TRAFFIC IMPACT STUDY

For

Wharton 15 Developers, LLC Proposed Multi-Use Building

Property Located at:

320 Route 15
Block 801 – Lot 7.01
Borough of Wharton, Morris County, NJ



1904 Main Street | 245 Main Street, Suite #110 Lake Como, NJ 07719 | Chester, NJ 07930 (732) 681-0760

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Last Revised: March 15, 2024 Dated: August 5, 2022

1478-99-208T



INTRODUCTION

It is proposed to construct a mixed-use commercial building on a parcel of land currently developed with a restaurant, located along Route 15 southbound just north of Mount Pleasant Avenue in Wharton Borough, Morris County, New Jersey (see Figure 1 in Appendix A). The site is designated as Block 801 – Lot 7.01 on the Borough of Wharton Tax Maps. The site is currently developed with an approximate 4,300 SF restaurant known as Townsquare Diner. It is proposed to raze the existing site and construct a mixed-use commercial building consisting of a 3,523 SF Aspen Dental, 3,614 SF City MD, 1,245 SF Jersey Mike's Subs, and a 2,441 SF Panda Express with a drive-thru (The Project). The site is located within the B-2 – Regional Business zone. Access to the site is proposed to be maintained via the existing access configuration consisting of an ingress only driveway and a right turn egress only driveway along Route 15. It should be noted that two (2) cross access points currently exist to the adjacent Bob's Discount Furniture and Mattress Store, which are proposed to remain.

Dynamic Traffic LLC has been retained to prepare this study to assess the traffic impact associated with the construction of The Project on the adjacent roadway network. This study documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Existing traffic data was collected via manual turning movement (MTM) counts during the weekday PM and Saturday midday peak periods at the existing site driveways along Route 15.
- Projections of traffic to be generated by the proposed development were prepared utilizing trip
 generation data as published by the New Jersey Department of Transportation. Site traffic was
 then assigned to the adjacent street system based upon the anticipated directional distribution.
- Capacity analyses were conducted for the Existing, No Build, and Build conditions for the study intersections.
- The proposed points of ingress and egress were inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.
- The site plan as designed was reviewed for sufficiency in accommodating large wheel base vehicles such as delivery trucks, refuse trucks, and emergency vehicles.
- The parking layout and supply was assessed based on accepted design standards, local requirements, and demand experienced at similar developments.



EXISTING CONDITIONS

A review of the existing roadway conditions near the proposed site was conducted to provide the basis for assessing the traffic impact of the development. This included field investigations of the surrounding roadways and intersections, collection of traffic volume data, and extensive analyses.

Existing Roadway Conditions

The following is a description of the roadway in the study area:

NJ Route 15 is an Urban Minor Arterial roadway under New Jersey Department of Transportation jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 40 MPH and the roadway provides two travel lanes in each direction along the site frontage. Onstreet parking is prohibited along both sides of the roadway. Curbing is provided along both sides of the roadway, while sidewalk is not provided along either side. Route 15 provides a curved horizontal alignment and a relatively flat vertical alignment. The land uses along Route 15 in the vicinity of The Project are primarily commercial.

Existing Traffic Volumes

Manual turning movement (MTM) counts were conducted on Tuesday, June 7, 2022 from 4:30 to 6:30 PM and on Saturday, June 11, 2022 from 11:00 AM to 2:00 PM at the existing site driveways along Route 15. Review of the collected traffic data reveals that the weekday evening peak street hour (PSH) occurs between 4:45 - 5:45 PM and the Saturday midday PSH occurs between 12:00 - 1:00 PM. Figure 2, located in Appendix A, shows the existing peak hour traffic volumes at the study intersections. All traffic counts are contained in Appendix B.

COVID-19 Traffic Count Normalization

It should be noted that various protocols associated with the COVID-19 pandemic were in effect as of the time of the traffic counts. As a result, current traffic volumes on the surrounding roadways may be atypical at this time and not entirely representative of "existing" traffic conditions. Therefore, historical traffic volume data has been reviewed and compared with current traffic volumes in order to account for this effect. Specifically, this firm obtained Streetlight data along Route 15 north of Mount Pleasant Avenue for the month of March in 2019 and 2022.

In order to perform an appropriate comparison, the 2019 volumes were increased to better represent 2022 conditions by applying a growth rate of 2.50% per year, obtained from the NJDOT Annual Background Growth Rate Table, for a period of three (3) years. The adjusted 2019 traffic volumes were then compared to the 2022 Streetlight data as summarized in the table below.



Table I Traffic Count Comparison

======= ==============================										
		Route 1:	5 Peak H	COVID-19						
Location	Date	As-Co	unted		ckground wth ^[1]	Adjustment Factor				
		PM	SAT	PM	SAT	PM	SAT			
Route 15 north of	March 2019	2,762	3,478	2,974	3,745	1 20	1 22			
Mt Pleasant Ave	March 2022	2,302	2,826	2,302	2,826	1.29	1.33			

^{[1] 2019} data increased by 2.50% per NJDOT Annual Background Growth Rate Table compounded annually for three years.

As seen above, the current traffic volumes were found to be lower than the historical volumes grown to the current year during the weekday evening and Saturday midday peak hours; therefore, adjustment factors of 1.29 and 1.33, respectively, were applied to those volumes to provide a conservative analysis. Further, the 2022 traffic volumes were increased to better represent existing 2024 traffic volume by applying a growth rate of 2.50% per year obtained from the NJDOT Annual Background Growth Rate Table for a period of two years. Figure 3, located in Appendix A, shows the adjusted existing peak hour traffic volumes at the study intersections. All traffic counts are contained in Appendix B.

Existing Capacity Analysis

The methodology utilized in the capacity analyses is described in the *Highway Capacity Manual*, published by the Transportation Research Board. In general, the term Level of Service (LOS) is used to provide a "qualitative" evaluation of capacity based upon certain "quantitative" calculations related to empirical values, such as traffic volume and intersection control.

An unsignalized (STOP sign controlled) driveway or side street along a through route is seldom critical from an overall capacity standpoint, however, it may be of great significance to the capacity of the minor cross-route, and it may influence the quality of traffic flow on both. When analyzing an unsignalized intersection, it is assumed that both the major street through and right turn movements are unimpeded and have the right-of-way over all side street traffic and left turns from the major street. All other turning movements in the intersection cross, merge with, or are otherwise impeded by major street movements. Traffic delays at unsignalized intersections are determined by sequentially processing these impeded movements. Table II describes the level of service ranges for unsignalized (stop controlled) intersections.

Table II Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (seconds per vehicle)
a	0.0 to 10.0
b	10.1 to 15.0
С	15.1 to 25.0
đ	25.1 to 35.0
e	35.1 to 50.0
f	greater than 50.0



It should be noted that the analyses within the *Highway Capacity Manual* assume a random arrival for all the movements, which may not be the case if an adjacent traffic signal is present that platoons vehicles, such as the signalized intersection of Route 15 and Mount Pleasant Avenue.

All capacity analyses were performed utilizing Synchro 12 software. It should be noted that the existing percentage of trucks and peak hour factors were used in the existing analysis. Table III summarizes the existing levels of service (LOS) and delays. All capacity analysis calculation worksheets are contained in Appendix C.

Table III Existing Levels of Service

Intersection	Direc Move		PM PSH	SAT PSH	
Route 15 & North Site Driveway	NB	L	b (12)	c (16)	
Route 15 & South Site Driveway	EB	R	b (14)	c (17)	

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

The following are discussions pertaining to each of the existing intersections analyzed.

Route 15 & North Site Driveway

The north site driveway intersects Route 15 to form an unsignalized T-intersection with the site driveway providing one lane away from the intersection. The northbound approach of Route 15 provides a dedicated left turn lane and two dedicated through lanes, while the southbound approach provides a dedicated through lane and a shared through/right turn lane.

A review of the existing analysis reveals that all ingress movements at the driveway operate at levels of service "C" or better during the analyzed peak periods. See Table III for the individual movement levels of service and delays.

Route 15 & South Site Driveway

The south site driveway intersects Route 15 to form an unsignalized T-intersection with the eastbound approach of the site driveway operating under stop control. The northbound and southbound approaches of Route 15 each provide two dedicated through lanes. The eastbound approach of the site driveway provides a dedicated right turn lane.

A review of the existing analysis reveals that the right turn egress movement at the driveway operates at levels of service "C" or better during the analyzed peak periods. See Table III for the individual movement levels of service and delays.



FUTURE CONDITIONS

Traffic volumes and operational analyses were developed for both the 2026 No Build and Build conditions. The No Build conditions provide a baseline for assessing the impact of the site development traffic on the roadway system. The process of developing the No Build and Build traffic volumes and the subsequent analyses is outlined below.

Regardless of whether the subject site is developed or not, traffic volumes on the surrounding roadways are expected to increase as a result of developments throughout the region. A growth rate for roadways within the study area was obtained from the NJDOT Annual Background Growth Rate Table, which indicates a growth rate of 2.50% per year.

Through consultation with the Borough of Wharton Planning Board staff, there are no other developments in the vicinity of the site that have been approved but not yet constructed that are identified as significant traffic generators. It was assumed that the background growth rate was adequate to account for the traffic associated with all developments not listed.

Future 2026 No Build traffic volumes were developed by applying the background growth rate of 2.50% for two (2) years to the study area roadways existing traffic volumes. Figure 4, in Appendix A, shows the 2026 No Build traffic volumes.

Traffic Generation

Trip generation projections for The Project were prepared utilizing trip generation research data as published under Land Use Code (LUC) 720 – Medical-Dental Office Building, LUC 933 – Fast Food Restaurant without Drive Through Window, and LUC 934 – Fast Food Restaurant with Drive Through Window from the NJDOT published rates.

Additionally, according to studies conducted by the Institute of Transportation Engineers (ITS), traffic associated with LUC 934 is not 100% newly generated. Rather, a portion of the traffic is diverted from the existing traffic stream on the adjacent roadway network. This is because the Panda Express is not exclusively a destination land use, instead patrons stop on their way to/from other locations such as home or work. The NJDOT accepted passby rates of 50% and 37% were applied to the weekday evening and Saturday midday peak hours, respectively. It should be noted that there will realistically be passby traffic during the studied peak hours associated with the proposed Jersey Mike's Subs even though there is no data published by ITE or NJDOT, however, conservatively no credit was taken for this effect.

As previously noted, the site is currently occupied by a restaurant which generates traffic in the existing condition. Additionally, interaction between the proposed uses of The Project as well as the adjacent Bob's Discount Furniture and Mattress Store due to the internal access is anticipated to reduce the overall trip generation for the site. However, conservatively, no reduction was taken for the traffic associated with the existing restaurant nor the anticipated interaction between the various complimentary uses in the Build condition in the analyses contained herein. Table IV details the traffic volumes associated with the subject project considering the passby credits.



Table IV
HAPS Trip Generation Considering Passby Traffic

Land Use	Tain True		PM PSH	I	S	SAT PSI	H
Land Use	Trip Type	In	Out	Total	In	Out	Total
	Total	12	17	29	13	9	22
7,137 SF Medical Office	Passby	-	-	-	1	-	-
	New (Primary)	12	17	29	13	9	22
	Total	31	30	61	33	35	68
1,245 SF Jersey Mike's Subs	Passby	-	-	-	-	-	-
	New (Primary)	31	30	61	33	35	68
	Total	64	61	125	69	66	135
2,441 SF Panda Express	Passby	32	31	63	26	24	50
	New (Primary)	32	30	62	43	42	85
	Total	107	108	215	115	110	225
Total	Passby	32	31	63	26	24	50
	New (Primary)	75	77	152	89	86	175

Once the magnitude of traffic to be generated by the site is known, it is necessary to assign that traffic to the adjacent street system. The distribution of new traffic to the surrounding roadways is based on the location of primary arterial roadways, major signalized intersections and existing traffic patterns. Figures 5-9, located in Appendix A, illustrate the Primary Traffic Trip Distribution, Primary Site Generated Volumes, Passby Traffic Trip Distribution, Passby Site Generated Volumes, and the Total Site Generated Volumes assigned to the study area network were added to the No Build traffic volumes to generate the Build traffic volumes, which are shown in Figure 10.

As previously noted, the site is currently occupied by an approximately 4,300 SF diner which has been counted and has an existing trip generation, along with a Bob's Discount Furniture and Mattress Store that utilizes the existing site driveways to access Route 15. While it is proposed to raze the existing diner, the trip generation associated with this land use was not removed from the 2026 No Build and Build analyses. Thus, the following analyses are considered conservative and contain more traffic generation at the site driveways than anticipated for The Project.



Future Capacity Analysis

Operational conditions at the study intersections were analyzed under the No Build and Build conditions and are summarized in Table V below.

Table V Future Levels of Service

		tion /	PM	PSH	SAT PSH		
Intersection	Direction/ Movement		No Build	Build	No Build	Build	
Route 15 & North Site Driveway	NB	L	b (13)	b (15)	c (17)	c (22)	
Route 15 & South Site Driveway	EB	R	b (15)	c (20)	c (18)	d (27)	

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

Route 15 & North Site Driveway

With the addition of site generated traffic, all ingress movements at the site driveway are anticipated to continue to operate at No Build levels of service "C" or better during the analyzed peak hours. See Table V for the individual movement levels of service and delays.

Route 15 & South Site Driveway

With the addition of site generated traffic, the right turn egress movement at the site driveway is anticipated to operate at levels of service "D" or better during the analyzed peak hours. See Table V for the individual movement levels of service and delays.



SITE PLAN

Site Access and Circulation

The site plan was reviewed with respect to the site access and on-site circulation design. As noted previously, access to The Project will be maintained via the existing access configuration consisting of an ingress only driveway and a right turn egress only driveway along Route 15.

The parking lot will be serviced by parking aisles with widths between 24' and 25', which satisfies the Ordinance's minimum requirement of 24'. These aisles will allow for two-way circulation and 90 degree parking. Review of the site plan design indicates that the site can sufficiently accommodate a large wheel base vehicle, such as a single unit truck (SU), or a tractor with a 43' trailer, along with the automobile traffic anticipated.

Parking

The Wharton Borough Ordinance sets forth a parking requirement of 1 parking space per 150 SF for medical or dental office uses and 1 parking space per 3 seats for eating establishments. This equates to a parking requirement of 24 spaces for the proposed 3,523 SF Aspen Dental, 25 spaces for the proposed 3,614 SF City MD, 6 spaces for the proposed 16 seat Jersey Mike's Subs, and 17 spaces for the proposed 50 seat Panda Express, or a total of 72 spaces. The site as proposed provides 57 on-site parking spaces, inclusive of three (3) handicap spaces, and the Ordinance requirement is not satisfied and a variance is requested. It should be noted that there is an existing easement between the subject property and the Bob's Discount Furniture and Mattress Store property (Block 801 – Lot 7.05) which permits users of the existing restaurant to utilize 15 parking spaces on the Bob's Discount Furniture and Mattress Store property for the purpose of overflow parking. It is proposed to continue the existing utilization of the 15 parking spaces for the purposes of overflow parking for the subject site, resulting in a total parking supply for The Project of 72 spaces. As such, the Board can feel comfortable granting the variance.

It is proposed to provide parking stalls with dimensions of 9'x18', which satisfy the Ordinance requirement of 9'x18'. It should be noted that industry standards recommend stall widths of between 8'9" and 9' and a length of 18' for high-turnover land uses such as The Project, which is met as designed.

The Ordinance also sets forth a loading requirement of 1 loading space for the first 5,000 SF of office uses as well as 1 loading space for the first 2,000 SF of restaurant uses and an additional space for each 25,000 SF afterwards. This equates to a loading requirement of 1 loading space for the proposed 3,523 SF Aspen Dental, 1 loading space for the proposed 3,614 SF City MD, 1 loading space for the proposed 1,245 SF Jersey Mike's Subs, and 1 loading space for the proposed 2,441 SF Panda Express, or a total of 4 loading spaces. Additionally, the Ordinance sets forth loading space dimensional requirements of 12'x35'. The site as proposed provides no loading spaces and a variance is requested. It should be noted that the western parking aisle provides a length of approximately 135' along both curbing and striping, providing sufficient room for the anticipated delivery operations. Further, deliveries are anticipated to occur outside the critical roadway peak hours. As such, the Board can feel comfortable granting the variance.



FINDINGS & CONCLUSIONS

Findings

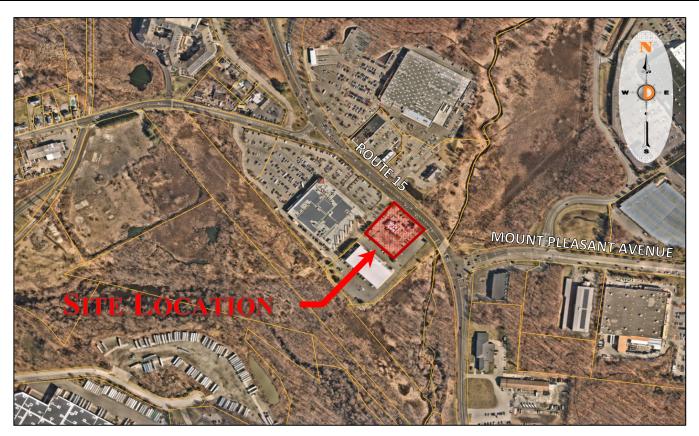
Based upon the detailed analyses as documented herein, the following findings are noted:

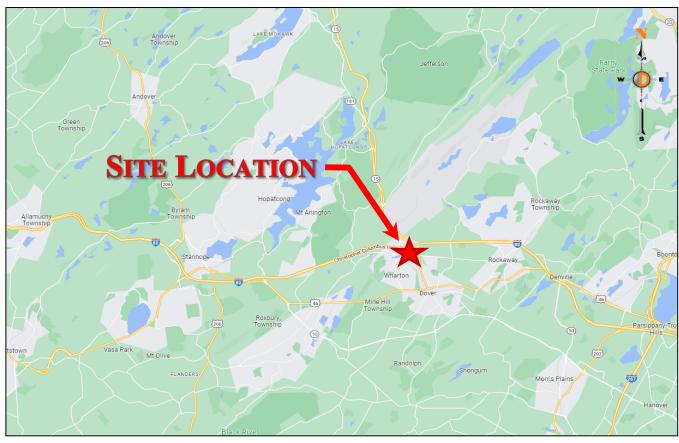
- The proposed mixed-use commercial development is projected to generate 75 entering trips and 77 exiting trips during the weekday evening peak hour and 89 entering trips and 86 exiting trips during the Saturday midday peak hour that are "new" to the adjacent roadway network.
- Access to the site is proposed to be maintained via the existing access configuration consisting of an ingress only driveway and a right turn egress only driveway along Route 15.
- With the addition of site generated traffic, all ingress movements at the intersection of Route 15 and the north site driveway are anticipated to continue to operate at No Build levels of service "C" or better during the peak hours studied.
- With the addition of site generated traffic, the right turn egress movement at the intersection of Route 15 and the south site driveway is anticipated to operate at levels of service "D" or better during the peak hours studied.
- As proposed, The Project's site driveways and internal circulation have been designed to provide for safe and efficient movement of automobiles and large wheel base vehicles.
- The proposed parking supply and design is sufficient to support the projected demand.

Conclusions

Based upon our Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic LLC that the adjacent street system of the New Jersey Department of Transportation will not experience any significant degradation in operating conditions with the construction of The Project. The site driveways are located to provide safe and efficient access to the adjacent roadway system. The site plan as proposed provides for good circulation throughout the site and provides adequate parking to accommodate The Project's needs.

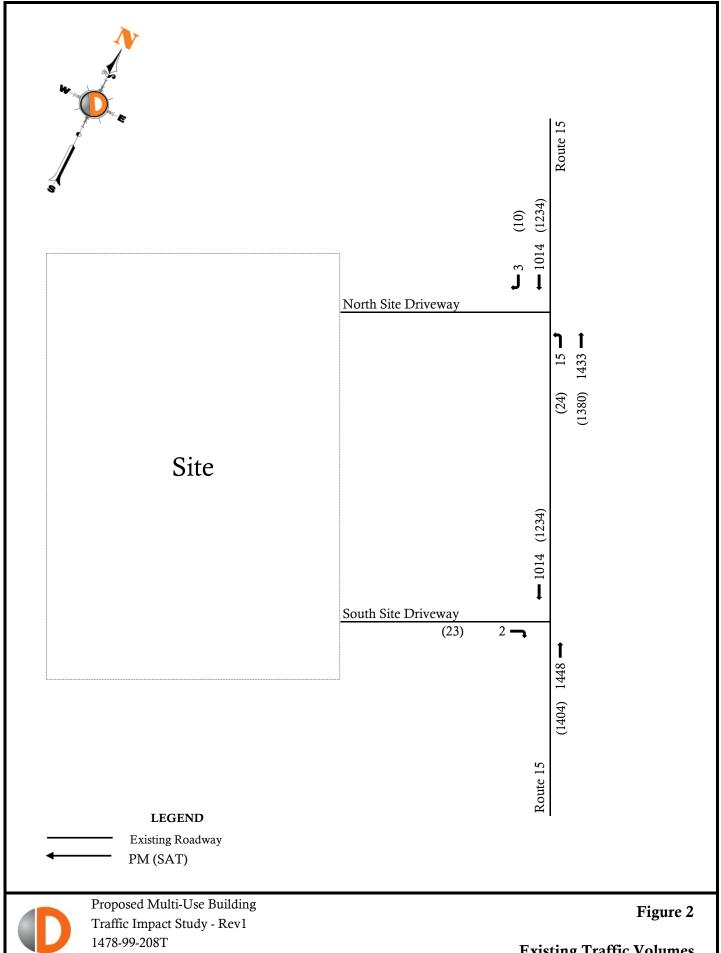
Appendix A Traffic Volume Figures

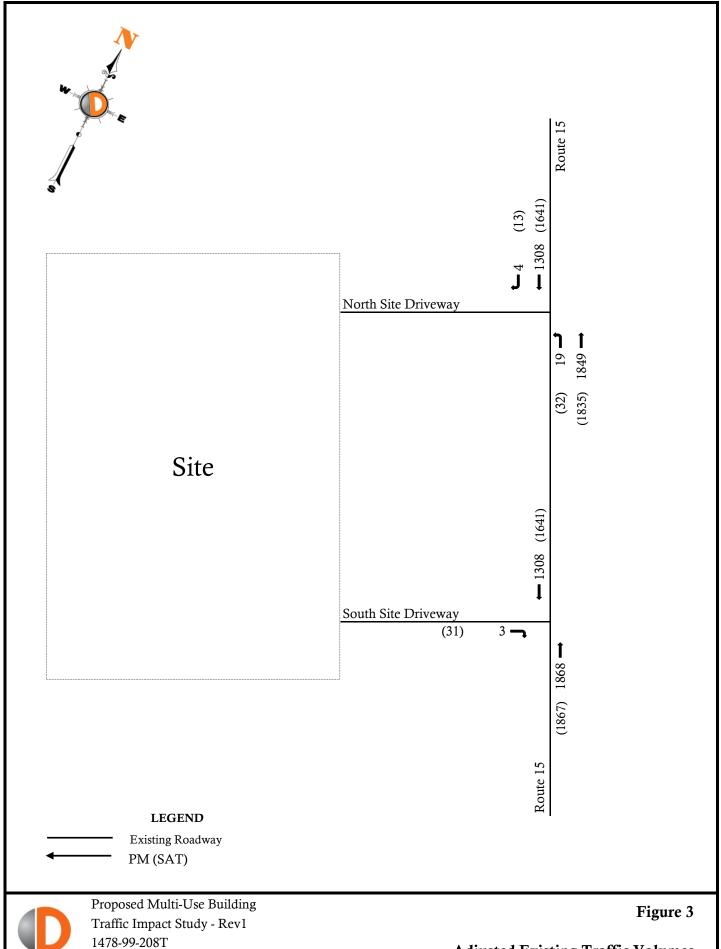


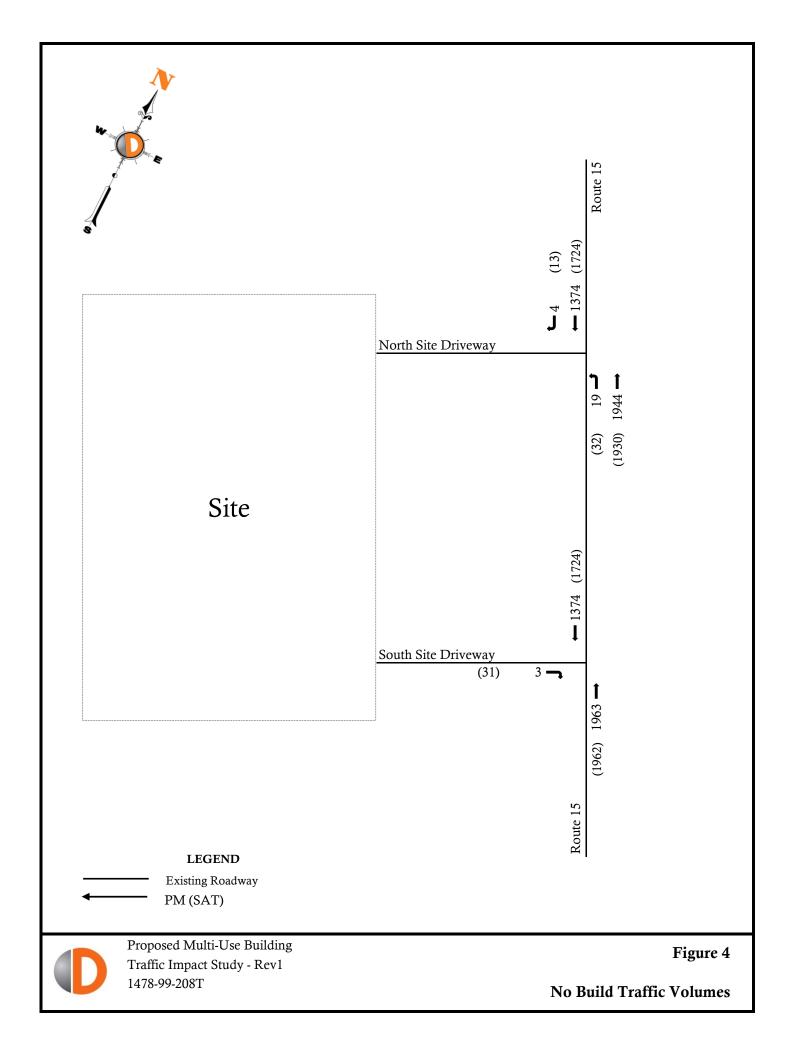


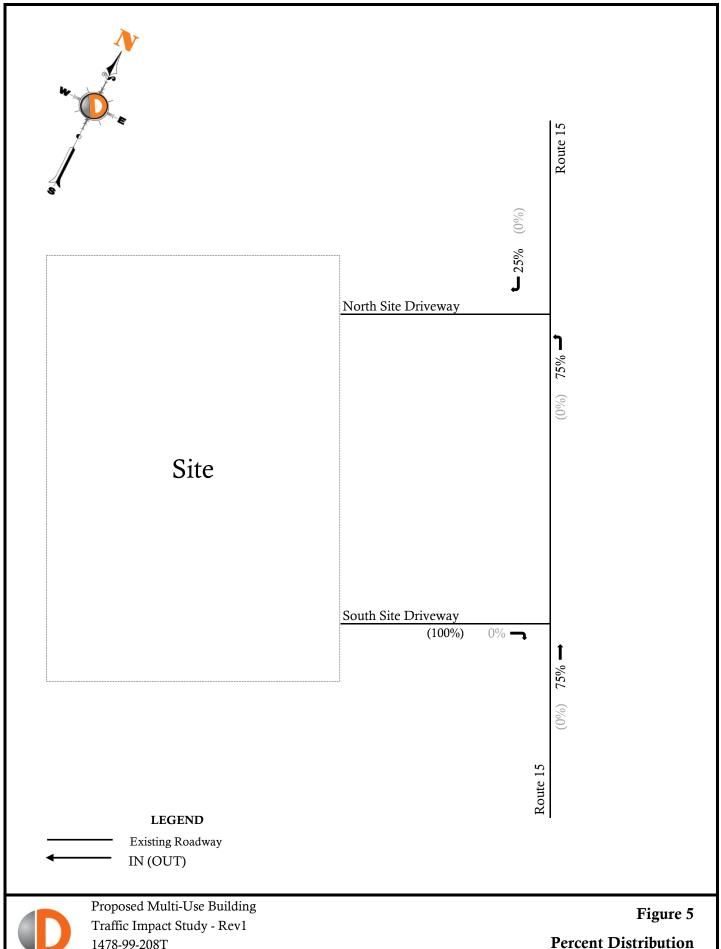


Proposed Multi-Use Building Traffic Impact Study - Rev1 1478-99-208T





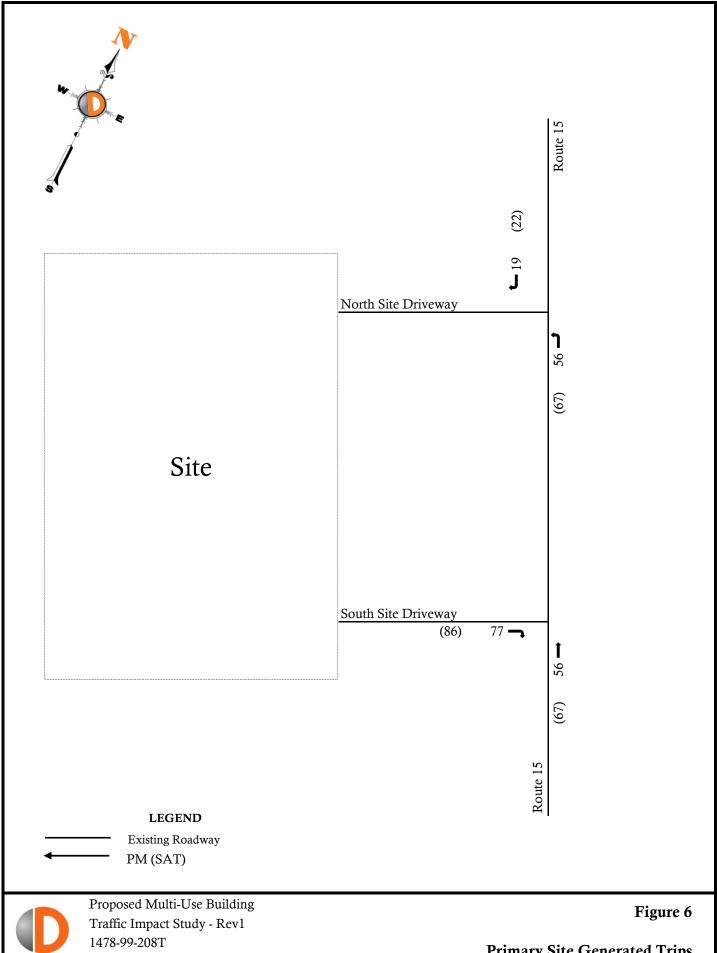


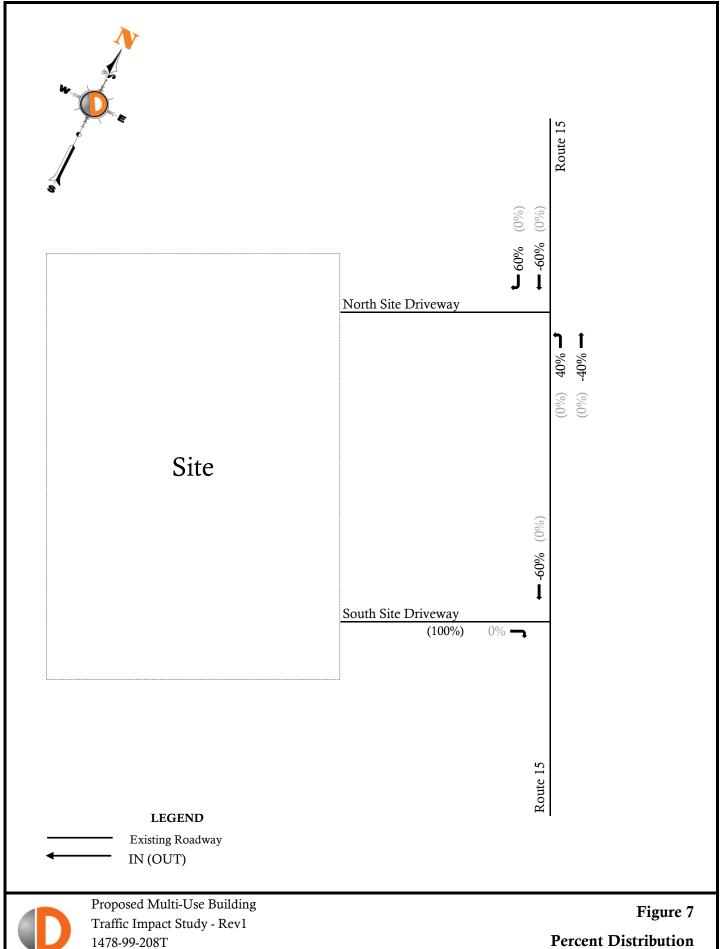




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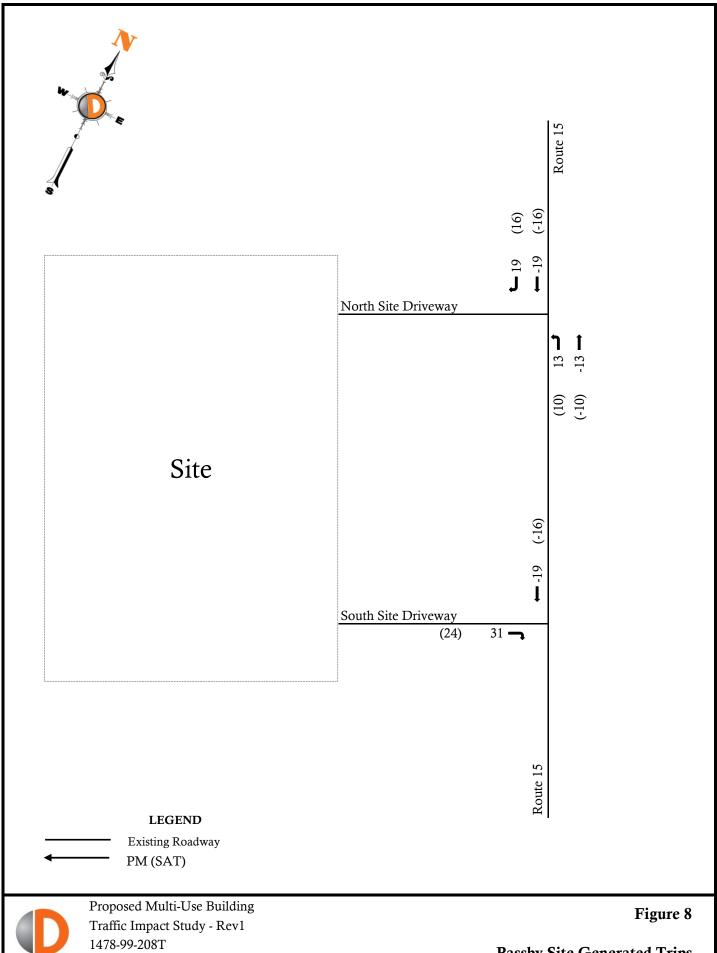
Percent Distribution (Primary Trips)

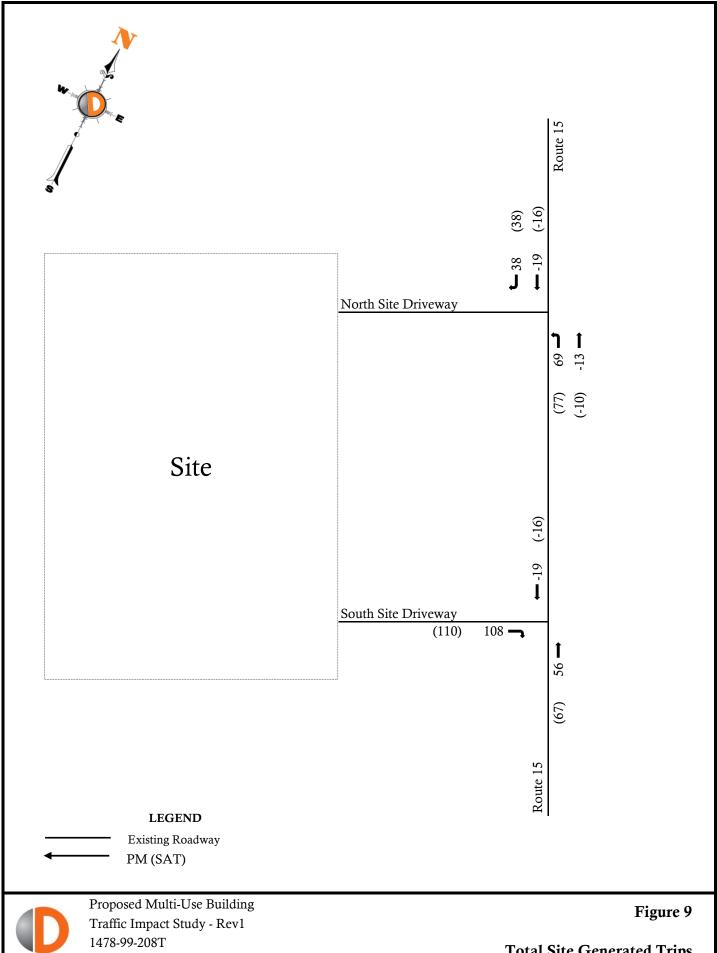


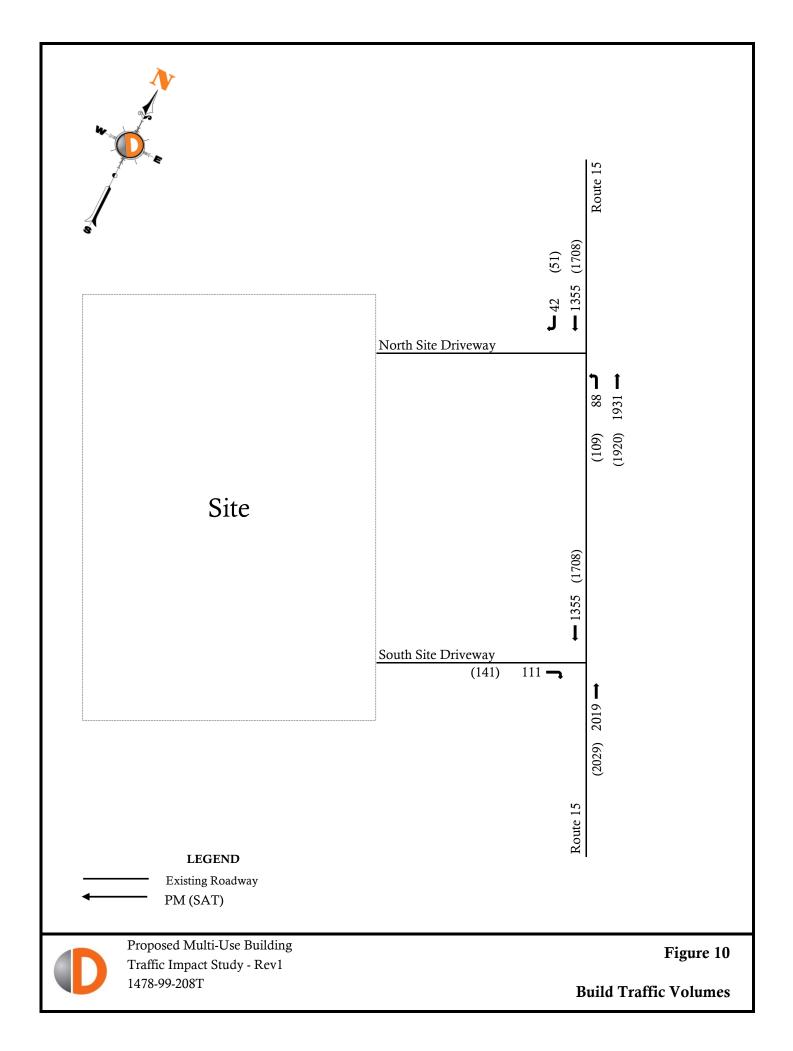




(Passby Trips)







Appendix B Project Information

Dynamic Traffic, LLC

1904 Main Street, Lake Como, NJ 07719 245 Main Street - Suite #110, Chester, NJ 07930 732-681-0760

E/W: 320 Route 15 Driveways File Name: 320 Route 15 - PM

N/S: Route 15 Site Code : 00000000 Town/County: Wharton/Morris Start Date : 6/7/2022

Job #: 1478-99-208T Page No : 1

Groups Printed- Cars - Trucks (SU) - Trucks (TT)

			Gro	ups Print	ea- Cars	- Trucks	(50) - Truci	KS (11)				
	320 Rout	e 15 Exi	t Driveway		Rou	te 15			Rout	te 15		
	E	astbou	nd		North	bound			South	bound		
Start Time	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds /	App. Total	Int. Total
04:30 PM	1	0	1	3	368	0	371	243	1	0	244	616
04:45 PM	2	0	2	0	347	0	347	288	0	0	288	637
Total	3	0	3	3	715	0	718	531	1	0	532	1253
05:00 PM	0	0	0	7	352	0	359	253	1	0	254	613
05:15 PM	0	0	0	3	364	0	367	206	0	0	206	573
05:30 PM	0	0	0	5	370	0	375	267	2	0	269	644
05:45 PM	0	0	0	0	351	0	351	223	0	0	223	574
Total	0	0	0	15	1437	0	1452	949	3	0	952	2404
06:00 PM	4	0	4	4	342	0	346	235	3	0	238	588
06:15 PM	7	0	7	4	354	0	358	257	2	0	259	624
Grand Total	14	0	14	26	2848	0	2874	1972	9	0	1981	4869
Apprch %	100	0		0.9	99.1	0		99.5	0.5	0		
Total %	0.3	0	0.3	0.5	58.5	0	59	40.5	0.2	0	40.7	
Cars	14	0	14	26	2840	0	2866	1968	9	0	1977	4857
% Cars	100	0	100	100	99.7	0	99.7	99.8	100	0	99.8	99.8
Trucks (SU)	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks (SU)	0	0	0	0	0	0	0	0	0	0	0	0
Trucks (TT)	0	0	0	0	8	0	8	4	0	0	4	12
% Trucks (TT)	0	0	0	0	0.3	0	0.3	0.2	0	0	0.2	0.2

Dynamic Traffic, LLC 1904 Main Street, Lake Como, NJ 07719

1904 Main Street, Lake Como, NJ 07719 245 Main Street - Suite #110, Chester, NJ 07930 732-681-0760

E/W: 320 Route 15 Driveways File Name: 320 Route 15 - PM

N/S: Route 15 Site Code : 00000000 Town/County: Wharton/Morris Start Date : 6/7/2022

Job #: 1478-99-208T Page No : 2

	320 Route	e 15 Exi	t Driveway			ite 15			Rou	te 15		
	E	astbour	nd		North	bound			South	bound		
Start Time	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis	From 04:3	0 PM to	06:15 PM -	Peak 1 of	1							
Peak Hour for Entire	e Intersection	on Begin	s at 04:45 F	PM								
04:45 PM	2	0	2	0	347	0	347	288	0	0	288	637
05:00 PM	0	0	0	7	352	0	359	253	1	0	254	613
05:15 PM	0	0	0	3	364	0	367	206	0	0	206	573
05:30 PM	0	0	0	5	370	0	375	267	2	0	269	644
Total Volume	2	0	2	15	1433	0	1448	1014	3	0	1017	2467
% App. Total	100	0		1	99	0		99.7	0.3	0		
PHF	.250	.000	.250	.536	.968	.000	.965	.880	.375	.000	.883	.958
Cars	2	0	2	15	1431	0	1446	1011	3	0	1014	2462
% Cars	100	0	100	100	99.9	0	99.9	99.7	100	0	99.7	99.8
Trucks (SU)	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks (SU)	0	0	0	0	0	0	0	0	0	0	0	0
Trucks (TT)	0	0	0	0	2	0	2	3	0	0	3	5
% Trucks (TT)	0	0	0	0	0.1	0	0.1	0.3	0	0	0.3	0.2

Dynamic Traffic, LLC

1904 Main Street, Lake Como, NJ 07719 245 Main Street - Suite #110, Chester, NJ 07930 732-681-0760

E/W: 320 Route 15 Driveways File Name: 320 Route 15 - SAT

N/S: Route 15

Site Code : 00000000 Town/County: Wharton/Morris Start Date : 6/11/2022

Page No : 1 Job #: 1478-99-208T

Groups Printed- Cars - Trucks (SU) - Trucks (TT)

				ups Printe			(30) - ITUC	KS (11)				
			Driveway			te 15			Rout			
	E	astboun			North	bound			Southl			
Start Time	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
11:00 AM	9	0	9	8	316	0	324	281	5	0	286	619
11:15 AM	10	0	10	11	328	0	339	257	5	0	262	611
11:30 AM	3	0	3	6	324	0	330	286	3	0	289	622
11:45 AM	14	0	14	7	319	0	326	307	1	0	308	648
Total	36	0	36	32	1287	0	1319	1131	14	0	1145	2500
12:00 PM	7	0	7	2	368	0	370	321	3	0	324	701
12:15 PM	5	0	5	7	353	0	360	300	2	0	302	667
12:30 PM	7	0	7	7	338	0	345	299	2	0	301	653
12:45 PM	4	0	4	8	321	0	329	314	3	0	317	650
Total	23	0	23	24	1380	0	1404	1234	10	0	1244	2671
01:00 PM	7	0	7	2	257	0	259	257	3	0	260	526
01:15 PM	10	0	10	3	277	0	280	283	1	0	284	574
01:30 PM	6	0	6	8	344	0	352	261	6	0	267	625
01:45 PM	8	0	8	6	320	0	326	337	5	0	342	676
Total	31	0	31	19	1198	0	1217	1138	15	0	1153	2401
Grand Total	90	0	90	75	3865	0	3940	3503	39	0	3542	7572
Apprch %	100	0		1.9	98.1	0		98.9	1.1	0		
Total %	1.2	0	1.2	1	51	0	52	46.3	0.5	0	46.8	
Cars	90	0	90	75	3864	0	3939	3498	39	0	3537	7566
% Cars	100	0	100	100	100	0	100	99.9	100	0	99.9	99.9
Trucks (SU)	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks (SU)	0	0	0	0	0	0	0	0	0	0	0	0
Trucks (TT)	0	0	0	0	1	0	1	5	0	0	5	6
% Trucks (TT)	0	0	0	0	0	0	0	0.1	0	0	0.1	0.1

Dynamic Traffic, LLC 1904 Main Street, Lake Como, NJ 07719

1904 Main Street, Lake Como, NJ 07719 245 Main Street - Suite #110, Chester, NJ 07930 732-681-0760

E/W: 320 Route 15 Driveways File Name: 320 Route 15 - SAT

N/S: Route 15 Site Code : 00000000

Town/County: Wharton/Morris Start Date: 6/11/2022

Job #: 1478-99-208T Page No : 2

	320 Route	15 Exit C	Priveway		Rou	te 15			Rout	e 15		
	E	astbound			North	bound			Southl	oound		
Start Time	Right	Peds A	pp. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds A	pp. Total	Int. Total
Peak Hour Analysis	From 11:0	0 AM to 01	1:45 PM - I	Peak 1 of 1					_			
Peak Hour for Entir	e Intersection	on Begins	at 12:00 P	M								
12:00 PM	7	0	7	2	368	0	370	321	3	0	324	701
12:15 PM	5	0	5	7	353	0	360	300	2	0	302	667
12:30 PM	7	0	7	7	338	0	345	299	2	0	301	653
12:45 PM	4	0	4	8	321	0	329	314	3	0	317	650
Total Volume	23	0	23	24	1380	0	1404	1234	10	0	1244	2671
% App. Total	100	0		1.7	98.3	0		99.2	0.8	0		
PHF	.821	.000	.821	.750	.938	.000	.949	.961	.833	.000	.960	.953
Cars	23	0	23	24	1379	0	1403	1234	10	0	1244	2670
% Cars	100	0	100	100	99.9	0	99.9	100	100	0	100	100.0
Trucks (SU)	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks (SU)	0	0	0	0	0	0	0	0	0	0	0	0
Trucks (TT)	0	0	0	0	1	0	1	0	0	0	0	1
% Trucks (TT)	0	0	0	0	0.1	0	0.1	0	0	0	0	0.0

Cross Street: North of Mount Pleasant Avenue

Town/County Wharton/Morris

Data Period: 2019
Date Downloaded: 6/16/2022



DTraffic Project #: 1478-99-208T

	March 2019 Monthly Average Daily St	treetlight Volumes
TIME	Average Weekday	(Tuesday - Thursday)
TIME	NB	SB
12:00 AM	29	12
12:15 AM	22	6
12:30 AM	18	10
12:45 AM	18	25
01:00 AM	7	19
01:15 AM	3	9
01:30 AM	4	5
01:45 AM	4	3
02:00 AM	4	2
02:15 AM	8	2
02:30 AM	5	3
02:45 AM	2	7
03:00 AM	4	13
03:15 AM	9	11
03:30 AM	7	4
03:45 AM	10	2
04:00 AM	11	1
04:15 AM	10	4
04:30 AM	19	10
04:45 AM	23	13
05:00 AM	24	28
05:15 AM	24	56
05:30 AM	21	71
05:45 AM	36	75
06:00 AM	51	86
06:15 AM	75	104
06:30 AM	107	105
06:45 AM	86	179
07:00 AM	111	295
07:15 AM	111	404
07:30 AM	153	470
07:45 AM	145	418
08:00 AM	113	328
08:15 AM	92	370
08:30 AM	88	243
08:45 AM	117	253
09:00 AM	82	235
09:15 AM	151	147
09:30 AM	129	157
09:45 AM	137	189
10:00 AM	131	133
10:15 AM	135	131
10:15 AM 10:30 AM	179	131
10:45 AM	165	135
	167	149
11:00 AM	193	
11:15 AM		187
11:30 AM	193 199	203 235
11:45 AM	199	255

Cross Street: North of Mount Pleasant Avenue

Town/County Wharton/Morris

Data Period: 2019
Date Downloaded: 6/16/2022



DTraffic Project #: 1478-99-208T

March 2019 Monthly Average Daily Streetlight Volumes									
TIME	Average Week	ay (Tuesday - Thursday)							
TIME	NB	SB							
12:00 PM	191	231							
12:15 PM	201	181							
12:30 PM	283	219							
12:45 PM	344	145							
01:00 PM	221	163							
01:15 PM	269	199							
01:30 PM	277	163							
01:45 PM	275	171							
02:00 PM	267	141							
02:15 PM	257	187							
02:30 PM	237	189							
02:45 PM	267	161							
03:00 PM	334	189							
03:15 PM	336	183							
03:30 PM	348	225							
03:45 PM	442	225							
04:00 PM	452	189							
04:15 PM	388	199							
04:30 PM	350	219							
04:45 PM	386	219							
05:00 PM	460	223							
05:15 PM	454	215							
05:30 PM	476	257							
05:45 PM	400	241							
06:00 PM	424	295							
06:15 PM	366	235							
06:30 PM	412	255							
06:45 PM	386	243							
07:00 PM	305	241							
07:15 PM	322	197							
07:30 PM	318	189							
07:45 PM	316	151							
08:00 PM	285	133							
08:15 PM	283	129							
08:30 PM	241	127							
08:45 PM	213	104							
09:00 PM	211	74							
09:15 PM	169	94							
09:30 PM	139	62							
09:45 PM	119	53							
10:00 PM	105	48							
10:15 PM	82	42							
10:30 PM	49	33							
10:45 PM	51	32							
11:00 PM	59	28							
11:15 PM	34	24							
11:30 PM	21	15							
11:45 PM	24	15							
Total	16281	13229							

Cross Street: North of Mount Pleasant Avenue

Town/County Wharton/Morris

Data Period: 2022 Date Downloaded: 6/16/2022



DTraffic Project #: 1478-99-208T

	March 2022 Monthly Average Daily St	reetlight Volumes
TIME	Average Weekday (Tuesday - Thursday)
TIME	NB	SB
12:00 AM	24	8
12:15 AM	20	5
12:30 AM	14	5
12:45 AM	15	4
01:00 AM	20	1
01:15 AM	18	0
01:30 AM	11	1
01:45 AM	7	2
02:00 AM	7	3
02:15 AM	6	3
02:30 AM	3	4
02:45 AM	1	2
03:00 AM	2	1
03:15 AM	3	3
03:30 AM	3	9
03:45 AM	4	9
04:00 AM	3	6
04:15 AM	4	12
04:30 AM	6	20
04:45 AM	8	23
05:00 AM	13	31
05:15 AM	17	28
05:30 AM	14	27
05:45 AM	18	59
06:00 AM	35	115
06:15 AM	71	72
06:30 AM	77	78
06:45 AM	100	146
07:00 AM	79	184
07:15 AM	107	294
07:30 AM	102	387
07:45 AM	90	248
08:00 AM	77	203
08:15 AM	105	169
08:30 AM	113	166
08:45 AM	108	189
09:00 AM	107	161
09:15 AM	98	136
09:30 AM	134	159
09:45 AM	149	139
10:00 AM	133	93
10:15 AM	159	105
10:30 AM	151	126
10:45 AM	128	154
11:00 AM	202	161
11:15 AM	184	139
11:30 AM	164	130
11:45 AM	152	159

Cross Street: North of Mount Pleasant Avenue

Town/County Wharton/Morris

Data Period: 2022
Date Downloaded: 6/16/2022



DTraffic Project #: 1478-99-208T

March 2022 Monthly Average Daily Streetlight Volumes				
TIME	Average Weekday (Tuesday - Thursday)		
TIIVIL	NB	SB		
12:00 PM	205	171		
12:15 PM	195	175		
12:30 PM	218	120		
12:45 PM	192	154		
01:00 PM	192	162		
01:15 PM	184	149		
01:30 PM	184	167		
01:45 PM	225	128		
02:00 PM	271	130		
02:15 PM	272	126		
02:30 PM	230	184		
02:45 PM	364	192		
03:00 PM	305	174		
03:15 PM	436	249		
03:30 PM	372	184		
03:45 PM	374	249		
04:00 PM	298	256		
04:15 PM	303	210		
04:30 PM	312	220		
04:45 PM	344	212		
05:00 PM	389	241		
05:15 PM	359	171		
05:30 PM	343	225		
05:45 PM	359	215		
06:00 PM	321	262		
06:15 PM	294	212		
06:30 PM	305	221		
06:45 PM	302	190		
07:00 PM	256	226		
07:15 PM	256	200		
07:30 PM	287	134		
07:45 PM	213	113		
08:00 PM	249	93		
08:15 PM	220	121		
08:30 PM	220	123		
08:45 PM	184	77		
09:00 PM	197	67		
09:15 PM	156	80		
09:30 PM	105	64		
09:45 PM	112	51		
10:00 PM	130	41		
10:15 PM	72	35		
10:30 PM	75	28		
10:45 PM	54	18		
11:00 PM	55	22		
11:15 PM	50	34		
11:30 PM	38	28		
11:45 PM	25	12		
Total	14168	11095		
IOIAI	14100	11032		

Cross Street: North of Mount Pleasant Avenue

Town/County Wharton/Morris
Data Period: 2019

Data Period: 2019
Date Downloaded: 6/16/2022



DTraffic Project #: 1478-99-208T

March 2019 Monthly Average Daily Streetlight Volumes			
TINAS	Average Saturday		
TIME	NB	SB	
12:00 AM	64	21	
12:15 AM	35	13	
12:30 AM	16	14	
12:45 AM	16	15	
01:00 AM	24	6	
01:15 AM	21	3	
01:30 AM	9	5	
01:45 AM	10	10	
02:00 AM	15	19	
02:15 AM	10	9	
02:30 AM	4	5	
02:45 AM	5	7	
03:00 AM	6	10	
03:15 AM	13	5	
03:30 AM	11	1	
03:45 AM	8	1	
04:00 AM	7	5	
04:15 AM	6	8	
04:30 AM	4	8	
04:45 AM	1	6	
05:00 AM	0	5	
05:15 AM	2	5	
05:30 AM	10	10	
05:45 AM	13	20	
06:00 AM	23	15	
06:15 AM	37	25	
06:30 AM	38	37	
06:45 AM	34	42	
07:00 AM	47	58	
07:15 AM	62	77	
07:30 AM	65	92	
07:45 AM	64	108	
08:00 AM	66	133	
08:15 AM	88	148	
08:30 AM	96	155	
08:45 AM	134	172	
09:00 AM	201	172	
09:15 AM	160	163	
09:30 AM	166	201	
09:45 AM	182	282	
10:00 AM	196	234	
10:15 AM	229	268	
10:30 AM	277	296	
10:45 AM	311	248	
11:00 AM	291	277	
11:15 AM	339	325	
11:30 AM	463	268	
11:45 AM	368	272	

Cross Street: North of Mount Pleasant Avenue

Town/County Wharton/Morris

Data Period: 2019
Date Downloaded: 6/16/2022



DTraffic Project #: 1478-99-208T

March 2019 Monthly Average Daily Streetlight Volumes				
Average Saturday				
TIME	NB	SB		
12:00 PM	397	325		
12:15 PM	291	349		
12:30 PM	478	363		
12:45 PM	406	416		
01:00 PM	492	291		
01:15 PM	492	397		
01:30 PM	440	382		
01:45 PM	473	444		
02:00 PM	463	387		
02:15 PM	530	344		
02:30 PM	444	301		
02:45 PM	492	339		
03:00 PM	420	320		
03:15 PM	511	291		
03:30 PM	521	253		
03:45 PM	549	334		
04:00 PM	444	387		
04:15 PM	411	315		
04:30 PM	516	320		
04:45 PM	473	320		
05:00 PM	368	325		
05:15 PM	406	272		
05:30 PM	392	363		
05:45 PM	411	301		
06:00 PM	401	334		
06:15 PM	382	268		
06:30 PM	411	210		
06:45 PM	339	263		
07:00 PM	325	199		
07:15 PM	354	196		
07:30 PM	320	173		
07:45 PM	315	229		
08:00 PM	301	177		
08:15 PM	287	140		
08:30 PM	263	131		
08:45 PM	244	114		
09:00 PM	239	93		
09:15 PM	196	109		
09:30 PM	215	86		
09:45 PM	196	57		
10:00 PM	205	92		
10:15 PM	167	117		
10:30 PM	134	92		
10:45 PM	121	62		
11:00 PM	106	54		
11:15 PM	84	49		
11:30 PM	70	37		
11:45 PM	72	25		
Total	20814	15725		
TULAI	20014	15/25		

Cross Street: North of Mount Pleasant Avenue

Town/County Wharton/Morris

Data Period: 2022
Date Downloaded: 6/16/2022



DTraffic Project #: 1478-99-208T

March 2022 Monthly Average Daily Streetlight Volumes			
TINAS		Average Saturday	
TIME	NB	SB	
12:00 AM	59	41	
12:15 AM	43	27	
12:30 AM	30	24	
12:45 AM	19	12	
01:00 AM	26	7	
01:15 AM	35	7	
01:30 AM	14	3	
01:45 AM	9	0	
02:00 AM	10	0	
02:15 AM	8	0	
02:30 AM	9	0	
02:45 AM	8	3	
03:00 AM	4	7	
03:15 AM	3	3	
03:30 AM	2	2	
03:45 AM	0	4	
04:00 AM	0	7	
04:15 AM	0	4	
04:30 AM	0	3	
04:45 AM	0	6	
05:00 AM	3	8	
05:15 AM	8	7	
05:30 AM	6	6	
05:45 AM	7	16	
06:00 AM	16	18	
06:15 AM	22	22	
06:30 AM	49	41	
06:45 AM	52	52	
07:00 AM	34	52	
07:15 AM	52	49	
07:30 AM	76	70	
07:45 AM	71	70	
08:00 AM	64	91	
08:15 AM	64	107	
08:30 AM	84	114	
08:45 AM	124	128	
09:00 AM	114	110	
09:15 AM	148	124	
09:30 AM	184	171	
09:45 AM	184	174	
10:00 AM	159	172	
10:15 AM	252	192	
10:30 AM	218 212	228 314	
10:45 AM	212	233	
11:00 AM	320	273	
11:15 AM	268	394	
11:30 AM	268	394	
11:45 AM	204	301	

Cross Street: North of Mount Pleasant Avenue

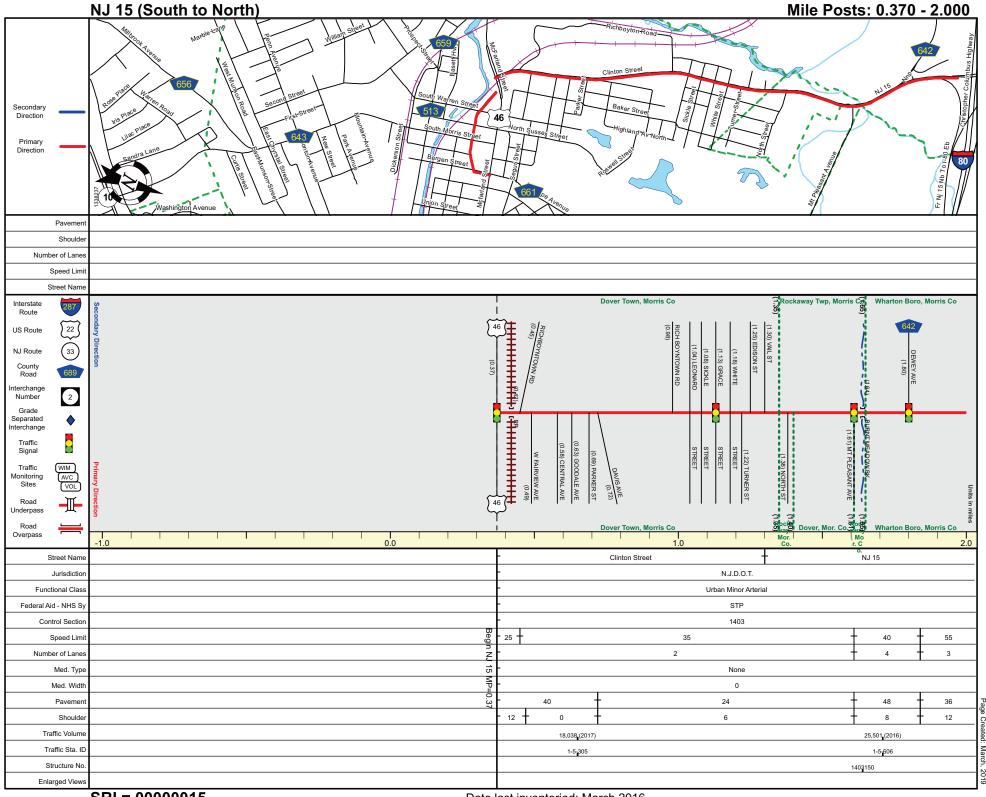
Town/County Wharton/Morris

Data Period: 2022 Date Downloaded: 6/16/2022



DTraffic Project #: 1478-99-208T

March 2022 Monthly Average Daily Streetlight Volumes				
TIME	Ave	Average Saturday		
TIME	NB	SB		
12:00 PM	271	283		
12:15 PM	252	326		
12:30 PM	295	283		
12:45 PM	387	271		
01:00 PM	394	283		
01:15 PM	299	247		
01:30 PM	326	235		
01:45 PM	467	264		
02:00 PM	449	215		
02:15 PM	387	314		
02:30 PM	412	264		
02:45 PM	443	301		
03:00 PM	344	267		
03:15 PM	394	283		
03:30 PM	412	259		
03:45 PM	535	332		
04:00 PM	406	326		
04:15 PM	406	247		
04:30 PM	314	295		
04:45 PM	307	277		
05:00 PM	430	289		
05:15 PM	357	320		
05:30 PM	387	264		
05:45 PM	326	271		
06:00 PM	277	295		
06:15 PM	369	200		
06:30 PM	309	187		
06:45 PM	412	264		
07:00 PM	394	191		
07:15 PM	344	176		
07:30 PM	277	150		
07:45 PM	301	141		
08:00 PM	283	132		
08:15 PM	357	123		
08:30 PM	271	100		
08:45 PM	239	98		
09:00 PM	258	73		
09:15 PM	239	84		
09:30 PM	237	97		
09:45 PM	205	99		
10:00 PM	171	77		
10:15 PM	103	56		
10:30 PM	88	60		
10:45 PM	74	52		
11:00 PM	72	27		
11:15 PM	96	37		
11:30 PM	87	44		
11:45 PM	63	40		
Total	18100	13216		



Appendix C Capacity Analysis

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		ሻ	^	ተ ኈ	
Traffic Vol, veh/h	0	0	19	1849	1308	4
Future Vol, veh/h	0	0	19	1849	1308	4
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	-	50	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	0	-	_	0	-1	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	20	1926	1363	4
WWW.CT IOW		•	20	1020	1000	•
		_		_		
	linor2		//ajor1		//ajor2	
	2367	683	1367	0	-	0
· · · · · · · · · · · · · · · · · · ·	1365	-	-	-	-	-
Ü	1003	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	30	396	509	-	-	-
Stage 1	206	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	29	396	509	-	-	-
Mov Cap-2 Maneuver	29	-	-	-	_	-
Stage 1	198	-	_	_	-	-
Stage 2	320	_	_	_	_	_
Olago 2	020					
Approach	EB		NB		SB	
HCM Control Delay, s/v	0		0.13		0	
HCM LOS	Α					
Minor Lane/Major Mvmt		NBL	NRT	EBLn1	SBT	SBR
Capacity (veh/h)		509	-	-	- 100	- JUIN
HCM Lane V/C Ratio		0.039	-	-	_	-
HCM Control Delay (s/ve	ah)	12.4		0	_	
HCM Lane LOS	OH)	12. 4 B	-	A	_	-
HCM 95th %tile Q(veh)		0.1	-	-	_	
TION JOHN JOHN Q(VEII)		0.1		_	_	_

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	**		ሻ	^	↑ ⊅	
Traffic Vol, veh/h	0	0	32	1835	1641	13
Future Vol, veh/h	0	0	32	1835	1641	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	Stop -	None	riee -	None	-	None
Storage Length	0	None -	50	None -	-	None -
Veh in Median Storage,		-	50	0	0	-
Grade, %	, # 0	-	-	0	-1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	1033	1727	0
Mvmt Flow	0	0	34	1932	1727	14
Major/Minor N	/linor2	N	Major1	N	/lajor2	
	2767	871	1741	0	-	0
Stage 1	1734	-	-	-	-	-
Stage 2	1033	_	_	_	_	_
Critical Hdwy	6.8	6.9	4.1	_	_	_
Critical Hdwy Stg 1	5.8	0.9	4.1	_	_	_
Critical Hdwy Stg 2	5.8			-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	_	_
Pot Cap-1 Maneuver	16	299	366	_	-	-
•	130			_		-
Stage 1	309	-	-		-	
Stage 2	309	-	-	-	-	-
Platoon blocked, %		000	000	-	-	-
Mov Cap-1 Maneuver	14	299	366	-	-	-
Mov Cap-2 Maneuver	14	-	-	-	-	-
Stage 1	118	-	-	-	-	-
Stage 2	309	-	-	-	-	-
Approach	EB		NB		SB	
			0.27		0	
HCM LOS			0.27		U	
HCM LOS	Α					
Minor Lane/Major Mvmt	t	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		366	-	-	_	_
HCM Lane V/C Ratio		0.092	_	_	_	_
HCM Control Delay (s/v	eh)	15.8	-	0	-	-
HCM Lane LOS	1	C	_	A	_	_
HCM 95th %tile Q(veh)		0.3	-	-	_	-
22 /2 4 (1011)		0.0				

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥/	רטוע	NDL T	†	↑ ↑	אופט
Traffic Vol, veh/h	0	0	19	1944	1374	4
Future Vol, veh/h	0	0	19	1944	1374	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	Stop -	None	-	None	-	
Storage Length	0	-	50	-	_	INOHE -
Veh in Median Storage,			-	0	0	
Grade, %	# 0			0	-1	-
Peak Hour Factor	96	96	- 06	96	96	96
			96			
Heavy Vehicles, %	0	0	0	0	1424	0
Mvmt Flow	0	0	20	2025	1431	4
Major/Minor M	1inor2	N	Major1	N	Major2	
	2485	718	1435	0		0
Stage 1	1433	-	-	-	_	-
Stage 2	1052	_	_	_	_	_
Critical Hdwy	6.8	6.9	4.1	_	_	_
Critical Hdwy Stg 1	5.8	-	- '	_	_	_
Critical Hdwy Stg 2	5.8	_	_	_	_	_
Follow-up Hdwy	3.5	3.3	2.2	_	_	_
Pot Cap-1 Maneuver	25	376	479	_	_	_
Stage 1	189	- 510	713	_		
Stage 1	302		-	-		-
Platoon blocked, %	302	•	-	-	-	-
	0.4	276	470		-	
Mov Cap-1 Maneuver	24	376	479	-	-	-
Mov Cap-2 Maneuver	24	-	-	-	-	-
Stage 1	182	-	-	-	-	-
Stage 2	302	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s/v			0.12		0	
HCM LOS	A		V. 12		- 0	
TIOWI LOO						
Minor Lane/Major Mvmt		NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		479	-	-	-	-
HCM Lane V/C Ratio		0.041	-	-	-	-
HCM Control Delay (s/v	eh)	12.8	-	0	-	-
HCM Lane LOS	,	В	-	A	-	-
HCM 95th %tile Q(veh)		0.1	-	-	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	EDL W	LDK	NDL			אמט
		0		^	↑ ↑	13
Traffic Vol. veh/h	0	0	32	1930	1724	
Future Vol, veh/h	0	0	32	1930	1724	13
Conflicting Peds, #/hr	O Ctop	0 Stop	0 Eroo	0 Eroo	0 Eroo	0 Eroo
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	
Storage Length	0	-	50	-	-	-
Veh in Median Storage,		-	-	0	0	-
Grade, %	0	-	-	0	-1	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	34	2032	1815	14
Major/Minor N	1inor2	N	Major1		Major2	
Conflicting Flow All	2905	914	1828	0	- viajoiz	0
Stage 1	1822	914	1020	-	-	-
				-	-	
Stage 2	1083	-	- 11	-	-	-
Critical Holy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	13	279	339	-	-	-
Stage 1	117	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	12	279	339	-	-	-
Mov Cap-2 Maneuver	12	-	-	-	-	-
Stage 1	105	-	-	-	-	-
Stage 2	290	-	_	_	-	-
A			NE		0.5	
Approach	EB		NB		SB	
HCM Control Delay, s/v			0.27		0	
HCM LOS	Α					
Minor Lane/Major Mvmt		NBL	NRT	EBLn1	SBT	SBR
				LDLIII	ו מט	אומט
Capacity (veh/h)		339	-	-	-	-
HCM Lane V/C Ratio	(ab)	0.099	-	0	-	-
		IN X	-		-	-
HCM Control Delay (s/v	en)					
HCM Control Delay (s/v HCM Lane LOS HCM 95th %tile Q(veh)	en)	C 0.3	-	A -	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W	רטוע	NDL T	†	↑ ↑	אופט
Traffic Vol, veh/h	0	0	88	1931	1355	42
Future Vol, veh/h	0	0	88	1931	1355	42
·		0	00	1931		42
Conflicting Peds, #/hr	0				0	
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	
Storage Length	0	-	50	-	-	-
Veh in Median Storage,		-	-	0	0	-
Grade, %	0	-	-	0	-1	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	0	92	2011	1411	44
Major/Minor N	/linor2	N	Major1	N	Major2	
Conflicting Flow All	2622	728	1455	0	viajuiz -	0
	1433	120	1400			
Stage 1		-	-	-	-	-
Stage 2	1189	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.14	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.22	-	-	-
Pot Cap-1 Maneuver	20	371	461	-	-	-
Stage 1	189	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	16	371	461	-	-	-
Mov Cap-2 Maneuver	16		-	_	_	_
Stage 1	152	_	_	_		_
Stage 2	255	_				
Staye Z	200	-	-	<u>-</u>	_	_
Approach	EB		NB		SB	
HCM Control Delay, s/v	0		0.64		0	
HCM LOS	A					
NA: 1 / / NA : NA		NDI	Not	EDL 4	057	000
Minor Lane/Major Mvm		NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		461	-	-	-	-
HCM Lane V/C Ratio		0.199	-	-	-	-
HCM Control Delay (s/v	eh)	14.7	-	0	-	-
HCM Lane LOS		В	-	Α	-	-
HCM 95th %tile Q(veh)		0.7	-	-	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥	LUIX	NDL T	1 1	↑ ⊅	אופט
Traffic Vol, veh/h	0	0	109	1920	1708	51
Future Vol, veh/h	0	0	109	1920	1708	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	Stop -	None	-	None	-	None
Storage Length	0	-	50	-	_	-
Veh in Median Storage,		<u>-</u>	-	0	0	_
Grade, %	# 0			0	-1	
Peak Hour Factor	95	95	05	95	95	95
			95			
Heavy Vehicles, %	0	0	115	0	1700	2
Mvmt Flow	0	0	115	2021	1798	54
Major/Minor M	1inor2	N	Major1	N	/lajor2	
Conflicting Flow All	3065	926	1852	0	-	0
Stage 1	1825	-	-	-	-	-
Stage 2	1240	_	-	-	_	-
Critical Hdwy	6.8	6.9	4.14	-	_	-
Critical Hdwy Stg 1	5.8	-	_	_	_	_
Critical Hdwy Stg 2	5.8	_	_	_	_	_
Follow-up Hdwy	3.5	3.3	2.22	_	_	_
Pot Cap-1 Maneuver	10	274	323	_	_	_
Stage 1	116	Z17	020		_	
Stage 1	240			-		-
	240	-	-		-	
Platoon blocked, %	C	074	202	-	-	-
Mov Cap-1 Maneuver	6	274	323	-	-	-
Mov Cap-2 Maneuver	6	-	-	-	-	-
Stage 1	75	-	-	-	-	-
Stage 2	240	-	-	-	_	-
Approach	EB		NB		SB	
HCM Control Delay, s/v			1.19		0	
HCM LOS	A		1.19		U	
TIONI LOS	Α					
Minor Lane/Major Mvmt		NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		323	-	-	-	-
HCM Lane V/C Ratio		0.355	-	-	-	-
HCM Control Delay (s/v	eh)	22.1	-	0	-	-
HCM Lane LOS	,	C	_	A	_	_
HCM 95th %tile Q(veh)		1.6	_	-	_	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		7		44	^	
Traffic Vol, veh/h	0	3	0	1868	1308	0
Future Vol, veh/h	0	3	0	1868	1308	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-		-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	-3	-	-	0	-1	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	3	0	2123	1486	0
NA - ' /NA'		_	1.2.4	_	4	
	1inor2		//ajor1		Major2	
Conflicting Flow All	-	743	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.6	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	385	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	385	-	-	-	-
Mov Cap-2 Maneuver	_	-	_	_	_	_
Stage 1	-	-	_	_	_	_
Stage 2	_	_	_	_	_	_
Jay 2						
Approach	EB		NB		SB	
HCM Control Delay, s/v			0		0	
HCM LOS	В					
Minor Lane/Major Mvmt		NBT E	ERI n1	SBT		
Capacity (veh/h)						
Capacity (ven/n)		-	385 0.009	-		
				-		
HCM Lane V/C Ratio	- 1- \					
HCM Lane V/C Ratio HCM Control Delay (s/v	eh)	-	14.4	-		
HCM Lane V/C Ratio	eh)					

Intersection						
Int Delay, s/veh	0.2					
	ED!	EDD	NDI	NDT	ODT	ODD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		7		^	^	
Traffic Vol, veh/h	0	31	0	1867	1641	0
Future Vol, veh/h	0	31	0	1867	1641	0
Conflicting Peds, #/hr	0	0	0	0	0	0
	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage,	# 0	-	-	0	0	-
Grade, %	-3	_	_	0	-1	_
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	32	0	1945	1709	0
WOIT FIOW	U	32	U	1945	1709	U
Major/Minor Mi	inor2	N	Major1	N	//ajor2	
Conflicting Flow All	-	855	- viajoi i	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.6	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	328	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	_	0
Platoon blocked, %				_	-	
Mov Cap-1 Maneuver	_	328	_	_	_	_
Mov Cap-2 Maneuver	_	-	_	_	_	_
Stage 1	_	_	_	-	_	
Stage 2	-	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s/v1			0		0.0	
			U		U	
HCM LOS	С					
Minor Lane/Major Mvmt		NBT E	EBLn1	SBT		
Capacity (veh/h)		-	328	-		
HCM Lane V/C Ratio			0.098	_		
	ah)					
HCM Control Delay (s/ve	: (1)	-	17.2	-		
HCM Lane LOS			С	-		
HCM 95th %tile Q(veh)		-	0.3	-		

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		7	1,00	^	^	USIN
Traffic Vol, veh/h	0	3	0	1963	1374	0
Future Vol, veh/h	0	3	0	1963	1374	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- Olop	None	-	None	-	None
Storage Length	<u>-</u>	0	<u>-</u>	-	_	-
Veh in Median Storage		-	_	0	0	_
Grade, %	, # 0 -3	_	_	0	-1	_
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	3	0	2231	1561	0
IVIVIIIL FIOW	U	J	U	2231	1001	U
Major/Minor N	Minor2	N	//ajor1	N	Major2	
Conflicting Flow All	-	781	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	_	-	_	_	_	_
Critical Hdwy	-	6.6	_	-	-	-
Critical Hdwy Stg 1	_	-	_	_	_	_
Critical Hdwy Stg 2	_	_	_	-	_	-
Follow-up Hdwy	_	3.3	_	_	_	_
Pot Cap-1 Maneuver	0	365	0	_	_	0
Stage 1	0	-	0	_	_	0
Stage 2	0	_	0			0
Platoon blocked, %	U		U	_		U
Mov Cap-1 Maneuver	_	365	_	<u>-</u>		_
Mov Cap-1 Maneuver	_			-	-	
	-	-	-			-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s/v	/14.95		0		0	
HCM LOS	В					
Minor Lane/Major Mvm	t	NBT E	EBLn1	SBT		
Capacity (veh/h)		-	365	-		
HCM Lane V/C Ratio		_	0.009	-		
HCM Control Delay (s/\	veh)	_	15	-		
HCM Lane LOS	-117	_	В	_		
HCM 95th %tile Q(veh)		_	0	-		
HOW JOHN JUHIC Q(VEII)			- 0			

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		7		^	^	
Traffic Vol, veh/h	0	31	0	1962	1724	0
Future Vol, veh/h	0	31	0	1962	1724	0
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, %	-3	_	_	0	-1	_
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0
Mymt Flow	0	32	0	2044	1796	0
IVIVIIIL I IOW	U	JZ	U	2044	1730	U
	/linor2		//ajor1		Major2	
Conflicting Flow All	-	898	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.6	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	309	0	-	-	0
Stage 1	0	-	0	_	_	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %	_			_	_	
Mov Cap-1 Maneuver	_	309	_	_	_	_
Mov Cap-1 Maneuver	_	-	_	_		_
Stage 1	_	_	-	-	-	
	_		_	_		
Stage 2	-	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s/v	18.02		0		0	
HCM LOS	С					
Minor Lane/Major Mvm		NBT E		SBT		
Capacity (veh/h)		-		-		
HCM Lane V/C Ratio		-	0.105	-		
HCM Control Delay (s/v	eh)	-	18	-		
HCM Lane LOS		-	С	-		
HCM 95th %tile Q(veh)		-	0.3	-		

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		7		^	^	
Traffic Vol, veh/h	0	111	0	2019	1355	0
Future Vol, veh/h	0	111	0	2019	1355	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-		-	None
Storage Length	_	0	_	-	_	-
Veh in Median Storage,	# 0	-	_	0	0	_
Grade, %	-3	_	_	0	-1	_
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	2	0	0	0	0
Mvmt Flow	0	126	0	2294	1540	0
IVIVIIIL FIOW	U	120	U	2294	1340	U
Major/Minor N	/linor2	N	//ajor1	<u> </u>	Major2	
Conflicting Flow All	-	770	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.64	_	-	-	-
Critical Hdwy Stg 1	_	-	-	-	_	-
Critical Hdwy Stg 2	-	-	_	-	_	-
Follow-up Hdwy	_	3.32	_	_	_	_
Pot Cap-1 Maneuver	0	366	0	_	_	0
Stage 1	0	-	0	_	_	0
Stage 2	0	_	0	_	_	0
Platoon blocked, %	U		U	_	_	U
	_	366		-	-	
Mov Cap-1 Maneuver			-			-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s/v			0		0	
HCM LOS	C		- 0		- 0	
TIOWI LOO	U					
Minor Lane/Major Mvm		NBT E	EBL _{n1}	SBT		
Capacity (veh/h)			366	-		
HCM Lane V/C Ratio		-	0.345	-		
HCM Control Delay (s/v	eh)	_	19.9	_		
HCM Lane LOS	,	_	С	_		
HCM 95th %tile Q(veh)		_	1.5	_		

Intersection						
Int Delay, s/veh	1					
	EDI	EDD	NDI	NDT	CDT	CDD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	_	7	^	^	^	^
Traffic Vol, veh/h	0	141	0	2029	1708	0
Future Vol, veh/h	0	141	0	2029	1708	0
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	-
Grade, %	-3	-	-	0	-1	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	2	0	0	0	0
Mvmt Flow	0	147	0	2114	1779	0
M = i = =/M i = = =	1:C		1-:4		4-:0	
	/linor2		//ajor1		Major2	
Conflicting Flow All	-	890	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.64	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	308	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	308	-	-	-	-
Mov Cap-2 Maneuver	_	-	_	_	_	_
Stage 1	_	_	_	_	_	_
Stage 2				_		
Olage Z	_		_			
Approach	EB		NB		SB	
HCM Control Delay, s/v	26.89		0		0	
HCM LOS	D					
Minor Lane/Major Mvmt		NBT E	-RI n1	SBT		
Capacity (veh/h)		-		-		
HCM Lane V/C Ratio	I- \		0.477 26.9	-		
		_	/n 4	-		
HCM Control Delay (s/v	en)					
HCM Control Delay (s/v HCM Lane LOS HCM 95th %tile Q(veh)		-	D 2.4	-		