



TRAFFIC IMPACT STUDY

LUXOR JR. ESTATES

Karmel & Jacobs Road
Town of Fallsburg
Sullivan County, New York

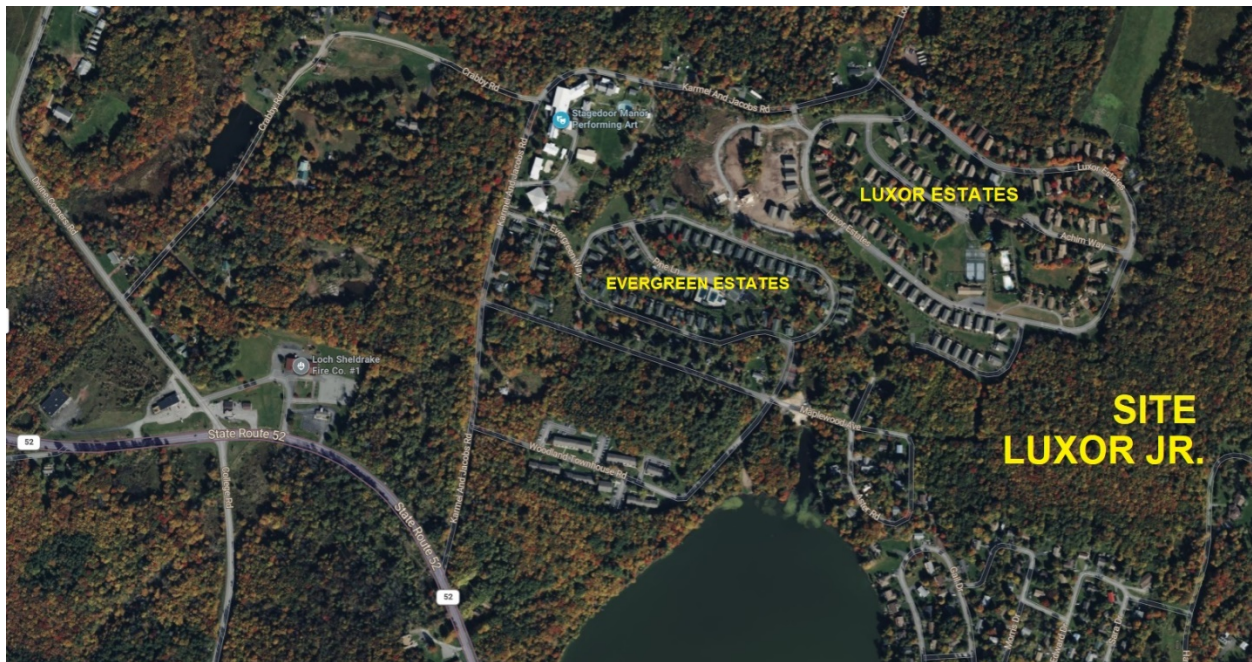
August 19, 2023



Stephan A. Maffia, P.E.

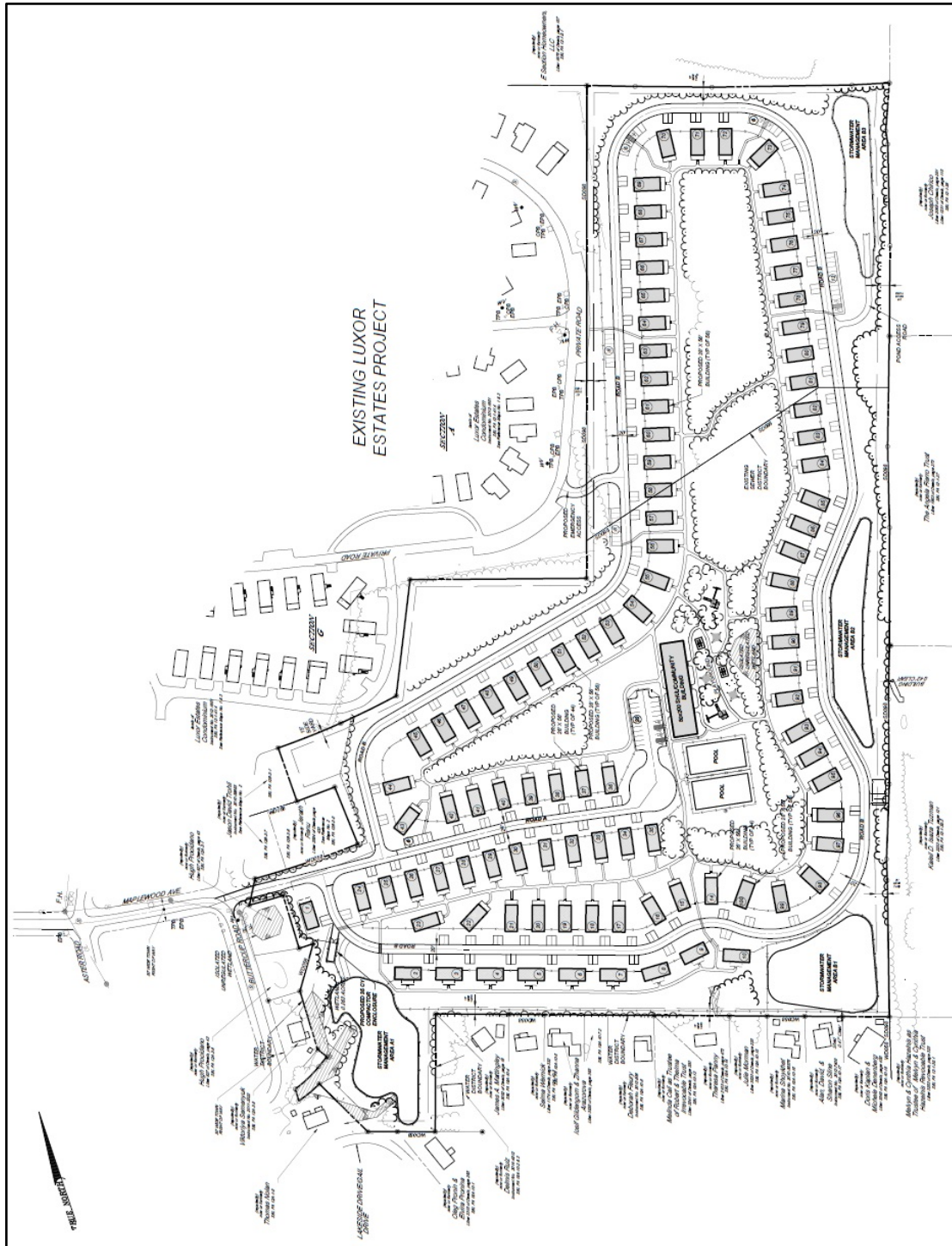
The purpose of this Traffic Impact Study is to identify potential adverse traffic issues that may result due to the development of a residential property located on Maplewood Avenue (off Karmel & Jacobs Road) north of Route 52 in the Town of Fallsburg, New York. The proposed project would be a total of 97 single-family homes (detached) and will have access from a new driveway to Maplewood Avenue. A second emergency access is proposed to connect to the adjacent, existing Luxor Estates property approximately 1,200 feet northeast of the entrance at Maplewood Avenue. The emergency access will be gated. The project build-out is estimated to be about two years, i.e., completed and occupied in 2025.

The site and its environs are shown in the following aerial map:

Site Location Aerial

The site plan – prepared by Wasson Engineering – is shown below:

Site Plan



Source: Wasson Engineering

Existing Conditions

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

Roadways

Maplewood Avenue is a two-lane east/west minor collector road extending westward from the project site approximately 0.5 miles to Karmel & Jacobs Road (K&J Road). At the intersection of Maplewood Avenue with K&J Road, traffic on K&J Road is free flowing while Maplewood Avenue is controlled by a stop sign. Travel lanes are ± 11 feet in width and there are no shoulders. There is no on-street parking, and the road surface is in fair condition. The assumed speed limit is 30 mph.

Karmel & Jacobs Road is a two-lane north/south minor collector road about 0.5 miles west of the site and extends approximately 1.25 miles between Route 52 on the south to Labaugh Road on the north. K&J Road primarily serves residential land uses. Other existing developments served by K&J Road include Luxor Estates, Evergreen Estates and Woodland Townhouses. At the intersection of K&J Road with Route 52 to the south of the site, traffic on the minor collector is controlled by a stop sign while Route 52 traffic is free flowing. Travel lanes are ± 11 feet in width and there are no shoulders. There is no on-street parking, and the pavement is in good condition. The posted speed limit on K&J Road is 30 mph.

Route 52 is a two-lane east/west major arterial running through the Town. Route 52 directly serves a mix of residential and commercial uses. Some residential uses have direct access to Route 52 and in the vicinity of the site there are several intersecting side roads – including Hildale Road, Divine Corners Road and Loch Sheldrake Road (County Road 104). The latter provides access to existing residential and recreational properties as well as access to Sullivan County Community College via Leroy Road. There is no on-street parking, and the pavement is in good condition. The posted speed limit is 55 mph.

Traffic Volumes

As proposed, the development will include 97 single-family homes. In previous studies conducted for new developments in this area of Fallsburg, the Town, County and State reviewers determined the parameters to use in collecting peak hour base traffic volume information and other study items. It was generally agreed that the summertime is expected to experience the highest levels of existing and project related traffic. Therefore, to evaluate the potential “worst-case” impacts of this development, traffic volumes were collected at the following key intersections:

1. Karmel & Jacobs Road at Maplewood Avenue
2. Karmel & Jacobs Road at Woodland Townhouse Road
3. Route 52 at Karmel & Jacobs Road
4. Route 52 at Hildale Road

Manual turning movement counts were collected on Friday evening and a Sunday late afternoon during the summertime, when traffic volumes are at their seasonal highs. The dates

were July 14/July 16, and July 28/July 30, and the times were 3:30 to 5:30 PM on Friday and 2:00 to 4:00 PM on Sunday.

(Note: Stephan A. Maffia, P.E. is preparing similar studies for three other projects in the same K&J Road/Lake Sheldrake area, and those studies include several other key intersections.)

The resulting 2023 Friday and Sunday peak hour summertime vehicle volumes are shown graphically in Figures 1 and 2, respectively, in **Appendix A**.

Level of Service Analysis – Existing Conditions

The *2016 Highway Capacity Manual (HCM-6th)*, 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 are all unsignalized intersections.

Delay is defined in the *HCM-6th* as "the additional travel time experienced by a driver, passenger, bicyclist, or pedestrian beyond that is required to travel at the desired speed."

Intersections where a minor road intersects a major road, and the major road has free through movements while movements from the minor road are controlled by a stop sign, are referred to as two-way stop-controlled intersections. The minor movements that are subject to control delays are rated on a scale of "A" to "F," with LOS "A" exhibiting very short delays – less than 10 seconds on average – and LOS "F" exhibiting much longer delays – more than 50 seconds per vehicle on average.

In the 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 or, in this analysis, all movements from the minor, single lane approaches.

The relationship of LOS to delay times is shown in the following table (Note: LOS:Delay relationships for signal controlled intersections are generally higher, e.g., for LOS F, the control delay is ≥ 80 seconds):

Table 1: Level of Service and Control Delay

Stop Sign Controlled Intersections	
Level of Service	Average Control Delay (sec/vehicle)
A	≤10 sec
B	10–15 sec
C	15–25 sec
D	25–35 sec
E	35–50 sec
F	≥50 sec

Generally accepted software (Synchro 11) was used to compute control delays and Levels of Service. Synchro uses the methodologies published in the *Highway Capacity Manual 2016* and requires input from the user specific to the intersections being studied. Among other items, that input information includes the following:

1. Traffic Volumes.
2. Lane Configuration and Width.
3. Traffic Control – Stop Sign.
4. Peak Hour Factor – PHF – from summertime peak hour counts.
5. Vehicle Mix/Classification (heavy truck percent).
6. Buses – no scheduled bus routes.
7. Pedestrians and Bicycles – from field observations.

The Levels of Service and corresponding control delays for the study locations are summarized in the following table for the summertime Friday and Sunday PM peak hours. The detailed LOS summary reports are contained in **Appendix B**.

Table 2: Level of Service Summary – Existing Conditions

INTERSECTION	MVT.	EXISTING			
		FRIDAY PM		SUNDAY PM	
		DELAY (SEC)	LOS	DELAY (SEC)	LOS
K&J Road at Maplewood (stop sign control)	EB	n/a			
	WB	10.0	A	10.1	B
	NB Left	n/a			
	SB Left	7.4	A	7.5	A
K&J Road at Woodland Townhouse (stop sign control)	SB Left	7.4	A	7.5	A
	WB	9.5	A	10.1	B
Route 52 at K&J Road/Metro Estates (stop sign control)	EB Left	8.3	A	8.4	A
	WB Left	n/a			
	NB	n/a			
	SB	17.9	C	24.5	C
Route 52 at Hilldale Road (stop sign control)	WB Left	8.4	A	8.4	A
	NB	15.1	C	14.7	B

NB=northbound; SB=southbound; EB=eastbound; WB=westbound; "n/a"=not applicable

Upon review of the summary table for existing LOS at the key study intersections, it is noted that control delays are low – all at or below 25 seconds with all Levels of Service C or better. These results are indicative of good operating levels with low to moderate delays at the intersections.

Future Traffic Conditions

Other Area Development

In order to evaluate project related traffic impacts on future roadway conditions, it was first necessary to estimate the traffic conditions that could develop over the next few years. The project is expected to be completed and occupied by the year 2025 – about two years from now. In that time, other development in the study area could occur that will add traffic to the streets near the project site. Some of that traffic will come from specific developments known to be planned for completion by 2025 or currently approved and/or under construction.

Stephan A. Maffia, P.E. is preparing similar traffic impact studies for three other projects in the same K&J Road area. Since the goal is to provide the Town with a comprehensive evaluation of the potential impacts of the combined development scenario in the Lake Sheldrake area, traffic from 11 projects was included in this comprehensive evaluation as follows:

Table 3: Area Developments

Project	Proposed Use	Size	Unit	Peak Hour Trips			
				Fri PM		Sun PM	
				In	Out	In	Out
Sheldrake/Karmel	Manufactured Homes	83	Dwellings	30	18	29	25
K&J Estates	Single Family - Attached	52	Dwellings	16	11	14	16
Luxor Jr.†	Single Family - Detached	97	Dwellings	61	36	50	43
Lakeshore	Single Family - Attached	67	Dwellings	21	15	18	20
Cabana Sands	Single Family - Attached	76	Dwellings	24	18	20	23
The Empress††	Single Family - Attached	70	Dwellings	54	33	42	37
Hasbrouck Estates	Single Family - Attached	80	Dwellings	25	19	27	29
Zimmerman Rd	Townhouses	44	Dwellings	12	10	16	18
Metro Estates	Townhouses	47	Dwellings	14	10	13	13
Metro Plaza†††	Commercial	18.4	KSF	7	34	5	5
Perennial Park	Single Family – Att & Det	66	Dwellings	28	18	30	26

† The Subject Project

†† The Empress also includes 14,000 sq. ft. (KSF) of commercial space.

††† Trip values for Town approved Metro Plaza obtained from DTS/Provident Engineers.

In addition, there could be other small or unknown developments near and beyond the study area that may add small amounts of traffic to the street network in the next few years. To account for the potential additional traffic from those types of future developments, this study included a background growth factor, increasing all existing traffic volumes by 2.0 percent. This increase was based on New York State Department of Transportation (DOT) historical

data from recent years. DOT two-way counts of Route 52 traffic in Lake Sheldrake were 5,939 in 2017 and 5,990 in 2019. At that time (pre-Covid) traffic increases were about 1.0% per year.

The resulting traffic volumes – projected future traffic without the proposed project – are shown in Figures 3 and 4 in **Appendix A** for the summertime Friday and Sunday PM peak hours, respectively. This study refers to this future condition as the “No Build” scenario.

The Proposed Project

The proposed project would feature a total of 97 single-family homes and associated amenities. The Project site will have access from a new entrance road that will connect to Maplewood Avenue, which intersects Karmel & Jacobs Road to the west. Another emergency access only driveway also is planned, connecting to the adjacent Luxor Estates property, about 1,200 feet from the main driveway to Maplewood Avenue.

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. The ITE Land Use #210: Single-Family Detached Housing was the data source used in this analysis.

The results of the ITE data and the application of that information as used in this study, is considered an appropriate representation of peak hour summertime traffic for the proposed use(s). Alone, the proposed use cannot generate significantly more peak hour trips than that associated with the size of the development. And those values are provided in the ITE data which includes sufficient studies of numerous existing land uses. The trip volumes used in the subsequent analyses at key study intersection, are summarized as follows:

Table 4: Trip Generation

Land Use 210 Single-Family Detached Homes	Peak Hour Trips			
	Friday PM		Sunday† PM	
	Enter	Exit	Enter	Exit
97 Units	61	36	50	43

†In this study, ITE rates/volumes for Saturday were used for the Sunday analyses.

Traffic from the proposed development was distributed to the surrounding street network generally in accordance with the existing travel patterns exhibited in the recent manual counts. The resulting trip volume assignments are shown in Figures 5 and 6 of **Appendix A** for the summertime Friday and Sunday PM peak times, respectively.

Note that in this trip generation analysis, trip rates from the ITE source were used to estimate the potential new trips from the project. It has been suggested that the trip generation estimates could be based on locally developed rates for summer based housing. Since counts were conducted at entrances to two local developments this summer, such rates can be

computed and compared to the rates used in this – and other studies prepared by Stephan A. Maffia, P.E.

For Luxor Jr., the trips made by the existing Luxor Estates were evaluated. Luxor Estates is a 120-unit condominium complex with an access to K&J Road. The recent counts at that entrance and associated Friday and Sunday PM rates are shown below:

Table 5: Existing Trip Generation – Luxor Estates

Luxor Estates	120 Condos			
Peak Hour	Entering Trips	Exiting Trips	Total Trips	Rate†
Friday PM	60	47	107	0.89
Sunday PM	56	61	117	0.98

† Rate is trips/dwelling unit

The existing rates compare favorably to the ITE rates used in this study.

In addition, to evaluate other types of residential developments used as background traffic in this and other studies, the counts at Woodland Townhomes were analyzed. Woodland Townhomes is a 60-unit apartment complex with an access (Spruce Road) to K&J Road. The recent counts at that entrance and associated Friday and Sunday PM rates are shown below:

Table 6: Existing Trip Generation – Woodland Townhomes

Woodland Townhomes	60 Apartments			
Peak Hour	Entering Trips	Exiting Trips	Total Trips	Rate†
Friday PM	14	13	27	0.45
Sunday PM	10	10	20	0.33

† Rate is trips/dwelling unit

The trip rates used in other studies (Sheldrake Karmel Properties – manufactured homes; KJ Estates – duplex; Perennial Park – mixed duplex and single-family) are all higher than the existing Woodland rates. Therefore, the ITE trip rates used in these studies, all produced more conservative analyses.

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 the combined other area developments, background growth percent and traffic from the proposed development.

The resulting Build traffic is shown in Figures 7 and 8 in **Appendix A** for the summertime Friday and Sunday PM peak hours, respectively. (Note: the proposed development will generate no, or very low volumes of bus and heavy truck traffic.)

Level of Service (LOS) analyses were run for the No Build and Build traffic scenarios, using the same methodology as used for the existing condition analysis. The results are summarized in the following table:

Table 7: Level of Service Summary – No Build to Build Comparison

INTERSECTION	MVM.T.	NO BUILD				BUILD			
		FRIDAY PM		SUNDAY PM		FRIDAY PM		SUNDAY PM	
		DELAY (SEC)	LOS	DELAY (SEC)	LOS	DELAY (SEC)	LOS	DELAY (SEC)	LOS
K&J Road at Maplewood (stop sign control)	EB	9.6	A	9.5	A	9.8	A	9.7	A
	WB	10.8	B	11.2	B	11.9	B	12.2	B
	NB Left	7.6	A	7.6	A	7.6	A	7.6	A
	SB Left	7.5	A	7.5	A	7.7	A	7.7	A
K&J Road at Woodland Townhouse (stop sign control)	SB Left	7.6	A	7.6	A	7.7	A	7.7	A
	WB	9.9	A	10.8	B	10.4	B	11.5	B
Route 52 at K&J Road/Metro Estates (stop sign control)	EB Left	8.7	A	8.8	A	8.9	A	9.0	A
	WB Left	8.3	A	8.3	A	8.3	A	8.3	A
	NB	25.4	D	24.8	C	29.9	D	28.6	D
	SB	35.5	E	65.7	F	58.9	F	122.5	F
Route 52 at Hilldale Road (stop sign control)	WB Left	8.5	A	8.5	A	8.6	A	8.6	A
	NB	16.2	C	15.7	C	16.9	C	16.2	C

NB=northbound; SB=southbound; EB=eastbound; WB=westbound; "n/a"=not applicable

Upon review of the summary table for No Build and Build conditions, two distinct patterns are apparent:

1. All of the levels of operation along K&J Road north of Route 52 exhibit control delays less than 15 seconds for all movements and time periods. K&J Road will have the capacity to accommodate future traffic demands of the subject project as well as that of the other projects in the area.
2. At the intersection of K&J Road with State Route 52, control delays would exceed acceptable levels – even under No Build conditions when the southbound K&J Road approach would experience 65.7 seconds of average delay and a Level of Service F.

Given the relatively high volume of traffic on Route 52, it was determined that one possible mitigation would be to install a traffic signal at this intersection along with minimal roadway widening to accommodate left turn lanes (head-to-head) on Route 52. That mitigation was analyzed under the Build scenario with the following LOS results:

Table 8: LOS Summary – Build Condition – with mitigation

INTERSECTION	MVM.T.	BUILD			
		FRIDAY PM		SUNDAY PM	
		DELAY (SEC)	LOS	DELAY (SEC)	LOS
Route 52 at K&J Road/Metro Estates (signal control)	EB	16.4	B	16.3	B
	WB	19.0	B	20.0	B
	NB	18.4	B	18.5	B
	SB	24.3	C	24.0	C
	OVERALL	18.8	B	19.0	B

NB=northbound; SB=southbound; EB=eastbound; WB=westbound; "n/a"=not applicable

In the Lake Sheldrake area, with a potential of 11 residential projects and a minor amount of commercial development, providing traffic signal operation and left-turn lanes on Route 52 at K&J Road will mitigate the impacts of the subject project as well as that of the full development scenario. Control delays on the southbound K&J Road approach would improve to less than 25 seconds for both peak hours.

Implementation of the recommended mitigation is dependent on two factors: meeting NYSDOT Warrants (criteria that must be met in order for the State to approve the mitigation) and identifying a source(s) of funding.

Signal Warrant Analysis

A preliminary Warrant Analysis was conducted to determine if the future volume conditions would meet a basic State Warrant that would serve as justification for signal installation. The DOT uses the U.S. Manual of Uniform Traffic Control Devices (MUTCD) as the reference source for signal warrants. In the MUTCD there are a series of Warrants dealing with basic volume criteria as well as other conditions such as accident experience and pedestrian volumes. This study evaluated the first basic volume warrant – Warrant #1: Eight-Hour Vehicular Volume.

The following Table from the MUTCD shows the 8-hour volume thresholds that could be applied to the Route 52/K&J Road intersection under Friday PM summertime volume conditions.

Table 7: Eight-Hour Volume Warrants

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume									
Condition A—Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

^a Basic minimum hourly volume
^b Used for combination of Conditions A and B after adequate trial of other remedial measures
^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
^d May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Note the highlighted values in the Table. On Route 52 with the recommended addition of auxiliary left-turn lanes and K&J Road with a single approach lane, the criteria would be eight hours of 600 or more vehicles total both directions on Route 52 and 150 vehicles or more on K&J Road. An examination of the estimate of future traffic volumes under the build scenario established for this study (see Figure 7 in **Appendix A**) resulted in that criteria being met on Route 52 for 11 hours and on K&J Road for only 6 hours on a Friday in the summer. While just short of the 8-hour basic volume criteria for K&J Road, exceptions are included in the Warrants that, when applied, would find that the intersection would meet the Warrant. For example, the 70% values would apply since Route 52 – the major street – has a posted speed limit of 55 mph. The volume analysis is included in **Appendix C** of this study.

Funding

With the significant number of potential developments in the Lake Sheldrake area, it would be reasonable to expect that each one would benefit from the proposed mitigation. Note that each proposed development has a different size and type of use – from manufactured homes to single family detached homes, as well as some commercial uses. It is recommended that a straightforward formula be applied to each development application based on the Friday peak hour traffic volume contribution of each. This “fair-share” concept has been applied successfully in similar situations where a single roadway improvement would benefit a

community of developments. The assessment of shares would be attached to the issuance of building permits for each development within a possible Transportation Improvement District as defined and approved by the Town.

Traffic Impacts During Construction

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 or State Police Department if required. Construction workers' vehicles would be parked on-site.

FINDINGS AND CONCLUSIONS

This Traffic Impact Study and, in particular, the Level of Service analysis summarized above indicate that there will be increases in summertime peak hour traffic volumes on the adjacent streets, with minor increases in control delay times at the Karmel & Jacobs Road intersections. However, with combined additional traffic from the numerous development projects in the Lake Sheldrake area, the increased traffic delays would reach unacceptable levels at the Route 52/Karmel & Jacobs Road intersection. It was determined that the installation of a traffic signal and left-turn lanes on Route 52 would mitigate those impacts.

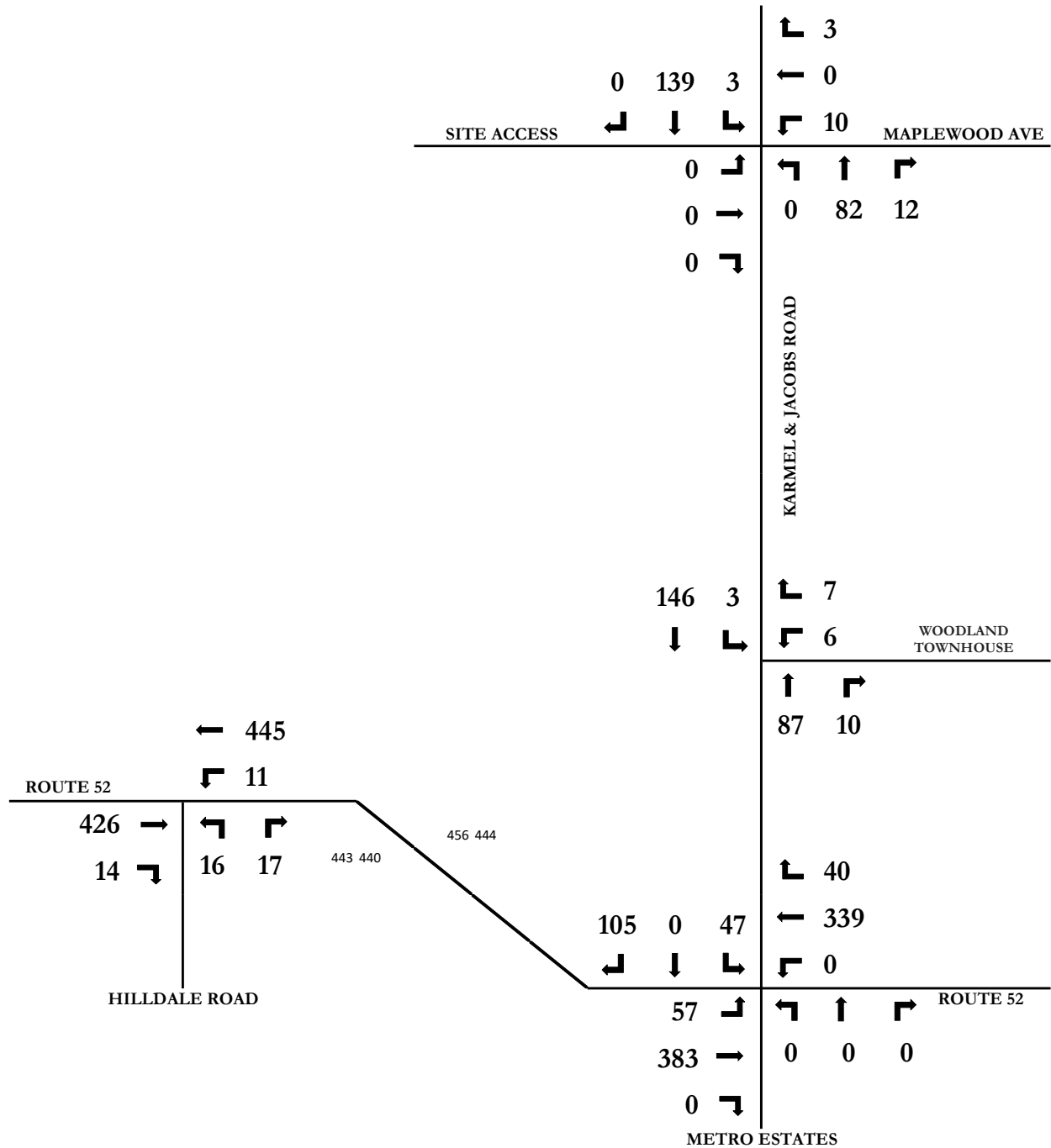
It is concluded that the proposed project alone would not adversely impact traffic conditions on the adjacent streets and at intersections in the study area, but the combined traffic from the full slate of Lake Sheldrake developments would require the noted mitigation.

APPENDIX A

TRAFFIC VOLUME DIAGRAMS

FIGURE	TITLE	
1	Friday PM Peak Hour	2023 Existing Volumes (Summertime)
2	Sunday PM Peak Hour	
3	Friday PM Peak Hour	2025 No Build Volumes
4	Sunday PM Peak Hour	
5	Friday PM Peak Hour	Site Generated Traffic Volumes
6	Sunday PM Peak Hour	
7	Friday PM Peak Hour	2025 Build Volumes
8	Sunday PM Peak Hour	

NOT TO SCALE



LUXOR JR.

FALLSBURG, NEW YORK

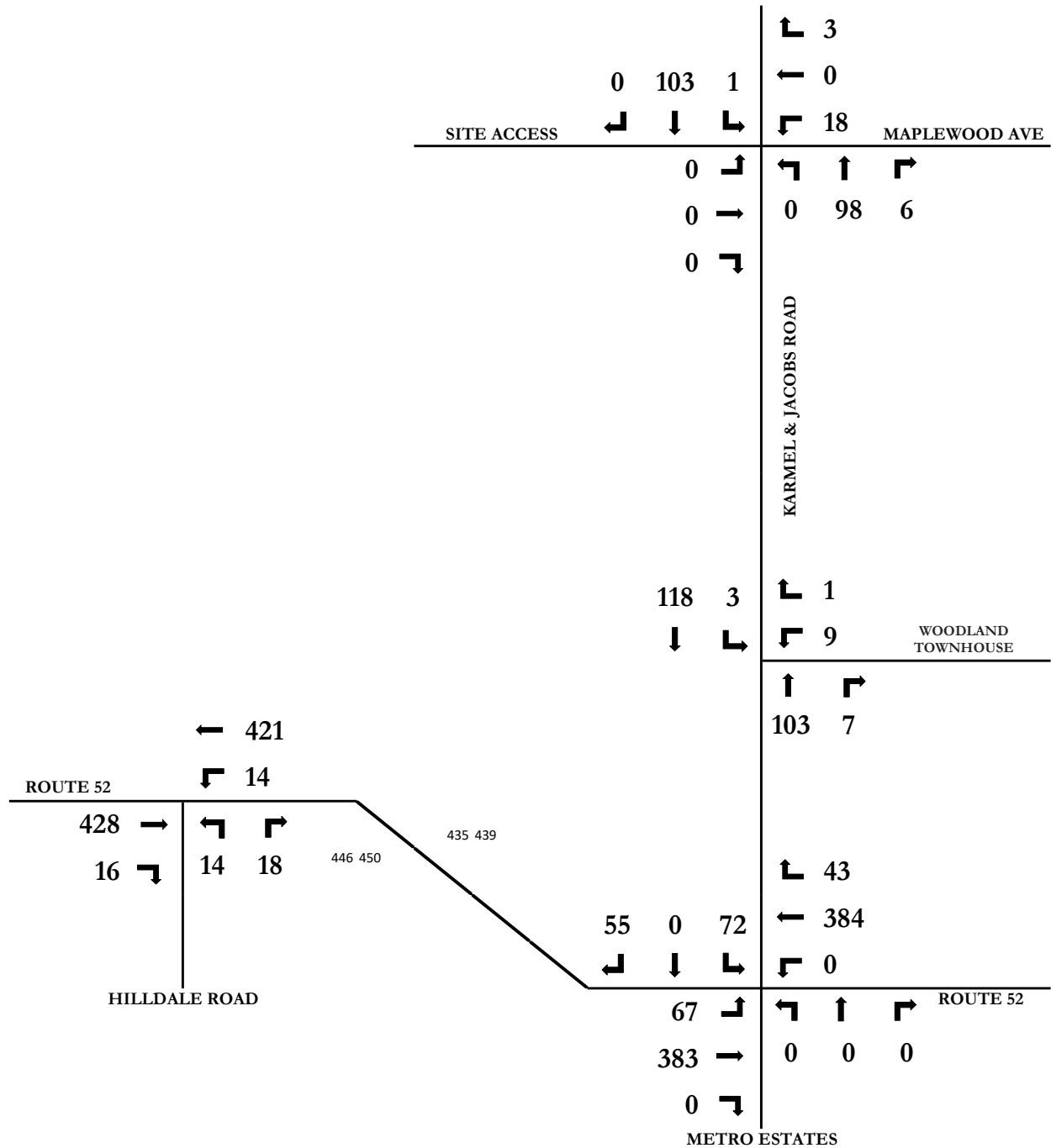
Prepared by: STEPHAN A. MAFFIA, P.E.

FIGURE 1

2023 EXISTING

FRI PM PEAK HOUR
TRAFFIC VOLUME CONDITIONS

NOT TO SCALE



LUXOR JR.

FALLSBURG, NEW YORK

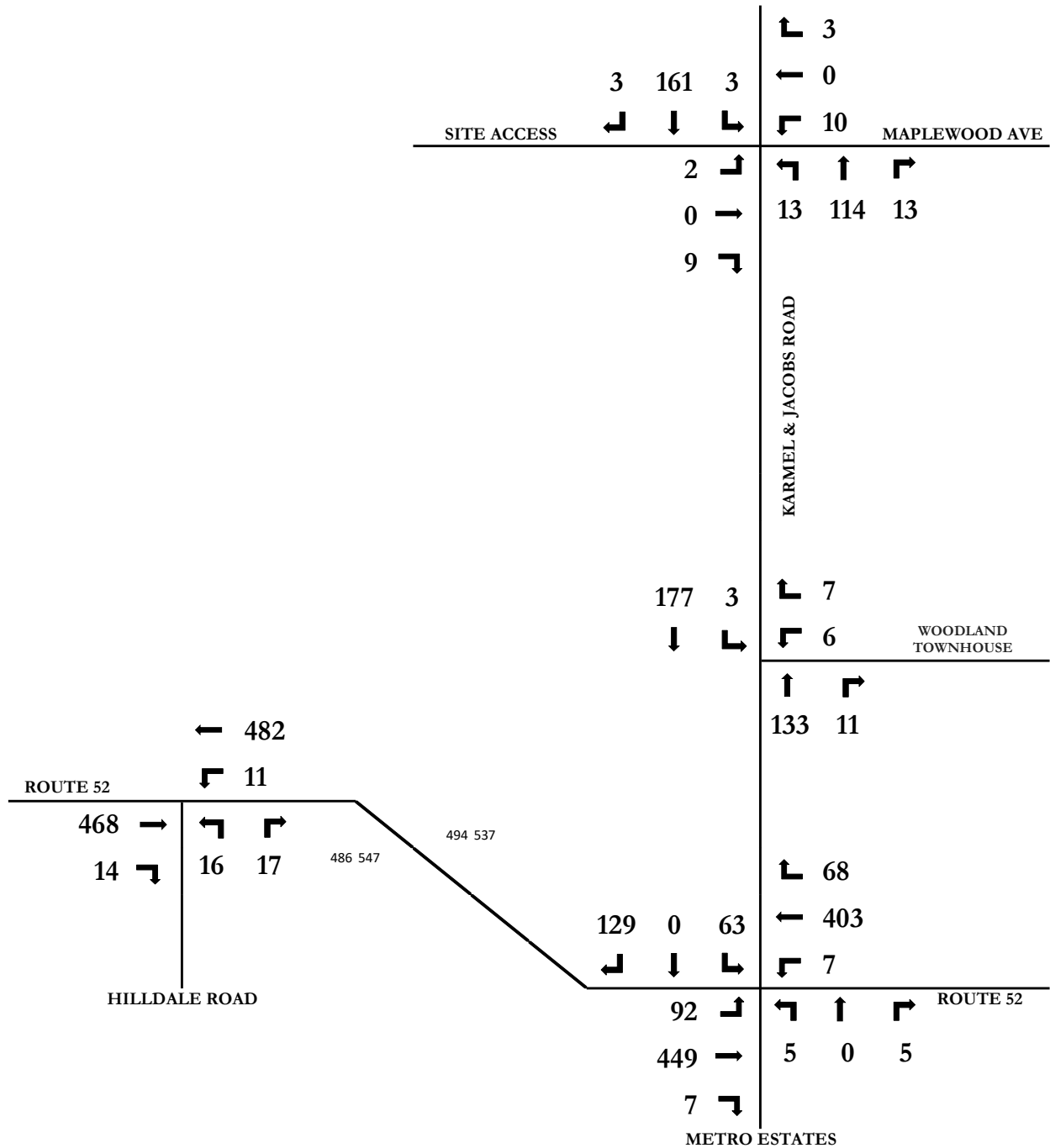
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FIGURE 2

2023 EXISTING

SUN PM PEAK HOUR
TRAFFIC VOLUME CONDITIONS

NOT TO SCALE



LUXOR JR.

FALLSBURG, NEW YORK

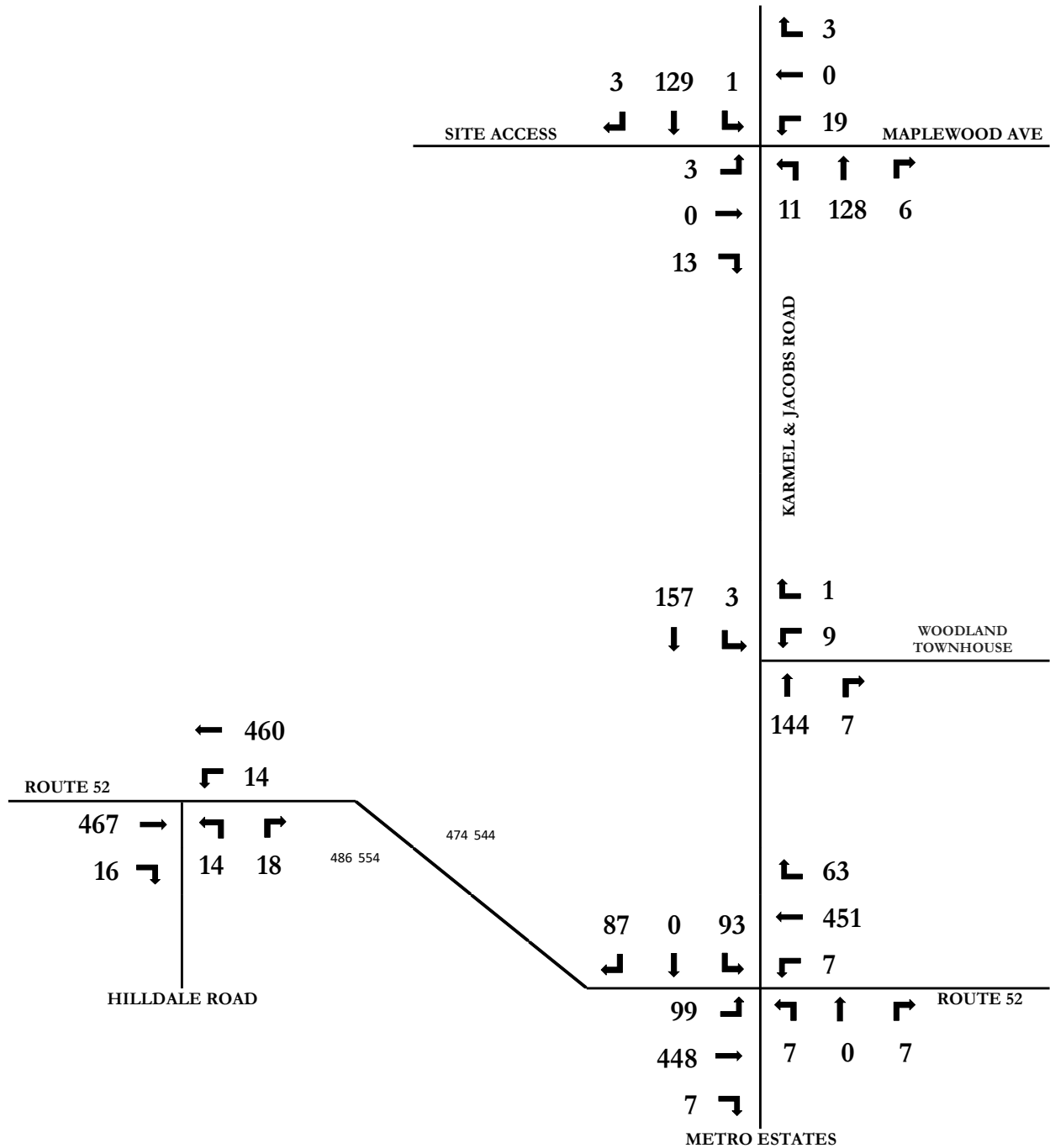
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FIGURE 3

2025 NO BUILD

FRI PM PEAK HOUR
TRAFFIC VOLUME CONDITIONS

NOT TO SCALE



LUXOR JR.

FALLSBURG, NEW YORK

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

FIGURE 4

2025 NO BUILD

**SUN MID PEAK HOUR
TRAFFIC VOLUME CONDITIONS**

NOT TO SCALE

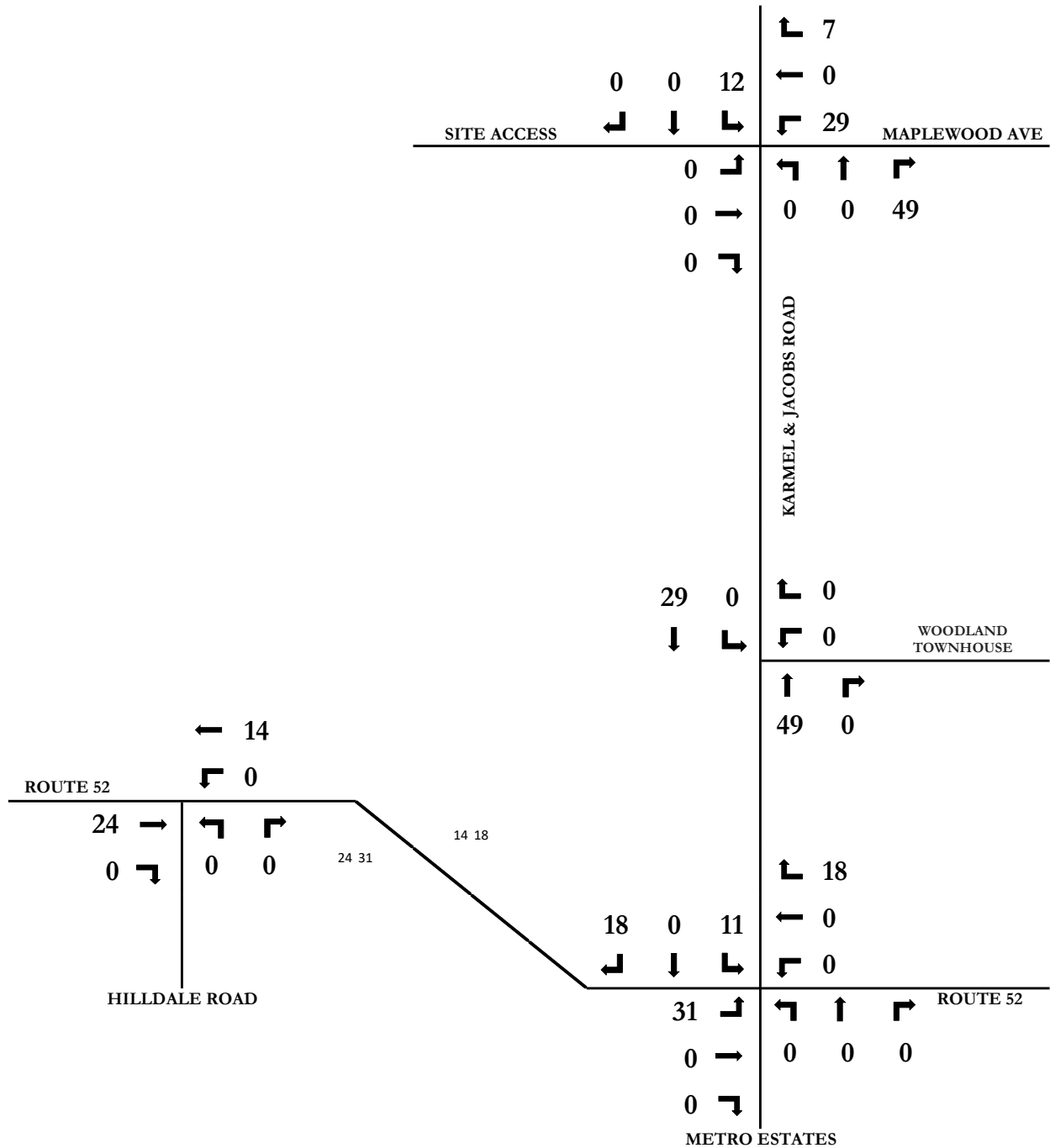


FIGURE 5

SITE GENERATED

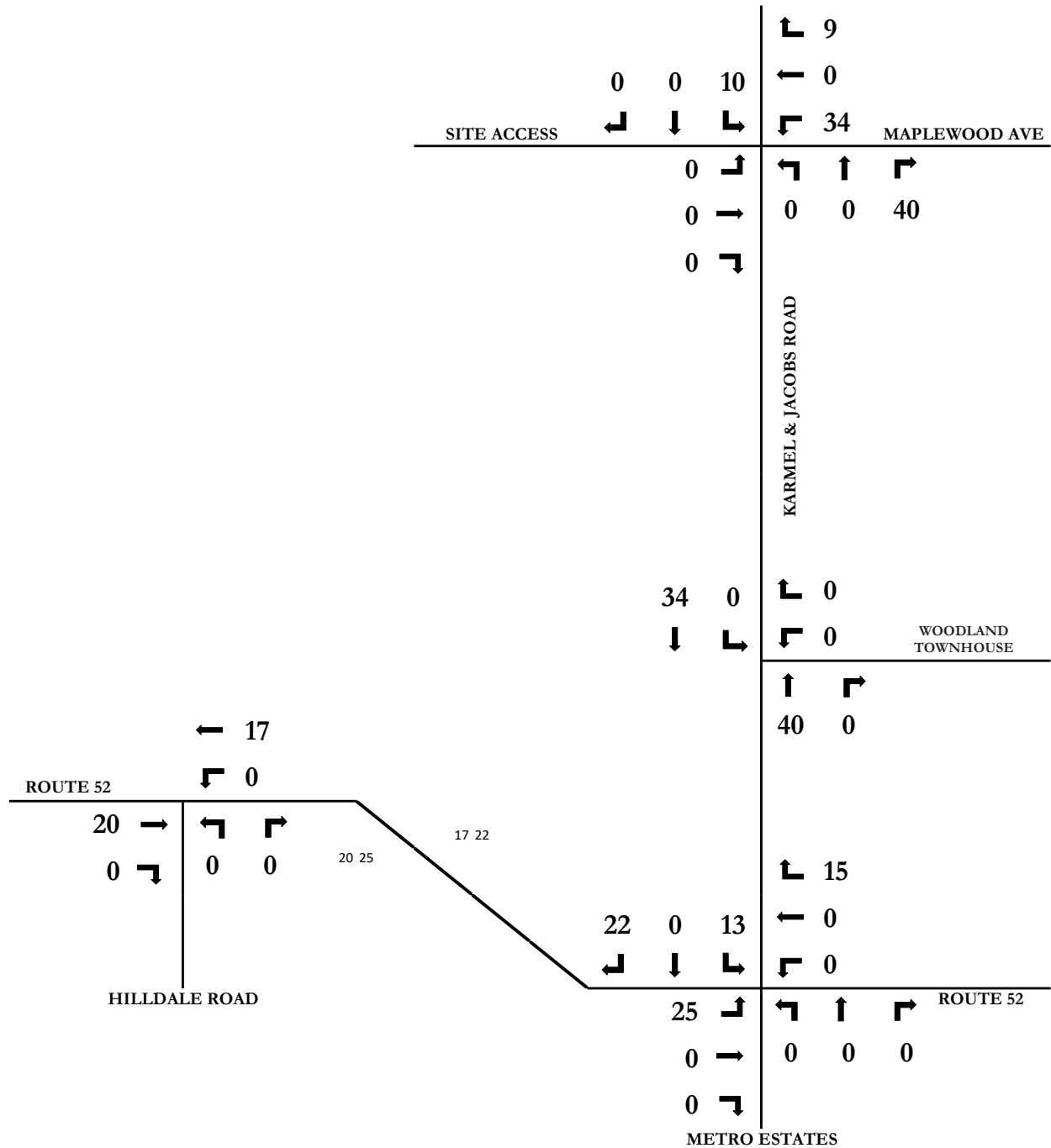
**FRI PM PEAK HOUR
TRAFFIC VOLUME CONDITIONS**

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FALLSBURG, NEW YORK

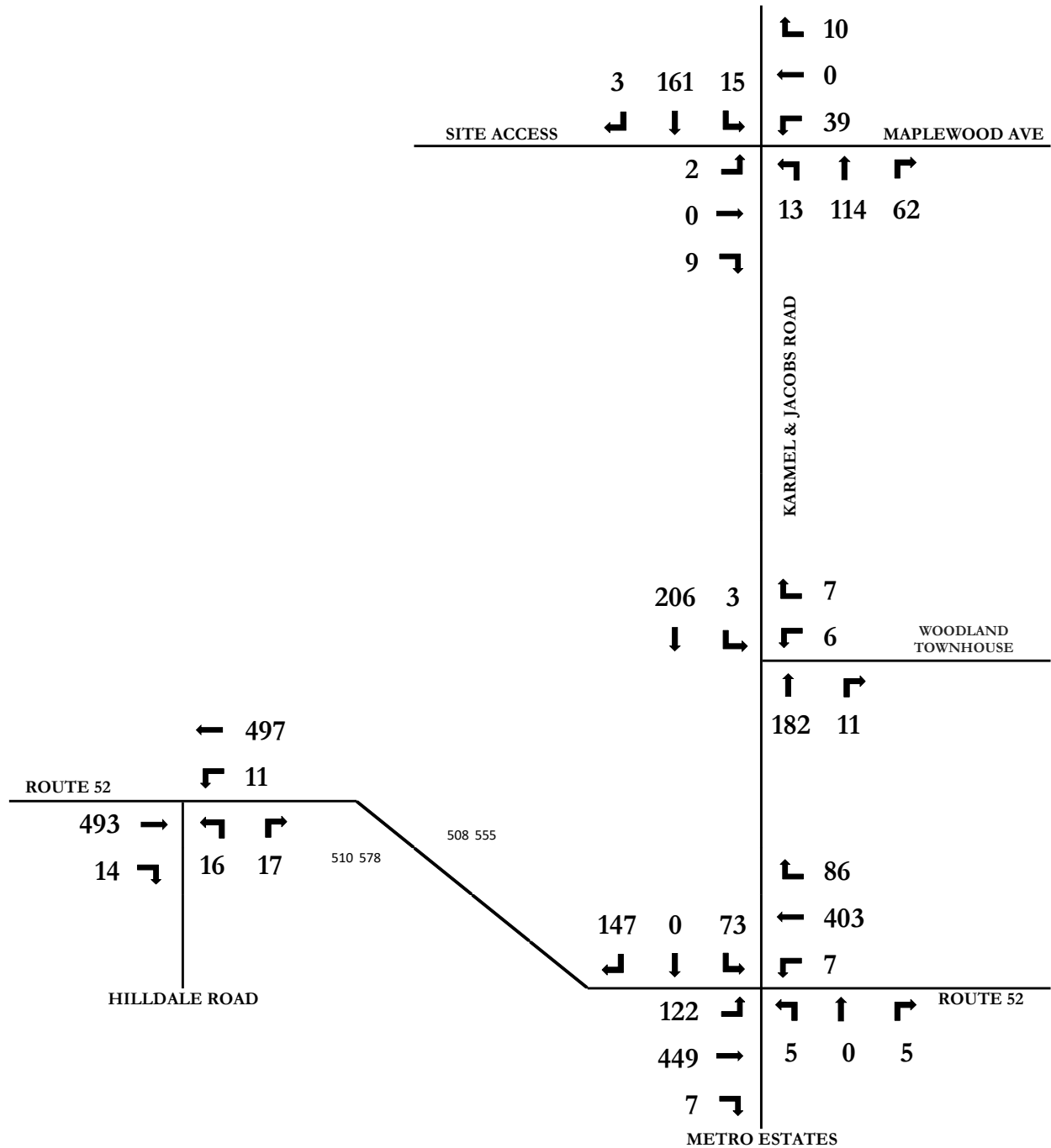
Prepared by: STEPHAN A. MAFFIA, P.E.

FIGURE 6

SITE GENERATED

**SUN PM PEAK HOUR
TRAFFIC VOLUME CONDITIONS**

NOT TO SCALE



LUXOR JR.

FALLSBURG, NEW YORK

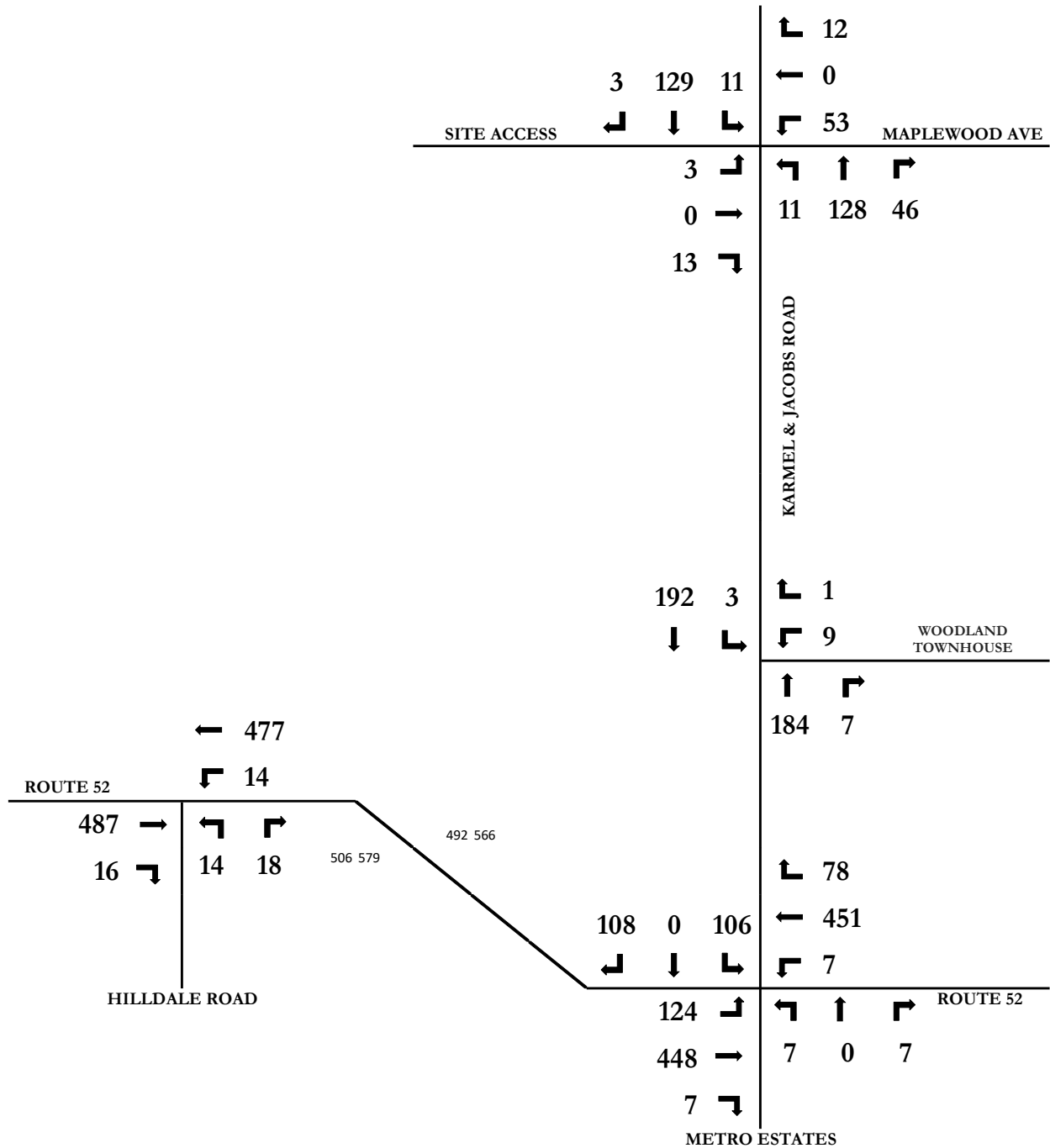
Prepared by: STEPHAN A. MAFFIA, P.E.

FIGURE 7

2025 BUILD

**FRI PM PEAK HOUR
TRAFFIC VOLUME CONDITIONS**

NOT TO SCALE



LUXOR JR.

FALLSBURG, NEW YORK

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

FIGURE 8

2025 BUILD

**SUN PM PEAK HOUR
TRAFFIC VOLUME CONDITIONS**

APPENDIX B

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	0	0	0	10	0	3	0	82	12	3	139	0
Future Vol, veh/h	0	0	0	10	0	3	0	82	12	3	139	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	11	0	3	0	93	14	3	158	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	266	271	158	264	264	100	158	0	0	107	0	0
Stage 1	164	164	-	100	100	-	-	-	-	-	-	-
Stage 2	102	107	-	164	164	-	-	-	-	-	-	-
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	687	636	887	689	641	956	1422	-	-	1484	-	-
Stage 1	838	762	-	906	812	-	-	-	-	-	-	-
Stage 2	904	807	-	838	762	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	684	635	887	688	640	956	1422	-	-	1484	-	-
Mov Cap-2 Maneuver	684	635	-	688	640	-	-	-	-	-	-	-
Stage 1	838	760	-	906	812	-	-	-	-	-	-	-
Stage 2	901	807	-	836	760	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		10		0		0.2	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1422	-	-	-	736	1484	-
HCM Lane V/C Ratio	-	-	-	-	0.02	0.002	-
HCM Control Delay (s)	0	-	-	0	10	7.4	0
HCM Lane LOS	A	-	-	A	B	A	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	7	87	10	3	146
Future Vol, veh/h	6	7	87	10	3	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	8	99	11	3	166
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	277	105	0	0	110	0
Stage 1	105	-	-	-	-	-
Stage 2	172	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	713	949	-	-	1480	-
Stage 1	919	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	712	949	-	-	1480	-
Mov Cap-2 Maneuver	712	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.5	0		0.1		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	823	1480	-	
HCM Lane V/C Ratio	-	-	0.018	0.002	-	
HCM Control Delay (s)	-	-	9.5	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	57	383	0	0	339	40	0	0	0	47	0	105
Future Vol, veh/h	57	383	0	0	339	40	0	0	0	47	0	105
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	6	2	2	6	2	2	2	2	2	2	2
Mvmt Flow	60	403	0	0	357	42	0	0	0	49	0	111
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	399	0	0	403	0	0	957	922	403	901	901	378
Stage 1	-	-	-	-	-	-	523	523	-	378	378	-
Stage 2	-	-	-	-	-	-	434	399	-	523	523	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1160	-	-	1156	-	-	237	270	647	259	278	669
Stage 1	-	-	-	-	-	-	537	530	-	644	615	-
Stage 2	-	-	-	-	-	-	600	602	-	537	530	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1160	-	-	1156	-	-	188	252	647	246	259	669
Mov Cap-2 Maneuver	-	-	-	-	-	-	188	252	-	246	259	-
Stage 1	-	-	-	-	-	-	501	494	-	601	615	-
Stage 2	-	-	-	-	-	-	501	602	-	501	494	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0			0			17.9		
HCM LOS							A			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	1160	-	-	1156	-	-	437				
HCM Lane V/C Ratio	-	0.052	-	-	-	-	-	0.366				
HCM Control Delay (s)	0	8.3	0	-	0	-	-	17.9				
HCM Lane LOS	A	A	A	-	A	-	-	C				
HCM 95th %tile Q(veh)	-	0.2	-	-	0	-	-	1.7				

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	426	14	11	445	16	17
Future Vol, veh/h	426	14	11	445	16	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	5	5	6	5	5
Mvmt Flow	448	15	12	468	17	18
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	463	0	940	448
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	492	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	1083	-	289	604
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	608	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1083	-	285	604
Mov Cap-2 Maneuver	-	-	-	-	285	-
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	599	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		15.1	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	392	-	-	1083	-	
HCM Lane V/C Ratio	0.089	-	-	0.011	-	
HCM Control Delay (s)	15.1	-	-	8.4	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

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	0	0	0	18	0	3	0	98	6	1	103	0
Future Vol, veh/h	0	0	0	18	0	3	0	98	6	1	103	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	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	22	0	4	0	120	7	1	126	0
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	254	255	126	252	252	124	126	0	0	127	0	0
Stage 1	128	128	-	124	124	-	-	-	-	-	-	-
Stage 2	126	127	-	128	128	-	-	-	-	-	-	-
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	699	649	924	701	651	927	1460	-	-	1459	-	-
Stage 1	876	790	-	880	793	-	-	-	-	-	-	-
Stage 2	878	791	-	876	790	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	696	648	924	700	650	927	1460	-	-	1459	-	-
Mov Cap-2 Maneuver	696	648	-	700	650	-	-	-	-	-	-	-
Stage 1	876	789	-	880	793	-	-	-	-	-	-	-
Stage 2	875	791	-	875	789	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Control Delay, s	0		10.1		0			0.1				
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1460	-	-	-	725	1459	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.035	0.001	-	-				
HCM Control Delay (s)	0	-	-	0	10.1	7.5	0	-				
HCM Lane LOS	A	-	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-				

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	1	103	7	3	118
Future Vol, veh/h	9	1	103	7	3	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	1	126	9	4	144
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	283	131	0	0	135	0
Stage 1	131	-	-	-	-	-
Stage 2	152	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	707	919	-	-	1449	-
Stage 1	895	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	705	919	-	-	1449	-
Mov Cap-2 Maneuver	705	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.1	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	722	1449	-	
HCM Lane V/C Ratio	-	-	0.017	0.003	-	
HCM Control Delay (s)	-	-	10.1	7.5	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	67	383	0	0	384	43	0	0	0	72	0	55
Future Vol, veh/h	67	383	0	0	384	43	0	0	0	72	0	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
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	6	2	2	6	2	2	2	2	2	2	2
Mvmt Flow	69	395	0	0	396	44	0	0	0	74	0	57

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	440	0	0	395	0	0	980	973	395	951	951	418
Stage 1	-	-	-	-	-	-	533	533	-	418	418	-
Stage 2	-	-	-	-	-	-	447	440	-	533	533	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1120	-	-	1164	-	-	229	252	654	240	260	635
Stage 1	-	-	-	-	-	-	531	525	-	612	591	-
Stage 2	-	-	-	-	-	-	591	578	-	531	525	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1120	-	-	1164	-	-	196	232	654	226	239	635
Mov Cap-2 Maneuver	-	-	-	-	-	-	196	232	-	226	239	-
Stage 1	-	-	-	-	-	-	489	484	-	564	591	-
Stage 2	-	-	-	-	-	-	538	578	-	489	484	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	0	24.5
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1120	-	-	1164	-	-	313
HCM Lane V/C Ratio	-	0.062	-	-	-	-	-	0.418
HCM Control Delay (s)	0	8.4	0	-	0	-	-	24.5
HCM Lane LOS	A	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0.2	-	-	0	-	-	2

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	428	16	14	421	14	18
Future Vol, veh/h	428	16	14	421	14	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	6	5	5	6	5	5
Mvmt Flow	455	17	15	448	15	19
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	472	0	933	455
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	478	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	1074	-	292	599
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	617	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1074	-	286	599
Mov Cap-2 Maneuver	-	-	-	-	286	-
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	605	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		14.7	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	405	-	-	1074	-	
HCM Lane V/C Ratio	0.084	-	-	0.014	-	
HCM Control Delay (s)	14.7	-	-	8.4	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	9	10	0	3	13	114	13	3	161	3
Future Vol, veh/h	2	0	9	10	0	3	13	114	13	3	161	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	10	11	0	3	15	130	15	3	183	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	360	366	185	364	360	138	186	0	0	145	0	0
Stage 1	191	191	-	168	168	-	-	-	-	-	-	-
Stage 2	169	175	-	196	192	-	-	-	-	-	-	-
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	596	562	857	592	567	910	1388	-	-	1437	-	-
Stage 1	811	742	-	834	759	-	-	-	-	-	-	-
Stage 2	833	754	-	806	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	588	554	857	579	559	910	1388	-	-	1437	-	-
Mov Cap-2 Maneuver	588	554	-	579	559	-	-	-	-	-	-	-
Stage 1	801	741	-	824	750	-	-	-	-	-	-	-
Stage 2	820	745	-	795	741	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.6		10.8		0.7		0.1					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1388	-	-	791	632	1437	-	-				
HCM Lane V/C Ratio	0.011	-	-	0.016	0.023	0.002	-	-				
HCM Control Delay (s)	7.6	0	-	9.6	10.8	7.5	0	-				
HCM Lane LOS	A	A	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	7	133	11	3	177
Future Vol, veh/h	6	7	133	11	3	177
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	8	151	13	3	201
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	365	158	0	0	164	0
Stage 1	158	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	635	887	-	-	1414	-
Stage 1	871	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	634	887	-	-	1414	-
Mov Cap-2 Maneuver	634	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.9	0		0.1		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	749	1414	-	
HCM Lane V/C Ratio	-	-	0.02	0.002	-	
HCM Control Delay (s)	-	-	9.9	7.6	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	92	449	7	7	403	68	5	0	5	63	0	129
Future Vol, veh/h	92	449	7	7	403	68	5	0	5	63	0	129
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	6	2	2	6	2	2	2	2	2	2	2
Mvmt Flow	97	473	7	7	424	72	5	0	5	66	0	136

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	496	0	0	480	0	0	1213	1181	477	1147	1148	460
Stage 1	-	-	-	-	-	-	671	671	-	474	474	-
Stage 2	-	-	-	-	-	-	542	510	-	673	674	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1068	-	-	1082	-	-	159	190	588	176	199	601
Stage 1	-	-	-	-	-	-	446	455	-	571	558	-
Stage 2	-	-	-	-	-	-	525	538	-	445	454	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1068	-	-	1082	-	-	111	165	588	157	173	601
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	165	-	157	173	-
Stage 1	-	-	-	-	-	-	391	399	-	500	553	-
Stage 2	-	-	-	-	-	-	403	533	-	386	398	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.1	25.4	35.5
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	187	1068	-	-	1082	-	-	312
HCM Lane V/C Ratio	0.056	0.091	-	-	0.007	-	-	0.648
HCM Control Delay (s)	25.4	8.7	0	-	8.3	0	-	35.5
HCM Lane LOS	D	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0	-	-	4.2

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	468	14	11	482	16	17
Future Vol, veh/h	468	14	11	482	16	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	5	5	6	5	5
Mvmt Flow	493	15	12	507	17	18
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	508	0	1024	493
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	531	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	1042	-	257	570
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	584	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1042	-	253	570
Mov Cap-2 Maneuver	-	-	-	-	253	-
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	575	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		16.2	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	355	-	-	1042	-	
HCM Lane V/C Ratio	0.098	-	-	0.011	-	
HCM Control Delay (s)	16.2	-	-	8.5	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	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	3	0	13	19	0	3	11	128	6	1	129	3
Future Vol, veh/h	3	0	13	19	0	3	11	128	6	1	129	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	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	16	23	0	4	13	156	7	1	157	4
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	349	350	159	355	349	160	161	0	0	163	0	0
Stage 1	161	161	-	186	186	-	-	-	-	-	-	-
Stage 2	188	189	-	169	163	-	-	-	-	-	-	-
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	606	574	886	600	575	885	1418	-	-	1416	-	-
Stage 1	841	765	-	816	746	-	-	-	-	-	-	-
Stage 2	814	744	-	833	763	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	599	568	886	584	569	885	1418	-	-	1416	-	-
Mov Cap-2 Maneuver	599	568	-	584	569	-	-	-	-	-	-	-
Stage 1	833	764	-	808	739	-	-	-	-	-	-	-
Stage 2	803	737	-	817	762	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.5		11.2		0.6		0.1					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1418	-	-	813	612	1416	-	-				
HCM Lane V/C Ratio	0.009	-	-	0.024	0.044	0.001	-	-				
HCM Control Delay (s)	7.6	0	-	9.5	11.2	7.5	0	-				
HCM Lane LOS	A	A	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	1	144	7	3	157
Future Vol, veh/h	9	1	144	7	3	157
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	1	176	9	4	191
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	380	181	0	0	185	0
Stage 1	181	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	622	862	-	-	1390	-
Stage 1	850	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	620	862	-	-	1390	-
Mov Cap-2 Maneuver	620	-	-	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	832	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.8	0		0.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		638	1390	
HCM Lane V/C Ratio	-	-		0.019	0.003	
HCM Control Delay (s)	-	-		10.8	7.6	
HCM Lane LOS	-	-		B	A	
HCM 95th %tile Q(veh)	-	-		0.1	0	

Intersection												
Int Delay, s/veh	10.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	99	448	7	7	451	63	7	0	7	93	0	87
Future Vol, veh/h	99	448	7	7	451	63	7	0	7	93	0	87
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
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	6	2	2	6	2	2	2	2	2	2	2
Mvmt Flow	102	462	7	7	465	65	7	0	7	96	0	90
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	530	0	0	469	0	0	1227	1214	466	1185	1185	498
Stage 1	-	-	-	-	-	-	670	670	-	512	512	-
Stage 2	-	-	-	-	-	-	557	544	-	673	673	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1037	-	-	1093	-	-	155	182	597	166	189	572
Stage 1	-	-	-	-	-	-	446	455	-	545	536	-
Stage 2	-	-	-	-	-	-	515	519	-	445	454	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1037	-	-	1093	-	-	117	156	597	146	162	572
Mov Cap-2 Maneuver	-	-	-	-	-	-	117	156	-	146	162	-
Stage 1	-	-	-	-	-	-	387	394	-	473	531	-
Stage 2	-	-	-	-	-	-	430	514	-	381	394	-
Approach	EB		WB				NB		SB			
HCM Control Delay, s	1.6		0.1				24.8		65.7			
HCM LOS							C		F			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	196	1037	-	-	1093	-	-	228				
HCM Lane V/C Ratio	0.074	0.098	-	-	0.007	-	-	0.814				
HCM Control Delay (s)	24.8	8.8	0	-	8.3	0	-	65.7				
HCM Lane LOS	C	A	A	-	A	A	-	F				
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0	-	-	6.1				

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	467	16	14	460	14	18
Future Vol, veh/h	467	16	14	460	14	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	6	5	5	6	5	5
Mvmt Flow	497	17	15	489	15	19
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	514	0	1016	497
Stage 1	-	-	-	-	497	-
Stage 2	-	-	-	-	519	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	1036	-	260	567
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	591	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1036	-	255	567
Mov Cap-2 Maneuver	-	-	-	-	255	-
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	579	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		15.7	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	369	-	-	1036	-	
HCM Lane V/C Ratio	0.092	-	-	0.014	-	
HCM Control Delay (s)	15.7	-	-	8.5	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

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	2	0	9	39	0	10	13	114	62	15	161	3
Future Vol, veh/h	2	0	9	39	0	10	13	114	62	15	161	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	10	44	0	11	15	130	70	17	183	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	420	449	185	419	415	165	186	0	0	200	0	0
Stage 1	219	219	-	195	195	-	-	-	-	-	-	-
Stage 2	201	230	-	224	220	-	-	-	-	-	-	-
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	544	505	857	544	528	879	1388	-	-	1372	-	-
Stage 1	783	722	-	807	739	-	-	-	-	-	-	-
Stage 2	801	714	-	779	721	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	527	492	857	527	514	879	1388	-	-	1372	-	-
Mov Cap-2 Maneuver	527	492	-	527	514	-	-	-	-	-	-	-
Stage 1	774	712	-	797	730	-	-	-	-	-	-	-
Stage 2	781	705	-	759	711	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.8		11.9		0.5		0.6					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1388	-	-	769	574	1372	-	-				
HCM Lane V/C Ratio	0.011	-	-	0.016	0.097	0.012	-	-				
HCM Control Delay (s)	7.6	0	-	9.8	11.9	7.7	0	-				
HCM Lane LOS	A	A	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-				

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	7	182	11	3	206
Future Vol, veh/h	6	7	182	11	3	206
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	8	207	13	3	234
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	454	214	0	0	220	0
Stage 1	214	-	-	-	-	-
Stage 2	240	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	564	826	-	-	1349	-
Stage 1	822	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	562	826	-	-	1349	-
Mov Cap-2 Maneuver	562	-	-	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.4	0		0.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	679	1349	-	
HCM Lane V/C Ratio	-	-	0.022	0.003	-	
HCM Control Delay (s)	-	-	10.4	7.7	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection												
Int Delay, s/veh	11											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	122	449	7	7	403	86	5	0	5	73	0	147
Future Vol, veh/h	122	449	7	7	403	86	5	0	5	73	0	147
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	6	2	2	6	2	2	2	2	2	2	2
Mvmt Flow	128	473	7	7	424	91	5	0	5	77	0	155
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	515	0	0	480	0	0	1294	1262	477	1219	1220	470
Stage 1	-	-	-	-	-	-	733	733	-	484	484	-
Stage 2	-	-	-	-	-	-	561	529	-	735	736	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1051	-	-	1082	-	-	139	170	588	157	180	594
Stage 1	-	-	-	-	-	-	412	426	-	564	552	-
Stage 2	-	-	-	-	-	-	512	527	-	411	425	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1051	-	-	1082	-	-	89	140	588	135	149	594
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	140	-	135	149	-
Stage 1	-	-	-	-	-	-	344	355	-	470	547	-
Stage 2	-	-	-	-	-	-	375	522	-	340	354	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.9			0.1			29.9			58.9		
HCM LOS							D			F		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	155	1051	-	-	1082	-	-	279				
HCM Lane V/C Ratio	0.068	0.122	-	-	0.007	-	-	0.83				
HCM Control Delay (s)	29.9	8.9	0	-	8.3	0	-	58.9				
HCM Lane LOS	D	A	A	-	A	A	-	F				
HCM 95th %tile Q(veh)	0.2	0.4	-	-	0	-	-	6.8				

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	493	14	11	497	16	17
Future Vol, veh/h	493	14	11	497	16	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	5	5	6	5	5
Mvmt Flow	519	15	12	523	17	18

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	534	0	1066	519
Stage 1	-	-	-	-	519	-
Stage 2	-	-	-	-	547	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	1019	-	243	551
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	574	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1019	-	239	551
Mov Cap-2 Maneuver	-	-	-	-	239	-
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	564	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	16.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	337	-	-	1019	-
HCM Lane V/C Ratio	0.103	-	-	0.011	-
HCM Control Delay (s)	16.9	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	13	53	0	12	11	128	46	11	129	3
Future Vol, veh/h	3	0	13	53	0	12	11	128	46	11	129	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	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	16	65	0	15	13	156	56	13	157	4
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	403	423	159	403	397	184	161	0	0	212	0	0
Stage 1	185	185	-	210	210	-	-	-	-	-	-	-
Stage 2	218	238	-	193	187	-	-	-	-	-	-	-
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	558	522	886	558	540	858	1418	-	-	1358	-	-
Stage 1	817	747	-	792	728	-	-	-	-	-	-	-
Stage 2	784	708	-	809	745	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	540	511	886	539	529	858	1418	-	-	1358	-	-
Mov Cap-2 Maneuver	540	511	-	539	529	-	-	-	-	-	-	-
Stage 1	809	739	-	784	721	-	-	-	-	-	-	-
Stage 2	763	701	-	786	737	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.7		12.2		0.4		0.6					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1418	-	-	791	579	1358	-	-				
HCM Lane V/C Ratio	0.009	-	-	0.025	0.137	0.01	-	-				
HCM Control Delay (s)	7.6	0	-	9.7	12.2	7.7	0	-				
HCM Lane LOS	A	A	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0	-	-				

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	1	184	7	3	192
Future Vol, veh/h	9	1	184	7	3	192
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	1	224	9	4	234
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	471	229	0	0	233	0
Stage 1	229	-	-	-	-	-
Stage 2	242	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	551	810	-	-	1335	-
Stage 1	809	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	549	810	-	-	1335	-
Mov Cap-2 Maneuver	549	-	-	-	-	-
Stage 1	809	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.5	0		0.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 567		1335	-	
HCM Lane V/C Ratio	-	- 0.022		0.003	-	
HCM Control Delay (s)	-	- 11.5		7.7	0	
HCM Lane LOS	-	- B		A	A	
HCM 95th %tile Q(veh)	-	- 0.1		0	-	

Intersection												
Int Delay, s/veh	20.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	124	448	7	7	451	78	7	0	7	106	0	108
Future Vol, veh/h	124	448	7	7	451	78	7	0	7	106	0	108
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
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	6	2	2	6	2	2	2	2	2	2	2
Mvmt Flow	128	462	7	7	465	80	7	0	7	109	0	111
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	545	0	0	469	0	0	1297	1281	466	1244	1244	505
Stage 1	-	-	-	-	-	-	722	722	-	519	519	-
Stage 2	-	-	-	-	-	-	575	559	-	725	725	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1024	-	-	1093	-	-	139	166	597	151	174	567
Stage 1	-	-	-	-	-	-	418	431	-	540	533	-
Stage 2	-	-	-	-	-	-	503	511	-	416	430	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1024	-	-	1093	-	-	97	137	597	129	143	567
Mov Cap-2 Maneuver	-	-	-	-	-	-	97	137	-	129	143	-
Stage 1	-	-	-	-	-	-	347	358	-	449	528	-
Stage 2	-	-	-	-	-	-	401	506	-	342	357	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.9			0.1			28.6			122.5		
HCM LOS							D			F		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	167	1024	-	-	1093	-	-	211				
HCM Lane V/C Ratio	0.086	0.125	-	-	0.007	-	-	1.046				
HCM Control Delay (s)	28.6	9	0	-	8.3	0	-	122.5				
HCM Lane LOS	D	A	A	-	A	A	-	F				
HCM 95th %tile Q(veh)	0.3	0.4	-	-	0	-	-	9.7				

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	487	16	14	477	14	18
Future Vol, veh/h	487	16	14	477	14	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	6	5	5	6	5	5
Mvmt Flow	518	17	15	507	15	19
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	535	0	1055	518
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	537	-
Critical Hdwy	-	-	4.15	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.245	-	3.545	3.345
Pot Cap-1 Maneuver	-	-	1018	-	247	552
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	580	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1018	-	242	552
Mov Cap-2 Maneuver	-	-	-	-	242	-
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	568	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		16.2	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	354	-	-	1018	-	
HCM Lane V/C Ratio	0.096	-	-	0.015	-	
HCM Control Delay (s)	16.2	-	-	8.6	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

Friday PM
Build - KJ Estates - w/mitigation

8: Metro Estates/K&J Road & Route 52
K&J Road Comprehensive 3

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	449	7	7	403	86	5	0	5	73	0	147
Future Volume (veh/h)	122	449	7	7	403	86	5	0	5	73	0	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1811	1870	1870	1811	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	473	7	7	424	91	5	0	5	77	0	155
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	6	2	2	6	2	2	2	2	2	2	2
Cap, veh/h	439	801	12	472	650	140	253	24	201	181	31	289
Arrive On Green	0.08	0.45	0.45	0.08	0.45	0.45	0.28	0.00	0.28	0.28	0.00	0.28
Sat Flow, veh/h	1781	1780	26	1781	1445	310	633	88	721	403	112	1037
Grp Volume(v), veh/h	128	0	480	7	0	515	10	0	0	232	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1806	1781	0	1755	1442	0	0	1552	0	0
Q Serve(g_s), s	2.6	0.0	13.9	0.1	0.0	16.0	0.0	0.0	0.0	4.7	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	13.9	0.1	0.0	16.0	0.3	0.0	0.0	8.6	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.18	0.50		0.50	0.33		0.67
Lane Grp Cap(c), veh/h	439	0	813	472	0	790	479	0	0	501	0	0
V/C Ratio(X)	0.29	0.00	0.59	0.01	0.00	0.65	0.02	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	439	0	813	472	0	790	479	0	0	501	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.5	0.0	14.4	9.2	0.0	15.0	18.3	0.0	0.0	21.2	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.0	3.1	0.1	0.0	4.2	0.1	0.0	0.0	3.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	5.1	0.0	0.0	5.8	0.1	0.0	0.0	3.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.2	0.0	17.6	9.3	0.0	19.1	18.4	0.0	0.0	24.3	0.0	0.0
LnGrp LOS	B	A	B	A	A	B	B	A	A	C	A	A
Approach Vol, veh/h		608			522			10			232	
Approach Delay, s/veh		16.4			19.0			18.4			24.3	
Approach LOS		B			B			B			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.0	10.0	36.0		24.0	10.0	36.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	5.5	31.5		19.5	5.5	31.5				
Max Q Clear Time (g_c+l1), s		2.3	2.1	15.9		10.6	4.6	18.0				
Green Ext Time (p_c), s		0.0	0.0	2.2		0.9	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			18.8									
HCM 6th LOS			B									

Sunday MIDDAY
Build - KJ Estates - w/mitigation

8: Metro Estates/K&J Road & Route 52

K&J Road Comprehensive 5

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	448	7	7	451	78	7	0	7	106	0	108
Future Volume (veh/h)	124	448	7	7	451	78	7	0	7	106	0	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1811	1870	1870	1811	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	462	7	7	465	80	7	0	7	109	0	111
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	6	2	2	6	2	2	2	2	2	2	2
Cap, veh/h	419	801	12	480	677	117	260	24	208	261	25	213
Arrive On Green	0.08	0.45	0.45	0.08	0.45	0.45	0.28	0.00	0.28	0.28	0.00	0.28
Sat Flow, veh/h	1781	1779	27	1781	1505	259	657	88	745	662	89	765
Grp Volume(v), veh/h	128	0	469	7	0	545	14	0	0	220	0	0
Grp Sat Flow(s),veh/h/ln	1781	0	1806	1781	0	1764	1491	0	0	1516	0	0
Q Serve(g_s), s	2.6	0.0	13.5	0.1	0.0	17.2	0.0	0.0	0.0	6.3	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	13.5	0.1	0.0	17.2	0.4	0.0	0.0	8.4	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.15	0.50		0.50	0.50		0.50
Lane Grp Cap(c), veh/h	419	0	813	480	0	794	492	0	0	499	0	0
V/C Ratio(X)	0.31	0.00	0.58	0.01	0.00	0.69	0.03	0.00	0.00	0.44	0.00	0.00
Avail Cap(c_a), veh/h	419	0	813	480	0	794	492	0	0	499	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.9	0.0	14.3	9.1	0.0	15.3	18.4	0.0	0.0	21.1	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	3.0	0.1	0.0	4.8	0.1	0.0	0.0	2.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	4.9	0.0	0.0	6.3	0.2	0.0	0.0	3.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.7	0.0	17.3	9.2	0.0	20.1	18.5	0.0	0.0	24.0	0.0	0.0
LnGrp LOS	B	A	B	A	A	C	B	A	A	C	A	A
Approach Vol, veh/h		597			552			14			220	
Approach Delay, s/veh		16.3			20.0			18.5			24.0	
Approach LOS		B			B			B			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.0	10.0	36.0		24.0	10.0	36.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	5.5	31.5		19.5	5.5	31.5				
Max Q Clear Time (g_c+l1), s		2.4	2.1	15.5		10.4	4.6	19.2				
Green Ext Time (p_c), s		0.0	0.0	2.2		0.8	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			19.0									
HCM 6th LOS			B									

APPENDIX C

EIGHT-HOUR VOLUME WARRANT ANALYSIS

<i>Preliminary Warrant Analysis - 8-Hour</i>						
	Major Road - Route 52			Minor Road - K&J Road		
Percent of Total	Estimated Peak Hour Volume	Estimated Hourly Volumes		Estimated Peak Hour Volume	Estimated Hourly Volumes	
			8-hr warrant			8-hr warrant
			600			150
0.57%		68	0		14	0
0.30%		36	0		7	0
0.22%		26	0		5	0
0.24%		28	0		6	0
0.42%		50	0		10	0
1.09%		130	0		27	0
3.79%		450	0		92	0
6.03%		716	1		147	0
6.67%		792	1		162	1
5.89%		700	1		143	0
5.14%		610	1		125	0
5.29%		628	1		129	0
6.77%		804	1		165	1
5.93%		704	1		144	0
6.58%		782	1		160	1
8.03%		954	1		195	1
9.04%	1074	1074	1	220	220	1
6.75%		802	1		164	1
4.55%		540	0		111	0
3.15%		374	0		77	0
2.53%		300	0		61	0
2.07%		246	0		50	0
1.65%		196	0		40	0
1.52%		180	0		37	0
		11878	11		2433	6
	=projected volumes from impact analysis - Friday PM - summertime					