TRAFFIC IMPACT STUDY

Covered Bridge Village

Town of East Greenbush, New York

CM Project No. 115-030

Prepared For:

Covered Bridge Partners, LLC
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May 23, 2018

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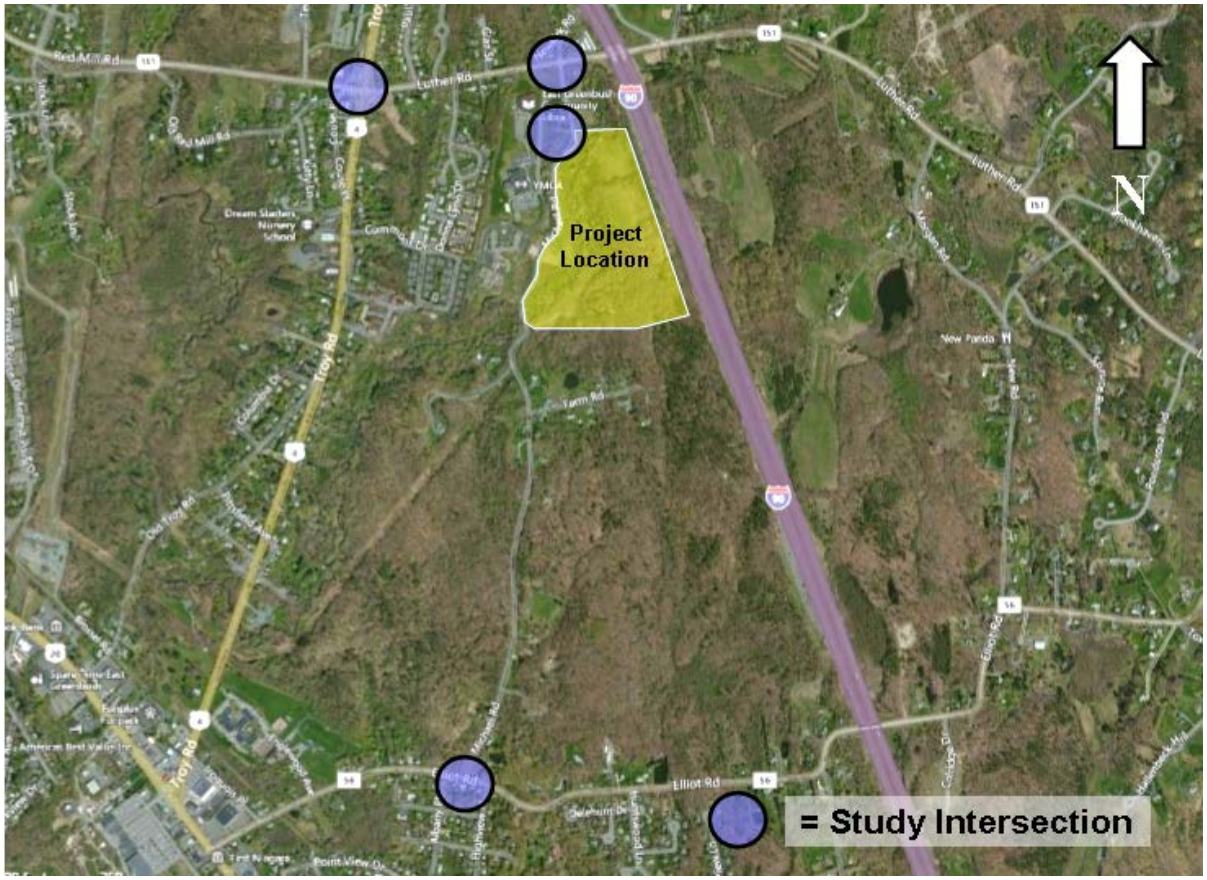
CHAPTER I
INTRODUCTION

This report summarizes the results of a Traffic Impact Study for the proposed *Covered Bridge Village* located in the southeast quadrant of the Luther Road (NY Route 151) and Michael Road intersection in the Town of East Greenbush, Rensselaer County, New York. The site is approximately 32.2 acres as shown in the aerial image below. A copy of the concept master plan dated is included in Appendix A.



A. Planned Project

The proposed project includes the construction of 288 apartment units. Access to the site will be provided by a full access driveway located on Michael Road, approximately 430 feet south of Community Way. It is expected that the project will be fully completed by 2020.

B. Study Area and Methodology

The study area for this analysis includes:

1. Troy Road (US Route 4)/ Luther Road (NY Route 151)/ Red Mill Road (NY Route 151)
2. Luther Road (NY Route 151)/ Michael Road
3. Michael Road/ Community Way
4. Michael Rd/ Elliot Road

The potential traffic impact of the proposed project was determined by documenting the existing traffic conditions in the area, projecting future traffic volumes, including adding traffic associated with other developments in the area, adding the peak hour trip generation of the site, and determining the operating conditions of the study area intersections after development of the proposed project.

CHAPTER II

EXISTING CONDITIONS

A. Roadways Serving the Site

- Michael Road – Michael Road is a two-lane road that provides north-south travel between Luther Road and Elliot Road. Adjacent to the project site, Michael Road provides a single lane in each direction with lane widths varying between 10-12 feet wide and no pedestrian accommodations. The posted speed limit along Michael Road is 30 miles per hour (mph). Land uses along Michael Road include residential and unoccupied parcels.

B. Study Area Intersections

- Troy Road (US Route 4)/ Luther Road (NY Route 151)/ Red Miller Road (NY Route 151) – This is a four-leg roundabout with two lanes on each approach. There are marked crosswalks and pedestrian refuges on each approach. Sidewalks are present on all approaches but do not extend beyond the roundabout, except to the east along Luther Road towards Columbia High School.

- Luther Road (NY Route 151)/ Michael Road – This is four leg intersection controlled by an actuated, uncoordinated traffic signal. The eastbound, westbound, and southbound approaches have a single lane for shared movements. The northbound lane has a shared left/through and an exclusive right turn lane with approximately 115 feet of storage. There are crosswalks and pedestrian signals on all four approaches. A sidewalk extends from Luther Road to Community Way on the west side of Michael Road, and east and west along Luther Road (north side).

- Michael Road/ Community Way – This is a three leg unsignalized intersection with Community Way under a stop control condition and Michael Road in a free flow condition. Each approach has a single entering lane for shared movements. There are no marked crosswalks at the intersection. Sidewalks are present on the north side of Community Way and west side of Michael Road north of the intersection.

- Michael Road/ Elliot Road – This is a three leg unsignalized intersection with Michael Road under a stop control condition and Elliot Road in a free flow condition. Each approach has a single entering lane for shared movements. There are no sidewalks, marked crosswalks, or pedestrian signals provided at the intersection.

C. Existing Conditions

Intersection turning movement counts were conducted at Troy Road/Luther Road/ Red Mill Road intersection on March 10th, 2015. The remaining three intersections were counted on February 24th to February 26th, 2015. The counts were conducted between 6:30 to 8:30 a.m. and 3:00 to 6:00 p.m. to coincide with the arrival and dismissal of the nearby Columbia High School. Peak one hour traffic volumes were obtained from the traffic counts and traffic volumes were balanced along Michael Road between Luther Road and Community Way. These volumes represent the 2015 existing condition traffic volumes for the weekday AM and PM peak hours as shown on Figure 2.1 and form the basis for all traffic forecasts. The raw turning movement count data is included in Appendix B.

The following observations are evident based on the existing traffic volume data:

- The weekday morning and evening peak hours varied from intersection to intersection.

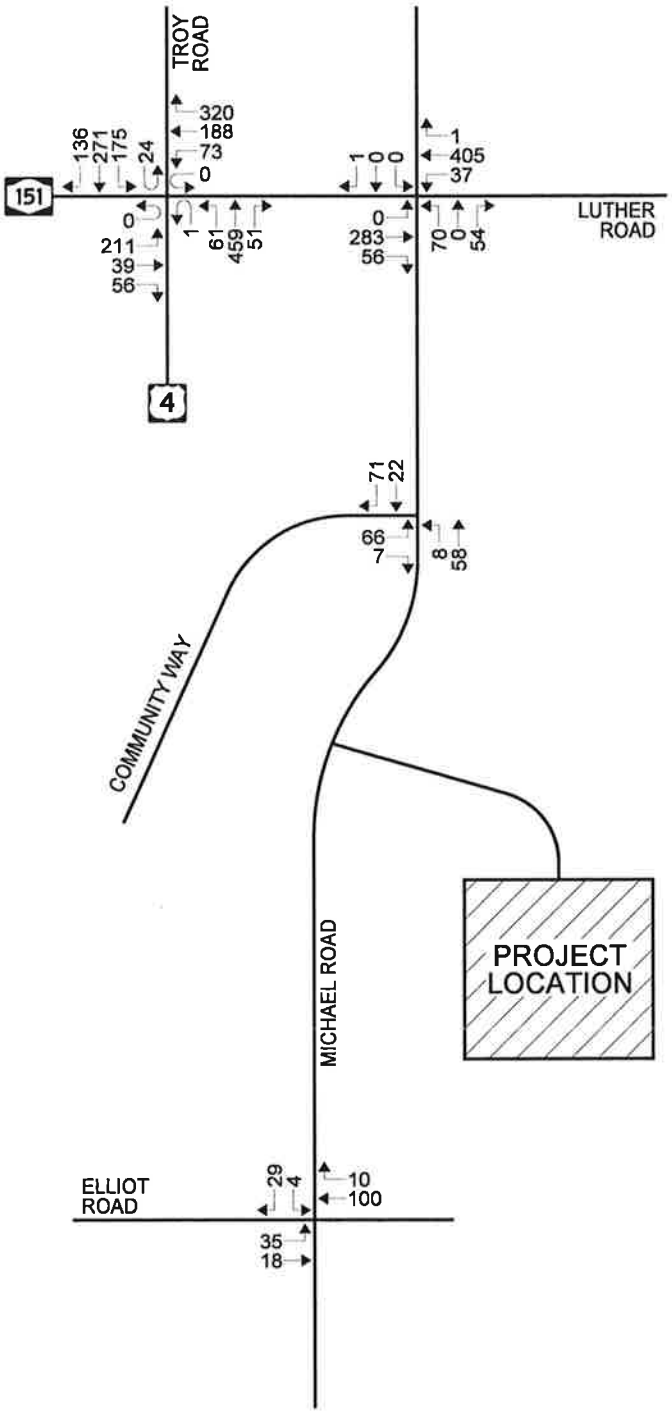
- The two-way traffic volume measured on Michael Road approximately 500 feet south of Community Way is approximately 75 vehicles during the AM peak hour and 105 vehicles during the PM peak hour. The two-way traffic volume on Community Way is approximately 235 vehicles during the AM peak hour and 535 vehicles during the PM peak hour.

D. Transit

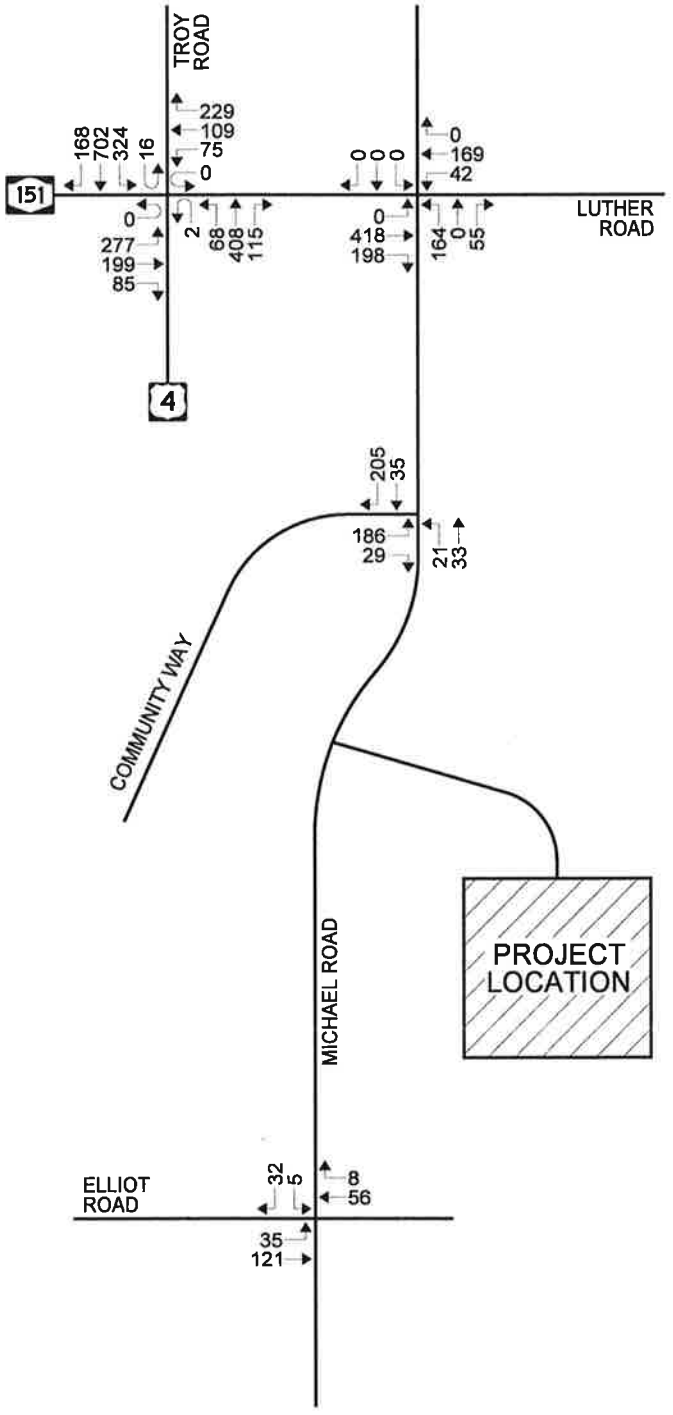
A review of Capital District Transportation Authority (CDTA) transit service indicates there are no available bus routes within the project vicinity.

E. Pedestrian/Bicycle Accommodations and Environment

A review of pedestrian accommodations including sidewalks, marked crosswalks and pedestrian push buttons with indicators was included in the description of the project area intersections. Bicyclists are accommodated via the shoulders within the study area. It is noted that Luther Road (NY Route 151) is also designated as New York State Bicycle Route 5.



AM PEAK HOUR



PM PEAK HOUR

2015 EXISTING
TRAFFIC VOLUMES

COVERED BRIDGE VILLAGE
TOWN OF EAST GREENBUSH, NY

Creighton Manning

PROJECT:	115-030	DATE:	05/2018	FIGURE:	2.1

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CHAPTER III
TRAFFIC FORECASTS

To evaluate the impact of the proposed project, traffic projections were prepared for 2020, the expected year of site development and operation.

A. 2020 No-Build Traffic Volumes

No-Build traffic volumes include a background growth rate as well as trips associated with other development projects in the study area. Historical traffic volume data published by the New York State Department of Transportation (NYSDOT) indicates that traffic volume in the study area is generally increasing by approximately 0.5% to 1.0% per year. Thus, a growth rate of 1.0% per year was applied to the 2015 existing traffic volumes to provide a conservative approach and account for any additional future developments that may impact the 2020 background growth traffic volumes.

In addition to general background traffic growth, vehicle trips associated with other significant developments in the project area were considered. Traffic associated with the following other development projects were provided by the Town of East Greenbush and included in the future traffic volume projections:

- *East Greenbush Tech Park (completion of Phase 1)* – 100,000 SF of research and development space and office space on Tech Valley Drive
- *Deer Pond Estates* – 60-unit Single Family Residential subdivision on Elliot Road
- *Regeneron* – 187,000 SF of warehouse space located on Temple Lane
- *Amedore Senior Housing* – 96 Senior Housing units located on Luther Road opposite Michael Drive
- Hampton Inn & Suites – Glaz Street (open but completed after the traffic counts were collected)
- *Hotel* – 76 Room Hotel located behind Cracker Barrel on US Rt. 4
- *Rysedorph Subdivision* – 27-lot subdivision located on Olcott lane.

The background growth traffic volumes were added to the other developments resulting in the 2020 No-Build traffic volumes, illustrated on Figure 3.1. These volumes represent future traffic conditions in the study area *without* construction of the proposed project. The potential full build out of East Greenbush Tech Park (Phase 2) and Regeneron is include in Chapter IV.B - Sensitivity Analysis.

B. Trip Generation

Trip generation determines the quantity of traffic expected to travel to/from the project site. The Institute of Transportation Engineers (ITE) *Trip Generation*, 10th edition, provides trip generation data for various land uses based on studies of similar existing developments located across the country and is the industry standard for determining trip generation for proposed land uses. Land Use Code 220 – Multifamily Housing (low-rise) was used to estimate the amount of traffic generated by the *Cover Bridge Village* project. As such the sites trip generation estimate is summarized in Table 3.1.

Table 3.1 – Trip Generation Summary

Land Use	Size	LUC	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
Multifamily Housing (low-rise)	288-Units	220	30	102	132	101	60	161

Table 3.1 shows that the proposed *Covered Bridge Village* is expected to generate approximately 132 new vehicle trips during the AM peak hour and 161 new vehicle trips during the PM peak hour.

C. Trip Distribution

Trip distribution describes where traffic originates or where traffic is destined. Traffic generated by the proposed project was distributed based on existing and observed travel patterns in the project area and probable travel routes for residents of the proposed development. Based on the existing regional travel patterns, it is expected that approximately 25 percent of residents will travel to and from the south on Michael Road with the remaining 75 percent of site-generated traffic will travel to and from the north on

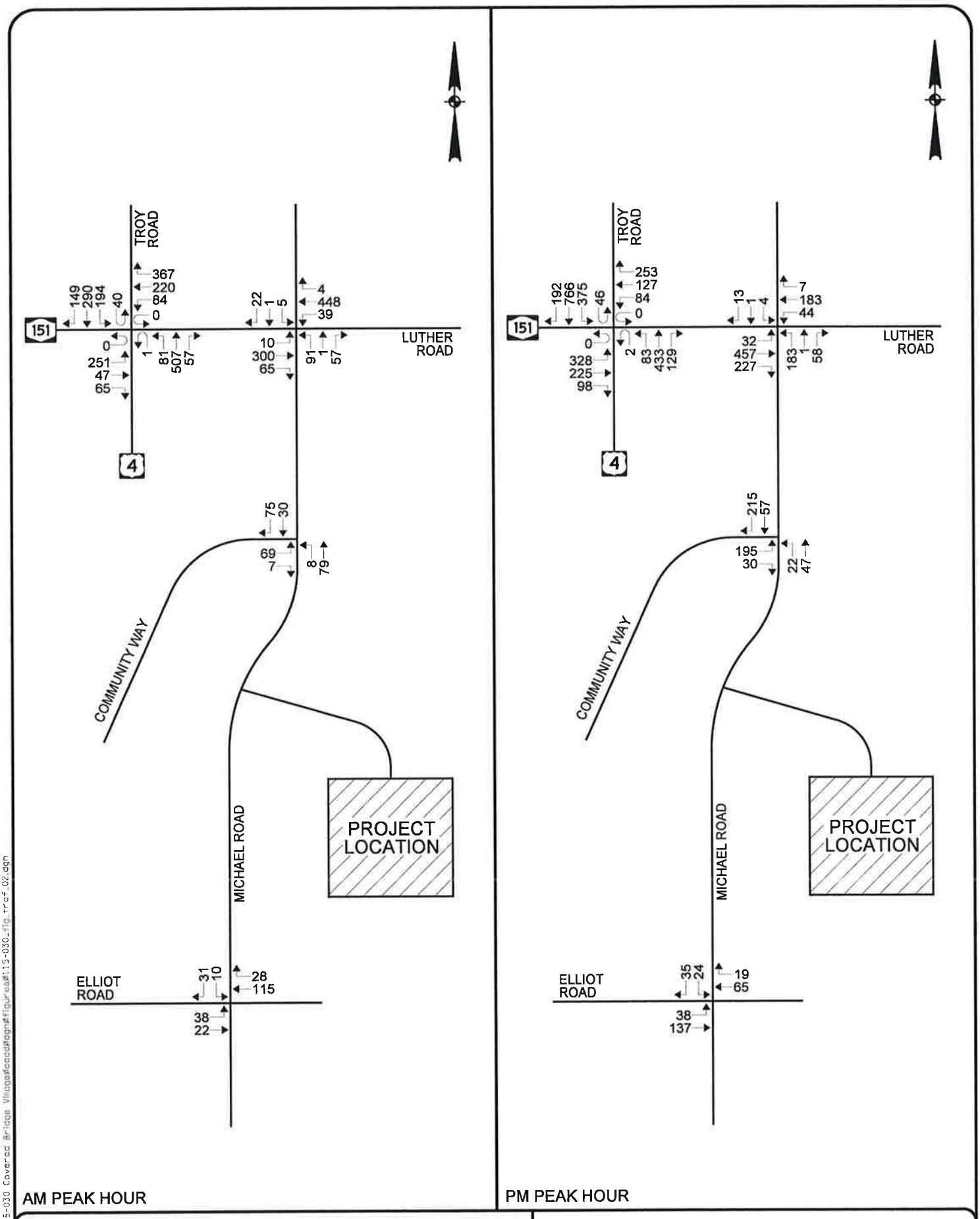
Michael Road. Figure 3.2 illustrates the expected distribution of trips for the proposed project.

D. Trip Assignment

Trip assignment combines the results of the trip generation and trip distribution and determines the specific paths and roadways that will be used between various origin/destination pairs. Figure 3.2 shows the resulting trip assignment for the proposed project for the weekday AM and PM peak hours.

E. 2020 Build Traffic Volumes

The results of the site generated traffic assignment were added to the 2020 No-Build traffic volumes to develop the 2020 Build traffic volumes. The 2020 Build traffic volumes are shown on Figure 3.3 and represent future traffic volume conditions *after* the project is fully completed.



2020 NO-BUILD
TRAFFIC VOLUMES

COVERED BRIDGE VILLAGE
TOWN OF EAST GREENBUSH, NY

Creighton Manning

PROJECT:	115-030	DATE:	05/2018	FIGURE:	3.1

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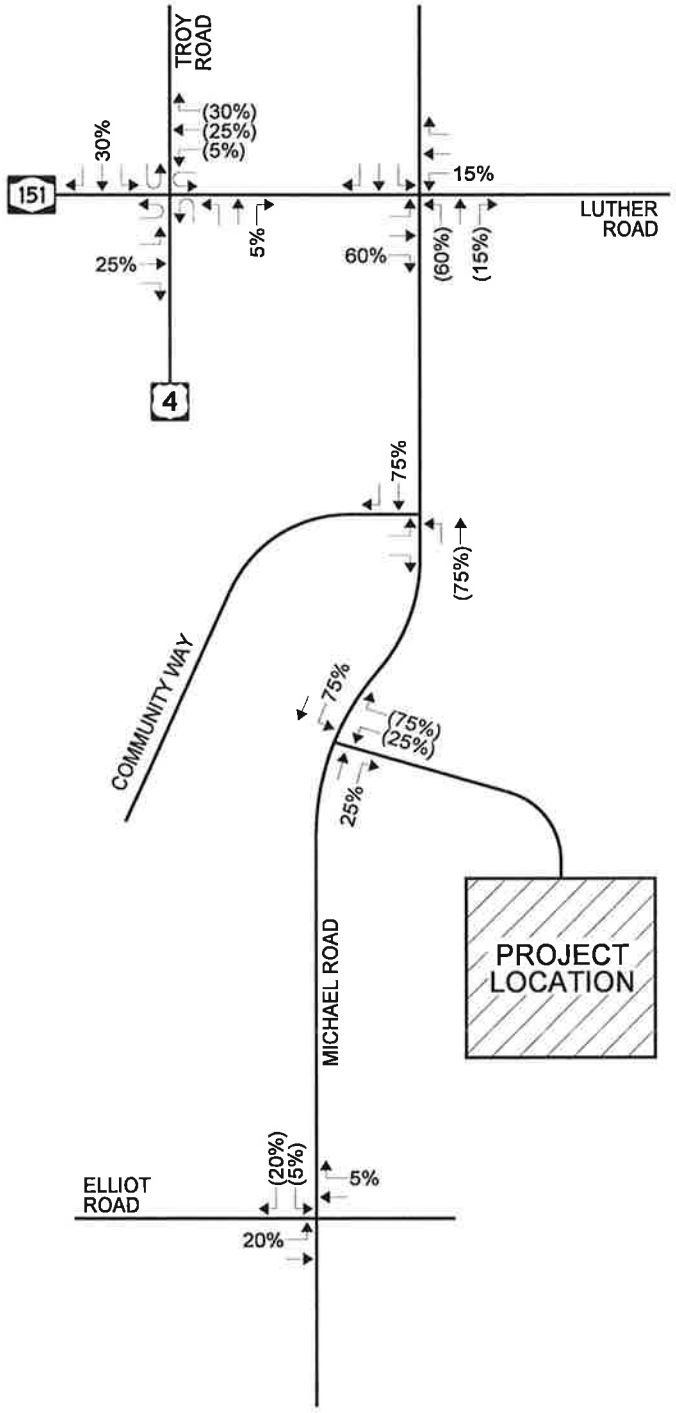
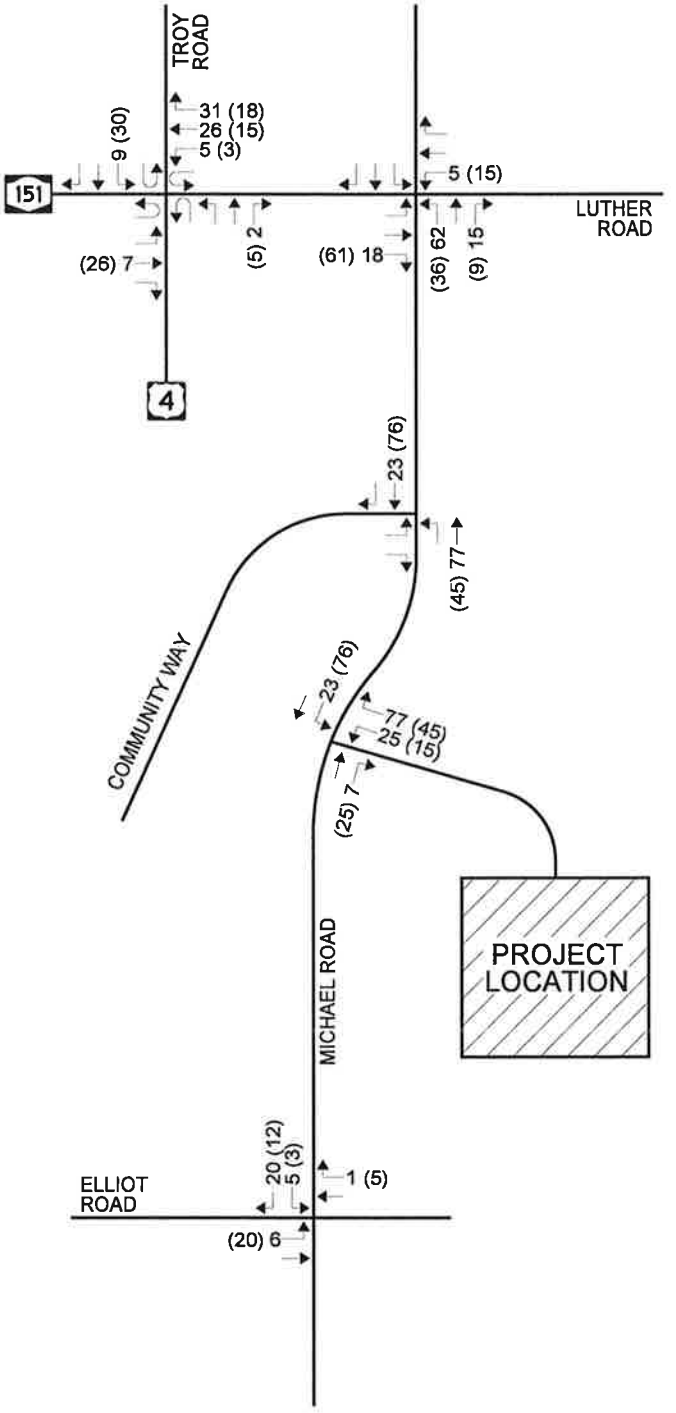
TRIP DISTRIBUTION



ENTERING (EXITING)

TRIP ASSIGNMENT



AM PEAK HOUR (PM PEAK HOUR)

TRAFFIC VOLUMES

COVERED BRIDGE VILLAGE
TOWN OF EAST GREENBUSH, NY

Creighton Manning

PROJECT:	115-030	DATE:	05/2018	FIGURE:	3.2

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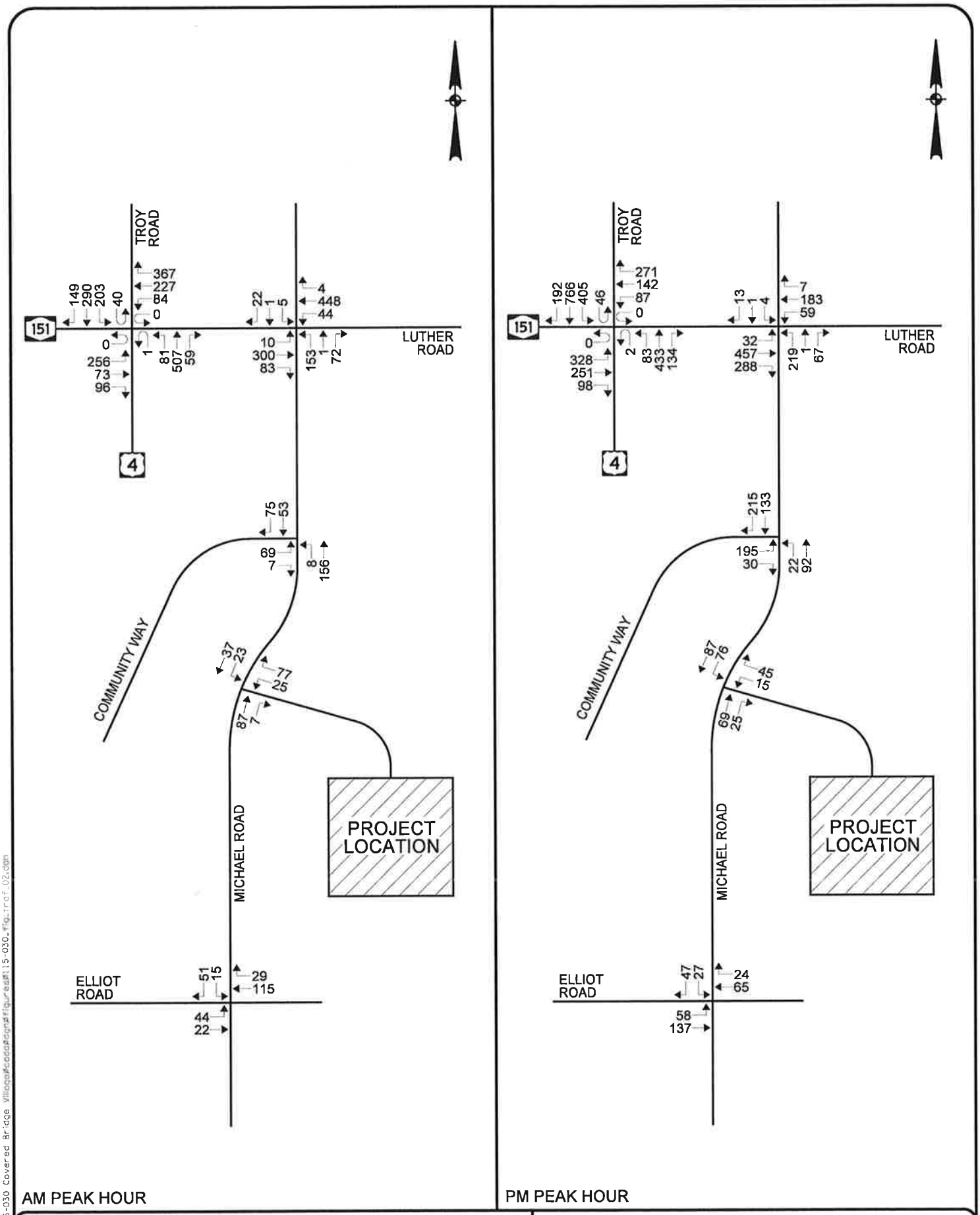

2020 BUILD
TRAFFIC VOLUMES

COVERED BRIDGE VILLAGE
TOWN OF EAST GREENBUSH, NY

Creighton Manning

PROJECT:	115-030	DATE:	05/2018	FIGURE:	3.3

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CHAPTER IV
ANALYSIS

A. Capacity/Level of Service Analysis

Intersection Level of Service (LOS) and capacity analysis relate traffic volumes to the physical characteristics of an intersection. Intersection evaluations were made using Synchro 10 software which automates the procedures contained in the *Highway Capacity Manual 6th Edition*. Evaluations were also completed using SIDRA software for the roundabout analysis. Levels of service range from A to F with LOS A conditions considered excellent with very little delay while LOS F generally represents conditions with very long delays. Further detailed information about levels of service criteria is included in Appendix C. Table 4.1 summarizes the results of the Level of Service calculations.

Table 4.1 – Peak Hour Level of Service Summary

Intersection		Control	AM Peak Hour				PM Peak Hour			
			2015 Existing	2020 No-Build	2020 Build	2020 Build w/Imp	2015 Existing	2020 No-Build	2020 Build	2020 Build w/Imp
Red Mill Rd/ Luther Rd/ Troy Rd (Rt 4)		RA								
Red Mill Rd EB	L		B (13.5)	B (13.4)	B (13.4)		C (20.9)	C (21.0)	C (31.5)	
	TR		A (8.8)	A (8.5)	A (8.2)		B (13.5)	C (22.0)	B (17.1)	
Luther Rd WB	LT		B (14.0)	B (16.6)	B (17.0)		B (11.8)	B (12.7)	B (13.0)	
	R		B (11.8)	B (13.0)	B (13.2)		A (9.1)	A (9.6)	A (9.9)	
Troy Rd NB	L		B (15.3)	B (14.7)	B (14.9)		B (17.6)	B (16.7)	B (17.1)	
	TR		A (9.5)	A (9.4)	A (9.8)		B (15.1)	B (16.5)	C (20.3)	
Troy Rd SB	L		B (14.4)	B (14.7)	B (14.7)		B (13.8)	B (13.9)	B (14.5)	
	TR		A (7.7)	A (7.8)	A (7.9)		B (11.1)	B (12.6)	B (13.9)	
Overall			B (11.1)	B (11.7)	B (11.8)		B (13.5)	B (15.2)	B (16.9)	
Luther Rd/ Michael Rd		S								
Luther Rd EB	LTR		A (5.0)	A (5.3)	A (6.7)	A (6.7)	A (6.7)	A (7.4)	C (26.2)	B (17.5)
Luther Rd WB	LTR		A (5.7)	A (6.2)	A (7.7)	A (7.8)	A (4.4)	A (4.4)	B (12.3)	A (8.9)
Michael Rd NB	LT		A (9.8)	B (10.8)	B (11.4)	--	B (11.0)	B (12.9)	D (43.2)	--
	R		B (11.0)	B (11.3)	B (10.9)	--	B (10.4)	B (11.9)	B (15.9)	--
	[L]		--	--	--	B (11.7)	--	--	--	B (18.6)
	[TR]		--	--	--	B (10.9)	--	--	--	B (15.2)
Michael Rd SB	LTR		A (9.2)	B (10.2)	B (10.0)	B (10.0)	A (9.6)	B (11.3)	B (18.6)	B (14.2)
Overall			A (6.1)	A (6.7)	A (8.1)	A (8.2)	A (7.1)	A (8.0)	C (25.8)	B (15.9)
Community Way/Michael Rd		T W								
Community Way EB	LR		A (9.7)	A (9.9)	B (10.8)		B (11.9)	B (12.7)	C (15.2)	
Michael Rd NB	LT		A (7.4)	A (7.4)	A (7.5)		A (7.8)	A (7.9)	A (8.1)	
Elliot Rd/ Michael Rd		T W								
Elliot Rd EB	LT		A (7.6)	A (7.6)	A (7.7)		A (7.4)	A (7.4)	A (7.5)	
Michael Rd SB	LR		A (9.3)	A (9.6)	A (9.8)		A (9.0)	A (9.8)	B (10.0)	

Michael Rd/ Site Driveway		TW								
Site Driveway WB	LR		---	---	A (9.6)		---	---	A (9.7)	
Michael Rd SB	LT		---	---	A (7.5)		---	---	A (7.7)	

Key: S, TW, RA = Signalized, Two-Way Stop, Roundabout
EB, WB, NB, SB = Eastbound, Westbound, Northbound, or Southbound intersection approaches
L, T, R = Left-turn, Through, and/or Right-turn intersection movements
X (Y.Y) = Level of service (Average Delay in seconds per vehicle)
-- = Not Applicable

The following observations are evident from the above analysis:

- Red Mill Rd/Luther Rd/Troy Rd – The roundabout currently operates at LOS B during both peak hours with all approaches experiencing approximately 20 seconds of delay or less. The intersection is expected to operate similarly through Build conditions with an overall increase in delay less than two seconds.

- Luther Rd/Michael Rd – This intersection currently operates at LOS A during both peak hours with all approaches experiencing approximately 11 seconds of delay or less. During the AM peak hour, this intersection will operate at LOS A through Build conditions with an average increase in delay of approximately two seconds. During the PM peak hour, the intersection will continue to operate at LOS A through No-Build conditions. Under Build conditions, the intersection is expected to operate at overall LOS C with an average increase in delay of approximately 17 seconds. Minor signal timing adjustments as well as changing the northbound Michael Road approach lane configuration to provide an exclusive left turn lane and a shared through/right turn lane was considered in the Build with improvement condition, resulting in an overall LOS B with no approach experiencing more than 19 seconds of delay.

- Michael Rd/Community Way – The northbound Michael Road approach currently operates at LOS A during both peak hours and will operate similarly through Build conditions with an average increase in delay less than one second. The eastbound Community Way approach currently operates at LOS A during the AM peak hour and LOS B during the PM peak hour. Under Build conditions, this approach will operate at LOS B during the AM peak hour with an average increase in delay less than one second. During the PM peak hour, this approach will operate at LOS C with an average increase in delay less than three seconds. No mitigation is considered necessary.

- Elliot Rd/Michael Rd – The eastbound Elliot Road approach currently operates at LOS A during both peak hours and is expected to operate similarly through Build conditions with an average increase in delay less than one second. The southbound Michael Road approach currently operates at LOS A during both peak hours. Under Build conditions, this intersection will continue to operate at LOS A during the AM peak hour and LOS B during the PM peak hour with an average increase in delay of one second or less. No mitigation is considered necessary.

- Michael Rd/Site Driveway – After completion of the project, the site driveway is expected to operate at LOS A during both peak hours with average delays of approximately nine seconds. The southbound Michael Road approach will operate at LOS A with approximately seven seconds of delay. This intersection will operate adequately under stop sign conditions on the site driveway and free flow movements on Michael Road.

B. Sensitivity Analysis

A sensitivity analysis was conducted to determine the traffic impacts associated with additional traffic generated by full build out of the East Greenbush Tech Park (EGTP) and Regeneron. In this scenario, traffic associated with Phase 2 of the East Greenbush Tech Park and Regeneron were added to the No-Build analysis, resulting in the 2020 Build with Regeneron/EG Tech Park and 2020 Build with Covered Bridge traffic volumes shown on Figure 4.1 and 4.2, respectively. It is noted that traffic from these projects is only expected to impact the Red Mill Road/Luther Road/Troy Road and Luther Road/Michael Road intersections. The resulting level of service and delays are described in Table 4.2 below.

Table 4.2 – Sensitivity Level of Service Summary

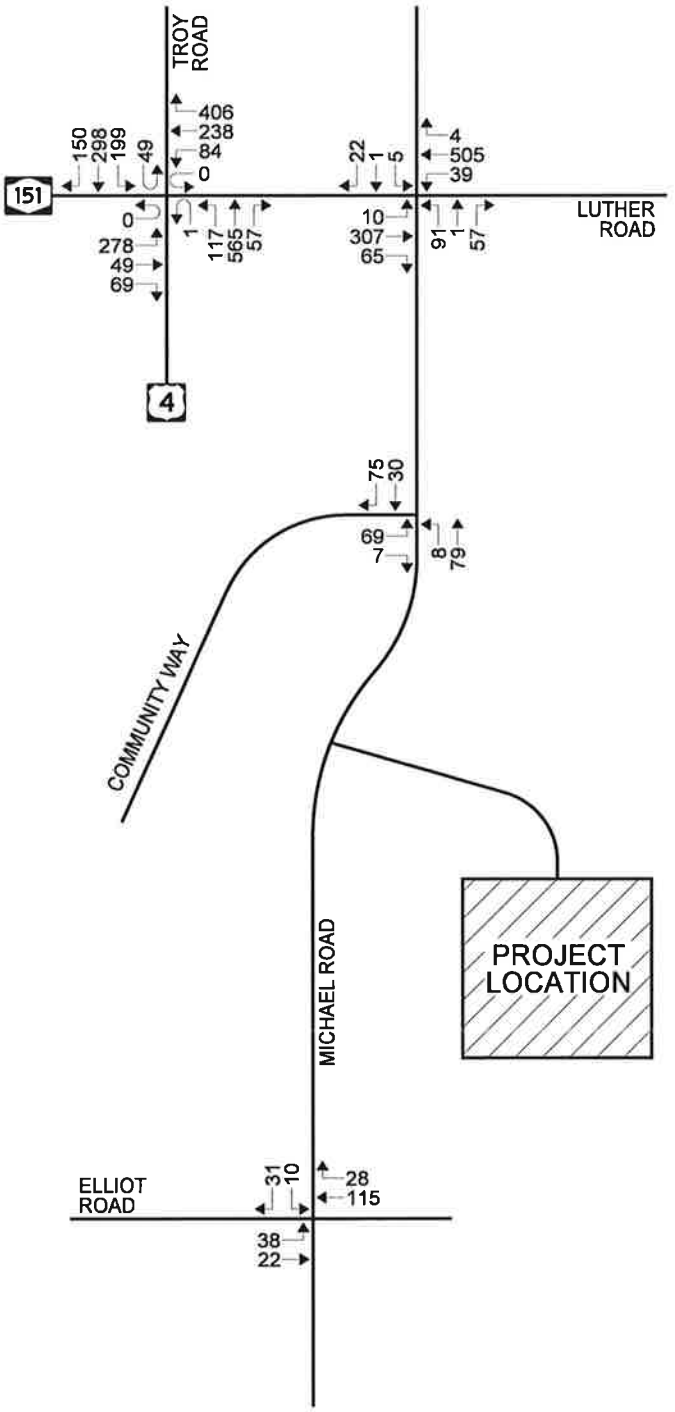
Intersection		Control	AM Peak Hour				PM Peak Hour			
			2020 No-Build	Build w/ Regen/ EGTP	Build w/ Covered Bridge	Build w/Imp SA	2020 No-Build	Build w/ Regen/ EGTP	Build w/ Covered Bridge	Build w/Imp SA
Red Mill Rd/ Luther Rd/ Troy Rd (Rt 4)		RA								
Red Mill Rd EB	L		B (13.4)	B (14.0)	B (14.2)		C (21.0)	E (61.8)	F (94.6)	
	[L]TR		A (8.5)	B (10.3)	A (9.5)		C (22.0)	D (52.4)	F (85.5)	
Luther Rd WB	LT		B (16.6)	B (15.7)	B (16.7)		B (12.7)	B (13.0)	B (13.0)	
	R		B (13.0)	B (12.1)	B (12.8)		A (9.6)	A (9.7)	A (9.7)	
Troy Rd NB	L[T]		B (14.7)	A (10.0)	B (10.3)		B (16.7)	B (15.0)	B (15.2)	
	TR		A (9.4)	A (8.6)	A (9.0)		B (16.5)	B (14.0)	B (14.2)	
Troy Rd SB	L[T]		B (14.7)	B (12.2)	B (12.7)		B (13.9)	B (14.8)	B (16.4)	
	TR		A (7.8)	A (8.7)	A (8.8)		B (12.6)	A (10.3)	B (11.2)	
Overall			B (11.7)	B (11.4)	B (11.8)		B (15.2)	C (22.3)	C (30.1)	
Luther Rd/ Michael Rd		S								
Luther Rd EB	LTR		A (5.3)	A (5.0)	A (6.3)	A (6.5)	A (7.4)	A (7.7)	C (28.4)	A (9.7)
Luther Rd WB	LTR		A (6.2)	A (6.4)	A (8.0)	A (8.2)	A (4.4)	A (4.3)	B (11.8)	A (5.1)
Michael Rd NB	LT		B (10.8)	B (11.8)	B (12.8)	--	B (12.9)	B (14.0)	E (66.6)	--
	R		B (11.3)	B (12.4)	B (12.2)	--	B (11.9)	B (12.9)	B (18.2)	--
	[L]		--	--	--	B (13.2)	--	--	--	B (17.2)
	[TR]		--	--	--	B (12.2)	--	--	--	B (14.7)
Michael Rd SB	LTR		B (10.2)	B (11.2)	B (11.3)	B (11.3)	B (11.3)	B (12.2)	C (20.8)	B (14.0)
Overall			A (6.7)	A (6.8)	A (8.4)	A (8.6)	A (8.0)	A (8.3)	C (30.8)	B (10.3)

Key: S, TW, RA = Signalized, Two-Way Stop, Roundabout
EB, WB, NB, SB = Eastbound, Westbound, Northbound, or Southbound intersection approaches
L, T, R = Left-turn, Through, and/or Right-turn intersection movements
X (Y.Y) = Level of service (Average Delay in seconds per vehicle)
-- = Not Applicable

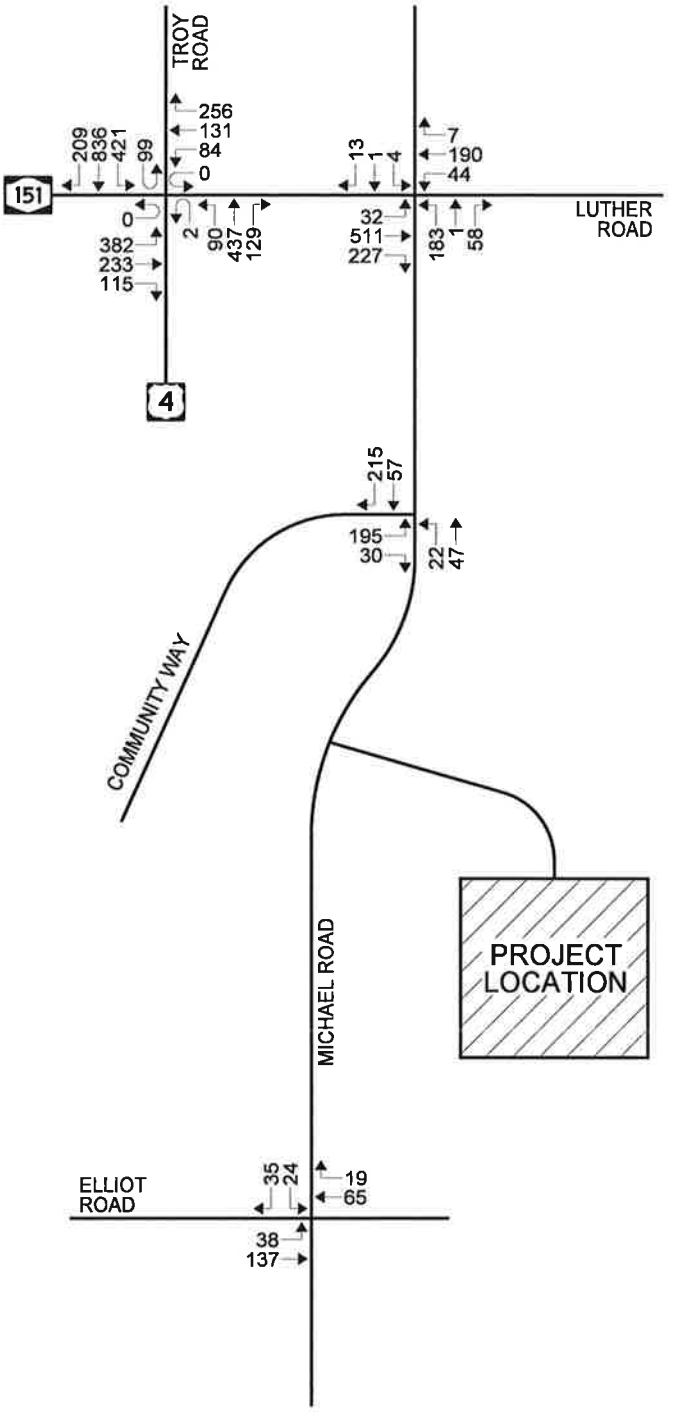
The following summarizes the findings of the Sensitivity Analysis with and without full build out of the East Greenbush Tech Park and Regeneron:

- Red Mill Rd/Luther Rd/Troy Rd – The roundabout will operate at LOS B during the AM peak hour under No-Build conditions and will continue to operate similarly through Build conditions. During the PM peak hour, the roundabout will operate at LOS B under No-Build conditions and is expected to degrade to LOS C during the Build conditions with the addition of the full build out of Regeneron and EGTP. Degradations in the eastbound approach are expected and will continue through the Build conditions for the PM peak hour. These conditions include the expected improvements of modifying the roundabout to include two through lanes on the northbound and southbound Route 4 approaches, and modifying the eastbound approach to provide for an exclusive left and shared left/through/right lanes. Although delays are expected to increase on the eastbound approach, we expect these conditions to be limited to the peak afternoon period. Further, if drivers find the delay excessive, some shift in travel routes might occur, thereby self-regulating the condition.

- Luther Rd/Michael Rd – This intersection will operate at LOS A during the AM peak hour through the Build conditions. During the PM peak hour, this intersection will operate at LOS B overall with Regeneron and EGTP if the improvements identified previously are completed (signal timing adjustments and lane configuration changes).



AM PEAK HOUR



PM PEAK HOUR

2020 BUILD WITH REGEN/EGTP

COVERED BRIDGE VILLAGE
TOWN OF EAST GREENBUSH, NY

Creighton Manning

PROJECT: 115-030	DATE: 05/2018	FIGURE: 4.1

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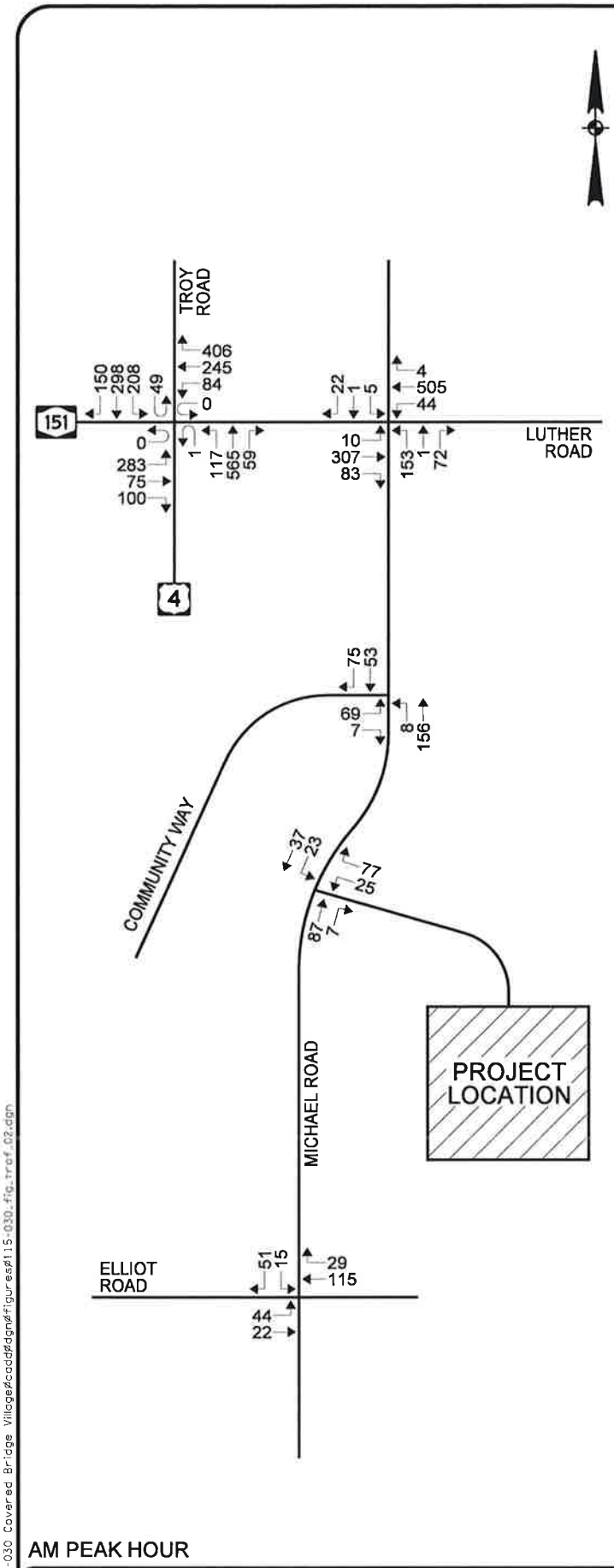
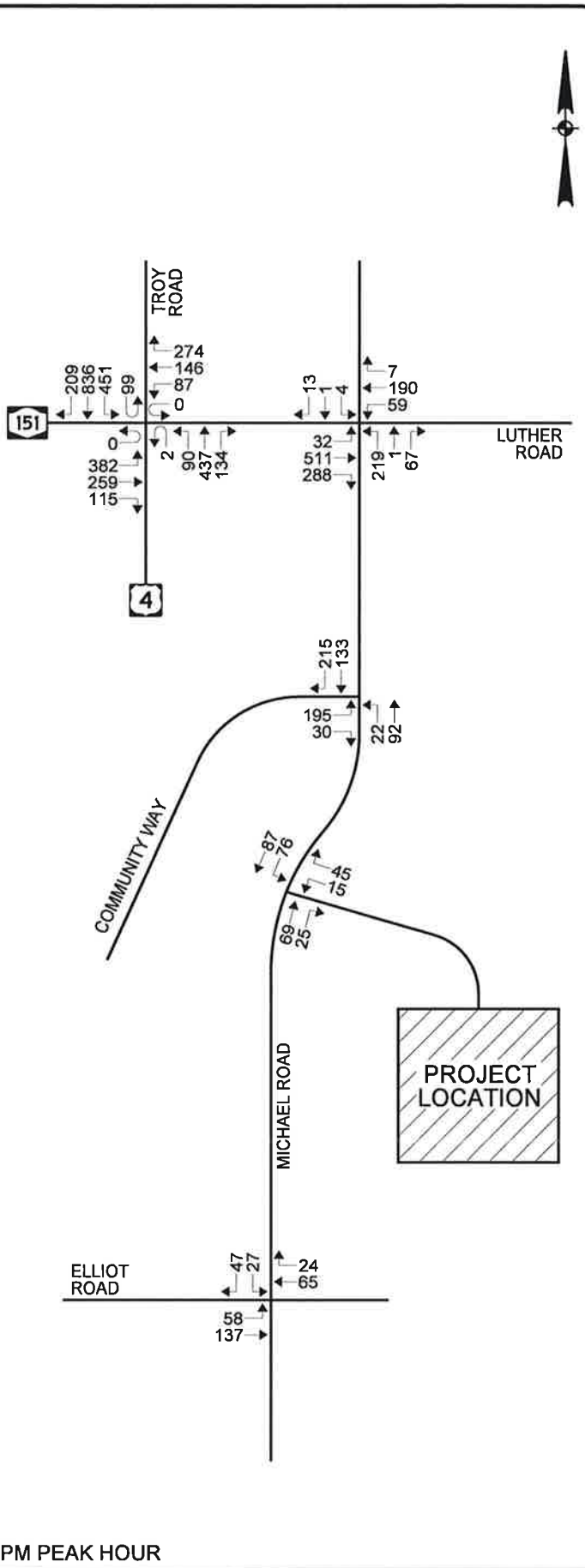


AM PEAK HOUR



PM PEAK HOUR

2020 BUILD WITH COVERED BRIDGE

COVERED BRIDGE VILLAGE
TOWN OF EAST GREENBUSH, NY

Creighton Manning

PROJECT:	115-030	DATE:	05/2018	FIGURE:	4.2

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CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

A Traffic Impact Study was completed for the proposed *Covered Bridge Village* located in the southeast quadrant of the Luther Road (NY Route 151)/Michael Road intersection. The project is expected to be completed and occupied in 2020. Based on the traffic analysis contained herein, the following conclusions and recommendations are offered:

1) The development of the residential site is expected to generate 132 new vehicle trips during the AM peak hour, and 161 new vehicle trips during the PM peak hour.

2) The analysis indicates the following impacts, assuming that the *Covered Bridge Village* project is completed before the East Greenbush Tech Park and Regeneron are fully constructed:

   a) Red Mill Road/Luther Road/Troy Road (Rt 4) – This intersection will continue to operate at acceptable levels of service through the completion of the project. No improvements are suggested.
   b) Luther Road/Michael Road – During the AM peak hour, this intersection will continue to operate at acceptable levels of service through the completion. During the PM peak hour, the northbound and eastbound approaches will experience moderate increases in delay. Changes to the signal timings and northbound lane assignments are recommended.
   c) Community Way/Michael Road – This intersection will continue to operate at acceptable levels of service through the completion of the project. No improvements are suggested.
   d) Elliot Road/Michael Way – This intersection will continue to operate at acceptable levels of service through the completion of the project. No improvements are suggested.

3) The sensitivity analysis conducted for completion of the East Greenbush Tech Park and Regeneron indicates the following impacts:

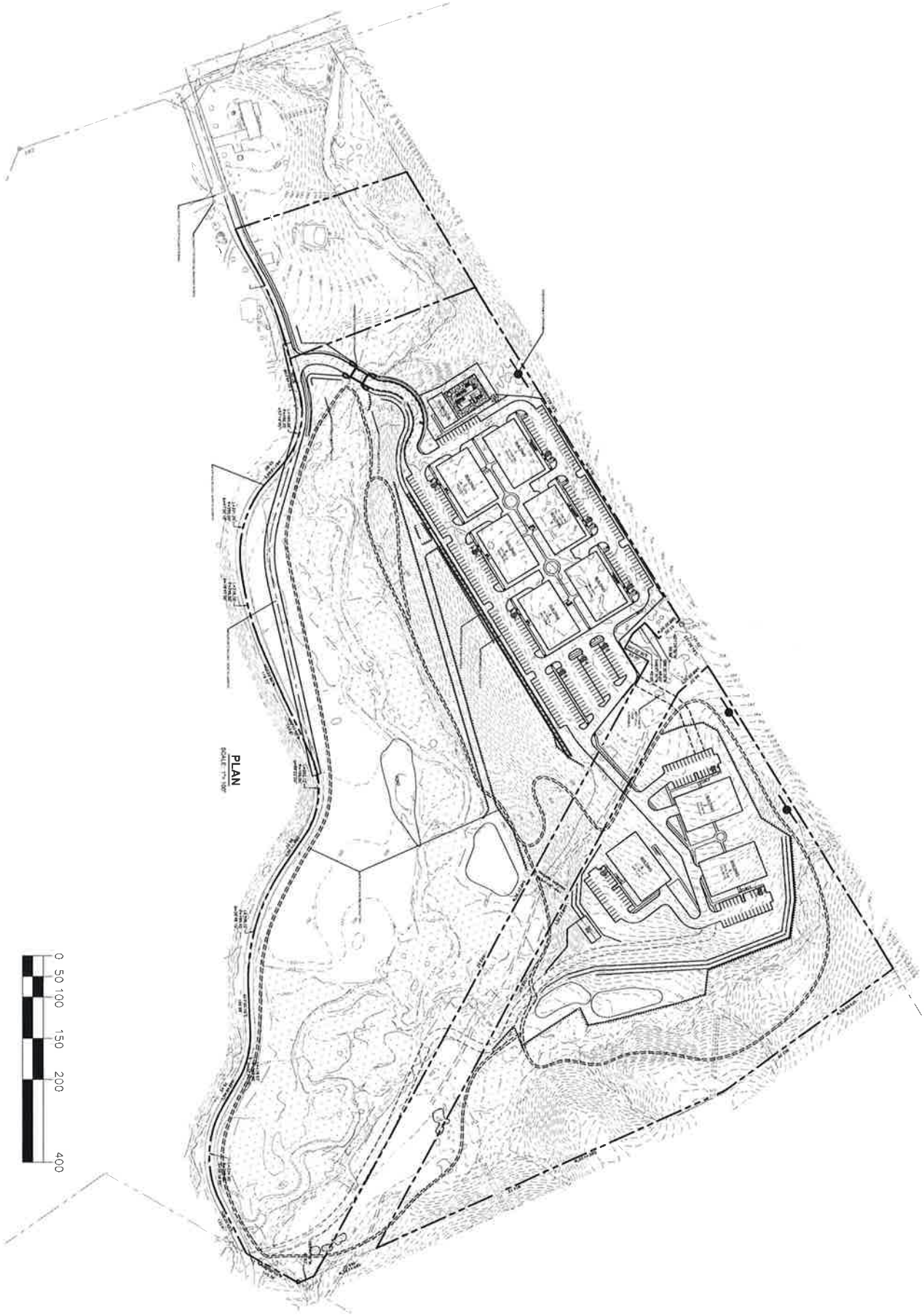
   a) Red Mill Road/Luther Road/Troy Road – As expected, the eastbound approach will experience an increase in delay because of other developments, and to a lesser extent, the *Covered Bridge Village* project. The improvements originally proposed as part of Temple Farm project will help reduce the delay increases, but the eastbound approach is expected to operate at LOS D under No-Build conditions and LOS E under Build conditions. This condition will be limited to the PM peak hour and will be self-regulating, as drivers will use other routes if the delay is excessive.
   b) Luther Road (NY Route 151)/Michael Road – There is little or no change in operations during the AM peak hour. Delays experienced on the northbound and

eastbound approaches during the PM peak hour will be mitigated through signal timing changes and reassignment of the northbound lanes.

Attachment A
Site Plan

Covered Bridge Village
Town of East Greenbush, New York

I:\ARICO ASSOCIATES\16-01 Covered Bridge_Quadrini\Design Plans\site plan.10.dwg, 3/2/2018 10:25:00 AM, AutoCAD PDF (Smallest File).pc3



TOWN OF EAST GREENBUSH COUNTY OF RENSSELAER

COVERED BRIDGE VILLAGE
OVERALL SITE PLAN

TAX MAP NO. 100.00-8-19.125

Arico Associates
Engineers, Land Planners
& Consultants
49 Railroad Avenue, Albany, NY, 12205 518 573 8969
darico@aricoassociates.com www.aricoassociates.com

REVISIONS

NO	DESCRIPTION	BY	DATE

SHEET NO. S0

Attachment B
Turning Movement Counts

Covered Bridge Village
Town of East Greenbush, New York

Study Name TROY RD & LUTHER RD AND TROY RD & RED MILL RD
Start Date 03/10/2015
Start Time 6:30 AM
Site Code

	Southbound St. Southbound				Westbound St. Westbound				Northbound St. Northbound				Eastbound St. Eastbound			
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
6:30 AM	49	22	19	3	2	23	33	0	7	69	13	0	28	12	5	0
6:45 AM	108	32	26	0	13	26	43	0	7	55	27	0	57	43	8	0
7:00 AM	40	41	26	3	19	41	102	0	7	80	13	0	43	19	9	0
7:15 AM	43	70	23	8	16	41	70	0	17	115	8	0	39	7	15	0
7:30 AM	41	81	28	8	12	46	73	0	20	130	13	0	67	1	16	0
7:45 AM	41	66	53	5	12	52	60	0	16	119	13	1	56	12	10	0
8:00 AM	35	66	43	5	8	47	51	0	19	99	9	0	45	7	9	0
8:15 AM	57	69	43	6	11	36	58	0	26	86	11	2	43	10	6	0
3:00 PM	52	119	31	1	22	25	65	0	17	109	25	1	42	20	13	0
3:15 PM	51	140	29	2	22	25	55	0	14	94	32	1	31	25	16	0
3:30 PM	51	127	37	4	21	21	63	0	14	74	19	0	42	21	15	0
3:45 PM	80	144	31	1	10	12	46	0	9	77	21	2	49	37	6	0
4:00 PM	62	134	39	0	23	11	52	0	8	108	28	0	67	44	15	0
4:15 PM	79	182	33	5	15	19	38	0	10	97	26	0	46	33	25	0
4:30 PM	76	160	27	3	12	22	44	0	19	96	24	0	84	45	23	0
4:45 PM	95	205	41	7	15	28	49	0	16	108	33	0	68	51	24	0
5:00 PM	70	144	54	5	26	29	64	0	12	113	31	0	59	49	24	0
5:15 PM	83	185	43	1	21	29	70	0	21	89	26	2	63	53	13	0
5:30 PM	73	150	31	1	13	15	44	0	15	114	33	0	50	38	20	0
5:45 PM	74	157	50	0	21	19	40	0	15	97	15	0	42	36	14	0

Study Name TROY RD & LUTHER RD AND TROY RD & RED MILL RD
Start Date 03/10/2015
Start Time 6:30 AM
Site Code

	Southbound St. Southbound				Westbound St. Westbound				Northbound St. Northbound				Eastbound St. Eastbound			
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
6:30 AM	3	0	0	0	0	1	0	0	0	4	1	0	0	0	0	0
6:45 AM	7	1	0	1	2	3	5	0	3	2	7	0	1	6	0	0
7:00 AM	0	1	1	0	8	4	8	0	1	4	0	0	0	0	0	0
7:15 AM	1	0	1	0	1	0	1	0	0	4	0	0	1	0	2	0
7:30 AM	3	7	1	0	1	2	0	0	0	0	1	0	1	0	3	0
7:45 AM	4	2	0	0	3	1	4	0	0	3	2	0	2	0	0	0
8:00 AM	3	2	2	0	1	1	0	0	2	3	2	0	0	0	1	0
8:15 AM	0	0	1	0	2	0	2	0	2	2	3	0	2	1	1	0
3:00 PM	1	0	0	0	1	1	3	0	1	0	0	0	0	0	0	0
3:15 PM	3	0	2	0	0	0	1	0	0	2	1	0	0	0	2	0
3:30 PM	0	2	1	0	0	1	1	0	0	1	1	0	1	0	1	0
3:45 PM	1	2	2	0	0	0	0	0	0	0	0	1	0	0	5	0
4:00 PM	1	1	0	0	1	0	1	0	3	1	1	0	1	2	2	0
4:15 PM	1	7	1	0	2	0	1	0	0	0	1	0	0	1	0	0
4:30 PM	0	2	0	0	1	0	0	0	0	0	0	0	1	0	0	0
4:45 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Study Name TROY RD & LUTHER RD AND TROY RD & RED MILL RD
Start Date 03/10/2015
Start Time 6:30 AM
Site Code

	Southbound St. Southbound				Westbound St. Westbound				Northbound St. Northbound				Eastbound St. Eastbound			
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
6:30 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
7:00 AM	1	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0
7:30 AM	0	1	1	0	0	1	2	0	0	1	0	0	1	0	0	0
7:45 AM	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0
8:15 AM	0	1	1	0	0	0	1	0	0	4	0	0	1	0	0	0
3:00 PM	0	1	1	0	0	0	0	0	0	2	0	0	1	0	0	0
3:15 PM	0	1	0	0	1	0	1	0	0	0	1	0	0	0	1	0
3:30 PM	0	2	1	0	0	0	0	0	0	1	0	0	1	0	0	0
3:45 PM	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0
4:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	3	2	0	0	0	0	0	0	1	0	0	1	0	0	0
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0
5:30 PM	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0

Study Name TROY RD & LUTHER RD AND TROY RD & RED MILL RD
Start Date 03/10/2015
Start Time 6:30 AM
Site Code

	Southbound St. Southbound		Westbound St. Westbound		Northbound St. Northbound		Eastbound St. Eastbound	
Start Time	Peds CCW	Peds CW	Peds CCW	Peds CW	Peds CCW	Peds CW	Peds CCW	Peds CW
6:30 AM	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0

Study Name TROY RD & LUTHER RD AND TROY RD & RED MILL RD
Start Date 03/10/2015
Start Time 6:30 AM
Site Code

	Southbound St. Southbound				Westbound St. Westbound				Northbound St. Northbound				Eastbound St. Eastbound			
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
6:30 AM	52	24	19	3	2	24	33	0	7	74	14	0	28	12	5	0
6:45 AM	115	33	26	1	15	29	48	0	10	57	34	0	58	50	8	0
7:00 AM	41	42	28	3	28	45	110	0	8	85	13	0	44	19	9	0
7:15 AM	44	70	24	8	17	41	71	0	17	121	9	0	40	7	18	0
7:30 AM	44	89	30	8	13	49	75	0	20	131	14	0	69	1	19	0
7:45 AM	46	70	54	5	15	53	64	0	16	122	15	1	58	12	10	0
8:00 AM	38	68	45	5	9	48	52	0	21	103	11	0	46	7	10	0
8:15 AM	57	70	45	6	13	36	61	0	28	92	14	2	46	11	7	0
3:00 PM	53	120	32	1	23	26	68	0	18	111	25	1	43	20	13	0
3:15 PM	54	141	31	2	23	25	57	0	14	96	34	1	31	25	19	0
3:30 PM	51	131	39	4	21	22	64	0	14	76	20	0	44	21	16	0
3:45 PM	81	147	33	1	10	12	47	0	9	78	21	3	50	37	11	0
4:00 PM	63	139	39	0	24	11	53	0	11	109	29	0	68	46	17	0
4:15 PM	80	189	34	5	17	19	39	0	10	99	28	0	49	34	25	0
4:30 PM	76	162	27	3	13	22	44	0	19	96	25	0	85	45	23	0
4:45 PM	95	207	42	7	15	29	49	0	16	109	33	0	68	51	24	0
5:00 PM	70	148	56	5	26	29	65	0	12	114	31	0	60	49	24	0
5:15 PM	83	185	43	1	21	29	71	0	21	89	26	2	64	54	14	0
5:30 PM	74	150	31	1	13	15	44	0	15	116	33	0	50	38	20	0
5:45 PM	74	157	50	0	21	19	40	0	15	97	15	0	43	37	15	0

Study Name	TROY RD & LUTHER RD AND TROY RD & RED MILL RD
Start Date	Tuesday, March 10, 2015 6:30 AM
End Date	Tuesday, March 10, 2015 6:00 PM
Site Code	

Report Summary

		Southbound						Westbound						Northbound						Eastbound							Crosswalk	
Time Period	**Class.**	**L**	**T**	**R**	**U**	**I**	**O**	**L**	**T**	**R**	**U**	**I**	**O**	**L**	**T**	**R**	**U**	**I**	**O**	**L**	**T**	**R**	**U**	**I**	**O**	**Total**		**destria**	**Total**
Peak 1	**Lights**	165	258	130	24	577	978	59	180	305	0	544	251	60	444	47	1	552	368	205	39	50	0	294	370	1967	SB	0	0
Specified Period	%	94%	95%	96%	100%	95%	96%	81%	96%	95%	0%	94%	95%	98%	97%	92%	100%	97%	92%	97%	100%	89%	0%	96%	96%	95%		0%	
6:30 AM - 8:30 AM	**Buses**	8	10	3	0	21	28	13	7	13	0	33	11	1	11	3	0	15	28	4	0	5	0	9	11	78	WB	0	0
One Hour Peak	%	5%	4%	2%	0%	3%	3%	18%	4%	4%	0%	6%	4%	2%	2%	6%	0%	3%	7%	2%	0%	9%	0%	3%	3%	4%		0%	
7:00 AM - 8:00 AM	**Trucks**	2	3	3	0	8	8	1	1	2	0	4	3	0	4	1	0	5	5	2	0	1	0	3	4	20	NB	0	0
	%	1%	1%	2%	0%	1%	1%	1%	1%	1%	0%	1%	1%	0%	1%	2%	0%	1%	1%	1%	0%	2%	0%	1%	1%	1%		0%	
	Total	**175**	**271**	**136**	**24**	**606**	**1014**	**73**	**188**	**320**	**0**	**581**	**265**	**61**	**459**	**51**	**1**	**572**	**401**	**211**	**39**	**56**	**0**	**306**	**385**	**2065**	EB	0	0
	PHF	0.95	0.76	0.63	0.75	0.87	0.9	0.65	0.89	0.73	0	0.79	0.91	0.76	0.88	0.85	0.25	0.87	0.83	0.76	0.51	0.74	0	0.86	0.78	0.92		0%	
	Approach %					29%	49%					28%	13%					28%	19%					15%	19%			**0**	**0**
Peak 2	**Lights**	324	694	165	16	1199	923	74	108	227	0	409	636	68	406	114	2	590	854	274	198	84	0	556	341	2754	SB	0	0
Specified Period	%	100%	99%	98%	100%	99%	99%	99%	99%	99%	0%	99%	100%	100%	100%	99%	100%	99%	99%	99%	99%	99%	0%	99%	99%	99%		0%	
3:00 PM - 6:00 PM	**Buses**	0	5	1	0	6	2	1	0	1	0	2	0	0	0	0	0	0	6	1	0	0	0	1	1	9	WB	0	0
One Hour Peak	%	0%	1%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%		0%	
4:30 PM - 5:30 PM	**Trucks**	0	3	2	0	5	5	0	1	1	0	2	2	0	2	1	0	3	4	2	1	1	0	4	3	14	NB	0	0
	%	0%	0%	1%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%	0%	1%	0%	1%	0%	1%	1%	1%	0%	1%	1%	1%		0%	
	Total	**324**	**702**	**168**	**16**	**1210**	**930**	**75**	**109**	**229**	**0**	**413**	**638**	**68**	**408**	**115**	**2**	**593**	**864**	**277**	**199**	**85**	**0**	**561**	**345**	**2777**	EB	0	0
	PHF	0.85	0.85	0.75	0.57	0.86	0.95	0.72	0.94	0.81	0	0.85	0.89	0.81	0.89	0.87	0.25	0.94	0.88	0.81	0.92	0.89	0	0.92	0.89	0.93		0%	
	Approach %					44%	33%					15%	23%					21%	31%					20%	12%			**0**	**0**

Project No.:115-030
Counted By:JSG
Location:East Greenbush, NY
Comments:

File Name : TM115030AM1
Site Code : 15-030-1
Start Date : 2/24/2015
Page No : 1

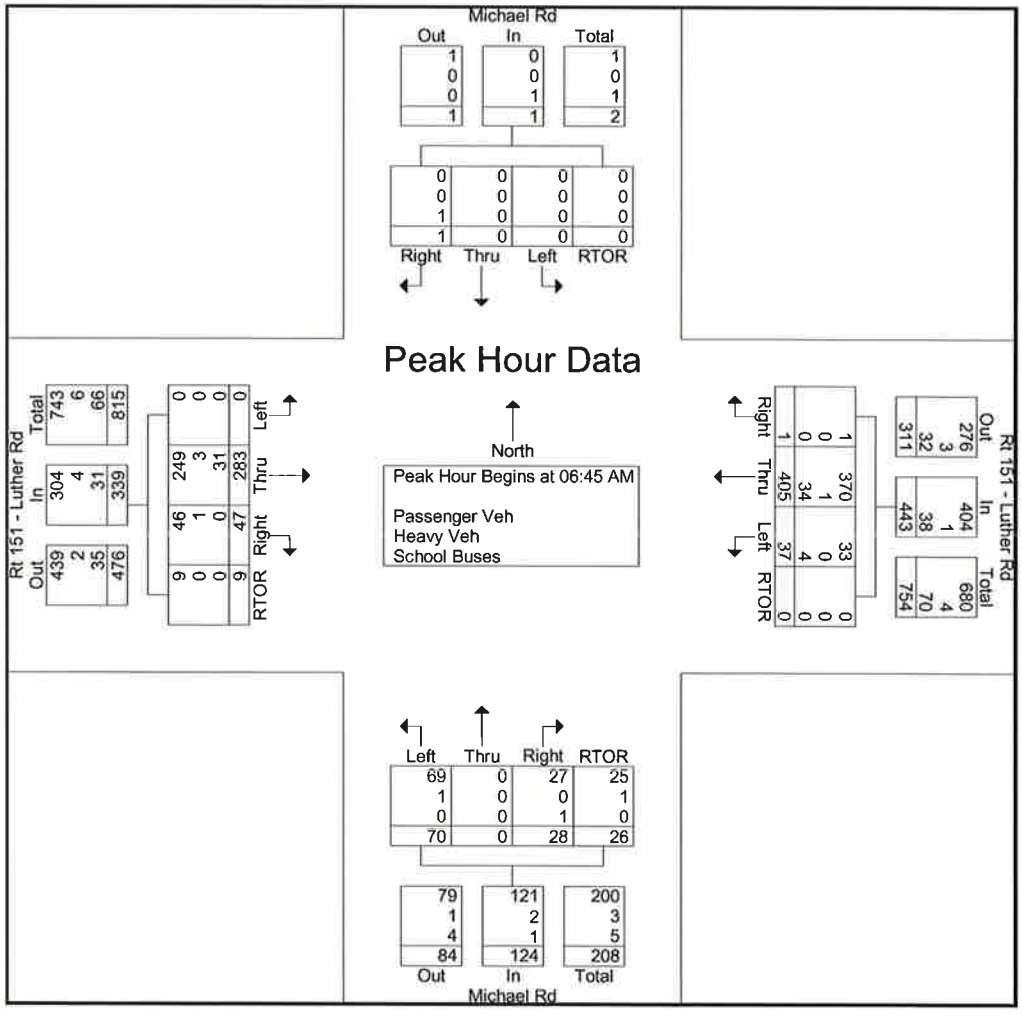
Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Rt 151 - Luther Rd Eastbound					Michael Rd Northbound					Rt 151 - Luther Rd Westbound					Michael Rd Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
06:30 AM	0	54	13	0	67	16	0	5	2	23	5	36	0	0	41	1	0	0	0	1	132
06:45 AM	0	130	18	1	149	11	0	10	13	34	5	76	1	0	82	0	0	0	0	0	265
Total	0	184	31	1	216	27	0	15	15	57	10	112	1	0	123	1	0	0	0	1	397
07:00 AM	0	87	13	1	101	17	0	16	2	35	13	145	0	0	158	0	0	0	0	0	294
07:15 AM	0	40	10	4	54	14	0	1	8	23	9	89	0	0	98	0	0	1	0	1	176
07:30 AM	0	26	6	3	35	28	0	1	3	32	10	95	0	0	105	0	0	0	0	0	172
07:45 AM	0	37	24	4	65	15	0	0	3	18	9	92	0	0	101	0	0	0	0	0	184
Total	0	190	53	12	255	74	0	18	16	108	41	421	0	0	462	0	0	1	0	1	826
08:00 AM	1	37	21	3	62	21	0	3	2	26	2	79	0	0	81	0	0	0	0	0	169
08:15 AM	0	28	32	2	62	19	0	0	2	21	12	75	0	0	87	0	0	0	0	0	170
Grand Total	1	439	137	18	595	141	0	36	35	212	65	687	1	0	753	1	0	1	0	2	1562
Apprch %	0.2	73.8	23	3		66.5	0	17	16.5		8.6	91.2	0.1	0		50	0	50	0		
Total %	0.1	28.1	8.8	1.2	38.1	9	0	2.3	2.2	13.6	4.2	44	0.1	0	48.2	0.1	0	0.1	0	0.1	
Passenger Veh	1	392	132	18	543	137	0	33	34	204	58	639	1	0	698	1	0	0	0	1	1446
% Passenger Veh	100	89.3	96.4	100	91.3	97.2	0	91.7	97.1	96.2	89.2	93	100	0	92.7	100	0	0	0	50	92.6
Heavy Veh	0	5	2	0	7	2	0	0	1	3	0	6	0	0	6	0	0	0	0	0	16
% Heavy Veh	0	1.1	1.5	0	1.2	1.4	0	0	2.9	1.4	0	0.9	0	0	0.8	0	0	0	0	0	1
School Buses	0	42	3	0	45	2	0	3	0	5	7	42	0	0	49	0	0	1	0	1	100
% School Buses	0	9.6	2.2	0	7.6	1.4	0	8.3	0	2.4	10.8	6.1	0	0	6.5	0	0	100	0	50	6.4

Project No.:115-030
Counted By:JSG
Location:East Greenbush, NY
Comments:

File Name : TM115030AM1
Site Code : 15-030-1
Start Date : 2/24/2015
Page No : 2

	Rt 151 - Luther Rd Eastbound					Michael Rd Northbound					Rt 151 - Luther Rd Westbound					Michael Rd Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 6:45:00 AM																					
6:45:00 AM	0	130	18	1	149	11	0	10	13	34	5	76	1	0	82	0	0	0	0	0	265
7:00:00 AM	0	87	13	1	101	17	0	16	2	35	13	145	0	0	158	0	0	0	0	0	294
7:15:00 AM	0	40	10	4	54	14	0	1	8	23	9	89	0	0	98	0	0	1	0	1	176
7:30:00 AM	0	26	6	3	35	28	0	1	3	32	10	95	0	0	105	0	0	0	0	0	172
Total Volume	0	283	47	9	339	70	0	28	26	124	37	405	1	0	443	0	0	1	0	1	907
% App. Total	0	83.5	13.9	2.7		56.5	0	22.6	21		8.4	91.4	0.2	0		0	0	100	0		
PHF	.000	.544	.653	.563	.569	.625	.000	.438	.500	.886	.712	.698	.250	.000	.701	.000	.000	.250	.000	.250	.771
Passenger Veh	0	249	46	9	304	69	0	27	25	121	33	370	1	0	404	0	0	0	0	0	829
% Passenger Veh	0	88.0	97.9	100	89.7	98.6	0	96.4	96.2	97.6	89.2	91.4	100	0	91.2	0	0	0	0	0	91.4
Heavy Veh	0	3	1	0	4	1	0	0	1	2	0	1	0	0	1	0	0	0	0	0	7
% Heavy Veh	0	1.1	2.1	0	1.2	1.4	0	0	3.8	1.6	0	0.2	0	0	0.2	0	0	0	0	0	0.8
School Buses	0	31	0	0	31	0	0	1	0	1	4	34	0	0	38	0	0	1	0	1	71
% School Buses	0	11.0	0	0	9.1	0	0	3.6	0	0.8	10.8	8.4	0	0	8.6	0	0	100	0	100	7.8



Project No.:115-030
Counted By:JSG
Location:East Greenbush, NY
Comments:

File Name : TM115030PM1
Site Code : 15-030-1
Start Date : 2/26/2015
Page No : 1

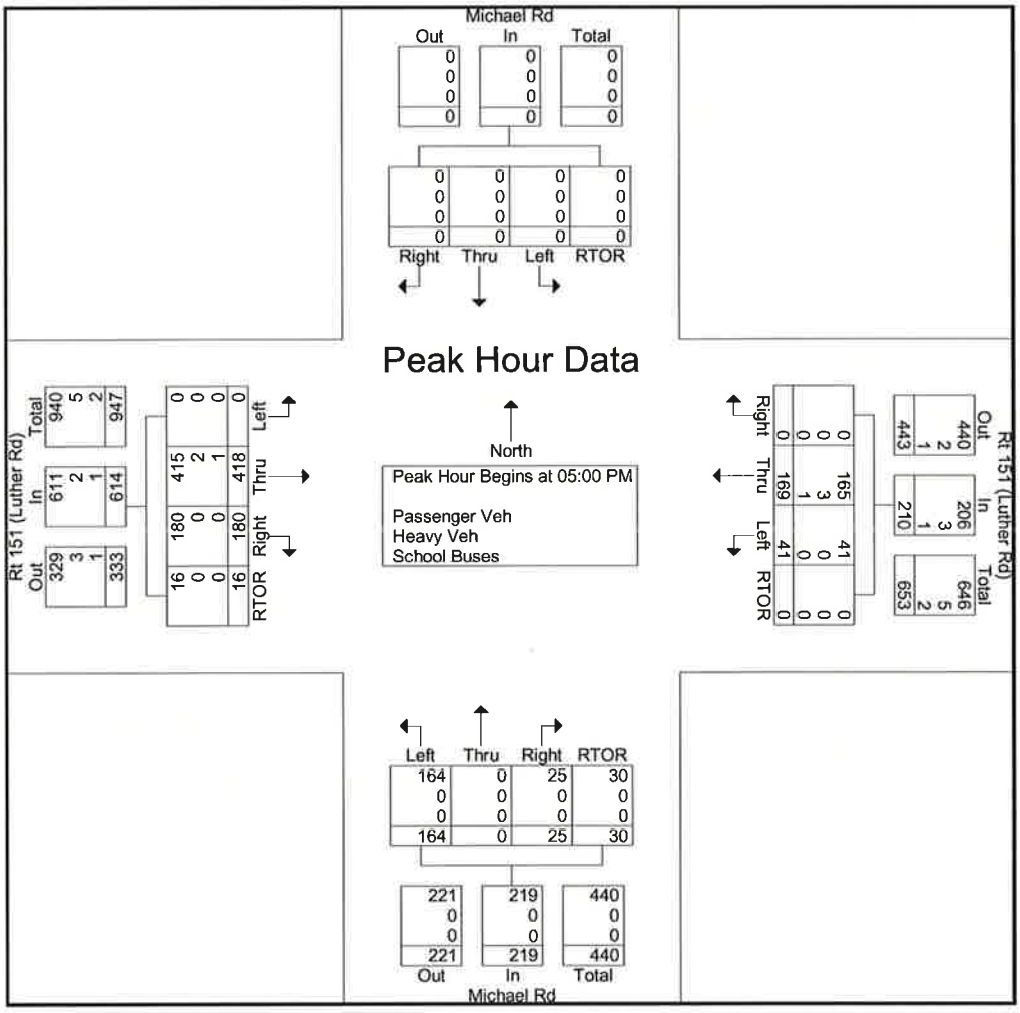
Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Rt 151 (Luther Rd) Eastbound					Michael Rd Northbound					Rt 151 (Luther Rd) Westbound					Michael Rd Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	0	59	38	3	100	49	0	7	3	59	12	36	0	0	48	0	0	0	0	0	207
04:15 PM	0	76	46	4	126	29	0	0	6	35	5	27	0	0	32	0	0	0	0	0	193
04:30 PM	0	78	35	5	118	26	0	0	7	33	7	30	0	0	37	0	0	0	0	0	188
04:45 PM	0	77	52	11	140	28	0	5	5	38	10	33	0	0	43	0	0	0	0	0	221
Total	0	290	171	23	484	132	0	12	21	165	34	126	0	0	160	0	0	0	0	0	809
05:00 PM	0	97	41	3	141	58	0	4	6	68	5	32	0	0	37	0	0	0	0	0	246
05:15 PM	0	104	56	3	163	37	0	4	5	46	5	36	0	0	41	0	0	0	0	0	250
05:30 PM	0	98	49	4	151	37	0	10	11	58	13	52	0	0	65	0	0	0	0	0	274
05:45 PM	0	119	34	6	159	32	0	7	8	47	18	49	0	0	67	0	0	0	0	0	273
Total	0	418	180	16	614	164	0	25	30	219	41	169	0	0	210	0	0	0	0	0	1043
Grand Total	0	708	351	39	1098	296	0	37	51	384	75	295	0	0	370	0	0	0	0	0	1852
Apprch %	0	64.5	32	3.6		77.1	0	9.6	13.3		20.3	79.7	0	0		0	0	0	0		
Total %	0	38.2	19	2.1	59.3	16	0	2	2.8	20.7	4	15.9	0	0	20	0	0	0	0	0	
Passenger Veh	0	704	346	39	1089	291	0	36	51	378	73	291	0	0	364	0	0	0	0	0	1831
% Passenger Veh	0	99.4	98.6	100	99.2	98.3	0	97.3	100	98.4	97.3	98.6	0	0	98.4	0	0	0	0	0	98.9
Heavy Veh	0	3	0	0	3	1	0	0	0	1	1	3	0	0	4	0	0	0	0	0	8
% Heavy Veh	0	0.4	0	0	0.3	0.3	0	0	0	0.3	1.3	1	0	0	1.1	0	0	0	0	0	0.4
School Buses	0	1	5	0	6	4	0	1	0	5	1	1	0	0	2	0	0	0	0	0	13
% School Buses	0	0.1	1.4	0	0.5	1.4	0	2.7	0	1.3	1.3	0.3	0	0	0.5	0	0	0	0	0	0.7

Project No.:115-030
Counted By:JSG
Location:East Greenbush, NY
Comments:

File Name : TM115030PM1
Site Code : 15-030-1
Start Date : 2/26/2015
Page No : 2

	Rt 151 (Luther Rd) Eastbound					Michael Rd Northbound					Rt 151 (Luther Rd) Westbound					Michael Rd Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 5:00:00 PM																					
5:00:00 PM	0	97	41	3	141	58	0	4	6	68	5	32	0	0	37	0	0	0	0	0	246
5:15:00 PM	0	104	56	3	163	37	0	4	5	46	5	36	0	0	41	0	0	0	0	0	250
5:30:00 PM	0	98	49	4	151	37	0	10	11	58	13	52	0	0	65	0	0	0	0	0	274
5:45:00 PM	0	119	34	6	159	32	0	7	8	47	18	49	0	0	67	0	0	0	0	0	273
Total Volume	0	418	180	16	614	164	0	25	30	219	41	169	0	0	210	0	0	0	0	0	1043
% App. Total	0	68.1	29.3	2.6		74.9	0	11.4	13.7		19.5	80.5	0	0		0	0	0	0		
PHF	.000	.878	.804	.667	.942	.707	.000	.625	.682	.805	.569	.813	.000	.000	.784	.000	.000	.000	.000	.000	.952
Passenger Veh	0	415	180	16	611	164	0	25	30	219	41	165	0	0	206	0	0	0	0	0	1036
% Passenger Veh	0	99.3	100	100	99.5	100	0	100	100	100	100	97.6	0	0	98.1	0	0	0	0	0	99.3
Heavy Veh	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
% Heavy Veh	0	0.5	0	0	0.3	0	0	0	0	0	0	1.8	0	0	1.4	0	0	0	0	0	0.5
School Buses	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
% School Buses	0	0.2	0	0	0.2	0	0	0	0	0	0	0.6	0	0	0.5	0	0	0	0	0	0.2



Project No.:115-030
Counted By:DMQ
Location:East Greenbush, NY
Comments:

File Name : TM115030AM2
Site Code : 15-030-2
Start Date : 2/24/2015
Page No : 1

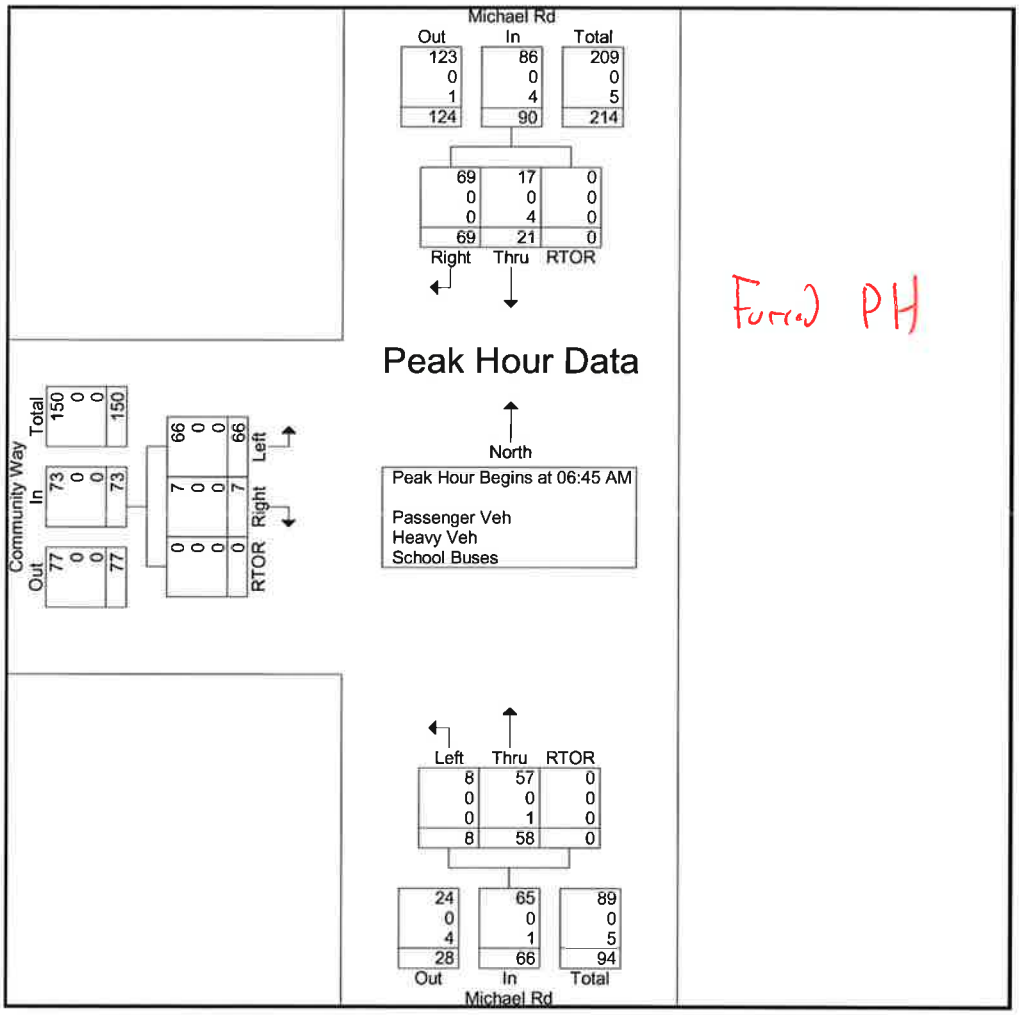
Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Community Way Eastbound				Michael Rd Northbound				Michael Rd Southbound				
Start Time	Left	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
06:30 AM	13	0	0	13	1	10	0	11	1	17	0	18	42
06:45 AM	11	2	0	13	5	24	0	29	5	19	0	24	66
Total	24	2	0	26	6	34	0	40	6	36	0	42	108
07:00 AM	19	3	0	22	1	16	0	17	9	17	0	26	65
07:15 AM	17	1	0	18	0	7	0	7	5	18	0	23	48
07:30 AM	19	1	0	20	2	11	0	13	2	15	0	17	50
07:45 AM	11	1	0	12	4	8	0	12	1	36	0	37	61
Total	66	6	0	72	7	42	0	49	17	86	0	103	224
08:00 AM	16	0	0	16	5	10	0	15	2	27	0	29	60
08:15 AM	14	1	0	15	5	7	0	12	3	44	0	47	74
Grand Total	120	9	0	129	23	93	0	116	28	193	0	221	466
Apprch %	93	7	0		19.8	80.2	0		12.7	87.3	0		
Total %	25.8	1.9	0	27.7	4.9	20	0	24.9	6	41.4	0	47.4	
Passenger Veh	118	9	0	127	23	90	0	113	22	189	0	211	451
% Passenger Veh	98.3	100	0	98.4	100	96.8	0	97.4	78.6	97.9	0	95.5	96.8
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	2	0	0	2	0	3	0	3	6	4	0	10	15
% School Buses	1.7	0	0	1.6	0	3.2	0	2.6	21.4	2.1	0	4.5	3.2

Project No.:115-030
Counted By:DMQ
Location:East Greenbush, NY
Comments:

File Name : TM115030AM2
Site Code : 15-030-2
Start Date : 2/24/2015
Page No : 2

	Community Way Eastbound				Michael Rd Northbound				Michael Rd Southbound				
Start Time	Left	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 6:45:00 AM to 7:30:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 6:45:00 AM													
6:45:00 AM	11	2	0	13	5	24	0	29	5	19	0	24	66
7:00:00 AM	19	3	0	22	1	16	0	17	9	17	0	26	65
7:15:00 AM	17	1	0	18	0	7	0	7	5	18	0	23	48
7:30:00 AM	19	1	0	20	2	11	0	13	2	15	0	17	50
Total Volume	66	7	0	73	8	58	0	66	21	69	0	90	229
% App. Total	90.4	9.6	0		12.1	87.9	0		23.3	76.7	0		
PHF	.868	.583	.000	.830	.400	.604	.000	.569	.583	.908	.000	.865	.867
Passenger Veh	66	7	0	73	8	57	0	65	17	69	0	86	224
% Passenger Veh	100	100	0	100	100	98.3	0	98.5	81.0	100	0	95.6	97.8
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	0	0	0	0	0	1	0	1	4	0	0	4	5
% School Buses	0	0	0	0	0	1.7	0	1.5	19.0	0	0	4.4	2.2



Found PH

Project No.:115-030
Counted By:DMQ
Location:East Greenbush, NY
Comments:

File Name : TM115030AM2
Site Code : 15-030-2
Start Date : 2/24/2015
Page No : 1

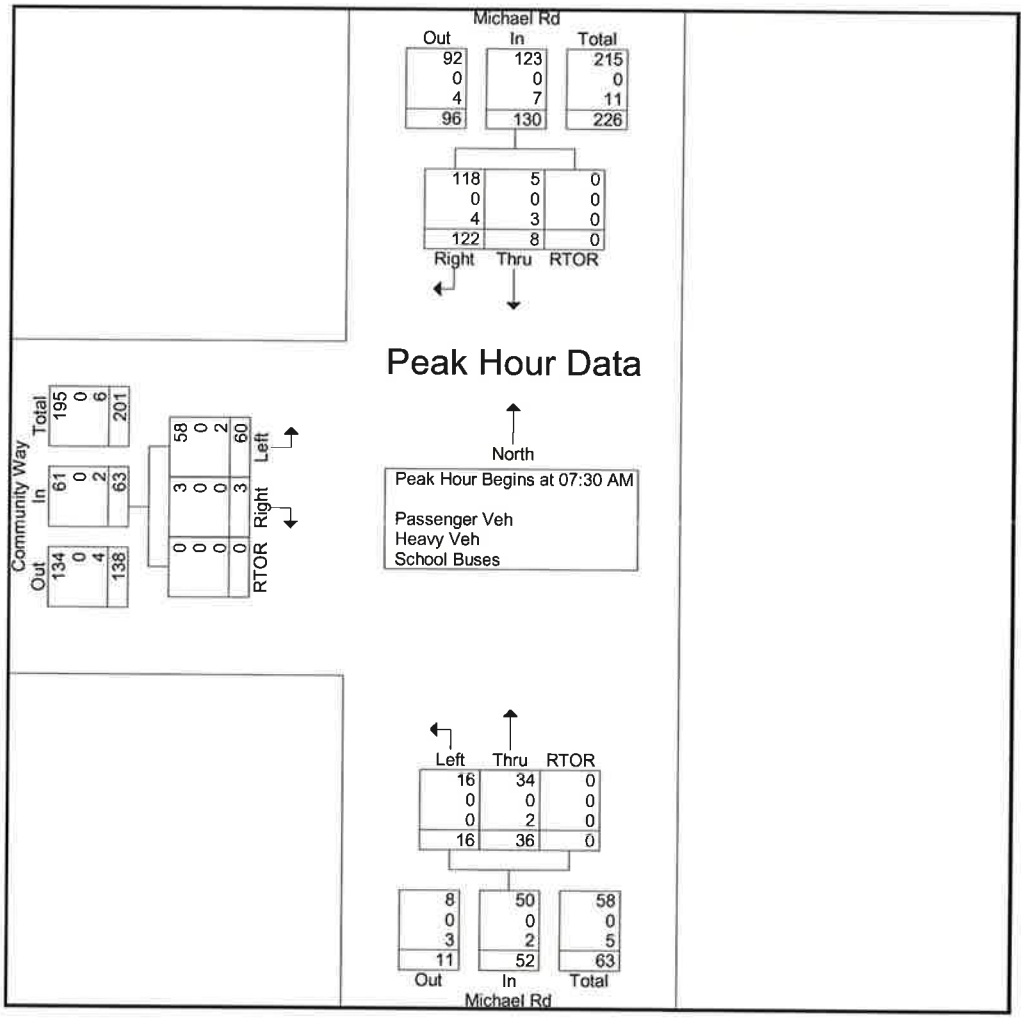
Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Community Way Eastbound				Michael Rd Northbound				Michael Rd Southbound				
Start Time	Left	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
06:30 AM	13	0	0	13	1	10	0	11	1	17	0	18	42
06:45 AM	11	2	0	13	5	24	0	29	5	19	0	24	66
Total	24	2	0	26	6	34	0	40	6	36	0	42	108
07:00 AM	19	3	0	22	1	16	0	17	9	17	0	26	65
07:15 AM	17	1	0	18	0	7	0	7	5	18	0	23	48
07:30 AM	19	1	0	20	2	11	0	13	2	15	0	17	50
07:45 AM	11	1	0	12	4	8	0	12	1	36	0	37	61
Total	66	6	0	72	7	42	0	49	17	86	0	103	224
08:00 AM	16	0	0	16	5	10	0	15	2	27	0	29	60
08:15 AM	14	1	0	15	5	7	0	12	3	44	0	47	74
Grand Total	120	9	0	129	23	93	0	116	28	193	0	221	466
Apprch %	93	7	0		19.8	80.2	0		12.7	87.3	0		
Total %	25.8	1.9	0	27.7	4.9	20	0	24.9	6	41.4	0	47.4	
Passenger Veh	118	9	0	127	23	90	0	113	22	189	0	211	451
% Passenger Veh	98.3	100	0	98.4	100	96.8	0	97.4	78.6	97.9	0	95.5	96.8
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	2	0	0	2	0	3	0	3	6	4	0	10	15
% School Buses	1.7	0	0	1.6	0	3.2	0	2.6	21.4	2.1	0	4.5	3.2

Project No.:115-030
Counted By:DMQ
Location:East Greenbush, NY
Comments:

File Name : TM115030AM2
Site Code : 15-030-2
Start Date : 2/24/2015
Page No : 2

	Community Way Eastbound				Michael Rd Northbound				Michael Rd Southbound				
Start Time	Left	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:30:00 AM													
7:30:00 AM	19	1	0	20	2	11	0	13	2	15	0	17	50
7:45:00 AM	11	1	0	12	4	8	0	12	1	36	0	37	61
8:00:00 AM	16	0	0	16	5	10	0	15	2	27	0	29	60
8:15:00 AM	14	1	0	15	5	7	0	12	3	44	0	47	74
Total Volume	60	3	0	63	16	36	0	52	8	122	0	130	245
% App. Total	95.2	4.8	0		30.8	69.2	0		6.2	93.8	0		
PHF	.789	.750	.000	.788	.800	.818	.000	.867	.667	.693	.000	.691	.828
Passenger Veh	58	3	0	61	16	34	0	50	5	118	0	123	234
% Passenger Veh	96.7	100	0	96.8	100	94.4	0	96.2	62.5	96.7	0	94.6	95.5
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	2	0	0	2	0	2	0	2	3	4	0	7	11
% School Buses	3.3	0	0	3.2	0	5.6	0	3.8	37.5	3.3	0	5.4	4.5



Project No.:115-030
Counted By:DMQ
Location:East Greenbush, NY
Comments:

File Name : TM115030PM2
Site Code : 15-030-2
Start Date : 2/26/2015
Page No : 1

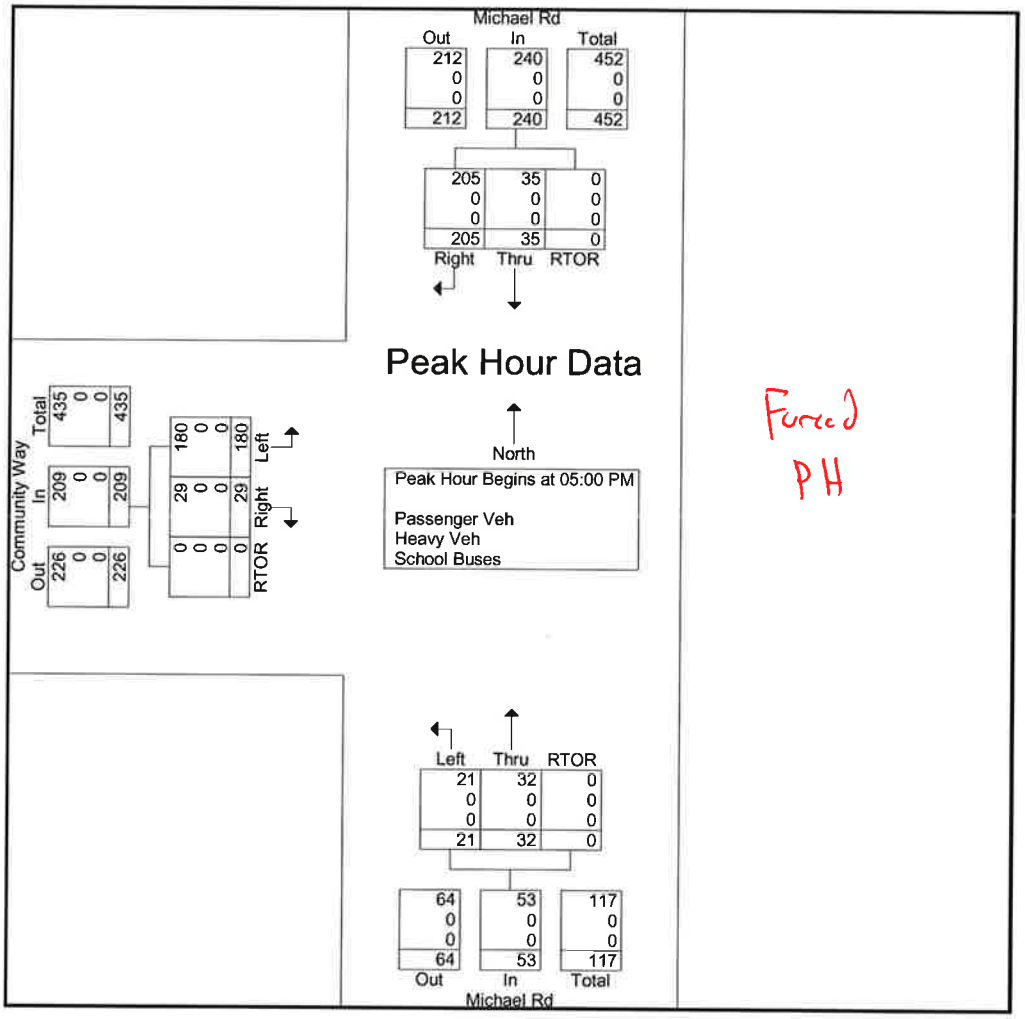
Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Community Way Eastbound				Michael Rd Northbound				Michael Rd Southbound				
Start Time	Left	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
04:00 PM	51	9	0	60	5	6	0	11	7	43	0	50	121
04:15 PM	33	9	0	42	5	4	0	9	10	48	0	58	109
04:30 PM	27	3	0	30	7	6	0	13	2	42	0	44	87
04:45 PM	31	10	0	41	5	5	0	10	7	64	0	71	122
Total	142	31	0	173	22	21	0	43	26	197	0	223	439
05:00 PM	52	7	0	59	2	8	0	10	6	46	0	52	121
05:15 PM	44	5	0	49	5	5	0	10	6	55	0	61	120
05:30 PM	48	7	0	55	6	9	0	15	13	57	0	70	140
05:45 PM	36	10	0	46	8	10	0	18	10	47	0	57	121
Total	180	29	0	209	21	32	0	53	35	205	0	240	502
Grand Total	322	60	0	382	43	53	0	96	61	402	0	463	941
Apprch %	84.3	15.7	0		44.8	55.2	0		13.2	86.8	0		
Total %	34.2	6.4	0	40.6	4.6	5.6	0	10.2	6.5	42.7	0	49.2	
Passenger Veh	315	60	0	375	42	53	0	95	61	395	0	456	926
% Passenger Veh	97.8	100	0	98.2	97.7	100	0	99	100	98.3	0	98.5	98.4
Heavy Veh	1	0	0	1	0	0	0	0	0	1	0	1	2
% Heavy Veh	0.3	0	0	0.3	0	0	0	0	0	0.2	0	0.2	0.2
School Buses	6	0	0	6	1	0	0	1	0	6	0	6	13
% School Buses	1.9	0	0	1.6	2.3	0	0	1	0	1.5	0	1.3	1.4

Project No.:115-030
Counted By:DMQ
Location:East Greenbush, NY
Comments:

File Name : TM115030PM2
Site Code : 15-030-2
Start Date : 2/26/2015
Page No : 2

	Community Way Eastbound				Michael Rd Northbound				Michael Rd Southbound				
Start Time	Left	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 5:00:00 PM to 5:45:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 5:00:00 PM													
5:00:00 PM	52	7	0	59	2	8	0	10	6	46	0	52	121
5:15:00 PM	44	5	0	49	5	5	0	10	6	55	0	61	120
5:30:00 PM	48	7	0	55	6	9	0	15	13	57	0	70	140
5:45:00 PM	36	10	0	46	8	10	0	18	10	47	0	57	121
Total Volume	180	29	0	209	21	32	0	53	35	205	0	240	502
% App. Total	86.1	13.9	0		39.6	60.4	0		14.6	85.4	0		
PHF	.865	.725	.000	.886	.656	.800	.000	.736	.673	.899	.000	.857	.896
Passenger Veh	180	29	0	209	21	32	0	53	35	205	0	240	502
% Passenger Veh	100	100	0	100	100	100	0	100	100	100	0	100	100
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% School Buses	0	0	0	0	0	0	0	0	0	0	0	0	0



Forced PH

Project No.:115-030
Counted By:DMQ
Location:East Greenbush, NY
Comments:

File Name : TM115030PM2
Site Code : 15-030-2
Start Date : 2/26/2015
Page No : 1

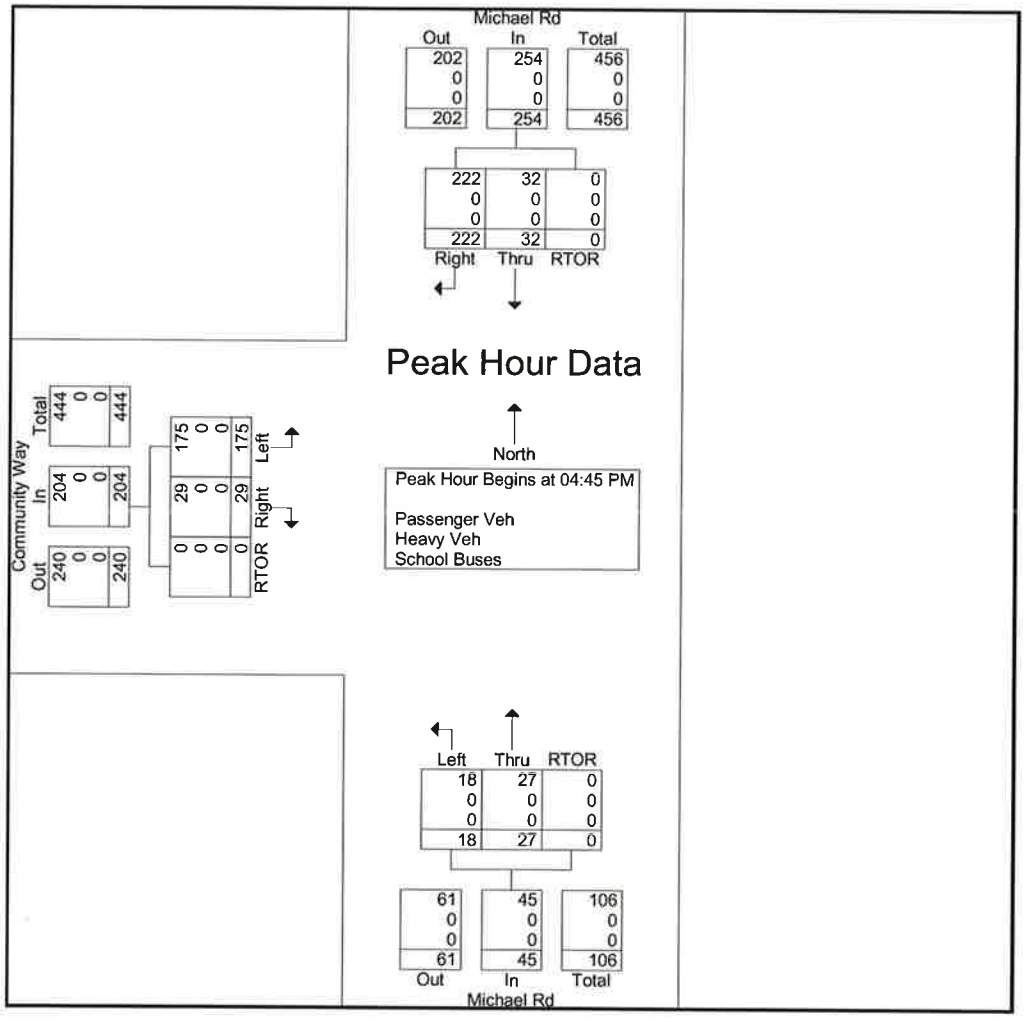
Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Community Way Eastbound				Michael Rd Northbound				Michael Rd Southbound				
Start Time	Left	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
04:00 PM	51	9	0	60	5	6	0	11	7	43	0	50	121
04:15 PM	33	9	0	42	5	4	0	9	10	48	0	58	109
04:30 PM	27	3	0	30	7	6	0	13	2	42	0	44	87
04:45 PM	31	10	0	41	5	5	0	10	7	64	0	71	122
Total	142	31	0	173	22	21	0	43	26	197	0	223	439
05:00 PM	52	7	0	59	2	8	0	10	6	46	0	52	121
05:15 PM	44	5	0	49	5	5	0	10	6	55	0	61	120
05:30 PM	48	7	0	55	6	9	0	15	13	57	0	70	140
05:45 PM	36	10	0	46	8	10	0	18	10	47	0	57	121
Total	180	29	0	209	21	32	0	53	35	205	0	240	502
Grand Total	322	60	0	382	43	53	0	96	61	402	0	463	941
Apprch %	84.3	15.7	0		44.8	55.2	0		13.2	86.8	0		
Total %	34.2	6.4	0	40.6	4.6	5.6	0	10.2	6.5	42.7	0	49.2	
Passenger Veh	315	60	0	375	42	53	0	95	61	395	0	456	926
% Passenger Veh	97.8	100	0	98.2	97.7	100	0	99	100	98.3	0	98.5	98.4
Heavy Veh	1	0	0	1	0	0	0	0	0	1	0	1	2
% Heavy Veh	0.3	0	0	0.3	0	0	0	0	0	0.2	0	0.2	0.2
School Buses	6	0	0	6	1	0	0	1	0	6	0	6	13
% School Buses	1.9	0	0	1.6	2.3	0	0	1	0	1.5	0	1.3	1.4

Project No.:115-030
Counted By:DMQ
Location:East Greenbush, NY
Comments:

File Name : TM115030PM2
Site Code : 15-030-2
Start Date : 2/26/2015
Page No : 2

	Community Way Eastbound				Michael Rd Northbound				Michael Rd Southbound				
Start Time	Left	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 4:45:00 PM													
4:45:00 PM	31	10	0	41	5	5	0	10	7	64	0	71	122
5:00:00 PM	52	7	0	59	2	8	0	10	6	46	0	52	121
5:15:00 PM	44	5	0	49	5	5	0	10	6	55	0	61	120
5:30:00 PM	48	7	0	55	6	9	0	15	13	57	0	70	140
Total Volume	175	29	0	204	18	27	0	45	32	222	0	254	503
% App. Total	85.8	14.2	0		40	60	0		12.6	87.4	0		
PHF	.841	.725	.000	.864	.750	.750	.000	.750	.615	.867	.000	.894	.898
Passenger Veh	175	29	0	204	18	27	0	45	32	222	0	254	503
% Passenger Veh	100	100	0	100	100	100	0	100	100	100	0	100	100
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% School Buses	0	0	0	0	0	0	0	0	0	0	0	0	0



Project No.:115-030
Counted By:JSG
Location:East Greenbush, NY
Comments:

File Name : TM115030AM3
Site Code : 15-030-3
Start Date : 2/26/2015
Page No : 1

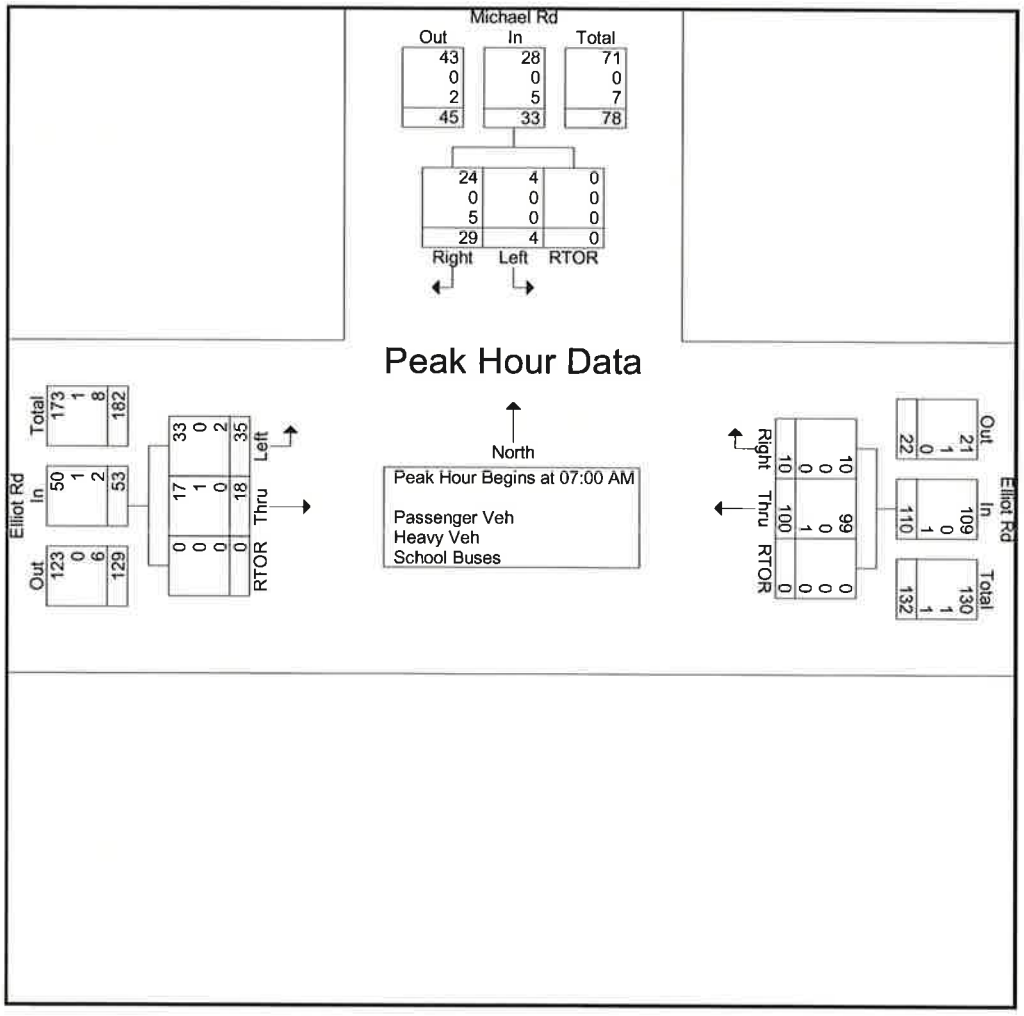
Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Elliot Rd Eastbound				Elliot Rd Westbound				Michael Rd Southbound				
Start Time	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Right	RTOR	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
06:30 AM	7	2	0	9	5	2	0	7	1	2	0	3	19
06:45 AM	21	5	0	26	9	4	0	13	1	4	0	5	44
Total	28	7	0	35	14	6	0	20	2	6	0	8	63
07:00 AM	14	7	0	21	21	2	0	23	0	7	0	7	51
07:15 AM	4	0	0	4	26	2	0	28	4	6	0	10	42
07:30 AM	6	2	0	8	34	1	0	35	0	7	0	7	50
07:45 AM	11	9	0	20	19	5	0	24	0	9	0	9	53
Total	35	18	0	53	100	10	0	110	4	29	0	33	196
08:00 AM	4	3	0	7	22	3	0	25	0	1	0	1	33
08:15 AM	8	3	0	11	23	0	0	23	1	1	0	2	36
Grand Total	75	31	0	106	159	19	0	178	7	37	0	44	328
Apprch %	70.8	29.2	0		89.3	10.7	0		15.9	84.1	0		
Total %	22.9	9.5	0	32.3	48.5	5.8	0	54.3	2.1	11.3	0	13.4	
Passenger Veh	72	28	0	100	154	19	0	173	7	32	0	39	312
% Passenger Veh	96	90.3	0	94.3	96.9	100	0	97.2	100	86.5	0	88.6	95.1
Heavy Veh	0	2	0	2	2	0	0	2	0	0	0	0	4
% Heavy Veh	0	6.5	0	1.9	1.3	0	0	1.1	0	0	0	0	1.2
School Buses	3	1	0	4	3	0	0	3	0	5	0	5	12
% School Buses	4	3.2	0	3.8	1.9	0	0	1.7	0	13.5	0	11.4	3.7

Project No.:115-030
Counted By:JSG
Location:East Greenbush, NY
Comments:

File Name : TM115030AM3
Site Code : 15-030-3
Start Date : 2/26/2015
Page No : 2

	Elliot Rd Eastbound				Elliot Rd Westbound				Michael Rd Southbound				
Start Time	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 7:00:00 AM													
7:00:00 AM	14	7	0	21	21	2	0	23	0	7	0	7	51
7:15:00 AM	4	0	0	4	26	2	0	28	4	6	0	10	42
7:30:00 AM	6	2	0	8	34	1	0	35	0	7	0	7	50
7:45:00 AM	11	9	0	20	19	5	0	24	0	9	0	9	53
Total Volume	35	18	0	53	100	10	0	110	4	29	0	33	196
% App. Total	66	34	0		90.9	9.1	0		12.1	87.9	0		
PHF	.625	.500	.000	.631	.735	.500	.000	.786	.250	.806	.000	.825	.925
Passenger Veh	33	17	0	50	99	10	0	109	4	24	0	28	187
% Passenger Veh	94.3	94.4	0	94.3	99.0	100	0	99.1	100	82.8	0	84.8	95.4
Heavy Veh	0	1	0	1	0	0	0	0	0	0	0	0	1
% Heavy Veh	0	5.6	0	1.9	0	0	0	0	0	0	0	0	0.5
School Buses	2	0	0	2	1	0	0	1	0	5	0	5	8
% School Buses	5.7	0	0	3.8	1.0	0	0	0.9	0	17.2	0	15.2	4.1



Project No.:115-030
Counted By:DMQ
Location:East Greenbush, NY
Comments:

File Name : TM115030PM3
Site Code : 15-030-3
Start Date : 2/25/2015
Page No : 1

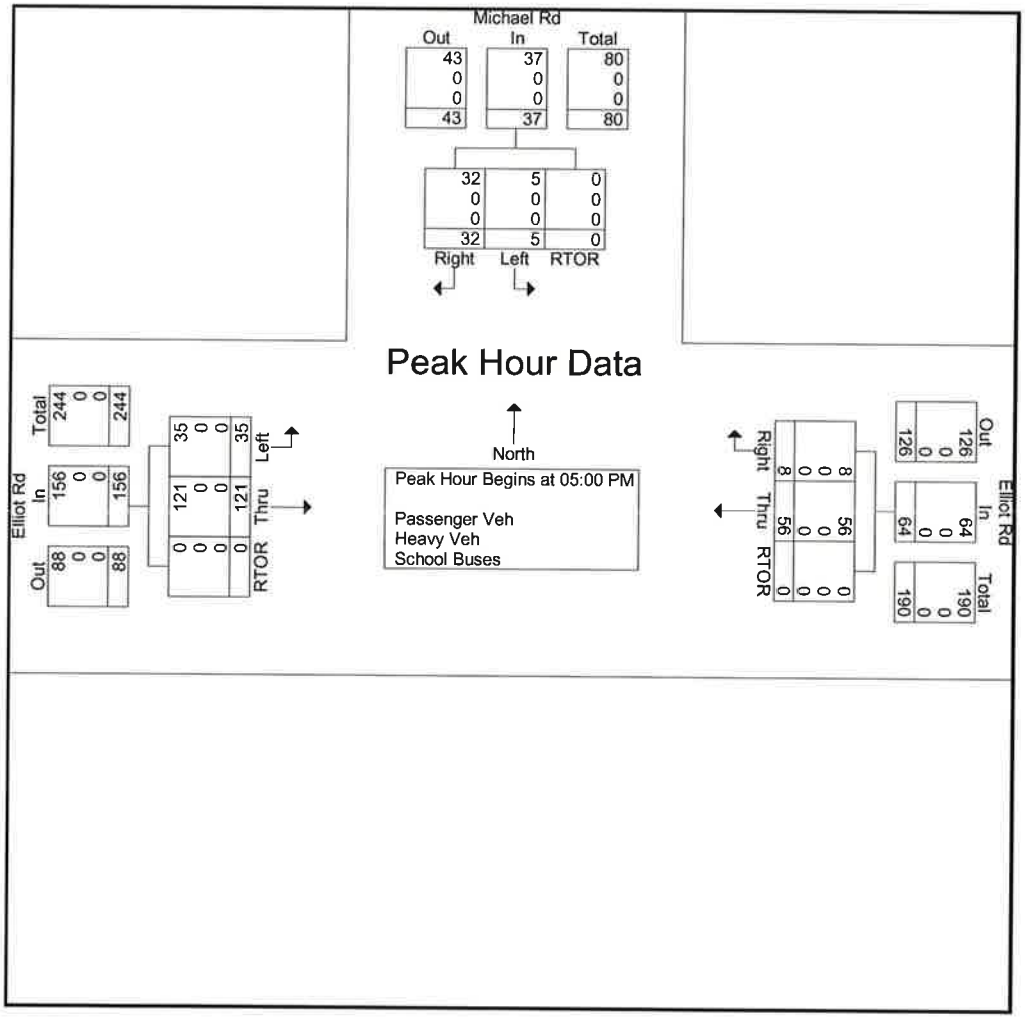
Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Elliot Rd Eastbound				Elliot Rd Westbound				Michael Rd Southbound				
Start Time	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Right	RTOR	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
04:00 PM	3	26	0	29	8	1	0	9	3	10	0	13	51
04:15 PM	4	25	0	29	8	2	0	10	2	10	0	12	51
04:30 PM	4	29	0	33	9	1	0	10	3	5	0	8	51
04:45 PM	8	18	0	26	13	2	0	15	3	6	0	9	50
Total	19	98	0	117	38	6	0	44	11	31	0	42	203
05:00 PM	8	36	0	44	12	0	0	12	2	6	0	8	64
05:15 PM	9	30	0	39	12	1	0	13	0	8	0	8	60
05:30 PM	8	29	0	37	16	2	0	18	1	7	0	8	63
05:45 PM	10	26	0	36	16	5	0	21	2	11	0	13	70
Total	35	121	0	156	56	8	0	64	5	32	0	37	257
Grand Total	54	219	0	273	94	14	0	108	16	63	0	79	460
Apprch %	19.8	80.2	0		87	13	0		20.3	79.7	0		
Total %	11.7	47.6	0	59.3	20.4	3	0	23.5	3.5	13.7	0	17.2	
Passenger Veh	54	218	0	272	94	14	0	108	15	62	0	77	457
% Passenger Veh	100	99.5	0	99.6	100	100	0	100	93.8	98.4	0	97.5	99.3
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	0	1	0	1	0	0	0	0	1	1	0	2	3
% School Buses	0	0.5	0	0.4	0	0	0	0	6.2	1.6	0	2.5	0.7

Project No.:115-030
Counted By:DMQ
Location:East Greenbush, NY
Comments:

File Name : TM115030PM3
Site Code : 15-030-3
Start Date : 2/25/2015
Page No : 2

	Elliot Rd Eastbound				Elliot Rd Westbound				Michael Rd Southbound				
Start Time	Left	Thru	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 5:00:00 PM													
5:00:00 PM	8	36	0	44	12	0	0	12	2	6	0	8	64
5:15:00 PM	9	30	0	39	12	1	0	13	0	8	0	8	60
5:30:00 PM	8	29	0	37	16	2	0	18	1	7	0	8	63
5:45:00 PM	10	26	0	36	16	5	0	21	2	11	0	13	70
Total Volume	35	121	0	156	56	8	0	64	5	32	0	37	257
% App. Total	22.4	77.6	0		87.5	12.5	0		13.5	86.5	0		
PHF	.875	.840	.000	.886	.875	.400	.000	.762	.625	.727	.000	.712	.918
Passenger Veh	35	121	0	156	56	8	0	64	5	32	0	37	257
% Passenger Veh	100	100	0	100	100	100	0	100	100	100	0	100	100
Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Veh	0	0	0	0	0	0	0	0	0	0	0	0	0
School Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% School Buses	0	0	0	0	0	0	0	0	0	0	0	0	0



Attachment C
Level of Service Calculations

Covered Bridge Village
Town of East Greenbush, New York

LOS Definitions

The following is an excerpt from the 2010 Highway Capacity Manual (HCM).

Level of Service for Signalized Intersections

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay *and* volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a surrogate measure of driver discomfort and fuel consumption. The v/c ratio quantifies the degree to which a phase's capacity is utilized by a lane group. The following paragraphs describe each LOS.

LOS A describes operations with a control delay of 10 s/veh or less and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. 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 at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D describes operations with control delay between 35 and 55 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E describes operations with control delay between 55 and 80 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F describes operations with control delay exceeding 80 s/veh or a v/c ratio greater than 1.0. This level is typically assigned when the v/c ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

A lane group can incur a delay less than 80 s/veh when the v/c ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and v/c ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

Average control delay and queue length at roundabout controlled intersections are calculated using SIDRA Intersection. The physical geometry such as entry lane width and approach flare, and traffic volume at the roundabout are factors that influence the intersection's performance. The average delay reported using SIDRA Intersection is based on the signalized HCM Method of Delay for Level-of-Service.

Level of Service Criteria for Unsignalized Intersections

Level of service (LOS) for Two-Way Stop-Controlled (TWSC) intersections is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns by using criteria given in Exhibit 19-1. LOS is not defined for the intersection as a whole or for major-street approaches for three primary reasons: (a) major-street through vehicles are assumed to experience zero delay; (b) the disproportionate number of major-street through vehicles at a typical TWSC intersection skews the weighted average of all movements, resulting in a very low overall average delay for all vehicles; and (c) the resulting low delay can mask important LOS deficiencies for minor movements. LOS F is assigned to the movement if the volume-to-capacity (v/c) ratio for the movement exceeds 1.0, regardless of the control delay.

The LOS criteria for TWSC intersections are somewhat different from the criteria used in Chapter 18 for signalized intersections, primarily because user perceptions differ among transportation facility types. The expectation is that a signalized intersection is designed to carry higher traffic volumes and will present greater delay than an unsignalized intersection. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable than they are at signals, which can reduce users' delay tolerance.

The LOS criteria for All-Way Stop-Controlled (AWSC) intersections are given in Exhibit 20-2. LOS F is assigned if the v/c ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

Exhibits 19-1/20-2:
Level-of-Service Criteria for Stop Controlled Intersections

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	v/c ≤ 1.0	**v/c ≥ 1.0**
10.0	A	F
>10.0 and ≤ 15.0	B	F
>15.0 and ≤ 25.0	C	F
>25.0 and ≤ 35.0	D	F
>35.0 and ≤ 50.0	E	F
>50.0	F	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	283	56	37	405	1	70	1	54	1	1	1
Future Volume (veh/h)	1	283	56	37	405	1	70	1	54	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1767	1767	1767	1885	1885	1841	1900	1900	1900
Adj Flow Rate, veh/h	1	368	73	48	526	1	91	1	70	1	1	1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	10	10	10	9	9	9	1	1	4	0	0	0
Cap, veh/h	156	648	128	201	741	1	485	2	176	241	62	48
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1	1419	281	72	1622	3	1568	17	1560	305	546	425
Grp Volume(v), veh/h	442	0	0	575	0	0	92	0	70	3	0	0
Grp Sat Flow(s),veh/h/ln	1700	0	0	1696	0	0	1586	0	1560	1276	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.4	0.0	0.0	6.2	0.0	0.0	1.1	0.0	1.0	1.1	0.0	0.0
Prop In Lane	0.00		0.17	0.08		0.00	0.99		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	932	0	0	943	0	0	487	0	176	351	0	0
V/C Ratio(X)	0.47	0.00	0.00	0.61	0.00	0.00	0.19	0.00	0.40	0.01	0.00	0.00
Avail Cap(c_a), veh/h	3810	0	0	3713	0	0	2173	0	2015	2224	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.6	0.0	0.0	5.1	0.0	0.0	9.6	0.0	9.6	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.6	0.0	0.0	0.2	0.0	1.5	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.0	0.0	0.0	5.7	0.0	0.0	9.8	0.0	11.0	9.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	B	A	A	A
Approach Vol, veh/h		442			575			162			3	
Approach Delay, s/veh		5.0			5.7			10.3			9.2	
Approach LOS		A			A			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		7.6		15.6		7.6		15.6				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		50.0		30.0		50.0				
Max Q Clear Time (g_c+I1), s		3.1		6.4		3.1		8.2				
Green Ext Time (p_c), s		0.5		1.7		0.0		2.4				
Intersection Summary												
HCM 6th Ctrl Delay			6.1									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	66	7	8	58	22	71
Future Vol, veh/h	66	7	8	58	22	71
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	2	19	0
Mvmt Flow	76	8	9	67	25	82

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	151	66	107	0	-	0
Stage 1	66	-	-	-	-	-
Stage 2	85	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	846	1003	1497	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	841	1003	1497	-	-	-
Mov Cap-2 Maneuver	841	-	-	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	943	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1497	-	854	-	-
HCM Lane V/C Ratio	0.006	-	0.098	-	-
HCM Control Delay (s)	7.4	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	18	100	10	4	29
Future Vol, veh/h	35	18	100	10	4	29
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	93	93	93	93	93	93
Heavy Vehicles, %	6	6	1	0	0	17
Mvmt Flow	38	19	108	11	4	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	119	0	-	0	209	114
Stage 1	-	-	-	-	114	-
Stage 2	-	-	-	-	95	-
Critical Hdwy	4.16	-	-	-	6.4	6.37
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.453
Pot Cap-1 Maneuver	1444	-	-	-	784	900
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	934	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1444	-	-	-	763	900
Mov Cap-2 Maneuver	-	-	-	-	763	-
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	934	-

Approach	EB	WB	SB
HCM Control Delay, s	5	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1444	-	-	-	881
HCM Lane V/C Ratio	0.026	-	-	-	0.04
HCM Control Delay (s)	7.6	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	300	65	39	448	4	91	1	57	5	1	22
Future Volume (veh/h)	10	300	65	39	448	4	91	1	57	5	1	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1767	1767	1767	1885	1885	1841	1900	1900	1900
Adj Flow Rate, veh/h	13	390	84	51	582	5	118	1	74	6	1	29
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	10	10	10	9	9	9	1	1	4	0	0	0
Cap, veh/h	149	666	140	182	779	6	483	2	207	180	16	145
Arrive On Green	0.48	0.48	0.48	0.48	0.48	0.48	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	15	1376	290	69	1611	13	1568	13	1560	140	123	1092
Grp Volume(v), veh/h	487	0	0	638	0	0	119	0	74	36	0	0
Grp Sat Flow(s),veh/h/ln	1681	0	0	1693	0	0	1581	0	1560	1356	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.4	0.0	0.0	7.9	0.0	0.0	1.6	0.0	1.1	1.6	0.0	0.0
Prop In Lane	0.03		0.17	0.08		0.01	0.99		1.00	0.17		0.81
Lane Grp Cap(c), veh/h	955	0	0	968	0	0	485	0	207	341	0	0
V/C Ratio(X)	0.51	0.00	0.00	0.66	0.00	0.00	0.25	0.00	0.36	0.11	0.00	0.00
Avail Cap(c_a), veh/h	3315	0	0	3305	0	0	1903	0	1795	1935	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.9	0.0	0.0	5.5	0.0	0.0	10.5	0.0	10.3	10.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.8	0.0	0.0	0.3	0.0	1.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.4	0.0	0.0	0.5	0.0	0.3	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.3	0.0	0.0	6.2	0.0	0.0	10.8	0.0	11.3	10.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		487			638			193			36	
Approach Delay, s/veh		5.3			6.2			11.0			10.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		8.5		17.6		8.5		17.6				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		50.0		30.0		50.0				
Max Q Clear Time (g_c+I1), s		3.6		7.4		3.6		9.9				
Green Ext Time (p_c), s		0.7		1.9		0.1		2.8				
Intersection Summary												
HCM 6th Ctrl Delay			6.7									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	69	7	8	79	30	75
Future Vol, veh/h	69	7	8	79	30	75
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	2	19	0
Mvmt Flow	79	8	9	91	34	86

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	186	77	120	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	109	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	808	990	1480	-	-	-
Stage 1	951	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	803	990	1480	-	-	-
Mov Cap-2 Maneuver	803	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	921	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1480	-	817	-	-
HCM Lane V/C Ratio	0.006	-	0.107	-	-
HCM Control Delay (s)	7.4	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	22	115	28	10	31
Future Vol, veh/h	38	22	115	28	10	31
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	93	93	93	93	93	93
Heavy Vehicles, %	6	6	1	0	0	17
Mvmt Flow	41	24	124	30	11	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	154	0	-	0	245	139
Stage 1	-	-	-	-	139	-
Stage 2	-	-	-	-	106	-
Critical Hdwy	4.16	-	-	-	6.4	6.37
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.453
Pot Cap-1 Maneuver	1402	-	-	-	748	871
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	923	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1402	-	-	-	726	871
Mov Cap-2 Maneuver	-	-	-	-	726	-
Stage 1	-	-	-	-	866	-
Stage 2	-	-	-	-	923	-

Approach	EB	WB	SB
HCM Control Delay, s	4.8	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1402	-	-	-	831
HCM Lane V/C Ratio	0.029	-	-	-	0.053
HCM Control Delay (s)	7.6	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	300	83	44	448	4	153	1	72	5	1	22
Future Volume (veh/h)	10	300	83	44	448	4	153	1	72	5	1	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1767	1767	1767	1885	1885	1841	1900	1900	1900
Adj Flow Rate, veh/h	13	390	108	57	582	5	199	1	94	6	1	29
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	10	10	10	9	9	9	1	1	4	0	0	0
Cap, veh/h	128	613	166	166	749	6	546	2	315	160	40	254
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	14	1304	353	80	1591	13	1540	8	1560	108	196	1260
Grp Volume(v), veh/h	511	0	0	644	0	0	200	0	94	36	0	0
Grp Sat Flow(s),veh/h/ln	1671	0	0	1685	0	0	1548	0	1560	1565	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.7	0.0	0.0	0.9	0.0	1.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.0	0.0	0.0	9.7	0.0	0.0	3.3	0.0	1.6	3.6	0.0	0.0
Prop In Lane	0.03		0.21	0.09		0.01	0.99		1.00	0.17		0.81
Lane Grp Cap(c), veh/h	907	0	0	921	0	0	548	0	315	453	0	0
V/C Ratio(X)	0.56	0.00	0.00	0.70	0.00	0.00	0.37	0.00	0.30	0.08	0.00	0.00
Avail Cap(c_a), veh/h	2821	0	0	2803	0	0	1636	0	1534	1673	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.1	0.0	0.0	6.8	0.0	0.0	11.0	0.0	10.3	9.9	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.0	0.0	0.0	0.4	0.0	0.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	1.2	0.0	0.0	0.9	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.7	0.0	0.0	7.7	0.0	0.0	11.4	0.0	10.9	10.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		511			644			294			36	
Approach Delay, s/veh		6.7			7.7			11.2			10.0	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.1		19.4		11.1		19.4				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		50.0		30.0		50.0				
Max Q Clear Time (g_c+I1), s		5.3		9.0		5.6		11.7				
Green Ext Time (p_c), s		1.1		2.1		0.1		2.8				
Intersection Summary												
HCM 6th Ctrl Delay			8.1									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	69	7	8	156	53	75
Future Vol, veh/h	69	7	8	156	53	75
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	2	19	0
Mvmt Flow	79	8	9	179	61	86

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	301	104	147	0	-	0
Stage 1	104	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	695	956	1447	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	690	956	1447	-	-	-
Mov Cap-2 Maneuver	690	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	841	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1447	-	708	-	-
HCM Lane V/C Ratio	0.006	-	0.123	-	-
HCM Control Delay (s)	7.5	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰↑	↑↱		⅄	
Traffic Vol, veh/h	44	22	115	29	15	51
Future Vol, veh/h	44	22	115	29	15	51
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	93	93	93	93	93	93
Heavy Vehicles, %	6	6	1	0	0	17
Mvmt Flow	47	24	124	31	16	55

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	155	0	-	0	258	140
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	118	-
Critical Hdwy	4.16	-	-	-	6.4	6.37
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.254	-	-	-	3.5	3.453
Pot Cap-1 Maneuver	1401	-	-	-	735	870
Stage 1	-	-	-	-	892	-
Stage 2	-	-	-	-	912	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1401	-	-	-	710	870
Mov Cap-2 Maneuver	-	-	-	-	710	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	912	-

Approach	EB	WB	SB
HCM Control Delay, s	5.1	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1401	-	-	-	828
HCM Lane V/C Ratio	0.034	-	-	-	0.086
HCM Control Delay (s)	7.7	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Int Delay, s/veh	4.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	77	87	7	23	37
Future Vol, veh/h	25	77	87	7	23	37
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	0	0	19
Mvmt Flow	29	89	100	8	26	43

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	199	104	0	0	108	0
Stage 1	104	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	794	956	-	-	1495	-
Stage 1	925	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	780	956	-	-	1495	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	934	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	2.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	906	1495	-
HCM Lane V/C Ratio	-	-	0.129	0.018	-
HCM Control Delay (s)	-	-	9.6	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	307	65	39	505	4	91	1	57	5	1	22
Future Volume (veh/h)	10	307	65	39	505	4	91	1	57	5	1	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1767	1767	1767	1885	1885	1841	1900	1900	1900
Adj Flow Rate, veh/h	13	399	84	51	656	5	118	1	74	6	1	29
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	10	10	10	9	9	9	1	1	4	0	0	0
Cap, veh/h	137	717	148	167	844	6	457	2	203	165	17	146
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	14	1382	285	61	1627	12	1572	13	1560	137	133	1121
Grp Volume(v), veh/h	496	0	0	712	0	0	119	0	74	36	0	0
Grp Sat Flow(s),veh/h/ln	1681	0	0	1700	0	0	1586	0	1560	1391	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.6	0.0	0.0	9.6	0.0	0.0	1.8	0.0	1.2	1.8	0.0	0.0
Prop In Lane	0.03		0.17	0.07		0.01	0.99		1.00	0.17		0.81
Lane Grp Cap(c), veh/h	1001	0	0	1017	0	0	458	0	203	329	0	0
V/C Ratio(X)	0.50	0.00	0.00	0.70	0.00	0.00	0.26	0.00	0.36	0.11	0.00	0.00
Avail Cap(c_a), veh/h	3032	0	0	3048	0	0	1745	0	1644	1774	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.7	0.0	0.0	5.5	0.0	0.0	11.5	0.0	11.3	11.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.9	0.0	0.0	0.3	0.0	1.1	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.6	0.0	0.0	0.5	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.0	0.0	0.0	6.4	0.0	0.0	11.8	0.0	12.4	11.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		496			712			193			36	
Approach Delay, s/veh		5.0			6.4			12.0			11.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		8.7		19.8		8.7		19.8				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		50.0		30.0		50.0				
Max Q Clear Time (g_c+I1), s		3.8		7.6		3.8		11.6				
Green Ext Time (p_c), s		0.7		2.0		0.1		3.2				
Intersection Summary												
HCM 6th Ctrl Delay			6.8									
HCM 6th LOS			A									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	307	83	44	505	4	153	1	72	5	1	22
Future Volume (veh/h)	10	307	83	44	505	4	153	1	72	5	1	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1767	1767	1767	1885	1885	1841	1900	1900	1900
Adj Flow Rate, veh/h	13	399	108	57	656	5	199	1	94	6	1	29
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	10	10	10	9	9	9	1	1	4	0	0	0
Cap, veh/h	116	669	177	152	817	6	520	2	302	146	39	248
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	13	1312	347	72	1603	12	1587	8	1560	110	200	1282
Grp Volume(v), veh/h	520	0	0	718	0	0	200	0	94	36	0	0
Grp Sat Flow(s),veh/h/ln	1673	0	0	1686	0	0	1595	0	1560	1591	0	0
Q Serve(g_s), s	0.0	0.0	0.0	4.3	0.0	0.0	0.2	0.0	1.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.3	0.0	0.0	11.9	0.0	0.0	3.5	0.0	1.7	3.8	0.0	0.0
Prop In Lane	0.02		0.21	0.08		0.01	0.99		1.00	0.17		0.81
Lane Grp Cap(c), veh/h	962	0	0	975	0	0	522	0	302	432	0	0
V/C Ratio(X)	0.54	0.00	0.00	0.74	0.00	0.00	0.38	0.00	0.31	0.08	0.00	0.00
Avail Cap(c_a), veh/h	2553	0	0	2556	0	0	1492	0	1389	1519	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.9	0.0	0.0	6.9	0.0	0.0	12.3	0.0	11.7	11.2	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.1	0.0	0.0	0.5	0.0	0.6	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	1.6	0.0	0.0	1.1	0.0	0.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.3	0.0	0.0	8.0	0.0	0.0	12.8	0.0	12.2	11.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		520			718			294			36	
Approach Delay, s/veh		6.3			8.0			12.6			11.3	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.4		22.2		11.4		22.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		50.0		30.0		50.0				
Max Q Clear Time (g_c+I1), s		5.5		9.3		5.8		13.9				
Green Ext Time (p_c), s		1.1		2.1		0.1		3.3				
Intersection Summary												
HCM 6th Ctrl Delay			8.4									
HCM 6th LOS			A									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	418	198	42	169	1	164	1	55	1	1	1
Future Volume (veh/h)	1	418	198	42	169	1	164	1	55	1	1	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	440	208	44	178	1	173	1	58	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	0	0	0
Cap, veh/h	133	577	272	235	732	4	525	2	257	214	133	85
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1	1220	576	163	1547	8	1638	9	1610	234	832	533
Grp Volume(v), veh/h	649	0	0	223	0	0	174	0	58	3	0	0
Grp Sat Flow(s),veh/h/ln	1796	0	0	1718	0	0	1647	0	1610	1599	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	8.1	0.0	0.0	1.9	0.0	0.0	2.4	0.0	0.9	2.4	0.0	0.0
Prop In Lane	0.00		0.32	0.20		0.00	0.99		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	982	0	0	971	0	0	527	0	257	432	0	0
V/C Ratio(X)	0.66	0.00	0.00	0.23	0.00	0.00	0.33	0.00	0.23	0.01	0.00	0.00
Avail Cap(c_a), veh/h	3430	0	0	2972	0	0	1883	0	1774	1935	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.9	0.0	0.0	4.3	0.0	0.0	10.6	0.0	10.0	9.6	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.1	0.0	0.0	0.7	0.0	0.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.7	0.0	0.0	4.4	0.0	0.0	11.0	0.0	10.4	9.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	A	A	A
Approach Vol, veh/h		649			223			232			3	
Approach Delay, s/veh		6.7			4.4			10.9			9.6	
Approach LOS		A			A			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		9.3		17.9		9.3		17.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		50.0		30.0		50.0				
Max Q Clear Time (g_c+I1), s		4.4		10.1		4.4		3.9				
Green Ext Time (p_c), s		0.8		2.8		0.0		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			7.1									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	186	29	21	33	35	205
Future Vol, veh/h	186	29	21	33	35	205
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	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	207	32	23	37	39	228

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	236	153	267	0	-	0
Stage 1	153	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	757	898	1308	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	743	898	1308	-	-	-
Mov Cap-2 Maneuver	743	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	945	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1308	-	761	-	-
HCM Lane V/C Ratio	0.018	-	0.314	-	-
HCM Control Delay (s)	7.8	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.3	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	121	56	8	5	32
Future Vol, veh/h	35	121	56	8	5	32
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	38	132	61	9	5	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	274	66
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	208	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1544	-	-	-	720	1003
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	832	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1544	-	-	-	701	1003
Mov Cap-2 Maneuver	-	-	-	-	701	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1544	-	-	-	948
HCM Lane V/C Ratio	0.025	-	-	-	0.042
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	457	227	44	183	7	183	1	58	4	1	13
Future Volume (veh/h)	32	457	227	44	183	7	183	1	58	4	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	481	239	46	193	7	193	1	61	4	1	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	0	0	0
Cap, veh/h	135	612	293	221	775	25	504	1	278	158	47	200
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	36	1178	563	172	1493	49	1637	8	1610	140	274	1158
Grp Volume(v), veh/h	754	0	0	246	0	0	194	0	61	19	0	0
Grp Sat Flow(s),veh/h/ln	1778	0	0	1714	0	0	1646	0	1610	1571	0	0
Q Serve(g_s), s	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.4	0.0	0.0	2.4	0.0	0.0	3.2	0.0	1.1	3.2	0.0	0.0
Prop In Lane	0.05		0.32	0.19		0.03	0.99		1.00	0.21		0.74
Lane Grp Cap(c), veh/h	1039	0	0	1022	0	0	505	0	278	405	0	0
V/C Ratio(X)	0.73	0.00	0.00	0.24	0.00	0.00	0.38	0.00	0.22	0.05	0.00	0.00
Avail Cap(c_a), veh/h	2832	0	0	2498	0	0	1576	0	1489	1581	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.5	0.0	0.0	4.3	0.0	0.0	12.4	0.0	11.5	11.2	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.1	0.0	0.0	0.5	0.0	0.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	0.2	0.0	0.0	1.1	0.0	0.3	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.4	0.0	0.0	4.4	0.0	0.0	12.9	0.0	11.9	11.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		754			246			255			19	
Approach Delay, s/veh		7.4			4.4			12.7			11.3	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		10.6		21.8		10.6		21.8				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		50.0		30.0		50.0				
Max Q Clear Time (g_c+I1), s		5.2		13.4		5.2		4.4				
Green Ext Time (p_c), s		0.9		3.5		0.0		1.0				
Intersection Summary												
HCM 6th Ctrl Delay			8.0									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	195	30	22	47	57	215
Future Vol, veh/h	195	30	22	47	57	215
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	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	217	33	24	52	63	239

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	283	183	302	0	-	0
Stage 1	183	-	-	-	-	-
Stage 2	100	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	711	865	1270	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	697	865	1270	-	-	-
Mov Cap-2 Maneuver	697	-	-	-	-	-
Stage 1	837	-	-	-	-	-
Stage 2	929	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1270	-	716	-	-
HCM Lane V/C Ratio	0.019	-	0.349	-	-
HCM Control Delay (s)	7.9	0	12.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.6	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	137	65	19	24	35
Future Vol, veh/h	38	137	65	19	24	35
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	41	149	71	21	26	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	92	0	-	0	313	82
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	231	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1515	-	-	-	684	983
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1515	-	-	-	663	983
Mov Cap-2 Maneuver	-	-	-	-	663	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	812	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1515	-	-	-	822
HCM Lane V/C Ratio	0.027	-	-	-	0.078
HCM Control Delay (s)	7.4	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	457	288	59	183	7	219	1	67	4	1	13
Future Volume (veh/h)	32	457	288	59	183	7	219	1	67	4	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	481	303	62	193	7	231	1	71	4	1	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	0	0	0
Cap, veh/h	68	527	322	141	412	14	285	1	610	58	41	123
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	41	1067	652	171	833	28	512	2	1610	6	110	324
Grp Volume(v), veh/h	818	0	0	262	0	0	232	0	71	19	0	0
Grp Sat Flow(s),veh/h/ln	1759	0	0	1032	0	0	514	0	1610	440	0	0
Q Serve(g_s), s	17.4	0.0	0.0	0.0	0.0	0.0	1.2	0.0	2.2	0.3	0.0	0.0
Cycle Q Clear(g_c), s	34.4	0.0	0.0	6.7	0.0	0.0	29.7	0.0	2.2	29.4	0.0	0.0
Prop In Lane	0.04		0.37	0.24		0.03	1.00		1.00	0.21		0.74
Lane Grp Cap(c), veh/h	917	0	0	567	0	0	286	0	610	222	0	0
V/C Ratio(X)	0.89	0.00	0.00	0.46	0.00	0.00	0.81	0.00	0.12	0.09	0.00	0.00
Avail Cap(c_a), veh/h	1166	0	0	757	0	0	291	0	615	228	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.7	0.0	0.0	11.7	0.0	0.0	27.7	0.0	15.9	18.4	0.0	0.0
Incr Delay (d2), s/veh	7.5	0.0	0.0	0.6	0.0	0.0	15.5	0.0	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	0.0	0.0	2.4	0.0	0.0	5.6	0.0	0.8	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	0.0	0.0	12.3	0.0	0.0	43.2	0.0	15.9	18.6	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	D	A	B	B	A	A
Approach Vol, veh/h		818			262			303			19	
Approach Delay, s/veh		26.2			12.3			36.8			18.6	
Approach LOS		C			B			D			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		34.9		44.2		34.9		44.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		50.0		30.0		50.0				
Max Q Clear Time (g_c+I1), s		31.7		36.4		31.4		8.7				
Green Ext Time (p_c), s		0.0		3.2		0.0		1.2				
Intersection Summary												
HCM 6th Ctrl Delay			25.8									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	195	30	22	92	133	215
Future Vol, veh/h	195	30	22	92	133	215
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	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	217	33	24	102	148	239

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	418	268	387	0	-	0
Stage 1	268	-	-	-	-	-
Stage 2	150	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	595	776	1183	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	883	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	582	776	1183	-	-	-
Mov Cap-2 Maneuver	582	-	-	-	-	-
Stage 1	765	-	-	-	-	-
Stage 2	883	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.2	1.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1183	-	602	-	-
HCM Lane V/C Ratio	0.021	-	0.415	-	-
HCM Control Delay (s)	8.1	0	15.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	2	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	58	137	65	24	27	47
Future Vol, veh/h	58	137	65	24	27	47
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	63	149	71	26	29	51

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	97	0	-	0	359	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	275	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1509	-	-	-	644	981
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	776	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1509	-	-	-	614	981
Mov Cap-2 Maneuver	-	-	-	-	614	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	776	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1509	-	-	-	805
HCM Lane V/C Ratio	0.042	-	-	-	0.1
HCM Control Delay (s)	7.5	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	45	76	87	69	25
Future Vol, veh/h	15	45	76	87	69	25
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	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	17	50	84	97	77	28

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	315	133	0	0	181	0
Stage 1	133	-	-	-	-	-
Stage 2	182	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	682	922	-	-	1407	-
Stage 1	898	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	644	922	-	-	1407	-
Mov Cap-2 Maneuver	644	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	854	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	5.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	832	1407	-
HCM Lane V/C Ratio	-	-	0.08	0.054	-
HCM Control Delay (s)	-	-	9.7	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	511	227	44	190	7	183	1	58	4	1	13
Future Volume (veh/h)	32	511	227	44	190	7	183	1	58	4	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	538	239	46	200	7	193	1	61	4	1	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	0	0	0
Cap, veh/h	126	667	286	214	798	25	484	1	273	148	47	197
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	34	1226	526	170	1468	47	1642	9	1610	136	280	1163
Grp Volume(v), veh/h	811	0	0	253	0	0	194	0	61	19	0	0
Grp Sat Flow(s),veh/h/ln	1785	0	0	1684	0	0	1650	0	1610	1579	0	0
Q Serve(g_s), s	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.1	0.0	0.0	2.5	0.0	0.0	3.5	0.0	1.1	3.5	0.0	0.0
Prop In Lane	0.04		0.29	0.18		0.03	0.99		1.00	0.21		0.74
Lane Grp Cap(c), veh/h	1079	0	0	1038	0	0	486	0	273	393	0	0
V/C Ratio(X)	0.75	0.00	0.00	0.24	0.00	0.00	0.40	0.00	0.22	0.05	0.00	0.00
Avail Cap(c_a), veh/h	2645	0	0	2304	0	0	1467	0	1384	1471	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.6	0.0	0.0	4.2	0.0	0.0	13.5	0.0	12.5	12.2	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.1	0.0	0.0	0.5	0.0	0.4	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	0.3	0.0	0.0	1.2	0.0	0.4	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	0.0	0.0	4.3	0.0	0.0	14.0	0.0	12.9	12.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		811			253			255			19	
Approach Delay, s/veh		7.7			4.3			13.7			12.2	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	10.9	24.0	10.9	24.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	30.0	50.0	30.0	50.0
Max Q Clear Time (g_c+I1), s	5.5	15.1	5.5	4.5
Green Ext Time (p_c), s	0.9	3.9	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	511	288	59	190	7	219	1	67	4	1	13
Future Volume (veh/h)	32	511	288	59	190	7	219	1	67	4	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	538	303	62	200	7	231	1	71	4	1	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	0	0	0
Cap, veh/h	65	584	320	135	410	13	252	1	575	52	38	108
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	39	1116	612	157	783	25	466	2	1610	0	107	301
Grp Volume(v), veh/h	875	0	0	269	0	0	232	0	71	19	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	0	965	0	0	468	0	1610	408	0	0
Q Serve(g_s), s	20.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	39.1	0.0	0.0	7.0	0.0	0.0	30.0	0.0	2.5	30.0	0.0	0.0
Prop In Lane	0.04		0.35	0.23		0.03	1.00		1.00	0.21		0.74
Lane Grp Cap(c), veh/h	970	0	0	558	0	0	253	0	575	198	0	0
V/C Ratio(X)	0.90	0.00	0.00	0.48	0.00	0.00	0.92	0.00	0.12	0.10	0.00	0.00
Avail Cap(c_a), veh/h	1096	0	0	652	0	0	253	0	575	198	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.8	0.0	0.0	11.1	0.0	0.0	31.2	0.0	18.1	20.6	0.0	0.0
Incr Delay (d2), s/veh	9.6	0.0	0.0	0.6	0.0	0.0	35.4	0.0	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.6	0.0	0.0	2.5	0.0	0.0	7.2	0.0	0.9	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	0.0	0.0	11.8	0.0	0.0	66.6	0.0	18.2	20.8	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	E	A	B	C	A	A
Approach Vol, veh/h		875			269			303			19	
Approach Delay, s/veh		28.4			11.8			55.3			20.8	
Approach LOS		C			B			E			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		49.0		35.0		49.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		50.0		30.0		50.0				
Max Q Clear Time (g_c+I1), s		32.0		41.1		32.0		9.0				
Green Ext Time (p_c), s		0.0		2.8		0.0		1.3				
Intersection Summary												
HCM 6th Ctrl Delay			30.8									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	300	83	44	448	4	153	1	72	5	1	22
Future Volume (veh/h)	10	300	83	44	448	4	153	1	72	5	1	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1767	1767	1767	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	13	390	108	57	582	5	199	1	94	6	1	29
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	10	10	10	9	9	9	1	1	1	0	0	0
Cap, veh/h	126	615	166	165	750	6	525	3	324	160	41	266
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	14	1304	353	80	1592	13	1391	17	1583	115	199	1301
Grp Volume(v), veh/h	511	0	0	644	0	0	199	0	95	36	0	0
Grp Sat Flow(s),veh/h/ln	1671	0	0	1685	0	0	1391	0	1600	1616	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.7	0.0	0.0	3.4	0.0	1.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.1	0.0	0.0	9.7	0.0	0.0	3.9	0.0	1.5	0.5	0.0	0.0
Prop In Lane	0.03		0.21	0.09		0.01	1.00		0.99	0.17		0.81
Lane Grp Cap(c), veh/h	907	0	0	921	0	0	525	0	327	467	0	0
V/C Ratio(X)	0.56	0.00	0.00	0.70	0.00	0.00	0.38	0.00	0.29	0.08	0.00	0.00
Avail Cap(c_a), veh/h	2524	0	0	2511	0	0	1142	0	1037	1159	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.2	0.0	0.0	6.8	0.0	0.0	11.3	0.0	10.4	10.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.0	0.0	0.0	0.5	0.0	0.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	1.2	0.0	0.0	1.0	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.7	0.0	0.0	7.8	0.0	0.0	11.7	0.0	10.9	10.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		511			644			294			36	
Approach Delay, s/veh		6.7			7.8			11.4			10.0	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.3		19.5		11.3		19.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		20.0		45.0		20.0		45.0				
Max Q Clear Time (g_c+I1), s		5.9		9.1		2.5		11.7				
Green Ext Time (p_c), s		0.8		2.1		0.1		2.8				

Intersection Summary

HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	457	288	59	183	7	219	1	67	4	1	13
Future Volume (veh/h)	32	457	288	59	183	7	219	1	67	4	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	481	303	62	193	7	231	1	71	4	1	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	0	0	0
Cap, veh/h	80	548	334	173	502	17	583	7	518	142	66	384
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	38	1071	652	197	981	32	1421	22	1591	217	204	1178
Grp Volume(v), veh/h	818	0	0	262	0	0	231	0	72	19	0	0
Grp Sat Flow(s),veh/h/ln	1761	0	0	1210	0	0	1421	0	1614	1599	0	0
Q Serve(g_s), s	10.9	0.0	0.0	0.0	0.0	0.0	7.4	0.0	1.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	25.9	0.0	0.0	4.9	0.0	0.0	7.9	0.0	1.9	0.5	0.0	0.0
Prop In Lane	0.04		0.37	0.24		0.03	1.00		0.99	0.21		0.74
Lane Grp Cap(c), veh/h	962	0	0	691	0	0	583	0	526	592	0	0
V/C Ratio(X)	0.85	0.00	0.00	0.38	0.00	0.00	0.40	0.00	0.14	0.03	0.00	0.00
Avail Cap(c_a), veh/h	1347	0	0	985	0	0	583	0	526	592	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	0.0	8.5	0.0	0.0	16.6	0.0	14.6	14.1	0.0	0.0
Incr Delay (d2), s/veh	3.9	0.0	0.0	0.3	0.0	0.0	2.0	0.0	0.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	0.0	1.5	0.0	0.0	2.7	0.0	0.7	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	0.0	8.9	0.0	0.0	18.6	0.0	15.2	14.2	0.0	0.0
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		818			262			303			19	
Approach Delay, s/veh		17.5			8.9			17.8			14.2	
Approach LOS		B			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		36.4		25.0		36.4				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		20.0		45.0		20.0		45.0				
Max Q Clear Time (g_c+I1), s		9.9		27.9		2.5		6.9				
Green Ext Time (p_c), s		0.7		3.5		0.0		1.2				
Intersection Summary												
HCM 6th Ctrl Delay			15.9									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	307	83	44	505	4	153	1	72	5	1	22
Future Volume (veh/h)	10	307	83	44	505	4	153	1	72	5	1	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1767	1767	1767	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	13	399	108	57	656	5	199	1	94	6	1	29
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	10	10	10	9	9	9	1	1	1	0	0	0
Cap, veh/h	115	667	177	150	814	6	496	3	316	145	41	260
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	13	1312	348	72	1602	12	1391	17	1583	110	204	1303
Grp Volume(v), veh/h	520	0	0	718	0	0	199	0	95	36	0	0
Grp Sat Flow(s),veh/h/ln	1673	0	0	1686	0	0	1391	0	1600	1617	0	0
Q Serve(g_s), s	0.0	0.0	0.0	4.5	0.0	0.0	3.8	0.0	1.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.5	0.0	0.0	12.2	0.0	0.0	4.4	0.0	1.7	0.6	0.0	0.0
Prop In Lane	0.02		0.21	0.08		0.01	1.00		0.99	0.17		0.81
Lane Grp Cap(c), veh/h	958	0	0	970	0	0	496	0	320	446	0	0
V/C Ratio(X)	0.54	0.00	0.00	0.74	0.00	0.00	0.40	0.00	0.30	0.08	0.00	0.00
Avail Cap(c_a), veh/h	2275	0	0	2280	0	0	1030	0	935	1046	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.0	0.0	0.0	7.0	0.0	0.0	12.6	0.0	11.6	11.2	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.1	0.0	0.0	0.5	0.0	0.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.7	0.0	0.0	1.2	0.0	0.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.5	0.0	0.0	8.2	0.0	0.0	13.2	0.0	12.2	11.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		520			718			294			36	
Approach Delay, s/veh		6.5			8.2			12.8			11.3	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.8		22.4		11.8		22.4				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		20.0		45.0		20.0		45.0				
Max Q Clear Time (g_c+I1), s		6.4		9.5		2.6		14.2				
Green Ext Time (p_c), s		0.8		2.1		0.1		3.2				

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	511	288	59	190	7	219	1	67	4	1	13
Future Volume (veh/h)	32	511	288	59	190	7	219	1	67	4	1	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	538	303	62	200	7	231	1	71	4	1	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	0	0	0
Cap, veh/h	103	635	346	222	656	21	463	5	332	130	58	249
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	32	1125	613	215	1163	37	1421	22	1591	151	277	1196
Grp Volume(v), veh/h	875	0	0	269	0	0	231	0	72	19	0	0
Grp Sat Flow(s),veh/h/ln	1771	0	0	1415	0	0	1421	0	1614	1623	0	0
Q Serve(g_s), s	5.5	0.0	0.0	0.0	0.0	0.0	6.2	0.0	1.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	18.6	0.0	0.0	3.2	0.0	0.0	6.6	0.0	1.6	0.4	0.0	0.0
Prop In Lane	0.04		0.35	0.23		0.03	1.00		0.99	0.21		0.74
Lane Grp Cap(c), veh/h	1084	0	0	899	0	0	463	0	336	437	0	0
V/C Ratio(X)	0.81	0.00	0.00	0.30	0.00	0.00	0.50	0.00	0.21	0.04	0.00	0.00
Avail Cap(c_a), veh/h	1888	0	0	1499	0	0	814	0	734	822	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.2	0.0	0.0	4.9	0.0	0.0	16.4	0.0	14.4	13.9	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.2	0.0	0.0	0.8	0.0	0.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	0.0	0.6	0.0	0.0	2.0	0.0	0.5	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.7	0.0	0.0	5.1	0.0	0.0	17.2	0.0	14.7	14.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		875			269			303			19	
Approach Delay, s/veh		9.7			5.1			16.6			14.0	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.2		29.8		14.2		29.8				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		20.0		45.0		20.0		45.0				
Max Q Clear Time (g_c+I1), s		8.6		20.6		2.4		5.2				
Green Ext Time (p_c), s		0.7		4.2		0.0		1.3				

Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

LANE SUMMARY

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Existing - AM Peak Hour]

US Route 4/NY Route 151
Existing Peak Hour
AM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: US Route 4 NB													
Lane 1	67	2.0	478	0.141	100	15.3	LOS B	0.5	13.3	Short	225	0.0	NA
Lane 2[d]	554	3.5	873	0.635	100	9.5	LOS A	4.7	120.3	Full	1130	0.0	0.0
Approach	622	3.3		0.635		10.1	LOS B	4.7	120.3				
East: NY Route 151 WB													
Lane 1	285	8.2	567	0.502	100	14.0	LOS B	3.2	85.0	Full	475	0.0	0.0
Lane 2[d]	348	5.0	648	0.537	100	11.8	LOS B	3.7	97.2	Short	170	0.0	NA
Approach	633	6.4		0.537		12.8	LOS B	3.7	97.2				
North: US Route 4 SB													
Lane 1	216	5.3	735	0.294	100	14.4	LOS B	1.8	46.4	Full	1600	0.0	0.0
Lane 2[d]	442	4.7	947	0.467	100	7.7	LOS A	3.5	90.0	Full	1600	0.0	0.0
Approach	659	4.9		0.467		9.9	LOS A	3.5	90.0				
West: NY Route 151 EB													
Lane 1[d]	230	3.0	790	0.292	100	13.5	LOS B	1.4	35.3	Short	175	0.0	NA
Lane 2	103	6.5	561	0.184	100	8.8	LOS A	0.8	19.9	Full	565	0.0	0.0
Approach	334	4.1		0.292		12.1	LOS B	1.4	35.3				
Intersection	2247	4.8		0.635		11.1	LOS B	4.7	120.3				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Existing - AM Peak Hour]

US Route 4/NY Route 151
Existing Peak Hour
AM Peak Hour
Roundabout

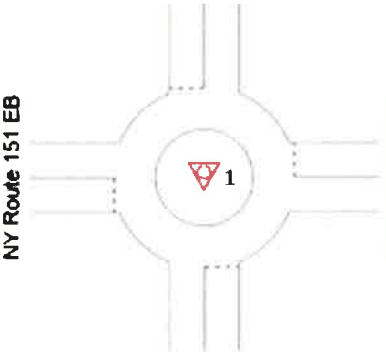
Volume Display Method: Total and %

	R2	T1	L2	U
Tot	136	271	175	24
LV	96%	95%	94%	100%
HV	4%	5%	6%	0%

US Route 4 SB

HV	LV	Tot	
0%	100%	1	U
3%	97%	211	L2
0%	100%	39	T1
11%	89%	56	R2

NY Route 151 EB



NY Route 151 WB

	Tot	LV	HV
R2	320	95%	5%
T1	188	96%	4%
L2	73	81%	19%
U	1	100%	0%

US Route 4 NB

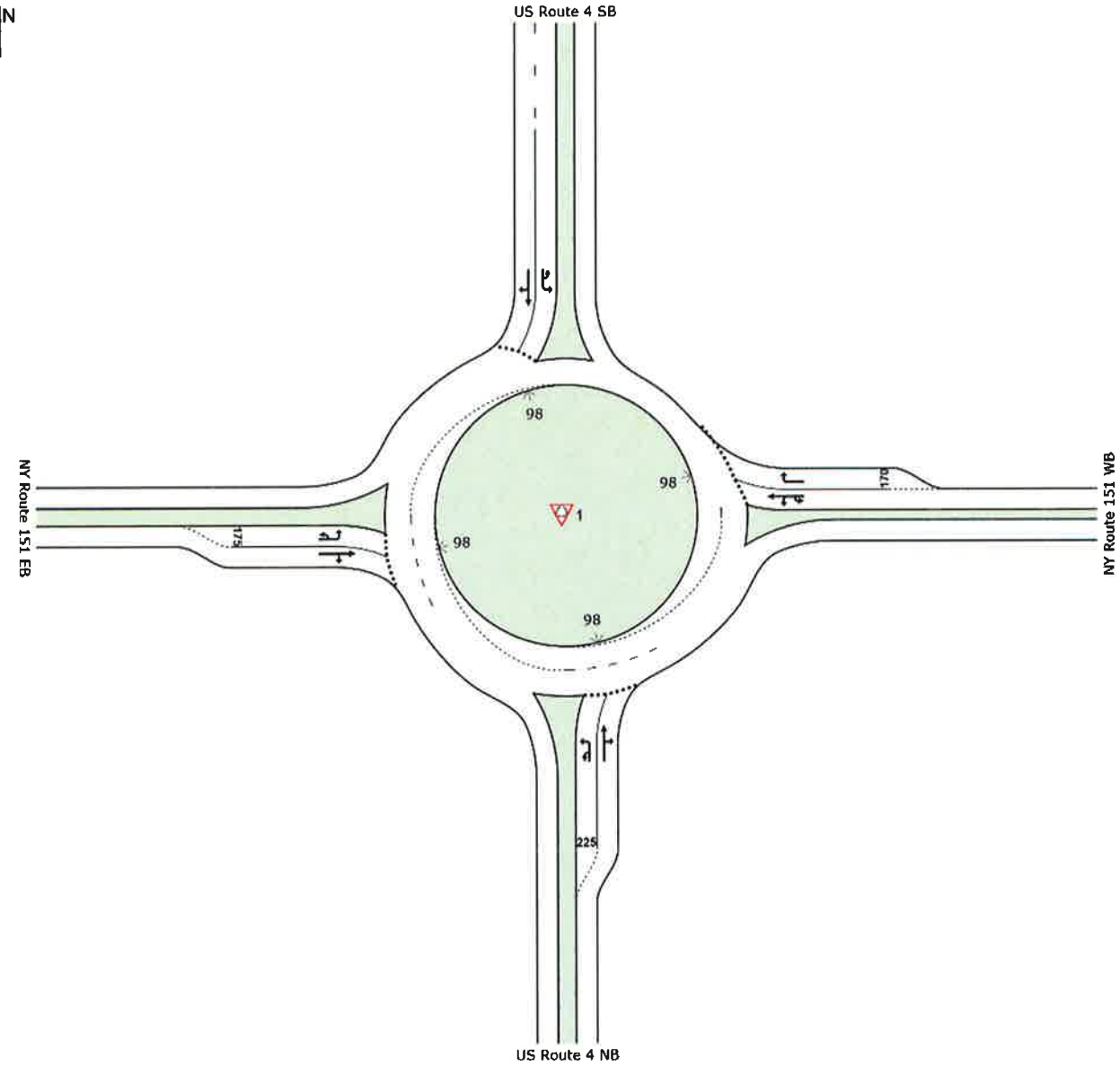
	U	L2	T1	R2
Tot	1	61	459	51
LV	100%	98%	97%	92%
HV	0%	2%	3%	8%

	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: US Route 4 NB	572	553	19
E: NY Route 151 WB	582	545	37
N: US Route 4 SB	606	577	29
W: NY Route 151 EB	307	295	12
Total	2067	1969	98

SITE LAYOUT

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Existing - AM Peak Hour]

US Route 4/NY Route 151
Existing Peak Hour
AM Peak Hour
Roundabout



Organisation: CREIGHTON MANNING ENGINEERING | Created: Thursday, May 10, 2018 4:07:09 PM
Project: N:\Projects\2015\115-030 Covered Bridge Village\comps\traffic\Sidra\RT4RT151.sip7

LANE SUMMARY

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build - AM Peak Hour]

US Route 4/NY Route 151
No-Build (w/o Temple) Peak Hour
AM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: US Route 4 NB													
Lane 1	89	2.0	548	0.163	100	14.7	LOS B	0.6	15.8	Short	225	0.0	NA
Lane 2[d]	613	3.5	944	0.650	100	9.4	LOS A	4.9	126.2	Full	1130	0.0	0.0
Approach	702	3.3		0.650		10.1	LOS B	4.9	126.2				
East: NY Route 151 WB													
Lane 1	332	8.1	550	0.603	100	16.6	LOS B	4.5	118.9	Full	475	0.0	0.0
Lane 2[d]	399	5.0	675	0.591	100	13.0	LOS B	4.7	122.0	Short	170	0.0	NA
Approach	730	6.4		0.603		14.6	LOS B	4.7	122.0				
North: US Route 4 SB													
Lane 1	254	5.0	777	0.327	100	14.7	LOS B	2.1	54.9	Full	1600	0.0	0.0
Lane 2[d]	477	4.7	995	0.480	100	7.8	LOS A	3.7	97.2	Full	1600	0.0	0.0
Approach	732	4.8		0.480		10.2	LOS B	3.7	97.2				
West: NY Route 151 EB													
Lane 1[d]	274	3.0	859	0.319	100	13.4	LOS B	1.6	40.7	Short	175	0.0	NA
Lane 2	122	6.4	604	0.201	100	8.5	LOS A	0.9	22.6	Full	565	0.0	0.0
Approach	396	4.0		0.319		11.9	LOS B	1.6	40.7				
Intersection	2560	4.7		0.650		11.7	LOS B	4.9	126.2				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

INPUT VOLUMES

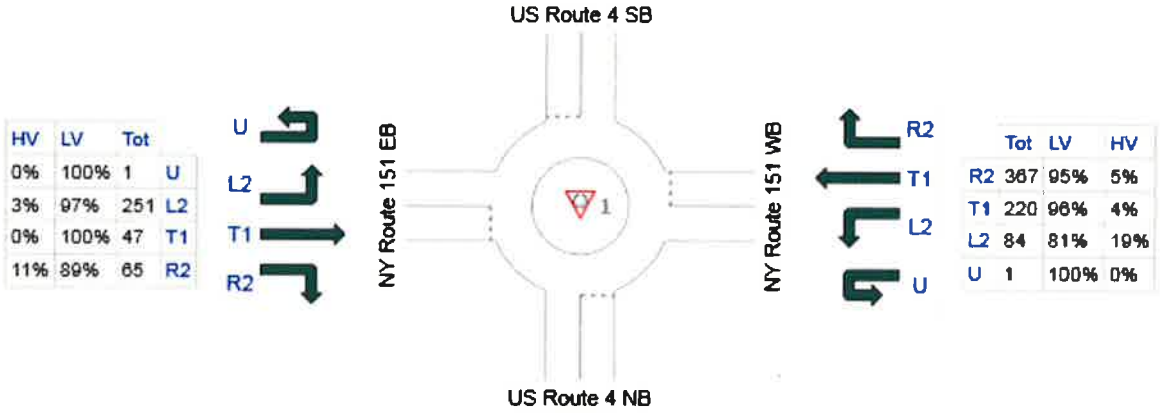
Vehicles and pedestrians per 60 minutes

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build - AM Peak Hour]

US Route 4/NY Route 151
No-Build (w/o Temple) Peak Hour
AM Peak Hour
Roundabout

Volume Display Method: Total and %

	R2	T1	L2	U
Tot	149	290	194	40
LV	96%	95%	94%	100%
HV	4%	5%	6%	0%



HV	LV	Tot	
0%	100%	1	U
3%	97%	251	L2
0%	100%	47	T1
11%	89%	65	R2

	Tot	LV	HV
R2	367	95%	5%
T1	220	96%	4%
L2	84	81%	19%
U	1	100%	0%

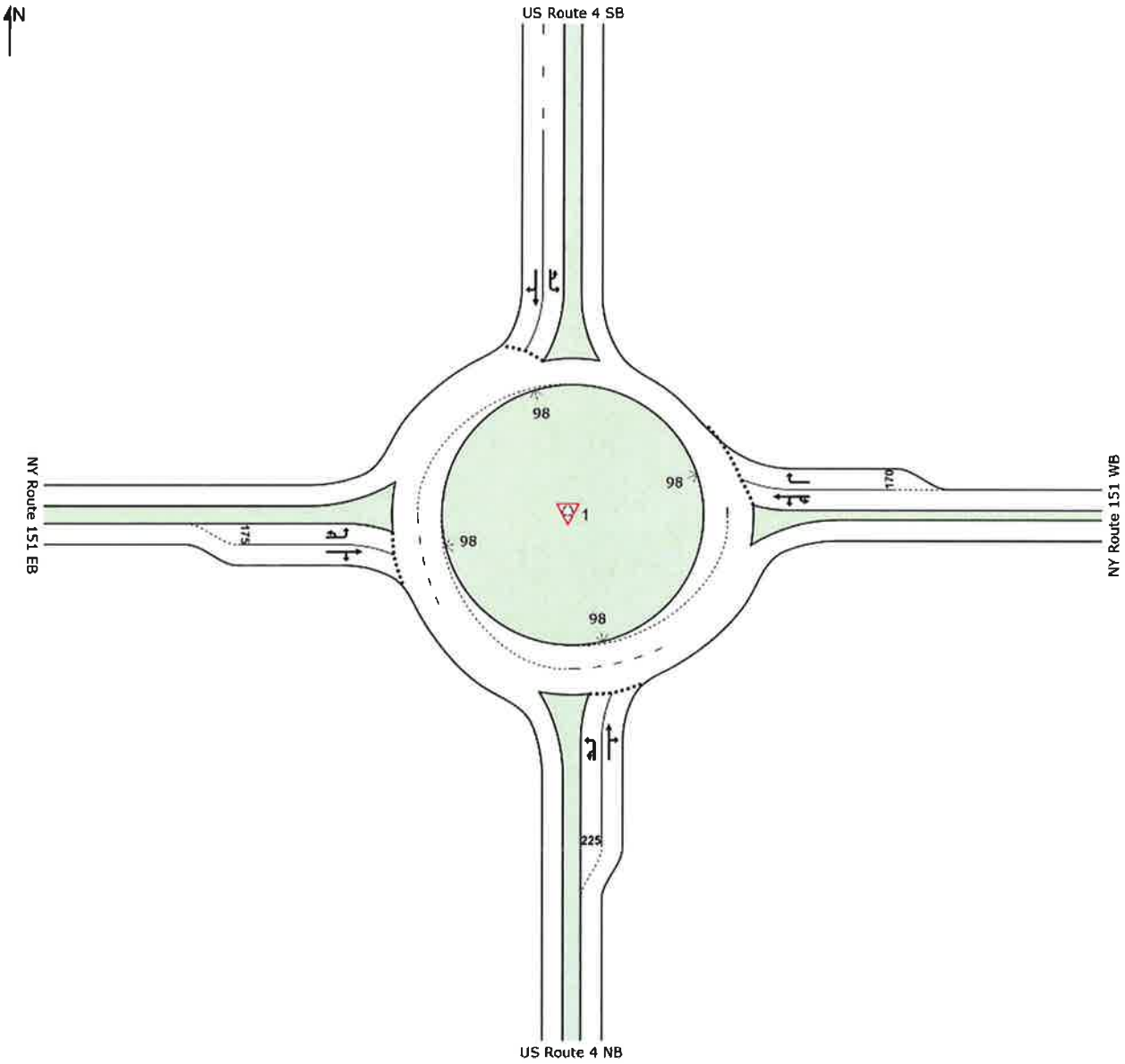
	U	L2	T1	R2
Tot	1	81	507	57
LV	100%	98%	97%	92%
HV	0%	2%	3%	8%

	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: US Route 4 NB	646	625	21
E: NY Route 151 WB	672	629	43
N: US Route 4 SB	673	641	32
W: NY Route 151 EB	364	349	15
Total	2355	2244	111

SITE LAYOUT

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build - AM Peak Hour]

US Route 4/NY Route 151
No-Build (w/o Temple) Peak Hour
AM Peak Hour
Roundabout



Organisation: CREIGHTON MANNING ENGINEERING | Created: Thursday, May 10, 2018 4:06:43 PM
Project: N:\Projects\2015\115-030 Covered Bridge Village\comps\traffic\Sidra\RT4RT151.sip7

LANE SUMMARY

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build - AM Peak Hour]

US Route 4/NY Route 151
Build (w/o Temple) Peak Hour
AM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: US Route 4 NB													
Lane 1	89	2.0	533	0.167	100	14.9	LOS B	0.6	16.3	Short	225	0.0	NA
Lane 2[d]	615	3.5	921	0.668	100	9.8	LOS A	5.2	134.1	Full	1130	0.0	0.0
Approach	704	3.3		0.668		10.5	LOS B	5.2	134.1				
East: NY Route 151 WB													
Lane 1	339	8.0	547	0.619	100	17.0	LOS B	4.7	125.3	Full	475	0.0	0.0
Lane 2[d]	399	5.0	668	0.597	100	13.2	LOS B	4.8	124.3	Short	170	0.0	NA
Approach	738	6.4		0.619		14.9	LOS B	4.8	125.3				
North: US Route 4 SB													
Lane 1	264	5.0	776	0.340	100	14.7	LOS B	2.2	57.8	Full	1600	0.0	0.0
Lane 2[d]	477	4.7	986	0.484	100	7.9	LOS A	3.8	99.4	Full	1600	0.0	0.0
Approach	741	4.8		0.484		10.3	LOS B	3.8	99.4				
West: NY Route 151 EB													
Lane 1[d]	279	3.0	853	0.327	100	13.4	LOS B	1.6	41.9	Short	175	0.0	NA
Lane 2	184	6.2	678	0.271	100	8.2	LOS A	1.2	32.4	Full	565	0.0	0.0
Approach	463	4.3		0.327		11.3	LOS B	1.6	41.9				
Intersection	2647	4.8		0.668		11.8	LOS B	5.2	134.1				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

INPUT VOLUMES

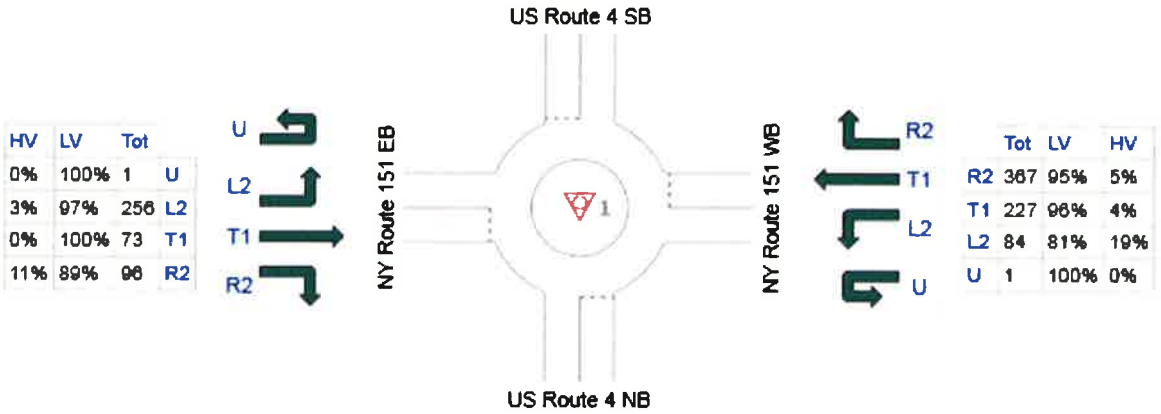
Vehicles and pedestrians per 60 minutes

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build - AM Peak Hour]

US Route 4/NY Route 151
Build (w/o Temple) Peak Hour
AM Peak Hour
Roundabout

Volume Display Method: Total and %

	R2	T1	L2	U
Tot	149	290	203	40
LV	96%	95%	94%	100%
HV	4%	5%	6%	0%



HV	LV	Tot	
0%	100%	1	U
3%	97%	256	L2
0%	100%	73	T1
11%	89%	98	R2

	Tot	LV	HV
R2	367	95%	5%
T1	227	96%	4%
L2	84	81%	19%
U	1	100%	0%

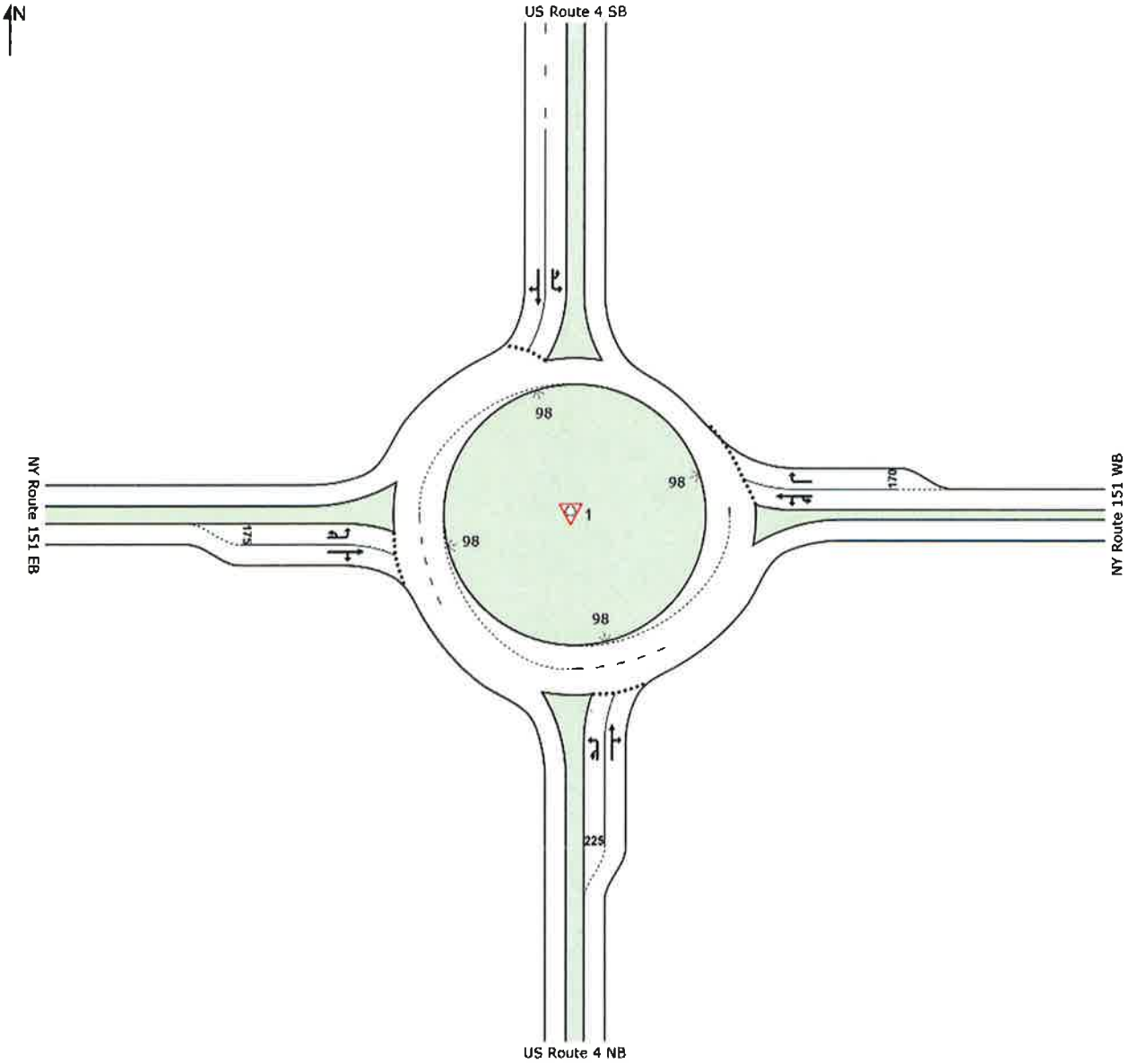
	U	L2	T1	R2
Tot	1	81	507	59
LV	100%	98%	97%	92%
HV	0%	2%	3%	8%

	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: US Route 4 NB	648	626	22
E: NY Route 151 WB	679	636	43
N: US Route 4 SB	682	649	33
W: NY Route 151 EB	426	408	18
Total	2435	2319	116

SITE LAYOUT

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build - AM Peak Hour]

US Route 4/NY Route 151
Build (w/o Temple) Peak Hour
AM Peak Hour
Roundabout



Organisation: CREIGHTON MANNING ENGINEERING | Created: Thursday, May 10, 2018 4:06:54 PM
Project: N:\Projects\2015\115-030 Covered Bridge Village\comps\traffic\Sidra\RT4RT151.sip7

LANE SUMMARY

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build Sensitivity - AM Peak Hour]

US Route 4/NY Route 151
No-Build (w/ Temple) Peak Hour - 2 Lane
AM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: US Route 4 NB													
Lane 1[d]	452	2.7	921	0.491	100	10.0	LOS A	3.0	75.8	Short	225	0.0	NA
Lane 2	352	3.9	794	0.444	90[6]	8.6	LOS A	2.4	62.5	Full	1130	0.0	0.0
Approach	804	3.2		0.491		9.4	LOS A	3.0	75.8				
East: NY Route 151 WB													
Lane 1	351	7.9	551	0.637	100	15.7	LOS B	4.2	112.7	Full	475	0.0	0.0
Lane 2[d]	441	5.0	698	0.632	100	12.1	LOS B	4.6	118.4	Short	170	0.0	NA
Approach	792	6.3		0.637		13.7	LOS B	4.6	118.4				
North: US Route 4 SB													
Lane 1[d]	436	4.9	949	0.460	100	12.2	LOS B	3.5	91.0	Full	1600	0.0	0.0
Lane 2	320	4.5	791	0.405	88[6]	8.7	LOS A	2.8	72.0	Full	1600	0.0	0.0
Approach	757	4.7		0.460		10.7	LOS B	3.5	91.0				
West: NY Route 151 EB													
Lane 1	207	3.0	742	0.279	100	14.0	LOS B	1.4	35.7	Short	175	0.0	NA
Lane 2[d]	224	5.0	804	0.279	100	10.3	LOS B	1.4	37.2	Full	565	0.0	0.0
Approach	432	4.0		0.279		12.1	LOS B	1.4	37.2				
Intersection	2785	4.6		0.637		11.4	LOS B	4.6	118.4				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

6 Lane under-utilisation due to downstream effects
d Dominant lane on roundabout approach

INPUT VOLUMES

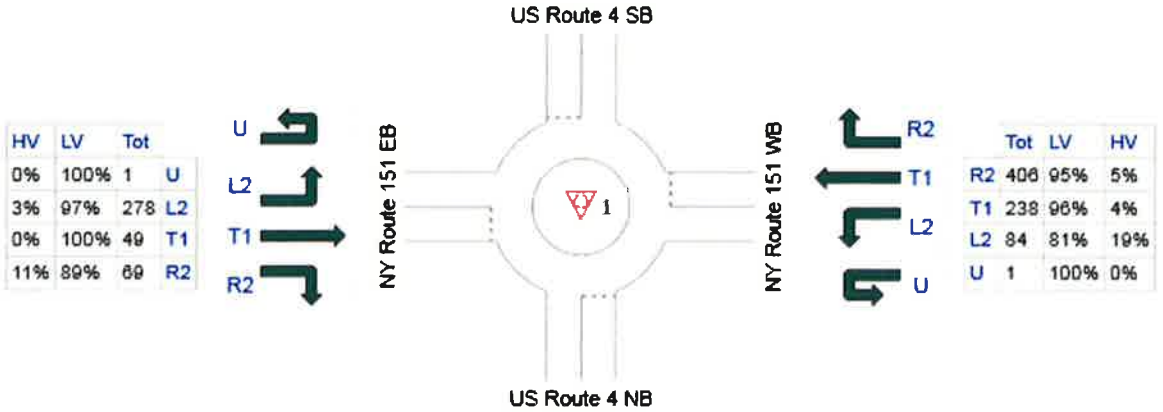
Vehicles and pedestrians per 60 minutes

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build Sensitivity - AM Peak Hour]

US Route 4/NY Route 151
No-Build (w/ Temple) Peak Hour - 2 Lane
AM Peak Hour
Roundabout

Volume Display Method: Total and %

	R2	T1	L2	U
Tot	150	298	199	49
LV	96%	95%	94%	100%
HV	4%	5%	6%	0%



HV	LV	Tot	
0%	100%	1	U
3%	97%	278	L2
0%	100%	49	T1
11%	89%	69	R2

	Tot	LV	HV
R2	406	95%	5%
T1	238	96%	4%
L2	84	81%	19%
U	1	100%	0%

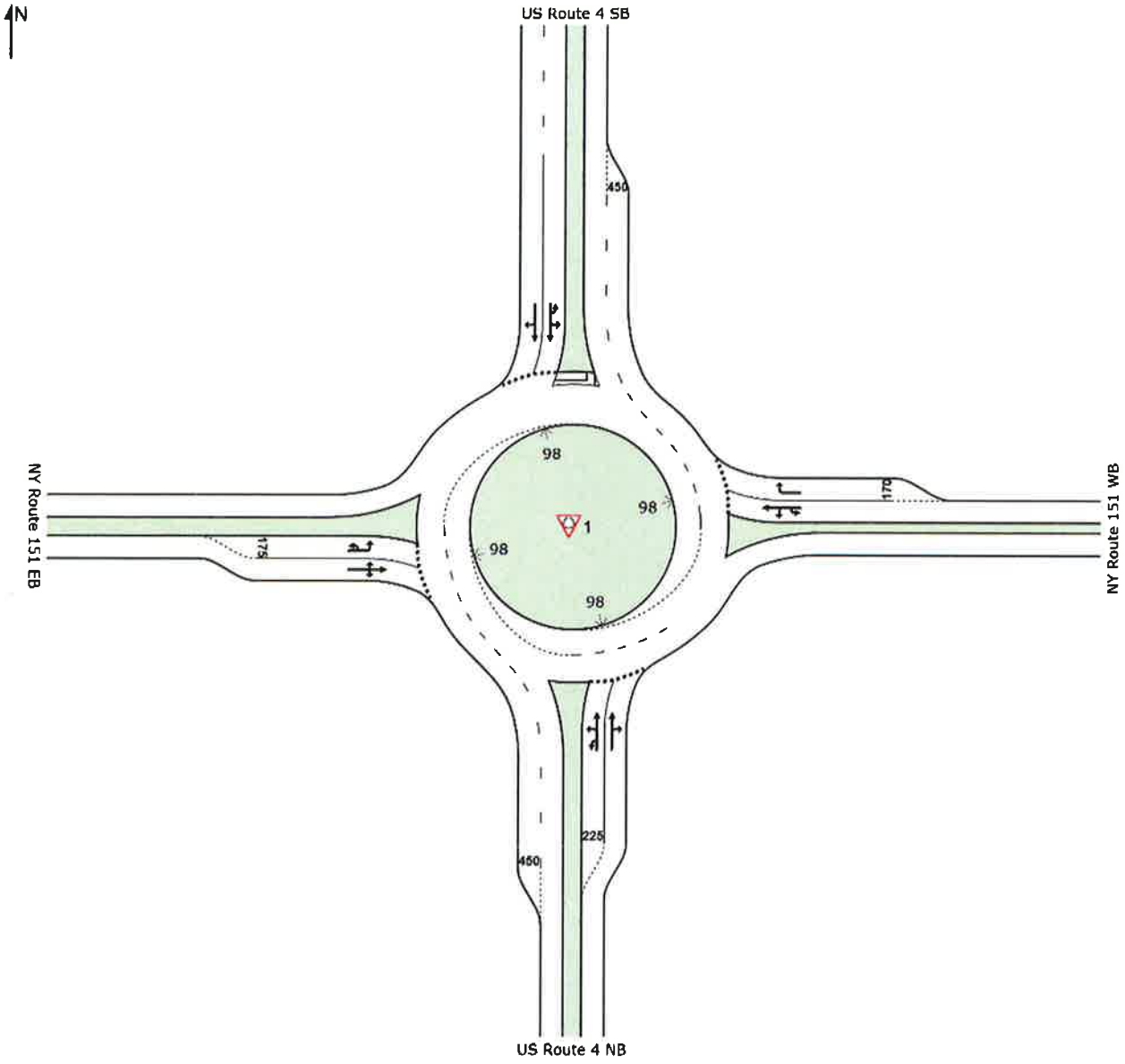
	U	L2	T1	R2
Tot	1	117	565	57
LV	100%	98%	97%	92%
HV	0%	2%	3%	8%

	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: US Route 4 NB	740	716	24
E: NY Route 151 WB	729	683	46
N: US Route 4 SB	696	663	33
W: NY Route 151 EB	397	381	16
Total	2562	2444	118

SITE LAYOUT

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build Sensitivity - AM Peak Hour]

US Route 4/NY Route 151
No-Build (w/ Temple) Peak Hour - 2 Lane
AM Peak Hour
Roundabout



Organisation: CREIGHTON MANNING ENGINEERING | Created: Thursday, May 10, 2018 4:07:04 PM
Project: N:\Projects\2015\115-030 Covered Bridge Village\comps\traffic\Sidra\RT4RT151.sip7

LANE SUMMARY

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build Sensitivity - AM Peak Hour]

US Route 4/NY Route 151
Build (w/ Temple) Peak Hour - 2 Lane
AM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: US Route 4 NB													
Lane 1[d]	455	2.7	894	0.509	100	10.3	LOS B	3.2	80.6	Short	225	0.0	NA
Lane 2	351	3.9	763	0.460	90[6]	9.0	LOS A	2.6	66.2	Full	1130	0.0	0.0
Approach	807	3.2		0.509		9.8	LOS A	3.2	80.6				
East: NY Route 151 WB													
Lane 1	359	7.8	540	0.664	100	16.7	LOS B	4.7	123.9	Full	475	0.0	0.0
Lane 2[d]	441	5.0	682	0.647	100	12.8	LOS B	4.9	126.3	Short	170	0.0	NA
Approach	800	6.3		0.664		14.6	LOS B	4.9	126.3				
North: US Route 4 SB													
Lane 1[d]	449	4.8	941	0.477	100	12.7	LOS B	3.8	98.3	Full	1600	0.0	0.0
Lane 2	328	4.5	782	0.420	88[6]	8.8	LOS A	2.9	75.6	Full	1600	0.0	0.0
Approach	777	4.7		0.477		11.0	LOS B	3.8	98.3				
West: NY Route 151 EB													
Lane 1	240	3.0	729	0.329	100	14.2	LOS B	1.7	43.4	Short	175	0.0	NA
Lane 2[d]	259	5.4	786	0.329	100	9.5	LOS A	1.7	45.3	Full	565	0.0	0.0
Approach	499	4.2		0.329		11.8	LOS B	1.7	45.3				
Intersection	2883	4.6		0.664		11.8	LOS B	4.9	126.3				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

6 Lane under-utilisation due to downstream effects
d Dominant lane on roundabout approach

INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build Sensitivity - AM Peak Hour]

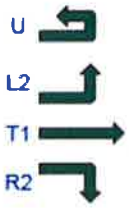
US Route 4/NY Route 151
Build (w/ Temple) Peak Hour - 2 Lane
AM Peak Hour
Roundabout

Volume Display Method: Total and %

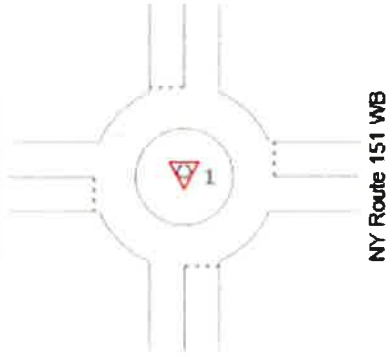
	R2	T1	L2	U
Tot	150	298	208	59
LV	96%	95%	94%	100%
HV	4%	5%	6%	0%

US Route 4 SB

HV	LV	Tot	
0%	100%	1	U
3%	97%	283	L2
0%	100%	75	T1
11%	89%	100	R2



NY Route 151 EB



NY Route 151 WB

	Tot	LV	HV
R2	406	95%	5%
T1	245	96%	4%
L2	84	81%	19%
U	1	100%	0%

US Route 4 NB

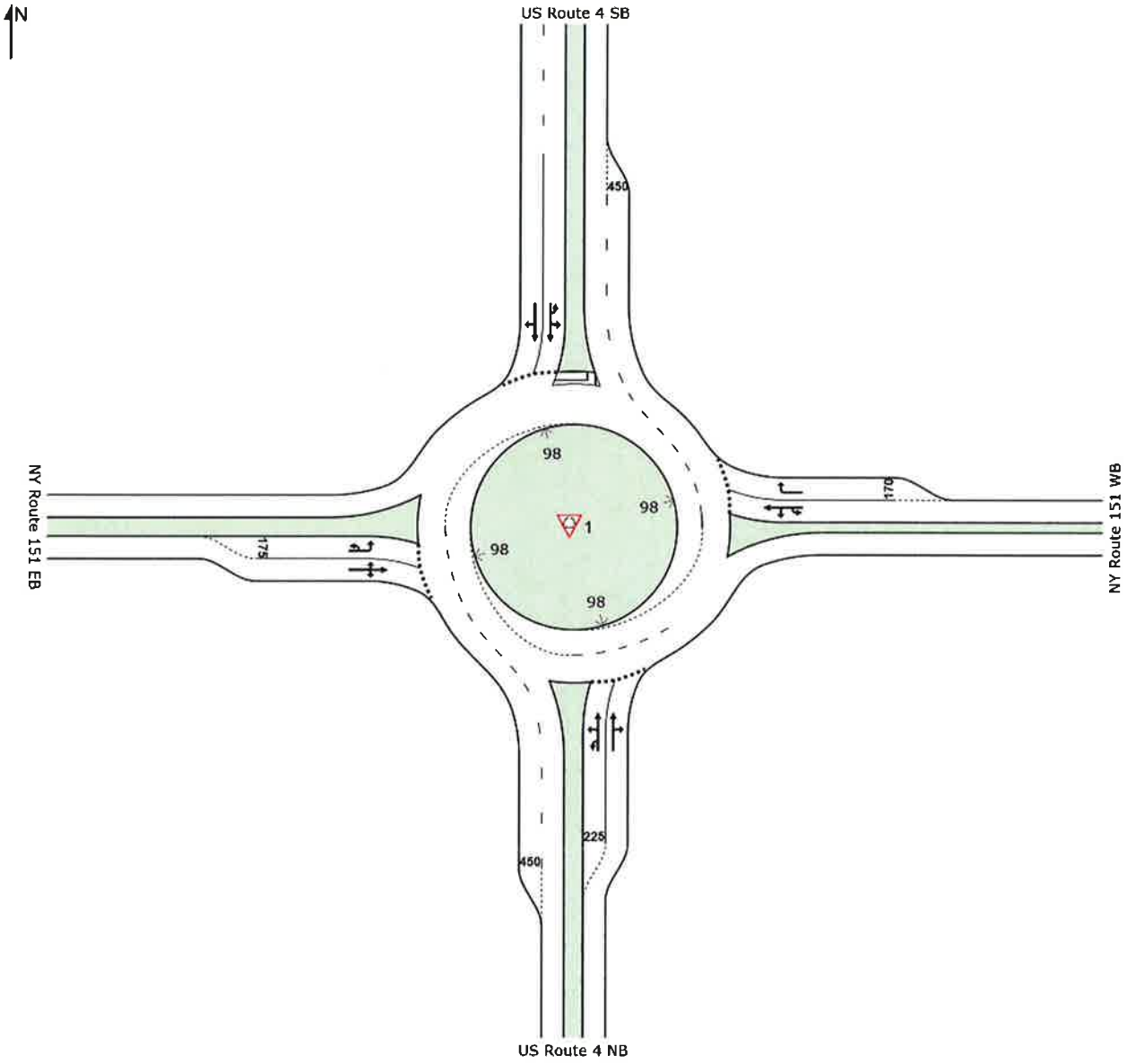
	U	L2	T1	R2
Tot	1	117	565	59
LV	100%	98%	97%	92%
HV	0%	2%	3%	8%

	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: US Route 4 NB	742	718	24
E: NY Route 151 WB	736	690	46
N: US Route 4 SB	715	682	33
W: NY Route 151 EB	459	440	19
Total	2652	2529	123

SITE LAYOUT

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build Sensitivity - AM Peak Hour]

US Route 4/NY Route 151
Build (w/ Temple) Peak Hour - 2 Lane
AM Peak Hour
Roundabout



LANE SUMMARY

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Existing - PM Peak Hour]

US Route 4/NY Route 151
Existing Peak Hour
PM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: US Route 4 NB													
Lane 1	75	0.0	369	0.204	100	17.6	LOS B	0.8	20.1	Short	225	0.0	NA
Lane 2[d]	562	0.2	704	0.799	100	15.1	LOS B	7.8	195.5	Full	1130	0.0	0.0
Approach	638	0.2		0.799		15.4	LOS B	7.8	195.5				
East: NY Route 151 WB													
Lane 1	199	1.0	622	0.320	100	11.8	LOS B	1.7	42.2	Full	475	0.0	0.0
Lane 2[d]	246	1.0	679	0.362	100	9.1	LOS A	2.0	51.1	Short	170	0.0	NA
Approach	445	1.0		0.362		10.3	LOS B	2.0	51.1				
North: US Route 4 SB													
Lane 1	366	0.0	815	0.449	100	13.8	LOS B	3.1	77.2	Full	1600	0.0	0.0
Lane 2[d]	935	1.2	1147	0.816	100	11.1	LOS B	13.6	343.4	Full	1600	0.0	0.0
Approach	1301	0.9		0.816		11.8	LOS B	13.6	343.4				
West: NY Route 151 EB													
Lane 1	299	1.0	470	0.636	100	20.9	LOS C	4.4	110.5	Short	175	0.0	NA
Lane 2[d]	305	1.0	513	0.595	100	13.5	LOS B	4.1	102.5	Full	565	0.0	0.0
Approach	604	1.0		0.636		17.2	LOS B	4.4	110.5				
Intersection	2988	0.8		0.816		13.5	LOS B	13.6	343.4				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

INPUT VOLUMES

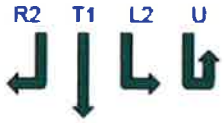
Vehicles and pedestrians per 60 minutes

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Existing - PM Peak Hour]

US Route 4/NY Route 151
Existing Peak Hour
PM Peak Hour
Roundabout

Volume Display Method: Total and %

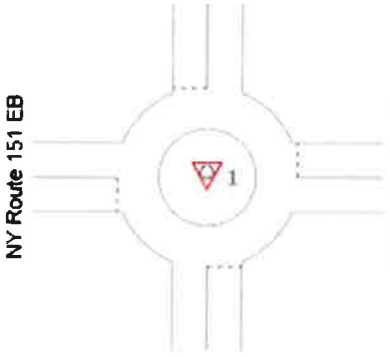
	R2	T1	L2	U
Tot	168	702	324	16
LV	98%	99%	100%	100%
HV	2%	1%	0%	0%



US Route 4 SB

HV	LV	Tot	
0%	100%	1	U
1%	99%	277	L2
1%	99%	199	T1
1%	99%	85	R2

NY Route 151 EB



NY Route 151 WB

	Tot	LV	HV
R2	229	99%	1%
T1	109	99%	1%
L2	75	99%	1%
U	1	100%	0%

US Route 4 NB

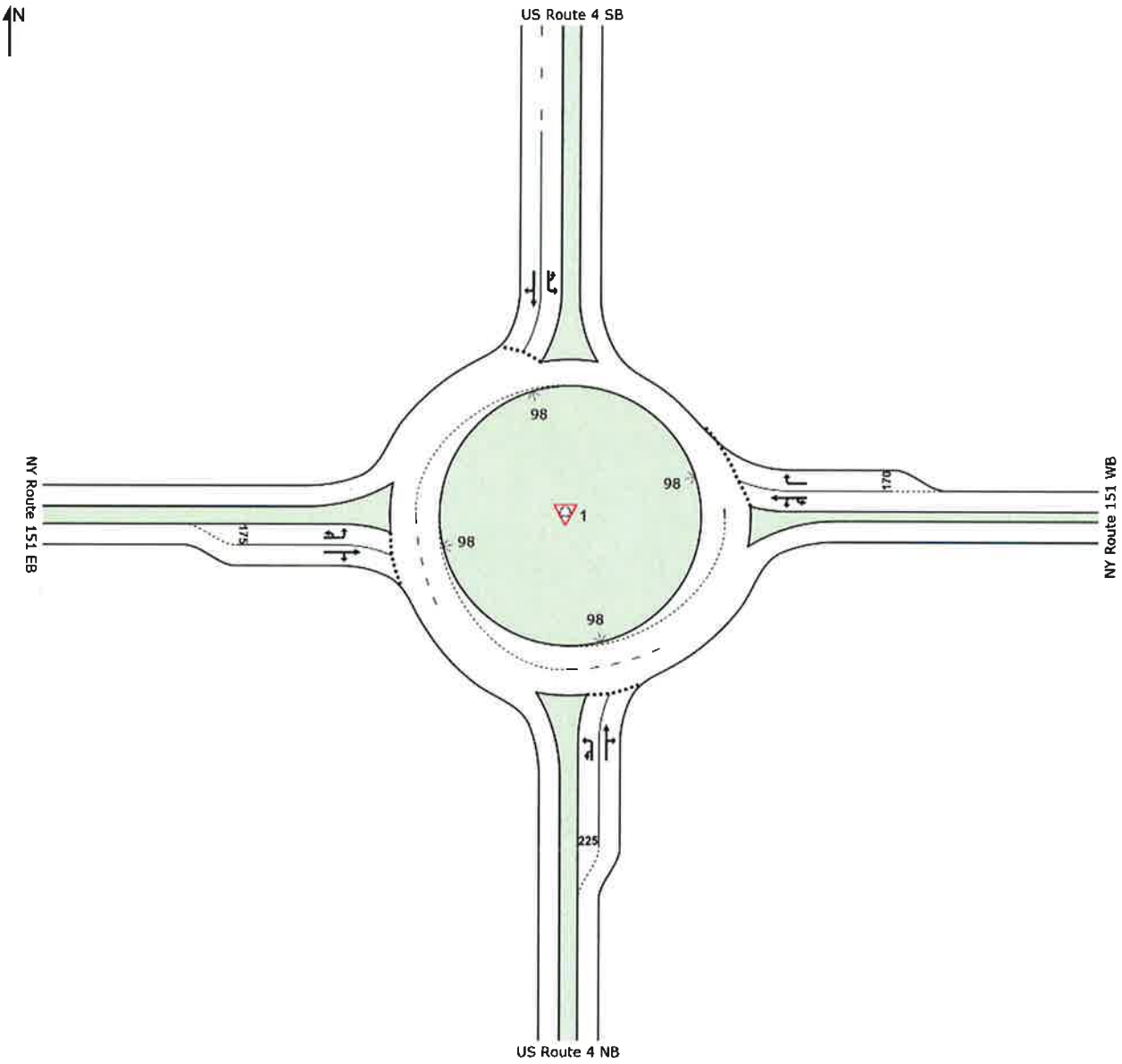
	U	L2	T1	R2
Tot	2	68	408	115
LV	100%	100%	100%	99%
HV	0%	0%	0%	1%

	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: US Route 4 NB	593	592	1
E: NY Route 151 WB	414	410	4
N: US Route 4 SB	1210	1200	10
W: NY Route 151 EB	562	556	6
Total	2779	2758	21

SITE LAYOUT

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Existing - PM Peak Hour]

US Route 4/NY Route 151
Existing Peak Hour
PM Peak Hour
Roundabout



Organisation: CREIGHTON MANNING ENGINEERING | Created: Thursday, May 10, 2018 4:06:37 PM
Project: N:\Projects\2015\115-030 Covered Bridge Village\comps\traffic\Sidra\RT4RT151.sip7

LANE SUMMARY

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build - PM Peak Hour]

US Route 4/NY Route 151
No-Build (w/o Temple) Peak Hour
PM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: US Route 4 NB													
Lane 1	91	0.0	418	0.219	100	16.7	LOS B	0.9	23.2	Short	225	0.0	NA
Lane 2[d]	604	0.2	728	0.831	100	16.5	LOS B	9.0	224.6	Full	1130	0.0	0.0
Approach	696	0.2		0.831		16.6	LOS B	9.0	224.6				
East: NY Route 151 WB													
Lane 1	228	1.0	608	0.375	100	12.7	LOS B	2.2	54.8	Full	475	0.0	0.0
Lane 2[d]	272	1.0	708	0.384	100	9.6	LOS A	2.4	59.6	Short	170	0.0	NA
Approach	500	1.0		0.384		11.0	LOS B	2.4	59.6				
North: US Route 4 SB													
Lane 1	453	0.0	908	0.498	100	13.9	LOS B	3.7	92.5	Full	1600	0.0	0.0
Lane 2[d]	1030	1.2	1208	0.853	100	12.6	LOS B	16.3	411.7	Full	1600	0.0	0.0
Approach	1483	0.8		0.853		13.0	LOS B	16.3	411.7				
West: NY Route 151 EB													
Lane 1[d]	354	1.0	524	0.675	100	21.0	LOS C	5.3	133.0	Short	175	0.0	NA
Lane 2	347	1.0	432	0.804	100	22.0	LOS C	6.9	174.2	Full	565	0.0	0.0
Approach	701	1.0		0.804		21.5	LOS C	6.9	174.2				
Intersection	3380	0.8		0.853		15.2	LOS B	16.3	411.7				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build - PM Peak Hour]

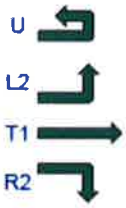
US Route 4/NY Route 151
No-Build (w/o Temple) Peak Hour
PM Peak Hour
Roundabout

Volume Display Method: Total and %

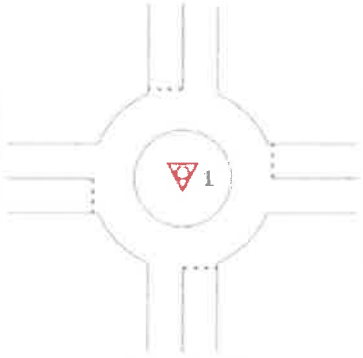
	R2	T1	L2	U
Tot	192	766	375	46
LV	98%	99%	100%	100%
HV	2%	1%	0%	0%

US Route 4 SB

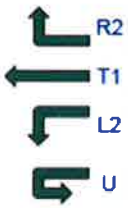
HV	LV	Tot	
0%	100%	1	U
1%	99%	328	L2
1%	99%	225	T1
1%	99%	98	R2



NY Route 151 EB



NY Route 151 WB



	Tot	LV	HV
R2	253	99%	1%
T1	127	99%	1%
L2	84	99%	1%
U	1	100%	0%

US Route 4 NB

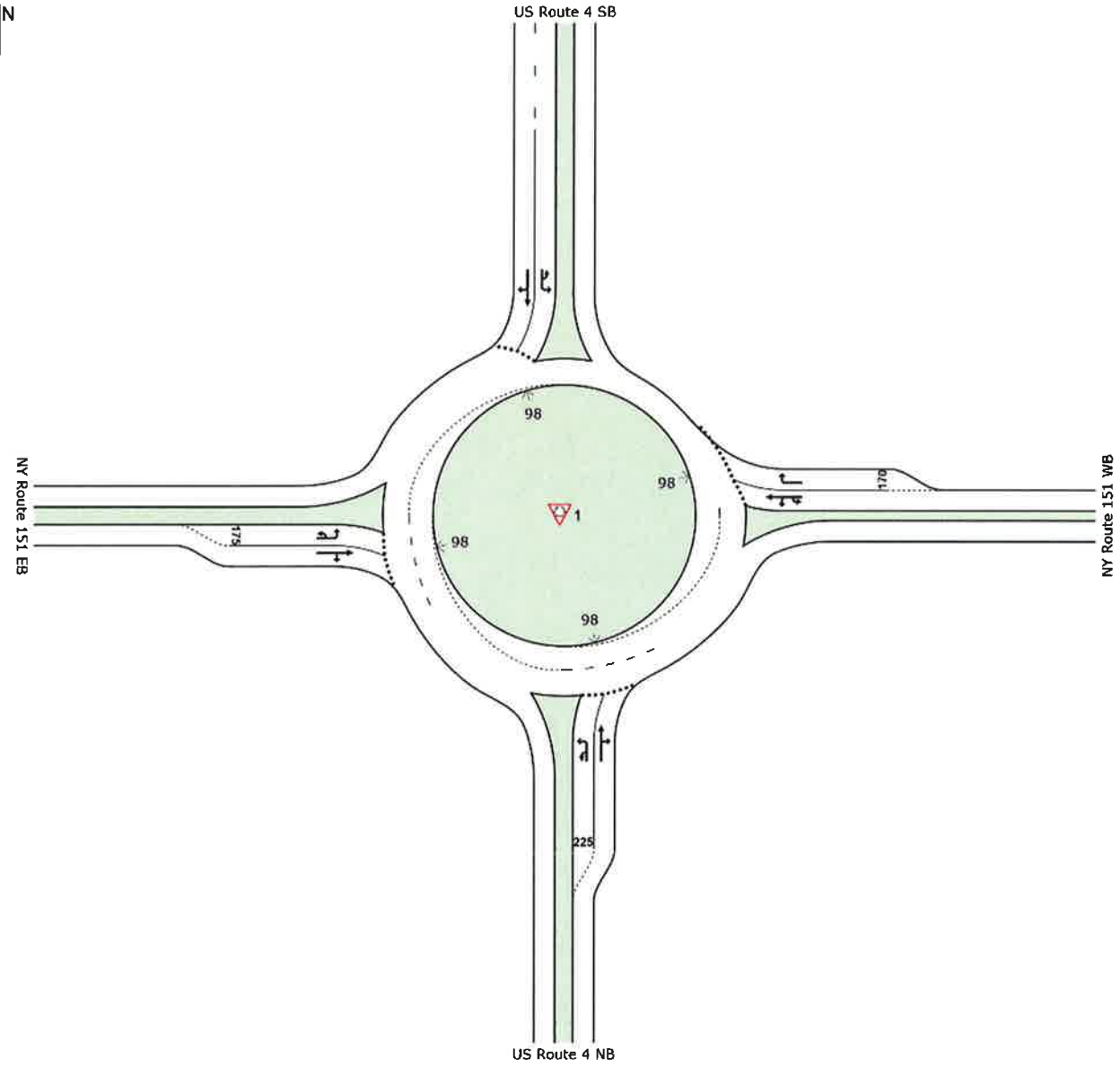
	U	L2	T1	R2
Tot	2	83	433	129
LV	100%	100%	100%	99%
HV	0%	0%	0%	1%

	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: US Route 4 NB	647	646	1
E: NY Route 151 WB	465	460	5
N: US Route 4 SB	1379	1368	12
W: NY Route 151 EB	652	645	7
Total	3143	3119	24

SITE LAYOUT

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build - PM Peak Hour]

US Route 4/NY Route 151
No-Build (w/o Temple) Peak Hour
PM Peak Hour
Roundabout



Organisation: CREIGHTON MANNING ENGINEERING | Created: Thursday, May 10, 2018 4:06:49 PM
Project: N:\Projects\2015\115-030 Covered Bridge Village\comps\traffic\Sidra\RT4RT151.sip7

LANE SUMMARY

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build - PM Peak Hour]

US Route 4/NY Route 151
Build (w/o Temple) Peak Hour
PM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: US Route 4 NB													
Lane 1	91	0.0	402	0.227	100	17.1	LOS B	1.0	24.5	Short	225	0.0	NA
Lane 2[d]	610	0.2	696	0.876	100	20.3	LOS C	10.8	270.7	Full	1130	0.0	0.0
Approach	701	0.2		0.876		19.9	LOS B	10.8	270.7				
East: NY Route 151 WB													
Lane 1	247	1.0	606	0.408	100	13.0	LOS B	2.5	62.5	Full	475	0.0	0.0
Lane 2[d]	291	1.0	704	0.414	100	9.9	LOS A	2.7	67.0	Short	170	0.0	NA
Approach	539	1.0		0.414		11.3	LOS B	2.7	67.0				
North: US Route 4 SB													
Lane 1	485	0.0	907	0.535	100	14.5	LOS B	4.3	108.7	Full	1600	0.0	0.0
Lane 2[d]	1030	1.2	1184	0.870	100	13.9	LOS B	17.8	448.5	Full	1600	0.0	0.0
Approach	1515	0.8		0.870		14.0	LOS B	17.8	448.5				
West: NY Route 151 EB													
Lane 1	354	1.0	415	0.851	100	31.5	LOS C	7.9	198.3	Short	175	0.0	NA
Lane 2[d]	375	1.0	510	0.736	100	17.1	LOS B	6.1	154.6	Full	565	0.0	0.0
Approach	729	1.0		0.851		24.1	LOS C	7.9	198.3				
Intersection	3484	0.8		0.876		16.9	LOS B	17.8	448.5				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

INPUT VOLUMES

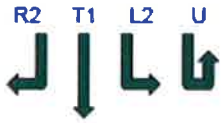
Vehicles and pedestrians per 60 minutes

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build - PM Peak Hour]

US Route 4/NY Route 151
Build (w/o Temple) Peak Hour
PM Peak Hour
Roundabout

Volume Display Method: Total and %

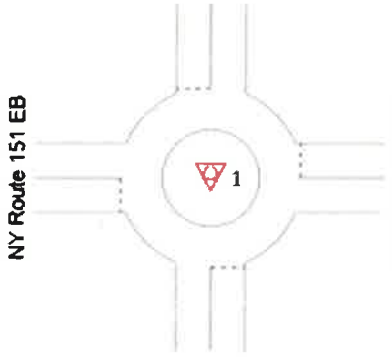
	R2	T1	L2	U
Tot	192	766	405	46
LV	98%	99%	100%	100%
HV	2%	1%	0%	0%



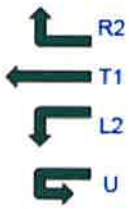
US Route 4 SB

HV	LV	Tot	
0%	100%	1	U
1%	99%	328	L2
1%	99%	251	T1
1%	99%	98	R2

NY Route 151 EB



NY Route 151 WB



	Tot	LV	HV
R2	271	99%	1%
T1	142	99%	1%
L2	87	99%	1%
U	1	100%	0%

US Route 4 NB

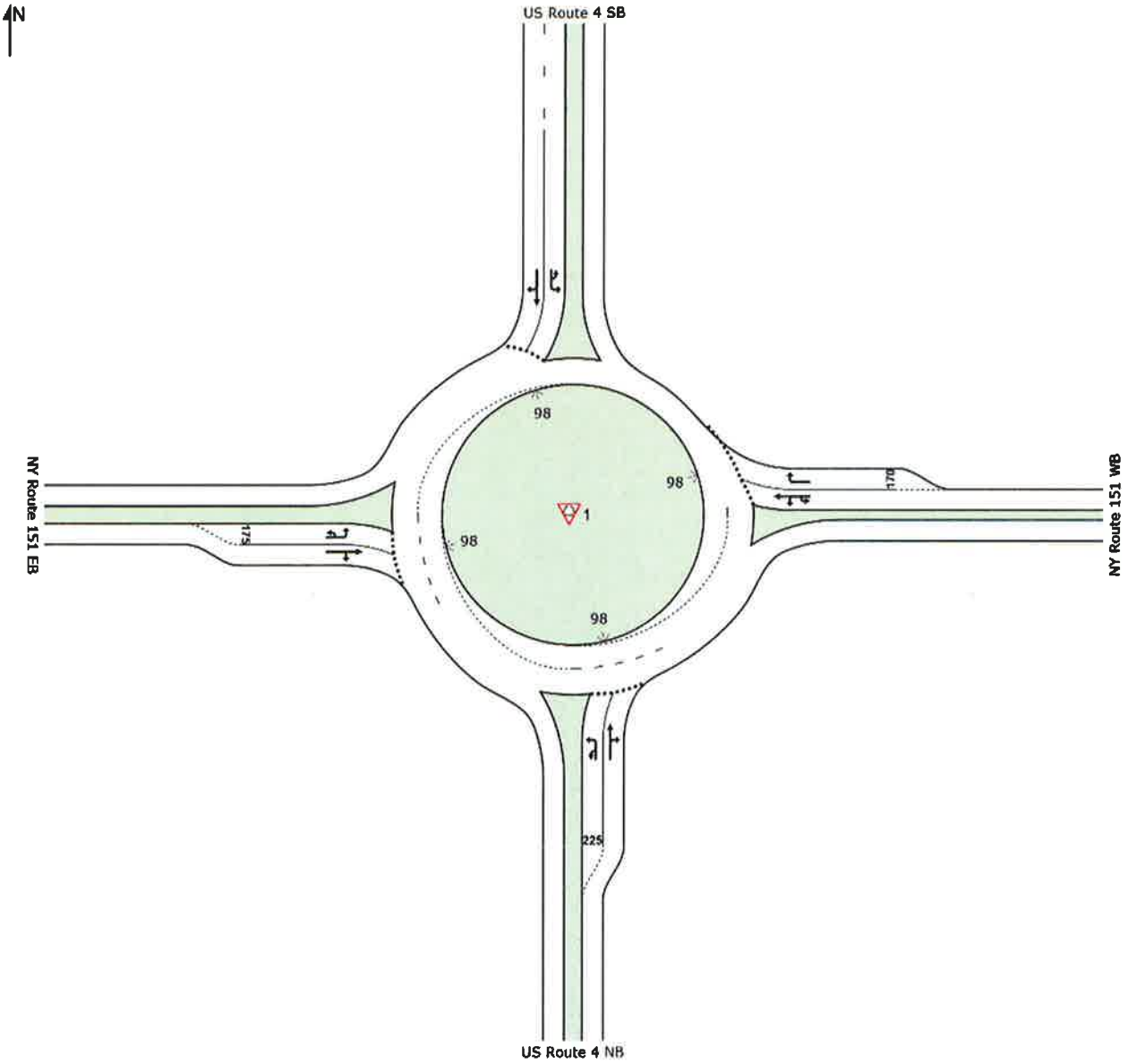
	U	L2	T1	R2
Tot	2	83	433	134
LV	100%	100%	100%	99%
HV	0%	0%	0%	1%

	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: US Route 4 NB	652	651	1
E: NY Route 151 WB	501	496	5
N: US Route 4 SB	1409	1398	12
W: NY Route 151 EB	678	671	7
Total	3240	3215	25

SITE LAYOUT

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build - PM Peak Hour]

US Route 4/NY Route 151
Build (w/o Temple) Peak Hour
PM Peak Hour
Roundabout



LANE SUMMARY

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build Sensitivity - PM Peak Hour]

US Route 4/NY Route 151
No-Build (w/ Temple) Peak Hour - 2 Lane
PM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: US Route 4 NB													
Lane 1[d]	411	0.0	640	0.642	100	15.0	LOS B	5.0	125.6	Short	225	0.0	NA
Lane 2	297	0.5	512	0.580	90[6]	14.0	LOS B	3.8	96.2	Full	1130	0.0	0.0
Approach	708	0.2		0.642		14.6	LOS B	5.0	125.6				
East: NY Route 151 WB													
Lane 1	232	1.0	600	0.387	100	13.0	LOS B	2.1	53.9	Full	475	0.0	0.0
Lane 2[d]	275	1.0	711	0.387	100	9.7	LOS A	2.3	56.7	Short	170	0.0	NA
Approach	508	1.0		0.387		11.2	LOS B	2.3	56.7				
North: US Route 4 SB													
Lane 1[d]	973	0.4	1206	0.807	100	14.8	LOS B	13.2	330.8	Full	1600	0.0	0.0
Lane 2	710	1.3	999	0.710	88[6]	10.3	LOS B	8.7	218.9	Full	1600	0.0	0.0
Approach	1683	0.8		0.807		12.9	LOS B	13.2	330.8				
West: NY Route 151 EB													
Lane 1	344	1.0	344	1.000	100	61.8	LOS E	14.2	356.6	Short	175	0.0	NA
Lane 2[d]	442	1.0	442	1.000	100	52.4	LOS D	16.9	425.9	Full	565	0.0	0.0
Approach	786	1.0		1.000		56.5	LOS E	16.9	425.9				
Intersection	3684	0.8		1.000		22.3	LOS C	16.9	425.9				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

6 Lane under-utilisation due to downstream effects
d Dominant lane on roundabout approach

INPUT VOLUMES

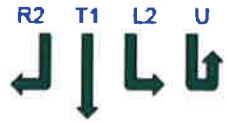
Vehicles and pedestrians per 60 minutes

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build Sensitivity - PM Peak Hour]

US Route 4/NY Route 151
No-Build (w/ Temple) Peak Hour - 2 Lane
PM Peak Hour
Roundabout

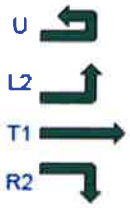
Volume Display Method: Total and %

	R2	T1	L2	U
Tot	209	836	421	99
LV	98%	99%	100%	100%
HV	2%	1%	0%	0%

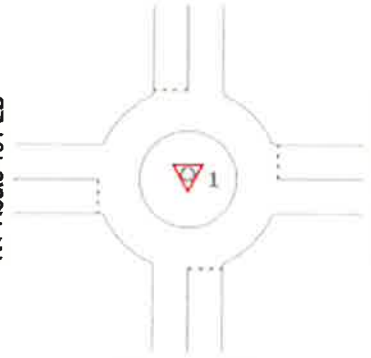


US Route 4 SB

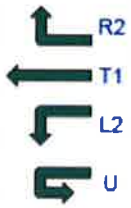
HV	LV	Tot	
0%	100%	1	U
1%	99%	382	L2
1%	99%	233	T1
1%	99%	115	R2



NY Route 151 EB



NY Route 151 WB



	Tot	LV	HV
R2	256	99%	1%
T1	131	99%	1%
L2	84	99%	1%
U	1	100%	0%

US Route 4 NB

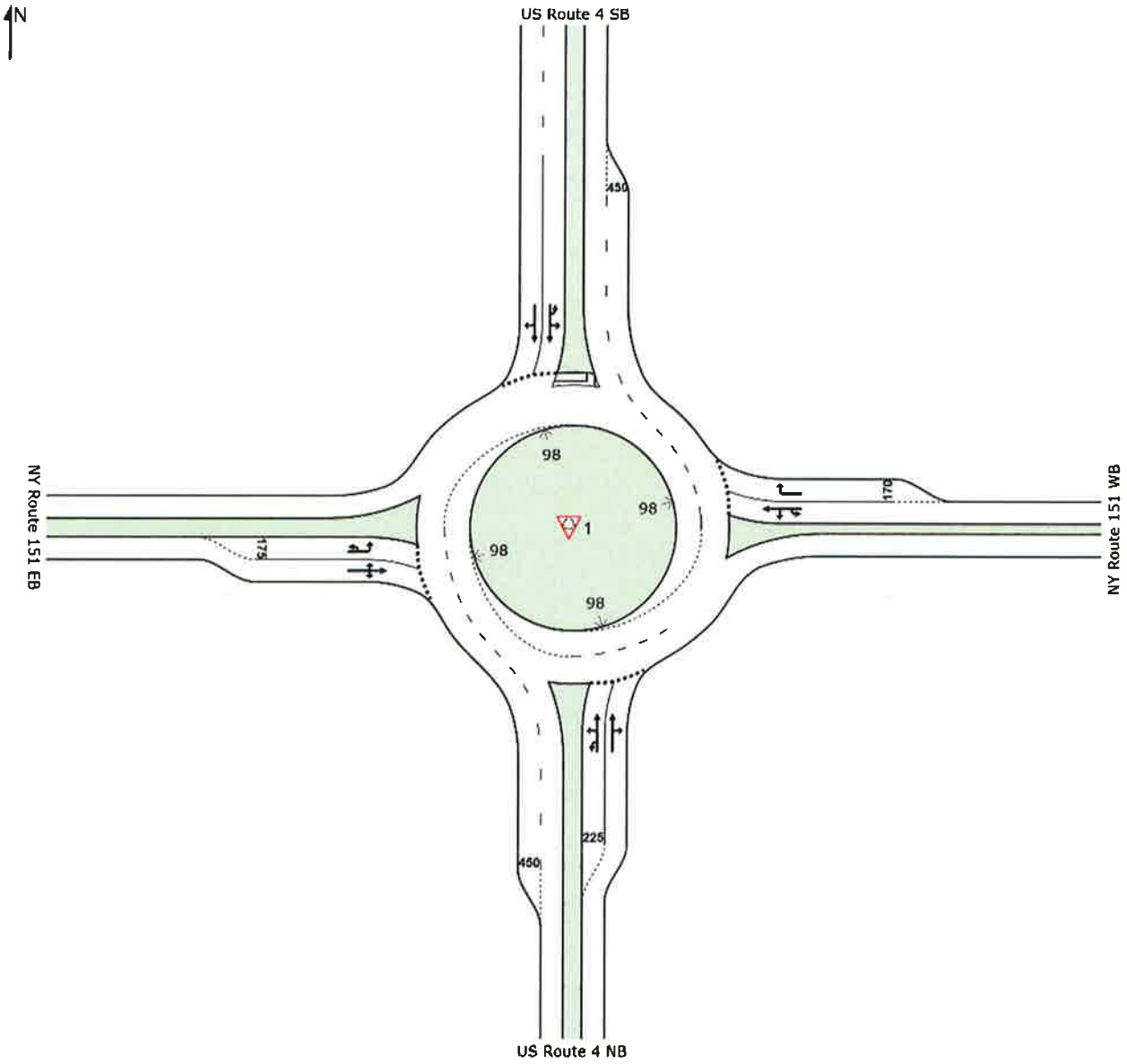
	U	L2	T1	R2
Tot	2	90	437	129
LV	100%	100%	100%	99%
HV	0%	0%	0%	1%

	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: US Route 4 NB	658	657	1
E: NY Route 151 WB	472	467	5
N: US Route 4 SB	1565	1552	13
W: NY Route 151 EB	731	724	7
Total	3426	3400	26

SITE LAYOUT

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - No-Build Sensitivity - PM Peak Hour]

US Route 4/NY Route 151
No-Build (w/ Temple) Peak Hour - 2 Lane
PM Peak Hour
Roundabout



Organisation: CREIGHTON MANNING ENGINEERING | Created: Thursday, May 10, 2018 4:07:14 PM
Project: N:\Projects\2015\115-030 Covered Bridge Village\comps\traffic\Sidra\RT4RT151.sip7

LANE SUMMARY

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build Sensitivity - PM Peak Hour]

US Route 4/NY Route 151
Build (w/ Temple) Peak Hour - 2 Lane
PM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: US Route 4 NB													
Lane 1[d]	414	0.0	645	0.642	100	15.2	LOS B	5.1	127.0	Short	225	0.0	NA
Lane 2	299	0.5	516	0.580	90[6]	14.2	LOS B	3.9	97.0	Full	1130	0.0	0.0
Approach	713	0.2		0.642		14.8	LOS B	5.1	127.0				
East: NY Route 151 WB													
Lane 1	252	1.0	613	0.411	100	13.0	LOS B	2.3	59.0	Full	475	0.0	0.0
Lane 2[d]	295	1.0	721	0.409	100	9.7	LOS A	2.4	61.6	Short	170	0.0	NA
Approach	546	1.0		0.411		11.2	LOS B	2.4	61.6				
North: US Route 4 SB													
Lane 1[d]	993	0.4	1184	0.839	100	16.4	LOS B	15.3	383.2	Full	1600	0.0	0.0
Lane 2	722	1.3	977	0.738	88[6]	11.2	LOS B	9.7	244.4	Full	1600	0.0	0.0
Approach	1715	0.8		0.839		14.3	LOS B	15.3	383.2				
West: NY Route 151 EB													
Lane 1	355	1.0	321	1.107	100	94.6	LOS F	21.8	549.7	Short	175	0.0	NA
Lane 2[d]	459	1.0	415	1.107	100	85.5	LOS F	26.9	676.7	Full	565	0.0	10.6
Approach	814	1.0		1.107		89.5	LOS F	26.9	676.7				
Intersection	3788	0.8		1.107		30.1	LOS C	26.9	676.7				

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

6 Lane under-utilisation due to downstream effects
d Dominant lane on roundabout approach

INPUT VOLUMES

Vehicles and pedestrians per 60 minutes

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build Sensitivity - PM Peak Hour]

US Route 4/NY Route 151
Build (w/ Temple) Peak Hour - 2 Lane
PM Peak Hour
Roundabout

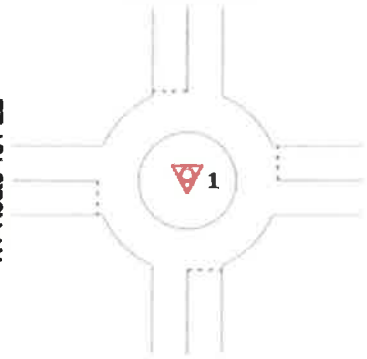
Volume Display Method: Total and %

	R2	T1	L2	U
Tot	209	836	451	99
LV	98%	99%	100%	100%
HV	2%	1%	0%	0%

US Route 4 SB

HV	LV	Tot	
0%	100%	1	U
1%	99%	382	L2
1%	99%	259	T1
1%	99%	115	R2

NY Route 151 EB



NY Route 151 WB

	Tot	LV	HV
R2	274	99%	1%
T1	146	99%	1%
L2	87	99%	1%
U	1	100%	0%

US Route 4 NB

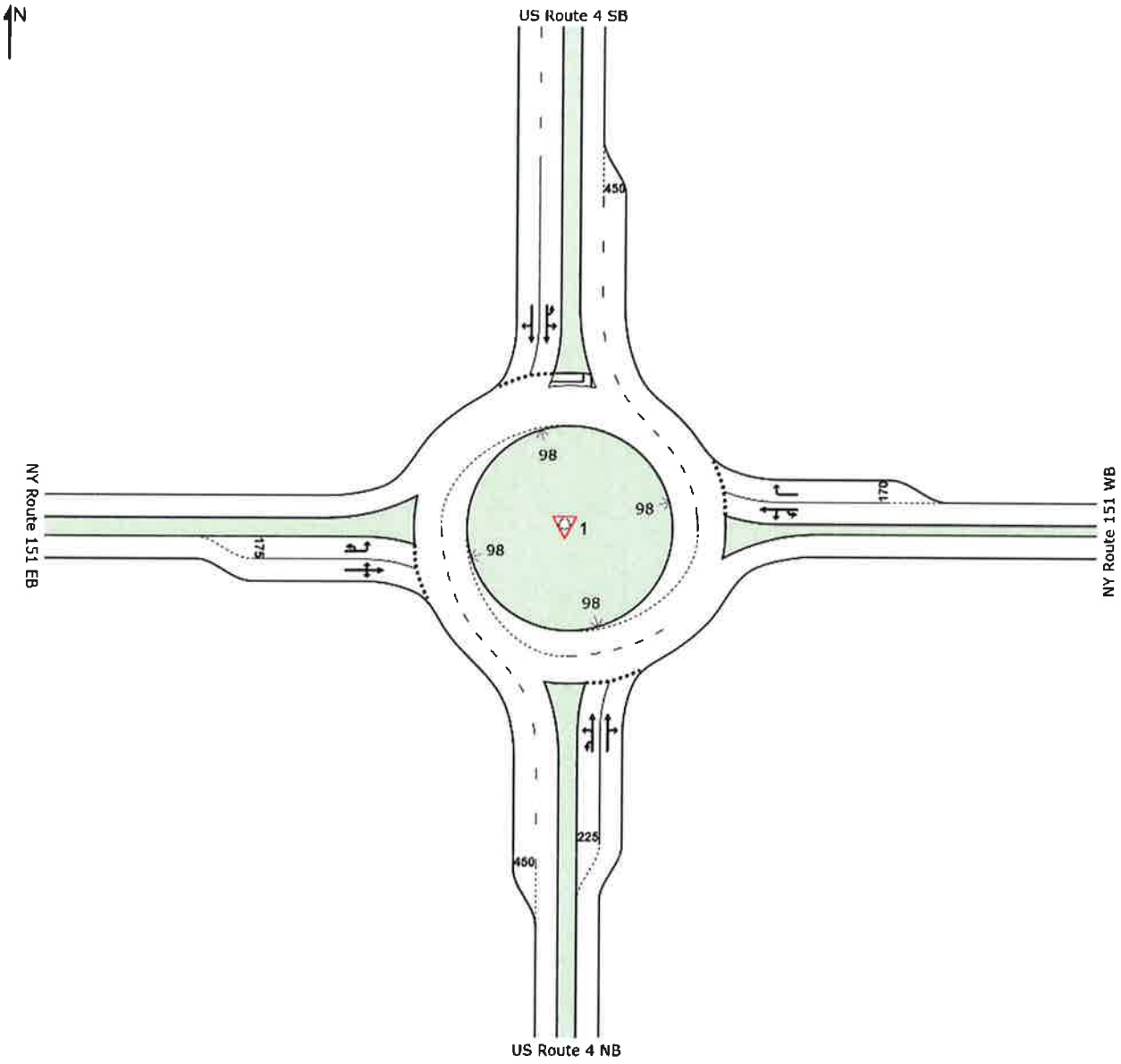
	U	L2	T1	R2
Tot	2	90	437	134
LV	100%	100%	100%	99%
HV	0%	0%	0%	1%

	All MCs	Light Vehicles (LV)	Heavy Vehicles (HV)
S: US Route 4 NB	663	662	1
E: NY Route 151 WB	508	503	5
N: US Route 4 SB	1595	1582	13
W: NY Route 151 EB	757	749	8
Total	3523	3496	27

SITE LAYOUT

Site: 1 [Red Mill Rd/Luther Rd/Troy Rd (Rt4) - Build Sensitivity - PM Peak Hour]

US Route 4/NY Route 151
Build (w/ Temple) Peak Hour - 2 Lane
PM Peak Hour
Roundabout



Organisation: CREIGHTON MANNING ENGINEERING | Created: Thursday, May 10, 2018 4:07:25 PM
Project: N:\Projects\2015\115-030 Covered Bridge Village\comps\traffic\Sidra\RT4RT151.sip7