Exhibit A:
Revised Traffic Study

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

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MEMORANDUM TO: Mike Wauterlek
Hamilton Partners

FROM: Andrew Bowen
Consultant

Luay R. Aboona, PE, PTOE
Principal

DATE: December 3, 2020

SUBJECT: Traffic Study Addendum
Proposed Industrial Development
Arlington Heights

This memorandum is an addendum to the traffic study previously prepared by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.), dated September 19, 2018 for the proposed industrial development to be located in the southeast quadrant of the signalized intersection of Algonquin Road (IL 62) with Meijer Drive in Arlington Heights, Illinois. The purpose of this addendum is to evaluate the operations of the study area intersections, taking into consideration updated traffic counts and an updated development plan. In the previous development plan the site was to be developed in two phases with a 331,014 square-foot warehouse/distribution center. Phase I of the previous plan, which consisted of an approximately 138,539 square-foot warehouse building, has been completed and 84,459 square feet of the warehouse is occupied. As proposed, a Frito Lay distribution center will occupy the 50,080 square feet of vacant space with plans to expand the existing building by 50,080 additional square feet, resulting in a total building size of 188,619 square feet. Access to the development will continue to be provided via the existing access system that was built as part of Phase I of the original development plan. **Figure 1,** included in the Appendix, illustrates the characteristics of the existing roadways and site access.

Updated Traffic Volumes

In order to determine current traffic conditions within the study area at the existing site access drives, KLOA, Inc. conducted peak period traffic counts at the intersections of Meijer Drive with Golf Road (IL 58), Algonquin Road (IL 56), the shared access drive serving the site and Weber Packaging, and the right-in/right-out access road serving the site and Algonquin Road with the three-quarters access drive serving the site. The traffic counts were conducted on Thursday, October 8, 2020 during the weekday morning (7:00 A.M. to 9:00 A.M.) and evening (3:00 P.M. to 6:00 P.M.) peak periods. For the intersection of Meijer Drive with the shared access road, the counts were conducted over a 24-hour period. The results of the traffic counts show that the peak hours of traffic generally occur between 7:30 A.M. and 8:30 A.M. during the weekday morning peak period and between 4:30 P.M. and 5:30 P.M. during the weekday evening peak period.

In order to accurately represent Year 2020 conditions due to the ongoing pandemic, the traffic volumes were compared to traffic counts previously conducted at the surveyed intersections by KLOA, Inc. in 2018. The comparison indicated that the 2018 volumes were approximately 75 percent higher during the weekday morning peak hour and 40 percent higher during the weekday evening peak hour than the 2020 traffic counts. As such, through volumes on Meijer Drive, Golf Road, and Algonquin Road were adjusted accordingly to reflect Year 2020 base (normal conditions) traffic volumes. **Figure 2** illustrates the Year 2020 base traffic volumes inclusive of heavy vehicles and **Figure 3** illustrates the Year 2020 base heavy vehicle traffic volumes.

At the shared access road, 24-hour counts indicated a daily traffic volume of 633 vehicles of which 67 (eleven percent) were heavy vehicles. A majority of the traffic on the drive was evenly distributed between the hours of 4:00 A.M. and 6:00 P.M. with the exception of the peak hour of traffic (3:00 P.M. to 4:00 P.M) during which 96 vehicles utilized the shared access road. It should be noted that this peak hour in traffic on the access road does not align with either of the area roadway peak hours of traffic. Given the even distribution of traffic and the low daily volume of vehicles, the shared access road is not likely to experience capacity problems under existing conditions. Table A in the appendix shows the hourly volume of traffic on the access roadway for the 24-hour period separated by vehicle type.

Updated Development Plan

Under existing conditions, Phase I of the previous development plan has been completed and the site is occupied by an approximately 138,539 square-foot warehouse building. Approximately 84,459 square feet of the warehouse is currently occupied by Taiki USA (60,949 square feet) and AVI (23,510 square feet). Taiki USA is served by the nine northernmost truck loading bays and the 75-space parking lot on the north side of the building. AVI is served by the five central truck loading bays and the 50-space parking lot on the east side of the building.

As proposed, site will be further developed with a Frito Lay distribution center in two phases. During Phase I, the distribution center will occupy the 50,080 square feet of vacant space within the existing building, will utilize the nine southernmost truck loading bays, and will share the 50-space parking lot with AVI on the east side of the building. During Phase II, the existing building will be expanded by 50,080 additional square feet to be used by the distribution center. The proposed expansion will provide 11 additional truck loading bays on the west side of the building and space for the loading of 16 local delivery vans on the south side of the building. The remainder of the site will be developed with a parking lot for 74 delivery vans and 98 semi-trailer trucks. Employee parking will continue to be accommodated within the existing parking along the east face of the building, which will be extended to provide 111 total parking spaces.

In total, the site will contain a 188,619 square-foot building with 34 loading bays, 186 passenger vehicle parking spaces, 74 delivery van parking spaces, and 98 semi-trailer truck parking spaces. A copy of the updated site plan is included in the Appendix.

Site Access

Access to the site will continue to be provided via the existing access system that was built as part of Phase I of the previous development plan:

- The shared Weber Packaging and site access road located on Meijer Drive approximately 415 feet south of Algonquin Road. This access road will serve all site truck traffic. The access road provides one inbound lane and two outbound lanes under stop sign control.

- The right-in/right-out access drive located on Meijer Drive approximately 215 feet south of Algonquin Road. The access drive provides one inbound lane and one outbound lane with left-turn movements restricted via the raised median on Meijer Drive and signage. Outbound movements are under stop sign control.

- The three-quarters (right-in, left-in, right-out) access drive located on Algonquin Road approximately 215 feet south of Meijer Drive. The access drive provides one inbound lane and one outbound lane with outbound left-turn movements restricted via channelization and signage. Outbound movements are under stop sign control.

Projected Site Traffic Volumes

Based on information provided by Frito Lay and assuming the proposed expansion and full operations, the distribution center will operate as follows:

- Warehouse employees will operate in three shifts with 20 employees working from 8:00 A.M. to 4:00 P.M., 20 employees working from 2:00 P.M. to 10:00 P.M., and 10 employees working from 11:00 P.M. to 7:00 A.M.

- 25 office employees will work from 8:00 A.M. to 5:00 P.M.

- 74 delivery van drivers will arrive on site between 5:00 A.M and 7:00 A.M and will depart in delivery vans within the same time period. These drivers will return to the site between 2:00 P.M. and 5:00 P.M and depart in their personal vehicles.

- 15 semi-truck drivers will arrive on site between 10:00 P.M. and 3:00 A.M and will depart in semi-trucks between 11:00 P.M. and 3:00 A.M. These drivers will return to the site between 6:00 A.M. and 12:00 P.M. and depart in their personal vehicles.

- Semi-truck product deliveries will arrive at and depart from the site between 7:00 P.M and 7:00 A.M. Approximately 12 deliveries will arrive daily.

Tables showing the total expected passenger vehicle traffic, vans, and truck traffic to be generated on an hourly basis are included in the Appendix. **Table 1** shows the volume of traffic expected to be generated by the distribution center during the weekday peak hours and on a daily basis.

Table 1
ESTIMATED DEVELOPMENT-GENERATED TRAFFIC VOLUMES

Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Two-Way Trips
	In	Out	Total	In	Out	Total	
Warehouse Employees	20	0	20	0	0	0	100
Office Employees	25	0	25	0	25	25	50
Route Vans	0	0	0	25	0	25	148
Route Drivers	0	0	0	0	25	25	148
Semi-Truck Drivers	0	8	8	0	0	0	30
Semi-Trucks	8	0	8	0	0	0	30
Product Deliveries	0	0	0	0	0	0	24
Total Passenger Vehicle Traffic	**45**	**8**	**53**	**25**	**50**	**75**	**476**
Total Truck Traffic	**8**	**0**	**8**	**0**	**0**	**0**	**54**
Total	**53**	**8**	**61**	**25**	**50**	**75**	**530**

Trip Generation Comparison

As mentioned, the site was previously proposed and approved to be developed with a 331,014 square-foot warehouse/distribution center. Phase I of the previous plan, which consisted of an approximately 138,539 square-foot warehouse building, has been completed and 84,459 square feet of the building is occupied.

The new development plan calls for the remaining vacant space within the completed building (50,080 square feet) to be occupied by a Frito Lay distribution center and the site to be further developed with an additional 50,080 square feet of space to be used by the distribution center.

Table 2 compares the volume of traffic that would have been generated by the previously approved development less the already occupied portion of the completed building (331,014 square feet - 84,459 square feet = 246,555 square feet) to the traffic that will be generated by the distribution center (50,080 square feet + 50,080 square feet = 100,160 total square feet).

The volume of traffic that would have been generated by the previous proposed expansion and the vacant warehouse space was estimated based on ITE trip generation rates (Land Use Code 150, Warehousing). From Table 2 it can be seen that the proposed distribution center is projected to generate a comparable volume of traffic during the peak hours and on daily basis. It should be noted that the proposed distribution center is projected to generate 38 percent fewer truck trips on a daily basis and 64 percent fewer truck trips during the peak hours.

Table 2
TRIP GENERATION COMPARISON

Land Use		Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Two-Way Trips
		In	Out	Total	In	Out	Total	
Previous Development Plan								
Warehousing (246,555 s.f.)	Passenger Vehicles	34	10	44	12	34	46	348
	Truck Traffic	8	3	11	3	8	11	87
	Total	42	13	55	15	42	57	435
Proposed Development Plan								
Distribution Center (100,160 s.f.)	Passenger Vehicles	45	8	53	25	50	75	476
	Truck Traffic	8	0	8	0	0	0	54
	Total	53	8	61	25	50	75	530
Difference								
Passenger Vehicles		**+11**	**-2**	**+9**	**+13**	**+16**	**+29**	**+128**
Truck Traffic		**--**	**-3**	**-3**	**-3**	**-8**	**-11**	**-33**
Total		**+11**	**-5**	**+6**	**+10**	**+8**	**+18**	**+95**

Existing Tenant Trip Generation

Due to the ongoing pandemic, the existing tenants of the site may not be operating at full capacity. As such the traffic currently generated by the site was increased to match the trip generation utilized in the previous traffic study and the current 25 percent occupancy (84,459 s.f. of 331,014 s.f.). Table 3 shows the additional traffic assigned to the site.

Table 3
ADDITIONAL SITE TRAFFIC

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	In	Out	Total	In	Out	Total
Existing Site Traffic[1]	23	2	25	3	18	21
Estimated Typical Site Traffic[2]	32	8	40	8	24	32
Additional Traffic	**+9**	**+6**	**+15**	**+5**	**+6**	**+11**

1 – Assumes 20 percent of existing traffic on the shared access road is existing site traffic.
2 – Based on trip generation volumes used in previous traffic study and an existing occupancy of 25 percent.

Total Site Traffic

The total traffic that is expected to be generated by the site, which includes the existing site traffic increased to reflect typical conditions and the proposed development plan is illustrated in Table 4.

Table 4
ESTIMATED SITE-GENERATED TRAFFIC VOLUMES

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Two-Way Trips
	In	Out	Total	In	Out	Total	
Existing Site Traffic[1]	32	8	40	8	24	32	345
Proposed Development Plan New Traffic	53	8	61	25	50	75	530
Total Site Traffic	**85**	**16**	**101**	**33**	**74**	**107**	**875**

1 – Increased as shown in Table 3

Traffic Assignment

The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed distribution center were assigned to the roadway system in accordance with the directional distribution utilized in the original traffic impact study. **Figure 4** shows the assignment of the development-generated passenger traffic volumes. **Figure 5** shows the assignment of the development-generated truck traffic volumes.

Projected Traffic Volumes

The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed distribution center, as illustrated in Figures 2 and 3, were added to the existing traffic volumes to determine the Year 2026 total projected traffic volumes. The Year 2026 Total Projected traffic volumes are illustrated in **Figure 6**.

Capacity Analyses

Capacity analyses were performed for the study area intersections using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 6th Edition* and analyzed using Synchro/SimTraffic 10 software. Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing and Year 2026 total projected conditions are presented in **Tables 5** through **7**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

The capacity analysis results for the previous development plan included in Tables 3 and 5 are based on the volumes used in the previously conducted traffic impact study. **Figures 7, 8, and 9** illustrate the development-generated passenger traffic volumes, development-generated truck traffic volumes, and total projected volumes utilized in the traffic impact study.

Table 5
CAPACITY ANALYSIS RESULTS – MEIJER DRIVE AND ALGONQUIN ROAD (IL 62) - SIGNALIZED

Peak Hour	Condition	Operating Conditions by Approach										
		Northbound Meijer Drive			Southbound Access Drive	Eastbound Algonquin Road			Westbound Algonquin Road			Overall
		L	T	R	L/T/R	L	T	R	L	T	R	
Year 2020 Base	Weekday Morning	E 67.6	A 1.5		--	A 1.1	B 13.0	A 2.6	B 11.6	A 8.5		B 11.5
		C – 25.6				B – 12.4			A – 8.9			
	Weekday Evening	E 78.6	C 21.1		D 38.4	A 5.9	C 28.1	B 10.2	A 6.1	B 12.5		C 21.3
		D – 43.9				C – 26.6			B – 11.9			
Year 2026 Total Projected	Weekday Morning	E (E) 67.8 (67.8)	A (A) 1.5 (1.7)		--	A (A) 1.3 (1.3)	B (B) 14.4 (14.4)	A (A) 3.0 (3.0)	B (B) 12.3 (12.3)	A (A) 7.9 (7.9)		B (B) 12.3 (12.3)
		C – 27.5 (C - 27.6)				B – 13.7			A – 8.6 (A – 8.6)			
	Weekday Evening	F (E) 81.9 (76.8)	C (B) 20.2 (18.4)		D (D) 38.4 (40.5)	A (A) 5.9 (6.1)	C (C) 28.8 (29.1)	B (A) 10.3 (9.4)	A (A) 6.3 (6.5)	B (B) 12.5 (12.7)		C (C) 22.2 (22.1)
		D – 47.1 (D – 43.8)				C – 27.3 (C – 27.5)			B – 12.0 (B – 12.2)			
Previous Development Plan Total Projected[1]	Weekday Morning	E 68.2	A 1.5		D 54.0	A 6.2	B 14.8	A 7.1	A 9.5	B 15.7		B 18.4
		C – 29.3				B – 14.3			B – 15.2			
	Weekday Evening	E 73.5	D 39.0		D 43.9	A 6.6	B 16.0	A 6.2	B 11.4	B 16.0		C 20.9
		D – 52.4				B – 15.4			B – 15.7			

Delay is measured in seconds. L – Left, T – Through, R – Right
(XX) – With reassignment of two seconds of green time from the access drive (southbound) to Meijer Drive (northbound)
1 –Results from previously conducted study. Based on the previous studies traffic counts and account for a reallocation of green time as was assumed in the study.

Table 6
CAPACITY ANALYSIS RESULTS – YEAR 2020 BASE CONDITIONS
UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Meijer Drive with Golf Road				
• Eastbound Left Turns	C	15.3	C	24.8
• Westbound Left Turns	D	28.1	E	46.5
• Northbound Approach	C	19.2	E	38.0
• Southbound Approach	C	16.0	C	22.4
Meijer Drive with the Shared Weber Packaging and Site Access Road				
• Westbound Left Turns	A	7.6	A	7.9
• Northbound Approach	A	9.2	B	10.6
Meijer Drive with the Right-In/Right-Out Site Access Drive				
• Northbound Approach	--	--	B	10.9
Algonquin Road with the Three-Quarters Site Access Drive				
• Eastbound Approach	--	--	B	14.7
• Northbound Left Turns	B	13.6	B	12.6

LOS = Level of Service
Delay is measured in seconds.

Table 7
CAPACITY ANALYSIS RESULTS – TOTAL PROJECTED CONDITIONS
UNSIGNALIZED

Intersection	Total Projected – Proposed Development Plan				Total Projected – Previous Development Plan[1]			
	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Meijer Drive with Golf Road								
• Eastbound Left Turns	C	15.4	D	25.3	A	9.9	B	11.4
• Westbound Left Turns	D	28.6	E	47.4	B	13.8	C	17.4
• Northbound Approach	C	19.5	E	38.5	B	12.3	C	16.9
• Southbound Approach	C	16.0	C	22.6	A	9.3	A	9.0
Meijer Drive with the Shared Weber Packaging and Site Access Road								
• Westbound Left Turns	A	7.9	A	7.9	A	8.8	A	7.9
• Northbound Approach	A	9.3	B	10.8	B	10.3	B	11.1
Meijer Drive with the Right-In/Right-Out Site Access Drive								
• Northbound Approach	A	9.0	B	10.8	A	8.8	B	11.3
Algonquin Road with the Three-Quarters Site Access Drive								
• Eastbound Approach	C	15.8	B	15.4	A	9.8	B	11.8
• Northbound Left Turns	B	14.3	B	13.0	B	12.4	B	13.6

LOS = Level of Service
Delay is measured in seconds.
1 - Results from previously conducted study. Based on the previous studies traffic counts.

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-generated traffic.

Meijer Drive with Algonquin Road (IL 62)

Under existing conditions, this intersection operates at Level of Service (LOS) B during the weekday morning peak hour and LOS C during the weekday evening peak hour. Under Year 2026 total projected traffic conditions, the intersection is projected to operate at the same LOS with increases in delay of less than one second.

It is important to note that the northbound left-turn movement currently operates at LOS E during both peak hours and is projected to operate at LOS E to F. This is due to the fact that Meijer Drive and the access drive opposite Meijer Drive operate as a split phase operation where each receives green time independently. Further, the cycle length is 150 seconds during the weekday evening peak hour. As such, the combination of a long cycle length, split phase operation, and the limited green time given to Meijer Drive (a total of 16 seconds) all contribute to the less than desirable LOS/delay for the outbound movements on Meijer Drive, particularly during the weekday evening peak hour. However, despite these delays, 95th percentile queues on Meijer Drive are not projected to exceed 115 feet and are not projected to block the site access drives. Further, these queues are projected to clear with every green cycle.

It was recommended in the original traffic study that additional green time be given to Meijer Drive during both peak periods. The green time can be taken from the access drive green time (the opposite minor approach) since the access drive has a low volume of exiting traffic during the peak hours. As can be seen, with the reassignment of two seconds of green time, the northbound left turn is projected to operate at LOS E during both peak hours and the Algonquin Road movements are projected to continue operating at the same LOS with a change in delay of less than one second. Reallocation of green time from the minor approaches does not typically require the recalibration and optimization of the traffic signal interconnect system along Algonquin Road. As such, consideration should be given to reallocating two seconds of green time to Meijer Drive.

The signal is projected to operate at the same overall LOS as projected conditions from the previous traffic study for the previous development plan. No further roadway or traffic control improvements are needed or recommended at this intersection in conjunction with the addition of the proposed distribution center.

Meijer Drive with Golf Road (IL 58)

Under existing conditions, all critical movements at this intersection operate at LOS E or better during the weekday morning and weekday evening peak hours. Under Year 2026 total projected traffic volumes, all movements are projected to operate at a similar LOS with increases in delay of less than one second. As such, the intersection will continue to operate at an acceptable LOS and delay under projected traffic conditions and no roadway or traffic control improvements are needed or recommended at this intersection in conjunction with the addition of the proposed distribution center.

Meijer Drive with the Shared Weber Packaging and Site Access Road

Under existing conditions, all critical movements to and from the shared access road operate at LOS B or better during the weekday morning and weekday evening peak hours. Under Year 2026 total projected traffic volumes, all movements are projected to operate at the same LOS with increases in delay of less than one second. Further, 95th percentile queues at this access drive are not projected to exceed one to two vehicles and will not impact internal circulation. It should be noted that the proposed development is not projected to increase the volume of trucks on this access road by more than six during any hour throughout the day.

In order to ensure this access road will operate efficiently throughout the day, the access road was analyzed for a hypothetical worst-case scenario. For this scenario, peak existing traffic volumes at this intersection (3:15 P.M. to 4:15 P.M.) were increased by 75 percent to account for pre-pandemic conditions and added to peak trip generation volumes of the proposed development (4:00 P.M. to 5:00 P.M.). It is important to note that the peak hour of existing traffic volumes at this intersection overlaps with the peak hour of traffic on the shared access road, which occurs between 3:00 P.M. and 4:00 P.M. The capacity analysis results for this scenario are shown in **Table 8.**

Table 8
CAPACITY ANALYSIS RESULTS – WORST CASE SCENARIO - UNSIGNALIZED

Intersection	Weekday Evening Peak Hour	
	LOS	Delay
Meijer Drive with the Shared Weber Packaging and Site Access Road		
• Westbound Left Turns	A	8.5
• Northbound Approach	B	12.4

LOS = Level of Service
Delay is measured in seconds.

As can be seen in Table 8, even under worst case scenario conditions, the access road will continue to operate efficiently. As such, this access road can adequately accommodate the additional site traffic and no improvements are needed or recommended in conjunction with the proposed distribution center.

Meijer Drive with the Right-In/Right-Out Access Drive

Under existing conditions, all critical movements to and from this access drive operate at LOS B or better during the weekday morning and weekday evening peak hours. Under Year 2026 total projected traffic volumes, all movements are projected to operate at the same LOS with increases in delay of less than one second. Further, 95th percentile queues at this access drive are not projected to exceed one to two vehicles and will not impact internal circulation. As previously mentioned, 95th percentile queues from the signalized intersection of Algonquin Road with Meijer Drive are not projected to exceed 115 feet and will not block this access drive. As such, this access drive can adequately accommodate the additional site traffic and no improvements are needed or recommended in conjunction with the proposed distribution center.

Meijer Drive with the Three-Quarters Access Drive

Under existing conditions, all critical movements to and from this access drive operate at LOS B during the weekday morning and weekday evening peak hours. Under Year 2026 total projected traffic volumes, all movements are projected to operate at LOS C or better during both peak hours. Further, 95th percentile queues at this access drive are not projected to exceed one to two vehicles and will not impact internal circulation. As such, this access drive can adequately accommodate the additional site traffic and no improvements are needed or recommended in conjunction with the proposed distribution center.

On-Site Parking

With the completion of the proposed development, the site will provide 186 passenger vehicle parking spaces, 74 delivery van parking spaces, and 98 semi-trailer truck parking spaces. Based on information provided by the operator Taiki USA has 55 employees and AVI has 30 employees. Further, the proposed Frito Lay distribution center will have a maximum of 86 employees on site at one time. As such, the maximum parking demand the site will experience is 171 passenger vehicles, which can be accommodated within the proposed 186 passenger vehicle spaces.

In order to further confirm the adequacy of the proposed parking supply, the development was compared to rates included in the ITE *Parking Generation Manual*, 5th Edition. The parking manual indicates that a warehouse/distribution facility should provide parking at a rate of 0.39 parking spaces per 1,000 square feet. As such, with a total size of 184,619 square feet, the development should provide 72 parking spaces which is considerably lower than the provided 186 parking spaces.

Conclusion

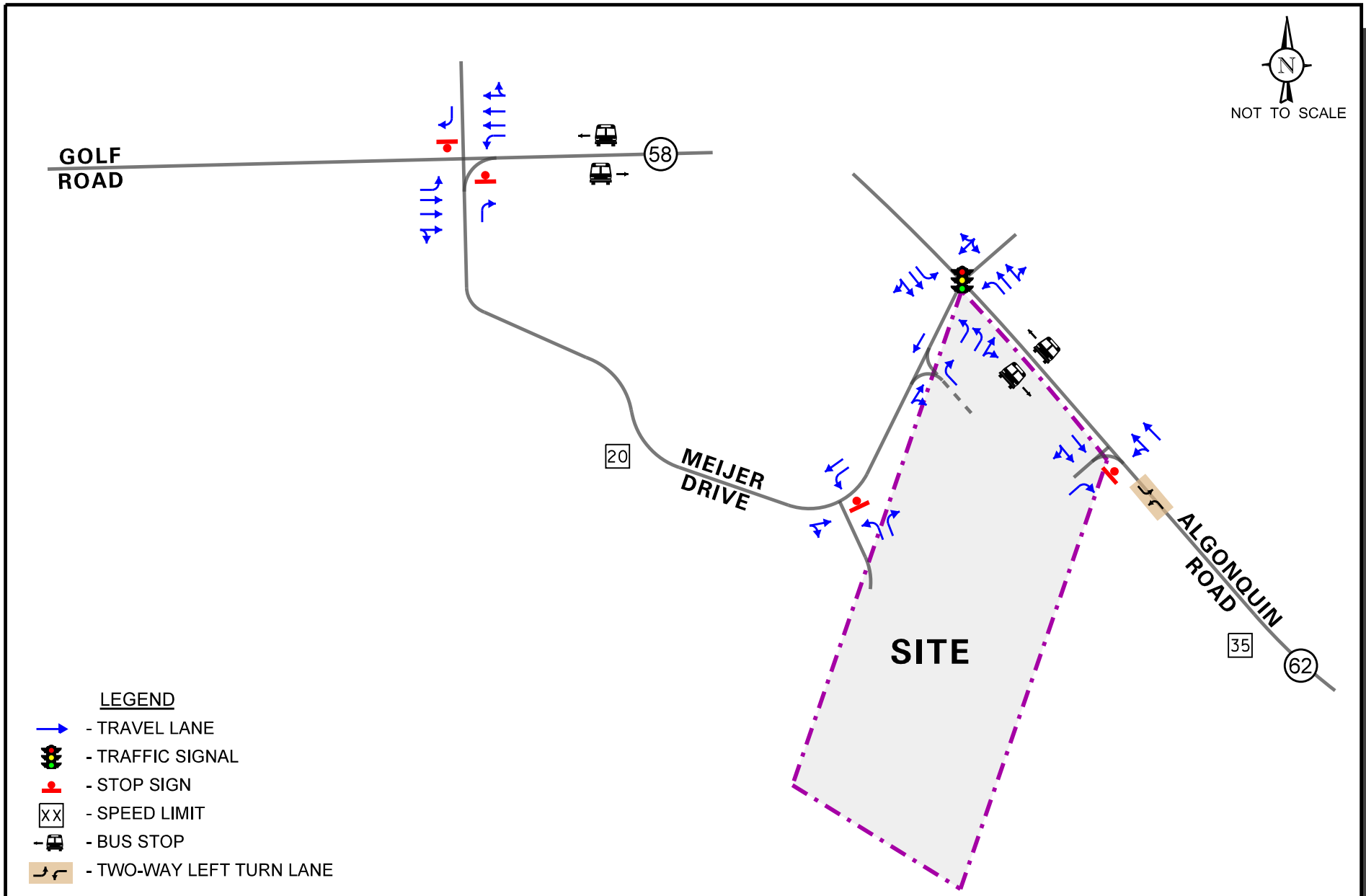
Based on the preceding, the following conclusions have been made:

- The proposed distribution development will generate a comparable volume to the previous approved development.
- The signalized intersection of IL 62 and Meijer Drive has sufficient reserve capacity to accommodate the proposed site-generated traffic volumes.
- The proposed access system will continue to provide efficient and flexible access to and from the site.
- The site will provide adequate parking for the existing and proposed tenants.

Appendix

Roadway Figures
Traffic Count Summary Sheets
Shared Access Drive 24-Hour Volumes
Preliminary Site Plan
Daily Estimated Site-Generated Traffic Volumes
Level of Service Criteria
Capacity Analysis Summary Sheets

Roadway Figures



Arlington Heights
Industrial
Arlington Heights, Illinois

Existing Roadway Characteristics

KLOA
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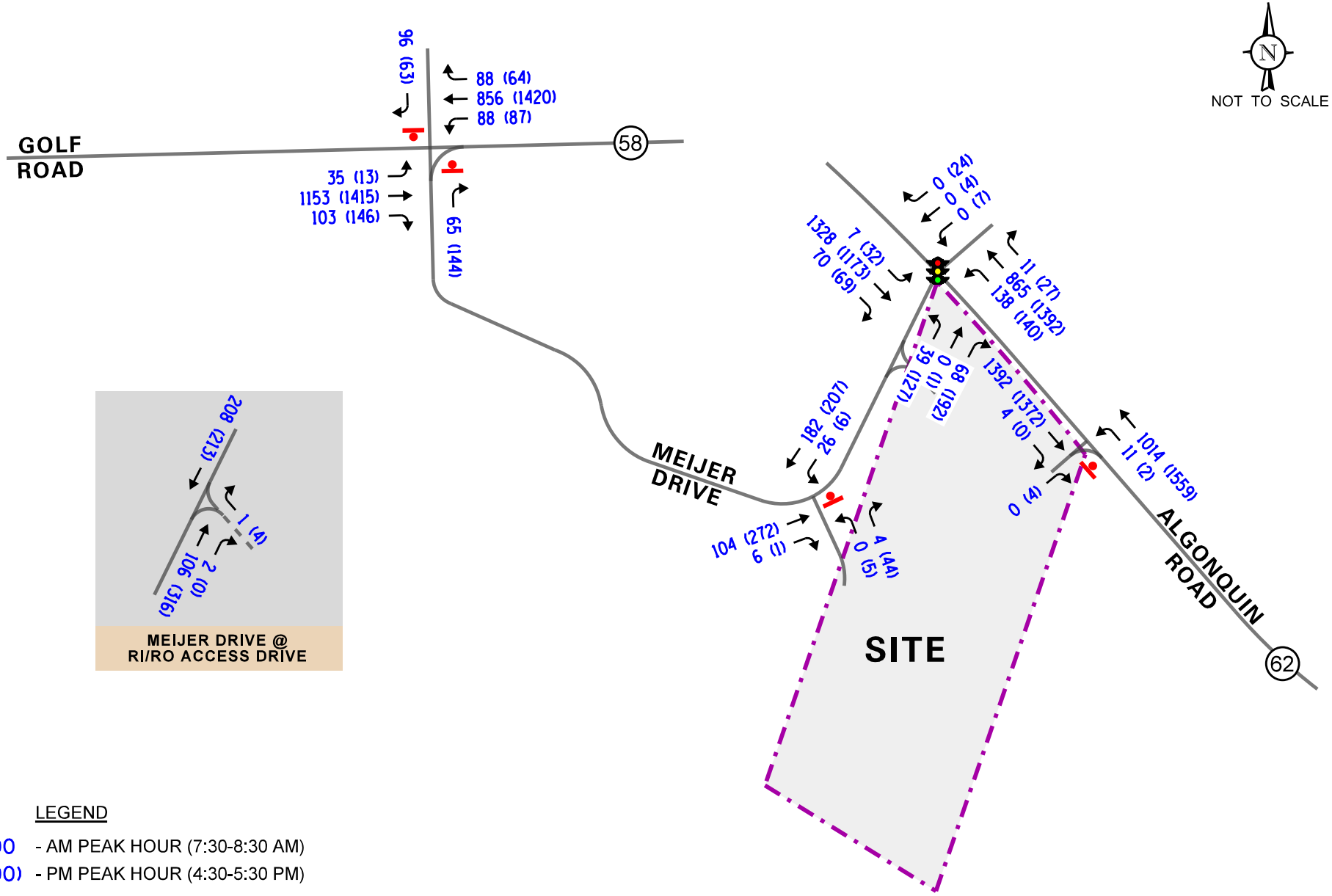
Job No: 17-173

Figure: 1



Arlington Heights Industrial
Arlington Heights, Illinois

Year 2020 Base Traffic Volumes

KLOA
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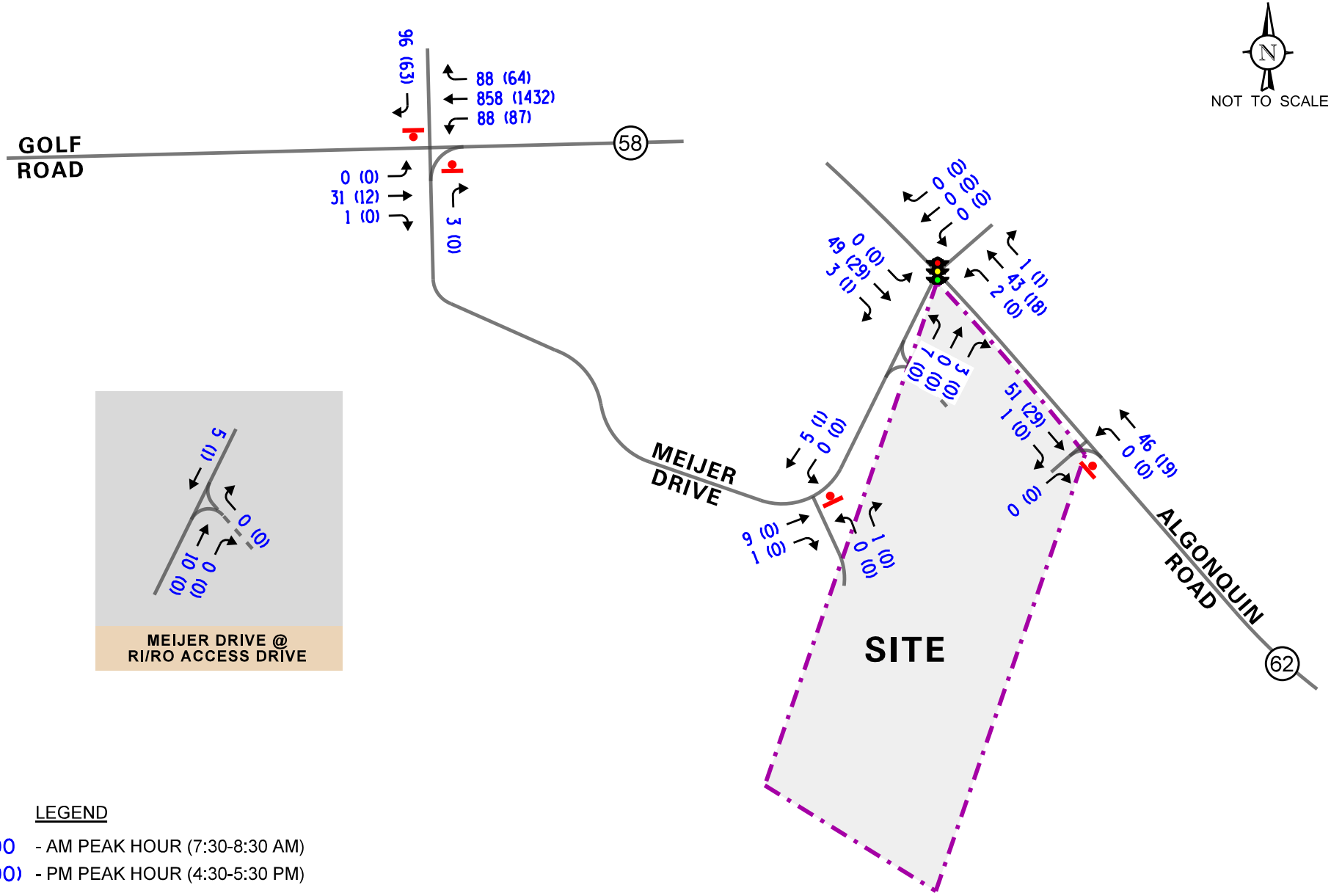
Job No: 17-173 Figure: 2



Arlington Heights Industrial
Arlington Heights, Illinois

Year 2020 Base Heavy Vehicle Traffic Volumes

KLOA
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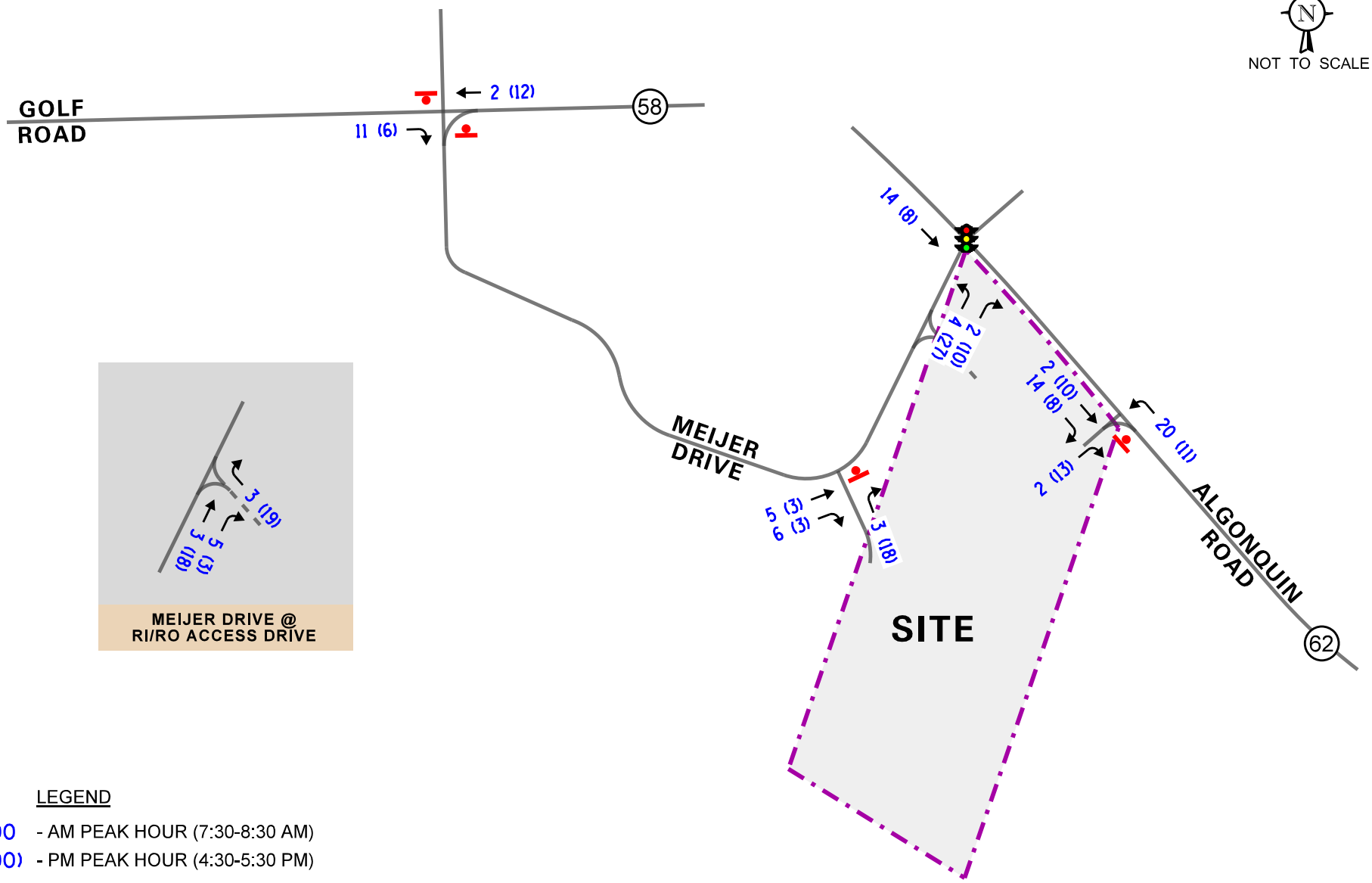
Job No: 17-173

Figure: 3



Arlington Heights
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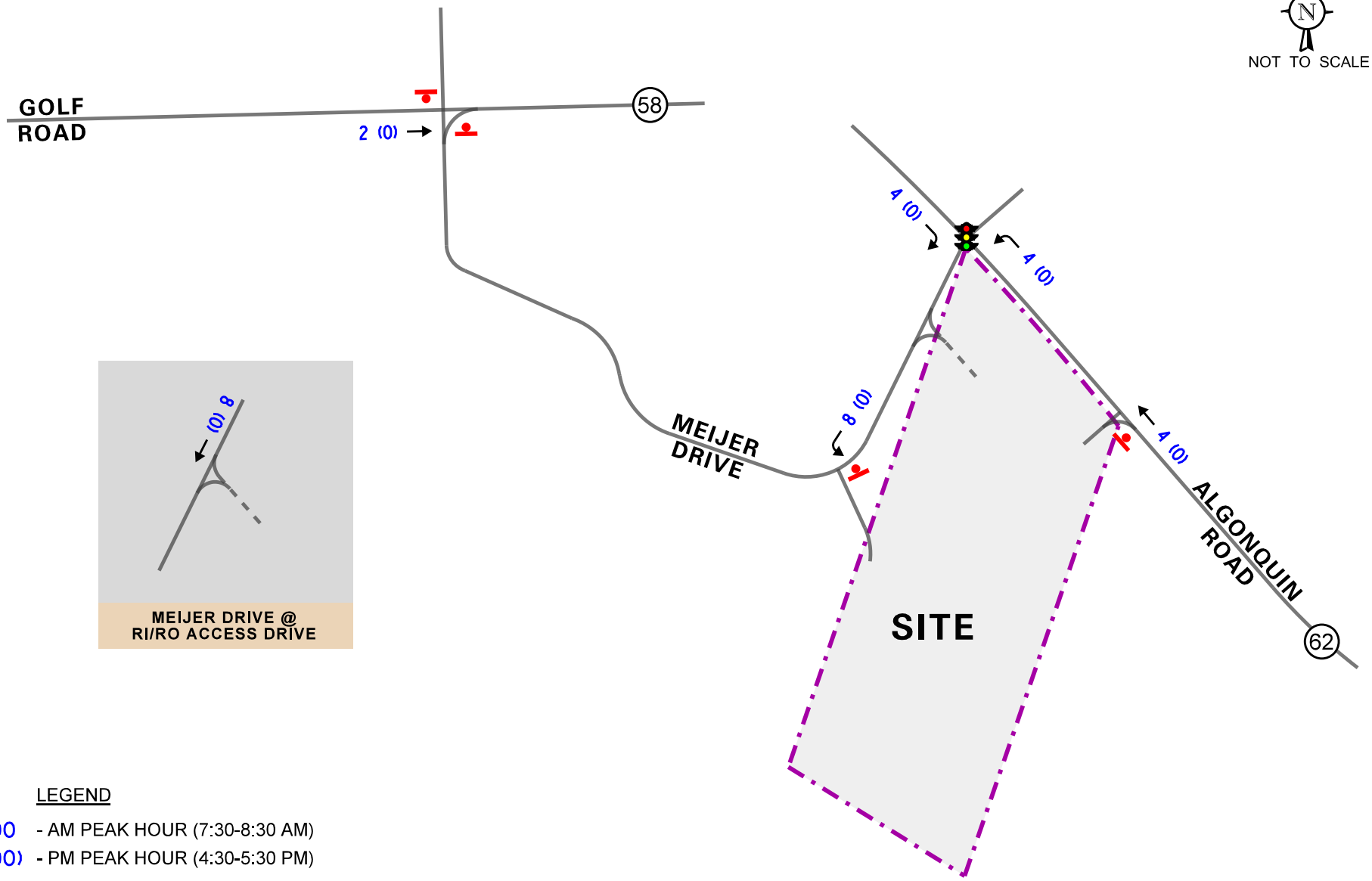
Estimated Site-Generated
Passenger Vehicle Traffic Volumes

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

Job No: 17-173

Figure: 4



Arlington Heights
Industrial
Arlington Heights, Illinois

Estimated Site-Generated Truck Traffic Volumes

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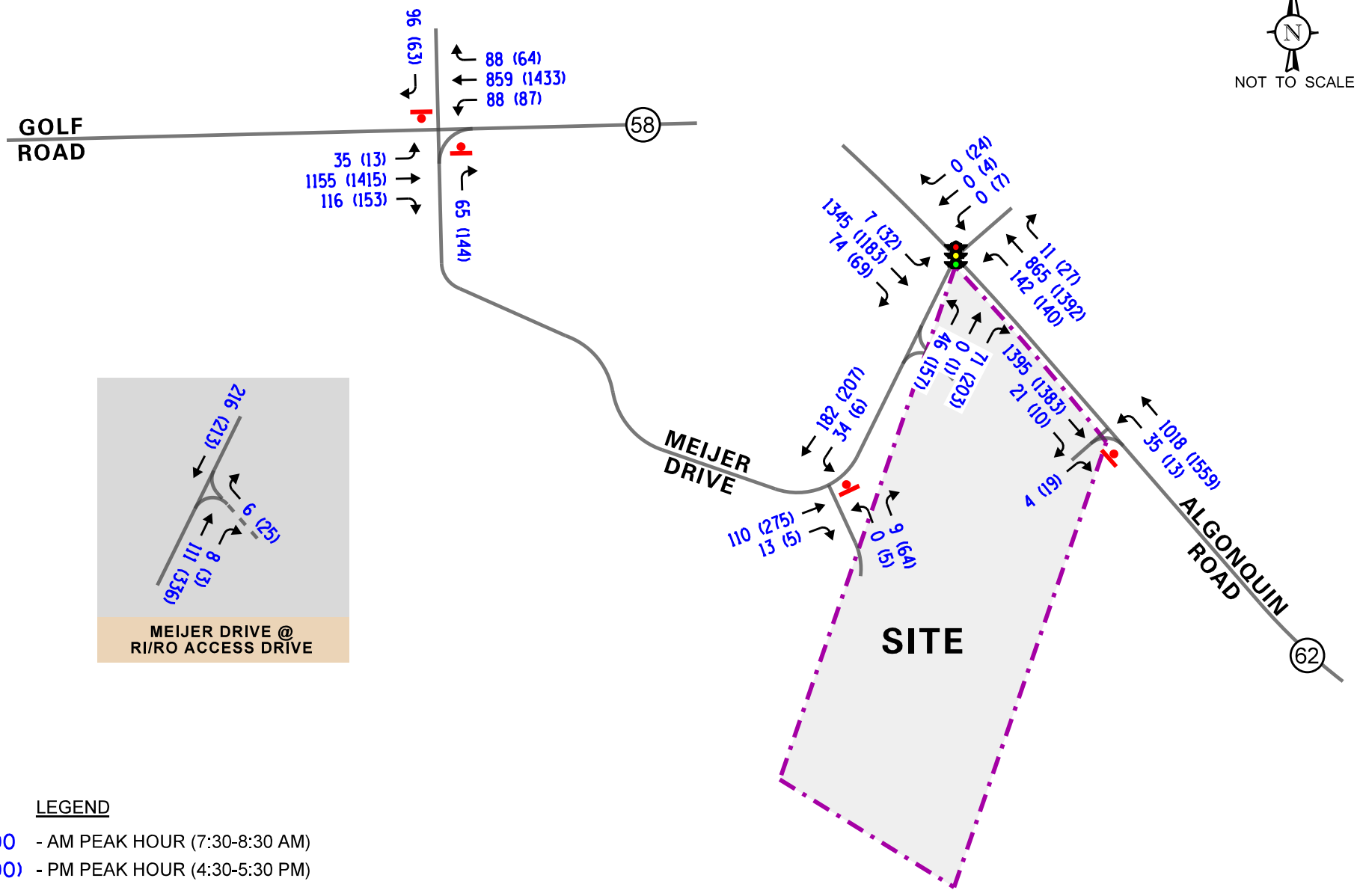
Job No: 17-173 Figure: 5



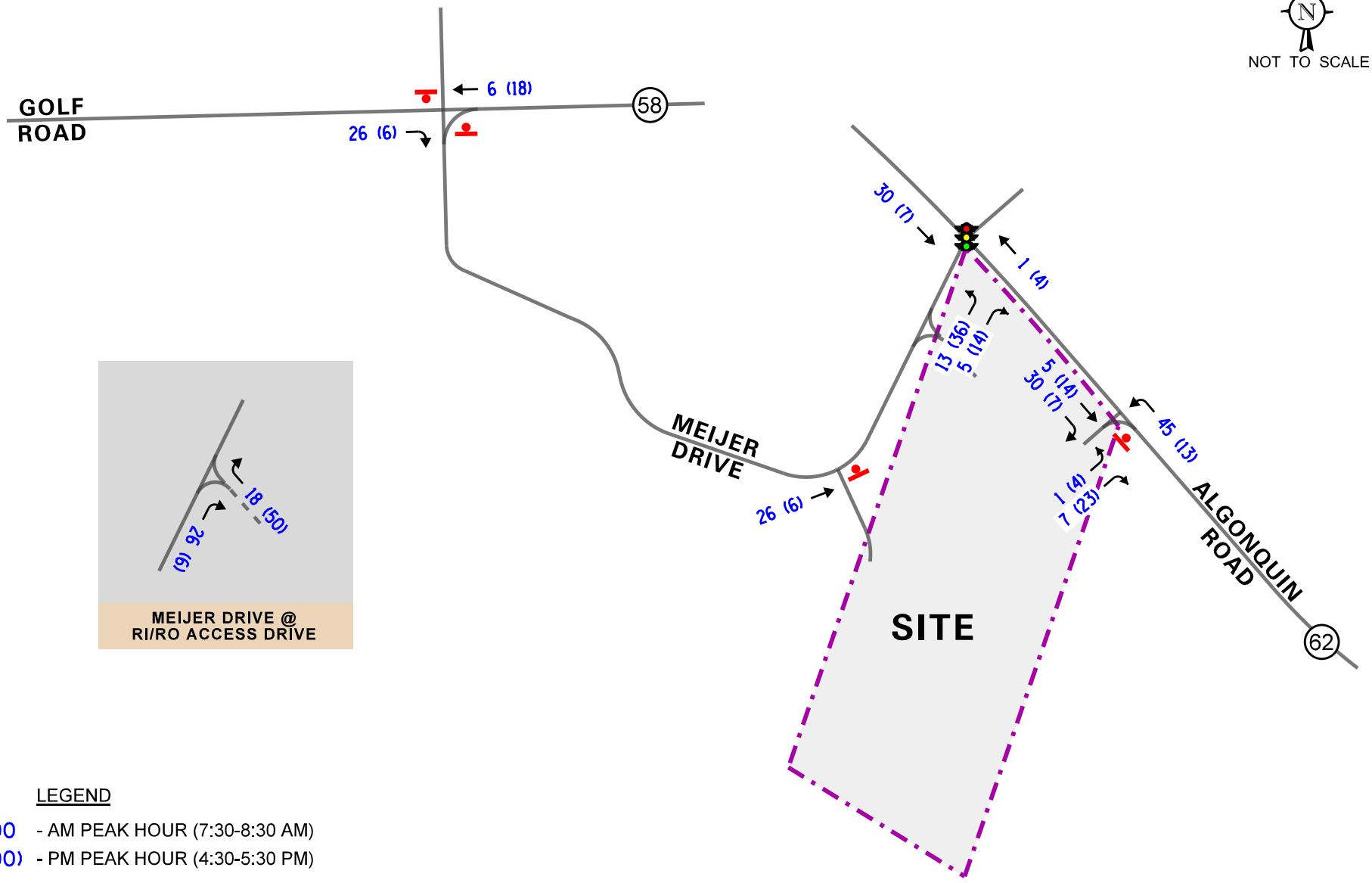
Arlington Heights Industrial
Arlington Heights, Illinois

Total Projected Traffic Volumes

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

Job No: 17-173

Figure: 6

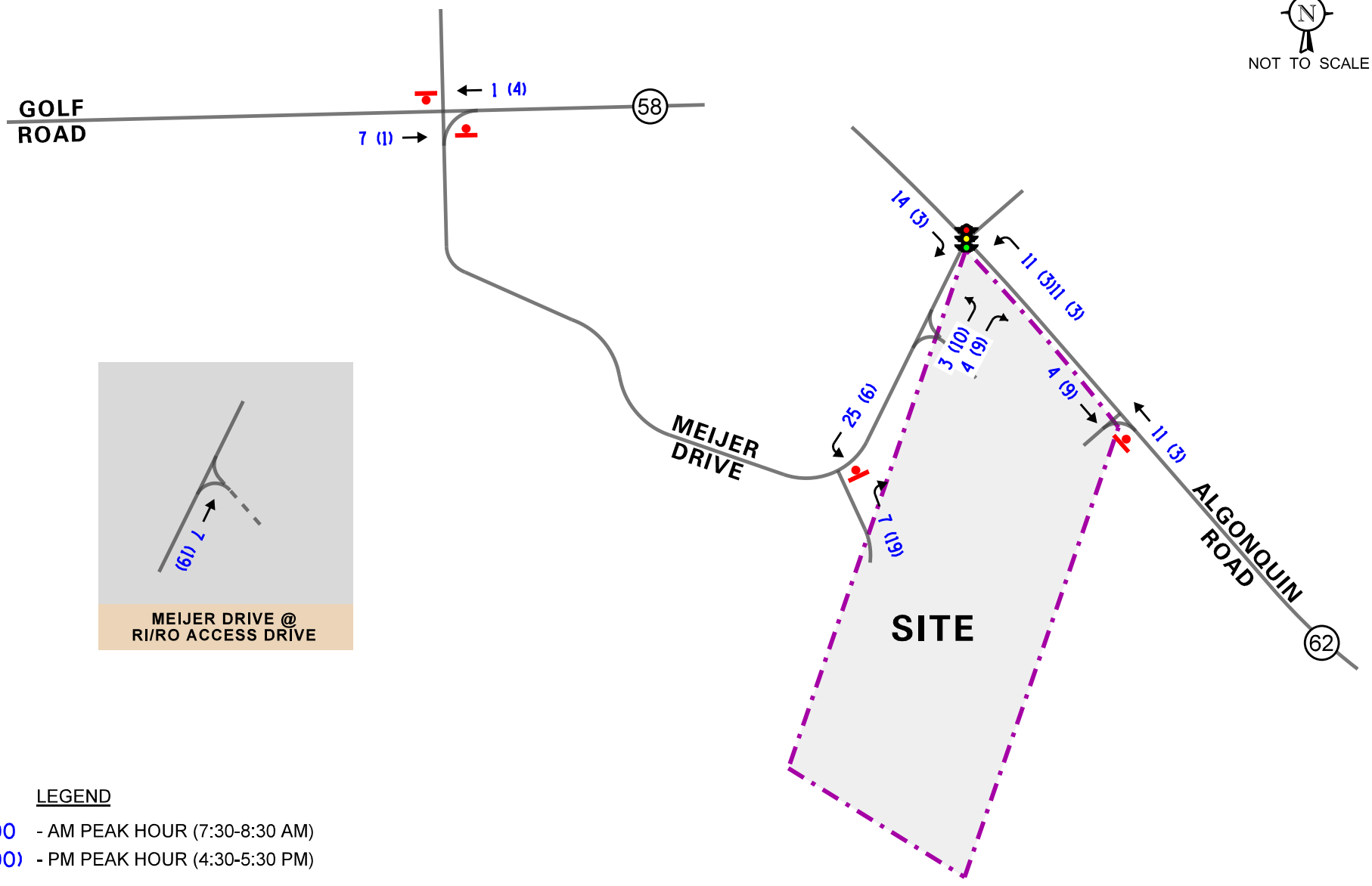


Arlington Heights
Industrial
Arlington Heights, Illinois

Previous Development Plan
Site-Generated Passenger Vehicle Traffic Volumes

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

Job No: 17-173 Figure: 7

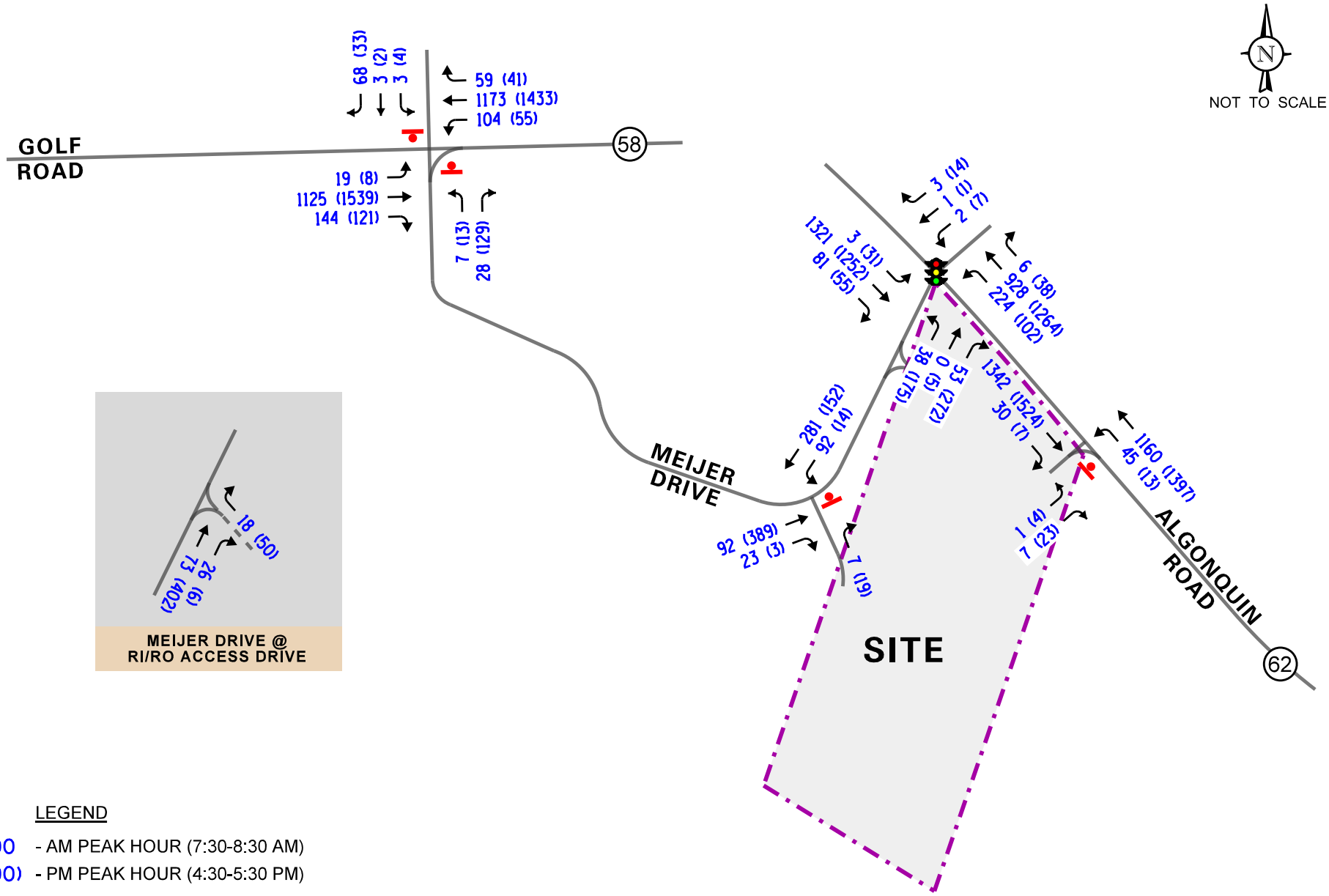


Arlington Heights Industrial
Arlington Heights, Illinois

Previous Development Plan
Site-Generated Truck Traffic Volumes

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

Job No: 17-173 Figure: 8



Arlington Heights
Industrial
Arlington Heights, Illinois

Previous Development Plan
Total Projected Traffic Volumes

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

Job No: 17-173

Figure: 9

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: Algonquin Road with 3/4 Access
Site Code:
Start Date: 10/08/2020

Turning Movement Data

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						3/4 Access Northbound						Southbound Approach 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	162	0	0	162	0	1	121	1	0	123	0	0	0	0	1	0	0	0	1	0	2	1	286
7:15 AM	0	0	171	6	0	177	0	9	129	1	0	139	0	0	0	0	2	0	0	0	0	1	0	1	317
7:30 AM	0	1	202	2	0	205	0	7	151	1	0	159	0	0	0	0	0	0	0	0	0	0	0	0	364
7:45 AM	0	1	224	1	0	226	0	4	155	1	0	160	0	0	0	0	0	0	0	0	0	1	0	1	387
Hourly Total	0	2	759	9	0	770	0	21	556	4	0	581	0	0	0	0	3	0	0	0	1	2	2	3	1354
8:00 AM	0	0	154	1	0	155	0	0	124	3	0	127	0	0	0	0	0	0	0	0	0	0	0	0	282
8:15 AM	0	3	203	0	0	206	0	0	149	2	0	151	0	0	0	0	3	0	0	0	0	0	0	0	357
8:30 AM	0	0	197	0	0	197	0	0	144	1	0	145	0	0	0	0	1	0	0	0	0	0	1	0	342
8:45 AM	0	1	185	0	0	186	0	1	149	2	0	152	0	0	0	2	0	2	0	1	0	0	0	1	341
Hourly Total	0	4	739	1	0	744	0	1	566	8	0	575	0	0	0	2	4	2	0	1	0	0	1	1	1322
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	1	227	0	0	228	0	0	236	1	0	237	0	0	0	1	0	1	1	0	0	0	0	1	467
3:15 PM	0	1	212	0	0	213	0	0	244	3	0	247	0	0	0	1	0	1	0	0	0	0	0	0	461
3:30 PM	0	0	268	0	0	268	0	1	288	0	0	289	0	0	0	2	0	2	0	0	0	0	0	0	559
3:45 PM	0	1	243	0	0	244	0	0	256	0	0	256	0	0	0	1	0	1	0	0	0	0	4	0	501
Hourly Total	0	3	950	0	0	953	0	1	1024	4	0	1029	0	0	0	5	0	5	1	0	0	0	4	1	1988
4:00 PM	0	2	243	0	0	245	0	1	227	3	0	231	0	0	0	9	1	9	0	0	0	0	0	0	485
4:15 PM	0	1	257	0	0	258	0	0	234	0	0	234	0	0	0	10	1	10	0	0	0	1	0	1	503
4:30 PM	0	0	225	0	0	225	0	1	277	1	0	279	0	0	2	0	0	2	0	0	0	0	0	0	506
4:45 PM	0	1	257	0	0	258	0	0	272	0	0	272	0	0	0	0	0	0	0	0	0	0	0	0	530
Hourly Total	0	4	982	0	0	986	0	2	1010	4	0	1016	0	0	2	19	2	21	0	0	0	1	0	1	2024
5:00 PM	0	2	243	0	0	245	0	0	262	0	0	262	0	0	0	0	1	0	0	0	0	0	0	0	507
5:15 PM	0	1	249	0	0	250	0	1	297	0	0	298	0	0	0	2	0	2	0	0	0	0	0	0	550
5:30 PM	0	0	230	0	0	230	0	0	264	0	0	264	0	0	0	0	2	0	0	0	0	0	0	0	494
5:45 PM	0	0	202	0	0	202	0	0	253	2	0	255	0	0	0	1	0	1	0	0	0	0	0	0	458
Hourly Total	0	3	924	0	0	927	0	1	1076	2	0	1079	0	0	0	3	3	3	0	0	0	0	0	0	2009
Grand Total	0	16	4354	10	0	4380	0	26	4232	22	0	4280	0	0	2	29	12	31	1	1	1	3	7	6	8697
Approach %	0.0	0.4	99.4	0.2	-	-	0.0	0.6	98.9	0.5	-	-	0.0	0.0	6.5	93.5	-	-	16.7	16.7	16.7	50.0	-	-	-
Total %	0.0	0.2	50.1	0.1	-	50.4	0.0	0.3	48.7	0.3	-	49.2	0.0	0.0	0.0	0.3	-	0.4	0.0	0.0	0.0	0.0	-	0.1	-
Lights	0	12	4161	6	-	4179	0	26	4082	16	-	4124	0	0	0	26	-	26	1	1	0	1	-	3	8332
% Lights	-	75.0	95.6	60.0	-	95.4	-	100.0	96.5	72.7	-	96.4	-	-	0.0	89.7	-	83.9	100.0	100.0	0.0	33.3	-	50.0	95.8
Buses	0	0	25	0	-	25	0	0	20	0	-	20	0	0	0	0	-	0	0	0	0	0	-	0	45
% Buses	-	0.0	0.6	0.0	-	0.6	-	0.0	0.5	0.0	-	0.5	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	4	125	3	-	132	0	0	97	2	-	99	0	0	0	0	-	0	0	0	0	1	-	1	232
% Single-Unit Trucks	-	25.0	2.9	30.0	-	3.0	-	0.0	2.3	9.1	-	2.3	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	33.3	-	16.7	2.7

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

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

Count Name: Algonquin Road with 3/4 Access
Site Code:
Start Date: 10/08/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						3/4 Access Northbound						Southbound Approach 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	
7:30 AM	0	1	202	2	0	205	0	7	151	1	0	159	0	0	0	0	0	0	0	0	0	0	0	0	364
7:45 AM	0	1	224	1	0	226	0	4	155	1	0	160	0	0	0	0	0	0	0	0	0	1	0	1	387
8:00 AM	0	0	154	1	0	155	0	0	124	3	0	127	0	0	0	0	0	0	0	0	0	0	0	0	282
8:15 AM	0	3	203	0	0	206	0	0	149	2	0	151	0	0	0	0	3	0	0	0	0	0	0	0	357
Total	0	5	783	4	0	792	0	11	579	7	0	597	0	0	0	0	3	0	0	0	0	1	0	1	1390
Approach %	0.0	0.6	98.9	0.5	-	-	0.0	1.8	97.0	1.2	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	100.0	-	-	-
Total %	0.0	0.4	56.3	0.3	-	57.0	0.0	0.8	41.7	0.5	-	42.9	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.1	-	0.1	-
PHF	0.000	0.417	0.874	0.500	-	0.876	0.000	0.393	0.934	0.583	-	0.933	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.250	-	0.250	0.898
Lights	0	5	732	3	-	740	0	11	534	7	-	552	0	0	0	0	-	0	0	0	0	0	-	0	1292
% Lights	-	100.0	93.5	75.0	-	93.4	-	100.0	92.2	100.0	-	92.5	-	-	-	-	-	-	-	-	-	0.0	-	0.0	92.9
Buses	0	0	3	0	-	3	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	5
% Buses	-	0.0	0.4	0.0	-	0.4	-	0.0	0.3	0.0	-	0.3	-	-	-	-	-	-	-	-	-	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	40	0	-	40	0	0	34	0	-	34	0	0	0	0	-	0	0	0	0	0	-	0	74
% Single-Unit Trucks	-	0.0	5.1	0.0	-	5.1	-	0.0	5.9	0.0	-	5.7	-	-	-	-	-	-	-	-	-	0.0	-	0.0	5.3
Articulated Trucks	0	0	8	1	-	9	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	18
% Articulated Trucks	-	0.0	1.0	25.0	-	1.1	-	0.0	1.6	0.0	-	1.5	-	-	-	-	-	-	-	-	-	0.0	-	0.0	1.3
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	-	-	-	-	-	-	-	-	-	100.0	-	100.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-
% 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: Algonquin Road with 3/4 Access
Site Code:
Start Date: 10/08/2020

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						3/4 Access Northbound						Southbound Approach 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	
4:30 PM	0	0	225	0	0	225	0	1	277	1	0	279	0	0	2	0	0	2	0	0	0	0	0	0	506
4:45 PM	0	1	257	0	0	258	0	0	272	0	0	272	0	0	0	0	0	0	0	0	0	0	0	0	530
5:00 PM	0	2	243	0	0	245	0	0	262	0	0	262	0	0	0	0	1	0	0	0	0	0	0	0	507
5:15 PM	0	1	249	0	0	250	0	1	297	0	0	298	0	0	0	2	0	2	0	0	0	0	0	0	550
Total	0	4	974	0	0	978	0	2	1108	1	0	1111	0	0	2	2	1	4	0	0	0	0	0	0	2093
Approach %	0.0	0.4	99.6	0.0	-	-	0.0	0.2	99.7	0.1	-	-	0.0	0.0	50.0	50.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	0.2	46.5	0.0	-	46.7	0.0	0.1	52.9	0.0	-	53.1	0.0	0.0	0.1	0.1	-	0.2	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.500	0.947	0.000	-	0.948	0.000	0.500	0.933	0.250	-	0.932	0.000	0.000	0.250	0.250	-	0.500	0.000	0.000	0.000	0.000	-	0.000	0.951
Lights	0	1	948	0	-	949	0	2	1089	0	-	1091	0	0	0	2	-	2	0	0	0	0	-	0	2042
% Lights	-	25.0	97.3	-	-	97.0	-	100.0	98.3	0.0	-	98.2	-	-	0.0	100.0	-	50.0	-	-	-	-	-	-	97.6
Buses	0	0	5	0	-	5	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	8
% Buses	-	0.0	0.5	-	-	0.5	-	0.0	0.3	0.0	-	0.3	-	-	0.0	0.0	-	0.0	-	-	-	-	-	-	0.4
Single-Unit Trucks	0	3	16	0	-	19	0	0	14	0	-	14	0	0	0	0	-	0	0	0	0	0	-	0	33
% Single-Unit Trucks	-	75.0	1.6	-	-	1.9	-	0.0	1.3	0.0	-	1.3	-	-	0.0	0.0	-	0.0	-	-	-	-	-	-	1.6
Articulated Trucks	0	0	5	0	-	5	0	0	2	1	-	3	0	0	0	0	-	0	0	0	0	0	-	0	8
% Articulated Trucks	-	0.0	0.5	-	-	0.5	-	0.0	0.2	100.0	-	0.3	-	-	0.0	0.0	-	0.0	-	-	-	-	-	-	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	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	-	-	100.0	0.0	-	50.0	-	-	-	-	-	-	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% 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: Meijer Drive with Algonquin Road
Site Code:
Start Date: 10/08/2020

Turning Movement Data

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Meijer Drive Northbound						Access drive 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	1	1	153	5	0	160	0	13	108	1	0	122	0	4	0	11	0	15	0	0	1	0	0	1	298
7:15 AM	1	1	178	6	0	186	0	15	125	0	0	140	0	4	0	7	2	11	0	0	0	0	0	0	337
7:30 AM	0	1	210	5	0	216	0	16	127	1	0	144	0	6	0	2	0	8	0	0	0	0	0	0	368
7:45 AM	0	2	199	9	0	210	0	20	122	4	0	146	0	7	0	9	0	16	0	0	0	0	1	0	372
Hourly Total	2	5	740	25	0	772	0	64	482	6	0	552	0	21	0	29	2	50	0	0	1	0	1	1	1375
8:00 AM	1	0	172	16	0	189	0	17	113	0	0	130	0	2	0	9	0	11	0	0	0	0	0	0	330
8:15 AM	0	0	178	10	0	188	0	23	131	1	0	155	0	7	0	18	1	25	0	0	0	0	1	0	368
8:30 AM	0	0	184	10	0	194	0	18	125	1	0	144	0	11	0	17	1	28	0	0	0	1	2	1	367
8:45 AM	0	2	176	5	0	183	0	12	122	1	0	135	0	6	1	15	0	22	0	0	0	2	0	2	342
Hourly Total	1	2	710	41	0	754	0	70	491	3	0	564	0	26	1	59	2	86	0	0	0	3	3	3	1407
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	2	3	186	14	0	205	0	22	230	3	0	255	0	22	0	27	1	49	0	1	0	3	0	4	513
3:15 PM	2	2	195	14	1	213	0	26	208	3	0	237	0	17	1	22	0	40	0	2	0	3	0	5	495
3:30 PM	0	4	216	13	1	233	0	34	272	3	1	309	0	27	0	49	1	76	0	1	0	3	0	4	622
3:45 PM	2	4	219	14	0	239	0	23	222	3	0	248	0	20	0	25	0	45	0	1	0	7	2	8	540
Hourly Total	6	13	816	55	2	890	0	105	932	12	1	1049	0	86	1	123	2	210	0	5	0	16	2	21	2170
4:00 PM	2	2	217	13	0	234	0	25	195	4	0	224	0	26	0	32	0	58	0	2	0	4	0	6	522
4:15 PM	0	2	229	13	0	244	0	24	213	4	0	241	0	18	0	22	2	40	0	3	0	5	0	8	533
4:30 PM	0	5	189	17	0	211	0	26	248	2	0	276	0	29	0	32	0	61	0	1	3	3	0	7	555
4:45 PM	0	4	227	9	0	240	0	25	242	2	0	269	0	12	0	37	0	49	0	1	0	2	1	3	561
Hourly Total	2	13	862	52	0	929	0	100	898	12	0	1010	0	85	0	123	2	208	0	7	3	14	1	24	2171
5:00 PM	2	6	204	12	0	224	0	14	258	9	0	281	0	27	1	33	0	61	0	0	0	5	0	5	571
5:15 PM	1	5	215	11	0	232	0	24	246	6	0	276	0	23	0	29	1	52	0	3	0	7	0	10	570
5:30 PM	1	1	206	5	0	213	0	19	240	7	1	266	0	13	1	17	0	31	0	0	1	3	0	4	514
5:45 PM	2	2	181	8	1	193	0	24	227	4	0	255	0	12	0	22	1	34	0	3	1	6	0	10	492
Hourly Total	6	14	806	36	1	862	0	81	971	26	1	1078	0	75	2	101	2	178	0	6	2	21	0	29	2147
Grand Total	17	47	3934	209	3	4207	0	420	3774	59	2	4253	0	293	4	435	10	732	0	18	6	54	7	78	9270
Approach %	0.4	1.1	93.5	5.0	-	-	0.0	9.9	88.7	1.4	-	-	0.0	40.0	0.5	59.4	-	-	0.0	23.1	7.7	69.2	-	-	-
Total %	0.2	0.5	42.4	2.3	-	45.4	0.0	4.5	40.7	0.6	-	45.9	0.0	3.2	0.0	4.7	-	7.9	0.0	0.2	0.1	0.6	-	0.8	-
Lights	17	46	3762	198	-	4023	0	405	3626	54	-	4085	0	280	4	411	-	695	0	18	4	53	-	75	8878
% Lights	100.0	97.9	95.6	94.7	-	95.6	-	96.4	96.1	91.5	-	96.0	-	95.6	100.0	94.5	-	94.9	-	100.0	66.7	98.1	-	96.2	95.8
Buses	0	0	27	0	-	27	0	0	28	0	-	28	0	1	0	0	-	1	0	0	0	0	-	0	56
% Buses	0.0	0.0	0.7	0.0	-	0.6	-	0.0	0.7	0.0	-	0.7	-	0.3	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	0.6
Single-Unit Trucks	0	0	104	6	-	110	0	10	81	4	-	95	0	9	0	17	-	26	0	0	0	1	-	1	232
% Single-Unit Trucks	0.0	0.0	2.6	2.9	-	2.6	-	2.4	2.1	6.8	-	2.2	-	3.1	0.0	3.9	-	3.6	-	0.0	0.0	1.9	-	1.3	2.5

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

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

Count Name: Meijer Drive with Algonquin Road
Site Code:
Start Date: 10/08/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Meijer Drive Northbound						Access drive 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
7:30 AM	0	1	210	5	0	216	0	16	127	1	0	144	0	6	0	2	0	8	0	0	0	0	0	0	368
7:45 AM	0	2	199	9	0	210	0	20	122	4	0	146	0	7	0	9	0	16	0	0	0	0	1	0	372
8:00 AM	1	0	172	16	0	189	0	17	113	0	0	130	0	2	0	9	0	11	0	0	0	0	0	0	330
8:15 AM	0	0	178	10	0	188	0	23	131	1	0	155	0	7	0	18	1	25	0	0	0	0	1	0	368
Total	1	3	759	40	0	803	0	76	493	6	0	575	0	22	0	38	1	60	0	0	0	0	2	0	1438
Approach %	0.1	0.4	94.5	5.0	-	-	0.0	13.2	85.7	1.0	-	-	0.0	36.7	0.0	63.3	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.1	0.2	52.8	2.8	-	55.8	0.0	5.3	34.3	0.4	-	40.0	0.0	1.5	0.0	2.6	-	4.2	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.250	0.375	0.904	0.625	-	0.929	0.000	0.826	0.941	0.375	-	0.927	0.000	0.786	0.000	0.528	-	0.600	0.000	0.000	0.000	0.000	-	0.000	0.966
Lights	1	3	716	37	-	757	0	74	449	5	-	528	0	16	0	35	-	51	0	0	0	0	-	0	1336
% Lights	100.0	100.0	94.3	92.5	-	94.3	-	97.4	91.1	83.3	-	91.8	-	72.7	-	92.1	-	85.0	-	-	-	-	-	-	92.9
Buses	0	0	4	0	-	4	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	7
% Buses	0.0	0.0	0.5	0.0	-	0.5	-	0.0	0.6	0.0	-	0.5	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.5
Single-Unit Trucks	0	0	28	2	-	30	0	1	29	1	-	31	0	5	0	2	-	7	0	0	0	0	-	0	68
% Single-Unit Trucks	0.0	0.0	3.7	5.0	-	3.7	-	1.3	5.9	16.7	-	5.4	-	22.7	-	5.3	-	11.7	-	-	-	-	-	-	4.7
Articulated Trucks	0	0	11	1	-	12	0	1	11	0	-	12	0	1	0	1	-	2	0	0	0	0	-	0	26
% Articulated Trucks	0.0	0.0	1.4	2.5	-	1.5	-	1.3	2.2	0.0	-	2.1	-	4.5	-	2.6	-	3.3	-	-	-	-	-	-	1.8
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	-	0.0	-	0.0	-	0.0	-	-	-	-	-	-	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-
% 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: Meijer Drive with Algonquin Road
Site Code:
Start Date: 10/08/2020

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Algonquin Road Eastbound						Algonquin Road Westbound						Meijer Drive Northbound						Access drive 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	
4:30 PM	0	5	189	17	0	211	0	26	248	2	0	276	0	29	0	32	0	61	0	1	3	3	0	7	555
4:45 PM	0	4	227	9	0	240	0	25	242	2	0	269	0	12	0	37	0	49	0	1	0	2	1	3	561
5:00 PM	2	6	204	12	0	224	0	14	258	9	0	281	0	27	1	33	0	61	0	0	0	5	0	5	571
5:15 PM	1	5	215	11	0	232	0	24	246	6	0	276	0	23	0	29	1	52	0	3	0	7	0	10	570
Total	3	20	835	49	0	907	0	89	994	19	0	1102	0	91	1	131	1	223	0	5	3	17	1	25	2257
Approach %	0.3	2.2	92.1	5.4	-	-	0.0	8.1	90.2	1.7	-	-	0.0	40.8	0.4	58.7	-	-	0.0	20.0	12.0	68.0	-	-	-
Total %	0.1	0.9	37.0	2.2	-	40.2	0.0	3.9	44.0	0.8	-	48.8	0.0	4.0	0.0	5.8	-	9.9	0.0	0.2	0.1	0.8	-	1.1	-
PHF	0.375	0.833	0.920	0.721	-	0.945	0.000	0.856	0.963	0.528	-	0.980	0.000	0.784	0.250	0.885	-	0.914	0.000	0.417	0.250	0.607	-	0.625	0.988
Lights	3	19	807	49	-	878	0	89	978	18	-	1085	0	91	1	131	-	223	0	5	2	17	-	24	2210
% Lights	100.0	95.0	96.6	100.0	-	96.8	-	100.0	98.4	94.7	-	98.5	-	100.0	100.0	100.0	-	100.0	-	100.0	66.7	100.0	-	96.0	97.9
Buses	0	0	5	0	-	5	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	9
% Buses	0.0	0.0	0.6	0.0	-	0.6	-	0.0	0.4	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks	0	0	18	0	-	18	0	0	10	1	-	11	0	0	0	0	-	0	0	0	0	0	-	0	29
% Single-Unit Trucks	0.0	0.0	2.2	0.0	-	2.0	-	0.0	1.0	5.3	-	1.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	1.3
Articulated Trucks	0	0	5	0	-	5	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	7
% Articulated Trucks	0.0	0.0	0.6	0.0	-	0.6	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	2
% Bicycles on Road	0.0	5.0	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	33.3	0.0	-	4.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Meijer Drive with Golf Road
Site Code:
Start Date: 10/08/2020

Turning Movement Data

Start Time	Golf Road Eastbound						Golf Road Westbound						Meijer Drive Northbound						Meijer Drive 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	3	138	5	0	146	0	10	126	6	0	142	0	2	0	3	0	5	0	1	3	10	0	14	307
7:15 AM	0	4	156	11	0	171	0	7	112	5	0	124	0	1	0	6	0	7	0	1	2	10	0	13	315
7:30 AM	0	2	157	13	0	172	0	10	126	9	0	145	0	0	1	6	0	7	0	1	0	10	0	11	335
7:45 AM	0	6	176	12	0	194	0	18	134	10	0	162	0	2	0	8	0	10	0	1	0	15	0	16	382
Hourly Total	0	15	627	41	0	683	0	45	498	30	0	573	0	5	1	23	0	29	0	4	5	45	0	54	1339
8:00 AM	0	5	164	16	0	185	0	9	105	9	0	123	0	0	1	12	0	13	0	0	0	12	0	12	333
8:15 AM	0	7	162	18	1	187	0	13	124	15	0	152	0	1	0	6	1	7	0	1	2	13	1	16	362
8:30 AM	0	2	148	9	0	159	0	12	109	7	0	128	0	1	0	7	0	8	0	1	0	11	0	12	307
8:45 AM	0	6	146	16	0	168	0	12	139	7	0	158	0	1	0	12	0	13	0	1	0	4	0	5	344
Hourly Total	0	20	620	59	1	699	0	46	477	38	0	561	0	3	1	37	1	41	0	3	2	40	1	45	1346
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	0	219	23	0	242	0	27	214	11	0	252	0	7	1	22	0	30	0	0	0	10	0	10	534
3:15 PM	0	1	229	18	0	248	0	19	230	10	0	259	0	3	1	24	0	28	0	1	0	8	0	9	544
3:30 PM	0	0	231	25	0	256	0	11	258	5	0	274	0	4	2	22	0	28	0	0	0	11	0	11	569
3:45 PM	0	5	231	15	0	251	0	11	279	10	1	300	0	1	1	25	0	27	0	0	0	5	0	5	583
Hourly Total	0	6	910	81	0	997	0	68	981	36	1	1085	0	15	5	93	0	113	0	1	0	34	0	35	2230
4:00 PM	0	2	225	23	0	250	0	13	248	7	0	268	0	1	1	20	1	22	0	2	0	9	2	11	551
4:15 PM	0	0	247	25	1	272	1	15	274	12	0	302	0	1	3	28	2	32	0	0	2	6	0	8	614
4:30 PM	0	3	231	24	0	258	0	22	262	13	0	297	0	1	2	21	0	24	0	2	0	5	0	7	586
4:45 PM	0	2	242	18	1	262	0	8	250	9	0	267	0	4	0	17	0	21	0	1	2	13	0	16	566
Hourly Total	0	7	945	90	2	1042	1	58	1034	41	0	1134	0	7	6	86	3	99	0	5	4	33	2	42	2317
5:00 PM	0	1	297	36	0	334	0	18	257	10	0	285	0	3	0	21	0	24	0	0	0	14	0	14	657
5:15 PM	0	3	241	26	0	270	0	14	245	14	0	273	0	2	0	32	0	34	0	0	1	7	2	8	585
5:30 PM	0	2	262	28	1	292	0	10	238	10	0	258	0	1	0	26	0	27	0	0	0	13	0	13	590
5:45 PM	0	3	259	22	0	284	0	13	253	7	0	273	0	4	0	21	1	25	0	0	1	10	0	11	593
Hourly Total	0	9	1059	112	1	1180	0	55	993	41	0	1089	0	10	0	100	1	110	0	0	2	44	2	46	2425
Grand Total	0	57	4161	383	4	4601	1	272	3983	186	1	4442	0	40	13	339	5	392	0	13	13	196	5	222	9657
Approach %	0.0	1.2	90.4	8.3	-	-	0.0	6.1	89.7	4.2	-	-	0.0	10.2	3.3	86.5	-	-	0.0	5.9	5.9	88.3	-	-	-
Total %	0.0	0.6	43.1	4.0	-	47.6	0.0	2.8	41.2	1.9	-	46.0	0.0	0.4	0.1	3.5	-	4.1	0.0	0.1	0.1	2.0	-	2.3	-
Lights	0	57	4051	379	-	4487	1	268	3874	184	-	4327	0	40	13	331	-	384	0	13	13	195	-	221	9419
% Lights	-	100.0	97.4	99.0	-	97.5	100.0	98.5	97.3	98.9	-	97.4	-	100.0	100.0	97.6	-	98.0	-	100.0	100.0	99.5	-	99.5	97.5
Buses	0	0	34	1	-	35	0	0	33	1	-	34	0	0	0	1	-	1	0	0	0	0	-	0	70
% Buses	-	0.0	0.8	0.3	-	0.8	0.0	0.0	0.8	0.5	-	0.8	-	0.0	0.0	0.3	-	0.3	-	0.0	0.0	0.0	-	0.0	0.7
Single-Unit Trucks	0	0	58	2	-	60	0	3	55	0	-	58	0	0	0	7	-	7	0	0	0	1	-	1	126
% Single-Unit Trucks	-	0.0	1.4	0.5	-	1.3	0.0	1.1	1.4	0.0	-	1.3	-	0.0	0.0	2.1	-	1.8	-	0.0	0.0	0.5	-	0.5	1.3

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Count Name: Meijer Drive with Golf Road
Site Code:
Start Date: 10/08/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Meijer Drive Northbound						Meijer Drive 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	
7:30 AM	0	2	157	13	0	172	0	10	126	9	0	145	0	0	1	6	0	7	0	1	0	10	0	11	335
7:45 AM	0	6	176	12	0	194	0	18	134	10	0	162	0	2	0	8	0	10	0	1	0	15	0	16	382
8:00 AM	0	5	164	16	0	185	0	9	105	9	0	123	0	0	1	12	0	13	0	0	0	12	0	12	333
8:15 AM	0	7	162	18	1	187	0	13	124	15	0	152	0	1	0	6	1	7	0	1	2	13	1	16	362
Total	0	20	659	59	1	738	0	50	489	43	0	582	0	3	2	32	1	37	0	3	2	50	1	55	1412
Approach %	0.0	2.7	89.3	8.0	-	-	0.0	8.6	84.0	7.4	-	-	0.0	8.1	5.4	86.5	-	-	0.0	5.5	3.6	90.9	-	-	-
Total %	0.0	1.4	46.7	4.2	-	52.3	0.0	3.5	34.6	3.0	-	41.2	0.0	0.2	0.1	2.3	-	2.6	0.0	0.2	0.1	3.5	-	3.9	-
PHF	0.000	0.714	0.936	0.819	-	0.951	0.000	0.694	0.912	0.717	-	0.898	0.000	0.375	0.500	0.667	-	0.712	0.000	0.750	0.250	0.833	-	0.859	0.924
Lights	0	20	628	58	-	706	0	47	457	43	-	547	0	3	2	29	-	34	0	3	2	49	-	54	1341
% Lights	-	100.0	95.3	98.3	-	95.7	-	94.0	93.5	100.0	-	94.0	-	100.0	100.0	90.6	-	91.9	-	100.0	100.0	98.0	-	98.2	95.0
Buses	0	0	6	0	-	6	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	11
% Buses	-	0.0	0.9	0.0	-	0.8	-	0.0	1.0	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.8
Single-Unit Trucks	0	0	19	1	-	20	0	3	22	0	-	25	0	0	0	3	-	3	0	0	0	1	-	1	49
% Single-Unit Trucks	-	0.0	2.9	1.7	-	2.7	-	6.0	4.5	0.0	-	4.3	-	0.0	0.0	9.4	-	8.1	-	0.0	0.0	2.0	-	1.8	3.5
Articulated Trucks	0	0	6	0	-	6	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	11
% Articulated Trucks	-	0.0	0.9	0.0	-	0.8	-	0.0	1.0	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.8
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% 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	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Meijer Drive with Golf Road
Site Code:
Start Date: 10/08/2020

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Golf Road Eastbound						Golf Road Westbound						Meijer Drive Northbound						Meijer Drive 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	
4:30 PM	0	3	231	24	0	258	0	22	262	13	0	297	0	1	2	21	0	24	0	2	0	5	0	7	586
4:45 PM	0	2	242	18	1	262	0	8	250	9	0	267	0	4	0	17	0	21	0	1	2	13	0	16	566
5:00 PM	0	1	297	36	0	334	0	18	257	10	0	285	0	3	0	21	0	24	0	0	0	14	0	14	657
5:15 PM	0	3	241	26	0	270	0	14	245	14	0	273	0	2	0	32	0	34	0	0	1	7	2	8	585
Total	0	9	1011	104	1	1124	0	62	1014	46	0	1122	0	10	2	91	0	103	0	3	3	39	2	45	2394
Approach %	0.0	0.8	89.9	9.3	-	-	0.0	5.5	90.4	4.1	-	-	0.0	9.7	1.9	88.3	-	-	0.0	6.7	6.7	86.7	-	-	-
Total %	0.0	0.4	42.2	4.3	-	47.0	0.0	2.6	42.4	1.9	-	46.9	0.0	0.4	0.1	3.8	-	4.3	0.0	0.1	0.1	1.6	-	1.9	-
PHF	0.000	0.750	0.851	0.722	-	0.841	0.000	0.705	0.968	0.821	-	0.944	0.000	0.625	0.250	0.711	-	0.757	0.000	0.375	0.375	0.696	-	0.703	0.911
Lights	0	9	999	104	-	1112	0	62	999	46	-	1107	0	10	2	91	-	103	0	3	3	39	-	45	2367
% Lights	-	100.0	98.8	100.0	-	98.9	-	100.0	98.5	100.0	-	98.7	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	98.9
Buses	0	0	8	0	-	8	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	12
% Buses	-	0.0	0.8	0.0	-	0.7	-	0.0	0.4	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.5
Single-Unit Trucks	0	0	3	0	-	3	0	0	10	0	-	10	0	0	0	0	-	0	0	0	0	0	-	0	13
% Single-Unit Trucks	-	0.0	0.3	0.0	-	0.3	-	0.0	1.0	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.5
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	0.1	0.0	-	0.1	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
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	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% 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: Meijer Drive with RI/RO
Site Code:
Start Date: 10/08/2020

Turning Movement Data

Start Time	Westbound Approach Westbound					Meijer Drive Northbound					Meijer Drive 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	1	0	0	16	0	0	16	0	0	19	0	19	35
7:15 AM	0	0	0	0	0	0	10	1	0	11	1	0	18	0	19	30
7:30 AM	0	0	0	0	0	0	8	1	0	9	0	0	22	0	22	31
7:45 AM	0	1	0	0	1	0	14	1	0	15	1	0	29	0	30	46
Hourly Total	0	1	0	1	1	0	48	3	0	51	2	0	88	0	90	142
8:00 AM	0	0	0	0	0	0	12	0	0	12	0	0	33	0	33	45
8:15 AM	0	0	0	2	0	0	26	0	0	26	0	0	34	0	34	60
8:30 AM	0	0	0	0	0	0	26	0	0	26	0	0	25	0	25	51
8:45 AM	0	0	0	0	0	0	22	2	0	24	0	0	18	0	18	42
Hourly Total	0	0	0	2	0	0	86	2	0	88	0	0	110	0	110	198
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	0	0	0	0	0	50	0	0	50	0	0	37	0	37	87
3:15 PM	0	0	0	0	0	0	38	1	0	39	0	0	41	0	41	80
3:30 PM	0	0	0	0	0	0	76	1	0	77	1	0	48	0	49	126
3:45 PM	0	0	0	0	0	0	43	0	0	43	0	0	37	0	37	80
Hourly Total	0	0	0	0	0	0	207	2	0	209	1	0	163	0	164	373
4:00 PM	0	0	6	0	6	0	58	0	0	58	0	0	40	0	40	104
4:15 PM	0	0	2	0	2	0	37	0	0	37	0	0	32	0	32	71
4:30 PM	0	2	1	0	3	0	63	0	0	63	0	0	49	0	49	115
4:45 PM	0	0	1	0	1	0	49	0	0	49	0	0	35	0	35	85
Hourly Total	0	2	10	0	12	0	207	0	0	207	0	0	156	0	156	375
5:00 PM	0	0	0	0	0	0	63	0	0	63	0	0	32	0	32	95
5:15 PM	0	0	0	0	0	0	49	0	0	49	1	0	36	0	37	86
5:30 PM	0	0	0	1	0	0	32	0	0	32	0	0	28	0	28	60
5:45 PM	0	0	0	0	0	0	37	0	0	37	0	0	30	0	30	67
Hourly Total	0	0	0	1	0	0	181	0	0	181	1	0	126	0	127	308
Grand Total	0	3	10	4	13	0	729	7	0	736	4	0	643	0	647	1396
Approach %	0.0	23.1	76.9	-	-	0.0	99.0	1.0	-	-	0.6	0.0	99.4	-	-	-
Total %	0.0	0.2	0.7	-	0.9	0.0	52.2	0.5	-	52.7	0.3	0.0	46.1	-	46.3	-
Lights	0	1	10	-	11	0	693	5	-	698	4	0	614	-	618	1327
% Lights	-	33.3	100.0	-	84.6	-	95.1	71.4	-	94.8	100.0	-	95.5	-	95.5	95.1
Buses	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Buses	-	0.0	0.0	-	0.0	-	0.1	0.0	-	0.1	0.0	-	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	0	-	0	0	23	0	-	23	0	0	15	-	15	38
% Single-Unit Trucks	-	0.0	0.0	-	0.0	-	3.2	0.0	-	3.1	0.0	-	2.3	-	2.3	2.7
Articulated Trucks	0	0	0	-	0	0	11	0	-	11	0	0	11	-	11	22

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Count Name: Meijer Drive with RI/RO
Site Code:
Start Date: 10/08/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Westbound Approach Westbound					Meijer Drive Northbound					Meijer Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:30 AM	0	0	0	0	0	0	8	1	0	9	0	0	22	0	22	31
7:45 AM	0	1	0	0	1	0	14	1	0	15	1	0	29	0	30	46
8:00 AM	0	0	0	0	0	0	12	0	0	12	0	0	33	0	33	45
8:15 AM	0	0	0	2	0	0	26	0	0	26	0	0	34	0	34	60
Total	0	1	0	2	1	0	60	2	0	62	1	0	118	0	119	182
Approach %	0.0	100.0	0.0	-	-	0.0	96.8	3.2	-	-	0.8	0.0	99.2	-	-	-
Total %	0.0	0.5	0.0	-	0.5	0.0	33.0	1.1	-	34.1	0.5	0.0	64.8	-	65.4	-
PHF	0.000	0.250	0.000	-	0.250	0.000	0.577	0.500	-	0.596	0.250	0.000	0.868	-	0.875	0.758
Lights	0	0	0	-	0	0	51	2	-	53	1	0	113	-	114	167
% Lights	-	0.0	-	-	0.0	-	85.0	100.0	-	85.5	100.0	-	95.8	-	95.8	91.8
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	0	0	-	0	0	6	0	-	6	0	0	2	-	2	8
% Single-Unit Trucks	-	0.0	-	-	0.0	-	10.0	0.0	-	9.7	0.0	-	1.7	-	1.7	4.4
Articulated Trucks	0	0	0	-	0	0	3	0	-	3	0	0	3	-	3	6
% Articulated Trucks	-	0.0	-	-	0.0	-	5.0	0.0	-	4.8	0.0	-	2.5	-	2.5	3.3
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	-	100.0	-	-	100.0	-	0.0	0.0	-	0.0	0.0	-	0.0	-	0.0	0.5
Pedestrians	-	-	-	2	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

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Rosemont, Illinois, United States 60018
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Count Name: Meijer Drive with RI/RO
Site Code:
Start Date: 10/08/2020

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Westbound Approach Westbound					Meijer Drive Northbound					Meijer Drive Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:30 PM	0	2	1	0	3	0	63	0	0	63	0	0	49	0	49	115
4:45 PM	0	0	1	0	1	0	49	0	0	49	0	0	35	0	35	85
5:00 PM	0	0	0	0	0	0	63	0	0	63	0	0	32	0	32	95
5:15 PM	0	0	0	0	0	0	49	0	0	49	1	0	36	0	37	86
Total	0	2	2	0	4	0	224	0	0	224	1	0	152	0	153	381
Approach %	0.0	50.0	50.0	-	-	0.0	100.0	0.0	-	-	0.7	0.0	99.3	-	-	-
Total %	0.0	0.5	0.5	-	1.0	0.0	58.8	0.0	-	58.8	0.3	0.0	39.9	-	40.2	-
PHF	0.000	0.250	0.500	-	0.333	0.000	0.889	0.000	-	0.889	0.250	0.000	0.776	-	0.781	0.828
Lights	0	1	2	-	3	0	224	0	-	224	1	0	150	-	151	378
% Lights	-	50.0	100.0	-	75.0	-	100.0	-	-	100.0	100.0	-	98.7	-	98.7	99.2
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	-	0.0	-	0.0	0.0
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	-	0.7	-	0.7	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
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	0	1	-	1	2
% Bicycles on Road	-	50.0	0.0	-	25.0	-	0.0	-	-	0.0	0.0	-	0.7	-	0.7	0.5
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Count Name: Meijer Drive with Shared Access
Site Code:
Start Date: 10/08/2020

Turning Movement Data

Start Time	Meijer Drive Eastbound					Meijer Drive 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	15	3	0	18	0	2	17	0	19	0	1	1	0	2	39
7:15 AM	0	6	1	0	7	0	4	13	0	17	0	0	5	0	5	29
7:30 AM	0	8	1	0	9	0	2	21	0	23	0	0	2	0	2	34
7:45 AM	0	14	1	0	15	0	5	23	0	28	0	0	0	0	0	43
Hourly Total	0	43	6	0	49	0	13	74	0	87	0	1	8	0	9	145
8:00 AM	0	12	0	0	12	0	8	22	0	30	0	0	0	0	0	42
8:15 AM	0	21	4	0	25	0	11	26	0	37	0	0	2	0	2	64
8:30 AM	0	22	4	0	26	0	3	21	0	24	0	0	6	0	6	56
8:45 AM	0	20	2	0	22	0	0	19	0	19	0	0	3	0	3	44
Hourly Total	0	75	10	0	85	0	22	88	0	110	0	0	11	0	11	206
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	39	1	0	40	0	7	28	0	35	0	0	10	0	10	85
3:15 PM	0	35	1	0	36	0	5	36	0	41	0	0	5	0	5	82
3:30 PM	0	40	3	0	43	0	5	43	0	48	0	7	38	0	45	136
3:45 PM	0	43	2	0	45	0	9	26	0	35	0	2	2	0	4	84
Hourly Total	0	157	7	0	164	0	26	133	0	159	0	9	55	0	64	387
4:00 PM	0	48	0	0	48	0	2	40	0	42	0	0	8	0	8	98
4:15 PM	0	31	0	0	31	0	2	28	0	30	0	0	7	0	7	68
4:30 PM	0	48	0	0	48	0	1	50	0	51	0	0	15	0	15	114
4:45 PM	0	47	1	0	48	0	3	32	0	35	0	1	3	0	4	87
Hourly Total	0	174	1	0	175	0	8	150	0	158	0	1	33	0	34	367
5:00 PM	0	38	0	0	38	0	2	30	0	32	0	4	25	0	29	99
5:15 PM	0	48	0	0	48	0	0	36	0	36	0	0	1	0	1	85
5:30 PM	0	30	0	0	30	0	1	25	0	26	0	0	2	0	2	58
5:45 PM	0	35	0	0	35	0	2	30	0	32	0	2	2	0	4	71
Hourly Total	0	151	0	0	151	0	5	121	0	126	0	6	30	0	36	313
Grand Total	0	600	24	0	624	0	74	566	0	640	0	17	137	0	154	1418
Approach %	0.0	96.2	3.8	-	-	0.0	11.6	88.4	-	-	0.0	11.0	89.0	-	-	-
Total %	0.0	42.3	1.7	-	44.0	0.0	5.2	39.9	-	45.1	0.0	1.2	9.7	-	10.9	-
Lights	0	574	19	-	593	0	64	542	-	606	0	15	118	-	133	1332
% Lights	-	95.7	79.2	-	95.0	-	86.5	95.8	-	94.7	-	88.2	86.1	-	86.4	93.9
Buses	0	2	0	-	2	0	0	0	-	0	0	0	0	-	0	2
% Buses	-	0.3	0.0	-	0.3	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	0	14	3	-	17	0	5	10	-	15	0	2	11	-	13	45
% Single-Unit Trucks	-	2.3	12.5	-	2.7	-	6.8	1.8	-	2.3	-	11.8	8.0	-	8.4	3.2
Articulated Trucks	0	3	2	-	5	0	5	4	-	9	0	0	7	-	7	21

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Count Name: Meijer Drive with Shared Access
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Start Date: 10/08/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Meijer Drive Eastbound					Meijer Drive 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
7:30 AM	0	8	1	0	9	0	2	21	0	23	0	0	2	0	2	34
7:45 AM	0	14	1	0	15	0	5	23	0	28	0	0	0	0	0	43
8:00 AM	0	12	0	0	12	0	8	22	0	30	0	0	0	0	0	42
8:15 AM	0	21	4	0	25	0	11	26	0	37	0	0	2	0	2	64
Total	0	55	6	0	61	0	26	92	0	118	0	0	4	0	4	183
Approach %	0.0	90.2	9.8	-	-	0.0	22.0	78.0	-	-	0.0	0.0	100.0	-	-	-
Total %	0.0	30.1	3.3	-	33.3	0.0	14.2	50.3	-	64.5	0.0	0.0	2.2	-	2.2	-
PHF	0.000	0.655	0.375	-	0.610	0.000	0.591	0.885	-	0.797	0.000	0.000	0.500	-	0.500	0.715
Lights	0	46	5	-	51	0	26	87	-	113	0	0	3	-	3	167
% Lights	-	83.6	83.3	-	83.6	-	100.0	94.6	-	95.8	-	-	75.0	-	75.0	91.3
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	6	1	-	7	0	0	2	-	2	0	0	1	-	1	10
% Single-Unit Trucks	-	10.9	16.7	-	11.5	-	0.0	2.2	-	1.7	-	-	25.0	-	25.0	5.5
Articulated Trucks	0	3	0	-	3	0	0	2	-	2	0	0	0	-	0	5
% Articulated Trucks	-	5.5	0.0	-	4.9	-	0.0	2.2	-	1.7	-	-	0.0	-	0.0	2.7
Bicycles on Road	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	1.1	-	0.8	-	-	0.0	-	0.0	0.5
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Count Name: Meijer Drive with Shared Access
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Start Date: 10/08/2020

Turning Movement Peak Hour Data (4:30 PM)

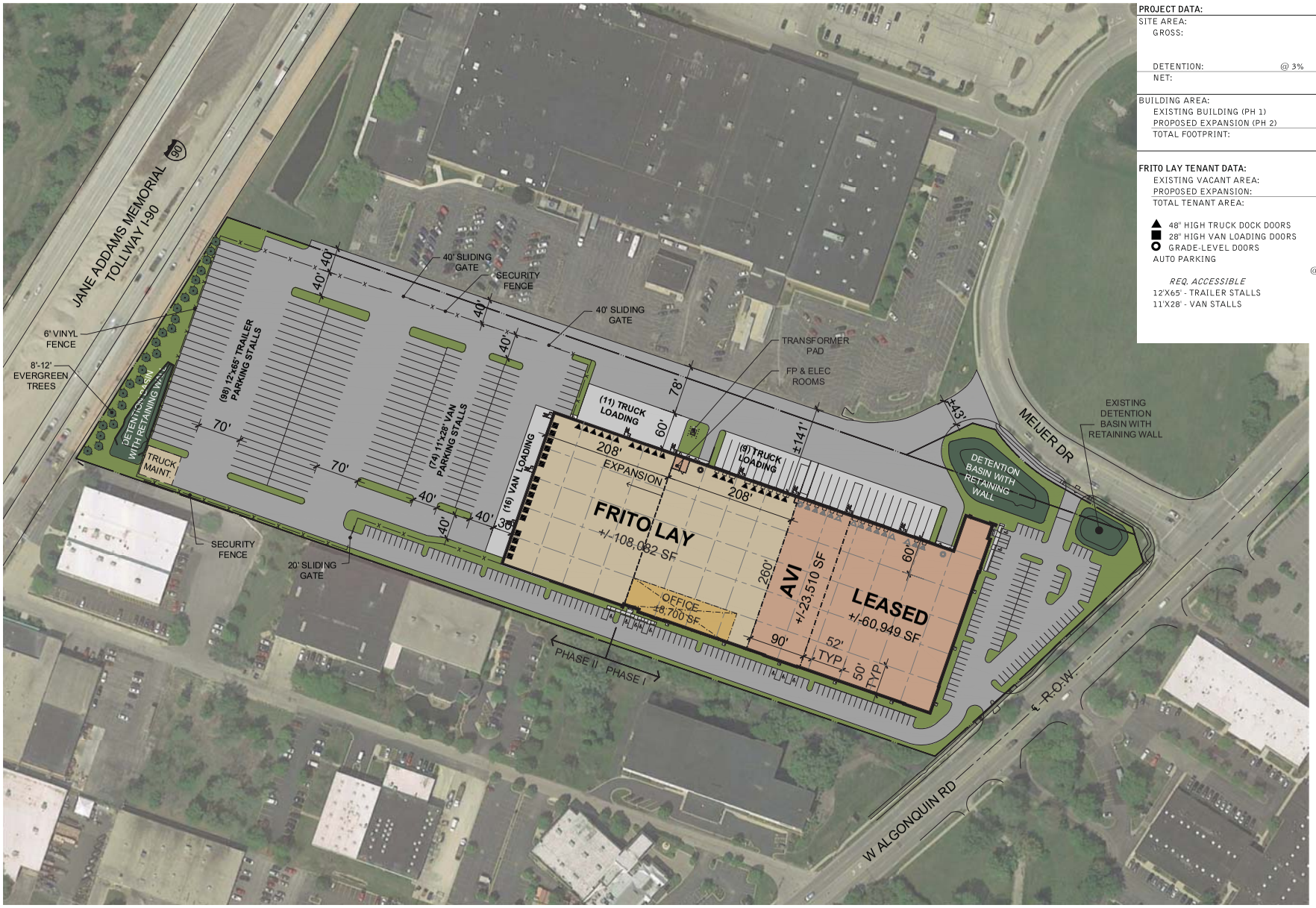
Start Time	Meijer Drive Eastbound					Meijer Drive Westbound					Access Drive Northbound					
	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:30 PM	0	48	0	0	48	0	1	50	0	51	0	0	15	0	15	114
4:45 PM	0	47	1	0	48	0	3	32	0	35	0	1	3	0	4	87
5:00 PM	0	38	0	0	38	0	2	30	0	32	0	4	25	0	29	99
5:15 PM	0	48	0	0	48	0	0	36	0	36	0	0	1	0	1	85
Total	0	181	1	0	182	0	6	148	0	154	0	5	44	0	49	385
Approach %	0.0	99.5	0.5	-	-	0.0	3.9	96.1	-	-	0.0	10.2	89.8	-	-	-
Total %	0.0	47.0	0.3	-	47.3	0.0	1.6	38.4	-	40.0	0.0	1.3	11.4	-	12.7	-
PHF	0.000	0.943	0.250	-	0.948	0.000	0.500	0.740	-	0.755	0.000	0.313	0.440	-	0.422	0.844
Lights	0	178	1	-	179	0	6	146	-	152	0	5	44	-	49	380
% Lights	-	98.3	100.0	-	98.4	-	100.0	98.6	-	98.7	-	100.0	100.0	-	100.0	98.7
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	0.0
Single-Unit Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Single-Unit Trucks	-	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
% 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	3	0	-	3	0	0	2	-	2	0	0	0	-	0	5
% Bicycles on Road	-	1.7	0.0	-	1.6	-	0.0	1.4	-	1.3	-	0.0	0.0	-	0.0	1.3
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Shared Access Drive 24-Hour Volumes

Table A
SHARED ACCESS ROAD HOURLY VOLUMES

Hour	Passenger Vehicles	Single Unit Trucks	Semi-Trailer Trucks	Total
12:00 A.M. – 1:00 A.M.	1	0	2	3
1:00 A.M. – 2:00 A.M.	2	0	0	2
2:00 A.M. – 3:00 A.M.	8	0	0	8
3:00 A.M – 4:00 A.M.	2	0	0	2
4:00 A.M. – 5:00 A.M.	17	0	0	17
5:00 A.M. – 6:00 A.M.	25	0	0	25
6:00 A.M – 7:00 A.M.	21	0	0	21
7:00 A.M. – 8:00 A.M.	22	6	0	28
8:00 A.M – 9:00 A.M.	36	6	1	43
9:00 A.M – 10:00 A.M.	37	3	8	48
10:00 A.M – 11:00 A.M	28	0	1	29
11:00 A.M – 12:00 P.M.	53	2	6	61
12:00 P.M. – 1:00 P.M.	45	2	1	48
1:00 P.M. – 2:00 P.M.	52	1	2	55
2:00 P.M. – 3:00 P.M.	34	1	3	38
3:00 P.M – 4:00 P.M.	84	4	8	96
4:00 P.M. – 5:00 P.M.	35	3	5	43
5:00 P.M. – 6:00 P.M.	39	2	0	41
6:00 P.M – 7:00 P.M.	9	0	0	9
7:00 P.M. – 8:00 P.M.	7	0	0	7
8:00 P.M. – 9:00 P.M.	2	0	0	2
9:00 P.M. – 10:00 P.M.	2	0	0	2
10:00 P.M – 11:00 P.M.	3	0	0	3
11:00 P.M. – 12:00 A.M.	2	0	0	2
TOTAL	**566**	**30**	**37**	**633**

Preliminary Site Plan



PROJECT DATA:		
SITE AREA:		
GROSS:		15.41 AC
		671,453 SF
DETENTION:	@ 3%	22,964 SF
NET:		14.89 AC
		648,489 SF
BUILDING AREA:		
EXISTING BUILDING (PH 1)		138,461 SF
PROPOSED EXPANSION (PH 2)		54,080 SF
TOTAL FOOTPRINT:		192,541 SF

FRITO LAY TENANT DATA:	
EXISTING VACANT AREA:	54,080 SF
PROPOSED EXPANSION:	54,002 SF
TOTAL TENANT AREA:	108,082 SF
▲ 48" HIGH TRUCK DOCK DOORS	11
■ 28" HIGH VAN LOADING DOORS	16
○ GRADE-LEVEL DOORS	1
AUTO PARKING	111 STALLS
	@1.03/1000 SF
REQ. ACCESSIBLE	*5 STALLS*
12'X65' - TRAILER STALLS	98 STALLS
11'X28' - VAN STALLS	74 STALLS

DEVELOPMENT STANDARDS:	
ZONING:	M-2
MAX. F.A.R.:	2.50
BUILDING SETBACKS:	
FRONT:	15 FT
SIDE:	10 FT [1]
REAR:	15 FT
OFF-STREET PARKING:	
WIDTH:	9 FT
LENGTH:	18 FT
VERTICAL:	7 FT
DRIVE AISLE:	24 FT
OVERHANG:	1.5 FT
REQ. PARKING RATIO BY USE:	
WAREHOUSE:	1/2 EMP
OFFICE:	1/300 SF

NOTES:
[1] OR 10%, WHICHEVER IS LESS

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

Stormwater Management Design:
AVERAGE REGIONAL REQUIRED PROVIDED

Boundary Source:
GIS MAP & AERIAL IMAGE

1" = 60'
0 30 60 150 300
NORTH

HAMILTON PARTNERS

scheme: 12

Schematic Site Plan

W Algonquin Road
Arlington Heights, Illinois

WARE MALCOMB

CH|20-0114-00
10.09.2020

SHEET
1

Daily Estimated Site-Generated Traffic Volumes

Table B
HOURLY SITE GENERATED TRAFFIC VOLUMES – PASSANGER VEHICLES AND DELIVERY VANS

Hour	Warehouse Employees			Office Employees			Delivery Route Vans			Delivery Van Drivers			Truck Drivers			Total		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
12:00 A.M. – 1:00 A.M.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3	0	3
1:00 A.M. – 2:00 A.M.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3	0	3
2:00 A.M. – 3:00 A.M.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3	0	3
3:00 A.M – 4:00 A.M.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 A.M. – 5:00 A.M.	0	0	0	0	0	0	0	0	0	24	0	24	0	0	0	24	0	24
5:00 A.M. – 6:00 A.M.	0	0	0	0	0	0	0	37	37	25	0	25	0	0	0	25	37	62
6:00 A.M – 7:00 A.M.	0	0	0	0	0	0	0	37	37	25	0	25	0	2	2	25	39	64
7:00 A.M. – 8:00 A.M.	20	10	30	25	0	25	0	0	0	0	0	0	0	3	3	45	13	58
8:00 A.M – 9:00 A.M.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2	2
9:00 A.M – 10:00 A.M.	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3	3
10:00 A.M – 11:00 A.M	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2	2
11:00 A.M – 12:00 P.M.	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3	3
12:00 P.M. – 1:00 P.M.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 P.M. – 2:00 P.M.	20	0	20	0	0	0	0	0	0	0	0	0	0	0	0	20	0	20
2:00 P.M. – 3:00 P.M.	0	0	0	0	0	0	24	0	24	0	24	24	0	0	0	24	24	48
3:00 P.M – 4:00 P.M.	0	0	0	0	0	0	25	0	25	0	25	25	0	0	0	25	25	50
4:00 P.M. – 5:00 P.M.	0	20	20	0	0	0	25	0	25	0	25	25	0	0	0	25	45	70
5:00 P.M. – 6:00 P.M.	0	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	25	25
6:00 P.M – 7:00 P.M.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P.M. – 8:00 P.M.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 P.M. – 9:00 P.M.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 P.M. – 10:00 P.M.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 P.M – 11:00 P.M.	10	20	30	0	0	0	0	0	0	0	0	0	3	0	3	13	20	33
11:00 P.M. – 12:00 A.M.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3	0	3
TOTAL	**50**	**50**	**100**	**25**	**25**	**50**	**74**	**74**	**148**	**74**	**74**	**148**	**15**	**15**	**30**	**238**	**238**	**476**

Table C
HOURLY SITE GENERATED TRAFFIC VOLUMES – TRUCK TRAFFIC

Hour	Semi-Trailer Trucks			Product Deliveries			Total		
	In	Out	Total	In	Out	Total	In	Out	Total
12:00 A.M. – 1:00 A.M.	4	0	4	1	1	2	5	1	6
1:00 A.M. – 2:00 A.M.	4	0	4	1	1	2	5	1	6
2:00 A.M. – 3:00 A.M.	3	0	3	1	1	2	4	1	5
3:00 A.M – 4:00 A.M.	0	0	0	1	1	2	1	1	2
4:00 A.M. – 5:00 A.M.	0	0	0	1	1	2	1	1	2
5:00 A.M. – 6:00 A.M.	0	0	0	1	1	2	1	1	2
6:00 A.M – 7:00 A.M.	2	0	2	1	1	2	3	1	4
7:00 A.M. – 8:00 A.M.	3	0	3	0	0	0	3	0	3
8:00 A.M – 9:00 A.M.	2	0	2	0	0	0	2	0	2
9:00 A.M – 10:00 A.M.	3	0	3	0	0	0	3	0	3
10:00 A.M – 11:00 A.M	2	0	2	0	0	0	2	0	2
11:00 A.M – 12:00 P.M.	3	0	3	0	0	0	3	0	3
11:00 A.M – 12:00 P.M.	3	0	3	0	0	0	3	0	3
12:00 P.M. – 1:00 P.M.	0	0	0	0	0	0	0	0	0
1:00 P.M. – 2:00 P.M.	0	0	0	0	0	0	0	0	0
2:00 P.M. – 3:00 P.M.	0	0	0	0	0	0	0	0	0
3:00 P.M – 4:00 P.M.	0	0	0	0	0	0	0	0	0
4:00 P.M. – 5:00 P.M.	0	0	0	0	0	0	0	0	0
5:00 P.M. – 6:00 P.M.	0	0	0	0	0	0	0	0	0
6:00 P.M – 7:00 P.M.	0	0	0	0	0	0	0	0	0
7:00 P.M. – 8:00 P.M.	0	0	0	1	1	2	1	1	2
8:00 P.M. – 9:00 P.M.	0	0	0	1	1	2	1	1	2
9:00 P.M. – 10:00 P.M.	0	0	0	1	1	2	1	1	2
10:00 P.M – 11:00 P.M.	0	0	0	1	1	2	1	1	2
11:00 P.M. – 12:00 A.M.	4	0	4	1	1	2	5	1	6
TOTAL	**30**	**0**	**30**	**12**	**12**	**24**	**42**	**12**	**54**

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

Existing Weekday Morning Peak Hour Conditions

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	7	1328	70	138	865	11	39	0	68	0	0	0
Future Volume (vph)	7	1328	70	138	865	11	39	0	68	0	0	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		130	265		0	190		0	0		0
Storage Lanes	1		1	1		0	2		0	0		0
Taper Length (ft)	110			195			115			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.998			0.850				
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1805	3585	1509	1752	3302	0	2757	1495	0	0	1900	0
Flt Permitted	0.316			0.166			0.950					
Satd. Flow (perm)	600	3585	1509	306	3302	0	2757	1495	0	0	1900	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								255				
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			502			215			250	
Travel Time (s)		15.5			9.8			7.3			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	7%	3%	9%	17%	27%	0%	8%	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 (%)												
Lane Group Flow (vph)	7	1369	72	142	903	0	40	70	0	0	0	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA				
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2								
Detector Phase	1	6	4	5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	6.5	46.0	14.0	6.5	28.0		14.0	14.0		14.0	14.0	
Total Split (s)	13.0	90.0	26.0	16.0	93.0		26.0	26.0		18.0	18.0	
Total Split (%)	8.7%	60.0%	17.3%	10.7%	62.0%		17.3%	17.3%		12.0%	12.0%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	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	0.0			0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min	None	None	C-Min		None	None		None	None	
Act Effct Green (s)	125.1	117.1	132.9	130.6	126.3		9.9	9.9				
Actuated g/C Ratio	0.83	0.78	0.89	0.87	0.84		0.07	0.07				

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.01	0.49	0.05	0.42	0.32		0.22	0.21				
Control Delay	1.1	11.6	2.6	11.6	8.5		67.6	1.5				
Queue Delay	0.0	1.4	0.0	0.0	0.0		0.0	0.0				
Total Delay	1.1	13.0	2.6	11.6	8.5		67.6	1.5				
LOS	A	B	A	B	A		E	A				
Approach Delay		12.4			8.9			25.6				
Approach LOS		B			A			C				
Queue Length 50th (ft)	1	642	7	61	197		17	0				
Queue Length 95th (ft)	m0	m590	m22	m64	m176		m31	m1				
Internal Link Dist (ft)		714			422			135			170	
Turn Bay Length (ft)	145		130	265			190					
Base Capacity (vph)	592	2798	1439	386	2780		367	420				
Starvation Cap Reductn	0	1145	0	0	0		0	0				
Spillback Cap Reductn	0	0	0	0	0		0	0				
Storage Cap Reductn	0	0	0	0	0		0	0				
Reduced v/c Ratio	0.01	0.83	0.05	0.37	0.32		0.11	0.17				

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 42 (28%), Referenced to phase 2:NWTL and 6:SETL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 62.5%		ICU Level of Service B	
Analysis Period (min) 15			

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

Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	1153	103	88	856	88	0	0	65	0	0	96
Future Vol, veh/h	35	1153	103	88	856	88	0	0	65	0	0	96
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	180	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	5	2	6	4	0	0	0	9	0	0	2
Mvmt Flow	38	1253	112	96	930	96	0	0	71	0	0	104

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1027	0	0	1366	0	0	-	-	684	-	-	515
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.3	-	-	5.42	-	-	-	-	7.28	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	-	3.16	-	-	-	-	3.99	-	-	3.92
Pot Cap-1 Maneuver	386	-	-	250	-	-	0	0	323	0	0	432
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	386	-	-	250	-	-	-	-	323	-	-	431
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.4	19.2	16
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	323	386	-	-	250	-	-	431
HCM Lane V/C Ratio	0.219	0.099	-	-	0.383	-	-	0.242
HCM Control Delay (s)	19.2	15.3	-	-	28.1	-	-	16
HCM Lane LOS	C	C	-	-	D	-	-	C
HCM 95th %tile Q(veh)	0.8	0.3	-	-	1.7	-	-	0.9

Intersection	
Int Delay, s/veh	0.7

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	4	104	6	26	182
Future Vol, veh/h	0	4	104	6	26	182
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	16	17	0	5	0	25
Mvmt Flow	0	6	144	8	36	253

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	473	148	0	0	152	0
Stage 1	148	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Critical Hdwy	6.56	6.37	-	-	4.1	-
Critical Hdwy Stg 1	5.56	-	-	-	-	-
Critical Hdwy Stg 2	5.56	-	-	-	-	-
Follow-up Hdwy	3.644	3.453	-	-	2.2	-
Pot Cap-1 Maneuver	525	861	-	-	1441	-
Stage 1	846	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	512	861	-	-	1441	-
Mov Cap-2 Maneuver	512	-	-	-	-	-
Stage 1	825	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	9.2	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	-	861	1441	-
HCM Lane V/C Ratio	-	-	-	0.006	0.025	-
HCM Control Delay (s)	-	-	0	9.2	7.6	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	0.1	-

Intersection	
Int Delay, s/veh	0

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	1	106	2	0	208
Future Vol, veh/h	0	1	106	2	0	208
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	15	0	0	4
Mvmt Flow	0	1	139	3	0	274

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	141	0	0	-	-
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	912	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	912	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWT
Capacity (veh/h)	-	-	912	-
HCM Lane V/C Ratio	-	-	0.001	-
HCM Control Delay (s)	-	-	9	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	1392	4	11	1014	0	0
Future Vol, veh/h	1392	4	11	1014	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	6	0	0	8	0	0
Mvmt Flow	1547	4	12	1127	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1551	0	-	776
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	433	-	0	345
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	433	-	-	345
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.6	0
HCM LOS			A

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	-	433	-	-	-
HCM Lane V/C Ratio	-	0.028	-	-	-
HCM Control Delay (s)	0	13.6	0.5	-	-
HCM Lane LOS	A	B	A	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-	-

Capacity Analysis Summary Sheets

Existing Weekday Evening Peak Hour Conditions

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	32	1173	69	140	1392	27	127	1	192	7	4	24
Future Volume (vph)	32	1173	69	140	1392	27	127	1	192	7	4	24
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		130	265		0	190		0	0		0
Storage Lanes	1		1	1		0	2		0	0		0
Taper Length (ft)	110			195			115			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.997			0.851			0.907	
Flt Protected	0.950			0.950			0.950				0.990	
Satd. Flow (prot)	1805	2857	1615	1805	3599	0	3335	1617	0	0	1646	0
Flt Permitted	0.148			0.187			0.950				0.990	
Satd. Flow (perm)	281	2857	1615	355	3599	0	3335	1617	0	0	1646	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								194			24	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			502			215			250	
Travel Time (s)		15.5			9.8			7.3			8.5	
Confl. Peds. (#/hr)												
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 (%)	0%	33%	0%	0%	0%	0%	5%	3%	0%	0%	2%	5%
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 (%)												
Lane Group Flow (vph)	32	1185	70	141	1433	0	128	195	0	0	35	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2								
Detector Phase	1	6	4	5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	6.5	46.0	14.0	6.5	28.0		14.0	14.0		14.0	14.0	
Total Split (s)	13.0	100.0	16.0	18.0	105.0		16.0	16.0		16.0	16.0	
Total Split (%)	8.7%	66.7%	10.7%	12.0%	70.0%		10.7%	10.7%		10.7%	10.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	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	0.0			0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min	None	None	C-Min		None	None		None	None	
Act Effct Green (s)	112.2	103.6	120.1	117.5	109.5		10.5	10.5			8.8	
Actuated g/C Ratio	0.75	0.69	0.80	0.78	0.73		0.07	0.07			0.06	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.12	0.60	0.05	0.39	0.55		0.55	0.67			0.29	
Control Delay	5.9	27.4	10.2	6.1	12.5		78.6	21.1			38.4	
Queue Delay	0.0	0.8	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	5.9	28.1	10.2	6.1	12.5		78.6	21.1			38.4	
LOS	A	C	B	A	B		E	C			D	
Approach Delay		26.6			11.9			43.9			38.4	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	10	617	37	15	425		60	5			10	
Queue Length 95th (ft)	m13	m628	m48	m24	m412		m93	m60			49	
Internal Link Dist (ft)		714			422			135			170	
Turn Bay Length (ft)	145		130	265			190					
Base Capacity (vph)	312	1972	1293	419	2626		234	293			132	
Starvation Cap Reductn	0	435	0	0	0		0	0			0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	
Reduced v/c Ratio	0.10	0.77	0.05	0.34	0.55		0.55	0.67			0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 59 (39%), Referenced to phase 2:NWTL and 6:SETL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 21.3		Intersection LOS: C	
Intersection Capacity Utilization 67.9%		ICU Level of Service C	
Analysis Period (min) 15			

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

Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	1415	146	87	1420	64	0	0	144	0	0	63
Future Vol, veh/h	13	1415	146	87	1420	64	0	0	144	0	0	63
Conflicting Peds, #/hr	2	0	0	0	0	2	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	180	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	14	1555	160	96	1560	70	0	0	158	0	0	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1632	0	0	1715	0	0	-	-	858	-	-	818
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.3	-	-	5.3	-	-	-	-	7.1	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	-	3.1	-	-	-	-	3.9	-	-	3.9
Pot Cap-1 Maneuver	196	-	-	178	-	-	0	0	261	0	0	277
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	196	-	-	178	-	-	-	-	261	-	-	276
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.6	38	22.4
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	261	196	-	-	178	-	-	276
HCM Lane V/C Ratio	0.606	0.073	-	-	0.537	-	-	0.251
HCM Control Delay (s)	38	24.8	-	-	46.5	-	-	22.4
HCM Lane LOS	E	C	-	-	E	-	-	C
HCM 95th %tile Q(veh)	3.6	0.2	-	-	2.7	-	-	1

Intersection	
Int Delay, s/veh	1.1

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	5	44	272	1	6	207
Future Vol, veh/h	5	44	272	1	6	207
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	0	0	3	0	0
Mvmt Flow	6	52	324	1	7	246

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	585	325	0	0	325	0
Stage 1	325	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.42	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	473	721	-	-	1246	-
Stage 1	732	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	470	721	-	-	1246	-
Mov Cap-2 Maneuver	470	-	-	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	10.6	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	470	721	1246	-
HCM Lane V/C Ratio	-	-	0.013	0.073	0.006	-
HCM Control Delay (s)	-	-	12.8	10.4	7.9	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0.2	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	4	316	0	0	213
Future Vol, veh/h	0	4	316	0	0	213
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	76	83	83	83	83
Heavy Vehicles, %	0	25	0	0	0	1
Mvmt Flow	0	5	381	0	0	257

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	381	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.45	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.525	-	-	-	-
Pot Cap-1 Maneuver	0	618	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	618	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWT
Capacity (veh/h)	-	-	618	-
HCM Lane V/C Ratio	-	-	0.009	-
HCM Control Delay (s)	-	-	10.9	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	1372	0	2	1559	0	4
Future Vol, veh/h	1372	0	2	1559	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	0	2	0	0
Mvmt Flow	1444	0	2	1641	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1444	0	-	722
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	476	-	0	374
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	476	-	-	374
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	SE	NW	NE
HCM Control Delay, s	0	0.3	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	374	476	-	-	-
HCM Lane V/C Ratio	0.011	0.004	-	-	-
HCM Control Delay (s)	14.7	12.6	0.3	-	-
HCM Lane LOS	B	B	A	-	-
HCM 95th %tile Q(veh)	0	0	-	-	-

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Capacity Analysis Summary Sheets

Total Projected Weekday Morning Peak Hour Conditions

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	7	1345	74	142	865	11	46	0	71	0	0	0
Future Volume (vph)	7	1345	74	142	865	11	46	0	71	0	0	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		130	265		0	190		0	0		0
Storage Lanes	1		1	1		0	2		0	0		0
Taper Length (ft)	110			195			115			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.998			0.850				
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1805	3585	1509	1752	3302	0	2757	1495	0	0	1900	0
Flt Permitted	0.316			0.161			0.950					
Satd. Flow (perm)	600	3585	1509	297	3302	0	2757	1495	0	0	1900	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								253				
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			502			215			250	
Travel Time (s)		15.5			9.8			7.3			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	7%	3%	9%	17%	27%	0%	8%	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 (%)												
Lane Group Flow (vph)	7	1387	76	146	903	0	47	73	0	0	0	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA				
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2								
Detector Phase	1	6	4	5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	6.5	46.0	14.0	6.5	28.0		14.0	14.0		14.0	14.0	
Total Split (s)	13.0	90.0	26.0	16.0	93.0		26.0	26.0		18.0	18.0	
Total Split (%)	8.7%	60.0%	17.3%	10.7%	62.0%		17.3%	17.3%		12.0%	12.0%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	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	0.0			0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min	None	None	C-Min		None	None		None	None	
Act Effct Green (s)	124.5	116.4	132.6	130.3	125.9		10.2	10.2				
Actuated g/C Ratio	0.83	0.78	0.88	0.87	0.84		0.07	0.07				

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.01	0.50	0.06	0.44	0.33		0.25	0.22				
Control Delay	1.3	12.9	3.0	12.3	7.9		67.8	1.5				
Queue Delay	0.0	1.4	0.0	0.0	0.0		0.0	0.0				
Total Delay	1.3	14.4	3.0	12.3	7.9		67.8	1.5				
LOS	A	B	A	B	A		E	A				
Approach Delay		13.7			8.6			27.5				
Approach LOS		B			A			C				
Queue Length 50th (ft)	1	663	13	57	163		21	0				
Queue Length 95th (ft)	m1	m591	m25	m67	m174		m37	m1				
Internal Link Dist (ft)		714			422			135			170	
Turn Bay Length (ft)	145		130	265			190					
Base Capacity (vph)	589	2782	1432	379	2772		367	418				
Starvation Cap Reductn	0	1124	0	0	0		0	0				
Spillback Cap Reductn	0	0	0	0	0		0	0				
Storage Cap Reductn	0	0	0	0	0		0	0				
Reduced v/c Ratio	0.01	0.84	0.05	0.39	0.33		0.13	0.17				

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 42 (28%), Referenced to phase 2:NWTL and 6:SETL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 12.3		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: 1: Meijer Dr & Algonquin Rd (IL 62)

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	7	1345	74	142	865	11	46	0	71	0	0	0
Future Volume (vph)	7	1345	74	142	865	11	46	0	71	0	0	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		130	265		0	190		0	0		0
Storage Lanes	1		1	1		0	2		0	0		0
Taper Length (ft)	110			195			115			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.998			0.850				
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1805	3585	1509	1752	3302	0	2757	1495	0	0	1900	0
Flt Permitted	0.316			0.161			0.950					
Satd. Flow (perm)	600	3585	1509	297	3302	0	2757	1495	0	0	1900	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								237				
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			502			215			250	
Travel Time (s)		15.5			9.8			7.3			8.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	6%	7%	3%	9%	17%	27%	0%	8%	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 (%)												
Lane Group Flow (vph)	7	1387	76	146	903	0	47	73	0	0	0	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA				
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2								
Detector Phase	1	6	4	5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	6.5	46.0	14.0	6.5	28.0		14.0	14.0		14.0	14.0	
Total Split (s)	13.0	90.0	28.0	16.0	93.0		28.0	28.0		16.0	16.0	
Total Split (%)	8.7%	60.0%	18.7%	10.7%	62.0%		18.7%	18.7%		10.7%	10.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	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	0.0			0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min	None	None	C-Min		None	None		None	None	
Act Effct Green (s)	124.5	116.4	132.6	130.3	125.9		10.2	10.2				
Actuated g/C Ratio	0.83	0.78	0.88	0.87	0.84		0.07	0.07				

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.01	0.50	0.06	0.44	0.33		0.25	0.23				
Control Delay	1.3	12.9	3.0	12.3	8.0		67.8	1.7				
Queue Delay	0.0	1.4	0.0	0.0	0.0		0.0	0.0				
Total Delay	1.3	14.4	3.0	12.3	8.0		67.8	1.7				
LOS	A	B	A	B	A		E	A				
Approach Delay		13.7			8.6			27.6				
Approach LOS		B			A			C				
Queue Length 50th (ft)	1	663	13	57	163		21	0				
Queue Length 95th (ft)	m1	m591	m25	m67	m174		m37	m2				
Internal Link Dist (ft)		714			422			135			170	
Turn Bay Length (ft)	145		130	265			190					
Base Capacity (vph)	589	2782	1452	379	2772		404	421				
Starvation Cap Reductn	0	1124	0	0	0		0	0				
Spillback Cap Reductn	0	0	0	0	0		0	0				
Storage Cap Reductn	0	0	0	0	0		0	0				
Reduced v/c Ratio	0.01	0.84	0.05	0.39	0.33		0.12	0.17				

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 42 (28%), Referenced to phase 2:NWTL and 6:SETL, Start of Green			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 12.3		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: 1: Meijer Dr & Algonquin Rd (IL 62)

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	1155	116	88	859	88	0	0	65	0	0	96
Future Vol, veh/h	35	1155	116	88	859	88	0	0	65	0	0	96
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	180	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	5	2	6	4	0	0	0	9	0	0	2
Mvmt Flow	38	1255	126	96	934	96	0	0	71	0	0	104

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1031	0	0	1382	0	0	-	-	692	-	-	517
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.3	-	-	5.42	-	-	-	-	7.28	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	-	3.16	-	-	-	-	3.99	-	-	3.92
Pot Cap-1 Maneuver	384	-	-	246	-	-	0	0	319	0	0	431
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	384	-	-	246	-	-	-	-	319	-	-	430
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2.4	19.5	16
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	319	384	-	-	246	-	-	430
HCM Lane V/C Ratio	0.221	0.099	-	-	0.389	-	-	0.243
HCM Control Delay (s)	19.5	15.4	-	-	28.6	-	-	16
HCM Lane LOS	C	C	-	-	D	-	-	C
HCM 95th %tile Q(veh)	0.8	0.3	-	-	1.7	-	-	0.9

Intersection	
Int Delay, s/veh	1

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	9	110	13	34	182
Future Vol, veh/h	0	9	110	13	34	182
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	16	17	0	5	23	25
Mvmt Flow	0	13	153	18	47	253

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	509	162	0	0	171	0
Stage 1	162	-	-	-	-	-
Stage 2	347	-	-	-	-	-
Critical Hdwy	6.56	6.37	-	-	4.33	-
Critical Hdwy Stg 1	5.56	-	-	-	-	-
Critical Hdwy Stg 2	5.56	-	-	-	-	-
Follow-up Hdwy	3.644	3.453	-	-	2.407	-
Pot Cap-1 Maneuver	500	845	-	-	1289	-
Stage 1	834	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	482	845	-	-	1289	-
Mov Cap-2 Maneuver	482	-	-	-	-	-
Stage 1	804	-	-	-	-	-
Stage 2	686	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	9.3	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	-	845	1289	-
HCM Lane V/C Ratio	-	-	-	0.015	0.037	-
HCM Control Delay (s)	-	-	0	9.3	7.9	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	6	111	8	0	216
Future Vol, veh/h	0	6	111	8	0	216
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	15	0	0	4
Mvmt Flow	0	8	146	11	0	284

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	152	0	0	-	-
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	900	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	900	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWT
Capacity (veh/h)	-	-	900	-
HCM Lane V/C Ratio	-	-	0.009	-
HCM Control Delay (s)	-	-	9	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	1395	21	35	1018	0	4
Future Vol, veh/h	1395	21	35	1018	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	6	0	0	8	0	0
Mvmt Flow	1550	23	39	1131	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1573	0	-	787
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	425	-	0	339
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	425	-	-	339
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	SE	NW	NE
HCM Control Delay, s	0	2.1	15.8
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	339	425	-	-	-
HCM Lane V/C Ratio	0.013	0.092	-	-	-
HCM Control Delay (s)	15.8	14.3	1.7	-	-
HCM Lane LOS	C	B	A	-	-
HCM 95th %tile Q(veh)	0	0.3	-	-	-

Capacity Analysis Summary Sheets

Total Projected Weekday Evening Peak Hour Conditions

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	32	1183	69	140	1392	27	157	1	203	7	4	24
Future Volume (vph)	32	1183	69	140	1392	27	157	1	203	7	4	24
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		130	265		0	190		0	0		0
Storage Lanes	1		1	1		0	2		0	0		0
Taper Length (ft)	110			195			115			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.997			0.851			0.907	
Flt Protected	0.950			0.950			0.950				0.990	
Satd. Flow (prot)	1805	2857	1615	1805	3599	0	3335	1617	0	0	1646	0
Flt Permitted	0.147			0.184			0.950				0.990	
Satd. Flow (perm)	279	2857	1615	350	3599	0	3335	1617	0	0	1646	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								205			24	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			502			192			250	
Travel Time (s)		15.5			9.8			6.5			8.5	
Confl. Peds. (#/hr)												
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 (%)	0%	33%	0%	0%	0%	0%	5%	3%	0%	0%	2%	5%
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 (%)												
Lane Group Flow (vph)	32	1195	70	141	1433	0	159	206	0	0	35	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2								
Detector Phase	1	6	4	5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	6.5	46.0	14.0	6.5	28.0		14.0	14.0		14.0	14.0	
Total Split (s)	13.0	100.0	16.0	18.0	105.0		16.0	16.0		16.0	16.0	
Total Split (%)	8.7%	66.7%	10.7%	12.0%	70.0%		10.7%	10.7%		10.7%	10.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	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	0.0			0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min	None	None	C-Min		None	None		None	None	
Act Effct Green (s)	111.7	103.0	120.1	117.0	109.0		11.0	11.0			8.8	
Actuated g/C Ratio	0.74	0.69	0.80	0.78	0.73		0.07	0.07			0.06	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.12	0.61	0.05	0.40	0.55		0.65	0.67			0.29	
Control Delay	5.9	28.0	10.3	6.3	12.5		81.9	20.2			38.4	
Queue Delay	0.0	0.8	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	5.9	28.8	10.3	6.3	12.5		81.9	20.2			38.4	
LOS	A	C	B	A	B		F	C			D	
Approach Delay		27.3			12.0			47.1			38.4	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	10	623	37	15	425		77	4			10	
Queue Length 95th (ft)	m13	m635	m48	m24	m412		m#120	m65			49	
Internal Link Dist (ft)		714			422			112			170	
Turn Bay Length (ft)	145		130	265			190					
Base Capacity (vph)	310	1962	1292	414	2614		245	309			132	
Starvation Cap Reductn	0	435	0	0	0		0	0			0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	
Reduced v/c Ratio	0.10	0.78	0.05	0.34	0.55		0.65	0.67			0.27	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 59 (39%), Referenced to phase 2:NWTL and 6:SETL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 22.2 Intersection LOS: C
Intersection Capacity Utilization 68.6% ICU Level of Service C
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: Meijer Dr & Algonquin Rd (IL 62)

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	32	1183	69	140	1392	27	157	1	203	7	4	24
Future Volume (vph)	32	1183	69	140	1392	27	157	1	203	7	4	24
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	145		130	265		0	190		0	0		0
Storage Lanes	1		1	1		0	2		0	0		0
Taper Length (ft)	110			195			115			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.997			0.851			0.907	
Flt Protected	0.950			0.950			0.950				0.990	
Satd. Flow (prot)	1805	2857	1615	1805	3599	0	3335	1617	0	0	1646	0
Flt Permitted	0.147			0.183			0.950				0.990	
Satd. Flow (perm)	279	2857	1615	348	3599	0	3335	1617	0	0	1646	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								205			24	
Link Speed (mph)		35			35			20			20	
Link Distance (ft)		794			502			192			250	
Travel Time (s)		15.5			9.8			6.5			8.5	
Confl. Peds. (#/hr)												
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 (%)	0%	33%	0%	0%	0%	0%	5%	3%	0%	0%	2%	5%
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 (%)												
Lane Group Flow (vph)	32	1195	70	141	1433	0	159	206	0	0	35	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA		Split	NA	
Protected Phases	1	6	4	5	2		4	4		8	8	
Permitted Phases	6		6	2								
Detector Phase	1	6	4	5	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	3.0	15.0	8.0	3.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	6.5	46.0	14.0	6.5	28.0		14.0	14.0		14.0	14.0	
Total Split (s)	13.0	100.0	18.0	18.0	105.0		18.0	18.0		14.0	14.0	
Total Split (%)	8.7%	66.7%	12.0%	12.0%	70.0%		12.0%	12.0%		9.3%	9.3%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	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	0.0			0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0		6.0	6.0			6.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Min	None	None	C-Min		None	None		None	None	
Act Effct Green (s)	111.3	102.7	120.9	116.8	108.7		12.2	12.2			8.0	
Actuated g/C Ratio	0.74	0.68	0.81	0.78	0.72		0.08	0.08			0.05	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
v/c Ratio	0.12	0.61	0.05	0.40	0.55		0.59	0.65			0.32	
Control Delay	6.1	28.3	9.4	6.5	12.7		76.8	18.4			40.5	
Queue Delay	0.0	0.8	0.0	0.0	0.0		0.0	0.0			0.0	
Total Delay	6.1	29.1	9.4	6.5	12.7		76.8	18.4			40.5	
LOS	A	C	A	A	B		E	B			D	
Approach Delay		27.5			12.2			43.8			40.5	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	11	624	36	19	428		75	4			11	
Queue Length 95th (ft)	m13	m635	m45	m24	m412		m112	m62			50	
Internal Link Dist (ft)		714			422			112			170	
Turn Bay Length (ft)	145		130	265			190					
Base Capacity (vph)	309	1956	1303	412	2607		275	321			110	
Starvation Cap Reductn	0	417	0	0	0		0	0			0	
Spillback Cap Reductn	0	0	0	0	0		0	0			0	
Storage Cap Reductn	0	0	0	0	0		0	0			0	
Reduced v/c Ratio	0.10	0.78	0.05	0.34	0.55		0.58	0.64			0.32	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 59 (39%), Referenced to phase 2:NWTL and 6:SETL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 22.1 Intersection LOS: C
Intersection Capacity Utilization 68.6% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Meijer Dr & Algonquin Rd (IL 62)

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	1415	153	87	1433	64	0	0	144	0	0	63
Future Vol, veh/h	13	1415	153	87	1433	64	0	0	144	0	0	63
Conflicting Peds, #/hr	2	0	0	0	0	2	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	180	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	14	1555	168	96	1575	70	0	0	158	0	0	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1647	0	0	1723	0	0	-	-	862	-	-	826
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.3	-	-	5.3	-	-	-	-	7.1	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.1	-	-	3.1	-	-	-	-	3.9	-	-	3.9
Pot Cap-1 Maneuver	192	-	-	176	-	-	0	0	259	0	0	274
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	192	-	-	176	-	-	-	-	259	-	-	273
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.6	38.5	22.6
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	259	192	-	-	176	-	-	273
HCM Lane V/C Ratio	0.611	0.074	-	-	0.543	-	-	0.254
HCM Control Delay (s)	38.5	25.3	-	-	47.4	-	-	22.6
HCM Lane LOS	E	D	-	-	E	-	-	C
HCM 95th %tile Q(veh)	3.7	0.2	-	-	2.8	-	-	1

Intersection	
Int Delay, s/veh	1.4

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	5	64	275	5	6	207
Future Vol, veh/h	5	64	275	5	6	207
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	0	0	3	0	0
Mvmt Flow	6	76	327	6	7	246

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	590	330	0	0	333	0
Stage 1	330	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.42	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	470	716	-	-	1238	-
Stage 1	728	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	467	716	-	-	1238	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	724	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	10.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	467	716	1238	-
HCM Lane V/C Ratio	-	-	0.013	0.106	0.006	-
HCM Control Delay (s)	-	-	12.8	10.6	7.9	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0.4	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	0	25	336	3	0	213
Future Vol, veh/h	0	25	336	3	0	213
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	0	30	405	4	0	257

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	407	0	0	-	-
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	648	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	648	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWT
Capacity (veh/h)	-	-	648	-
HCM Lane V/C Ratio	-	-	0.046	-
HCM Control Delay (s)	-	-	10.8	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.5

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	1383	10	15	1559	0	19
Future Vol, veh/h	1383	10	15	1559	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	0	2	0	0
Mvmt Flow	1456	11	16	1641	0	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1467	0	-	734
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.1	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.2	-	-	3.3
Pot Cap-1 Maneuver	-	-	466	-	0	367
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	466	-	-	367
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	SE	NW	NE
HCM Control Delay, s	0	2.6	15.4
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	367	466	-	-	-
HCM Lane V/C Ratio	0.054	0.034	-	-	-
HCM Control Delay (s)	15.4	13	2.5	-	-
HCM Lane LOS	C	B	A	-	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	-

Capacity Analysis Summary Sheets

Worst-Case Scenario

Intersection	
Int Delay, s/veh	2.7

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	16	110	294	14	37	253
Future Vol, veh/h	16	110	294	14	37	253
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	7	11	2	12	10
Mvmt Flow	22	149	397	19	50	342

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	849	407	0	0	416	0
Stage 1	407	-	-	-	-	-
Stage 2	442	-	-	-	-	-
Critical Hdwy	6.4	6.27	-	-	4.22	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.363	-	-	2.308	-
Pot Cap-1 Maneuver	334	633	-	-	1091	-
Stage 1	676	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	319	633	-	-	1091	-
Mov Cap-2 Maneuver	319	-	-	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	652	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	13	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	319	633	1091	-
HCM Lane V/C Ratio	-	-	0.068	0.235	0.046	-
HCM Control Delay (s)	-	-	17.1	12.4	8.5	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.9	0.1	-

Exhibit B:
Light Fixture Cut Sheets

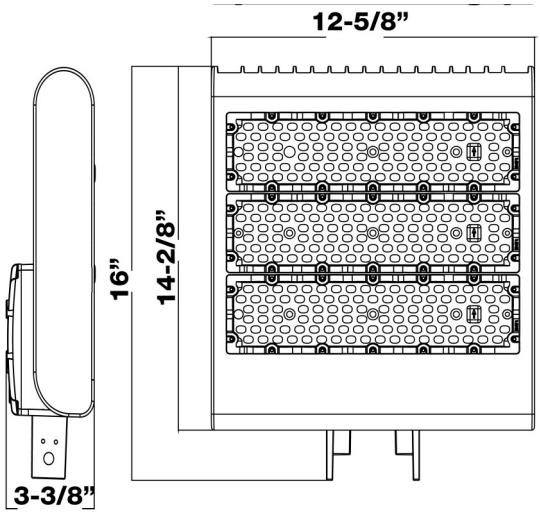
POLE LIGHT & WEST BUILDING MOUNTED FIXTURE MOUNTED AT 90 DEGREES

SHARP CUT-OFF

FlatPanel Gen 2

230W 120-277V

4000K Type IV



Features:

Bronze Diecast Aluminum Housing

Heat Resistant Directed Optics Frosted Polycarbonate Lens

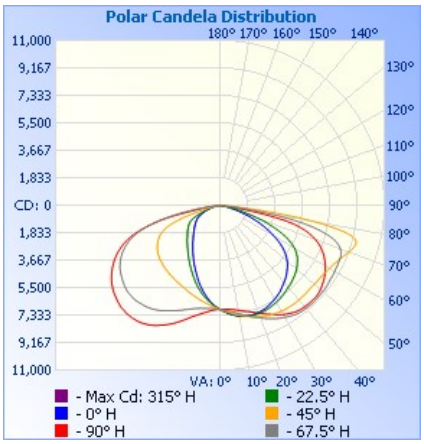
Excellent Heat Dissipation - Maximum Life Expectancy

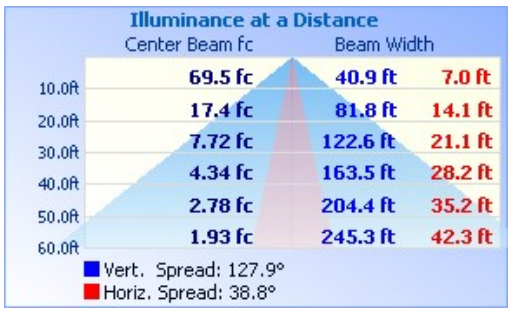
LumiLEDS

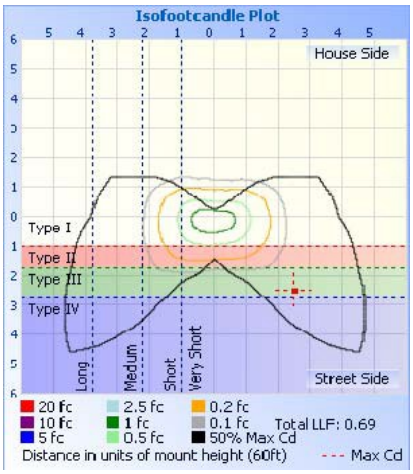
Note: Fixture does not include mount, Pole Arm, Slipfitter, Trunnion Mount sold separately

Part#	Wattage	Volts	Lumens	CCT	CRI	Dimming	Light Pattern	Lumens/ Watt	DLC #
74017	230	120-277	29,821	4000K	73	0-10V/PWM/VR	Type IV	131	PLPGX01TNCPB

PHOTOMETRY







FlatPanel Gen 2

230W 120-277V

4000K Type IV

Technical Specifications:

Electrical:

Input Voltage: 120-277

Current: 1.977A@120V; .8860A@277V

Frequency: 50/60Hz

Power Factor: ≥.9

THD: 6.46%@120V; 7.00%@277V

Product Parameters:

Watts: 230

Lumens: 29.821

Efficacy: 131 lumens per watt

50,000+ Hour L70 Life Span

CCT: 4000K (Neutral White)

Chromacity Measurements:

Beam Angle: Type IV

BUG Rating: B4-U0-G4

CRI: >73

R9: 0

DUV: .0005

Chromaticity (x,y): x=.3464; y=.3536

Chromaticity (u,v): u=.2115; v=.4858

Component Specifications:

LED: LumiLEDs 3030 2D

Driver: 100-277V 50-60HZ

Driver Output Volts: 18-54

Driver Output Amps: 445-6700mA

10KV Surge Protection

Dimming: 0-10V/PWM/VR

Operating Temperature:

Minimum Starting -40°F - 131°F

Construction:

Housing: ADC12 Aluminum Alloy

Powder Coated - Bronze

IP Rating: IP65 suitable for wet locations

Lens Material: Heat Resistant Polycarbonate Lens

UV Resistant

Fire Resistant

Mounting: 2 Pc Mount design for simple 1 person installation

Photo Control: Can be installed Remotely

Listings: UL Listed: E474299

DLC#: PLPGX01TNCPB

Carton Qty: 1

Weight: 20 lb

EPA Rating: 1.912ft^2

Accessories:

Pole Arm Mount:	Cat# 74032
Slipfitter Mount:	Cat# 74034
Trunnion Mount:	Cat# 74036
Round To Square Pole Adaptor:	Cat# 74040
Microwave Motion and Light Sensor :	Cat# 74042

Warranty:

Morris Products carries a 5 year warranty from date of purchase against defects in materials and workmanship (assuming normal and proper usage).

EAST BUILDING MOUNTED

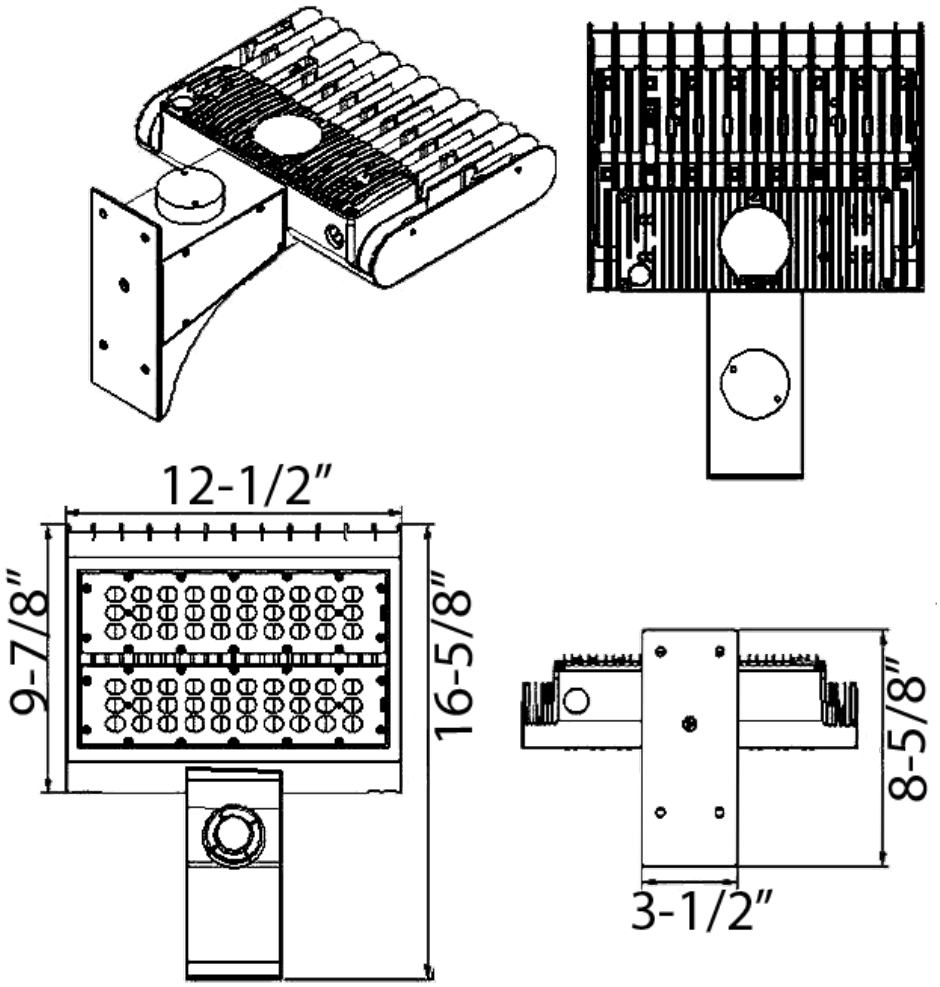
Cat# 71866
100 Watts
Wall Mount

RoHS
UL/CUL
TUV-CE

QPLC ID#
PLF3XUA9XQIU

Model :		71866
OVERALL LAMP PARAMETERS	Input Voltage	100-277VAC 50/60HZ
	Input Current	.84A Max
	Input Power	100W
	Power Factor	PF≥ 0.90
	Luminance	12,350LM
	Luminous Efficiency	124 LM/W
	CRI	>82
	R9	9
	Beam Angle	Type II 120 x 90°
	Main Structure	Aluminium + PC Lens
LED DRIVER	Output Voltage	36-60VDC
	Output Current	4.4A
	THD	16%
	Driver Efficiency	88%
LED	LED Manufacturer	Philips
	LED Type	3030 LED
	LED Quantity	120 PCS
	LED Efficacy	130 LM/W
	Color Temperature	4000K
Photocell	-	Not Included
LIFESPAN & ENVIRONMENT	Lifespan	50,000+ Hrs.
	Warranty	5 Years
	IP Rating	IP65 Wet Locations
	Operating Temperature	-40 —+55
	Storage Temperature.Humidity	-40 —+80 , 10—90% RH
SAFETY&EMC	Safety Norms	UL1598,UL8750, EN60598, EN61347-2-13, EN62031, EN62471
	Withstand Voltage	I/P-FG: 2121VDC
	Grounding Resistance	≤0.5Ω,OK
	Electromagnetic Compatibility	EN55015, EN61000-2-3, EN61000-3-3, EN61547
OTHERS	Dimension	Pls refer to attached diamension drawing
	Q'ty / Carton	1 PC
	Volume	0
	EPA Rating	1.16ft^2

Dimensions:



LM-79-08 Test Report

For

Morris Products Inc.

53 Carey Rd. Queensbury, NY 12804

Architectural Flood and Spot Luminaires

Model name(s): 71542, 71832, 71562, 71841, 71574A, 71852, 71584, 71865, 71866, 71867

Representative (Tested) Model: 71542

Model Different: All construction and rating are the same, except CCT

Test & Report By:

Johnson Sun

Engineer: Johnson Sun

Update: Nov.16, 2016

Review By:

Tommy Liang

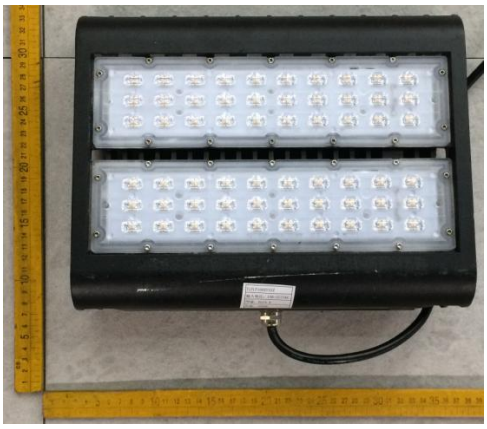
Manager: Tommy Liang

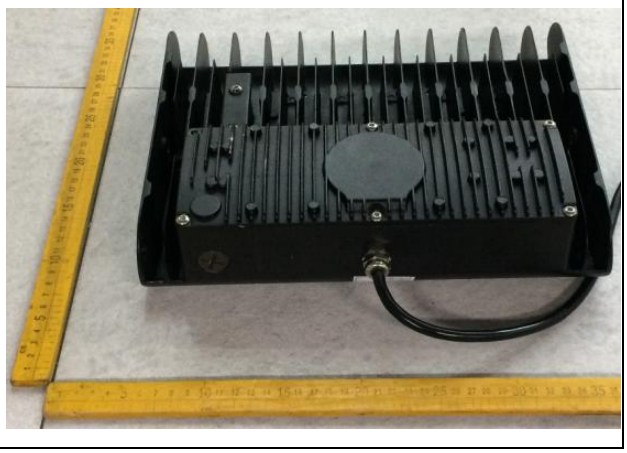
Note: This report does not imply product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

1.1 Product Information:

Organization Name	Morris Products Inc.	
Brand Name	MORRIS	
Model Number	71542	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Architectural Flood and Spot Luminaires	
Rated Voltage / Frequency	100 -277Vac, 50/60 Hz	
Nominal Power	100W	
Rated Initial Lamp Lumen	--	
Declared CCT	4000K,5000K,5700K	
LED Manufacturer	Philips Lumileds	
LED Model	L130-2780003000W21	
Sample Number	GZE161105-AI1(4000K),AI2(5700K)	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

Photo





1.2 Test Specifications:

Date of Receipt	: Oct.31,2016
Date of Test	: Nov.03,2016
Test item	1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. Correlated Color Temperature 5. Color Rendering Index 6. Chromaticity Coordinate 7. Electrical Parameters
Reference Standard	1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products 2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products 3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources 4. CIE 15-2004 Technical Report Colorimetry 5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source 6. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	QD25

1.3 Test Methods

1) Photometric and Light Distribution Measurement – Goniophotometer Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at 25 °C ±1 °C, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1 °vertical intervals and 22.5 °horizontal intervals.

2) Chromaticity Measurement – Sphere-Spectroradiometer Method:

Chromaticity parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25 ºC ±1 ºC. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral power distribution taken at 5 nm intervals over the range of 380 to 780 nm.

3) Electrical Measurements:

Electrical parameters were measured using power meters incorporated in goniophotometer or sphere-spectroradiometer system. The ambient temperature surrounding the sample was maintained at 25 ºC ±1 ºC. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Voltage, frequency, current, power, power factor and total harmonic distortion were measured by and read from the power meter.

2.1 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction QD25)

Test date	2016-11-03	**Test Ambient:**	25.2 ℃
Test Orientation	As intended	**Stabilization Time (min)**	90
Model Number	71542		

Electrical Measurement :

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE161105-AI1	120.0	60	0.8373	99.99	0.9952	14.82
	277.0	60	0.3901	100.2	0.9274	18.53
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method :

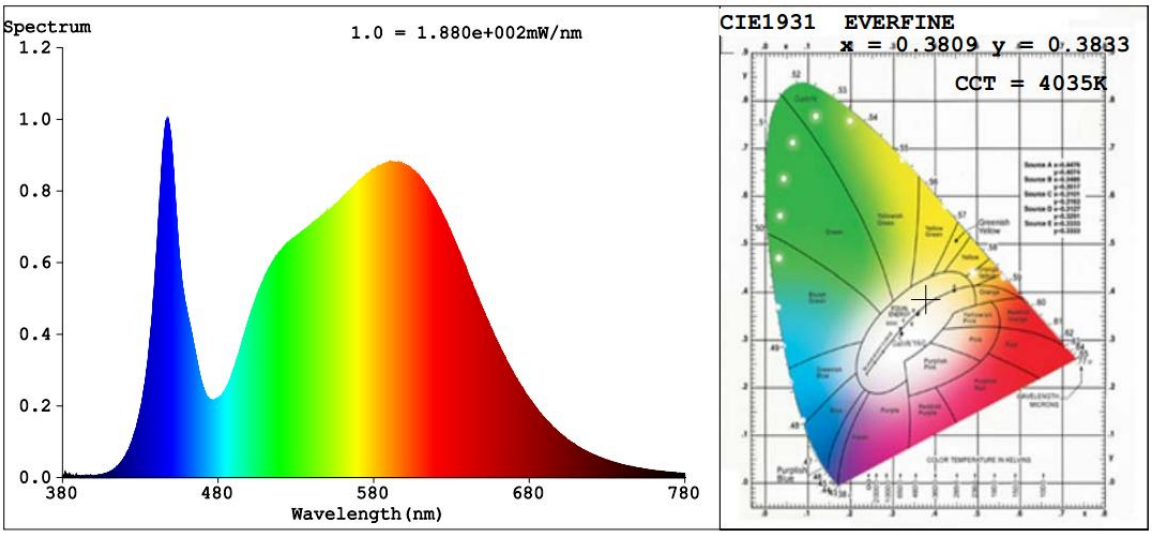
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	4035
Duv	0.0029
Chromaticity (x, y)	x=0.3809 y=0.3833
Chromaticity (u', v')	u'=0.2228 v'=0.5045
Color Rendering Index (CRI)	82.2
R9	9

Special Color Rendering Indices			
R1	80	R9	9
R2	87	R10	69
R3	92	R11	82
R4	83	R12	61
R5	80	R13	81
R6	82	R14	96
R7	87	R15	74
R8	66	--	--

Photometric Measurement – Goniophotometer Method :

Parameter	Result		DLC V4.0 Pass Criteria	
Test Voltage (V)	120.0	277.0	--	
Frequency (Hz)	60	60		
Total Luminous (lm)	12105	12225	>=1000 (-10%)	
Luminous Efficacy (lm/W)	121.06	122.01	Standard: >= 100(-3%)	Premium: >= 120(-3%)
Zonal lumens in the 0-90 °zone (%)	99.8	--	>=85(-3)	
Beam Angle ( )	104.6	--	--	
Center Beam Candle Power (cd)	4124	--	--	

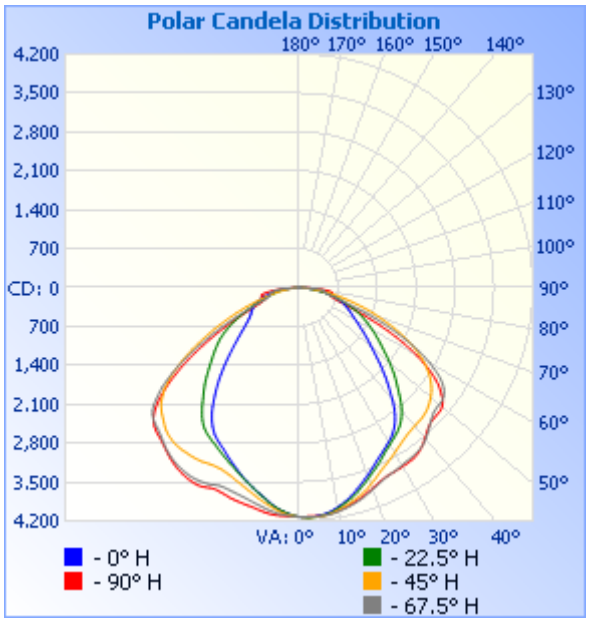
Spectral Power Distribution & Chromaticity Diagram

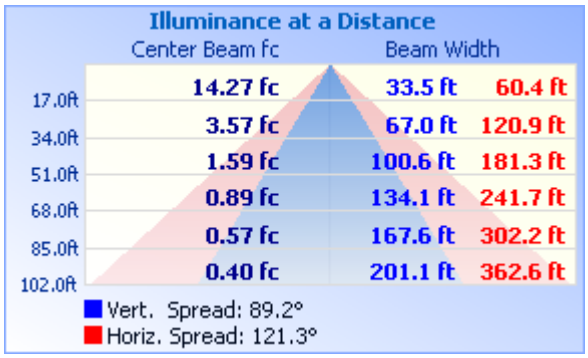


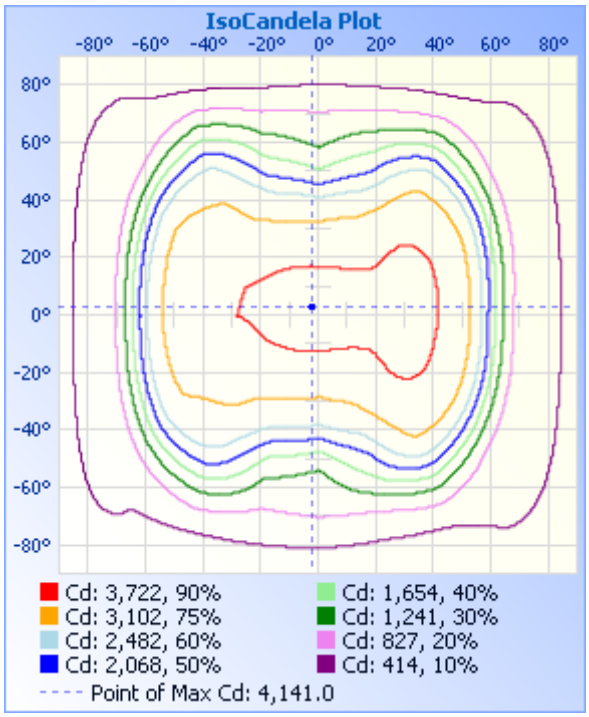
Zonal Lumen Tabulation

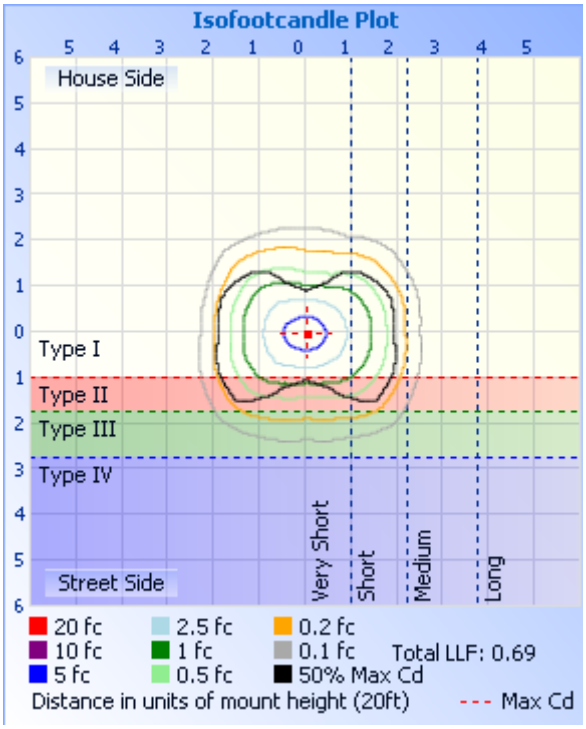
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	3,125.1	25.8%
0-40	5,237.6	43.3%
0-60	9,671.3	79.9%
60-90	2,403.4	19.9%
70-100	976.2	8.1%
90-120	7.3	0.1%
0-90	12,074.8	99.8%
90-180	28.8	0.2%
0-180	12,103.6	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	386.8	3.2%	90-100	1.6	0%
10-20	1,083.7	9.0%	100-110	2.2	0%
20-30	1,654.6	13.7%	110-120	3.5	0%
30-40	2,112.5	17.5%	120-130	5.1	0%
40-50	2,295.0	19.0%	130-140	5.5	0%
50-60	2,138.8	17.7%	140-150	4.6	0%
60-70	1,428.8	11.8%	150-160	3.5	0%
70-80	717.7	5.9%	160-170	2.1	0%
80-90	256.9	2.1%	170-180	0.8	0%


Polar Candela Distribution
180° 170° 160° 150° 140°
4,200
3,500
2,800
2,100
1,400
700
CD: 0
700
1,400
2,100
2,800
3,500
4,200
130°
120°
110°
100°
90°
80°
70°
60°
50°
VA: 0° 10° 20° 30° 40°
- 0° H
- 90° H
- 22.5° H
- 45° H
- 67.5° H


Illuminance at a Distance
Center Beam fc
Beam Width
17.0ft 14.27 fc 33.5 ft 60.4 ft
34.0ft 3.57 fc 67.0 ft 120.9 ft
51.0ft 1.59 fc 100.6 ft 181.3 ft
68.0ft 0.89 fc 134.1 ft 241.7 ft
85.0ft 0.57 fc 167.6 ft 302.2 ft
102.0ft 0.40 fc 201.1 ft 362.6 ft
Vert. Spread: 89.2°
Horiz. Spread: 121.3°


IsoCandela Plot
-80° -60° -40° -20° 0° 20° 40° 60° 80°
80°
60°
40°
20°
0°
-20°
-40°
-60°
-80°
Cd: 3,722, 90%
Cd: 3,102, 75%
Cd: 2,482, 60%
Cd: 2,068, 50%
Cd: 1,654, 40%
Cd: 1,241, 30%
Cd: 827, 20%
Cd: 414, 10%
Point of Max Cd: 4,141.0


Isofootcandle Plot
5 4 3 2 1 0 1 2 3 4 5
House Side
Type I
Type II
Type III
Type IV
Street Side
Very Short
Short
Medium
Long
20 fc
10 fc
5 fc
2.5 fc
1 fc
0.5 fc
0.2 fc
0.1 fc
50% Max Cd
Total LLF: 0.69
Distance in units of mount height (20ft)
Max Cd

γ (DEG) \ C (DEG)	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338
0	4125	4125	4125	4125	4125	4125	4125	4125	4125	4125	4125	4125	4125	4125	4125	4125
5	4115	4119	4130	4135	4118	4132	4136	4126	4118	4079	4041	4017	4011	4010	4043	4085
10	4067	4075	4033	4019	4007	4031	4062	4090	4073	3985	3898	3828	3804	3813	3892	3990
15	4008	3996	3893	3843	3818	3861	3935	3994	3976	3872	3742	3656	3613	3620	3730	3898
20	3951	3920	3772	3635	3593	3647	3767	3865	3846	3726	3577	3474	3407	3441	3601	3843
25	3963	3920	3671	3448	3379	3443	3576	3745	3741	3628	3431	3286	3210	3291	3550	3894
30	3979	3957	3640	3307	3210	3259	3432	3693	3715	3577	3292	3122	3039	3159	3587	3915
35	3895	3900	3653	3161	2995	3110	3304	3648	3678	3509	3187	2890	2728	3003	3598	3859
40	3754	3790	3641	2899	2593	2864	3240	3541	3521	3428	3101	2501	2281	2696	3567	3739
45	3638	3639	3554	2544	2139	2491	3199	3356	3378	3275	2971	2100	1831	2381	3434	3590
50	3366	3470	3336	2208	1729	2138	3082	3280	3347	3174	2773	1727	1448	2061	3241	3439
55	2703	3067	2987	1902	1420	1801	2878	3173	3059	3027	2520	1409	1176	1798	2832	2900
60	1844	2361	2493	1609	1178	1522	2550	2714	2443	2559	2153	1163	1013	1498	2216	2069
65	1057	1548	1876	1310	1002	1258	2070	1969	1600	1824	1649	959	929	1131	1561	1241
70	682	892	1290	988	856	974	1512	1155	876	1071	1124	768	829	785	1007	717
75	661	583	807	701	691	690	979	642	595	603	690	585	665	544	601	541
80	657	484	455	424	442	413	544	467	609	426	381	419	447	377	328	521
85	348	353	158	195	182	176	203	409	457	341	173	190	135	162	148	357
90	3.03	2.85	2.15	1.93	1.88	1.84	2.64	4.14	2.95	2.42	1.27	1.40	1.47	1.49	1.91	2.12
95	1.53	1.59	1.45	1.06	1.01	0.85	1.34	1.60	1.32	1.22	1.12	0.96	1.15	1.00	1.38	1.43
100	1.64	1.85	1.49	0.94	0.95	0.86	1.40	1.43	1.06	1.64	1.97	1.38	1.01	1.22	1.91	1.91
105	3.01	3.17	2.28	1.18	1.04	1.22	2.01	2.07	1.80	2.54	2.71	1.81	1.23	1.54	2.77	3.04
110	4.59	4.39	3.02	1.44	1.48	1.91	2.92	3.55	2.75	3.34	3.24	2.08	1.91	1.97	3.29	3.99
115	5.54	5.29	3.88	1.70	1.96	2.21	3.93	4.94	3.59	4.29	3.93	2.38	2.07	2.30	3.77	4.62
120	6.34	5.92	4.83	2.81	2.40	2.76	5.04	5.79	4.44	5.03	4.78	3.10	2.66	2.93	3.99	4.89
125	7.39	7.08	5.27	6.59	14.7	4.46	5.63	6.90	5.39	5.72	4.99	4.10	3.92	3.72	4.21	5.32
130	7.96	7.30	5.35	7.98	21.8	5.74	5.95	7.49	6.44	5.96	5.07	4.69	4.56	4.57	4.25	5.62
135	7.86	7.12	5.39	8.88	14.2	7.17	5.94	7.45	6.58	6.09	5.04	5.48	5.14	5.26	4.09	5.78
140	7.66	7.15	5.57	7.67	18.8	7.28	5.86	7.49	6.92	6.63	4.83	6.12	5.68	5.53	4.13	6.06
145	7.41	6.03	6.15	9.58	18.9	8.24	5.20	6.91	7.13	6.71	5.20	6.49	5.94	5.95	4.89	6.16
150	7.32	5.95	7.16	9.74	16.0	8.64	6.20	7.01	6.81	6.79	6.48	6.81	6.90	6.91	6.43	6.18
155	6.45	6.46	8.12	10.1	13.3	8.82	7.11	7.12	6.22	6.81	6.53	7.17	6.95	6.86	6.58	6.20
160	6.26	6.51	7.75	9.06	10.5	7.96	7.30	7.03	5.91	6.40	6.58	7.26	7.95	7.50	6.74	6.38
165	6.43	6.61	7.59	7.56	7.27	7.23	7.37	6.64	6.60	6.24	6.85	7.38	7.16	7.34	6.83	6.91
170	6.98	7.36	8.92	8.51	8.26	8.34	8.76	6.85	7.61	7.62	8.03	9.16	9.28	8.83	8.08	8.88
175	7.34	8.20	9.34	8.77	9.28	8.45	9.08	7.23	7.81	7.89	8.65	9.37	9.32	9.57	8.38	8.96
180	6.86	7.77	8.70	8.58	9.23	8.24	8.82	7.17	7.02	7.14	7.91	8.68	8.54	8.98	8.28	8.77

BUG Rating: B3-U2-G2

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1592.1	13.2
FM - Front-Medium(30-60)	3370.3	27.8
FH - Front-High(60-80)	1138.7	9.4
FVH - Front-Very High(80-90)	132.76	1.1
Total Forward Light	6250.1	51.6

BL - Back-Low(0-30)	1533	12.7
BM - Back-Medium(30-60)	3177.1	26.2
BH - Back-High(60-80)	1007.6	8.3
BVH - Back-Very High(80-90)	124.14	1.0
Total Back Light	5854.5	48.4

UL - Uplight-Low(90-100)	1.5547	0.0
UH - Uplight-High(100-180)	27.269	0.2
Total Up Light	28.823	0.2

BUG(Back,Up,Glare) Rating	B3-U2-G2

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	5841.9	12.659	5854.5
Street Side	6233.9	16.164	6250.1

2.2 Electrical, Photometric and Chromaticity Measurements

(Refer to Work Instruction QD25)

Test date	2016-11-03	**Test Ambient:**	25.2 ºC
Test Orientation	As intended	**Stabilization Time (min)**	90
Model Number	71542		

Electrical Measurement :

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE161105-AI2	120.0	60	0.8267	98.72	0.9951	14.86
	277.0	60	0.3850	98.87	0.9272	18.57
				DLC Pass Criteria	>= 0.9(-3%)	<= 20(+5)

Chromaticity Measurement - Sphere-Spectroradiometer Method :

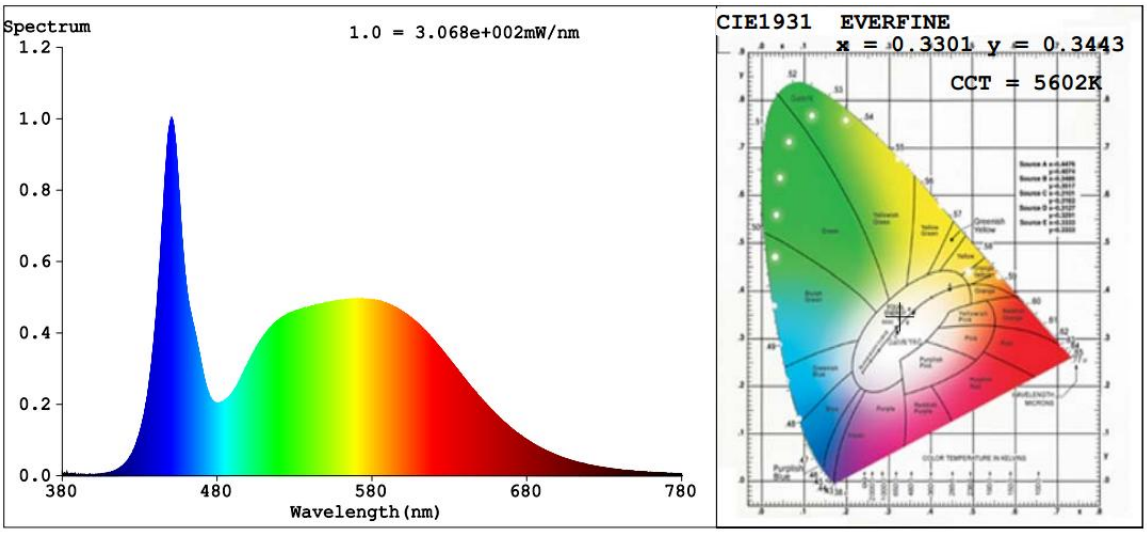
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
CCT (K)	5602
Duv	0.0027
Chromaticity (x, y)	x=0.3301 y=0.3443
Chromaticity (u', v')	u'=0.2041 v'=0.4788
Color Rendering Index (CRI)	82.8
R9	9

Special Color Rendering Indices			
R1	81	R9	9
R2	87	R10	68
R3	90	R11	82
R4	83	R12	58
R5	82	R13	83
R6	82	R14	95
R7	88	R15	77
R8	69	--	--

Photometric Measurement – Sphere-Spectroradiometer Method :

Parameter	Result		DLC V4.0 Pass Criteria	
Test Voltage (V)	120.0	277.0	--	
Frequency (Hz)	60	60		
Total Luminous (lm)	12353	12255	>=1000 (-10%)	
Luminous Efficacy (lm/W)	125.13	123.95	Standard: >= 100(-3%)	Premium: >= 120(-3%)

Spectral Power Distribution & Chromaticity Diagram



3. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-336	2 meter Integrating Sphere	2016-07-01	2017-06-30
ST-R-331	Spectral analysis system HAAS-2000	2016-07-01	2017-06-30
D204	Standard Lamp	2016-07-01	2017-06-30
PF2010	Power Meter for Integrating Sphere	2016-07-01	2017-06-30
EE-09	Goniophotometer system	2016-07-01	2017-06-30
D908S	Standard Lamp	2016-07-01	2017-06-30
PF210	Power Meter for Goniophotometer	2016-07-01	2017-06-30
ST-R-181A	Temperature Tester	2016-07-01	2017-06-30
Uncertainty: Photometric Measurement (Sphere):1.74% Chromaticity Measurement(Sphere):14.3K Photometric Measurement(Goniophotometer):1.62%			

******** END OF REPORT ********

Exhibit C:
Fencing Cut Sheets

Chesterfield Smooth Finish

Chesterfield Smooth Finish in Almond and Natural Clay

White | Almond | Grey | Natural Clay

Chesterfield Smooth Finish

Top rails in ColorLast® colors feature reinforcement for added strength and durability.

STC 21

Heights: 4′, 5′ & 6′
Picket Style: 7/8″ x 7″ Tongue & Groove
Steel Reinforced Bottom Rail
(4′ not available in Natural Clay)
(Grey only available for 6′ height)

A **TOP RAIL** PALLET QUANTITY = 84
2" x 6" x 95" Deco rail ribbed.
Note: Clay color includes steel in top rail.

B **PICKETS** PALLET QUANTITY = 12 Fill Kits
Section includes 13 pickets of
7/8" x 7" x 62-3/4" .

C **END CHANNEL**
7/8" x 1" x 59-7/8"

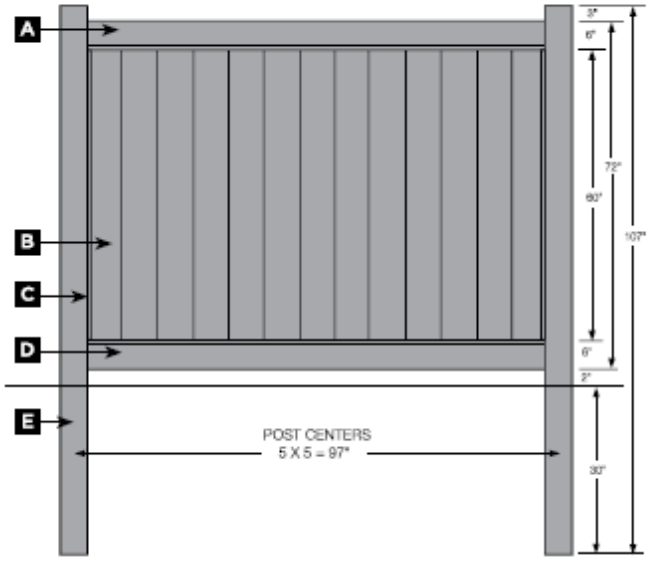
D **BOTTOM RAIL** PALLET QUANTITY = 84
2" x 6" x 95" Deco rail ribbed.
Includes steel channel.

E **POST** PALLET QUANTITY = 48
5" x 5" x 107"

Racks up to 10 degrees

FEATURING WINDZONE-TECHNOLOGY

MEETS POOL CODE



Industrial Grade

1-5/8" x 1-5/8" Rails with 1" x 1" Pickets

EFF-20 No Picket Thru Bottom

EFS-66

EFF-20

EFS-10

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