



MEMORANDUM TO: John Agenlian
Lexington Homes, LLC

FROM: Nicholas J. Butler
Consultant

Luay R. Aboona, PE
Principal

DATE: October 4, 2016

SUBJECT: Traffic Impact Study
Proposed Residential Development
Arlington Heights, Illinois

This memorandum summarizes the methodologies, results and findings of a site traffic evaluation conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed residential development to be located in Arlington Heights, Illinois. The site, which is currently occupied by four single-family homes, is located in the southwest quadrant of the intersection of Old Arlington Heights Road with Country Lane. As proposed, the development is to contain 48 townhomes and provide a total of 202 parking spaces. Access to the development is proposed via two full movement access drives on Old Arlington Heights Road and Country Lane.

Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site area.

The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development.

The sections of this memorandum present the following:

- Existing roadway 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 site
- Traffic analyses for the weekday morning and evening peak hours
- Recommendations with respect to adequacy of the site access system and adjacent roadway system
- Recommendations regarding the adequacy of the parking supply



Figure 1



Aerial View of Site Location

Figure 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 following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

Site Location

The site, which is currently occupied by four single-family homes, is located in the southwest quadrant of the intersection of Old Arlington Heights Road with Country Lane. Area land uses in the vicinity of the site are primarily residential and commercial with the Timber Court Luxury Condominiums and single-family homes to the north, Mill Creek Condominiums and single-family homes to the east, and mixed-use office buildings to the south and west.

Existing Roadway System Characteristics

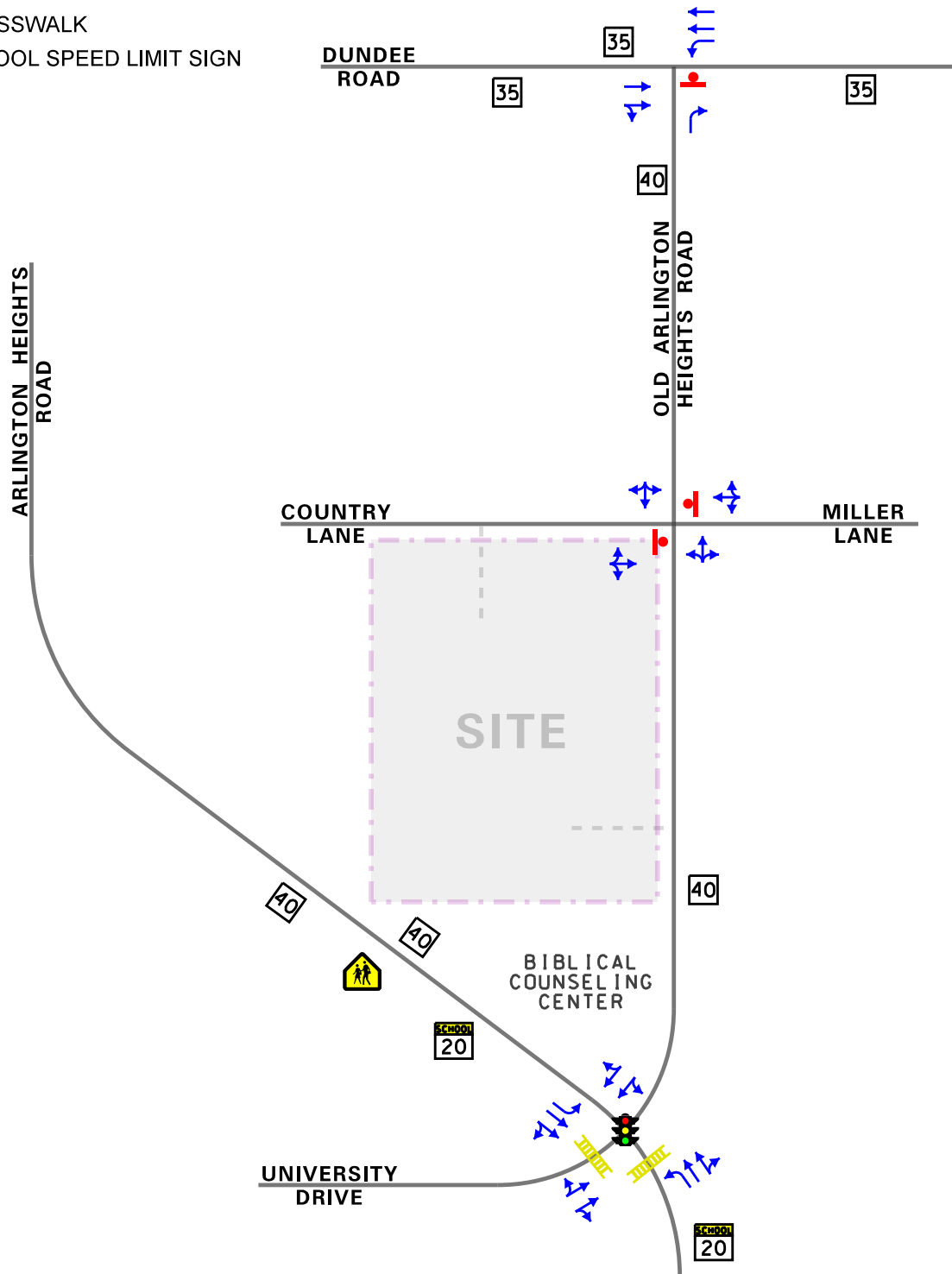
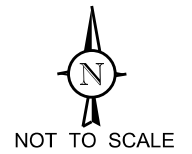
The following summarizes the existing roadway characteristics within the vicinity of the site which are illustrated in **Figure 3**.

Old Arlington Heights Road is a north-south local roadway that extends from Dundee Road south to Arlington Heights Road where it becomes University Drive. In the vicinity of the site, it provides one through lane in each direction. At its signalized intersection with Arlington Heights Road, Old Arlington Heights Road provides a combined left-turn/through lane and a combined through/right-turn lane on both approaches. At its unsignalized intersection with Country Lane, Old Arlington Heights Road provides a combined through/right-turn lane on the southbound approach and a combined through/left-turn lane on the northbound approach. At its unsignalized intersection with Dundee Road, Old Arlington Heights Road provides one lane on the northbound approach restricted to right-turn movements under stop sign control. Old Arlington Heights Road has a mix of urban and rural cross-sections, is under the jurisdiction of the Illinois Department of Transportation (IDOT), and has a posted speed limit of 40 miles per hour.

Country Lane is an east-west local roadway that in the vicinity of the site provides one wide through lane in each direction. At its unsignalized intersection with Old Arlington Heights Road, Country Lane provides a combined left-turn/through/right-turn lane under stop sign control.

Arlington Heights Road is a north-south roadway that in the vicinity of the site provides a five-lane cross-section with two through lanes in each direction and a median. At its signalized intersection with Old Arlington Heights Road, Arlington Heights Road provides an exclusive left-turn lane, an exclusive through lane, and a combined through/right-turn lane on both approaches. Arlington Heights Road provides a crosswalk on the south leg of the intersection. Arlington Heights Road is under the jurisdiction of the Cook County Department of Transportation and Highways, is classified as a minor arterial by IDOT, carries an average daily traffic (ADT) volume of 21,800 vehicles, and has a posted speed limit of 40 miles per hour.

- LEGEND**
-  - TRAVEL LANE
 -  - TRAFFIC SIGNAL
 -  - STOP SIGN
 -  - SPEED LIMIT
 -  - CROSSWALK
 -  - SCHOOL SPEED LIMIT SIGN



PROJECT:

Proposed Townhomes
Arlington Heights, Illinois

TITLE:

Existing Roadway Characteristics

KLOA
Job No: 16-115

Figure: 3

Dundee Road (IL 68) is an east-west roadway that in the vicinity of the site provides a five-lane cross-section with two through lanes in each direction and a median. At its unsignalized intersection with Old Arlington Heights Road, Dundee Road provides an exclusive through lane and a combined through/right-turn lane on the eastbound approach and an exclusive left-turn lane and two through lanes on the westbound approach. Dundee Road is under the jurisdiction of IDOT, is classified by IDOT as an other principal arterial, carries an ADT volume of 27,700 vehicles, and has a posted speed limit of 35 miles per hour.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period vehicle traffic counts on Tuesday, April 19, 2016 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.) peak periods at the following intersections:

- Old Arlington Heights Road with Arlington Heights Road
- Old Arlington Heights Road with Country Lane
- Old Arlington Heights Road with Dundee Road

The results of the traffic counts showed that the weekday morning peak hour of traffic occurs from 7:00 A.M. to 8:00 A.M. and the evening peak hour of traffic occurs from 5:00 P.M. to 6:00 P.M. **Figure 4** illustrates the existing peak hour traffic volumes.

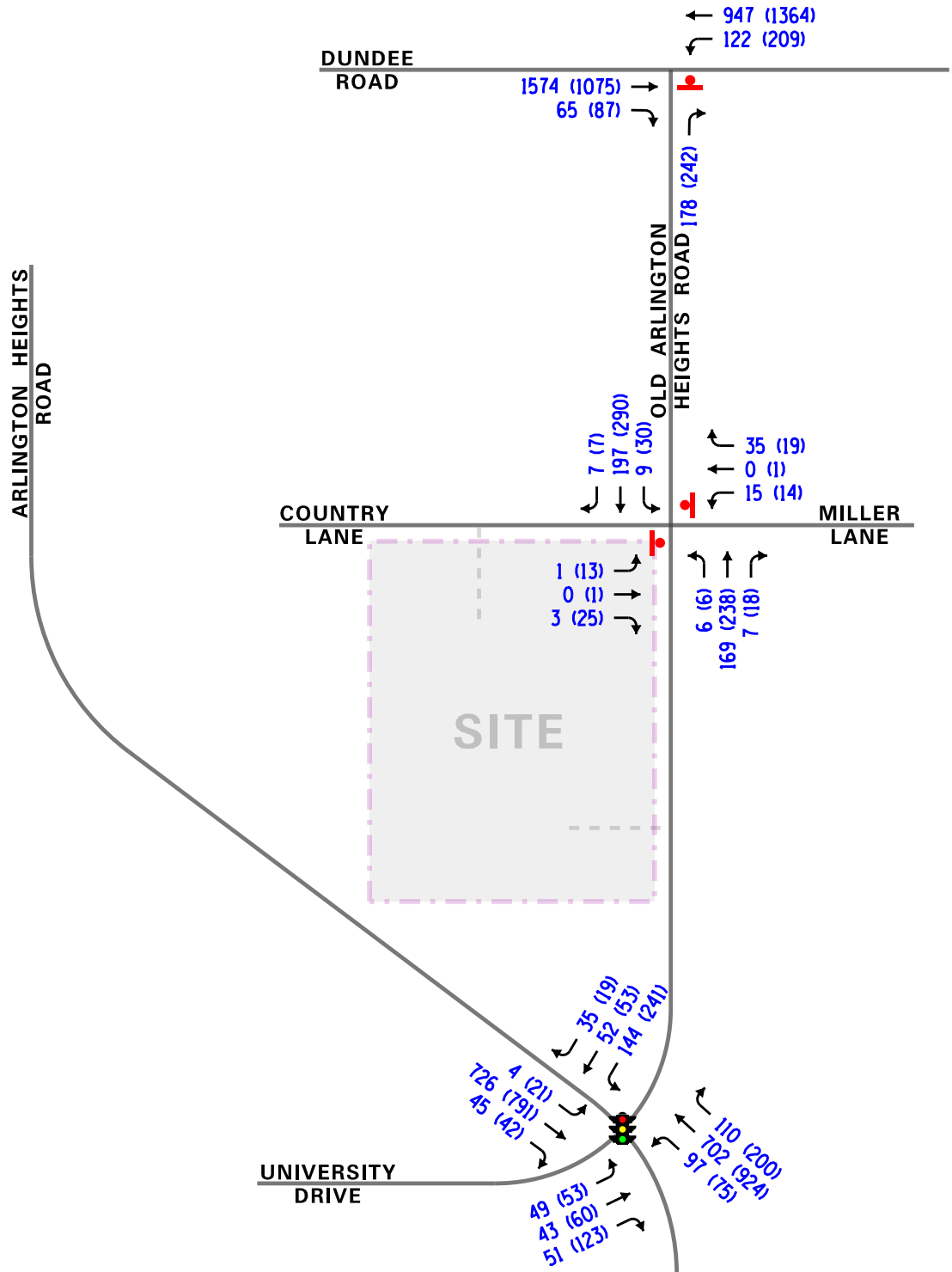
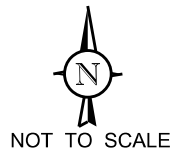
Accident Analysis

KLOA, Inc. obtained accident data from IDOT for the past five years (2010 to 2014) for the intersections of Old Arlington Heights Road with Arlington Heights Road, Country Lane, and Dundee Road. **Tables 1, 2, and 3** summarize the accident data for the intersections. A review of the data indicated that there were no fatalities reported and that the frequency of accidents was relatively low, considering the amount of traffic traveling along Old Arlington Heights Road. Furthermore, the intersection is not listed in IDOT's Statewide or Local Five Percent Report which presents the five percent of state, county, township and municipal roadway segments and intersections exhibiting the most pressing safety needs.

DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. The author is responsible for any data analyses and conclusions drawn.

LEGEND

- 00 - AM PEAK HOUR (7:00-8:00 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)



PROJECT:

Proposed Townhomes
Arlington Heights, Illinois

TITLE:

Existing Traffic Volumes



Figure: 4

Table 1
 OLD ARLINGTON HEIGHTS ROAD WITH ARLINGTON HEIGHTS ROAD
 ACCIDENT SUMMARY

Year	Type of Accident Frequency						Total
	Angle	Object	Rear End	Sideswipe	Turning	Other	
2010	-	-	3	1	-	1	5
2011	1	1	2	-	1	1	6
2012	1	-	1	-	2	-	4
2013	-	-	-	-	2	-	2
2014	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>4</u>
Total	2	1	8	2	6	2	21
Average/Year	>1.0	>1.0	1.6	>1.0	1.2	>1.0	4.2

Table 2
 OLD ARLINGTON HEIGHTS ROAD WITH COUNTRY LANE ACCIDENT SUMMARY

Year	Type of Accident Frequency						Total
	Angle	Object	Rear End	Sideswipe	Turning	Other	
2010	-	-	1	-	-	-	1
2011	-	-	-	-	-	-	0
2012	-	-	-	-	-	-	0
2013	-	-	1	-	-	-	1
2014	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>0</u>
Total	0	0	2	0	0	0	2
Average/Year	0	0	>1.0	0	0	0	>1.0

Table 3

 OLD ARLINGTON HEIGHTS ROAD WITH DUNDEE ROAD ACCIDENT SUMMARY

Year	Type of Accident Frequency						Total
	Angle	Object	Rear End	Sideswipe	Turning	Other	
2010	-	-	2	-	-	1	3
2011	1	1	2	1	-	1	6
2012	-	-	2	-	-	-	2
2013	-	1	1	-	-	1	3
2014	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>3</u>
Total	1	2	9	1	1	3	17
Average/Year	>1.0	>1.0	1.8	>1.0	>1.0	>1.0	3.4

Traffic Characteristics of the Proposed Development

Proposed Development Plan

As proposed, the plans call for developing the site with 48 townhomes. A total of 202 parking spaces (96 in garages) will be provided for residents and visitors. Access to the proposed development will be provided via two access drives on Country Lane and Old Arlington Heights Road. The access drive on Old Arlington Heights Road will be located approximately 400 feet south of Country Lane and the access drive on Country Lane will be located approximately 250 feet west of Old Arlington Heights Road. Both access drives will provide one inbound lane and one outbound lane with outbound movements under stop sign control. In addition, Old Arlington Heights Road will be widened on the west side along the site frontage to provide a second through lane matching the existing two southbound lanes to the north and south. A copy of the site plan is included in the Appendix.

Directional Distribution

The directional distribution of future site-generated trips on the roadway system is a function of several variables, including the operational characteristics of the roadway system and the ease with which drivers can travel over various sections of the roadway system without encountering congestion. The directions from which development-generated traffic will approach and depart the development were estimated based on existing travel patterns, as determined from the traffic counts. The estimated directional distribution of development traffic is shown in **Figure 5**.

Estimated Site Traffic Generation

The volume of traffic generated by a development is based on the type of land uses and the size of the development. The number of peak hour vehicle trips estimated to be generated by the proposed townhome development is based on vehicle trip generation rates contained in *Trip Generation Manual*, 9th Edition, published by the Institute of Transportation Engineers (ITE). Land-Use Code 230 rates were used to estimate the trips to be generated by the townhomes. **Table 4** shows the site-generated traffic volumes for the proposed development.

Table 4
ESTIMATED SITE-GENERATED TRAFFIC VOLUMES

ITE Land Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Two Way Trips
		In	Out	Total	In	Out	Total	
230	Townhomes (48 Units)	5	24	29	22	11	33	346
		$e^{x(0.80*\ln(x)+0.26)}$ = 29			$e^{x(0.82*\ln(x)+0.32)}$ = 33			$e^{x(0.87*\ln(x)+2.46)}$ = 346

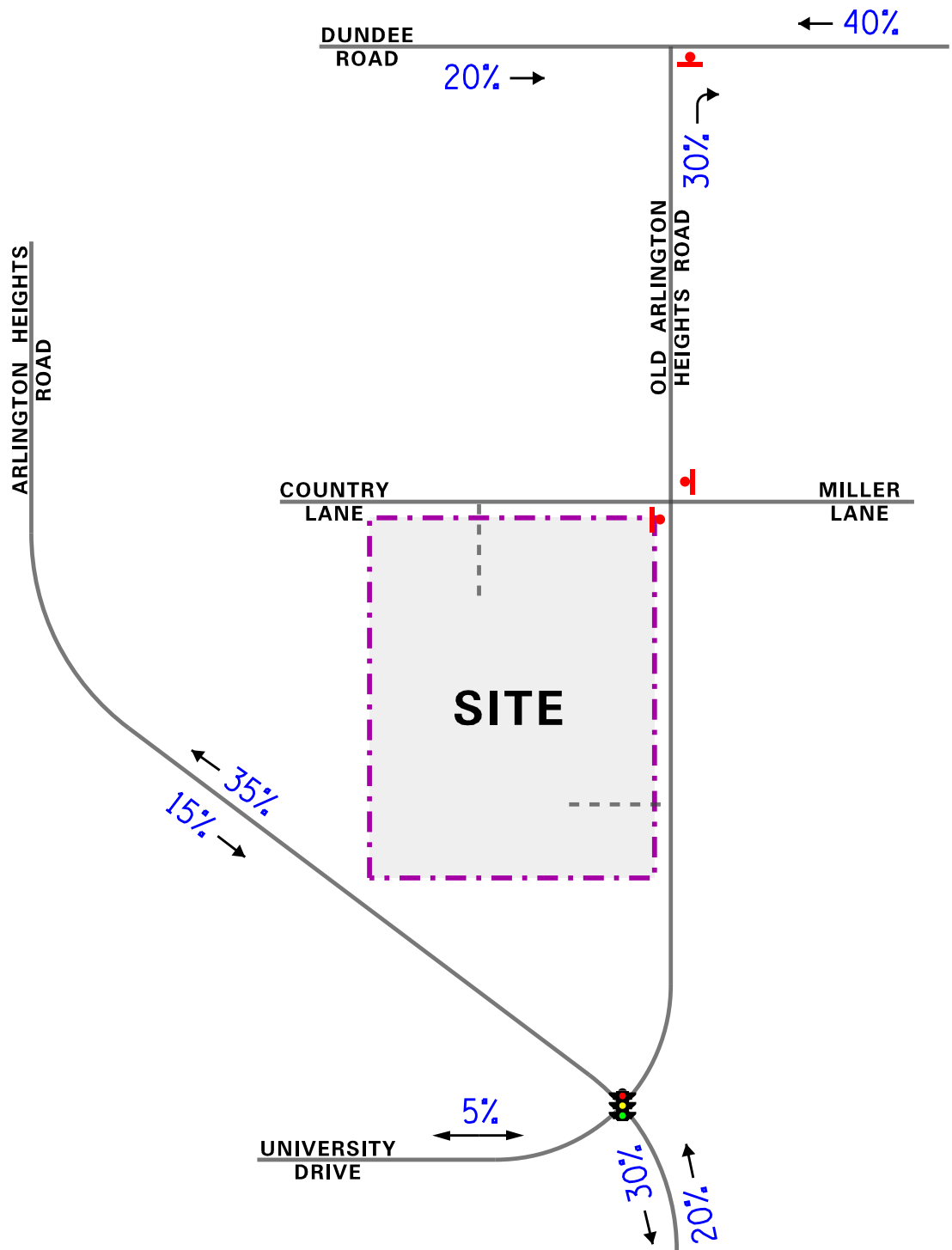
LEGEND

00% - PERCENT DISTRIBUTION

00' - DISTANCE IN FEET



NOT TO SCALE



PROJECT:

Proposed Townhomes
Arlington Heights, Illinois

TITLE:

Estimated Directional Distribution



Figure: 5

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 and evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5) and are illustrated in **Figure 6**.

Background Traffic Conditions

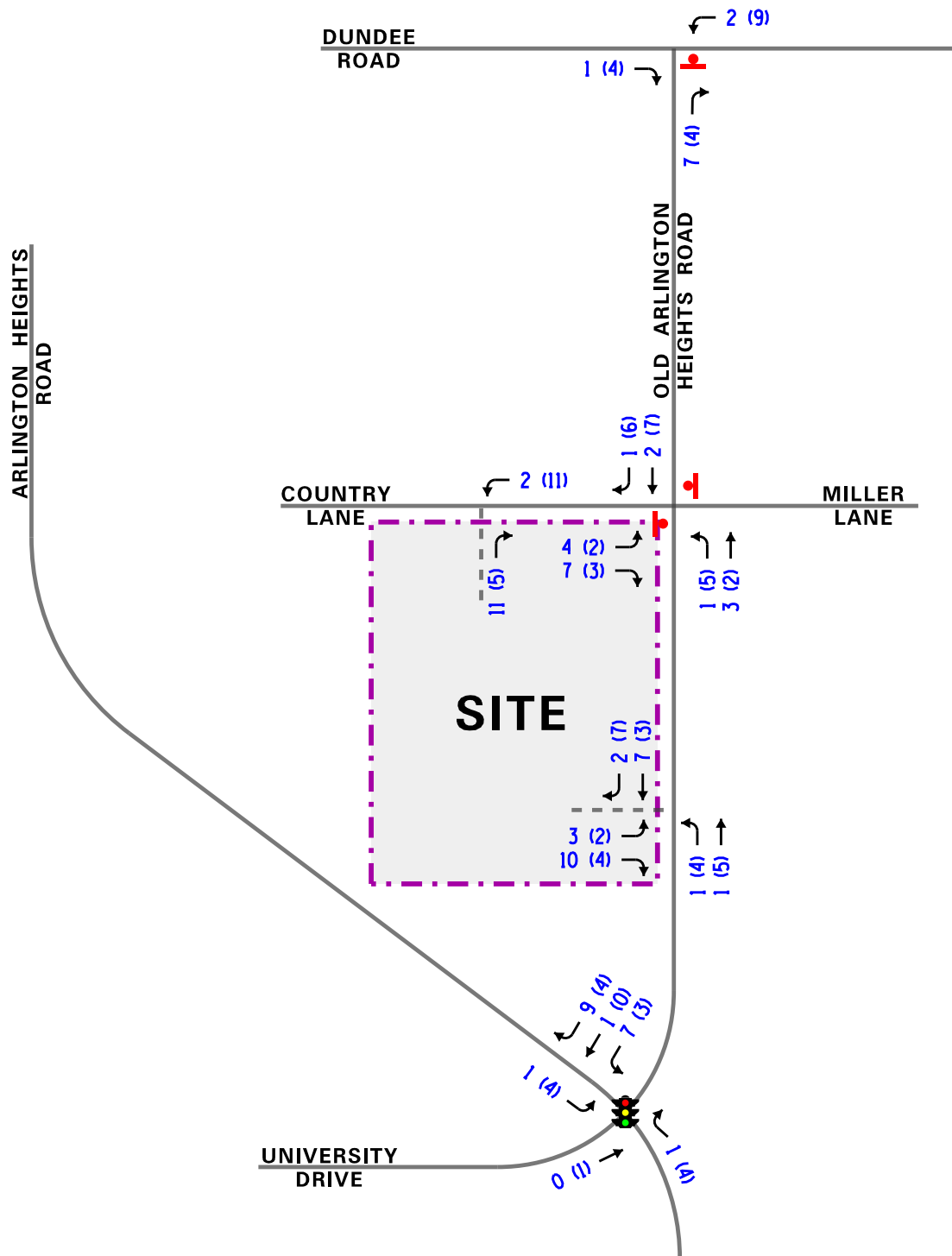
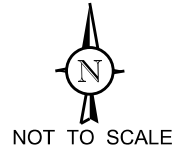
Based on the Chicago Metropolitan Agency for Planning (CMAP) Year 2040 population and employment projections, the existing traffic volumes were increased by one-half percent per year for two years (buildout year plus one) to project the Year 2018 background traffic volumes. A copy of the CMAP Year 2040 projections letter is included in the Appendix.

Total Projected Traffic Volumes

The existing traffic volumes accounting for growth were combined with the peak hour traffic volumes generated by the development to determine the Year 2018 total projected traffic volumes that are shown in **Figure 7**.

LEGEND

- 00 - AM PEAK HOUR (7:00-8:00 AM)
 (00) - PM PEAK HOUR (5:00-6:00 PM)



PROJECT:

Proposed Townhomes
 Arlington Heights, Illinois

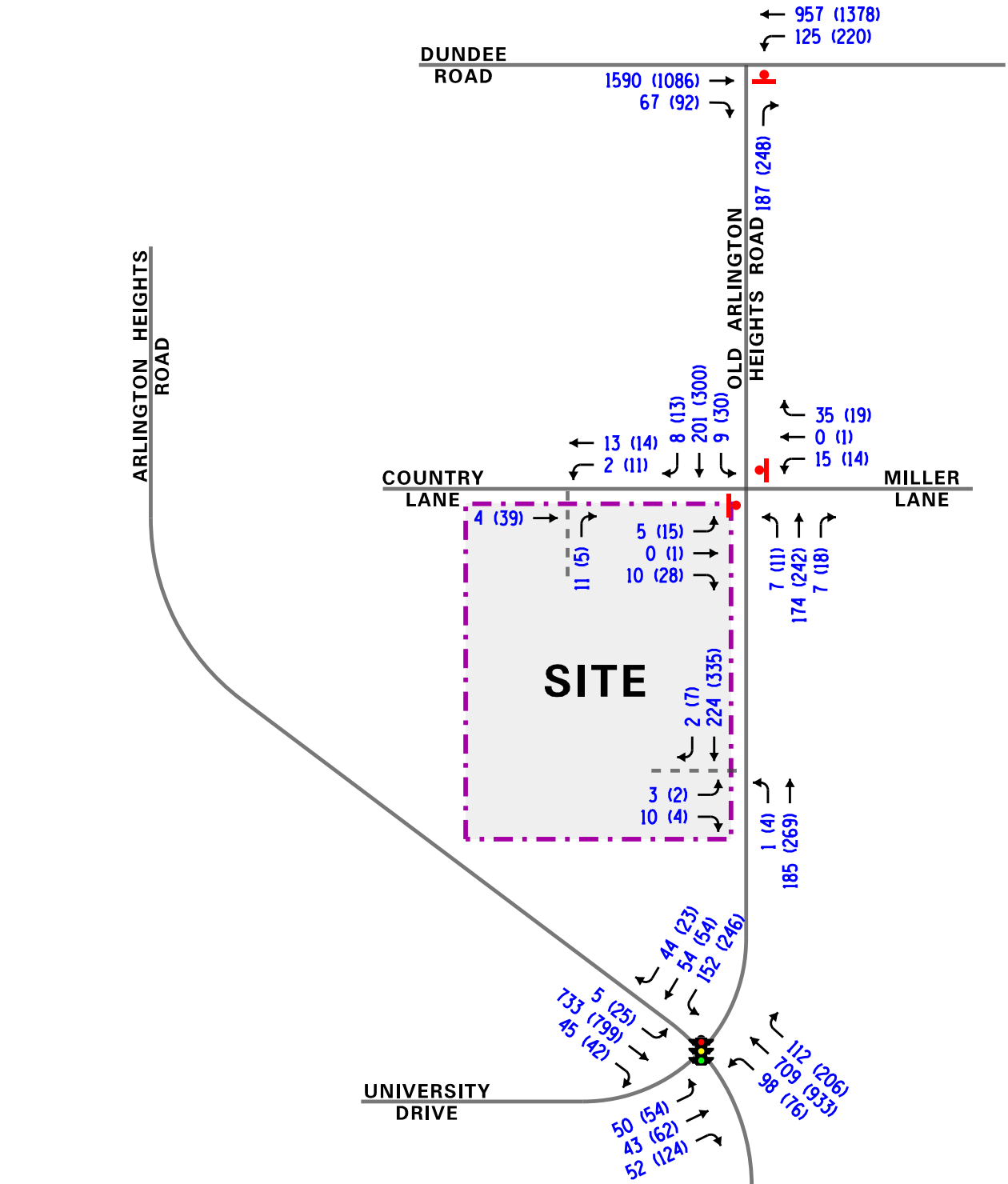
TITLE:

Estimated Site Traffic Assignment



Figure: 6

00 - AM PEAK HOUR (7:00-8:00 AM)
(00) - PM PEAK HOUR (5:00-6:00 PM)



Proposed Townhomes Arlington Heights, Illinois

Year 2018 Total Projected Traffic Volumes

KLOA
Job No: 16-115

Figure: 7

Traffic Analysis

Traffic analyses were performed for the intersections in the study area to determine the operation of the existing roadway system, evaluate the impact of the proposed development, and determine the ability of the roadway system to accommodate projected traffic demands. Analyses were performed for the weekday morning and evening peak hours for both the existing and projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 2010 and analyzed using the Synchro/SimTraffic 8 software. The analyses for the traffic-signal controlled intersections were accomplished using field measured cycle lengths and phasings to determine the average overall vehicle delay and levels of service.

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.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing and projected conditions are presented in **Tables 5** and **6**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 5

LEVEL OF SERVICE AND DELAY – EXISTING CONDITIONS

	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	Level of Service	Delay (seconds)	Level of Service	Delay (seconds)
Intersection				
Arlington Heights Road with Old Arlington Heights Road ¹				
• Overall	B	12.2	B	16.1
• Eastbound Approach	B	17.3	B	13.9
• Westbound Approach	C	25.7	C	32.3
• Northbound Approach	A	8.0	B	13.6
• Southbound Approach	B	12.1	B	14.2
Old Arlington Heights Road with Country Lane ²				
• Eastbound Approach	B	10.6	B	12.9
• Westbound Approach	B	10.6	B	13.2
Old Arlington Heights Road with Dundee Road ²				
• Westbound Left Turn	C	23.4	C	15.2
• Northbound Approach	E	46.6	C	23.9
¹ Signalized Intersection				
² Unsignalized Intersection				

Table 6

LEVEL OF SERVICE AND DELAY – FUTURE CONDITIONS

	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	Level of Service	Delay (seconds)	Level of Service	Delay (seconds)
Intersection				
Arlington Heights Road with Old Arlington Heights Road ¹				
• Overall	B	12.4	B	16.4
• Eastbound Approach	B	17.1	B	13.9
• Westbound Approach	C	25.6	C	32.2
• Northbound Approach	A	8.2	B	14.1
• Southbound Approach	B	12.3	B	14.6
Old Arlington Heights Road with Country Lane ²				
• Eastbound Approach	B	11.1	B	13.3
• Westbound Approach	B	10.7	B	13.6
Old Arlington Heights Road with Dundee Road ²				
• Westbound Left Turn	C	24.3	C	15.8
• Northbound Approach	F	52.8	D	25.1
Old Arlington Heights Road with Access Drive ²				
• Eastbound Approach	A	9.6	B	11.0
Country Lane with Access Drive ²				
• Northbound Approach	A	8.4	A	8.5
¹ Signalized Intersection				
² Unsignalized Intersection				

Discussion and Recommendations

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

Arlington Heights Road with Old Arlington Heights Road

As it can be seen from the results of the capacity analyses, the intersection of Arlington Heights Road with Old Arlington Heights Road is currently operating at LOS B during the weekday morning and evening peak hours. Under future conditions, the intersection will continue operating at the same LOS during the peak hours. Based on the results of the capacity analyses, no additional improvements will be necessary at this intersection in conjunction with the proposed development.

Old Arlington Heights Road with Country Lane

As it can be seen from the results of the capacity analyses, the eastbound and westbound approaches of the intersection of Old Arlington Heights Road with Country Lane are currently operating at LOS B during the weekday morning and evening peak hours. Under future conditions, the intersection will continue operating at the same LOS during the peak hours. Based on the results of the capacity analyses, no additional improvements will be necessary at this intersection in conjunction with the proposed development.

Old Arlington Heights Road with Dundee Road

The results of the capacity analysis indicate that the outbound right-turn movements from Old Arlington Heights Road currently operate at LOS E during the weekday morning peak hour. During the evening peak hour, the outbound right-turn movements operate at LOS C. Under future conditions, with the addition of seven trips during the morning peak hour and four trips during the evening peak hour to the northbound right turns, the northbound approach will experience an increase of approximately six and less than two seconds in average delay during the weekday morning and evening peak hours resulting in LOS F and LOS D, respectively. This is reflective of the westbound left-turn movement which is currently operating at LOS C during the weekday morning and evening peak hours and is expected to continue operating at LOS C under future conditions. It should be noted that the results of the capacity analysis for this intersection do not take into account its proximity to the traffic signal at the Buffalo Grove High School access drive to the west which creates gaps in the eastbound traffic stream, allowing right-turn out and left-turn in movements to occur with less delay than indicated by the results.

Operations of Proposed Access Drives

Based on the capacity analyses, the proposed access drives will operate at acceptable levels of service and will be adequate in accommodating the traffic projected to be generated by the proposed development. The provision of two access drives will ensure flexible and emergency access is provided for the proposed development. In addition, the expansion of Old Arlington Heights Road to two southbound lanes south of Country Lane will provide additional opportunities for vehicles to turn right onto Old Arlington Heights Road by turning into the new lane.

Parking Evaluation

The Village of Arlington Heights requires parking for townhomes be provided at a ratio of two spaces per unit. This equates to a total of 96 spaces required. The proposed development will provide 96 garage spaces, 96 driveway spaces, and 10 guest spaces for a total of 202 spaces. Additionally, the proposed 202 parking spaces exceeds the number of spaces required by the rates published in the *ITE Parking Generation Manual*, 4th Edition, which requires a total of 66 spaces at a ratio of 1.38 spaces per unit. As such, the proposed parking supply will be adequate in meeting the parking needs of the proposed development.

Conclusion

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

- The development is well located with respect to the area roadway system.
- The development will generate a low volume of traffic. A total of 29 and 33 trips are estimated to be generated during the weekday morning and weekday evening peak hours, respectively. As a result, the development will not have a significant impact on area roadways.
- The proposed accesses on Old Arlington Heights Road and Country Lane will ensure that efficient and flexible access is provided to the proposed development.
- The proposed parking supply of 202 spaces will be adequate in accommodating the peak parking demand of the proposed development.

Appendix

- CMAP Traffic Projections**
- Traffic Count Summary Sheets**
 - Preliminary Site Plan**
 - Level of Service Criteria**
 - Capacity Analysis Sheets**

CMAQ Traffic Projections



Chicago Metropolitan
Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

April 29, 2016

Nicholas Butler
Consultant
Kenig, Lindgren, O'Hara, and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: *Old Arlington Heights Road - Dundee Road - Arlington Heights Road*
Cook County DOTD

Dear Mr. Butler:

In response to a request made on your behalf and dated April 29, 2016, we have developed year 2040 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Year 2040 ADT
Arlington Heights Road	22,000
Dundee Road east of Arlington Heights Road	28,200
Dundee Road west of Arlington Heights Road	24,500

Traffic projections are developed using existing ADT data provided in the request letter and the results from the March 2016 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2040 socioeconomic projections and assumes the implementation of the GO TO 2040 Comprehensive Regional Plan for the Northeastern Illinois area.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

A handwritten signature in black ink, appearing to read "Jose Rodriguez".

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Yonan (Cook County DOTD)
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Traffic Count Summary Sheets

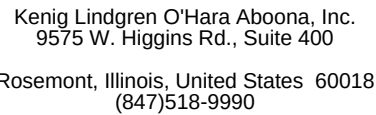


Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400
Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Arlington Heights and Old
Arlington Heights
Site Code:
Start Date: 04/19/2016
Page No: 1

Turning Movement Data

Start Time	University Drive Eastbound						Old Arlington Heights Road Westbound						Arlington Heights Road Northbound						Arlington Heights Road 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	27	13	7	0	47	0	31	12	13	0	56	0	19	245	23	0	287	0	2	155	11	0	168	558
7:15 AM	0	10	13	15	0	38	0	34	8	8	0	50	0	17	168	28	0	213	0	1	228	16	0	245	546
7:30 AM	0	7	7	15	0	29	0	50	15	9	0	74	0	20	133	29	0	182	0	1	177	8	0	186	471
7:45 AM	0	5	10	14	0	29	0	29	17	5	0	51	0	41	156	30	0	227	0	0	166	10	0	176	483
Hourly Total	0	49	43	51	0	143	0	144	52	35	0	231	0	97	702	110	0	909	0	4	726	45	0	775	2058
8:00 AM	0	4	11	14	0	29	0	38	12	6	0	56	0	24	132	35	0	191	0	2	154	5	0	161	437
8:15 AM	0	9	10	8	0	27	0	27	6	3	0	36	0	23	136	42	0	201	0	3	163	10	0	176	440
8:30 AM	0	8	4	10	0	22	0	56	6	11	0	73	0	20	160	29	0	209	0	5	161	9	0	175	479
8:45 AM	0	11	12	17	0	40	0	42	14	5	0	61	0	25	163	36	0	224	0	4	156	14	0	174	499
Hourly Total	0	32	37	49	0	118	0	163	38	25	0	226	0	92	591	142	0	825	0	14	634	38	0	686	1855
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	14	10	17	0	41	0	42	12	8	0	62	0	21	215	43	0	279	1	5	176	6	0	188	570
4:15 PM	0	7	8	20	0	35	0	37	4	7	0	48	0	24	218	51	0	293	1	6	172	16	0	195	571
4:30 PM	0	24	16	38	0	78	0	37	8	7	0	52	0	19	225	52	0	296	0	8	197	8	0	213	639
4:45 PM	0	13	6	33	0	52	0	54	20	9	0	83	0	30	199	52	0	281	0	6	222	12	0	240	656
Hourly Total	0	58	40	108	0	206	0	170	44	31	0	245	0	94	857	198	0	1149	2	25	767	42	0	836	2436
5:00 PM	0	26	25	63	0	114	0	64	18	3	0	85	0	17	212	46	0	275	0	4	211	11	0	226	700
5:15 PM	0	16	17	20	0	53	0	68	14	6	0	88	0	23	245	54	0	322	0	4	185	13	0	202	665
5:30 PM	0	5	11	20	0	36	0	56	13	6	0	75	0	15	222	58	0	295	0	9	206	9	0	224	630
5:45 PM	0	6	7	20	0	33	0	53	8	4	0	65	0	20	245	42	0	307	0	4	189	9	0	202	607
Hourly Total	0	53	60	123	0	236	0	241	53	19	0	313	0	75	924	200	0	1199	0	21	791	42	0	854	2602
Grand Total	0	192	180	331	0	703	0	718	187	110	0	1015	0	358	3074	650	0	4082	2	64	2918	167	0	3151	8951
Approach %	0.0	27.3	25.6	47.1	-	-	0.0	70.7	18.4	10.8	-	-	0.0	8.8	75.3	15.9	-	-	0.1	2.0	92.6	5.3	-	-	-
Total %	0.0	2.1	2.0	3.7	-	7.9	0.0	8.0	2.1	1.2	-	11.3	0.0	4.0	34.3	7.3	-	45.6	0.0	0.7	32.6	1.9	-	35.2	-
Lights	0	184	178	316	-	678	0	701	186	109	-	996	0	351	3002	636	-	3989	2	62	2846	160	-	3070	8733
% Lights	-	95.8	98.9	95.5	-	96.4	-	97.6	99.5	99.1	-	98.1	-	98.0	97.7	97.8	-	97.7	100.0	96.9	97.5	95.8	-	97.4	97.6
Buses	0	1	1	1	-	3	0	7	0	1	-	8	0	0	24	8	-	32	0	1	22	1	-	24	67
% Buses	-	0.5	0.6	0.3	-	0.4	-	1.0	0.0	0.9	-	0.8	-	0.0	0.8	1.2	-	0.8	0.0	1.6	0.8	0.6	-	0.8	0.7
Single-Unit Trucks	0	6	1	12	-	19	0	9	1	0	-	10	0	7	39	6	-	52	0	0	41	2	-	43	124
% Single-Unit Trucks	-	3.1	0.6	3.6	-	2.7	-	1.3	0.5	0.0	-	1.0	-	2.0	1.3	0.9	-	1.3	0.0	0.0	1.4	1.2	-	1.4	1.4
Articulated Trucks	0	1	0	2	-	3	0	1	0	0	-	1	0	0	9	0	-	9	0	1	9	4	-	14	27
% Articulated Trucks	-	0.5	0.0	0.6	-	0.4	-	0.1	0.0	0.0	-	0.1	-	0.0	0.3	0.0	-	0.2	0.0	1.6	0.3	2.4	-	0.4	0.3
Bicycles on Road	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	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-



Count Name: Arlington Heights and Old
Arlington Heights
Site Code:
Start Date: 04/19/2016
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Turning Movement Peak Hour Data (7:00 AM)

Start Time	University Drive						Old Arlington Heights Road						Arlington Heights Road						Arlington Heights Road						Int. Total
	Eastbound						Westbound						Northbound						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	
7:00 AM	0	27	13	7	0	47	0	31	12	13	0	56	0	19	245	23	0	287	0	2	155	11	0	168	558
7:15 AM	0	10	13	15	0	38	0	34	8	8	0	50	0	17	168	28	0	213	0	1	228	16	0	245	546
7:30 AM	0	7	7	15	0	29	0	50	15	9	0	74	0	20	133	29	0	182	0	1	177	8	0	186	471
7:45 AM	0	5	10	14	0	29	0	29	17	5	0	51	0	41	156	30	0	227	0	0	166	10	0	176	483
Total	0	49	43	51	0	143	0	144	52	35	0	231	0	97	702	110	0	909	0	4	726	45	0	775	2058
Approach %	0.0	34.3	30.1	35.7	-	-	0.0	62.3	22.5	15.2	-	-	0.0	10.7	77.2	12.1	-	-	0.0	0.5	93.7	5.8	-	-	-
Total %	0.0	2.4	2.1	2.5	-	6.9	0.0	7.0	2.5	1.7	-	11.2	0.0	4.7	34.1	5.3	-	44.2	0.0	0.2	35.3	2.2	-	37.7	-
PHF	0.000	0.454	0.827	0.850	-	0.761	0.000	0.720	0.765	0.673	-	0.780	0.000	0.591	0.716	0.917	-	0.792	0.000	0.500	0.796	0.703	-	0.791	0.922
Lights	0	49	43	46	-	138	0	143	52	35	-	230	0	95	676	107	-	878	0	4	701	43	-	748	1994
% Lights	-	100.0	100.0	90.2	-	96.5	-	99.3	100.0	100.0	-	99.6	-	97.9	96.3	97.3	-	96.6	-	100.0	96.6	95.6	-	96.5	96.9
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	11	2	-	13	0	0	7	1	-	8	21
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.6	1.8	-	1.4	-	0.0	1.0	2.2	-	1.0	1.0
Single-Unit Trucks	0	0	0	5	-	5	0	0	0	0	-	0	0	2	13	1	-	16	0	0	14	1	-	15	36
% Single-Unit Trucks	-	0.0	0.0	9.8	-	3.5	-	0.0	0.0	0.0	-	0.0	-	2.1	1.9	0.9	-	1.8	-	0.0	1.9	2.2	-	1.9	1.7
Articulated Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	2	0	-	2	0	0	4	0	-	4	7
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.7	0.0	0.0	-	0.4	-	0.0	0.3	0.0	-	0.2	-	0.0	0.6	0.0	-	0.5	0.3
Bicycles on Road	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	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Start Time	University Drive Eastbound						Old Arlington Heights Road Westbound						Arlington Heights Road Northbound						Arlington Heights Road 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	26	25	63	0	114	0	64	18	3	0	85	0	17	212	46	0	275	0	4	211	11	0	226	700
5:15 PM	0	16	17	20	0	53	0	68	14	6	0	88	0	23	245	54	0	322	0	4	185	13	0	202	665
5:30 PM	0	5	11	20	0	36	0	56	13	6	0	75	0	15	222	58	0	295	0	9	206	9	0	224	630
5:45 PM	0	6	7	20	0	33	0	53	8	4	0	65	0	20	245	42	0	307	0	4	189	9	0	202	607
Total	0	53	60	123	0	236	0	241	53	19	0	313	0	75	924	200	0	1199	0	21	791	42	0	854	2602
Approach %	0.0	22.5	25.4	52.1	-	-	0.0	77.0	16.9	6.1	-	-	0.0	6.3	77.1	16.7	-	-	0.0	2.5	92.6	4.9	-	-	-
Total %	0.0	2.0	2.3	4.7	-	9.1	0.0	9.3	2.0	0.7	-	12.0	0.0	2.9	35.5	7.7	-	46.1	0.0	0.8	30.4	1.6	-	32.8	-
PHF	0.000	0.510	0.600	0.488	-	0.518	0.000	0.886	0.736	0.792	-	0.889	0.000	0.815	0.943	0.862	-	0.931	0.000	0.583	0.937	0.808	-	0.945	0.929
Lights	0	53	60	121	-	234	0	238	53	18	-	309	0	74	912	199	-	1185	0	21	782	40	-	843	2571
% Lights	-	100.0	100.0	98.4	-	99.2	-	98.8	100.0	94.7	-	98.7	-	98.7	98.7	99.5	-	98.8	-	100.0	98.9	95.2	-	98.7	98.8
Buses	0	0	0	0	-	0	0	1	0	1	-	2	0	0	2	0	-	2	0	0	2	0	-	2	6
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.4	0.0	5.3	-	0.6	-	0.0	0.2	0.0	-	0.2	-	0.0	0.3	0.0	-	0.2	0.2
Single-Unit Trucks	0	0	0	1	-	1	0	2	0	0	-	2	0	1	8	1	-	10	0	0	5	0	-	5	18
% Single-Unit Trucks	-	0.0	0.0	0.8	-	0.4	-	0.8	0.0	0.0	-	0.6	-	1.3	0.9	0.5	-	0.8	-	0.0	0.6	0.0	-	0.6	0.7
Articulated Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	2	0	-	2	0	0	2	2	-	4	7
% Articulated Trucks	-	0.0	0.0	0.8	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	0.3	4.8	-	0.5	0.3
Bicycles on Road	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	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Count Name: Country and Old Arlington Heights
Site Code:
Start Date: 04/19/2016
Page No: 1

Turning Movement Data

Start Time	Country Lane Eastbound						Miller Lane Westbound						Old Arlington Heights Road Northbound						Old Arlington Heights Road 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	0	0	0	0	0	0	3	0	6	0	9	0	1	41	2	0	44	0	3	42	0	0	45	98
7:15 AM	0	0	0	3	0	3	0	6	0	13	0	19	0	1	49	1	0	51	0	4	47	2	0	53	126
7:30 AM	0	0	0	0	0	0	0	4	0	6	2	10	0	1	36	3	0	40	0	1	57	2	0	60	110
7:45 AM	0	1	0	0	0	1	0	2	0	10	0	12	0	3	43	1	0	47	1	1	51	3	0	56	116
Hourly Total	0	1	0	3	0	4	0	15	0	35	2	50	0	6	169	7	0	182	1	9	197	7	0	214	450
8:00 AM	0	1	0	1	0	2	0	2	1	9	0	12	0	4	50	1	0	55	0	2	47	2	0	51	120
8:15 AM	0	0	0	0	0	0	0	1	0	5	0	6	0	2	57	0	0	59	0	4	41	1	0	46	111
8:30 AM	0	0	0	1	0	1	0	7	0	8	0	15	0	3	31	2	0	36	0	2	54	3	0	59	111
8:45 AM	0	0	0	1	0	1	0	6	0	4	0	10	0	3	45	2	0	50	0	1	54	7	0	62	123
Hourly Total	0	1	0	3	0	4	0	16	1	26	0	43	0	12	183	5	0	200	0	9	196	13	0	218	465
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	0	8	0	9	0	0	0	3	1	3	0	2	54	0	0	56	0	11	51	6	0	68	136
4:15 PM	0	3	1	5	0	9	0	0	0	2	1	2	0	1	53	6	0	60	0	5	50	5	0	60	131
4:30 PM	0	4	0	5	0	9	0	1	0	5	0	6	0	3	65	5	0	73	0	2	50	2	0	54	142
4:45 PM	0	2	0	5	0	7	0	1	0	1	0	2	0	1	48	8	0	57	0	5	65	4	0	74	140
Hourly Total	0	10	1	23	0	34	0	2	0	11	2	13	0	7	220	19	0	246	0	23	216	17	0	256	549
5:00 PM	0	2	0	13	0	15	0	3	1	7	0	11	0	2	73	3	0	78	0	3	79	2	0	84	188
5:15 PM	0	3	0	3	0	6	0	5	0	3	0	8	0	3	62	4	0	69	0	6	82	1	0	89	172
5:30 PM	0	3	1	5	0	9	0	4	0	4	0	8	0	0	61	8	0	69	0	12	65	0	0	77	163
5:45 PM	0	5	0	4	0	9	0	2	0	5	0	7	0	1	42	3	0	46	0	9	64	4	1	77	139
Hourly Total	0	13	1	25	0	39	0	14	1	19	0	34	0	6	238	18	0	262	0	30	290	7	1	327	662
Grand Total	0	25	2	54	0	81	0	47	2	91	4	140	0	31	810	49	0	890	1	71	899	44	1	1015	2126
Approach %	0.0	30.9	2.5	66.7	-	-	0.0	33.6	1.4	65.0	-	-	0.0	3.5	91.0	5.5	-	-	0.1	7.0	88.6	4.3	-	-	-
Total %	0.0	1.2	0.1	2.5	-	3.8	0.0	2.2	0.1	4.3	-	6.6	0.0	1.5	38.1	2.3	-	41.9	0.0	3.3	42.3	2.1	-	47.7	-
Lights	0	25	1	53	-	79	0	46	1	89	-	136	0	31	790	46	-	867	1	68	883	44	-	996	2078
% Lights	-	100.0	50.0	98.1	-	97.5	-	97.9	50.0	97.8	-	97.1	-	100.0	97.5	93.9	-	97.4	100.0	95.8	98.2	100.0	-	98.1	97.7
Buses	0	0	0	0	-	0	0	1	0	2	-	3	0	0	9	1	-	10	0	2	6	0	-	8	21
% Buses	-	0.0	0.0	0.0	-	0.0	-	2.1	0.0	2.2	-	2.1	-	0.0	1.1	2.0	-	1.1	0.0	2.8	0.7	0.0	-	0.8	1.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	10	2	-	12	0	1	10	0	-	11	23
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.2	4.1	-	1.3	0.0	1.4	1.1	0.0	-	1.1	1.1
Articulated Trucks	0	0	0	1	-	1	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.0	1.9	-	1.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.1	0.0	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Bicycles on Road	-	0.0	50.0	0.0	-	1.2	-	0.0	50.0	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	-

[illegible]



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Count Name: Country and Old Arlington Heights
Site Code:
Start Date: 04/19/2016
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Turning Movement Peak Hour Data (5:00 PM)

Start Time	Country Lane Eastbound						Miller Lane Westbound						Old Arlington Heights Road Northbound						Old Arlington Heights Road 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	2	0	13	0	15	0	3	1	7	0	11	0	2	73	3	0	78	0	3	79	2	0	84	188
5:15 PM	0	3	0	3	0	6	0	5	0	3	0	8	0	3	62	4	0	69	0	6	82	1	0	89	172
5:30 PM	0	3	1	5	0	9	0	4	0	4	0	8	0	0	61	8	0	69	0	12	65	0	0	77	163
5:45 PM	0	5	0	4	0	9	0	2	0	5	0	7	0	1	42	3	0	46	0	9	64	4	1	77	139
Total	0	13	1	25	0	39	0	14	1	19	0	34	0	6	238	18	0	262	0	30	290	7	1	327	662
Approach %	0.0	33.3	2.6	64.1	-	-	0.0	41.2	2.9	55.9	-	-	0.0	2.3	90.8	6.9	-	-	0.0	9.2	88.7	2.1	-	-	-
Total %	0.0	2.0	0.2	3.8	-	5.9	0.0	2.1	0.2	2.9	-	5.1	0.0	0.9	36.0	2.7	-	39.6	0.0	4.5	43.8	1.1	-	49.4	-
PHF	0.000	0.650	0.250	0.481	-	0.650	0.000	0.700	0.250	0.679	-	0.773	0.000	0.500	0.815	0.563	-	0.840	0.000	0.625	0.884	0.438	-	0.919	0.880
Lights	0	13	0	25	-	38	0	14	1	19	-	34	0	6	236	18	-	260	0	29	287	7	-	323	655
% Lights	-	100.0	0.0	100.0	-	97.4	-	100.0	100.0	100.0	-	100.0	-	100.0	99.2	100.0	-	99.2	-	96.7	99.0	100.0	-	98.8	98.9
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	1	0	-	2	2
% Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	3.3	0.3	0.0	-	0.6	0.3
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	2	0	-	2	4
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.8	0.0	-	0.8	-	0.0	0.7	0.0	-	0.6	0.6
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	-	0.0	0.0
Bicycles on Road	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	100.0	0.0	-	2.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Dundee and Old Arlington Heights
Site Code:
Start Date: 04/19/2016
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Turning Movement Data

Start Time	Dundee Road Eastbound					Dundee Road Westbound					Old Arlington Heights Road Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	396	14	0	410	0	24	328	0	352	0	0	35	3	35	797
7:15 AM	0	436	25	0	461	0	20	276	0	296	0	0	43	0	43	800
7:30 AM	0	358	13	0	371	0	41	178	0	219	0	0	36	0	36	626
7:45 AM	0	384	13	0	397	0	37	165	0	202	0	1	34	0	35	634
Hourly Total	0	1574	65	0	1639	0	122	947	0	1069	0	1	148	3	149	2857
8:00 AM	0	392	8	0	400	0	40	176	0	216	0	0	46	0	46	662
8:15 AM	0	322	9	0	331	0	37	209	0	246	0	0	49	0	49	626
8:30 AM	0	333	13	0	346	0	39	160	0	199	1	0	29	1	30	575
8:45 AM	0	331	8	0	339	0	42	194	0	236	0	0	38	1	38	613
Hourly Total	0	1378	38	0	1416	0	158	739	0	897	1	0	162	2	163	2476
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	249	21	0	270	0	38	322	0	360	0	0	58	0	58	688
4:15 PM	0	258	24	0	282	0	31	349	0	380	0	0	58	0	58	720
4:30 PM	0	240	17	0	257	0	40	336	0	376	0	1	61	1	62	695
4:45 PM	0	281	20	0	301	0	48	309	0	357	0	0	50	1	50	708
Hourly Total	0	1028	82	0	1110	0	157	1316	0	1473	0	1	227	2	228	2811
5:00 PM	0	268	19	0	287	0	56	363	0	419	0	0	75	0	75	781
5:15 PM	0	265	27	0	292	0	53	308	0	361	0	0	66	0	66	719
5:30 PM	0	252	25	0	277	0	46	340	0	386	0	0	54	0	54	717
5:45 PM	0	290	16	0	306	0	54	353	0	407	0	0	47	0	47	760
Hourly Total	0	1075	87	0	1162	0	209	1364	0	1573	0	0	242	0	242	2977
Grand Total	0	5055	272	0	5327	0	646	4366	0	5012	1	2	779	7	782	11121
Approach %	0.0	94.9	5.1	-	-	0.0	12.9	87.1	-	-	0.1	0.3	99.6	-	-	-
Total %	0.0	45.5	2.4	-	47.9	0.0	5.8	39.3	-	45.1	0.0	0.0	7.0	-	7.0	-
Lights	0	4948	267	-	5215	0	632	4259	-	4891	1	2	763	-	766	10872
% Lights	-	97.9	98.2	-	97.9	-	97.8	97.5	-	97.6	100.0	100.0	97.9	-	98.0	97.8
Buses	0	24	2	-	26	0	3	14	-	17	0	0	8	-	8	51
% Buses	-	0.5	0.7	-	0.5	-	0.5	0.3	-	0.3	0.0	0.0	1.0	-	1.0	0.5
Single-Unit Trucks	0	54	3	-	57	0	11	63	-	74	0	0	7	-	7	138
% Single-Unit Trucks	-	1.1	1.1	-	1.1	-	1.7	1.4	-	1.5	0.0	0.0	0.9	-	0.9	1.2
Articulated Trucks	0	29	0	-	29	0	0	30	-	30	0	0	1	-	1	60
% Articulated Trucks	-	0.6	0.0	-	0.5	-	0.0	0.7	-	0.6	0.0	0.0	0.1	-	0.1	0.5
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	-	-	-	0	-	-	-	-	0	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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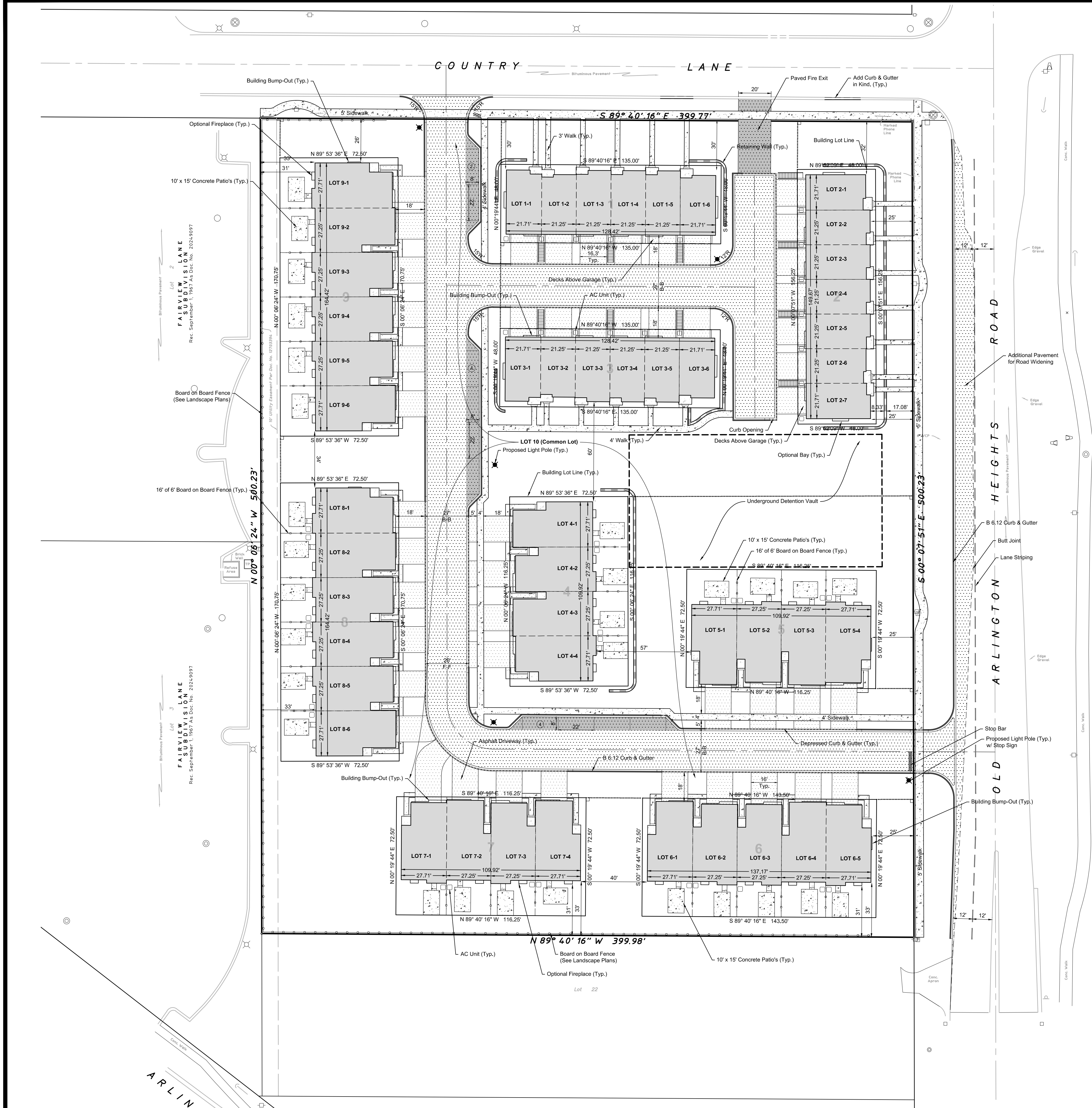
Count Name: Dundee and Old Arlington Heights
Site Code:
Start Date: 04/19/2016
Page No: 3

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Dundee Road Eastbound					Dundee Road Westbound					Old Arlington Heights Road Northbound					Int. Total
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	396	14	0	410	0	24	328	0	352	0	0	35	3	35	797
7:15 AM	0	436	25	0	461	0	20	276	0	296	0	0	43	0	43	800
7:30 AM	0	358	13	0	371	0	41	178	0	219	0	0	36	0	36	626
7:45 AM	0	384	13	0	397	0	37	165	0	202	0	1	34	0	35	634
Total	0	1574	65	0	1639	0	122	947	0	1069	0	1	148	3	149	2857
Approach %	0.0	96.0	4.0	-	-	0.0	11.4	88.6	-	-	0.0	0.7	99.3	-	-	-
Total %	0.0	55.1	2.3	-	57.4	0.0	4.3	33.1	-	37.4	0.0	0.0	5.2	-	5.2	-
PHF	0.000	0.903	0.650	-	0.889	0.000	0.744	0.722	-	0.759	0.000	0.250	0.860	-	0.866	0.893
Lights	0	1536	64	-	1600	0	121	925	-	1046	0	1	146	-	147	2793
% Lights	-	97.6	98.5	-	97.6	-	99.2	97.7	-	97.8	-	100.0	98.6	-	98.7	97.8
Buses	0	11	0	-	11	0	0	4	-	4	0	0	1	-	1	16
% Buses	-	0.7	0.0	-	0.7	-	0.0	0.4	-	0.4	-	0.0	0.7	-	0.7	0.6
Single-Unit Trucks	0	15	1	-	16	0	1	14	-	15	0	0	1	-	1	32
% Single-Unit Trucks	-	1.0	1.5	-	1.0	-	0.8	1.5	-	1.4	-	0.0	0.7	-	0.7	1.1
Articulated Trucks	0	12	0	-	12	0	0	4	-	4	0	0	0	-	0	16
% Articulated Trucks	-	0.8	0.0	-	0.7	-	0.0	0.4	-	0.4	-	0.0	0.0	-	0.0	0.6
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
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

[illegible]

Preliminary Site Plan



PAVING LEGEND

	Bituminous Pavement - Heavy Duty Road - 2" Hot Mix Asphalt Surface Course, Mix D, N50 - 2 1/4" Hot Mix Asphalt Binder Course, IL-19, N50 - 5" Hot Mix Asphalt Binder Course, N30 - 4" CA-6 Crushed Aggregate Base Course
	Bituminous Pavement - Standard Duty Road - 1 1/2" Hot Mix Asphalt Surface Course, Mix D, N50 - 2 1/4" Hot Mix Asphalt Binder Course, IL-19, N50 - 6" CA-6 Crushed Aggregate Base Course
	Bituminous Pavement - Driveway - 1 1/2" Hot Mix Asphalt Surface Course, Mix D, N50 - 6" CA-6 Crushed Aggregate Base Course
	Concrete Sidewalk - 5" Portland Cement Concrete (8" Through Driveways) - 4" CA-6 Crushed Aggregate Base Course

DIMENSION LEGEND

B-B	Back of Curb to Back of Curb
F-F	Face of Curb to Face of Curb
E-E	Edge of Pavement to Edge of Pavement

- NOTES:
- All dimensions are to back of curb, face of wall and face of building unless otherwise noted.
 - Refer to Plat of Subdivision & PUD Plat for additional lot information.

SITE DATA TABLE

Site Area	4.59 AC	200,024 SF
Zoning	Classification	
Existing Zoning	M-1	
Proposed Zoning	R-6 (PUD)	
Existing Comp. Plan	R&D, Manufact., Warehouse	
Proposed Comp. Plan	Mod. Density Multi-Family	
Density	Units	Units/Ac
Total Units Provided	48	10.45
3 Bedroom	44	
2 Bedroom	4	
2 Story Townhome	29	
Mews Townhome	19	

Lot Area	2BR (SF)	3BR (SF)	Total (SF)
R-6 (Min. per Type)	2,500	3,500	
Required Total	10,000	154,000	164,000
Proposed Total			200,024

R-6 Setbacks	Front (Ft)	Rear (Ft)	Side-Int (Ft)	Side-Ext (Ft)
Required - Mews	30	NA	NA	20
Proposed - Mews	30	NA	NA	25
Required - T.H.	26	31	41	20
Proposed - T.H.	26	31	31	25

Front Yard : Country Lane
Rear Yard : South Property Line
Side Interior : West Property Line
Side Exterior : Old Arlington Heights Rd

Parking	Spaces	Spaces / Unit
Guest	10	0.21:1
Driveway	96	2:1
Garage	96	2:1
TOTAL	202	4.21:1

Coverage	Area (SF)	Area (Ac)	Area (%)
Impervious	105,805	2.43	52.9%
Buildings (w/ stoop)	53,344	1.22	26.7%
Pavement - Road	26,166	0.60	13.1%
Pavement - Driveway	15,385	0.35	7.7%
Sidewalk / Patio	10,910	0.25	5.5%

Pervious	94,219	2.16	47.1%
TOTAL	200,024	4.59	

Floor Area	Area (SF)	F.A.R (%)
Total	101,730	50.9%

- Notes:
- Trash storage area's to be located within individual garages
 - Bedroom mix shown is an estimate and subject to change



Scale: 1" = 30'

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GEOMETRY PLAN
PRELIMINARY ENGINEERING PLAN
LEXINGTON HERITAGE
ARLINGTON HEIGHTS, ILLINOIS

Project Manager: TJB
Engineer: DJV
Date: 07/15/2016
Project No. 16-003
Sheet 3

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 Sheets

Lanes, Volumes, Timings

5: University Drive/Old Arlington Heights Road & Arlington Heights Road

10/3/2016

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	4	726	45	97	702	110	49	43	51	144	52	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	190		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	130			100			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.991			0.980			0.947			0.977	
Flt Protected	0.950			0.950				0.983			0.970	
Satd. Flow (prot)	1805	3471	0	1770	3406	0	0	3245	0	0	3400	0
Flt Permitted	0.322			0.268				0.772			0.734	
Satd. Flow (perm)	612	3471	0	499	3406	0	0	2549	0	0	2573	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			33			55			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		877			574			460			317	
Travel Time (s)		19.9			13.0			10.5			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	4%	2%	4%	3%	0%	0%	10%	1%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	838	0	105	883	0	0	155	0	0	252	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	3.0	4.0		3.0	4.0		2.0	2.0		2.0	2.0	
Minimum Split (s)	6.5	15.0		6.5	15.0		8.0	8.0		8.0	8.0	
Total Split (s)	10.0	38.0		10.0	38.0		22.0	22.0		22.0	22.0	
Total Split (%)	14.3%	54.3%		14.3%	54.3%		31.4%	31.4%		31.4%	31.4%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0			6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Recall Mode	None	Max		None	Max		None	None		None	None	
Act Effect Green (s)	39.2	32.4		42.0	38.3			11.2			11.2	
Actuated g/C Ratio	0.62	0.51		0.66	0.60			0.18			0.18	
v/c Ratio	0.01	0.47		0.23	0.43			0.31			0.53	
Control Delay	4.5	12.2		5.5	8.3			17.3			25.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	4.5	12.2		5.5	8.3			17.3			25.7	
LOS	A	B		A	A			B			C	
Approach Delay		12.1			8.0			17.3			25.7	
Approach LOS		B			A			B			C	
Queue Length 50th (ft)	1	107		11	70			18			43	
Queue Length 95th (ft)	3	176		31	182			41			75	
Internal Link Dist (ft)		797			494			380			237	

Lanes, Volumes, Timings

5: University Drive/Old Arlington Heights Road & Arlington Heights Road

10/3/2016

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Turn Bay Length (ft)	150			190								
Base Capacity (vph)	509	1778		462	2072			692			677	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.47		0.23	0.43			0.22			0.37	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 63.4

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 12.2

Intersection LOS: B

Intersection Capacity Utilization 54.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: University Drive/Old Arlington Heights Road & Arlington Heights Road

 $\phi 1$	 $\phi 2$	 $\phi 4$
10 s	38 s	22 s
 $\phi 5$	 $\phi 6$	 $\phi 8$
10 s	38 s	22 s

HCM Unsignalized Intersection Capacity Analysis

1: Old Arlington Heights Road & Dundee Road

10/3/2016

							
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations							
Volume (veh/h)	1574	65	122	947	0	178	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	
Hourly flow rate (vph)	1769	73	137	1064	0	200	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None		None				
Median storage veh							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			1842		2611	921	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			1842		2611	921	
tC, single (s)			4.1		6.8	6.9	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			59		100	27	
cM capacity (veh/h)			331		12	275	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	
Volume Total	1179	663	137	532	532	200	
Volume Left	0	0	137	0	0	0	
Volume Right	0	73	0	0	0	200	
cSH	1700	1700	331	1700	1700	275	
Volume to Capacity	0.69	0.39	0.41	0.31	0.31	0.73	
Queue Length 95th (ft)	0	0	49	0	0	129	
Control Delay (s)	0.0	0.0	23.4	0.0	0.0	46.6	
Lane LOS			C				E
Approach Delay (s)	0.0		2.7			46.6	
Approach LOS							E
Intersection Summary							
Average Delay			3.9				
Intersection Capacity Utilization			63.3%	ICU Level of Service		B	
Analysis Period (min)			15				

HCM Unsignalized Intersection Capacity Analysis

8: Old Arlington Heights Road & Country Lane/Martin Lane

10/3/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	0	3	15	0	35	6	169	7	9	197	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	1	0	3	17	0	39	7	190	8	10	221	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1034				
pX, platoon unblocked												
vC, conflicting volume	492	457	225	456	457	194	229			198		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	492	457	225	456	457	194	229			198		
tC, single (s)	7.1	6.5	6.5	7.1	6.5	6.3	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.6	3.5	4.0	3.4	2.2			2.3		
p0 queue free %	100	100	100	97	100	95	100			99		
cM capacity (veh/h)	463	497	743	511	497	838	1351			1323		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	4	56	204	239								
Volume Left	1	17	7	10								
Volume Right	3	39	8	8								
cSH	645	703	1351	1323								
Volume to Capacity	0.01	0.08	0.00	0.01								
Queue Length 95th (ft)	1	6	0	1								
Control Delay (s)	10.6	10.6	0.3	0.4								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.6	10.6	0.3	0.4								
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			25.5%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings

5: University Drive/Old Arlington Heights Road & Arlington Heights Road

10/3/2016

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	21	791	42	75	924	200	53	60	123	241	53	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	190		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	130			100			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.992			0.973			0.922			0.991	
Flt Protected	0.950			0.950				0.989			0.963	
Satd. Flow (prot)	1805	3539	0	1787	3478	0	0	3258	0	0	3409	0
Flt Permitted	0.174			0.246				0.771			0.661	
Satd. Flow (perm)	331	3539	0	463	3478	0	0	2540	0	0	2340	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			36			132			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		877			574			460			317	
Travel Time (s)		19.9			13.0			10.5			7.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	5%	1%	1%	1%	0%	0%	2%	1%	0%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	896	0	81	1209	0	0	254	0	0	336	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	3.0	1.0		3.0	1.0		1.0	1.0		1.0	1.0	
Minimum Split (s)	6.5	15.0		6.5	15.0		8.0	8.0		8.0	8.0	
Total Split (s)	10.0	45.0		10.0	45.0		35.0	35.0		35.0	35.0	
Total Split (%)	11.1%	50.0%		11.1%	50.0%		38.9%	38.9%		38.9%	38.9%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0			6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Recall Mode	None	Max		None	Max		None	None		None	None	
Act Effect Green (s)	46.6	39.5		48.5	43.6			16.9			16.9	
Actuated g/C Ratio	0.61	0.52		0.64	0.57			0.22			0.22	
v/c Ratio	0.07	0.49		0.20	0.60			0.38			1.02dl	
Control Delay	6.6	14.4		7.2	14.0			13.9			32.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	6.6	14.4		7.2	14.0			13.9			32.3	
LOS	A	B		A	B			B			C	
Approach Delay		14.2			13.6			13.9			32.3	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)	3	143		12	150			25			76	
Queue Length 95th (ft)	14	235		35	351			55			118	
Internal Link Dist (ft)		797			494			380			237	

Lanes, Volumes, Timings

5: University Drive/Old Arlington Heights Road & Arlington Heights Road

10/3/2016

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Turn Bay Length (ft)	150			190								
Base Capacity (vph)	331	1839		409	2004			1060			907	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.07	0.49		0.20	0.60			0.24			0.37	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 76.2

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 16.1

Intersection LOS: B

Intersection Capacity Utilization 74.1%

ICU Level of Service D

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 5: University Drive/Old Arlington Heights Road & Arlington Heights Road

 p1	 p2	 p4
10 s	45 s	35 s
 p5	 p6	 p8
10 s	45 s	35 s

HCM Unsignalized Intersection Capacity Analysis

1: Old Arlington Heights Road & Dundee Road

10/3/2016

							
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations							
Volume (veh/h)	1075	87	209	1364	0	242	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly flow rate (vph)	1132	92	220	1436	0	255	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None		None				
Median storage veh							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			1223		2335	612	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			1223		2335	612	
tC, single (s)			4.1		6.8	6.9	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			61		100	42	
cM capacity (veh/h)			571		19	439	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	
Volume Total	754	469	220	718	718	255	
Volume Left	0	0	220	0	0	0	
Volume Right	0	92	0	0	0	255	
cSH	1700	1700	571	1700	1700	439	
Volume to Capacity	0.44	0.28	0.39	0.42	0.42	0.58	
Queue Length 95th (ft)	0	0	45	0	0	90	
Control Delay (s)	0.0	0.0	15.2	0.0	0.0	23.9	
Lane LOS			C				C
Approach Delay (s)	0.0		2.0			23.9	
Approach LOS							C
Intersection Summary							
Average Delay			3.0				
Intersection Capacity Utilization			54.1%	ICU Level of Service		A	
Analysis Period (min)			15				

HCM Unsignalized Intersection Capacity Analysis

8: Old Arlington Heights Road & Country Lane/Martin Lane

10/3/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	1	25	14	1	19	6	238	18	30	290	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	15	1	28	16	1	22	7	270	20	34	330	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								1034				
pX, platoon unblocked												
vC, conflicting volume	718	706	334	725	700	281	338			291		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	718	706	334	725	700	281	338			291		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	96	95	100	97	99			97		
cM capacity (veh/h)	328	351	713	320	354	763	1233			1265		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	44	39	298	372								
Volume Left	15	16	7	34								
Volume Right	28	22	20	8								
cSH	503	476	1233	1265								
Volume to Capacity	0.09	0.08	0.01	0.03								
Queue Length 95th (ft)	7	7	0	2								
Control Delay (s)	12.9	13.2	0.2	1.0								
Lane LOS	B	B	A	A								
Approach Delay (s)	12.9	13.2	0.2	1.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.0									
Intersection Capacity Utilization			41.1%	ICU Level of Service					A			
Analysis Period (min)			15									

Lanes, Volumes, Timings

5: University Drive/Old Arlington Heights Road & Arlington Heights Road

10/3/2016

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	5	733	45	98	709	112	50	43	52	152	54	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	190		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	130			100			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.991			0.980			0.946			0.974	
Flt Protected	0.950			0.950				0.983			0.971	
Satd. Flow (prot)	1805	3471	0	1770	3406	0	0	3240	0	0	3394	0
Flt Permitted	0.318			0.263				0.765			0.735	
Satd. Flow (perm)	604	3471	0	490	3406	0	0	2522	0	0	2569	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			33			57			34	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		877			574			460			317	
Travel Time (s)		19.9			13.0			10.5			7.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	4%	2%	4%	3%	0%	0%	10%	1%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	846	0	107	893	0	0	158	0	0	272	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	3.0	4.0		3.0	4.0		2.0	2.0		2.0	2.0	
Minimum Split (s)	6.5	15.0		6.5	15.0		8.0	8.0		8.0	8.0	
Total Split (s)	10.0	38.0		10.0	38.0		22.0	22.0		22.0	22.0	
Total Split (%)	14.3%	54.3%		14.3%	54.3%		31.4%	31.4%		31.4%	31.4%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0			6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Recall Mode	None	Max		None	Max		None	None		None	None	
Act Effect Green (s)	39.2	32.4		42.1	38.4			11.5			11.5	
Actuated g/C Ratio	0.62	0.51		0.66	0.60			0.18			0.18	
v/c Ratio	0.01	0.48		0.24	0.43			0.32			0.56	
Control Delay	4.6	12.4		5.7	8.5			17.1			25.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	4.6	12.4		5.7	8.5			17.1			25.6	
LOS	A	B		A	A			B			C	
Approach Delay		12.3			8.2			17.1			25.6	
Approach LOS		B			A			B			C	
Queue Length 50th (ft)	1	110		12	73			18			45	
Queue Length 95th (ft)	4	178		32	184			42			80	
Internal Link Dist (ft)		797			494			380			237	

Lanes, Volumes, Timings

5: University Drive/Old Arlington Heights Road & Arlington Heights Road

10/3/2016

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Turn Bay Length (ft)	150			190								
Base Capacity (vph)	502	1772		455	2064			684			679	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.48		0.24	0.43			0.23			0.40	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 63.7

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 12.4

Intersection LOS: B

Intersection Capacity Utilization 55.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: University Drive/Old Arlington Heights Road & Arlington Heights Road

 $\phi 1$	 $\phi 2$	 $\phi 4$
10 s	38 s	22 s
 $\phi 5$	 $\phi 6$	 $\phi 8$
10 s	38 s	22 s

HCM Unsignalized Intersection Capacity Analysis

1: Old Arlington Heights Road & Dundee Road

10/3/2016

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1590	67	125	957	0	187
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	1787	75	140	1075	0	210
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1862		2643	931
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1862		2643	931
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			57		100	22
cM capacity (veh/h)			325		11	270
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	1191	671	140	538	538	210
Volume Left	0	0	140	0	0	0
Volume Right	0	75	0	0	0	210
cSH	1700	1700	325	1700	1700	270
Volume to Capacity	0.70	0.39	0.43	0.32	0.32	0.78
Queue Length 95th (ft)	0	0	52	0	0	147
Control Delay (s)	0.0	0.0	24.3	0.0	0.0	52.8
Lane LOS			C			F
Approach Delay (s)	0.0		2.8			52.8
Approach LOS						F
Intersection Summary						
Average Delay			4.4			
Intersection Capacity Utilization			64.3%		ICU Level of Service	C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

8: Old Arlington Heights Road & Country Lane/Martin Lane

10/3/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	10	15	0	35	7	174	7	9	201	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	0	11	17	0	39	8	196	8	10	226	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1034				
pX, platoon unblocked												
vC, conflicting volume	505	470	230	477	470	199	235			203		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	505	470	230	477	470	199	235			203		
tC, single (s)	7.1	6.5	6.5	7.1	6.5	6.3	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.6	3.5	4.0	3.4	2.2			2.3		
p0 queue free %	99	100	98	97	100	95	99			99		
cM capacity (veh/h)	453	488	738	489	488	831	1344			1316		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	17	56	211	245								
Volume Left	6	17	8	10								
Volume Right	11	39	8	9								
cSH	610	687	1344	1316								
Volume to Capacity	0.03	0.08	0.01	0.01								
Queue Length 95th (ft)	2	7	0	1								
Control Delay (s)	11.1	10.7	0.3	0.4								
Lane LOS	B	B	A	A								
Approach Delay (s)	11.1	10.7	0.3	0.4								
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			25.1%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

12: Old Arlington Heights Road & Access Drive

10/3/2016



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	10	1	185	224	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	11	1	201	243	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)				594		
pX, platoon unblocked						
vC, conflicting volume	448	123	246			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	448	123	246			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	100			
cM capacity (veh/h)	544	912	1332			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	14	202	162	83		
Volume Left	3	1	0	0		
Volume Right	11	0	0	2		
cSH	789	1332	1700	1700		
Volume to Capacity	0.02	0.00	0.10	0.05		
Queue Length 95th (ft)	1	0	0	0		
Control Delay (s)	9.6	0.0	0.0	0.0		
Lane LOS	A	A				
Approach Delay (s)	9.6	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			20.5%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

14: Access Drive & Country Lane

10/3/2016

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	4	0	2	13	0	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	0	2	14	0	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			4		23	4
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			4		23	4
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1630		997	1085
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	4	16	12			
Volume Left	0	2	0			
Volume Right	0	0	12			
cSH	1700	1630	1085			
Volume to Capacity	0.00	0.00	0.01			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	1.0	8.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.0	8.4			
Approach LOS			A			
Intersection Summary						
Average Delay			3.5			
Intersection Capacity Utilization			13.3%	ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings

5: University Drive/Old Arlington Heights Road & Arlington Heights Road

10/3/2016

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	25	799	42	76	933	206	54	62	124	246	54	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	190		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	130			100			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.993			0.973			0.923			0.989	
Flt Protected	0.950			0.950				0.989			0.963	
Satd. Flow (prot)	1805	3542	0	1787	3478	0	0	3262	0	0	3400	0
Flt Permitted	0.167			0.240				0.765			0.661	
Satd. Flow (perm)	317	3542	0	451	3478	0	0	2523	0	0	2334	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			37			133			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		877			574			460			317	
Travel Time (s)		19.9			13.0			10.5			7.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	1%	5%	1%	1%	1%	0%	0%	2%	1%	0%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	904	0	82	1225	0	0	258	0	0	348	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	3.0	1.0		3.0	1.0		1.0	1.0		1.0	1.0	
Minimum Split (s)	6.5	15.0		6.5	15.0		8.0	8.0		8.0	8.0	
Total Split (s)	10.0	45.0		10.0	45.0		35.0	35.0		35.0	35.0	
Total Split (%)	11.1%	50.0%		11.1%	50.0%		38.9%	38.9%		38.9%	38.9%	
Yellow Time (s)	3.5	4.5		3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5		0.0	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	3.5	6.0		3.5	6.0			6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Recall Mode	None	Max		None	Max		None	None		None	None	
Act Effect Green (s)	46.7	39.6		48.5	43.6			17.5			17.5	
Actuated g/C Ratio	0.61	0.51		0.63	0.57			0.23			0.23	
v/c Ratio	0.09	0.50		0.21	0.62			0.38			1.02dl	
Control Delay	6.9	14.8		7.5	14.5			13.9			32.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	6.9	14.8		7.5	14.5			13.9			32.2	
LOS	A	B		A	B			B			C	
Approach Delay		14.6			14.1			13.9			32.2	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)	4	147		13	156			26			80	
Queue Length 95th (ft)	16	241		36	362			56			122	
Internal Link Dist (ft)		797			494			380			237	

Lanes, Volumes, Timings

5: University Drive/Old Arlington Heights Road & Arlington Heights Road

10/3/2016

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Turn Bay Length (ft)	150			190								
Base Capacity (vph)	321	1825		398	1987			1047			898	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.08	0.50		0.21	0.62			0.25			0.39	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 76.9

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 16.4

Intersection LOS: B

Intersection Capacity Utilization 74.9%

ICU Level of Service D

Analysis Period (min) 15

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 5: University Drive/Old Arlington Heights Road & Arlington Heights Road

		
ø1	ø2	ø4
10 s	45 s	35 s
		
ø5	ø6	ø8
10 s	45 s	35 s

HCM Unsignalized Intersection Capacity Analysis

1: Old Arlington Heights Road & Dundee Road

10/3/2016

							
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations							
Volume (veh/h)	1086	92	220	1378	0	248	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly flow rate (vph)	1143	97	232	1451	0	261	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None		None				
Median storage veh							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			1240		2380	620	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			1240		2380	620	
tC, single (s)			4.1		6.8	6.9	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			59		100	40	
cM capacity (veh/h)			563		17	433	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	
Volume Total	762	478	232	725	725	261	
Volume Left	0	0	232	0	0	0	
Volume Right	0	97	0	0	0	261	
cSH	1700	1700	563	1700	1700	433	
Volume to Capacity	0.45	0.28	0.41	0.43	0.43	0.60	
Queue Length 95th (ft)	0	0	50	0	0	96	
Control Delay (s)	0.0	0.0	15.8	0.0	0.0	25.1	
Lane LOS			C				D
Approach Delay (s)	0.0		2.2			25.1	
Approach LOS							D
Intersection Summary							
Average Delay			3.2				
Intersection Capacity Utilization			55.0%	ICU Level of Service		A	
Analysis Period (min)			15				

HCM Unsignalized Intersection Capacity Analysis

8: Old Arlington Heights Road & Country Lane/Martin Lane

10/3/2016

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	1	28	14	1	19	11	242	18	30	300	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	17	1	32	16	1	22	12	275	20	34	341	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1034				
pX, platoon unblocked												
vC, conflicting volume	749	737	348	759	734	285	356			295		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	749	737	348	759	734	285	356			295		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	95	95	100	97	99			97		
cM capacity (veh/h)	311	336	699	301	337	759	1214			1260		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	50	39	308	390								
Volume Left	17	16	12	34								
Volume Right	32	22	20	15								
cSH	483	456	1214	1260								
Volume to Capacity	0.10	0.08	0.01	0.03								
Queue Length 95th (ft)	9	7	1	2								
Control Delay (s)	13.3	13.6	0.4	0.9								
Lane LOS	B	B	A	A								
Approach Delay (s)	13.3	13.6	0.4	0.9								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			38.4%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

12: Old Arlington Heights Road & Access Drive

10/3/2016



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	2	4	4	269	335	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	4	4	292	364	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				584		
pX, platoon unblocked						
vC, conflicting volume	669	186	372			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	669	186	372			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	100			
cM capacity (veh/h)	394	831	1198			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	7	297	243	129		
Volume Left	2	4	0	0		
Volume Right	4	0	0	8		
cSH	607	1198	1700	1700		
Volume to Capacity	0.01	0.00	0.14	0.08		
Queue Length 95th (ft)	1	0	0	0		
Control Delay (s)	11.0	0.2	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	11.0	0.2	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			27.4%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

14: Access Drive & Country Lane

10/3/2016

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	39	0	11	14	0	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	42	0	12	15	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			42		82	42
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			42		82	42
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	99
cM capacity (veh/h)			1580		919	1034
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	42	27	5			
Volume Left	0	12	0			
Volume Right	0	0	5			
cSH	1700	1580	1034			
Volume to Capacity	0.02	0.01	0.01			
Queue Length 95th (ft)	0	1	0			
Control Delay (s)	0.0	3.2	8.5			
Lane LOS		A	A			
Approach Delay (s)	0.0	3.2	8.5			
Approach LOS			A			
Intersection Summary						
Average Delay		1.8				
Intersection Capacity Utilization		18.0%		ICU Level of Service		A
Analysis Period (min)		15				