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TRAFFIC IMPACT STUDY

BUTTERMILK FALLS

220 North Road

Town of Marlborough
Orange County, New York

June 27, 2023

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INTRODUCTION

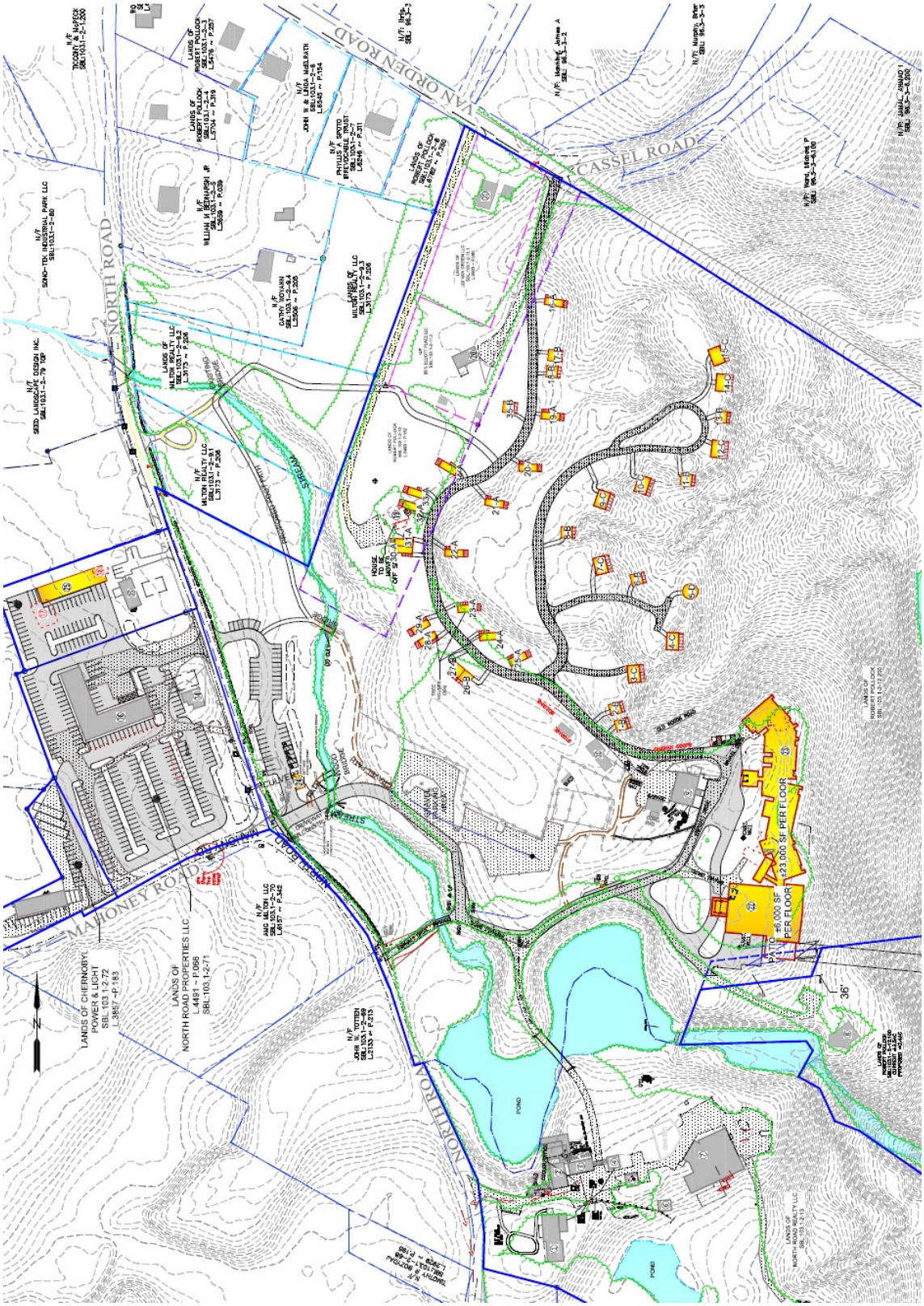
The purpose of this Traffic Impact Study is to identify potential adverse traffic issues that may result due to the completion of certain additional amenities at an existing Inn & Spa on property located on North Road in the Town of Marlborough, New York. The proposed Project would consist of a 65-room hotel, 35 rental cabins, a 60-seat fine dining restaurant and a 300-seat banquet hall. The site will continue to have access via its two existing North Road driveways and from a new driveway to North Road directly opposite Mahoney Road. Both North and Mahoney are local roads under the jurisdiction of the Town of Marlborough. The Project build-out is estimated to be about two years, i.e., completed and operational by 2025.

The site and its environs are shown on the aerial map and in the site plan below. The aerial map shows the approximate boundaries of the site; the site plan was prepared by Medenbach and Eggers Civil Engineering and Land Surveying PC:

Site Location Map

Source: Google Earth

Site Plan



Source: Medenbach and Eggers Civil Engineering and Land Surveying PC

EXISTING CONDITIONS

The following is a description of existing travel conditions near the site of the proposed project:

Roadways:

North Road is a two-lane generally north/south local road running parallel to and east of NYS Route 9W in the Town of Marlborough, in a section of the Town known as Milton. Adjacent to the site, North Road intersects Mahoney Road – a local road with an east/west orientation. Mahoney Road intersects with Route 9W a short distance west of the project site. North Road directly serves the project site as well as other commercial and residential uses. There is no on-street parking on North Road and the pavement is in fair to good condition. The posted speed limit is 30 mph. New driveways are proposed for the main site opposite Mahoney Road, supplementing the two existing driveways from North Road, situated to the south, and to a new parking area on the west side of North Road. The new exits from the project site and parking lot will be controlled by a stop signs while North Road will maintain free flowing movements. Travel lanes are ±12 feet in width. To the south of the site North Road is signed as Main Street in the hamlet of Milton.

Mahoney Road is a local road intersecting North Road adjacent to the project site. It runs east/west from a stop controlled intersection at NYS Route 9W, serving a few commercial sites. There is no on-street parking on Mahoney Road and the pavement is in fair to good condition. Travel lanes are ±11 feet in width, and the speed limit is 30 mph. A new driveway into the lot from Mahoney Road is proposed.

NYS Route 9W is a major State arterial running parallel to the Hudson River, serving many River Towns throughout Orange and Ulster Counties. Major interchanges with other regional highways and arterials are located both north and south of the project site. In the Town of Lloyd to the north, Route 9W intersects with NYS Routes 44/55 – both of which extend for many miles east and west of Route 9W. The Mid-Hudson Bridge over the Hudson lies a short distance to the east of Route 9W. In the Town of Newburgh, Route 9W has an interchange with I-84, a major interstate expressway serving the entire mid-Hudson region, extending well beyond New York State. The Newburgh/Beacon Bridge over the Hudson also is located a short distance east of Route 9W. There is no on-street parking on Route 9W, and the pavement is in good condition. The posted speed limit is 55 mph.

Traffic Volumes:

As proposed, the Project will include a mix of service oriented commercial space. To evaluate the potential "worst-case" impacts of this type of development, time periods that represent the peak time for such uses as those proposed were evaluated. For the hotel, restaurant and banquet facility, the peak times are typically Friday evenings (4:00 to 6:00 PM), Friday night

(7:00 to 9:00 PM) and Saturday afternoon (1:00 to 3:00 PM). Those time periods were chosen because the combination of existing street traffic and peak traffic generation from the site results in the most conservative analysis of potential impacts. A NYS Department of Transportation (DOT) record count was obtained as was new traffic volume information from intersection field counts at the intersections of Route 9W with Milton Road in Lloyd (the northern end of North Road), Route 9W with Mahoney Road, and North Road with Mahoney Road. The DOT 2017 record count and the results of the new 2023 intersection counts are contained in **Appendix A**, with the following summary of the DOT count:

Table 1: NYS DOT Peak Hour Traffic Count Summary – Route 9W

Peak Hour	Day	Northbound Volume	Southbound Volume	Total
4:00 to 6:00 PM	Weekday	720	954	1674
7:00 to 8:00 PM	Weekday	384	456	840

The intersection peak hour volumes are shown graphically in Figures 1, 2 and 3 in **Appendix B** for the Friday Evening, Friday Night and Saturday Afternoon peak hours, respectively. Note that current 2023 peak hour intersection counts are comparable to DOT counts from 2017. No significant traffic growth has occurred in this section of the region.

FUTURE TRAFFIC CONDITIONS

Other Development and Traffic Growth:

To develop future traffic conditions, the 2023 Base Traffic volumes were increased in this study by an additional 4% - to account for traffic from other potential area developments or unidentified increases in traffic that may occur between 2023 and 2025. Note that there is no significant commercial development planned/proposed for the Route 9W corridor that is expected to be completed by 2025. Traffic that may result from any development in that corridor occurring before 2025 is accounted for in the 4% growth factor used in this study.

The resulting traffic volumes – projected future traffic without the proposed Project – are shown graphically in Figures 4, 5 and 6 in **Appendix B** for the Friday Evening, Friday Night and Saturday Afternoon peak hours, respectively. This study refers to this future condition as the "No Build" scenario.

The Proposed Project:

The proposed Project would consist of a 65-room hotel plus 35 rental cabins (or 100 units), a 60-seat fine dining restaurant and a 300-seat banquet hall. The industry standard trip generation reference *"The Trip Generation Manual – 11th Edition"* from the Institute of Transportation Engineers (ITE) was referenced to estimate traffic for the proposed project.

ITE's *Land Use #310: Hotel, Land Use #931: Fine Dining Restaurant* were the data sources used in this analysis. Generally accepted methodology was applied for the banquet hall.

The results of the ITE data and the application of the banquet hall information as used in this study, with the trip volumes used in subsequent analyses of the study intersections, are summarized as follows:

Table 2: Trip Generation

ITE Land Use 310 **Hotel**		Trip Generation – 100 rooms or units			
		Rate (trips/room)		Volume	
Peak Hour	Time Period	Enter	Exit	Enter	Exit
Friday	Evening	0.24	0.22	24	22
Friday	Night	0.35	0.26	35	26
Saturday	Afternoon	0.40	0.32	40	32
ITE Land Use 931 **Fine Dining Restaurant**		Trip Generation – 60 seats			
		Rate (trips/room)		Volume	
Peak Hour	Time Period	Enter	Exit	Enter	Exit
Friday	Evening	0.19	0.09	11	5
Friday	Night	0.11	0.07	7	4
Saturday	Afternoon	0.19	0.14	11	8
Banquet Hall†		Trip Generation – 300 seats			
		Rate (trips/seat)		Volume	
Peak Hour	Time Period	Enter	Exit	Enter	Exit
Friday	Night	0.34	0.04	102	12
Saturday	Afternoon	0.34	0.04	102	12

†Banquet Hall trips based on an average car occupancy of three (3) persons per vehicle – most arriving during the beginning of the analysis period. The trip volumes assume full occupancy.

Traffic from the proposed development was distributed to the surrounding street network using a 45% north/55% south split on Route 9W. The slightly higher distribution to/from the south is due to the proximity of the I-84 interchange and the generally higher populations south of the site. The resulting trip volume assignments are shown graphically in Figures 7, 8 and 9 in **Appendix B** for the Friday Evening, Friday Night and Saturday Afternoon peak hours, respectively. The traffic generated by the site was then added to the above-described No Build traffic scenario resulting in the Build scenario – the future traffic volumes with both other background growth traffic and traffic from the proposed project. The resulting Build traffic is shown graphically in Figures 10, 11 and 12 in **Appendix B** for the Friday Evening, Friday Night and Saturday Afternoon peak hours, respectively.

Level of Service Analysis

The *2016 Highway Capacity Manual – 6th Edition* (HCM), published by the Transportation Research Board, defines Level of Service (LOS) for signalized and unsignalized intersections as a function of the average vehicle control delay. LOS may be calculated per movement or

per approach for any intersection configuration, but LOS for the intersection as a whole is only defined for signalized and all-way stop configurations. In this analysis, the study locations on Route 9W (at Milton Road and Mahoney Road) are both stop sign controlled intersection with four approaches. The existing North Road/Mahoney Road intersection has a "T"-shaped configuration; under build conditions, it will have four approaches.

Delay is defined in the *HCM* as "the additional travel time experienced by a driver, passenger, bicyclist, or pedestrian beyond that which is required to travel at the desired speed."

For unsignalized intersections (i.e., stop sign controlled), the major road has free through movements while movements from the minor road are controlled by a stop sign. The movements that are subject to control delays are rated on a scale of "A" to "F," with LOS "A" exhibiting very short delays – 10 seconds or less on average – and LOS "F" exhibiting much longer delays – 50 seconds or more per vehicle on average. The relationship of LOS to delay times is shown in the following table:

Table 3: Level of Service – Stop/Yield Sign Controlled Intersections

LOS	Description of Traffic Flow	Average Control Delay - (sec/veh)
A	Free flow	≤10 sec
B	Reasonably free flow	>10–15 sec
C	Stable flow	>15–25 sec
D	Approaching unpredictable flow	>25–35 sec
E	Unpredictable flow	>35–50 sec
F	Forced or breakdown flow	>50 sec

In the two-way stop sign controlled Level of Service analyses, the through movements on the major road and right turns from the major road are assumed to have no delay. LOS for those movements is not an integral part of the analysis, because LOS is determined by control delay, and for these "free" movements, the control delay is zero.

Movements that are subject to small to moderate control delays include left turns from the major road, through movements on the minor road and right turns from the minor road. Movements that are most affected by control delay include left turns from the minor road.

Generally accepted software (Synchro) was used to compute control delays and Levels of Service. Synchro uses the methodologies published in the *Highway Capacity Manual* and requires input from the user specific to the intersections being studied. Among other items, the input information includes the following:

1. Traffic Volumes – from the counts noted above.
2. Speeds – from field observations of posted limits as noted above.
3. Lane Configuration and Width – from field measurements.
4. Traffic Control – stop signs.

5. Vehicle Mix/Classification – from DOT count data (6% on Route 9W).
6. Buses – No scheduled route buses with stops on adjacent streets.
7. Pedestrians/Bicycles – from field observations indicating few if any pedestrians and bicycles.

The results of the Level of Service analysis for existing conditions are shown in the following Table. The detailed LOS summary reports are contained in **Appendix C**.

Table 4: Level of Service Summary – 2023 Existing Build Conditions

INTERSECTION	MVMT.	EXISTING					
		FRIDAY EVENING		FRIDAY NIGHT		SAT'DAY AFT'NOON	
		DELAY (SEC)	LOS	DELAY (SEC)	LOS	DELAY (SEC)	LOS
Route 9W at Milton Road (stop sign control)	EB	30.3	D	16.5	C	17.2	C
	WB	23.3	C	11.6	B	15.6	C
	NB Left	10.4	B	8.5	A	8.4	A
	SB Left	9.6	A	8.2	A	8.4	A
Route 9W at Mahoney Road (stop sign control)	EB	18.0	C	11.5	B	19.7	C
	WB	37.4	E	17.8	C	12.6	B
	NB Left	10.4	B	8.5	A	8.3	A
	SB Left	9.6	A	0.0	A	8.4	A
North Road at Mahoney Road (future site entrance) (stop sign control)	EB	8.7	A	8.4	A	8.5	A
	WB		A		A		A
	NB Left	7.3	A	7.3	A	7.3	A
	SB Left		A		A		A

Some LOS for the low volume side roads at Route 9W currently experience delays over 30 seconds on average – but only during the Friday evening peak hour. However, as shown in the field count summaries, the actual volume of traffic experiencing those delays is very small relative to the heavy through volumes on Route 9W. The volume on the eastbound Perkinsville Road approach (opposite Milton Road) is only six (6) vehicles, while the volume of traffic on Route 9W is more than 1,700 vehicles. Such delays are typical for very low volume side roads intersecting high volume arterials.

To best present potential project related impacts, the Levels of Service (LOS) and corresponding control delays under the No-Build and Build conditions for the study locations are evaluated. The potential impact results are summarized in the following Table for the Friday Evening, Friday Night and Saturday Afternoon peak hours. The detailed LOS summary reports are contained in **Appendix C**.

Table 5: Level of Service Summary – 2025 No-Build vs. Build Conditions

INTERSECTION	MVMT.	FRIDAY EVENING				FRIDAY NIGHT				SATURDAY AFTERNOON			
		NO BUILD		BUILD		NO BUILD		BUILD		NO BUILD		BUILD	
		DELAY (SEC)	LOS	DELAY (SEC)	LOS	DELAY (SEC)	LOS	DELAY (SEC)	LOS	DELAY (SEC)	LOS	DELAY (SEC)	LOS
Route 9W at Milton Road (stop sign control)	EB	33.3	D	36.7	E	17.1	C	18.1	C	17.8	C	19.4	C
	WB	24.9	C	23.3	C	11.8	B	11.4	B	16.1	C	14.3	B
	NB Left	10.6	B	10.6	B	8.6	A	8.6	A	8.4	A	8.4	A
	SB Left	9.8	A	9.9	A	8.2	A	8.3	A	8.5	A	8.5	A
Route 9W at Mahoney Road (stop sign control)	EB	29.8	D	30.0	D	11.7	B	11.7	B	20.7	C	21.0	C
	WB	41.0	E	100.4	F	18.5	C	21.6	C	12.8	B	19.7	C
	NB Left	10.6	B	10.6	B	8.5	A	8.5	A	8.4	A	8.4	A
	SB Left	9.7	A	9.8	A	0.0	A	0.0	A	8.4	A	8.5	A
North Road at Mahoney Road (future site entrance) (stop sign control)	EB	8.8	A	9.5	A	8.4	A	9.5	A	8.6	A	9.6	A
	WB			9.5	A			9.2	A			9.4	A
	NB Left	7.3	A	7.3	A	7.3	A	7.3	A	7.3	A	7.3	A
	SB Left			7.3	A			7.3	A			7.3	A

Upon review of the summary table for the 2025 No-Build vs. Build LOS at the Route 9W intersections, it is noted that peak hour control delays may typically increase by three (3) seconds or less. One exception is the westbound Mahoney Road approach at Route 9W.

While the analysis shows an increase in the average delay time of about 60 seconds, this is due to an increase of only 14 vehicles on Mahoney Road, all projected to make left turns at that intersection. The left turn movement from a side road at a stop controlled intersection is highly sensitive to even small changes in volume. This is the case at Mahoney Road under Friday evening build conditions. For this short period of time – one hour or less – this condition may be considered acceptable. Note that those delays would occur only during the peak Friday evening time, while at all other times during the day and on the weekends, conditions would be better. At other study intersections during the Friday peak time analyzed, acceptable Levels of Service D/E or better would be experienced.

The exit from the site at Mahoney Road would experience delays similar to that under existing conditions – less than 10 seconds on average. These results are indicative of good operating levels with little or no delays at the intersection. Also note that the analysis assumed all newly generated traffic would enter/exit the site at the new access. This is a conservative estimate since there are two other points of access to the site on North Road, as well as driveways to the proposed new parking lot/storage area across North Road from the main site.

Events at the Banquet Hall

A special feature of the proposed Buttermilk Falls project is the addition of a 300-seat banquet facility. However, that capacity would not be filled at most of the events that could be accommodated there. Many events that may request such space tend to be much smaller in scope – 150 attendees or less, generating less than half of the trip estimates provided above in Table 2. A "full house" event would be rare, and the site's management would make arrangements to avoid overlapping banquet hall activities with those at other on-site facilities. Moreover, events generating larger attendance will be infrequently held during the year, and

are likely to be scheduled at off-peak times, i.e., Saturday night or Sunday afternoon – times when traffic on the adjacent streets is significantly lower than during the peak times evaluated in this study.

PARKING ASSESSMENT

Buttermilk Falls is described in their website as *"set on a 75-acre estate on the Hudson River Valley, this posh inn in a 1764 house with a working farm is 6 miles from the Walkway over the Hudson."* As noted above, Buttermilk Falls also features a spa and a restaurant (Henry's), along with other amenities and attractions. The proposed expansion would add more restaurant space, a banquet hall, 35 cabins and a 65-room hotel. When combined, the overall site can be described as "mixed-use." As such, not all visitors and staff would be on site at the same times during the day. For example, restaurant patrons would be on-site in the evenings while spa clients would generally have appointments during daytime hours. Furthermore, there would be some visitors to the site who are staying at the hotel and also visiting the spa and eating at the restaurant. Therefore, instead of three parking spaces – one for each use – only one space would be needed for that visit.

With this overlapping of uses, it is expected that the needed parking supply would not be a simple sum of the individual needs of each use on the site. Typically, this condition has led to the development of a concept known as **"shared parking."**

The concept of shared parking is found in the Urban Land Institute's (ULI) publication of the same name, as follows:

> *Shared parking is the use of a parking space to serve two or more individual land uses without conflict or encroachment. The ability to share parking spaces is the result of two conditions:*
>
> - *variations in the accumulation of vehicles by hour, by day, or by season at the individual land uses, and*
> - *relationships among the land uses that result in visiting multiple land uses on the same auto trip.*

In my opinion, the Buttermilk Falls site will experience shared parking, and the following analyses would be a reasonable estimate of the parking needed to accommodate all uses within the site.

The site uses and the corresponding ULI uses are summarized as follows:

Table 6: Site & ULI Corresponding Uses

Project Land Use	ULI Land Use
Existing	
Existing B&B	Hotel (leisure)
Henry's Restaurant	Fine/Casual Dining
Single Family Cottage	Residential
Spa (rooms)	Health Club (guest)
Spa (staff)	Health Club (staff)
Barn	Hotel Convention
Outside Special Event Area	Estimated
Proposed	
Hotel	Hotel (leisure)
Restaurant	Fine/Casual Dining
Cabins	Residential
Banquet Hall	Hotel/Banquet
Staff	Estimated

Note that two uses do not have obvious ULI corresponding types – outside special events and staff. Parking for those uses was estimated in this assessment.

ULI has numerous studies for shared parking evaluation and has developed time-of-day factors for many types of developments; the applicable uses and hourly factors are summarized in the following Table:

Table 7: ULI Time-of-Day Factors

	TIME-OF-DAY FACTORS FOR SHARED PARKING UTILIZATION											
Time Period	Existing B&B	Henry's Restaurant	Single Family Cottage	Spa (Visitor)	Spa (Employee)	Barn	Outside Special Event	Hotel	Restaurant	Cabins	Banquet Hall	Staff
6:00 AM	95%	0%	100%	70%	75%	0%	0%	95%	0%	100%	0%	20%
7:00 AM	95%	0%	90%	40%	75%	0%	0%	95%	0%	90%	0%	20%
8:00 AM	90%	0%	85%	40%	75%	50%	50%	90%	0%	85%	30%	20%
9:00 AM	80%	0%	80%	70%	75%	100%	50%	80%	0%	80%	60%	20%
10:00 AM	70%	15%	75%	70%	75%	100%	50%	70%	15%	75%	60%	25%
11:00 AM	70%	40%	70%	80%	75%	100%	75%	70%	40%	70%	60%	25%
Noon	65%	75%	65%	60%	75%	100%	75%	65%	75%	65%	65%	25%
1:00 PM	65%	75%	70%	70%	75%	100%	100%	65%	75%	70%	65%	50%
2:00 PM	70%	65%	70%	70%	75%	100%	100%	70%	65%	70%	65%	50%
3:00 PM	70%	40%	70%	70%	75%	100%	75%	70%	40%	70%	65%	50%
4:00 PM	75%	50%	75%	80%	75%	100%	75%	75%	50%	75%	65%	50%
5:00 PM	80%	75%	85%	90%	100%	100%	50%	80%	75%	85%	100%	75%
6:00 PM	85%	95%	90%	100%	100%	50%	50%	85%	95%	90%	100%	75%
7:00 PM	85%	100%	97%	90%	75%	30%	30%	85%	100%	97%	100%	75%
8:00 PM	90%	100%	98%	80%	50%	30%	30%	90%	100%	98%	100%	50%
9:00 PM	95%	100%	99%	70%	20%	10%	10%	95%	100%	99%	100%	20%
10:00 PM	95%	95%	100%	35%	20%	0%	0%	95%	95%	100%	50%	20%
11:00 PM	100%	75%	100%	10%	20%	0%	0%	100%	75%	100%	0%	20%
Midnight	100%	25%	100%	0%	0%	0%	0%	100%	25%	100%	0%	0%

In order to develop the resulting shared parking supply, the parking required by Town Code is used as the starting point. The code-required parking for the existing and proposed Buttermilk Falls development are summarized as follows:

Table 8: Town of Marlborough Parking Code Requirements

PARKING SPACE REQUIREMENTS - BY CODE												
Existing B&B	Henry's Restaurant	Single Family Cottage	Spa (Visitor)	Spa (Employee)	Barn	Outside Special Event	Hotel	Restaurant	Cabins	Banquet Hall	Staff	**TOTAL**
16	50	1	11	13	40	75	65	20	52	100	50	**493**

Applying the factors in Table 7 to the requirements of the Town listed in Table 8 results in the overall shared parking supply, shown in Table 9.

Table 9: Shared Parking Demand Based on Time-of-Day Factors

	ADJUSTED SHARED PARKING DEMAND (SPACES)												
Time Period	Existing B&B	Henry's Restaurant	Single Family Cottage	Spa (Visitor)	Spa (Employee)	Barn	Outside Special Event	Hotel	Restaurant	Cabins	Banquet Hall	Staff	**TOTALS**
6:00 AM	15	0	1	8	10	0	0	62	0	52	0	10	**157**
7:00 AM	15	0	1	4	10	0	0	62	0	47	0	10	**149**
8:00 AM	14	0	1	4	10	20	38	59	0	44	30	10	**230**
9:00 AM	13	0	1	8	10	40	38	52	0	42	60	10	**272**
10:00 AM	11	8	1	8	10	40	38	46	3	39	60	13	**274**
11:00 AM	11	20	1	9	10	40	56	46	8	36	60	13	**309**
Noon	10	38	1	7	10	40	56	42	15	34	65	13	**330**
1:00 PM	10	38	1	8	10	40	75	42	15	36	65	25	**365**
2:00 PM	11	33	1	8	10	40	75	46	13	36	65	25	**362**
3:00 PM	11	20	1	8	10	40	56	46	8	36	65	25	**326**
4:00 PM	12	25	1	9	10	40	56	49	10	39	65	25	**340**
5:00 PM	13	38	1	10	13	40	38	52	15	44	100	38	**400**
6:00 PM	14	48	1	11	13	20	38	55	19	47	100	38	**402**
7:00 PM	14	50	1	10	10	12	23	55	20	50	100	38	**382**
8:00 PM	14	50	1	9	7	12	23	59	20	51	100	25	**370**
9:00 PM	15	50	1	8	3	4	8	62	20	51	100	10	**331**
10:00 PM	15	48	1	4	3	0	0	62	19	52	50	10	**263**
11:00 PM	16	38	1	1	3	0	0	65	15	52	0	10	**200**
Midnight	16	13	1	0	0	0	0	65	5	52	0	0	**152**
								TOTAL ADJUSTED PARKING DEMAND (SPACES)					**402**

Applying the shared parking concept to the Buttermilk Falls site would result in a reduction in the parking supply of 91 spaces. The cost reduction associated with construction of 91 paved and striped parking spaces would be a benefit to the developer, but more importantly, lass paving would add to the open green space within the site and reduce the environmental impact. Furthermore, in many mixed-use projects that apply shared parking, small flat unpaved green areas within the site are reserved ("banked") for future paved parking should the need arise. On the 75-acre project site, there are many such areas that could serve as potential banked parking. These areas would also serve as a temporary parking supply to accommodate overflow parking from the potential – but infrequent – large events.

TRAFFIC IMPACTS DURING CONSTRUCTION

All necessary work permits will be obtained from the appropriate agencies in accordance with all relevant policies and standards. Impacts due to construction traffic will be temporary in nature, lasting for the duration of the on-going building program at the site. Traffic would consist of occasional heavy trucks delivering building materials to the project site and daily traffic from vehicles belonging to construction workers. Typically, large pieces of construction equipment such as bulldozers and excavators are brought to the site (if needed) at the beginning of the project and kept on-site until no longer needed. Construction may also require the temporary, short-term closure of traffic lanes and flagging to direct traffic during the closure. This will be coordinated with the local Police Department if required. Construction workers' vehicles would be parked on- site.

CONCLUSIONS

The Traffic Impact Study summarized above indicates that, while there will be modest increases in traffic volumes on the adjacent streets, control delay times at key intersections and traffic flows and Levels of Service would not be negatively impacted. Also, with a shared parking supply, all needed parking demands would be accommodated within the Buttermilk Falls site – and that will include a new parking lot on the west side of North Road at Mahoney Road. It is concluded that the proposed project will not adversely impact traffic conditions on the adjacent streets and at intersections in the study area. Therefore, no mitigation is required.

APPENDIX A

24-HOUR NYSDOT COUNT DETAILS

MANUAL COUNT SUMMARIES

NYSDOT TRAFFIC VOLUMES				
Route 9W				
FUNCTIONAL_CLASS	14			
FACTOR_GROUP	30			
MONTH	10			
DAY_OF_FIRST_DATA	3			
YEAR	2017			
SPECIFIC_RECORDER_PLACEMENT				
365' S OF MARIE RD				
SEASONAL_FACTOR	1.078			
AXLE_FACTOR	1			
Time Period		Average Hourly Volume		
From	To	Northbound	Southbound	Total
12:00AM	1:00 AM	50	50	100
1:00 AM	2:00 AM	40	35	75
2:00 AM	3:00 AM	29	34	63
3:00 AM	4:00 AM	34	36	70
4:00 AM	5:00 AM	62	66	128
5:00 AM	6:00 AM	179	220	399
6:00 AM	7:00 AM	538	444	982
7:00 AM	8:00 AM	911	564	1475
8:00 AM	9:00 AM	782	545	1327
9:00 AM	10:00 AM	596	454	1050
10:00 AM	11:00 AM	544	468	1012
11:00 AM	12:00 PM	535	478	1013
12:00 PM	1:00 PM	543	546	1089
1:00 PM	2:00 PM	548	551	1099
2:00 PM	3:00 PM	566	607	1173
3:00 PM	4:00 PM	696	804	1500
4:00 PM	5:00 PM	728	878	1606
5:00 PM	6:00 PM	720	954	1674
6:00 PM	7:00 PM	572	652	1224
7:00 PM	8:00 PM	384	456	840
8:00 PM	9:00 PM	272	332	604
9:00 PM	10:00 PM	215	279	494
10:00 PM	11:00 PM	182	192	374
11:00 PM	12:00 AM	95	107	202
	AADT	**9110**	**9046**	**18156**

Project	Buttermilk Falls
Intersection	Route 9W at Milton Road

PM PEAK HOUR

Day/Date Friday 3/24/2023

FILL IN BLUE FIELDS ONLY

		1 EB L	2 EB T	3 EB R	4 WB L	5 WB T	6 WB R	7 NB L	8 NB T	9 NB R	10 SB L	11 SB T	12 SB R
	Field #	**10**	**11**	**12**	**4**	**5**	**6**	**1**	**2**	**3**	**7**	**8**	**9**
4:00 PM	4:15 PM	0	0	1	0	0	7	0	145	1	6	217	0
4:15 PM	4:30 PM	0	0	0	0	0	3	1	150	1	4	217	0
4:30 PM	4:45 PM	0	0	1	1	0	5	1	168	1	6	235	0
4:45 PM	5:00 PM	0	0	2	1	0	9	1	172	4	7	258	0
5:00 PM	5:15 PM	1	0	2	2	0	6	2	171	4	7	244	1
5:15 PM	5:30 PM	0	0	2	0	0	3	2	166	2	7	218	1
5:30 PM	5:45 PM	0	0	1	0	0	5	0	189	1	6	233	0
5:45 PM	6:00 PM	0	0	0	0	0	5	2	219	0	6	250	0
6:00 PM	6:15 PM												
6:15 PM	6:30 PM												
6:30 PM	6:45 PM												
6:45 PM	7:00 PM												

4:00 PM	4:15 PM	0	0	1	0	0	7	0	145	1	6	217	0	377		4:15 PM
4:15 PM	4:30 PM	0	0	0	0	0	3	1	150	1	4	217	0	376		4:30 PM
4:30 PM	4:45 PM	0	0	1	1	0	5	1	168	1	6	235	0	418		4:45 PM
4:45 PM	5:00 PM	0	0	2	1	0	9	1	172	4	7	258	0	454	1625	5:00 PM
5:00 PM	5:15 PM	1	0	2	2	0	6	2	171	4	7	244	1	440	1688	5:15 PM
5:15 PM	5:30 PM	0	0	2	0	0	3	2	166	2	7	218	1	401	1713	5:30 PM
5:30 PM	5:45 PM	0	0	1	0	0	5	0	189	1	6	233	0	435	1730	5:45 PM
5:45 PM	6:00 PM	0	0	0	0	0	5	2	219	0	6	250	0	482	1758	6:00 PM
6:00 PM	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1318	6:15 PM
6:15 PM	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	917	6:30 PM
6:30 PM	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	482	6:45 PM
6:45 PM	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7:00 PM
		1	0	5	2	0	19	6	745	7	26	945	2	482	1758	

5:00 PM	6:00 PM
PHF	0.91

EB	L	1
EB	T	0
EB	R	5
WB	L	2
WB	T	0
WB	R	19
NB	L	6
NB	T	745
NB	R	7
SB	L	26
SB	T	945
SB	R	2

Project	Buttermilk Falls
Intersection	Route 9W at Milton Road

PM PEAK HOUR

Day/Date Friday 3/24/2023

FILL IN BLUE FIELDS ONLY

		1 EB L	2 EB T	3 EB R	4 WB L	5 WB T	6 WB R	7 NB L	8 NB T	9 NB R	10 SB L	11 SB T	12 SB R			
	Field #	**10**	**11**	**12**	**4**	**5**	**6**	**1**	**2**	**3**	**7**	**8**	**9**			
7:00 PM	7:15 PM	0	0	0	1	0	2	0	101	0	5	130	1			
7:15 PM	7:30 PM	0	0	0	0	0	2	0	100	0	4	117	0			
7:30 PM	7:45 PM	0	0	1	0	0	3	0	83	0	5	149	1			
7:45 PM	8:00 PM	1	0	0	0	0	3	1	103	0	3	120	1			
8:00 PM	8:15 PM	1	0	2	0	0	5	0	90	2	2	115	0			
8:15 PM	8:30 PM	0	1	0	0	0	3	1	83	2	3	126	0			
8:30 PM	8:45 PM	0	0	0	0	0	6	1	117	0	3	110	0			
8:45 PM	9:00 PM	0	0	1	1	0	3	0	100	0	3	90	0			
9:00 PM	9:15 PM															
9:15 PM	9:30 PM															
9:30 PM	9:45 PM															
9:45 PM	10:00 PM															
7:00 PM	7:15 PM	0	0	0	1	0	2	0	101	0	5	130	1	240		7:15 PM
7:15 PM	7:30 PM	0	0	0	0	0	2	0	100	0	4	117	0	223		7:30 PM
7:30 PM	7:45 PM	0	0	1	0	0	3	0	83	0	5	149	1	242		7:45 PM
7:45 PM	8:00 PM	1	0	0	0	0	3	1	103	0	3	120	1	232	937	8:00 PM
8:00 PM	8:15 PM	1	0	2	0	0	5	0	90	2	2	115	0	217	914	8:15 PM
8:15 PM	8:30 PM	0	1	0	0	0	3	1	83	2	3	126	0	219	910	8:30 PM
8:30 PM	8:45 PM	0	0	0	0	0	6	1	117	0	3	110	0	237	905	8:45 PM
8:45 PM	9:00 PM	0	0	1	1	0	3	0	100	0	3	90	0	198	871	9:00 PM
9:00 PM	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	654	9:15 PM
9:15 PM	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	435	9:30 PM
9:30 PM	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	198	9:45 PM
9:45 PM	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10:00 PM
		1	0	1	1	0	10	1	387	0	17	516	3	242	937	

	7:00 PM	8:00 PM
		PHF 0.97

EB	L	1
EB	T	0
EB	R	1
WB	L	1
WB	T	0
WB	R	10
NB	L	1
NB	T	387
NB	R	0
SB	L	17
SB	T	516
SB	R	3

Project	Buttermilk Falls
Intersection	Route 9W at Milton Road

SAT PEAK HOUR

Day/Date 3/25/1935

FILL IN BLUE FIELDS ONLY

		1 EB L	2 EB T	3 EB R	4 WB L	5 WB T	6 WB R	7 NB L	8 NB T	9 NB R	10 SB L	11 SB T	12 SB R			
	Field #	**10**	**11**	**12**	**4**	**5**	**6**	**1**	**2**	**3**	**7**	**8**	**9**			
1:00 PM	1:15 PM	1	0	0	0	0	2	1	107	0	1	109	0			
1:15 PM	1:30 PM	0	0	0	0	0	2	1	110	0	5	92	0			
1:30 PM	1:45 PM	0	0	1	0	0	1	0	110	0	2	99	1			
1:45 PM	2:00 PM	0	0	3	1	0	0	2	120	1	2	117	1			
2:00 PM	2:15 PM	3	0	1	2	0	1	1	123	1	1	120	1			
2:15 PM	2:30 PM	1	0	0	1	0	0	0	117	0	1	124	0			
2:30 PM	2:45 PM	0	0	0	1	0	1	1	117	0	1	120	0			
2:45 PM	3:00 PM	0	0	1	1	0	1	0	115	0	2	120	0			
3:00 PM	3:15 PM															
3:15 PM	3:30 PM															
3:30 PM	3:45 PM															
3:45 PM	4:00 PM															

1:00 PM	1:15 PM	1	0	0	0	0	2	1	107	0	1	109	0	221		1:15 PM
1:15 PM	1:30 PM	0	0	0	0	0	2	1	110	0	5	92	0	210		1:30 PM
1:30 PM	1:45 PM	0	0	1	0	0	1	0	110	0	2	99	1	214		1:45 PM
1:45 PM	2:00 PM	0	0	3	1	0	0	2	120	1	2	117	1	247	892	2:00 PM
2:00 PM	2:15 PM	3	0	1	2	0	1	1	123	1	1	120	1	254	925	2:15 PM
2:15 PM	2:30 PM	1	0	0	1	0	0	0	117	0	1	124	0	244	959	2:30 PM
2:30 PM	2:45 PM	0	0	0	1	0	1	1	117	0	1	120	0	241	986	2:45 PM
2:45 PM	3:00 PM	0	0	1	1	0	1	0	115	0	2	120	0	240	979	3:00 PM
3:00 PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	725	3:15 PM
3:15 PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	481	3:30 PM
3:30 PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	240	3:45 PM
3:45 PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4:00 PM
		4	0	4	5	0	2	4	477	2	5	481	2	254	986	

	1:45 PM
	2:45 PM
PHF	0.97

EB	L	4
EB	T	0
EB	R	4
WB	L	5
WB	T	0
WB	R	2
NB	L	4
NB	T	477
NB	R	2
SB	L	5
SB	T	481
SB	R	2

Project: Buttermilk Falls

Intersection: Route 9W at Mahoney Road

PM PEAK HOUR

Day/Date Friday 3/24/2023

FILL IN BLUE FIELDS ONLY

		1 EB L	2 EB T	3 EB R	4 WB L	5 WB T	6 WB R	7 NB L	8 NB T	9 NB R	10 SB L	11 SB T	12 SB R			
	Field #	**10**	**11**	**12**	**4**	**5**	**6**	**1**	**2**	**3**	**7**	**8**	**9**			
4:00 PM	4:15 PM	0	0	2	4	0	3	2	142	1	2	208	0			
4:15 PM	4:30 PM	0	0	1	4	0	2	2	155	1	1	210	0			
4:30 PM	4:45 PM	0	0	0	2	0	1	1	160	0	1	140	1			
4:45 PM	5:00 PM	1	0	0	1	0	1	1	170	0	1	250	0			
5:00 PM	5:15 PM	1	0	2	1	0	2	0	173	0	0	241	0			
5:15 PM	5:30 PM	0	0	1	0	1	0	2	165	0	2	208	0			
5:30 PM	5:45 PM	0	0	2	0	0	0	1	190	1	0	231	0			
5:45 PM	6:00 PM	0	0	1	1	0	0	1	223	0	1	246	1			
6:00 PM	6:15 PM															
6:15 PM	6:30 PM															
6:30 PM	6:45 PM															
6:45 PM	7:00 PM															
4:00 PM	4:15 PM	0	0	2	4	0	3	2	142	1	2	208	0	364		4:15 PM
4:15 PM	4:30 PM	0	0	1	4	0	2	2	155	1	1	210	0	376		4:30 PM
4:30 PM	4:45 PM	0	0	0	2	0	1	1	160	0	1	140	1	306		4:45 PM
4:45 PM	5:00 PM	1	0	0	1	0	1	1	170	0	1	250	0	425	1471	5:00 PM
5:00 PM	5:15 PM	1	0	2	1	0	2	0	173	0	0	241	0	420	1527	5:15 PM
5:15 PM	5:30 PM	0	0	1	0	1	0	2	165	0	2	208	0	379	1530	5:30 PM
5:30 PM	5:45 PM	0	0	2	0	0	0	1	190	1	0	231	0	425	1649	5:45 PM
5:45 PM	6:00 PM	0	0	1	1	0	0	1	223	0	1	246	1	474	1698	6:00 PM
6:00 PM	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1278	6:15 PM
6:15 PM	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	899	6:30 PM
6:30 PM	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	474	6:45 PM
6:45 PM	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7:00 PM
		1	0	6	2	1	2	4	751	1	3	926	1	474	1698	

	5:00 PM	6:00 PM
		PHF
		0.90

EB	L	1
EB	T	0
EB	R	6
WB	L	2
WB	T	1
WB	R	2
NB	L	4
NB	T	751
NB	R	1
SB	L	3
SB	T	926
SB	R	1

Project	Buttermilk Falls
Intersection	Route 9W at Mahoney Road

PM PEAK HOUR

Day/Date Friday 3/24/2023

FILL IN BLUE FIELDS ONLY

		1 EB L	2 EB T	3 EB R	4 WB L	5 WB T	6 WB R	7 NB L	8 NB T	9 NB R	10 SB L	11 SB T	12 SB R			
	Field #	**10**	**11**	**12**	**4**	**5**	**6**	**1**	**2**	**3**	**7**	**8**	**9**			
7:00 PM	7:15 PM	0	0	1	0	0	0	2	99	0	0	130	0			
7:15 PM	7:30 PM	0	0	1	0	0	1	1	93	1	0	120	0			
7:30 PM	7:45 PM	0	0	0	0	0	0	0	90	0	0	140	0			
7:45 PM	8:00 PM	0	0	2	0	0	0	2	100	0	0	117	0			
8:00 PM	8:15 PM	0	0	0	0	0	0	1	89	0	0	117	0			
8:15 PM	8:30 PM	0	0	0	0	0	1	0	87	1	0	120	0			
8:30 PM	8:45 PM	0	0	1	0	1	0	1	115	1	0	105	0			
8:45 PM	9:00 PM	0	0	0	0	0	1	0	101	1	0	91	0			
9:00 PM	9:15 PM															
9:15 PM	9:30 PM															
9:30 PM	9:45 PM															
9:45 PM	10:00 PM															
7:00 PM	7:15 PM	0	0	1	0	0	0	2	99	0	0	130	0	232		7:15 PM
7:15 PM	7:30 PM	0	0	1	0	0	1	1	93	1	0	120	0	217		7:30 PM
7:30 PM	7:45 PM	0	0	0	0	0	0	0	90	0	0	140	0	230		7:45 PM
7:45 PM	8:00 PM	0	0	2	0	0	0	2	100	0	0	117	0	221	900	8:00 PM
8:00 PM	8:15 PM	0	0	0	0	0	0	1	89	0	0	117	0	207	875	8:15 PM
8:15 PM	8:30 PM	0	0	0	0	0	1	0	87	1	0	120	0	209	867	8:30 PM
8:30 PM	8:45 PM	0	0	1	0	1	0	1	115	1	0	105	0	224	861	8:45 PM
8:45 PM	9:00 PM	0	0	0	0	0	1	0	101	1	0	91	0	194	834	9:00 PM
9:00 PM	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	627	9:15 PM
9:15 PM	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	418	9:30 PM
9:30 PM	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	194	9:45 PM
9:45 PM	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10:00 PM
		0	0	4	0	0	1	5	382	1	0	507	0	232	900	

	7:00 PM	8:00 PM
		PHF 0.97

EB	L	0
EB	T	0
EB	R	4
WB	L	0
WB	T	0
WB	R	1
NB	L	5
NB	T	382
NB	R	1
SB	L	0
SB	T	507
SB	R	0

Project	Buttermilk Falls
Intersection	Route 9W at Mahoney Road

SAT PEAK HOUR

Day/Date 3/25/1935

FILL IN BLUE FIELDS ONLY

		1 EB L	2 EB T	3 EB R	4 WB L	5 WB T	6 WB R	7 NB L	8 NB T	9 NB R	10 SB L	11 SB T	12 SB R
	Field #	**10**	**11**	**12**	**4**	**5**	**6**	**1**	**2**	**3**	**7**	**8**	**9**
1:00 PM	1:15 PM	4	0	1	0	0	2	1	102	1	0	107	1
1:15 PM	1:30 PM	3	0	1	0	0	2	1	100	1	1	100	1
1:30 PM	1:45 PM	0	0	1	0	0	1	0	117	1	3	110	0
1:45 PM	2:00 PM	2	0	0	0	0	1	0	123	1	2	115	0
2:00 PM	2:15 PM	3	0	0	0	0	10	0	118	0	6	115	1
2:15 PM	2:30 PM	1	0	1	1	0	2	1	120	2	2	117	1
2:30 PM	2:45 PM	1	0	1	1	0	2	0	118	0	2	117	0
2:45 PM	3:00 PM	1	0	0	0	0	1	0	110	0	2	118	0
3:00 PM	3:15 PM												
3:15 PM	3:30 PM												
3:30 PM	3:45 PM												
3:45 PM	4:00 PM												

1:00 PM	1:15 PM	4	0	1	0	0	2	1	102	1	0	107	1	219		1:15 PM
1:15 PM	1:30 PM	3	0	1	0	0	2	1	100	1	1	100	1	210		1:30 PM
1:30 PM	1:45 PM	0	0	1	0	0	1	0	117	1	3	110	0	233		1:45 PM
1:45 PM	2:00 PM	2	0	0	0	0	1	0	123	1	2	115	0	244	906	2:00 PM
2:00 PM	2:15 PM	3	0	0	0	0	10	0	118	0	6	115	1	253	940	2:15 PM
2:15 PM	2:30 PM	1	0	1	1	0	2	1	120	2	2	117	1	248	978	2:30 PM
2:30 PM	2:45 PM	1	0	1	1	0	2	0	118	0	2	117	0	242	987	2:45 PM
2:45 PM	3:00 PM	1	0	0	0	0	1	0	110	0	2	118	0	232	975	3:00 PM
3:00 PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	722	3:15 PM
3:15 PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	474	3:30 PM
3:30 PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	232	3:45 PM
3:45 PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4:00 PM
		7	0	2	2	0	15	1	479	3	12	464	2	253	987	

1:45 PM	2:45 PM
PHF	0.98

EB	L	7
EB	T	0
EB	R	2
WB	L	2
WB	T	0
WB	R	15
NB	L	1
NB	T	479
NB	R	3
SB	L	12
SB	T	464
SB	R	2

Project	Buttermilk Falls
Intersection	North Road at Mahoney Road

PM PEAK HOUR

Day/Date Friday 3/24/2023

FILL IN BLUE FIELDS ONLY

		1 EB L	2 EB T	3 EB R	4 WB L	5 WB T	6 WB R	7 NB L	8 NB T	9 NB R	10 SB L	11 SB T	12 SB R
	Field #	**5**		**6**				**3**	**1**			**2**	**4**
4:00 PM	4:15 PM	0		7				6	5			8	6
4:15 PM	4:30 PM	1		3				6	5			6	6
4:30 PM	4:45 PM	1		6				4	6			6	4
4:45 PM	5:00 PM	1		1				3	4			6	3
5:00 PM	5:15 PM	0		0				0	5			12	0
5:15 PM	5:30 PM	0		2				1	5			7	1
5:30 PM	5:45 PM	0		1				1	4			5	1
5:45 PM	6:00 PM	0		1				1	4			5	1
6:00 PM	6:15 PM												
6:15 PM	6:30 PM												
6:30 PM	6:45 PM												
6:45 PM	7:00 PM												

4:00 PM	4:15 PM	0	0	7	0	0	0	6	5	0	0	8	6	32		4:15 PM
4:15 PM	4:30 PM	1	0	3	0	0	0	6	5	0	0	6	6	27		4:30 PM
4:30 PM	4:45 PM	1	0	6	0	0	0	4	6	0	0	6	4	27		4:45 PM
4:45 PM	5:00 PM	1	0	1	0	0	0	3	4	0	0	6	3	18	104	5:00 PM
5:00 PM	5:15 PM	0	0	0	0	0	0	0	5	0	0	12	0	17	89	5:15 PM
5:15 PM	5:30 PM	0	0	2	0	0	0	1	5	0	0	7	1	16	78	5:30 PM
5:30 PM	5:45 PM	0	0	1	0	0	0	1	4	0	0	5	1	12	63	5:45 PM
5:45 PM	6:00 PM	0	0	1	0	0	0	1	4	0	0	5	1	12	57	6:00 PM
6:00 PM	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	40	6:15 PM
6:15 PM	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	24	6:30 PM
6:30 PM	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	12	6:45 PM
6:45 PM	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7:00 PM
		3	0	17	0	0	0	19	20	0	0	26	19	32	104	

	4:00 PM 5:00 PM
PHF	0.81

EB	L	3
EB	R	17
NB	L	19
NB	T	20
SB	T	26
SB	R	19

Project	Buttermilk Falls
Intersection	North Road at Mahoney Road

PM PEAK HOUR

Day/Date Friday 3/24/2023

FILL IN BLUE FIELDS ONLY

		1 EB L	2 EB T	3 EB R	4 WB L	5 WB T	6 WB R	7 NB L	8 NB T	9 NB R	10 SB L	11 SB T	12 SB R			
	Field #	**5**		**6**				**3**	**1**			**2**	**4**			
7:00 PM	7:15 PM	0		1				2	2			2	2			
7:15 PM	7:30 PM	0		1				0	2			3	0			
7:30 PM	7:45 PM	0		0				0	3			3	0			
7:45 PM	8:00 PM	0		2				0	3			5	0			
8:00 PM	8:15 PM	0		0				0	3			2	0			
8:15 PM	8:30 PM	0		1				1	4			3	1			
8:30 PM	8:45 PM	0		1				2	3			3	2			
8:45 PM	9:00 PM	0		2				1	3			4	1			
9:00 PM	9:15 PM															
9:15 PM	9:30 PM															
9:30 PM	9:45 PM															
9:45 PM	10:00 PM															

7:00 PM	7:15 PM	0	0	1	0	0	0	2	2	0	0	2	2	9		7:15 PM
7:15 PM	7:30 PM	0	0	1	0	0	0	0	2	0	0	3	0	6		7:30 PM
7:30 PM	7:45 PM	0	0	0	0	0	0	0	3	0	0	3	0	6		7:45 PM
7:45 PM	8:00 PM	0	0	2	0	0	0	0	3	0	0	5	0	10	31	8:00 PM
8:00 PM	8:15 PM	0	0	0	0	0	0	0	3	0	0	2	0	5	27	8:15 PM
8:15 PM	8:30 PM	0	0	1	0	0	0	1	4	0	0	3	1	10	31	8:30 PM
8:30 PM	8:45 PM	0	0	1	0	0	0	2	3	0	0	3	2	11	36	8:45 PM
8:45 PM	9:00 PM	0	0	2	0	0	0	1	3	0	0	4	1	11	37	9:00 PM
9:00 PM	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	32	9:15 PM
9:15 PM	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	22	9:30 PM
9:30 PM	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	11	9:45 PM
9:45 PM	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10:00 PM
		0	0	4	0	0	0	4	13	0	0	12	4	11	37	

8:00 PM	9:00 PM
PHF	0.84

EB	L	0
EB	R	4
NB	L	4
NB	T	13
SB	T	12
SB	R	4

Project	Buttermilk Falls
Intersection	North Road at Mahoney Road

SAT PEAK HOUR

Day/Date 3/25/2023

FILL IN BLUE FIELDS ONLY

		1 EB L	2 EB T	3 EB R	4 WB L	5 WB T	6 WB R	7 NB L	8 NB T	9 NB R	10 SB L	11 SB T	12 SB R
	Field #	**5**		**6**				**3**	**1**			**2**	**4**
1:00 PM	1:15 PM	0		0				0	4			10	1
1:15 PM	1:30 PM	0		2				1	5			3	0
1:30 PM	1:45 PM	0		2				1	3			4	0
1:45 PM	2:00 PM	0		2				2	5			7	0
2:00 PM	2:15 PM	1		4				5	4			3	1
2:15 PM	2:30 PM	1		3				1	4			4	1
2:30 PM	2:45 PM	0		1				1	4			2	0
2:45 PM	3:00 PM	0		1				1	4			3	0
3:00 PM	3:15 PM												
3:15 PM	3:30 PM												
3:30 PM	3:45 PM												
3:45 PM	4:00 PM												

1:00 PM	1:15 PM	0	0	0	0	0	0	0	4	0	0	10	1	15		1:15 PM
1:15 PM	1:30 PM	0	0	2	0	0	0	1	5	0	0	3	0	11		1:30 PM
1:30 PM	1:45 PM	0	0	2	0	0	0	1	3	0	0	4	0	10		1:45 PM
1:45 PM	2:00 PM	0	0	2	0	0	0	2	5	0	0	7	0	16	52	2:00 PM
2:00 PM	2:15 PM	1	0	4	0	0	0	5	4	0	0	3	1	18	55	2:15 PM
2:15 PM	2:30 PM	1	0	3	0	0	0	1	4	0	0	4	1	14	58	2:30 PM
2:30 PM	2:45 PM	0	0	1	0	0	0	1	4	0	0	2	0	8	56	2:45 PM
2:45 PM	3:00 PM	0	0	1	0	0	0	1	4	0	0	3	0	9	49	3:00 PM
3:00 PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	31	3:15 PM
3:15 PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	17	3:30 PM
3:30 PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	9	3:45 PM
3:45 PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4:00 PM
		2	0	11	0	0	0	9	16	0	0	18	2	18	58	

1:30 PM 2:30 PM

PHF 0.81

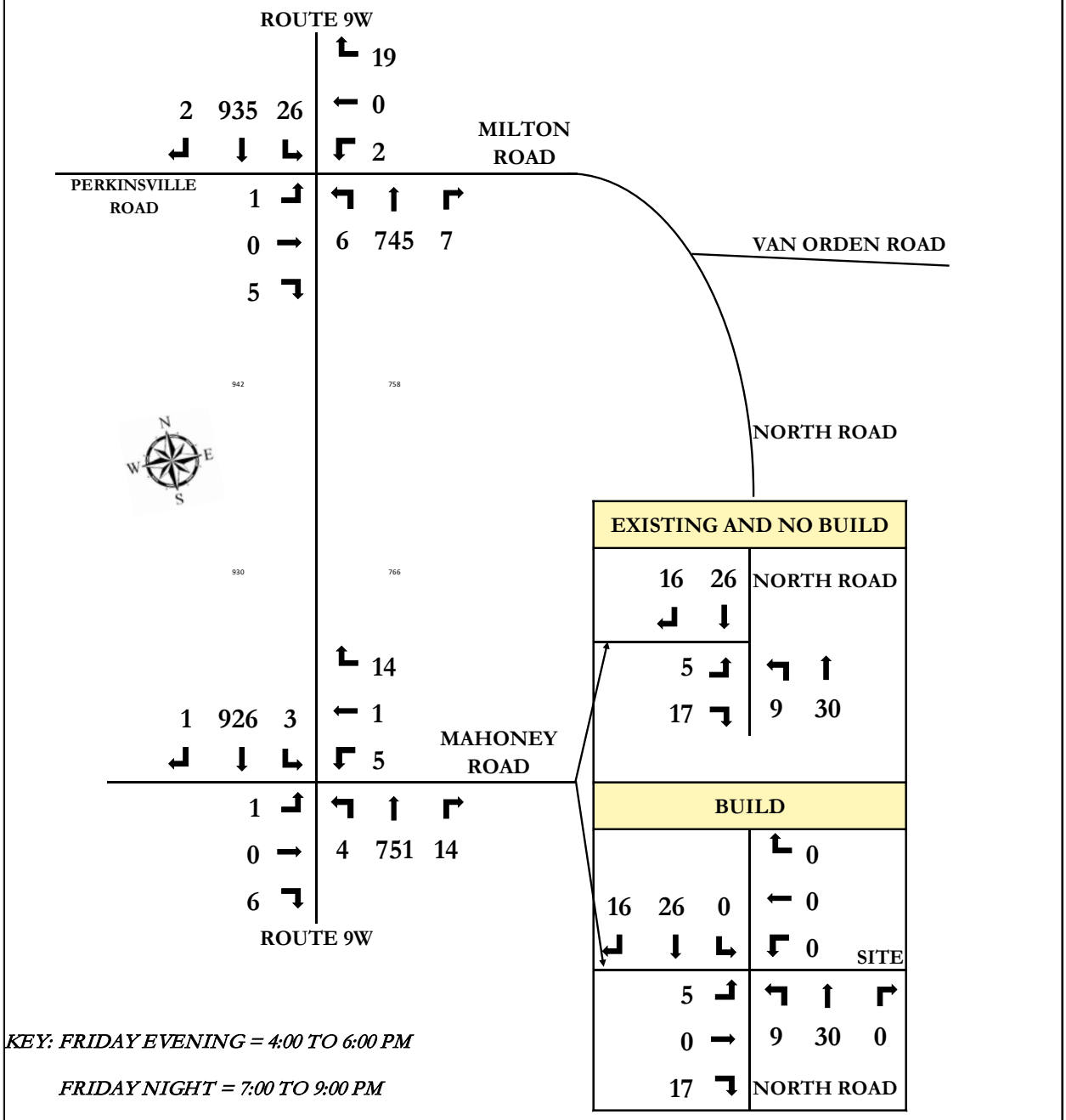
EB	L	2
EB	R	11
NB	L	9
NB	T	16
SB	T	18
SB	R	2

APPENDIX B

TRAFFIC VOLUME DIAGRAMS

FIGURE	TITLE	
1	PM Evening Peak Hour	2023 Base Volumes
2	PM Night Peak Hour	
3	Saturday Midday Peak Hour	
4	PM Evening Peak Hour	2025 No Build Volumes
5	PM Night Peak Hour	
6	Saturday Midday Peak Hour	
7	PM Evening Peak Hour	Site Generated Traffic Volumes
8	PM Night Peak Hour	
9	Saturday Midday Peak Hour	
10	PM Evening Peak Hour	2025 Build Volumes
11	PM Night Peak Hour	
12	Saturday Midday Peak Hour	

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 1

BUTTERMILK FALLS

Marlborough, New York

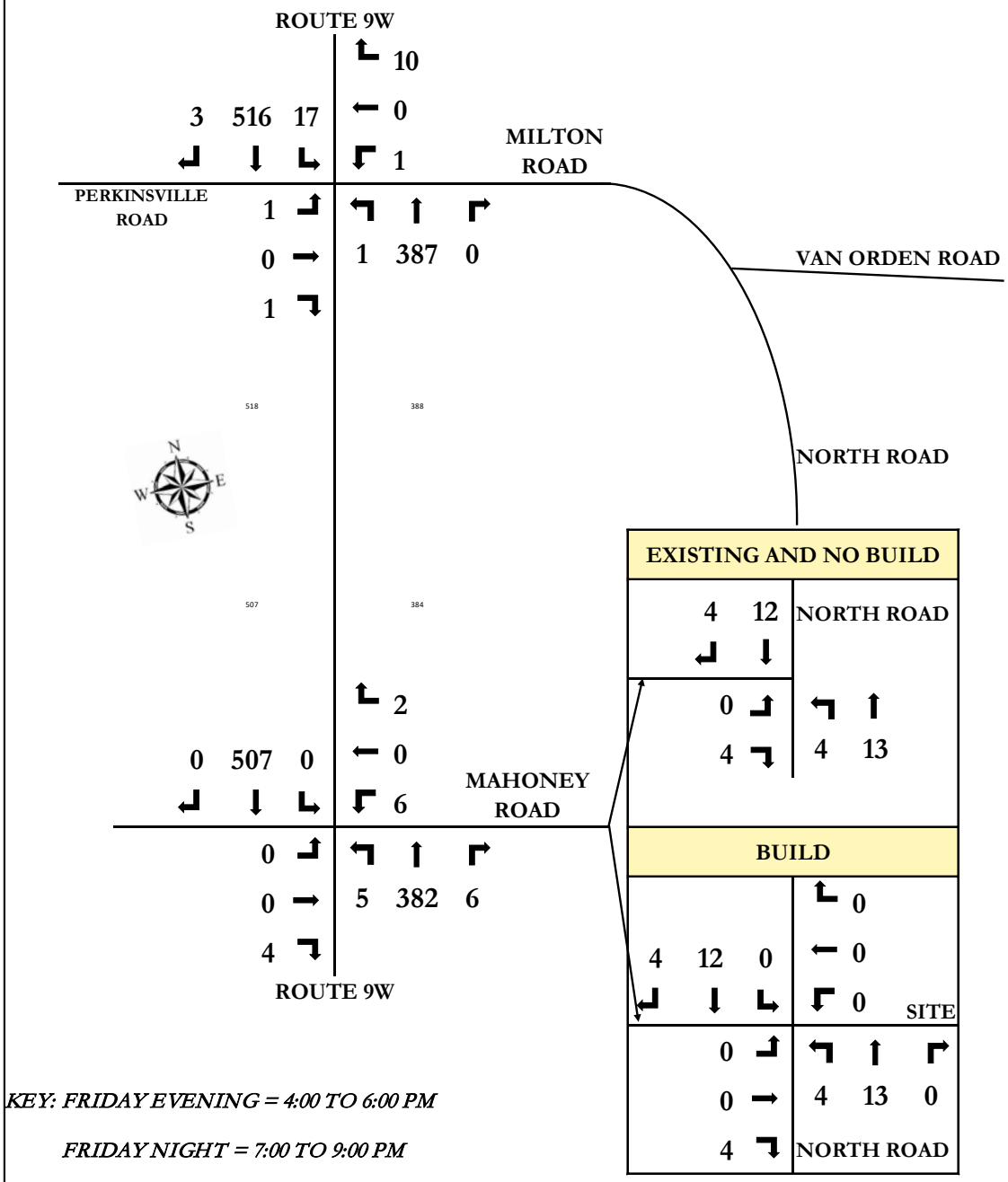
Prepared by: STEPHAN A. MAFFIA, P.E.

FRIDAY EVENING

2023 EXISTING

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 2

BUTTERMILK FALLS

Marlborough, New York

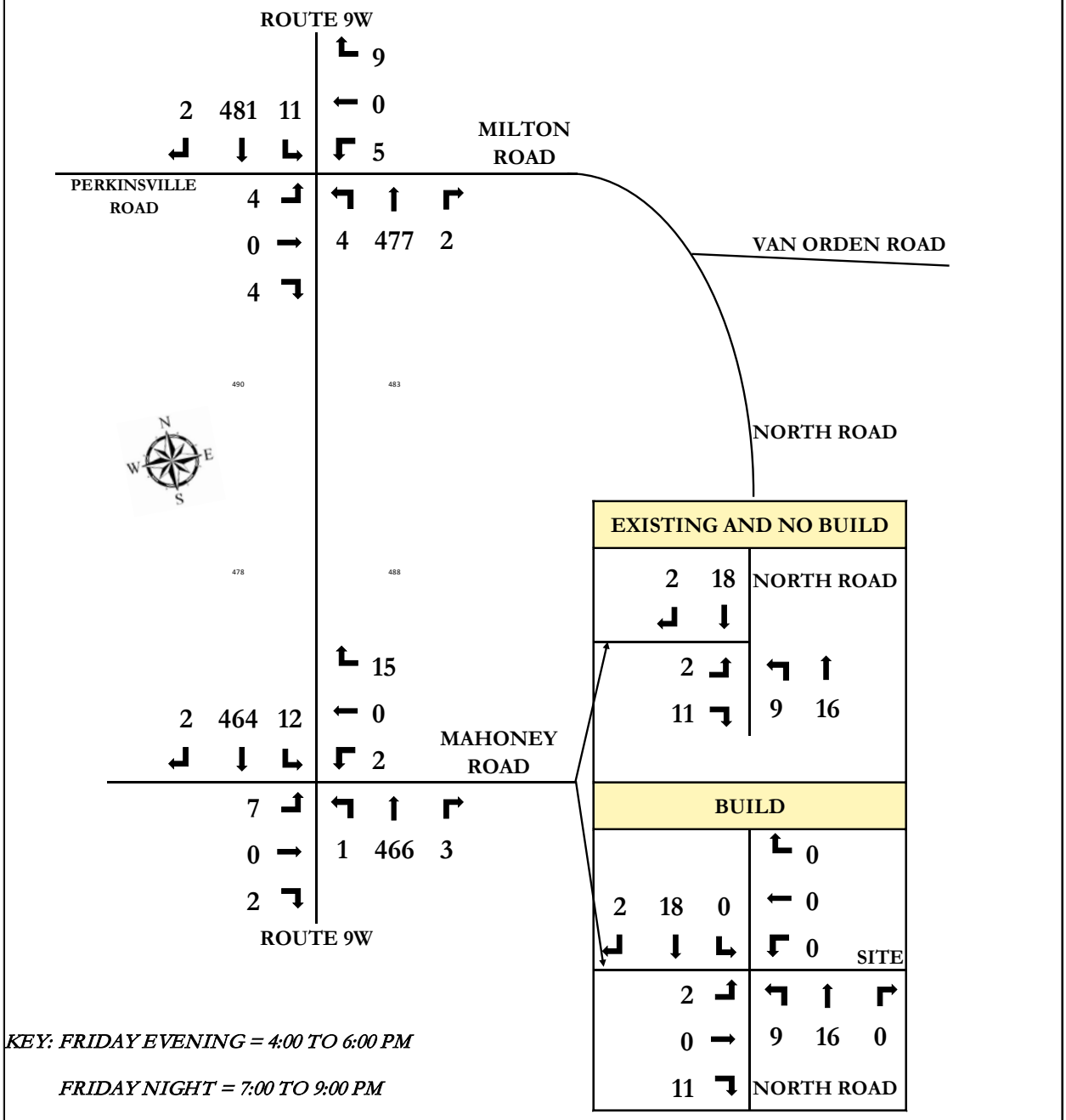
Prepared by: STEPHAN A. MAFFIA, P.E.

FRIDAY NIGHT

2023 EXISTING

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 3

BUTTERMILK FALLS

Marlborough, New York

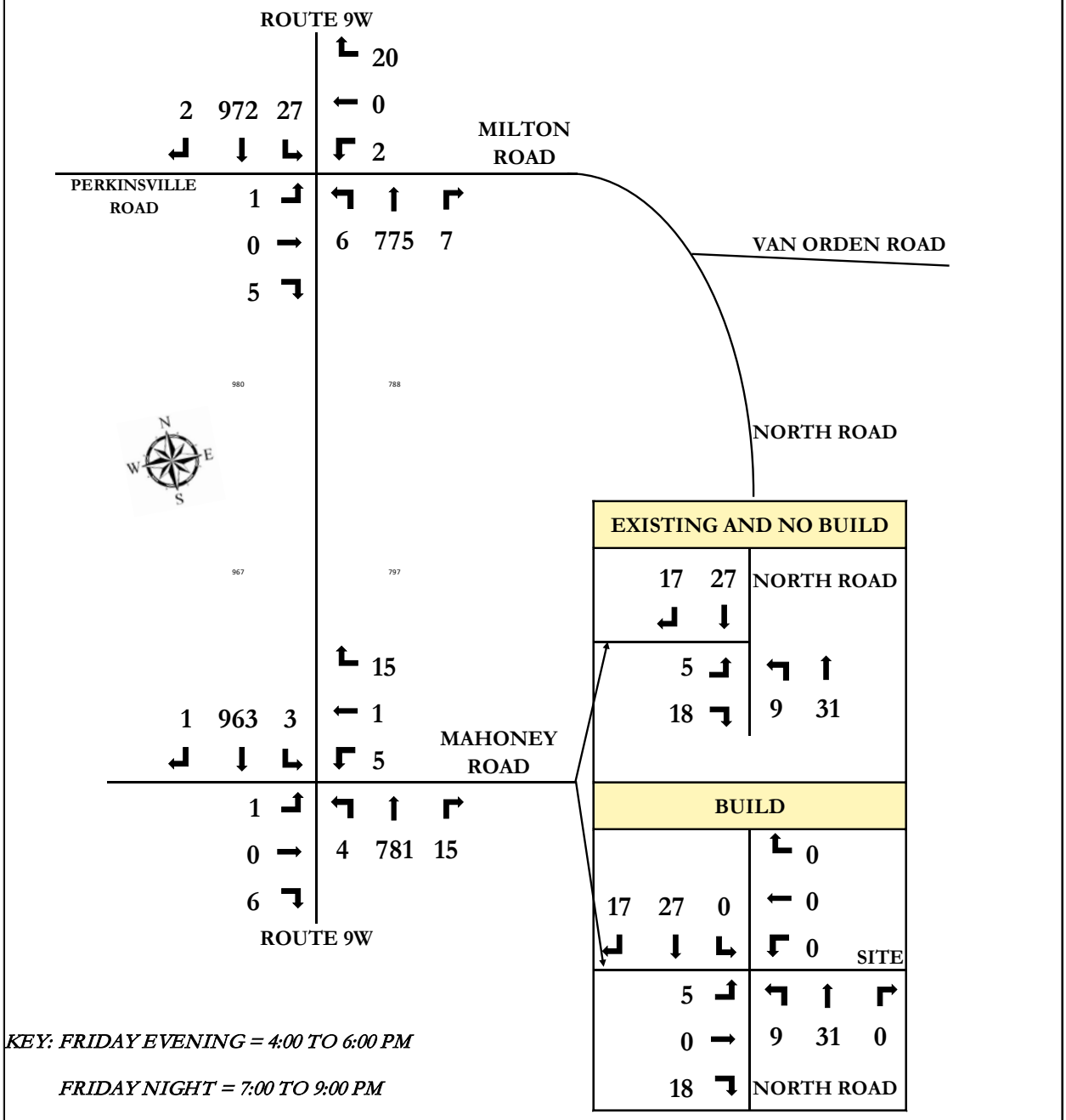
Prepared by: STEPHAN A. MAFFIA, P.E.

SATURDAY

2023 EXISTING

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 4

BUTTERMILK FALLS

Marlborough, New York

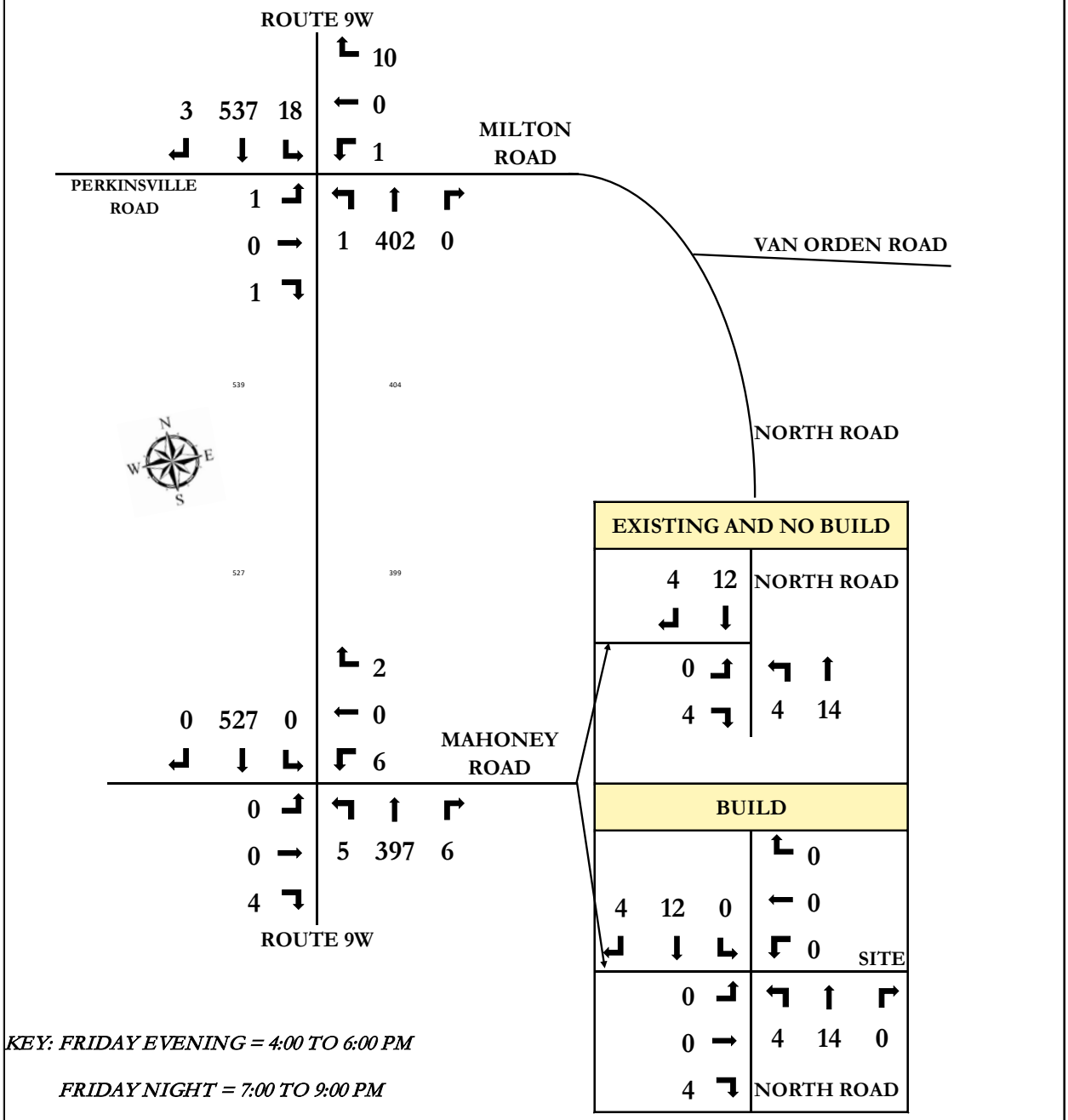
Prepared by: STEPHAN A. MAFFIA, P.E.

FRIDAY EVENING

2025 NO BUILD

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 5

BUTTERMILK FALLS

Marlborough, New York

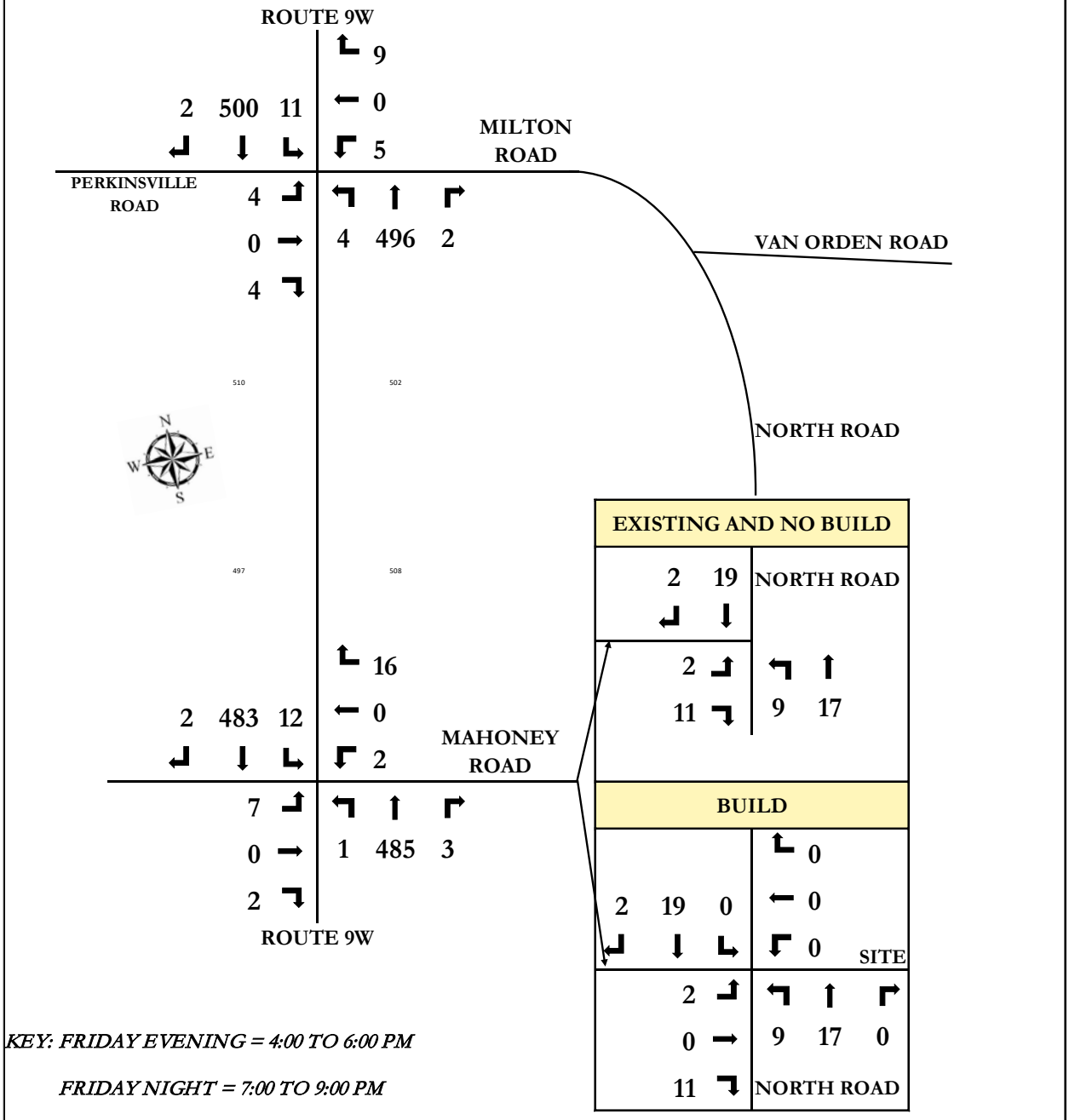
Prepared by: STEPHAN A. MAFFIA, P.E.

FRIDAY NIGHT

2025 NO BUILD

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 6

BUTTERMILK FALLS

Marlborough, New York

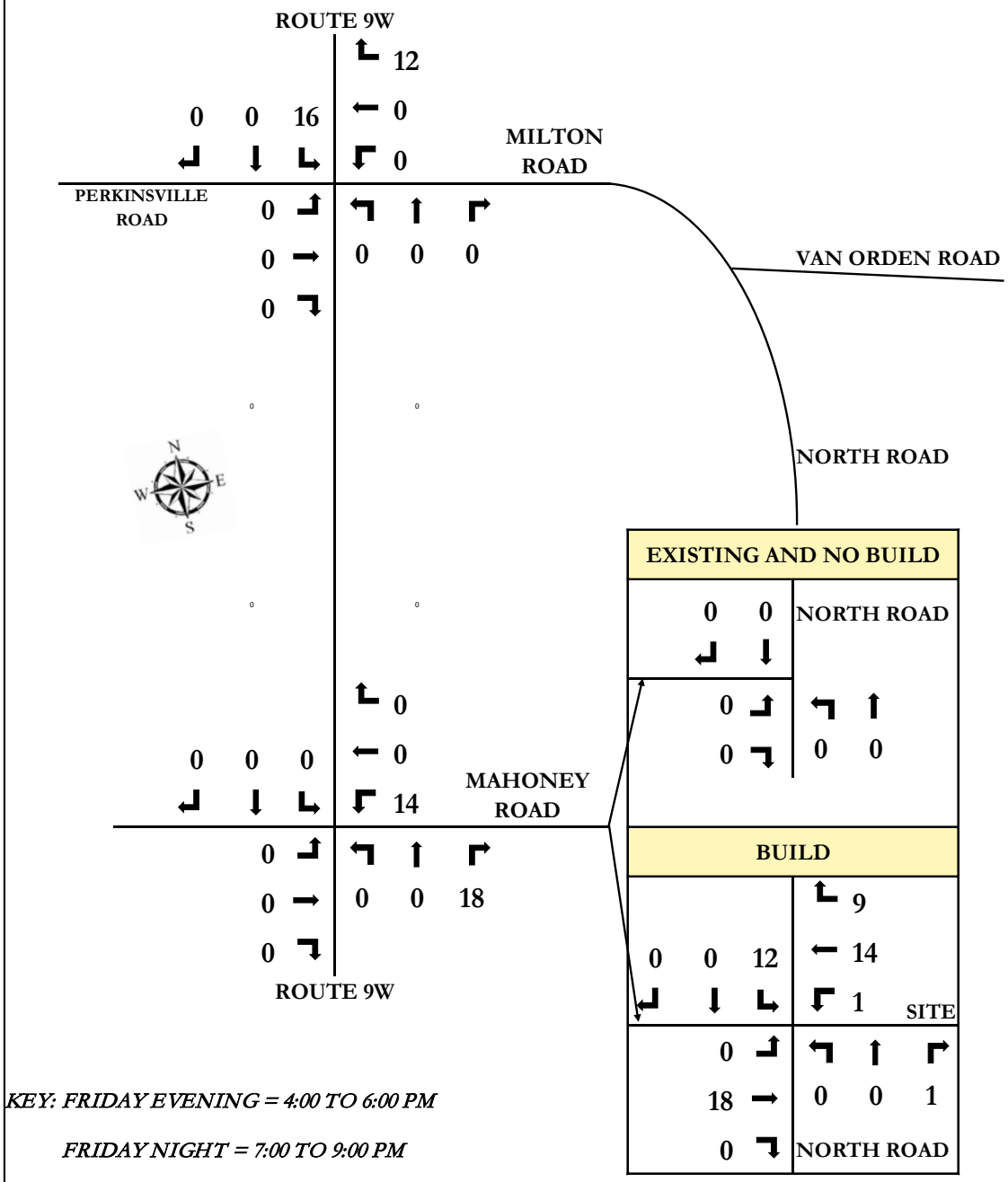
Prepared by: STEPHAN A. MAFFIA, P.E.

SATURDAY

2025 NO BUILD

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 7

BUTTERMILK FALLS

Marlborough, New York

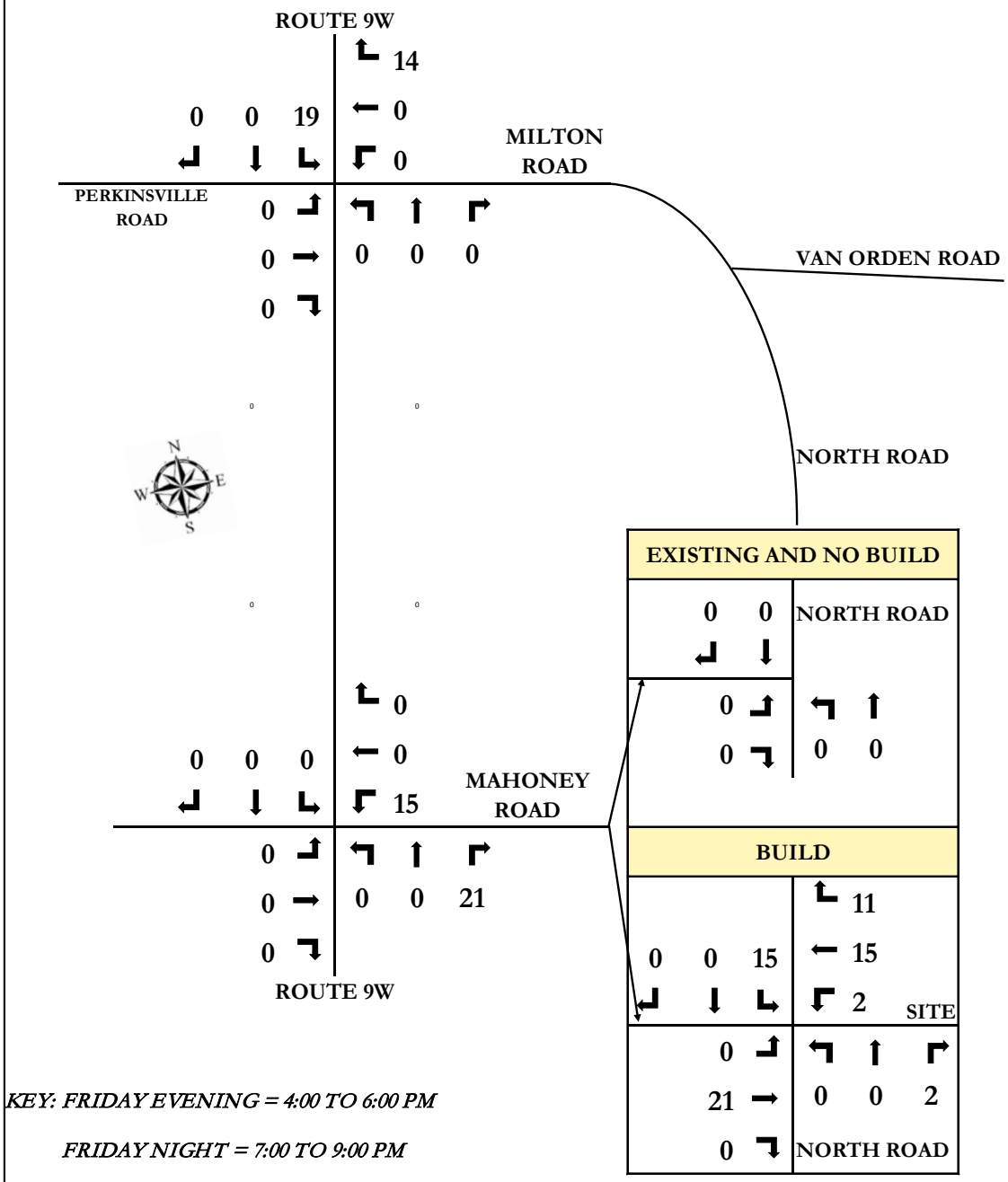
Prepared by: STEPHAN A. MAFFIA, P.E.

FRIDAY EVENING

SITE GENERATED

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 8

BUTTERMILK FALLS

Marlborough, New York

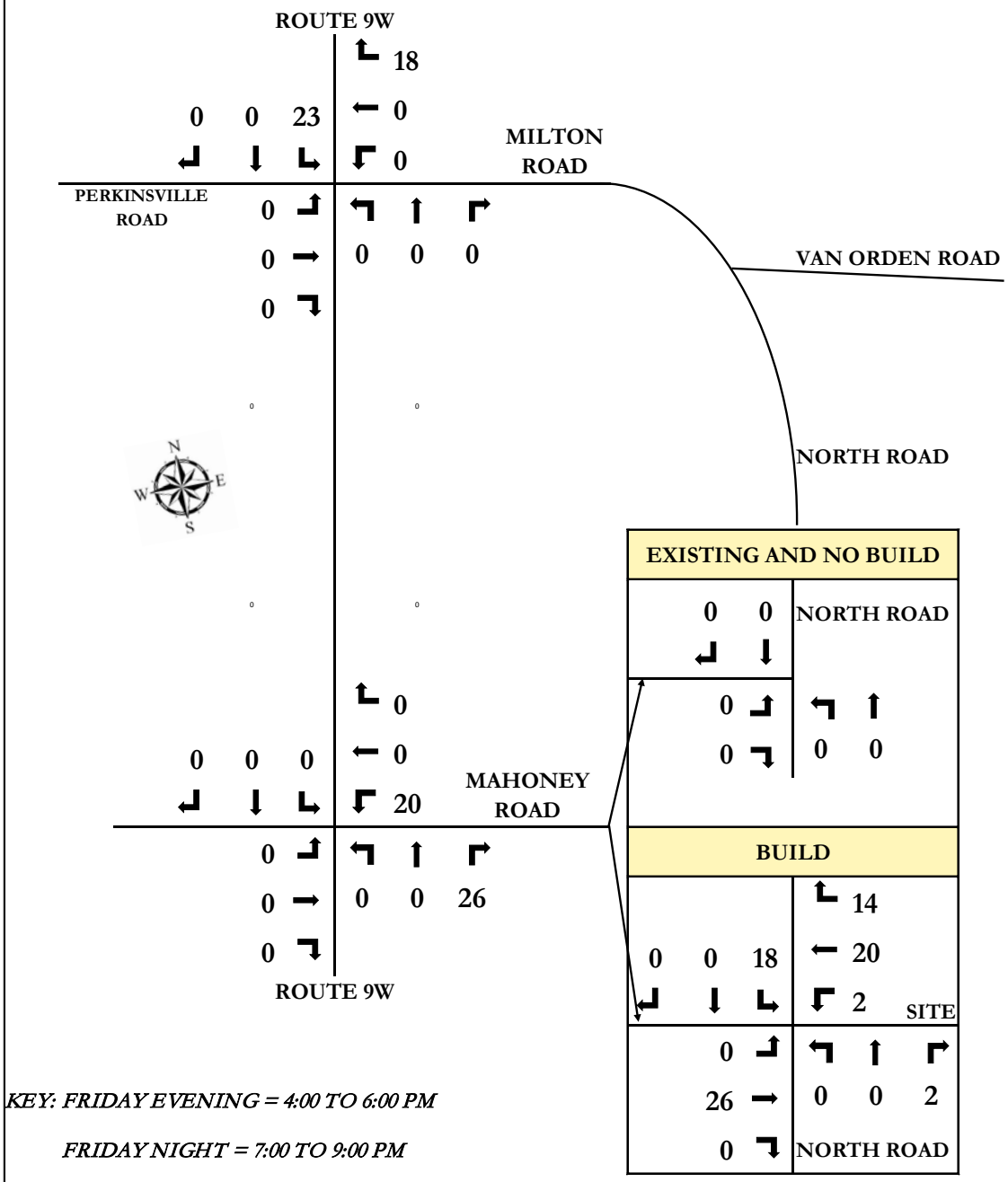
Prepared by: STEPHAN A. MAFFIA, P.E.

FRIDAY NIGHT

SITE GENERATED

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 9

BUTTERMILK FALLS

Marlborough, New York

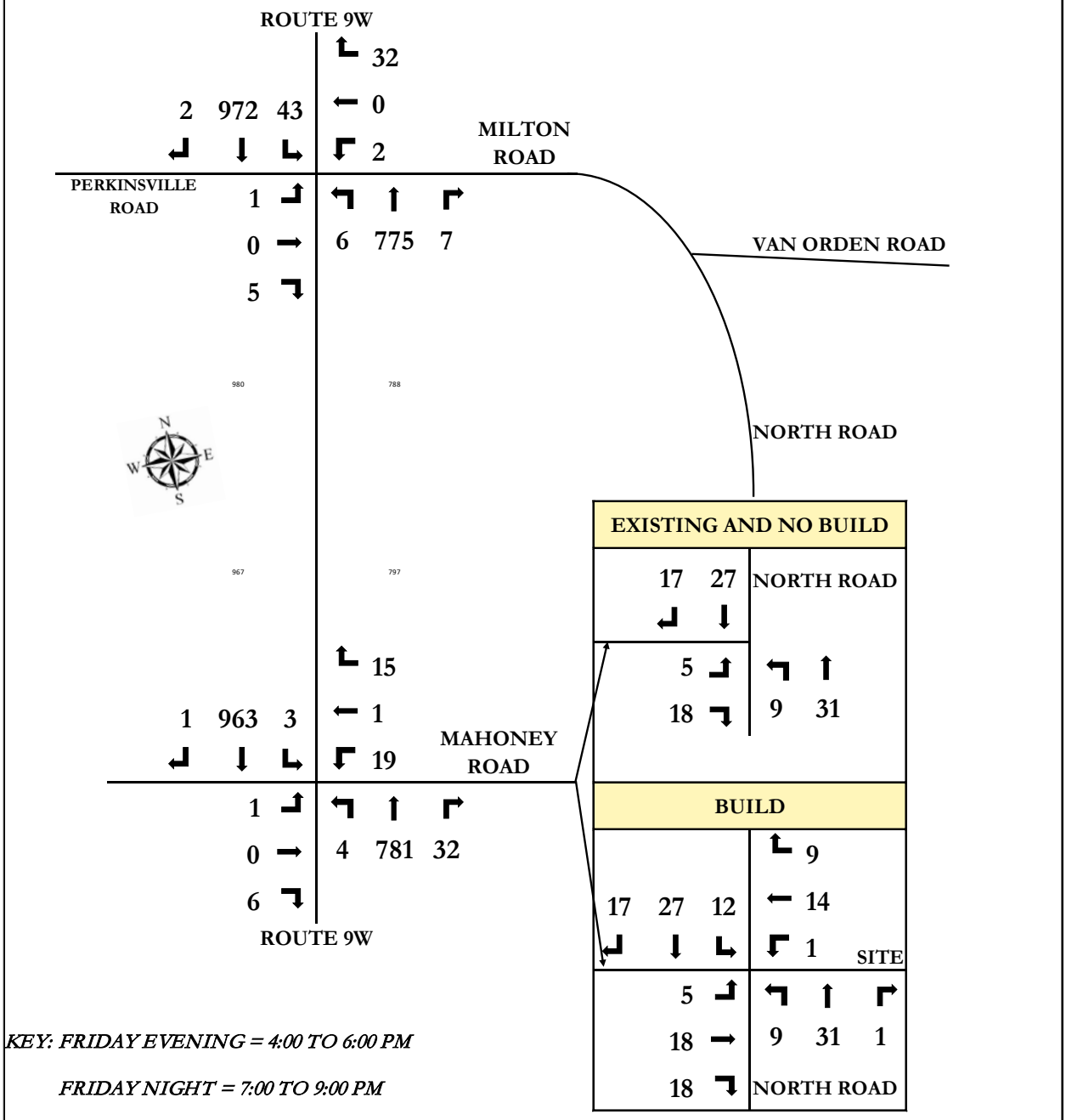
Prepared by: STEPHAN A. MAFFIA, P.E.

SATURDAY

SITE GENERATED

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 10

BUTTERMILK FALLS

Marlborough, New York

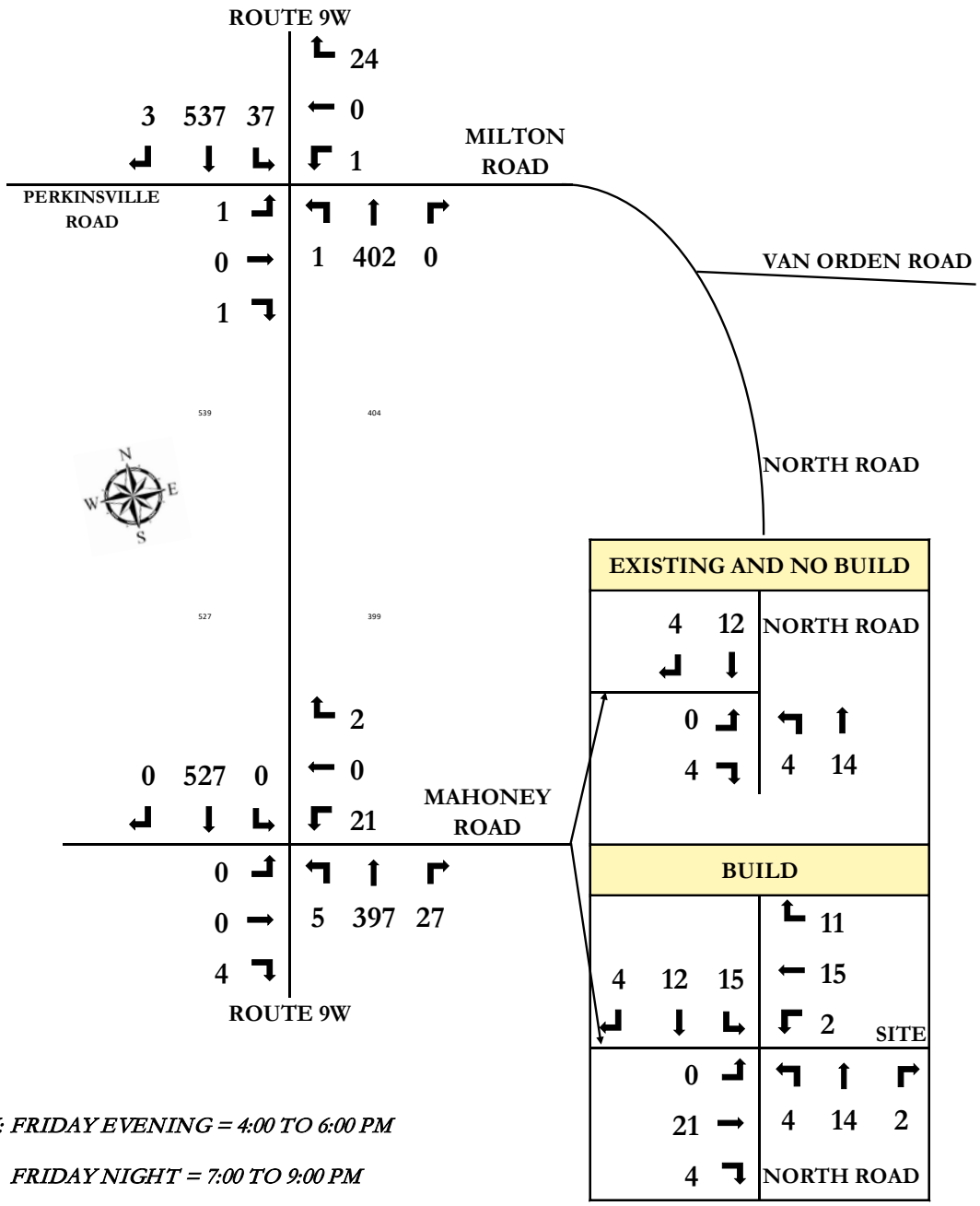
Prepared by: STEPHAN A. MAFFIA, P.E.

FRIDAY EVENING

2025 BUILD

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 11

BUTTERMILK FALLS

Marlborough, New York

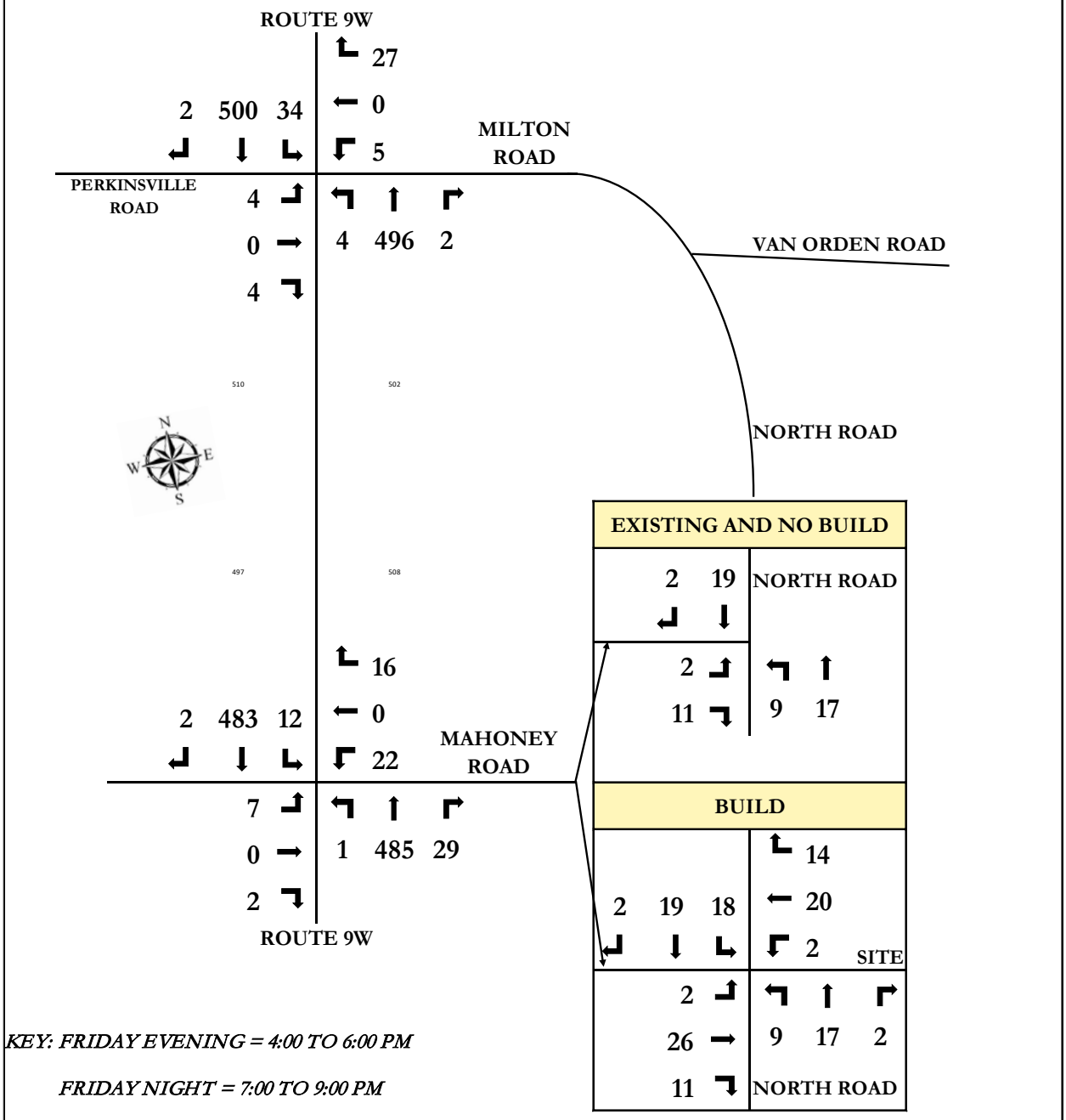
Prepared by: STEPHAN A. MAFFIA, P.E.

FRIDAY NIGHT

2025 BUILD

TRAFFIC VOLUMES

NOT TO SCALE



KEY: FRIDAY EVENING = 4:00 TO 6:00 PM

FRIDAY NIGHT = 7:00 TO 9:00 PM

SATURDAY = 1:00 TO 3:00PM

FIGURE 12

BUTTERMILK FALLS

Marlborough, New York

Prepared by: STEPHAN A. MAFFIA, P.E.

SATURDAY

2025 BUILD

TRAFFIC VOLUMES

APPENDIX C

DETAILED LEVEL OF SERVICE SUMMARIES

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	0	5	2	0	19	6	745	7	26	935	2
Future Vol, veh/h	1	0	5	2	0	19	6	745	7	26	935	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	1	0	5	2	0	21	7	819	8	29	1027	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1934	1927	1028	1926	1924	823	1029	0	0	827	0	0
Stage 1	1086	1086	-	837	837	-	-	-	-	-	-	-
Stage 2	848	841	-	1089	1087	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	50	67	284	50	67	373	675	-	-	804	-	-
Stage 1	262	292	-	361	382	-	-	-	-	-	-	-
Stage 2	356	380	-	261	292	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	44	60	284	45	60	373	675	-	-	804	-	-
Mov Cap-2 Maneuver	44	60	-	45	60	-	-	-	-	-	-	-
Stage 1	257	267	-	354	375	-	-	-	-	-	-	-
Stage 2	330	373	-	234	267	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30.3	23.3	0.1	0.3
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	675	-	-	149	220	804	-	-
HCM Lane V/C Ratio	0.01	-	-	0.044	0.105	0.036	-	-
HCM Control Delay (s)	10.4	0	-	30.3	23.3	9.6	0	-
HCM Lane LOS	B	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	6	5	1	14	4	751	14	3	926	1
Future Vol, veh/h	0	0	6	5	1	14	4	751	14	3	926	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	0	0	7	6	1	16	4	834	16	3	1029	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1895	1894	1030	1889	1886	842	1030	0	0	850	0	0
Stage 1	1036	1036	-	850	850	-	-	-	-	-	-	-
Stage 2	859	858	-	1039	1036	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	53	70	283	53	71	364	674	-	-	788	-	-
Stage 1	280	309	-	355	377	-	-	-	-	-	-	-
Stage 2	351	374	-	279	309	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	49	69	283	51	70	364	674	-	-	788	-	-
Mov Cap-2 Maneuver	49	69	-	51	70	-	-	-	-	-	-	-
Stage 1	277	306	-	351	373	-	-	-	-	-	-	-
Stage 2	331	370	-	270	306	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18	37.4	0.1	0
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	674	-	-	283	133	788	-	-
HCM Lane V/C Ratio	0.007	-	-	0.024	0.167	0.004	-	-
HCM Control Delay (s)	10.4	0	-	18	37.4	9.6	0	-
HCM Lane LOS	B	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.6	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	17	0	0	0	9	30	0	0	26	16
Future Vol, veh/h	5	0	17	0	0	0	9	30	0	0	26	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	0	21	0	0	0	11	37	0	0	32	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	101	101	42	112	111	37	52	0	0	37	0	0
Stage 1	42	42	-	59	59	-	-	-	-	-	-	-
Stage 2	59	59	-	53	52	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	880	789	1029	866	779	1035	1554	-	-	1574	-	-
Stage 1	972	860	-	953	846	-	-	-	-	-	-	-
Stage 2	953	846	-	960	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	876	783	1029	843	774	1035	1554	-	-	1574	-	-
Mov Cap-2 Maneuver	876	783	-	843	774	-	-	-	-	-	-	-
Stage 1	965	860	-	946	840	-	-	-	-	-	-	-
Stage 2	946	840	-	940	852	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.7	0	1.7	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1554	-	-	990	-	1574	-	-
HCM Lane V/C Ratio	0.007	-	-	0.027	-	-	-	-
HCM Control Delay (s)	7.3	0	-	8.7	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	1	0	10	1	387	0	17	516	3
Future Vol, veh/h	1	0	1	1	0	10	1	387	0	17	516	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	1	0	1	1	0	10	1	399	0	18	532	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	976	971	534	971	972	399	535	0	0	399	0	0
Stage 1	570	570	-	401	401	-	-	-	-	-	-	-
Stage 2	406	401	-	570	571	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	230	253	546	232	252	651	1033	-	-	1160	-	-
Stage 1	506	505	-	626	601	-	-	-	-	-	-	-
Stage 2	622	601	-	506	505	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	222	247	546	228	246	651	1033	-	-	1160	-	-
Mov Cap-2 Maneuver	222	247	-	228	246	-	-	-	-	-	-	-
Stage 1	505	494	-	625	600	-	-	-	-	-	-	-
Stage 2	612	600	-	494	494	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.5	11.6	0	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1033	-	-	316	557	1160	-	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.02	0.015	-	-
HCM Control Delay (s)	8.5	0	-	16.5	11.6	8.2	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	6	0	2	5	382	6	0	507	0
Future Vol, veh/h	0	0	4	6	0	2	5	382	6	0	507	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	0	0	4	6	0	2	5	394	6	0	523	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	931	933	523	932	930	397	523	0	0	400	0	0
Stage 1	523	523	-	407	407	-	-	-	-	-	-	-
Stage 2	408	410	-	525	523	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	247	266	554	247	267	652	1043	-	-	1159	-	-
Stage 1	537	530	-	621	597	-	-	-	-	-	-	-
Stage 2	620	595	-	536	530	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	245	264	554	244	265	652	1043	-	-	1159	-	-
Mov Cap-2 Maneuver	245	264	-	244	265	-	-	-	-	-	-	-
Stage 1	534	530	-	617	593	-	-	-	-	-	-	-
Stage 2	614	591	-	532	530	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	17.8	0.1	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1043	-	-	554	289	1159	-	-
HCM Lane V/C Ratio	0.005	-	-	0.007	0.029	-	-	-
HCM Control Delay (s)	8.5	0	-	11.5	17.8	0	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	4	0	0	0	4	13	0	0	12	4
Future Vol, veh/h	0	0	4	0	0	0	4	13	0	0	12	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	0	0	0	5	15	0	0	14	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	42	42	17	44	44	15	19	0	0	15	0	0
Stage 1	17	17	-	25	25	-	-	-	-	-	-	-
Stage 2	25	25	-	19	19	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	961	850	1062	958	848	1065	1597	-	-	1603	-	-
Stage 1	1002	881	-	993	874	-	-	-	-	-	-	-
Stage 2	993	874	-	1000	880	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	959	847	1062	951	845	1065	1597	-	-	1603	-	-
Mov Cap-2 Maneuver	959	847	-	951	845	-	-	-	-	-	-	-
Stage 1	999	881	-	990	871	-	-	-	-	-	-	-
Stage 2	990	871	-	996	880	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	0	1.7	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1597	-	-	1062	-	1603	-	-
HCM Lane V/C Ratio	0.003	-	-	0.004	-	-	-	-
HCM Control Delay (s)	7.3	0	-	8.4	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	4	5	0	9	4	477	2	11	481	2
Future Vol, veh/h	4	0	4	5	0	9	4	477	2	11	481	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	4	0	4	5	0	9	4	492	2	11	496	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1025	1021	497	1022	1021	493	498	0	0	494	0	0
Stage 1	519	519	-	501	501	-	-	-	-	-	-	-
Stage 2	506	502	-	521	520	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	213	236	573	214	236	576	1066	-	-	1070	-	-
Stage 1	540	533	-	552	543	-	-	-	-	-	-	-
Stage 2	549	542	-	539	532	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	207	232	573	209	232	576	1066	-	-	1070	-	-
Mov Cap-2 Maneuver	207	232	-	209	232	-	-	-	-	-	-	-
Stage 1	537	526	-	549	540	-	-	-	-	-	-	-
Stage 2	537	539	-	528	525	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	15.6	0.1	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1066	-	-	304	354	1070	-	-
HCM Lane V/C Ratio	0.004	-	-	0.027	0.041	0.011	-	-
HCM Control Delay (s)	8.4	0	-	17.2	15.6	8.4	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	2	2	0	15	1	466	3	12	464	2
Future Vol, veh/h	7	0	2	2	0	15	1	466	3	12	464	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	7	0	2	2	0	15	1	476	3	12	473	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	985	979	474	979	979	478	475	0	0	479	0	0
Stage 1	498	498	-	480	480	-	-	-	-	-	-	-
Stage 2	487	481	-	499	499	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	227	250	590	229	250	587	1087	-	-	1083	-	-
Stage 1	554	544	-	567	554	-	-	-	-	-	-	-
Stage 2	562	554	-	554	544	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	218	246	590	225	246	587	1087	-	-	1083	-	-
Mov Cap-2 Maneuver	218	246	-	225	246	-	-	-	-	-	-	-
Stage 1	553	536	-	566	553	-	-	-	-	-	-	-
Stage 2	547	553	-	544	536	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.7	12.6	0	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1087	-	-	254	494	1083	-	-
HCM Lane V/C Ratio	0.001	-	-	0.036	0.035	0.011	-	-
HCM Control Delay (s)	8.3	0	-	19.7	12.6	8.4	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	11	0	0	0	9	16	0	0	18	2
Future Vol, veh/h	2	0	11	0	0	0	9	16	0	0	18	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	14	0	0	0	11	20	0	0	22	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	65	65	23	72	66	20	24	0	0	20	0	0
Stage 1	23	23	-	42	42	-	-	-	-	-	-	-
Stage 2	42	42	-	30	24	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	929	826	1054	919	825	1058	1591	-	-	1596	-	-
Stage 1	995	876	-	972	860	-	-	-	-	-	-	-
Stage 2	972	860	-	987	875	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	924	820	1054	902	819	1058	1591	-	-	1596	-	-
Mov Cap-2 Maneuver	924	820	-	902	819	-	-	-	-	-	-	-
Stage 1	988	876	-	965	854	-	-	-	-	-	-	-
Stage 2	965	854	-	974	875	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.5	0	2.6	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1591	-	-	1032	-	1596	-	-
HCM Lane V/C Ratio	0.007	-	-	0.016	-	-	-	-
HCM Control Delay (s)	7.3	0	-	8.5	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	0	5	2	0	20	6	775	7	27	972	2
Future Vol, veh/h	1	0	5	2	0	20	6	775	7	27	972	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	1	0	5	2	0	22	7	852	8	30	1068	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2010	2003	1069	2002	2000	856	1070	0	0	860	0	0
Stage 1	1129	1129	-	870	870	-	-	-	-	-	-	-
Stage 2	881	874	-	1132	1130	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	44	60	269	44	60	357	651	-	-	781	-	-
Stage 1	248	279	-	346	369	-	-	-	-	-	-	-
Stage 2	341	367	-	247	279	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	38	53	269	39	53	357	651	-	-	781	-	-
Mov Cap-2 Maneuver	38	53	-	39	53	-	-	-	-	-	-	-
Stage 1	243	252	-	339	361	-	-	-	-	-	-	-
Stage 2	313	359	-	219	252	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33.3	24.9	0.1	0.3
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	651	-	-	134	205	781	-	-
HCM Lane V/C Ratio	0.01	-	-	0.049	0.118	0.038	-	-
HCM Control Delay (s)	10.6	0	-	33.3	24.9	9.8	0	-
HCM Lane LOS	B	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	6	5	1	15	4	781	15	3	963	1
Future Vol, veh/h	1	0	6	5	1	15	4	781	15	3	963	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	1	0	7	6	1	17	4	868	17	3	1070	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1971	1970	1071	1965	1962	877	1071	0	0	885	0	0
Stage 1	1077	1077	-	885	885	-	-	-	-	-	-	-
Stage 2	894	893	-	1080	1077	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	47	63	268	47	63	348	651	-	-	765	-	-
Stage 1	265	295	-	340	363	-	-	-	-	-	-	-
Stage 2	336	360	-	264	295	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	43	62	268	45	62	348	651	-	-	765	-	-
Mov Cap-2 Maneuver	43	62	-	45	62	-	-	-	-	-	-	-
Stage 1	262	292	-	336	359	-	-	-	-	-	-	-
Stage 2	315	356	-	255	292	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.8	41	0.1	0
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	651	-	-	153	123	765	-	-
HCM Lane V/C Ratio	0.007	-	-	0.051	0.19	0.004	-	-
HCM Control Delay (s)	10.6	0	-	29.8	41	9.7	0	-
HCM Lane LOS	B	A	-	D	E	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.7	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	5	0	18	0	0	0	9	31	0	0	27	17
Future Vol, veh/h	5	0	18	0	0	0	9	31	0	0	27	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	0	22	0	0	0	11	38	0	0	33	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	104	104	44	115	114	38	54	0	0	38	0	0
Stage 1	44	44	-	60	60	-	-	-	-	-	-	-
Stage 2	60	60	-	55	54	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	876	786	1026	862	776	1034	1551	-	-	1572	-	-
Stage 1	970	858	-	951	845	-	-	-	-	-	-	-
Stage 2	951	845	-	957	850	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	872	780	1026	839	771	1034	1551	-	-	1572	-	-
Mov Cap-2 Maneuver	872	780	-	839	771	-	-	-	-	-	-	-
Stage 1	963	858	-	944	839	-	-	-	-	-	-	-
Stage 2	944	839	-	936	850	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	0	1.7	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1551	-	-	988	-	1572	-	-
HCM Lane V/C Ratio	0.007	-	-	0.029	-	-	-	-
HCM Control Delay (s)	7.3	0	-	8.8	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	1	0	10	1	402	0	18	537	3
Future Vol, veh/h	1	0	1	1	0	10	1	402	0	18	537	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	1	0	1	1	0	10	1	414	0	19	554	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1015	1010	556	1010	1011	414	557	0	0	414	0	0
Stage 1	594	594	-	416	416	-	-	-	-	-	-	-
Stage 2	421	416	-	594	595	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	217	240	531	218	240	638	1014	-	-	1145	-	-
Stage 1	491	493	-	614	592	-	-	-	-	-	-	-
Stage 2	610	592	-	491	492	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	209	234	531	213	234	638	1014	-	-	1145	-	-
Mov Cap-2 Maneuver	209	234	-	213	234	-	-	-	-	-	-	-
Stage 1	491	481	-	613	591	-	-	-	-	-	-	-
Stage 2	600	591	-	478	480	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.1	11.8	0	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1014	-	-	300	540	1145	-	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.021	0.016	-	-
HCM Control Delay (s)	8.6	0	-	17.1	11.8	8.2	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	6	0	2	5	397	6	0	527	0
Future Vol, veh/h	0	0	4	6	0	2	5	397	6	0	527	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	0	0	4	6	0	2	5	409	6	0	543	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	966	968	543	967	965	412	543	0	0	415	0	0
Stage 1	543	543	-	422	422	-	-	-	-	-	-	-
Stage 2	423	425	-	545	543	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	234	254	540	234	255	640	1026	-	-	1144	-	-
Stage 1	524	520	-	609	588	-	-	-	-	-	-	-
Stage 2	609	586	-	523	520	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	232	252	540	231	253	640	1026	-	-	1144	-	-
Mov Cap-2 Maneuver	232	252	-	231	253	-	-	-	-	-	-	-
Stage 1	521	520	-	605	584	-	-	-	-	-	-	-
Stage 2	603	582	-	519	520	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	18.5	0.1	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1026	-	-	540	275	1144	-	-
HCM Lane V/C Ratio	0.005	-	-	0.008	0.03	-	-	-
HCM Control Delay (s)	8.5	0	-	11.7	18.5	0	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	0	0	0	4	14	0	0	12	4
Future Vol, veh/h	0	0	4	0	0	0	4	14	0	0	12	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	0	0	0	5	17	0	0	14	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	44	44	17	46	46	17	19	0	0	17	0	0
Stage 1	17	17	-	27	27	-	-	-	-	-	-	-
Stage 2	27	27	-	19	19	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	958	848	1062	955	846	1062	1597	-	-	1600	-	-
Stage 1	1002	881	-	990	873	-	-	-	-	-	-	-
Stage 2	990	873	-	1000	880	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	956	845	1062	948	843	1062	1597	-	-	1600	-	-
Mov Cap-2 Maneuver	956	845	-	948	843	-	-	-	-	-	-	-
Stage 1	999	881	-	987	870	-	-	-	-	-	-	-
Stage 2	987	870	-	996	880	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	0	1.6	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1597	-	-	1062	-	1600	-	-
HCM Lane V/C Ratio	0.003	-	-	0.004	-	-	-	-
HCM Control Delay (s)	7.3	0	-	8.4	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	4	5	0	9	4	496	2	11	500	2
Future Vol, veh/h	4	0	4	5	0	9	4	496	2	11	500	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	4	0	4	5	0	9	4	511	2	11	515	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1063	1059	516	1060	1059	512	517	0	0	513	0	0
Stage 1	538	538	-	520	520	-	-	-	-	-	-	-
Stage 2	525	521	-	540	539	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	201	224	559	202	224	562	1049	-	-	1052	-	-
Stage 1	527	522	-	539	532	-	-	-	-	-	-	-
Stage 2	536	532	-	526	522	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	195	220	559	198	220	562	1049	-	-	1052	-	-
Mov Cap-2 Maneuver	195	220	-	198	220	-	-	-	-	-	-	-
Stage 1	524	514	-	536	529	-	-	-	-	-	-	-
Stage 2	525	529	-	514	514	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.8	16.1	0.1	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1049	-	-	289	339	1052	-	-
HCM Lane V/C Ratio	0.004	-	-	0.029	0.043	0.011	-	-
HCM Control Delay (s)	8.4	0	-	17.8	16.1	8.5	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	2	2	0	16	1	485	3	12	483	2
Future Vol, veh/h	7	0	2	2	0	16	1	485	3	12	483	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	7	0	2	2	0	16	1	495	3	12	493	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1025	1018	494	1018	1018	497	495	0	0	498	0	0
Stage 1	518	518	-	499	499	-	-	-	-	-	-	-
Stage 2	507	500	-	519	519	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	213	237	575	216	237	573	1069	-	-	1066	-	-
Stage 1	541	533	-	554	544	-	-	-	-	-	-	-
Stage 2	548	543	-	540	533	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	204	233	575	213	233	573	1069	-	-	1066	-	-
Mov Cap-2 Maneuver	204	233	-	213	233	-	-	-	-	-	-	-
Stage 1	540	524	-	553	543	-	-	-	-	-	-	-
Stage 2	532	542	-	529	524	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.7	12.8	0	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1069	-	-	238	482	1066	-	-
HCM Lane V/C Ratio	0.001	-	-	0.039	0.038	0.011	-	-
HCM Control Delay (s)	8.4	0	-	20.7	12.8	8.4	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	0	11	0	0	0	9	17	0	0	19	2
Future Vol, veh/h	2	0	11	0	0	0	9	17	0	0	19	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	14	0	0	0	11	21	0	0	23	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	67	67	24	74	68	21	25	0	0	21	0	0
Stage 1	24	24	-	43	43	-	-	-	-	-	-	-
Stage 2	43	43	-	31	25	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	926	824	1052	916	823	1056	1589	-	-	1595	-	-
Stage 1	994	875	-	971	859	-	-	-	-	-	-	-
Stage 2	971	859	-	986	874	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	921	818	1052	900	817	1056	1589	-	-	1595	-	-
Mov Cap-2 Maneuver	921	818	-	900	817	-	-	-	-	-	-	-
Stage 1	987	875	-	964	853	-	-	-	-	-	-	-
Stage 2	964	853	-	973	874	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	0	2.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1589	-	-	1029	-	1595	-	-
HCM Lane V/C Ratio	0.007	-	-	0.016	-	-	-	-
HCM Control Delay (s)	7.3	0	-	8.6	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	5	2	0	32	6	775	7	43	972	2
Future Vol, veh/h	1	0	5	2	0	32	6	775	7	43	972	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	1	0	5	2	0	35	7	852	8	47	1068	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2051	2037	1069	2036	2034	856	1070	0	0	860	0	0
Stage 1	1163	1163	-	870	870	-	-	-	-	-	-	-
Stage 2	888	874	-	1166	1164	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	41	57	269	42	57	357	651	-	-	781	-	-
Stage 1	237	269	-	346	369	-	-	-	-	-	-	-
Stage 2	338	367	-	236	269	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	32	47	269	36	47	357	651	-	-	781	-	-
Mov Cap-2 Maneuver	32	47	-	36	47	-	-	-	-	-	-	-
Stage 1	232	229	-	339	361	-	-	-	-	-	-	-
Stage 2	298	359	-	197	229	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36.7	23.3	0.1	0.4
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	651	-	-	120	234	781	-	-
HCM Lane V/C Ratio	0.01	-	-	0.055	0.16	0.061	-	-
HCM Control Delay (s)	10.6	0	-	36.7	23.3	9.9	0	-
HCM Lane LOS	B	A	-	E	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.6	0.2	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	6	19	1	15	4	781	32	3	963	1
Future Vol, veh/h	1	0	6	19	1	15	4	781	32	3	963	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	1	0	7	21	1	17	4	868	36	3	1070	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1980	1989	1071	1974	1971	886	1071	0	0	904	0	0
Stage 1	1077	1077	-	894	894	-	-	-	-	-	-	-
Stage 2	903	912	-	1080	1077	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	46	61	268	47	62	343	651	-	-	752	-	-
Stage 1	265	295	-	336	360	-	-	-	-	-	-	-
Stage 2	332	353	-	264	295	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	42	60	268	45	61	343	651	-	-	752	-	-
Mov Cap-2 Maneuver	42	60	-	45	61	-	-	-	-	-	-	-
Stage 1	262	292	-	332	356	-	-	-	-	-	-	-
Stage 2	311	349	-	255	292	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30	100.4	0.1	0
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	651	-	-	152	73	752	-	-
HCM Lane V/C Ratio	0.007	-	-	0.051	0.533	0.004	-	-
HCM Control Delay (s)	10.6	0	-	30	100.4	9.8	0	-
HCM Lane LOS	B	A	-	D	F	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	2.2	0	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	5	18	18	1	14	9	9	31	1	12	27	17
Future Vol, veh/h	5	18	18	1	14	9	9	31	1	12	27	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	22	22	1	17	11	11	38	1	15	33	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	149	135	44	157	145	39	54	0	0	39	0	0
Stage 1	74	74	-	61	61	-	-	-	-	-	-	-
Stage 2	75	61	-	96	84	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	819	756	1026	809	746	1033	1551	-	-	1571	-	-
Stage 1	935	833	-	950	844	-	-	-	-	-	-	-
Stage 2	934	844	-	911	825	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	785	743	1026	764	733	1033	1551	-	-	1571	-	-
Mov Cap-2 Maneuver	785	743	-	764	733	-	-	-	-	-	-	-
Stage 1	928	825	-	943	838	-	-	-	-	-	-	-
Stage 2	899	838	-	859	817	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.5	1.6	1.6
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1551	-	-	852	824	1571	-	-
HCM Lane V/C Ratio	0.007	-	-	0.059	0.036	0.009	-	-
HCM Control Delay (s)	7.3	0	-	9.5	9.5	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	1	0	24	1	402	0	37	537	3
Future Vol, veh/h	1	0	1	1	0	24	1	402	0	37	537	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	1	0	1	1	0	25	1	414	0	38	554	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1061	1048	556	1048	1049	414	557	0	0	414	0	0
Stage 1	632	632	-	416	416	-	-	-	-	-	-	-
Stage 2	429	416	-	632	633	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	202	228	531	206	227	638	1014	-	-	1145	-	-
Stage 1	468	474	-	614	592	-	-	-	-	-	-	-
Stage 2	604	592	-	468	473	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	187	217	531	198	216	638	1014	-	-	1145	-	-
Mov Cap-2 Maneuver	187	217	-	198	216	-	-	-	-	-	-	-
Stage 1	468	451	-	613	591	-	-	-	-	-	-	-
Stage 2	580	591	-	445	450	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.1	11.4	0	0.5
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1014	-	-	277	586	1145	-	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.044	0.033	-	-
HCM Control Delay (s)	8.6	0	-	18.1	11.4	8.3	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	21	0	2	5	397	27	0	527	0
Future Vol, veh/h	0	0	4	21	0	2	5	397	27	0	527	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	0	0	4	22	0	2	5	409	28	0	543	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	977	990	543	978	976	423	543	0	0	437	0	0
Stage 1	543	543	-	433	433	-	-	-	-	-	-	-
Stage 2	434	447	-	545	543	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	230	246	540	230	251	631	1026	-	-	1123	-	-
Stage 1	524	520	-	601	582	-	-	-	-	-	-	-
Stage 2	600	573	-	523	520	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	228	245	540	227	249	631	1026	-	-	1123	-	-
Mov Cap-2 Maneuver	228	245	-	227	249	-	-	-	-	-	-	-
Stage 1	521	520	-	597	579	-	-	-	-	-	-	-
Stage 2	594	570	-	519	520	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	21.6	0.1	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1026	-	-	540	240	1123	-	-
HCM Lane V/C Ratio	0.005	-	-	0.008	0.099	-	-	-
HCM Control Delay (s)	8.5	0	-	11.7	21.6	0	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-	-

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	21	4	2	15	11	4	14	2	15	12	4
Future Vol, veh/h	0	21	4	2	15	11	4	14	2	15	12	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	25	5	2	18	13	5	17	2	18	14	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	97	82	17	96	83	18	19	0	0	19	0	0
Stage 1	53	53	-	28	28	-	-	-	-	-	-	-
Stage 2	44	29	-	68	55	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	885	808	1062	887	807	1061	1597	-	-	1597	-	-
Stage 1	960	851	-	989	872	-	-	-	-	-	-	-
Stage 2	970	871	-	942	849	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	850	797	1062	852	796	1061	1597	-	-	1597	-	-
Mov Cap-2 Maneuver	850	797	-	852	796	-	-	-	-	-	-	-
Stage 1	957	842	-	986	869	-	-	-	-	-	-	-
Stage 2	936	868	-	900	840	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.2	1.5	3.5
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1597	-	-	830	887	1597	-	-
HCM Lane V/C Ratio	0.003	-	-	0.036	0.038	0.011	-	-
HCM Control Delay (s)	7.3	0	-	9.5	9.2	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	4	5	0	27	4	496	2	34	500	2
Future Vol, veh/h	4	0	4	5	0	27	4	496	2	34	500	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	4	0	4	5	0	28	4	511	2	35	515	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1120	1107	516	1108	1107	512	517	0	0	513	0	0
Stage 1	586	586	-	520	520	-	-	-	-	-	-	-
Stage 2	534	521	-	588	587	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	184	210	559	187	210	562	1049	-	-	1052	-	-
Stage 1	496	497	-	539	532	-	-	-	-	-	-	-
Stage 2	530	532	-	495	497	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	168	199	559	178	199	562	1049	-	-	1052	-	-
Mov Cap-2 Maneuver	168	199	-	178	199	-	-	-	-	-	-	-
Stage 1	494	474	-	536	529	-	-	-	-	-	-	-
Stage 2	501	529	-	468	474	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.4	14.3	0.1	0.5
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1049	-	-	258	420	1052	-	-
HCM Lane V/C Ratio	0.004	-	-	0.032	0.079	0.033	-	-
HCM Control Delay (s)	8.4	0	-	19.4	14.3	8.5	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	2	22	0	16	1	485	29	12	483	2
Future Vol, veh/h	7	0	2	22	0	16	1	485	29	12	483	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	6	2	2	6	2
Mvmt Flow	7	0	2	22	0	16	1	495	30	12	493	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1038	1045	494	1031	1031	510	495	0	0	525	0	0
Stage 1	518	518	-	512	512	-	-	-	-	-	-	-
Stage 2	520	527	-	519	519	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	209	229	575	211	233	563	1069	-	-	1042	-	-
Stage 1	541	533	-	545	536	-	-	-	-	-	-	-
Stage 2	539	528	-	540	533	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	200	225	575	208	229	563	1069	-	-	1042	-	-
Mov Cap-2 Maneuver	200	225	-	208	229	-	-	-	-	-	-	-
Stage 1	540	524	-	544	535	-	-	-	-	-	-	-
Stage 2	523	527	-	529	524	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21	19.7	0	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1069	-	-	234	283	1042	-	-
HCM Lane V/C Ratio	0.001	-	-	0.039	0.137	0.012	-	-
HCM Control Delay (s)	8.4	0	-	21	19.7	8.5	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	26	11	2	20	14	9	17	2	18	19	2
Future Vol, veh/h	2	26	11	2	20	14	9	17	2	18	19	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	32	14	2	25	17	11	21	2	22	23	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	133	113	24	135	113	22	25	0	0	23	0	0
Stage 1	68	68	-	44	44	-	-	-	-	-	-	-
Stage 2	65	45	-	91	69	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	839	777	1052	836	777	1055	1589	-	-	1592	-	-
Stage 1	942	838	-	970	858	-	-	-	-	-	-	-
Stage 2	946	857	-	916	837	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	792	761	1052	786	761	1055	1589	-	-	1592	-	-
Mov Cap-2 Maneuver	792	761	-	786	761	-	-	-	-	-	-	-
Stage 1	935	826	-	963	852	-	-	-	-	-	-	-
Stage 2	897	851	-	857	825	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.4	2.3	3.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1589	-	-	827	855	1592	-	-
HCM Lane V/C Ratio	0.007	-	-	0.058	0.052	0.014	-	-
HCM Control Delay (s)	7.3	0	-	9.6	9.4	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-