utilization 76.9% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Clarendon Avenue & Irving Park Road

Intersection	
Intersection Delay, s/veh	25.9
Intersection LOS	D

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	0	217	0	239	0	0	347	0	203	0
Future Vol, veh/h	0	217	0	239	0	0	347	0	203	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	0	0	0	14	0	0	17	0	1	0
Mvmt Flow	0	258	0	285	0	0	413	0	242	0
Number of Lanes	0	1	0	2	0	0	1	0	1	0

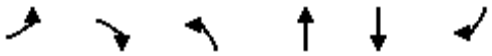
Approach	NB	SB	SW
Opposing Approach	SB	NB	
Opposing Lanes	1	2	0
Conflicting Approach Left	EB	SW	NB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	SW	EB	EB
Conflicting Lanes Right	1	2	2
HCM Control Delay	12.6	45.2	21.4
HCM LOS	B	E	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	80%
Vol Thru, %	100%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	120	32	217	347	255
LT Vol	0	0	32	0	0	203
Through Vol	120	120	0	0	347	0
RT Vol	0	0	0	217	0	52
Lane Flow Rate	142	142	38	258	413	304
Geometry Grp	7	7	7	7	6	2
Degree of Util (X)	0.318	0.239	0.09	0.51	0.881	0.615
Departure Headway (Hd)	8.041	6.041	8.533	7.103	7.676	7.291
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	447	592	419	506	475	495
Service Time	5.803	3.802	6.296	4.865	5.676	5.355
HCM Lane V/C Ratio	0.318	0.24	0.091	0.51	0.869	0.614
HCM Control Delay	14.5	10.7	12.1	17.1	45.2	21.4
HCM Lane LOS	B	B	B	C	E	C
HCM 95th-tile Q	1.4	0.9	0.3	2.9	9.4	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	119	37	195	71
Future Volume (Veh/h)	0	0	119	37	195	71
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	135	42	222	81
Pedestrians	44					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			393			
pX, platoon unblocked						
vC, conflicting volume	725	200			221	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	725	200			221	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	100			83	
cM capacity (veh/h)	329	846			1325	

Direction, Lane #	NB 1	SB 1
Volume Total	177	303
Volume Left	0	222
Volume Right	42	0
cSH	1700	1325
Volume to Capacity	0.10	0.17
Queue Length 95th (ft)	0	15
Control Delay (s)	0.0	6.4
Lane LOS		A
Approach Delay (s)	0.0	6.4
Approach LOS		

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	33.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	7	229	812	2
Future Volume (Veh/h)	0	0	7	229	812	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	7	241	855	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				271		
pX, platoon unblocked						
vC, conflicting volume	990	428	857			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	990	428	857			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	99			
cM capacity (veh/h)	245	580	792			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	87	161	570	287
Volume Left	7	0	0	0
Volume Right	0	0	0	2
cSH	792	1700	1700	1700
Volume to Capacity	0.01	0.09	0.34	0.17
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	0.9	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	0.3		0.0	
Approach LOS				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	25.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	207	5	0	0	0	38
Future Vol, veh/h	207	5	0	0	0	38
Conflicting Peds, #/hr	0	19	19	0	0	13
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	-	0
Veh in Median Storage, #	0	-	-	16983	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	3	0	0	0	0	0
Mvmt Flow	296	7	0	0	0	54

Major/Minor	Major1			Minor1	
Conflicting Flow All	0	0		-	332
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	-		-	6.2
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	-		-	3.3
Pot Cap-1 Maneuver	-	-		0	714
Stage 1	-	-		0	-
Stage 2	-	-		0	-
Platoon blocked, %	-	-			
Mov Cap-1 Maneuver	-	-		-	701
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	NB
HCM Control Delay, s	0	10.6
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	701	-	-
HCM Lane V/C Ratio	0.077	-	-
HCM Control Delay (s)	10.6	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	42	166	465	89	36	226	744	193	32	73	125	34
Future Volume (vph)	42	166	465	89	36	226	744	193	32	73	125	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%					0%			0%		
Storage Length (ft)	0		0			50		0	65		0	
Storage Lanes	0		1			1		0	1		0	
Taper Length (ft)	25					90			90			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Ped Bike Factor		0.98	0.88			0.96				0.87		
Frt		0.955	0.850				0.969			0.897		
Flt Protected		0.993				0.950			0.950			
Satd. Flow (prot)	0	1555	1386	0	0	1685	3213	0	1428	2513	0	0
Flt Permitted		0.794				0.327			0.346			
Satd. Flow (perm)	0	1243	1220	0	0	558	3213	0	520	2513	0	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30					30			30		
Link Distance (ft)		177					279			398		
Travel Time (s)		4.0					6.3			9.0		
Confl. Peds. (#/hr)			45	45	45	45					57	57
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	0%	1%	13%	0%	0%	1%	4%	18%	13%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%					0%			0%		
Shared Lane Traffic (%)			19%									
Lane Group Flow (vph)	0	302	475	0	0	268	956	0	33	237	0	0
Turn Type	Perm	NA	Perm		Perm	Perm	NA		pm+pt	NA		
Protected Phases		3					2 3		4	1		
Permitted Phases	3		3		2 3	2 3			1			
Detector Phase	3	3	3		2 3	2 3	2 3		4	1		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0						6.0	5.0		
Minimum Split (s)	41.0	41.0	41.0						9.0	22.0		
Total Split (s)	41.0	41.0	41.0						9.0	25.0		
Total Split (%)	45.6%	45.6%	45.6%						10.0%	27.8%		
Yellow Time (s)	3.0	3.0	3.0						3.0	3.0		
All-Red Time (s)	2.0	2.0	2.0						0.0	2.0		
Lost Time Adjust (s)		0.0	0.0						0.0	0.0		
Total Lost Time (s)		5.0	5.0						3.0	5.0		
Lead/Lag										Lead		
Lead-Lag Optimize?										Yes		
Recall Mode	Max	Max	Max						None	C-Max		
Act Effct Green (s)		36.0	36.0			53.0	53.0		28.0	20.0		
Actuated g/C Ratio		0.40	0.40			0.59	0.59		0.31	0.22		

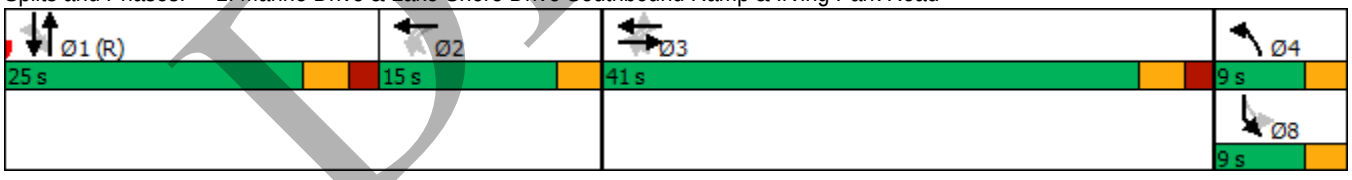
Lane Group	SBL2	SBL	SBT	SBR	Ø2
Lane Configurations					
Traffic Volume (vph)	49	158	256	193	
Future Volume (vph)	49	158	256	193	
Ideal Flow (vphpl)	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	
Grade (%)			0%		
Storage Length (ft)		150		0	
Storage Lanes		1		0	
Taper Length (ft)		115			
Lane Util. Factor	0.95	1.00	0.95	0.95	
Ped Bike Factor		0.87			
Frt			0.935		
Flt Protected		0.950			
Satd. Flow (prot)	0	1685	3115	0	
Flt Permitted		0.598			
Satd. Flow (perm)	0	923	3115	0	
Right Turn on Red				No	
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			271		
Travel Time (s)			6.2		
Confl. Peds. (#/hr)	57	57			
Confl. Bikes (#/hr)					
Peak Hour Factor	0.98	0.98	0.98	0.98	
Growth Factor	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	2%	0%	
Bus Blockages (#/hr)	0	0	0	0	
Parking (#/hr)					
Mid-Block Traffic (%)			0%		
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	211	458	0	
Turn Type	custom	pm+pt	NA		
Protected Phases		8	1		2
Permitted Phases	8	1			
Detector Phase	8	8	1		
Switch Phase					
Minimum Initial (s)	6.0	6.0	5.0		5.0
Minimum Split (s)	9.0	9.0	22.0		15.0
Total Split (s)	9.0	9.0	25.0		15.0
Total Split (%)	10.0%	10.0%	27.8%		17%
Yellow Time (s)	3.0	3.0	3.0		3.0
All-Red Time (s)	0.0	0.0	2.0		0.0
Lost Time Adjust (s)		0.0	0.0		
Total Lost Time (s)		3.0	5.0		
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	C-Max		Max
Act Effct Green (s)		28.0	20.0		
Actuated g/C Ratio		0.31	0.22		

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
v/c Ratio		0.61	0.97			0.82	0.51		0.15	0.42		
Control Delay		30.5	63.1			19.8	1.6		21.6	32.8		
Queue Delay		0.0	0.0			14.0	1.1		0.0	0.0		
Total Delay		30.5	63.1			33.7	2.7		21.6	32.8		
LOS		C	E			C	A		C	C		
Approach Delay		50.4					9.5			31.5		
Approach LOS		D					A			C		
Queue Length 50th (ft)		162	263			27	15		12	61		
Queue Length 95th (ft)		233	#484			m#44	16		33	97		
Internal Link Dist (ft)		97					199			318		
Turn Bay Length (ft)						50			65			
Base Capacity (vph)		497	488			328	1892		222	558		
Starvation Cap Reductn		0	0			48	634		0	0		
Spillback Cap Reductn		0	0			0	0		0	0		
Storage Cap Reductn		0	0			0	0		0	0		
Reduced v/c Ratio		0.61	0.97			0.96	0.76		0.15	0.42		

Intersection Summary

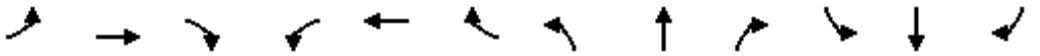
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 68 (76%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 28.3 Intersection LOS: C
Intersection Capacity Utilization 93.9% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Marine Drive & Lake Shore Drive Southbound Ramp & Irving Park Road



Lane Group	SBL2	SBL	SBT	SBR	Ø2
v/c Ratio		0.63	0.66		
Control Delay		33.1	37.3		
Queue Delay		0.0	0.0		
Total Delay		33.1	37.3		
LOS		C	D		
Approach Delay			36.0		
Approach LOS			D		
Queue Length 50th (ft)		89	125		
Queue Length 95th (ft)		149	178		
Internal Link Dist (ft)			191		
Turn Bay Length (ft)		150			
Base Capacity (vph)		337	692		
Starvation Cap Reductn		0	0		
Spillback Cap Reductn		0	0		
Storage Cap Reductn		0	0		
Reduced v/c Ratio		0.63	0.66		

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	310	31	0	0	72	21	1127	5	5	0	0	0
Future Volume (vph)	310	31	0	0	72	21	1127	5	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	10	10	10	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97	0.98			0.96							
Frt					0.966			0.999				
Flt Protected	0.950	0.961					0.950	0.953				
Satd. Flow (prot)	1641	1663	0	0	3354	0	1585	1588	0	0	0	0
Flt Permitted	0.250	0.227					0.950	0.953				
Satd. Flow (perm)	420	384	0	0	3354	0	1585	1588	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22			1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		279			446			375			433	
Travel Time (s)		6.3			10.1			8.5			9.8	
Confl. Peds. (#/hr)	36					36						
Confl. Bikes (#/hr)			2									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%						50%					
Lane Group Flow (vph)	179	180	0	0	98	0	593	603	0	0	0	0
Turn Type	custom	NA			NA		Perm	NA				
Protected Phases	3	2 3			4			1				
Permitted Phases	2						1					
Detector Phase	3	2 3			4		1	1				
Switch Phase												
Minimum Initial (s)	5.0				5.0		5.0	5.0				
Minimum Split (s)	14.0				11.0		36.0	36.0				
Total Split (s)	14.0				11.0		46.0	46.0				
Total Split (%)	15.6%				12.2%		51.1%	51.1%				
Yellow Time (s)	3.0				3.0		3.0	3.0				
All-Red Time (s)	2.0				2.0		4.0	4.0				
Lost Time Adjust (s)	0.0				0.0		0.0	0.0				
Total Lost Time (s)	5.0				5.0		7.0	7.0				
Lead/Lag	Lead				Lag		Lead	Lead				
Lead-Lag Optimize?	Yes				Yes		Yes	Yes				
Recall Mode	Max				None		C-Max	C-Max				
Act Effct Green (s)	23.0	27.0			5.9		41.2	41.2				
Actuated g/C Ratio	0.26	0.30			0.07		0.46	0.46				

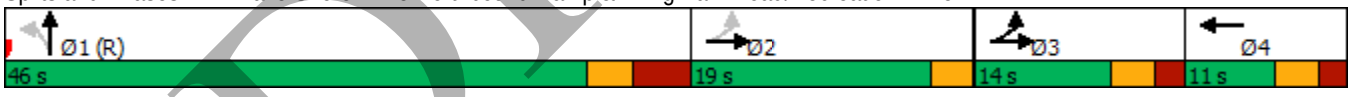
Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.78	0.66			0.41		0.82	0.83				
Control Delay	64.7	48.3			36.9		33.6	34.4				
Queue Delay	0.0	0.0			0.0		1.3	1.5				
Total Delay	64.7	48.3			36.9		34.8	35.8				
LOS	E	D			D		C	D				
Approach Delay		56.5			36.9			35.4				
Approach LOS		E			D			D				
Queue Length 50th (ft)	98	89			22		311	320				
Queue Length 95th (ft)	#213	#164			47		#525	#540				
Internal Link Dist (ft)		199			366			295			353	
Turn Bay Length (ft)												
Base Capacity (vph)	229	271			244		725	727				
Starvation Cap Reductn	0	0			0		0	0				
Spillback Cap Reductn	0	0			0		36	36				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.78	0.66			0.40		0.86	0.87				

Intersection Summary

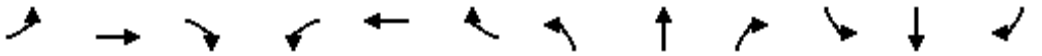
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 1:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 40.0 Intersection LOS: D
Intersection Capacity Utilization 56.7% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Lake Shore Drive Northbound Ramp & Irving Park Road/Recreation Drive



Lane Group	Ø2
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	573	0	0	823	76	10	104	91	28	0	74
Future Volume (vph)	61	573	0	0	823	76	10	104	91	28	0	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	0		55	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97				0.99			0.90			0.89	
Frt					0.987			0.940			0.902	
Flt Protected	0.950							0.998			0.987	
Satd. Flow (prot)	1685	1565	0	0	3068	0	0	1435	0	0	1374	0
Flt Permitted	0.262							0.988			0.885	
Satd. Flow (perm)	452	1565	0	0	3068	0	0	1416	0	0	1191	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)					18							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		224			816			349			393	
Travel Time (s)		5.1			18.5			7.9			8.9	
Confl. Peds. (#/hr)	46		96	96		46	61		81	81		61
Confl. Bikes (#/hr)												9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	0%	20%	0%	0%	2%	0%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	597	0	0	936	0	0	213	0	0	106	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	59.0	59.0			59.0		31.0	31.0		31.0	31.0	
Total Split (s)	59.0	59.0			59.0		31.0	31.0		31.0	31.0	
Total Split (%)	65.6%	65.6%			65.6%		34.4%	34.4%		34.4%	34.4%	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	7.0	7.0			7.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max	Max	
Act Effct Green (s)	52.0	52.0			52.0			26.0			26.0	
Actuated g/C Ratio	0.58	0.58			0.58			0.29			0.29	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.25	0.66			0.53			0.52			0.31	
Control Delay	5.5	8.7			4.9			32.3			28.0	
Queue Delay	0.0	23.6			0.3			0.0			0.0	
Total Delay	5.5	32.2			5.2			32.3			28.0	
LOS	A	C			A			C			C	
Approach Delay		29.6			5.2			32.3			28.0	
Approach LOS		C			A			C			C	
Queue Length 50th (ft)	7	67			71			101			47	
Queue Length 95th (ft)	m6	m53			88			173			92	
Internal Link Dist (ft)		144			736			269			313	
Turn Bay Length (ft)	25											
Base Capacity (vph)	261	904			1780			409			344	
Starvation Cap Reductn	0	317			0			0			0	
Spillback Cap Reductn	0	0			328			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.25	1.02			0.64			0.52			0.31	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 76 (84%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Pretimed
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 17.9 Intersection LOS: B
Intersection Capacity Utilization 66.0% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

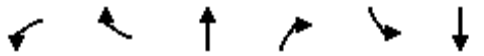
Splits and Phases: 3: Clarendon Avenue & Irving Park Road

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	0	64	0	249	0	0	221	0	302	0
Future Vol, veh/h	0	64	0	249	0	0	221	0	302	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	5	0	7	0	0	5	0	0	0
Mvmt Flow	0	66	0	257	0	0	228	0	311	0
Number of Lanes	0	1	0	2	0	0	1	0	1	0

Approach	NB	SB	SW
Opposing Approach	SB	NB	
Opposing Lanes	1	2	0
Conflicting Approach Left	EB	SW	NB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	SW	EB	EB
Conflicting Lanes Right	1	2	2
HCM Control Delay	9.3	13.2	14.1
HCM LOS	A	B	B

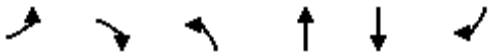
Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	95%
Vol Thru, %	100%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	125	25	64	221	317
LT Vol	0	0	25	0	0	302
Through Vol	125	125	0	0	221	0
RT Vol	0	0	0	64	0	15
Lane Flow Rate	128	128	26	66	228	327
Geometry Grp	7	7	7	7	6	2
Degree of Util (X)	0.221	0.156	0.049	0.105	0.391	0.504
Departure Headway (Hd)	6.208	4.363	6.868	5.733	6.183	5.557
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	578	819	520	623	581	647
Service Time	3.951	2.106	4.622	3.487	4.226	3.596
HCM Lane V/C Ratio	0.221	0.156	0.05	0.106	0.392	0.505
HCM Control Delay	10.7	7.9	10	9.2	13.2	14.1
HCM Lane LOS	B	A	A	A	B	B
HCM 95th-tile Q	0.8	0.6	0.2	0.4	1.8	2.8



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	153	47	35	94
Future Volume (Veh/h)	0	0	153	47	35	94
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	174	53	40	107
Pedestrians	84					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			393			
pX, platoon unblocked						
vC, conflicting volume	472	284			311	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	472	284			311	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			97	
cM capacity (veh/h)	537	759			1261	

Direction, Lane #	NB 1	SB 1
Volume Total	227	147
Volume Left	0	40
Volume Right	53	0
cSH	1700	1261
Volume to Capacity	0.13	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	2.4
Lane LOS		A
Approach Delay (s)	0.0	2.4
Approach LOS		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	26.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	18	270	621	7
Future Volume (Veh/h)	0	0	18	270	621	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	19	284	654	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				271		
pX, platoon unblocked						
vC, conflicting volume	838	330	661			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	838	330	661			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	98			
cM capacity (veh/h)	303	671	937			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	114	189	436	225
Volume Left	19	0	0	0
Volume Right	0	0	0	7
cSH	937	1700	1700	1700
Volume to Capacity	0.02	0.11	0.26	0.13
Queue Length 95th (ft)	2	0	0	0
Control Delay (s)	1.7	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	0.6		0.0	
Approach LOS				

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	24.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	58	11	0	0	0	27
Future Vol, veh/h	58	11	0	0	0	27
Conflicting Peds, #/hr	0	17	17	0	9	11
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	-	0
Veh in Median Storage, #	0	-	-	16983	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	64	64	64	64	64	64
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	91	17	0	0	0	42

Major/Minor	Major1			Minor1	
Conflicting Flow All	0	0		-	128
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	-		-	6.2
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	-		-	3.3
Pot Cap-1 Maneuver	-	-		0	927
Stage 1	-	-		0	-
Stage 2	-	-		0	-
Platoon blocked, %	-	-			
Mov Cap-1 Maneuver	-	-		-	912
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	NB
HCM Control Delay, s	0	9.1
HCM LOS		A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	912	-	-
HCM Lane V/C Ratio	0.046	-	-
HCM Control Delay (s)	9.1	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	37	166	604	68	46	175	677	101	56	73	110	39
Future Volume (vph)	37	166	604	68	46	175	677	101	56	73	110	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%					0%			0%		
Storage Length (ft)	0		0			50		0	65		0	
Storage Lanes	0		1			1		0	1		0	
Taper Length (ft)	25					90			90			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Ped Bike Factor		0.97	0.88							0.87		
Frt		0.927	0.850				0.981			0.899		
Flt Protected		0.995				0.950			0.950			
Satd. Flow (prot)	0	1492	1394	0	0	1685	3260	0	1428	2523	0	0
Flt Permitted		0.880				0.245			0.387			
Satd. Flow (perm)	0	1320	1227	0	0	434	3260	0	582	2523	0	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)		30					30			30		
Link Distance (ft)		177					279			398		
Travel Time (s)		4.0					6.3			9.0		
Confl. Peds. (#/hr)			45	45	45	45					57	57
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	0%	1%	13%	0%	0%	1%	4%	18%	13%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%					0%			0%		
Shared Lane Traffic (%)			32%									
Lane Group Flow (vph)	0	404	488	0	0	226	794	0	57	226	0	0
Turn Type	Perm	NA	Perm		Perm	Perm	NA		pm+pt	NA		
Protected Phases		3					2 3		4	1		
Permitted Phases	3		3		2 3	2 3			1			
Detector Phase	3	3	3		2 3	2 3	2 3		4	1		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0						6.0	5.0		
Minimum Split (s)	41.0	41.0	41.0						9.0	25.0		
Total Split (s)	41.0	41.0	41.0						9.0	25.0		
Total Split (%)	45.6%	45.6%	45.6%						10.0%	27.8%		
Yellow Time (s)	3.0	3.0	3.0						3.0	3.0		
All-Red Time (s)	2.0	2.0	2.0						0.0	2.0		
Lost Time Adjust (s)		0.0	0.0						0.0	0.0		
Total Lost Time (s)		5.0	5.0						3.0	5.0		
Lead/Lag										Lead		
Lead-Lag Optimize?										Yes		
Recall Mode	Max	Max	Max						None	C-Max		
Act Effct Green (s)		36.0	36.0			51.0	51.0		28.0	20.0		
Actuated g/C Ratio		0.40	0.40			0.57	0.57		0.31	0.22		

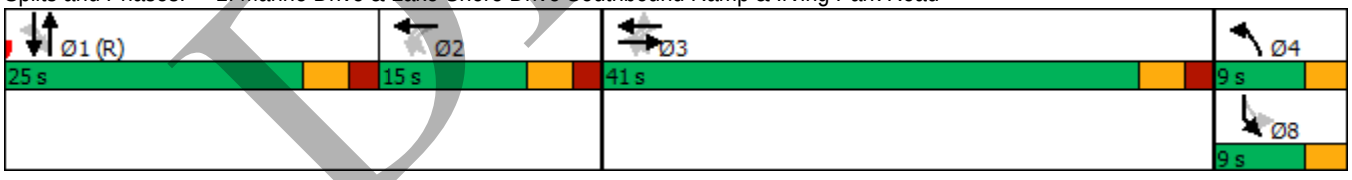
Lane Group	SBL2	SBL	SBT	SBR	Ø2
Lane Configurations					
Traffic Volume (vph)	39	76	277	132	
Future Volume (vph)	39	76	277	132	
Ideal Flow (vphpl)	1900	1900	1900	1900	
Lane Width (ft)	10	10	10	10	
Grade (%)			0%		
Storage Length (ft)		150		0	
Storage Lanes		1		0	
Taper Length (ft)		115			
Lane Util. Factor	0.95	1.00	0.95	0.95	
Ped Bike Factor		0.87			
Frt			0.952		
Flt Protected		0.950			
Satd. Flow (prot)	0	1685	3165	0	
Flt Permitted		0.611			
Satd. Flow (perm)	0	940	3165	0	
Right Turn on Red				No	
Satd. Flow (RTOR)					
Link Speed (mph)			30		
Link Distance (ft)			271		
Travel Time (s)			6.2		
Confl. Peds. (#/hr)	57	57			
Confl. Bikes (#/hr)					
Peak Hour Factor	0.98	0.98	0.98	0.98	
Growth Factor	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	2%	0%	
Bus Blockages (#/hr)	0	0	0	0	
Parking (#/hr)					
Mid-Block Traffic (%)			0%		
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	118	418	0	
Turn Type	custom	pm+pt	NA		
Protected Phases		8	1		2
Permitted Phases	8	1			
Detector Phase	8	8	1		
Switch Phase					
Minimum Initial (s)	6.0	6.0	5.0		5.0
Minimum Split (s)	9.0	9.0	25.0		15.0
Total Split (s)	9.0	9.0	25.0		15.0
Total Split (%)	10.0%	10.0%	27.8%		17%
Yellow Time (s)	3.0	3.0	3.0		3.0
All-Red Time (s)	0.0	0.0	2.0		2.0
Lost Time Adjust (s)		0.0	0.0		
Total Lost Time (s)		3.0	5.0		
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	C-Max		Max
Act Effct Green (s)		28.0	20.0		
Actuated g/C Ratio		0.31	0.22		

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
v/c Ratio		0.77	1.00			0.92	0.43		0.24	0.40		
Control Delay		36.6	67.1			45.9	1.5		23.0	32.5		
Queue Delay		0.0	0.0			0.0	0.5		0.0	0.0		
Total Delay		36.6	67.1			45.9	2.0		23.0	32.5		
LOS		D	E			D	A		C	C		
Approach Delay		53.3					11.7			30.6		
Approach LOS		D					B			C		
Queue Length 50th (ft)		212	262			137	28		22	57		
Queue Length 95th (ft)		m#315	#501			m#263	24		49	93		
Internal Link Dist (ft)		97					199			318		
Turn Bay Length (ft)						50			65			
Base Capacity (vph)		528	490			245	1847		237	560		
Starvation Cap Reductn		0	0			0	593		0	0		
Spillback Cap Reductn		0	0			0	0		0	0		
Storage Cap Reductn		0	0			0	0		0	0		
Reduced v/c Ratio		0.77	1.00			0.92	0.63		0.24	0.40		

Intersection Summary

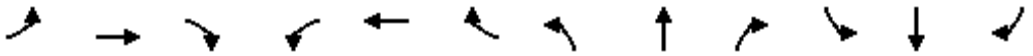
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 68 (76%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 31.4 Intersection LOS: C
Intersection Capacity Utilization 89.7% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Marine Drive & Lake Shore Drive Southbound Ramp & Irving Park Road



Lane Group	SBL2	SBL	SBT	SBR	Ø2
v/c Ratio		0.35	0.59		
Control Delay		24.3	35.4		
Queue Delay		0.0	0.0		
Total Delay		24.3	35.4		
LOS		C	D		
Approach Delay			33.0		
Approach LOS			C		
Queue Length 50th (ft)		47	112		
Queue Length 95th (ft)		87	162		
Internal Link Dist (ft)			191		
Turn Bay Length (ft)		150			
Base Capacity (vph)		342	703		
Starvation Cap Reductn		0	0		
Spillback Cap Reductn		0	0		
Storage Cap Reductn		0	0		
Reduced v/c Ratio		0.35	0.59		

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	77	0	0	124	31	875	10	5	0	0	0
Future Volume (vph)	238	77	0	0	124	31	875	10	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	10	10	10	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.99			0.97							
Frt					0.970			0.998				
Flt Protected	0.950	0.974					0.950	0.954				
Satd. Flow (prot)	1641	1691	0	0	3381	0	1585	1589	0	0	0	0
Flt Permitted	0.250	0.191					0.950	0.954				
Satd. Flow (perm)	421	327	0	0	3381	0	1585	1589	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					27			1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		279			446			375			433	
Travel Time (s)		6.3			10.1			8.5			9.8	
Confl. Peds. (#/hr)	36					36						
Confl. Bikes (#/hr)			2									
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	36%						49%					
Lane Group Flow (vph)	161	171	0	0	164	0	470	467	0	0	0	0
Turn Type	custom	NA			NA		Perm	NA				
Protected Phases	3	2 3			4			1				
Permitted Phases	2						1					
Detector Phase	3	2 3			4		1	1				
Switch Phase												
Minimum Initial (s)	5.0				5.0		5.0	5.0				
Minimum Split (s)	14.0				11.0		36.0	36.0				
Total Split (s)	14.0				11.0		46.0	46.0				
Total Split (%)	15.6%				12.2%		51.1%	51.1%				
Yellow Time (s)	3.0				3.0		3.0	3.0				
All-Red Time (s)	2.0				2.0		4.0	4.0				
Lost Time Adjust (s)	0.0				0.0		0.0	0.0				
Total Lost Time (s)	5.0				5.0		7.0	7.0				
Lead/Lag	Lead				Lag		Lead	Lead				
Lead-Lag Optimize?	Yes				Yes		Yes	Yes				
Recall Mode	Max				None		C-Max	C-Max				
Act Effct Green (s)	23.0	27.0			6.0		39.0	39.0				
Actuated g/C Ratio	0.26	0.30			0.07		0.43	0.43				

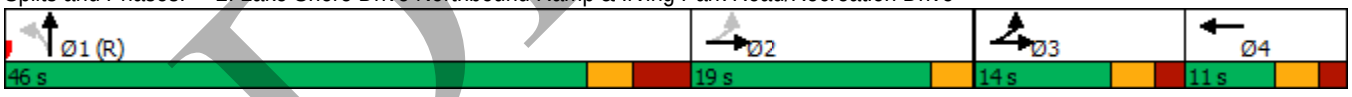
Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	19.0
Total Split (s)	19.0
Total Split (%)	21%
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.70	0.65			0.66		0.69	0.68				
Control Delay	54.2	44.6			47.5		26.8	26.5				
Queue Delay	0.0	0.0			0.1		0.4	0.3				
Total Delay	54.2	44.6			47.6		27.2	26.9				
LOS	D	D			D		C	C				
Approach Delay		49.2			47.6			27.0				
Approach LOS		D			D			C				
Queue Length 50th (ft)	85	82			40		220	216				
Queue Length 95th (ft)	m#128	m117			#81		340	336				
Internal Link Dist (ft)		199			366			295			353	
Turn Bay Length (ft)												
Base Capacity (vph)	229	264			250		686	689				
Starvation Cap Reductn	0	0			0		0	0				
Spillback Cap Reductn	0	0			1		31	31				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.70	0.65			0.66		0.72	0.71				

Intersection Summary

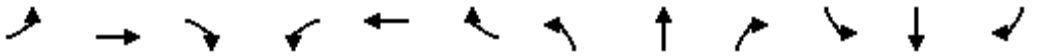
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 1:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 34.5 Intersection LOS: C
Intersection Capacity Utilization 51.6% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Lake Shore Drive Northbound Ramp & Irving Park Road/Recreation Drive



Lane Group	Ø2
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	649	0	0	823	76	10	108	104	31	0	74
Future Volume (vph)	61	649	0	0	823	76	10	108	104	31	0	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	0		55	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97				0.99			0.90			0.89	
Frt					0.987			0.937			0.905	
Flt Protected	0.950							0.998			0.986	
Satd. Flow (prot)	1685	1565	0	0	3068	0	0	1422	0	0	1381	0
Flt Permitted	0.262							0.989			0.882	
Satd. Flow (perm)	452	1565	0	0	3068	0	0	1405	0	0	1194	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)					18							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		224			816			349			393	
Travel Time (s)		5.1			18.5			7.9			8.9	
Confl. Peds. (#/hr)	46		96	96		46	61		81	81		61
Confl. Bikes (#/hr)												9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	0%	20%	0%	0%	2%	0%	0%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		0			0			0			0	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	676	0	0	936	0	0	231	0	0	109	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4						2			6		
Detector Phase	4	4			8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	25.0	25.0			25.0		25.0	25.0		25.0	25.0	
Total Split (s)	59.0	59.0			59.0		31.0	31.0		31.0	31.0	
Total Split (%)	65.6%	65.6%			65.6%		34.4%	34.4%		34.4%	34.4%	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	7.0	7.0			7.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max	Max	
Act Effct Green (s)	52.0	52.0			52.0			26.0			26.0	
Actuated g/C Ratio	0.58	0.58			0.58			0.29			0.29	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.25	0.75			0.53			0.57			0.32	
Control Delay	5.4	12.5			4.8			33.8			28.2	
Queue Delay	0.0	52.6			1.4			0.0			0.0	
Total Delay	5.4	65.1			6.1			33.8			28.2	
LOS	A	E			A			C			C	
Approach Delay		60.0			6.1			33.8			28.2	
Approach LOS		E			A			C			C	
Queue Length 50th (ft)	7	93			70			111			48	
Queue Length 95th (ft)	m4	m43			78			188			94	
Internal Link Dist (ft)		144			736			269			313	
Turn Bay Length (ft)	25											
Base Capacity (vph)	261	904			1780			405			344	
Starvation Cap Reductn	0	379			0			0			0	
Spillback Cap Reductn	0	0			598			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.25	1.29			0.79			0.57			0.32	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 76 (84%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 30.3 Intersection LOS: C
Intersection Capacity Utilization 68.0% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Clarendon Avenue & Irving Park Road

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Vol, veh/h	0	66	0	187	0	0	206	0	291	0
Future Vol, veh/h	0	66	0	187	0	0	206	0	291	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	5	0	7	0	0	5	0	0	0
Mvmt Flow	0	68	0	193	0	0	212	0	300	0
Number of Lanes	0	1	0	2	0	0	1	0	1	0

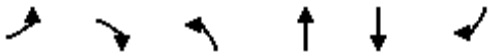
Approach	NB	SB	SW
Opposing Approach	SB	NB	
Opposing Lanes	1	2	0
Conflicting Approach Left	EB	SW	NB
Conflicting Lanes Left	2	1	2
Conflicting Approach Right	SW	EB	EB
Conflicting Lanes Right	1	2	2
HCM Control Delay	8.8	12.3	12.9
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SWLn1
Vol Left, %	0%	0%	100%	0%	0%	97%
Vol Thru, %	100%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	94	25	66	206	301
LT Vol	0	0	25	0	0	291
Through Vol	94	94	0	0	206	0
RT Vol	0	0	0	66	0	10
Lane Flow Rate	96	96	26	68	212	310
Geometry Grp	7	7	7	7	6	2
Degree of Util (X)	0.163	0.113	0.047	0.103	0.354	0.461
Departure Headway (Hd)	6.081	4.238	6.575	5.444	5.998	5.35
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	590	844	545	658	601	673
Service Time	3.814	1.971	4.313	3.181	4.03	3.379
HCM Lane V/C Ratio	0.163	0.114	0.048	0.103	0.353	0.461
HCM Control Delay	10	7.5	9.6	8.8	12.3	12.9
HCM Lane LOS	A	A	A	A	B	B
HCM 95th-tile Q	0.6	0.4	0.1	0.3	1.6	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	153	47	35	94
Future Volume (Veh/h)	0	0	153	47	35	94
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	0	174	53	40	107
Pedestrians	84					
Lane Width (ft)	0.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			393			
pX, platoon unblocked						
vC, conflicting volume	472	284			311	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	472	284			311	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			97	
cM capacity (veh/h)	537	759			1261	

Direction, Lane #	NB 1	SB 1
Volume Total	227	147
Volume Left	0	40
Volume Right	53	0
cSH	1700	1261
Volume to Capacity	0.13	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	2.4
Lane LOS		A
Approach Delay (s)	0.0	2.4
Approach LOS		

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	26.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	18	193	529	7
Future Volume (Veh/h)	0	0	18	193	529	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	19	203	557	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				271		
pX, platoon unblocked						
vC, conflicting volume	700	282	564			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	700	282	564			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	98			
cM capacity (veh/h)	371	721	1018			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	87	135	371	193
Volume Left	19	0	0	0
Volume Right	0	0	0	7
cSH	1018	1700	1700	1700
Volume to Capacity	0.02	0.08	0.22	0.11
Queue Length 95th (ft)	1	0	0	0
Control Delay (s)	2.0	0.0	0.0	0.0
Lane LOS	A			
Approach Delay (s)	0.8		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	22.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	37	11	0	0	0	27
Future Vol, veh/h	37	11	0	0	0	27
Conflicting Peds, #/hr	0	16	16	0	9	11
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	-	0
Veh in Median Storage, #	0	-	-	16983	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	64	64	64	64	64	64
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	58	17	0	0	0	42

Major/Minor	Major1			Minor1	
Conflicting Flow All	0	0		-	94
Stage 1	-	-		-	-
Stage 2	-	-		-	-
Critical Hdwy	-	-		-	6.2
Critical Hdwy Stg 1	-	-		-	-
Critical Hdwy Stg 2	-	-		-	-
Follow-up Hdwy	-	-		-	3.3
Pot Cap-1 Maneuver	-	-		0	968
Stage 1	-	-		0	-
Stage 2	-	-		0	-
Platoon blocked, %	-	-			
Mov Cap-1 Maneuver	-	-		-	953
Mov Cap-2 Maneuver	-	-		-	-
Stage 1	-	-		-	-
Stage 2	-	-		-	-

Approach	EB	NB
HCM Control Delay, s	0	9
HCM LOS		A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	953	-	-
HCM Lane V/C Ratio	0.044	-	-
HCM Control Delay (s)	9	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-