

Sarah Sullivan

From: Jamie Fleckenstein
Sent: Monday, July 15, 2019 3:32 PM
To: Sarah Sullivan
Subject: FW: Oak Ridge Meadows_Supplemental Traffic Evaluation
Attachments: We sent you safe versions of your files; McMinnville_OakRidgeMeadows_Supplemental Memo_July2019.pdf

Jamie Fleckenstein, PLA
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From: Lacy Brown [mailto:lacy.brown@dksassociates.com]
Sent: Monday, July 15, 2019 3:29 PM
To: Jamie Fleckenstein <Jamie.Fleckenstein@mcminnvilleoregon.gov>
Cc: Lori Zumwalt <loriz.premier@gmail.com>; Wendie Kellington <wk@klgpc.com>
Subject: Oak Ridge Meadows_Supplemental Traffic Evaluation

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

This message originated outside of the City of McMinnville.

Good afternoon, Jamie.

Please find the attached supplemental traffic evaluation completed for the Oak Ridge Meadows development. This memo addresses concerns raised by residents and Councilors regarding the potential traffic impacts to adjacent neighborhoods. Our findings show no evidence that Oak Ridge Meadows will create any noticeable increases in delay accessing NW Baker Creek Road from the surrounding street network.

This memo does not address testimony (received by Anniedear Chappell) related to the posted speed limit on NW Baker Creek Road, as this is beyond the purview of this application. It may be worth noting to the Council that speed limits are set by ODOT and changes require a full speed study, which can only be initiated by City staff.

Please feel free to give me a call if you have any questions!

Thanks!
Lacy

Lacy Brown, PhD, PE | Transportation Engineer

Note new direct and cell phone numbers!

Direct: (971-332-5323) | Cell: (503.313.1880) | lacy.brown@dksassociates.com



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MEMORANDUM



DATE: July 9, 2019

TO: Lori Zumwalt | Premier Development, LLC

FROM: Lacy Brown, Ph.D., P.E. | DKS Associates

SUBJECT: Oak Ridge Meadows – Supplemental Traffic Evaluation

This memorandum provides a summary of additional field observations and traffic analysis conducted in July 2019 related to the development of the Oak Ridge Meadows subdivision in McMinnville, Oregon. The findings in this memorandum address concerns raised regarding the impact the development will have on the transportation system, with an emphasis on vehicle delay incurred while accessing NW Baker Creek Road from adjacent neighborhoods.

FIELD OBSERVATIONS

Although field work conducted previously showed no excessive delay was incurred by drivers at the intersections of NW Baker Creek Road/NW Oak Ridge Drive and NW Baker Creek Road/Merlot Drive, the scope of field observations was expanded to verify that nearby intersections operated similarly.¹

DKS conducted field observations during the morning and evening peak hours to observe vehicle delay at the following five intersections.²

- NW Baker Creek Road/ NW Oak Ridge Drive
- NW Baker Creek Road/ NW Greenbriar Drive
- NW Baker Creek Road/Merlot Drive
- NW Baker Creek Road/ NW Pinehurst Drive
- NW Baker Creek Road/ NW Alice Kelly Drive

These intersections were selected for observation and analysis because they are adjacent to the study area and, due to the volume of traffic along NW Baker Creek Road, will have higher vehicle delays than the local street intersections within the adjacent neighborhoods. In other words, evaluation of these intersections captures the “worst case scenario” of the potential traffic impacts of the Oak Ridge Meadows development. It should be noted that these observations were collected only to confirm the validity of the vehicle delays estimated through capacity analysis, as described in the following section.

¹ Oak Ridge Meadows Supplemental Traffic Evaluation Memorandum. DKS Associated. May 2019.

² Field observations conducted from 4:00-5:30 PM on July 2, 2019 and 7:30-9:00 AM on July 3, 2019.

As shown in Table 1, the average delays range from 1.5 to 15.4 seconds, which corresponds to a level of service (LOS) of C or better. These values are consistent with the findings of the existing conditions analysis in the original Traffic Impact Analysis (TIA), the field observations conducted in May 2019, and the existing conditions analysis presented later in this memorandum.³

Table 1. Observed Vehicle Delay

Intersection	Observed Delay - AM Peak			Observed Delay - PM Peak		
	Minimum	Maximum	Average	Minimum	Maximum	Average
NW Baker Creek Road /NW Oak Ridge Drive (NW Doral Street)	3.0	11.5	6.3	1.0	34.0	9.8
NW Baker Creek Road/NW Greenbriar Place-West	3.0	3.0	3.0	1.0	2.5	1.5
NW Baker Creek Road/Merlot Drive (NW Greenbriar Place-East)	1.0	14.0	4.8	2.5	39.0	15.4
NW Baker Creek Road/NW Pinehurst Drive	2.5	13.0	5.2	2.0	16.5	8.5
NW Baker Creek Road/NW Alice Kelly Court	1.5	1.5	1.5	2.5	18.0	8.5

Delay = Delay (sec.) for side-street stop-controlled movements
 Note: Average vehicle delay is the standard metric for evaluating intersection operations.
 Note: Side-street traffic volumes are very low at these intersections, resulting in a low number of observable vehicles at each location. Average delay times are calculated from a minimum of two and maximum of nine observations per location.

TRAFFIC OPERATIONS ANALYSIS

In addition to delay observations, DKS also conducted traffic operations analysis (using standard Highway Capacity Manual methodologies) at the intersections listed above as well as the following five intersections.

- NW Oak Ridge Drive/ NW Chardonnay Drive
- NW Oak Ridge Drive/ NW Riesling Way
- NW Oak Ridge Drive/NW Pinot Noir Drive
- Merlot Drive/NW Zinfandel Loop
- Merlot Drive/NW Pinot Noir Drive

Intersection Traffic Volumes

Peak hour turning movement volumes were collected at the intersections of NW Baker Creek Road/NW Oak Ridge Drive and NW Baker Creek Road/Merlot Drive as part of the original TIA for the Oak Ridge Meadows development. During field observations, DKS collected additional peak 15-

³ Oak Ridge Meadows Traffic Impact Analysis. DKS Associates. March 2019.

minute turning movement counts at the intersection of NW Baker Creek Road/NW Pinehurst Drive, which were used to estimate the peak hour volumes at this intersection.⁴ Peak hour turning movement volumes at the remaining intersections were estimated based on traffic counts at adjacent intersections and the number of residential units that can be accessed via each of the intersections. In all cases, the higher of observed or estimated volumes were used to provide the most conservative evaluation of traffic conditions. Because of this, traffic volumes for certain movements at some locations are higher in this analysis than the previously collected traffic counts. Traffic volumes and operational analysis reports are included as an attachment to this memorandum.

Analysis Results

The existing conditions intersection operations analysis results for all ten study intersections are shown in Table 2.⁵ As shown, all intersections operate well under capacity with minimal delay and meet all City operating standards.

Table 2. Existing Intersection Operations

Intersection	Existing - AM Peak			Existing - PM Peak		
	Delay	LOS	v/c	Delay	LOS	v/c
NW Baker Creek Road /NW Oak Ridge Drive (NW Doral Street)	18.3	C	0.14	15.7	C	0.05
NW Baker Creek Road/NW Greenbriar Place-West	13.4	B	0.03	14.5	B	0.01
NW Baker Creek Road/Merlot Drive (NW Greenbriar Place-East)	18.5	C	0.12	16.6	C	0.03
NW Baker Creek Road/NW Pinehurst Drive	21.0	C	0.08	15.2	C	0.07
NW Baker Creek Road/NW Alice Kelly Court	17.4	C	0.07	14.5	B	0.03
NW Oak Ridge Drive/NW Chardonnay Drive	7.3	A	0.01	7.2	A	0.01
NW Oak Ridge Drive/NW Riesling Way	7.2	A	0.01	7.1	A	0.01
NW Oak Ridge Drive/NW Pinot Noir Drive	8.5	A	0.01	8.5	A	0.01
Merlot Drive/NW Zinfandel Loop	7.2	A	0.01	7.2	A	0.01
Merlot Drive/NW Pinot Noir Drive	8.3	A	0.01	8.3	A	0.01
Delay = Average Intersection Delay (sec.) LOS = Level of Service v/c = Volume-to-Capacity Ratio for worst lane						

⁴ Peak 15-minute period occurred from 7:45-8:00 AM and 4:55-5:10 PM, determined from the two-hour traffic counts collected for the March 2019 TIA.

⁵ Intersections that are currently uncontrolled (no stop signs present) were analyzed as all-way stop.

The same ten intersections were also analyzed for future interim build conditions, which assumes 100% of the volume of traffic generated by the Oak Ridge Meadows development will travel through the existing neighborhood to access NW Baker Creek Road (no connection at NW Shadden Drive).⁶ This scenario captures the “worst case” traffic conditions at all study intersections. It should be noted that forecasted traffic volumes and intersection operations at NW Pinehurst Drive and NW Alice Kelly Court will remain the same with or without an extension of NW Shadden Drive, as all Oak Ridge Meadows traffic will load on-to and off-of NW Baker Creek Road upstream of those locations regardless of the access configuration.

The results of the future interim build analysis are presented in Table 3. As shown, all intersections will continue to operate at acceptable levels with ample excess capacity once the Oak Ridge Meadows development is completed.

Table 3. Future Interim Build Intersection Operations (no Shadden Drive connection)

Intersection	Interim Build - AM Peak			Interim Build - PM Peak		
	Delay	LOS	v/c	Delay	LOS	v/c
NW Baker Creek Road /NW Oak Ridge Drive (NW Doral Street)	22.7	C	0.33	18.0	C	0.15
NW Baker Creek Road/NW Greenbriar Place-West	14.0	B	0.03	15.5	C	0.01
NW Baker Creek Road/Merlot Drive (NW Greenbriar Place-East)	20.9	C	0.20	18.2	C	0.08
NW Baker Creek Road/NW Pinehurst Drive	23.6	C	0.09	16.8	C	0.08
NW Baker Creek Road/NW Alice Kelly Court	19.1	C	0.08	15.8	C	0.03
NW Oak Ridge Drive/NW Chardonnay Drive	7.5	A	0.01	7.4	A	0.01
NW Oak Ridge Drive/NW Riesling Way	7.3	A	0.01	7.3	A	0.01
NW Oak Ridge Drive/NW Pinot Noir Drive	8.9	A	0.02	9.0	A	0.06
Merlot Drive/NW Zinfandel Loop	7.3	A	0.01	7.3	A	0.01
Merlot Drive/NW Pinot Noir Drive	8.4	A	0.03	8.4	A	0.02

Delay = Average Intersection Delay (sec.)
 LOS = Level of Service
 v/c = Volume-to-Capacity Ratio for worst movement

⁶ This analysis maintains the same trip generation and trip distribution assumptions outlined in the March 2019 TIA, which assumed 70% of trips would use NW Oak Ridge Drive and 30% would use Merlot Drive to access NW Baker Creek Road.

Table 4 summarizes the estimated net change in average delay that drivers will experience once the Oak Ridge Meadows development is constructed and fully occupied (Future Interim Build delay minus Existing Conditions delay). As shown, most intersections will see an increase in delay of less than one second during peak periods. The largest increase in average delay is 4.4 seconds at the intersection of NW Baker Creek Road/NW Oak Ridge Drive during the AM peak hour.

Table 4. Expected Increase in Delay with Oak Ridge Meadows Traffic

Intersection	AM Peak		PM Peak	
	Delay Increase (seconds)	Movement	Delay Increase (seconds)	Movement
NW Baker Creek Road /NW Oak Ridge Drive (NW Doral Street)	4.4	SB LT	2.3	SB LT
NW Baker Creek Road/NW Greenbriar Place-West	0.6	NB LT	1.0	NB LT
NW Baker Creek Road/Merlot Drive (NW Greenbriar Place-East)	2.4	SB LT	1.6	SB LT
NW Baker Creek Road/NW Pinehurst Drive	2.6	NB LT	1.6	SB LT
NW Baker Creek Road/NW Alice Kelly Court	1.7	SB LT	1.3	SB LT
NW Oak Ridge Drive/NW Chardonnay Drive	0.2	WB LT	0.2	WB LT
NW Oak Ridge Drive/NW Riesling Way	0.1	WB LT	0.2	WB LT
NW Oak Ridge Drive/NW Pinot Noir Drive	0.4	NB LT	0.5	NB LT
Merlot Drive/NW Zinfandel Loop	0.1	SB LT	0.1	WB LT
Merlot Drive/NW Pinot Noir Drive	0.1	EB LT	0.1	EB LT

Delay = Average Delay (sec.) for worst movement
 LT = Left Turn

FINDINGS

The primary concern raised by neighbors has been the impact that the Oak Ridge Meadows development will have on traffic operations, particularly with the ability of residents to turn out onto NW Baker Creek Road from the neighborhood streets. Two separate field studies were completed to observe traffic operations, queuing, and delay at intersections in the vicinity of the site.

Despite the perception of excessive side-street vehicle delays under current traffic conditions, field observations indicated that drivers accessing NW Baker Creek Road experience delays that are within typical ranges for two-way stop controlled intersections. These findings were further confirmed by the operational analyses completed as part of this memorandum and the original TIA, which followed national best practices and showed that all intersections operate acceptably with minimal delay and are well below intersection capacity thresholds set forth by the City.

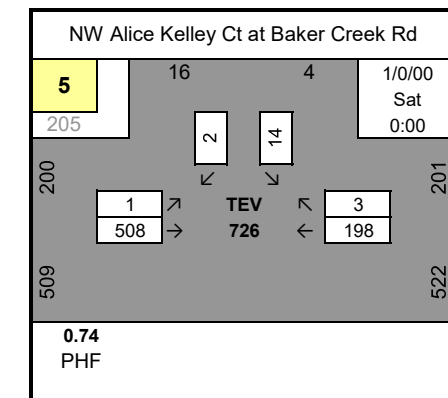
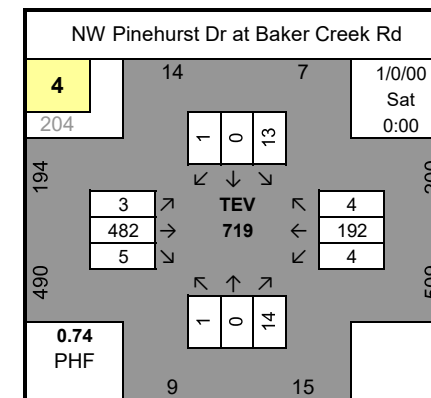
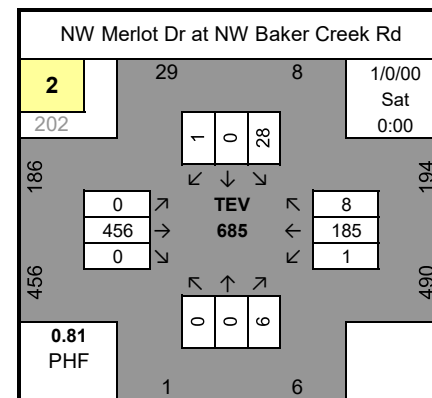
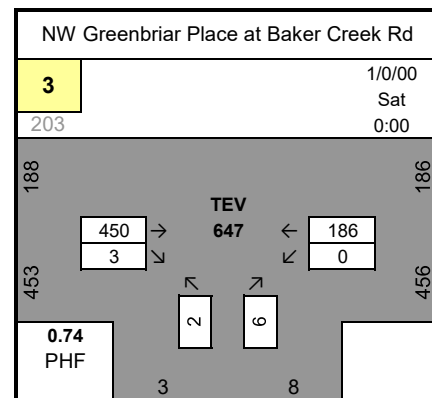
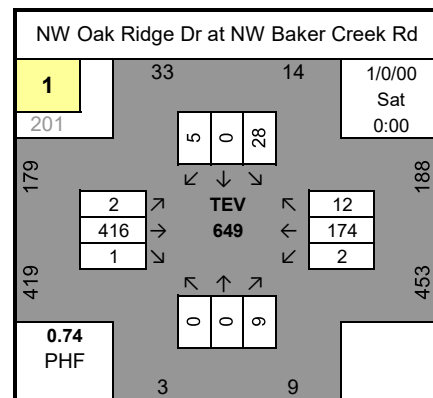
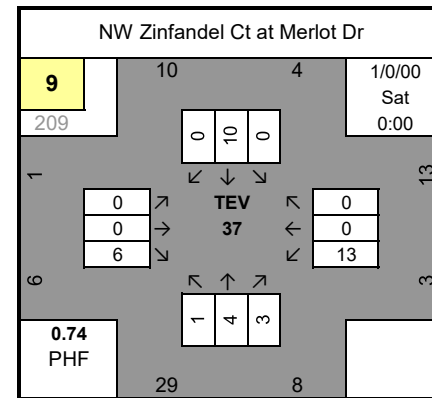
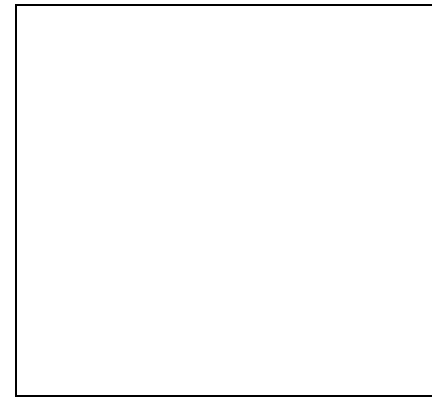
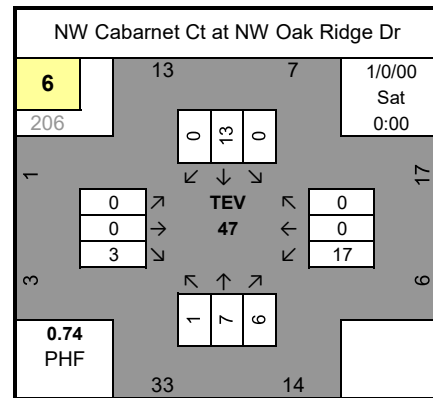
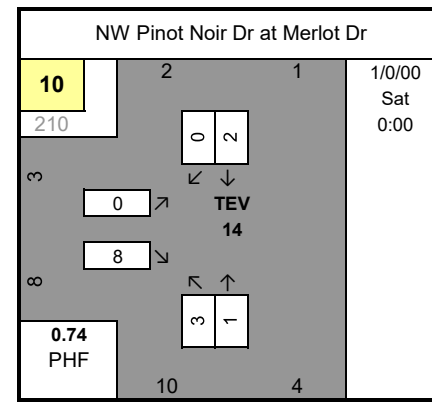
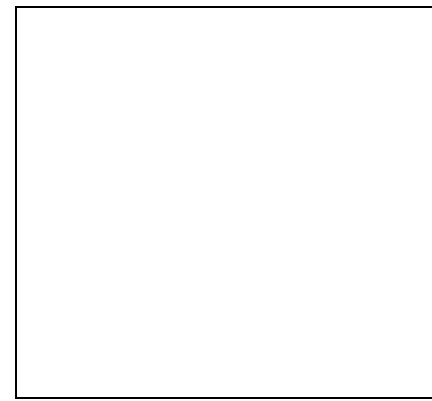
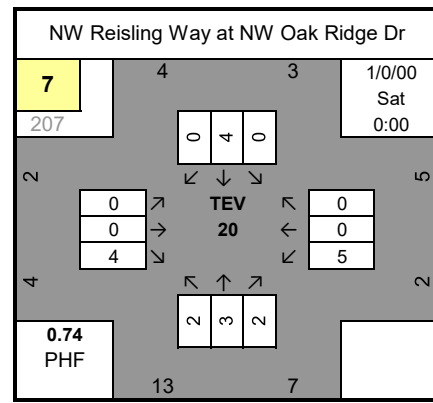
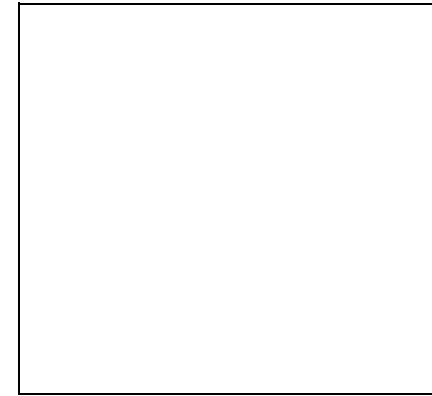
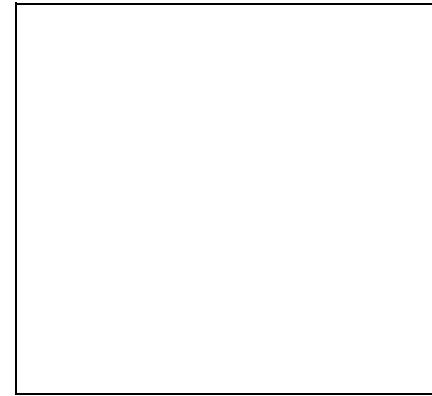
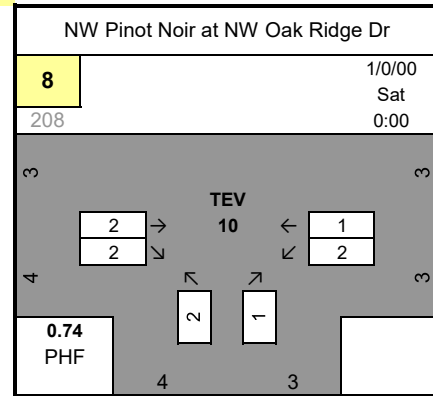
There is no evidence that the additional traffic generated by the Oak Ridge Meadows development will degrade traffic operations, and the estimated increases in delay for accessing NW Baker Creek Drive are, for all intents and purposes, negligible (less than five seconds).

APPENDIX A

Traffic Volumes

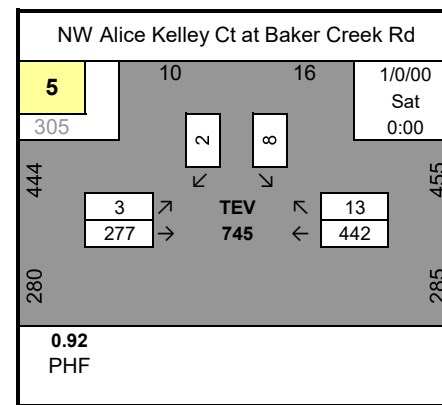
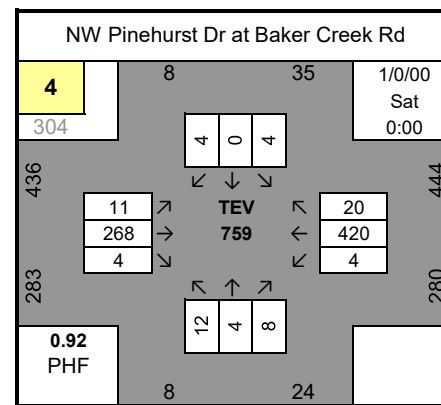
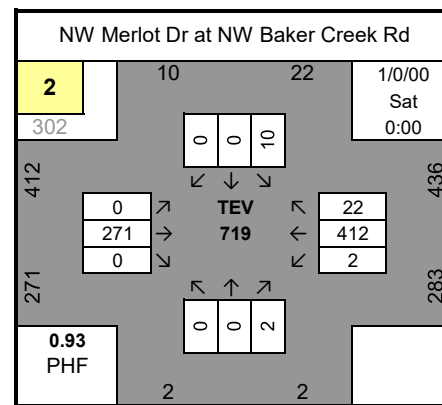
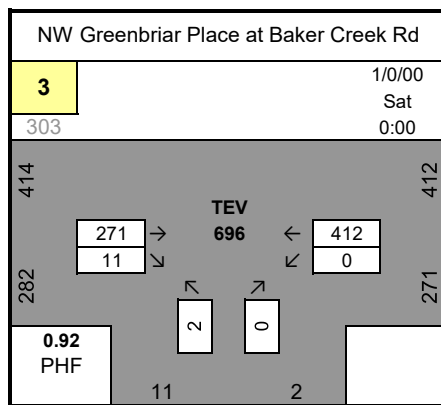
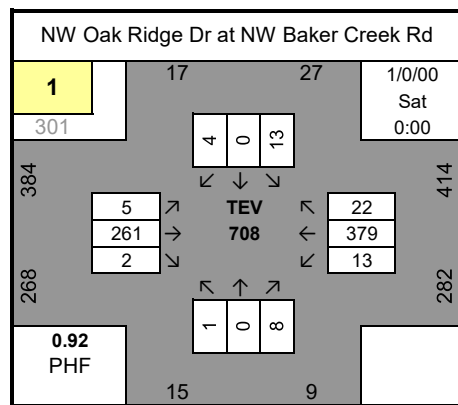
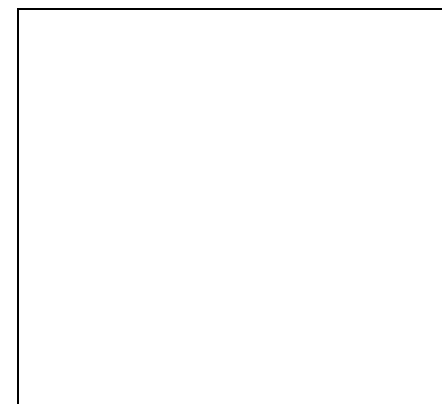
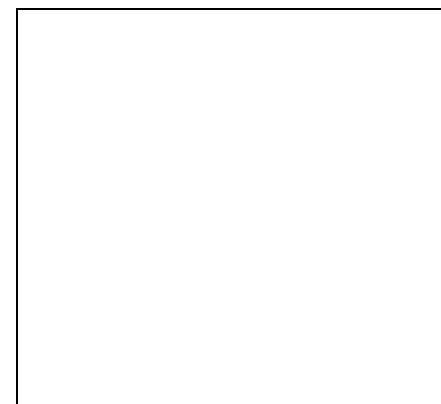
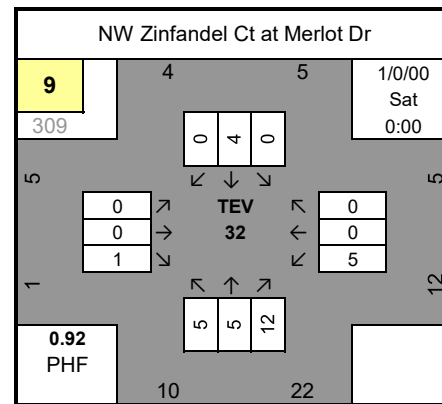
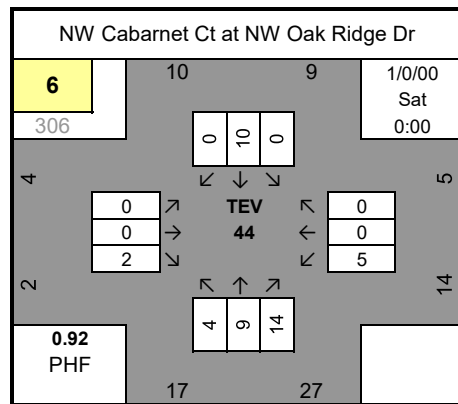
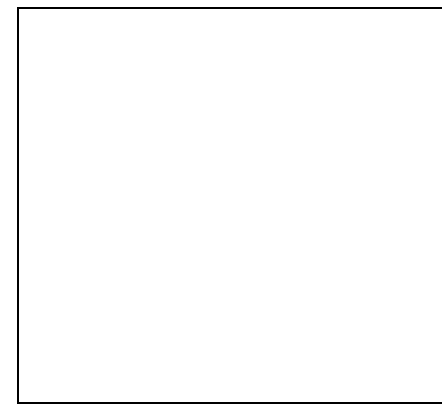
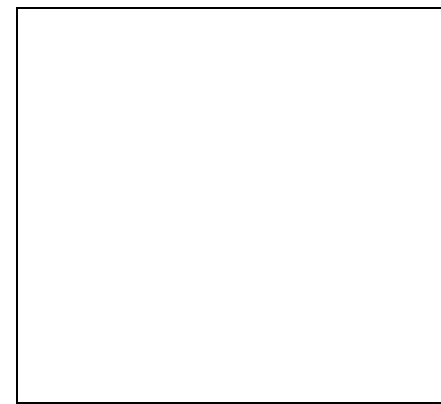
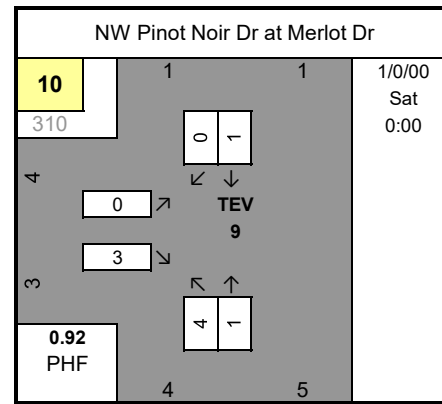
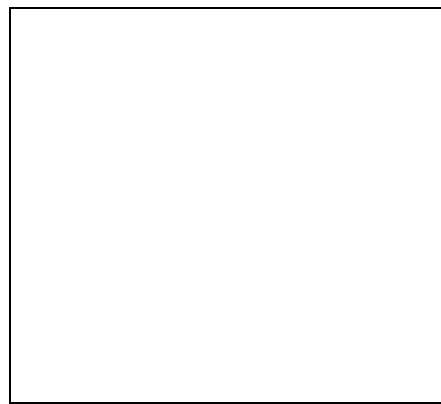
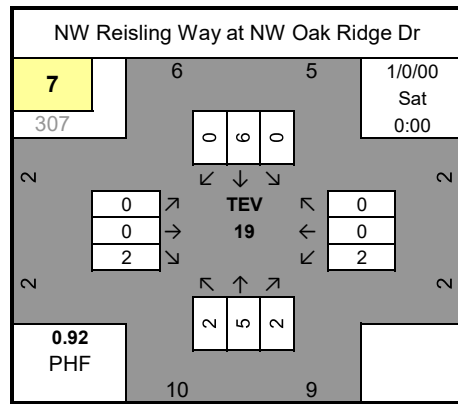
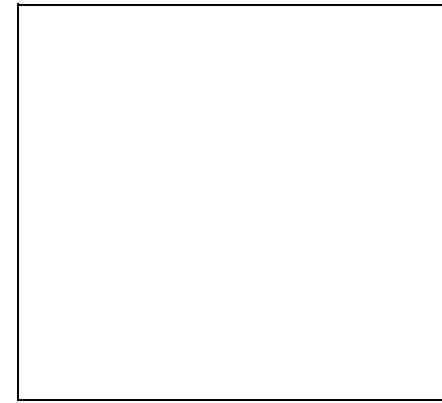
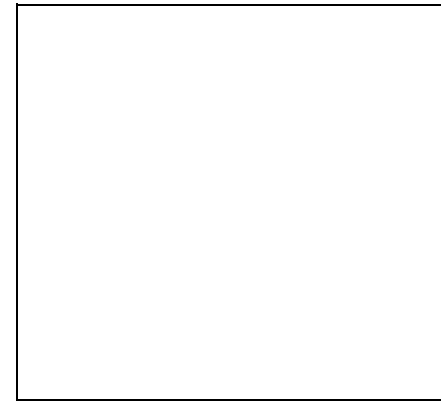
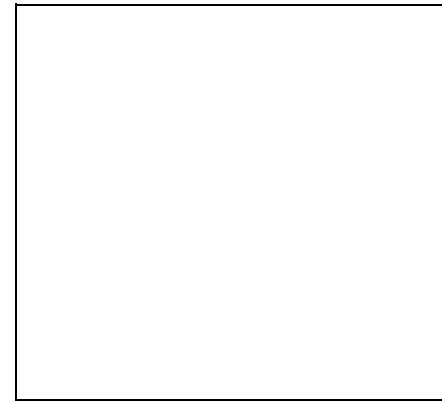
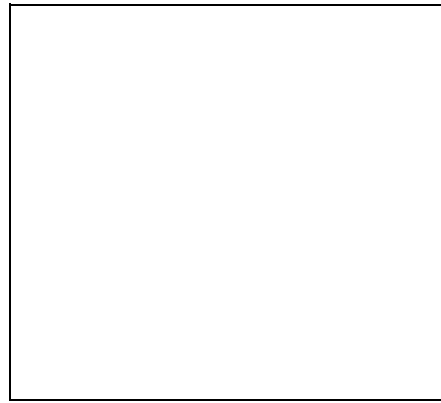
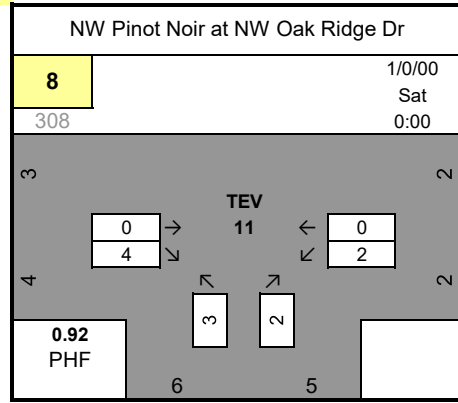
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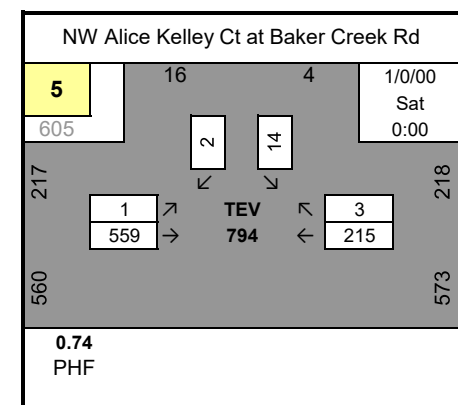
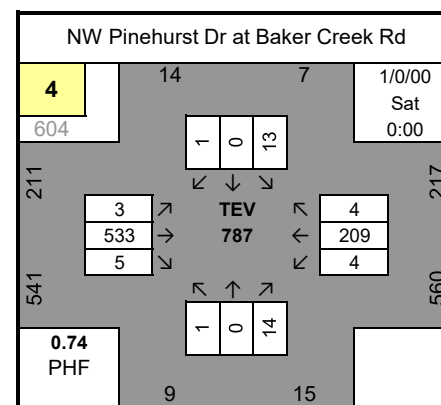
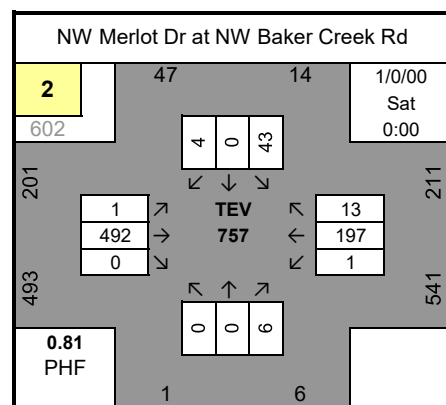
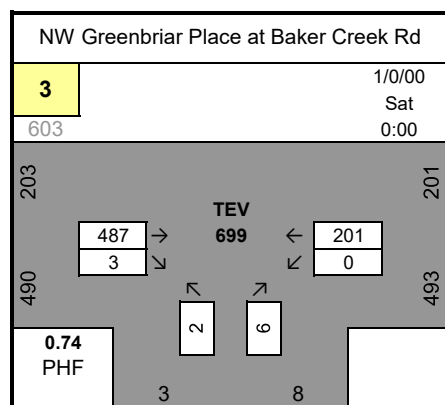
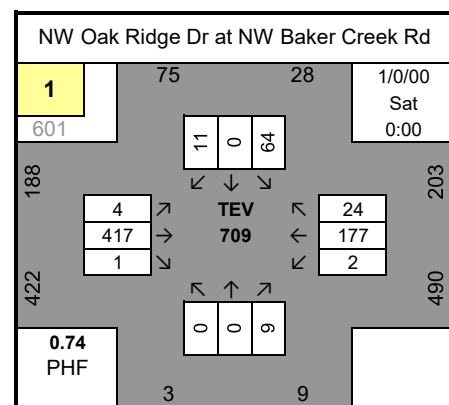
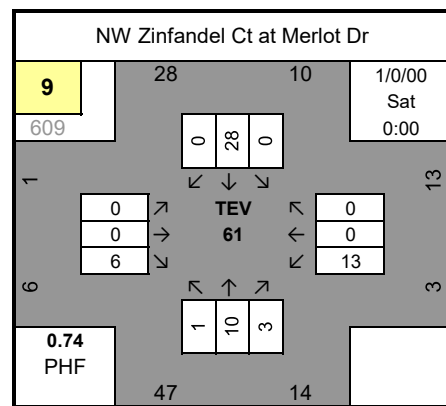
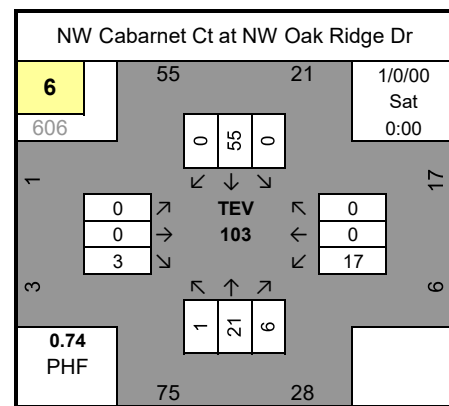
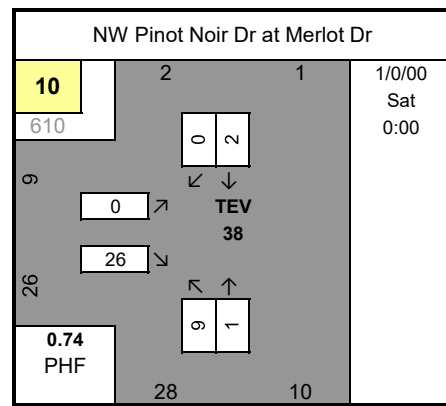
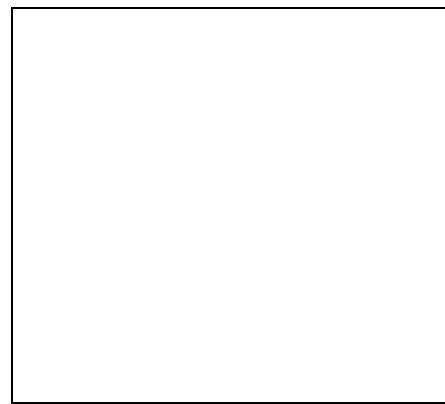
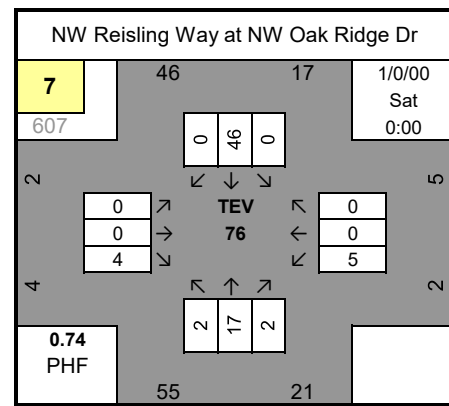
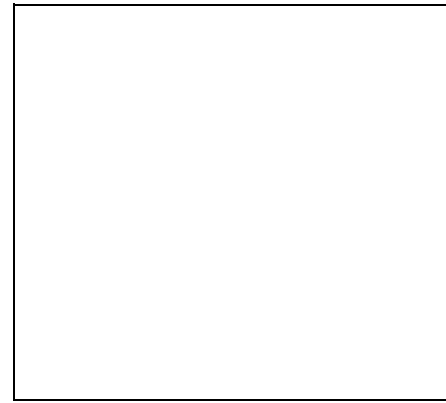
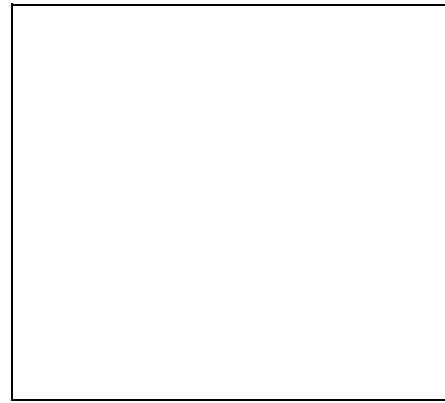
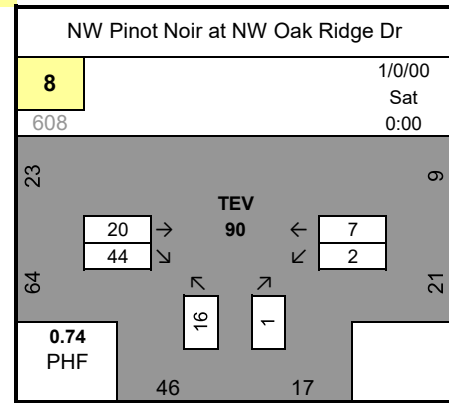
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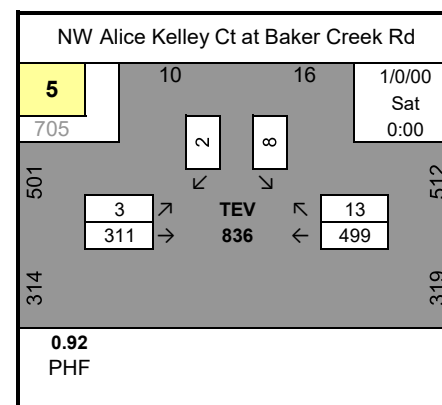
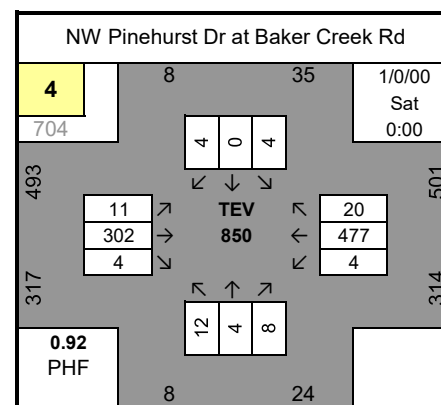
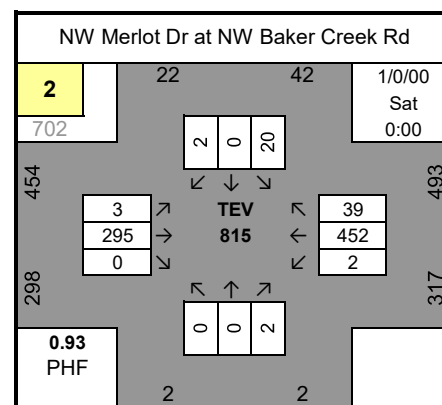
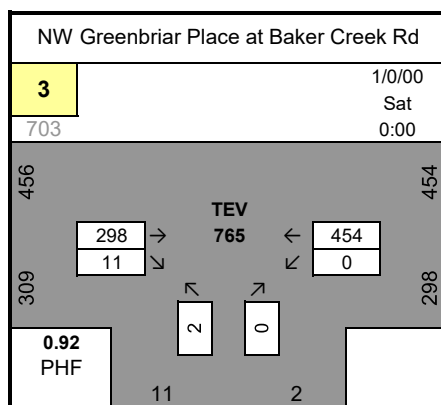
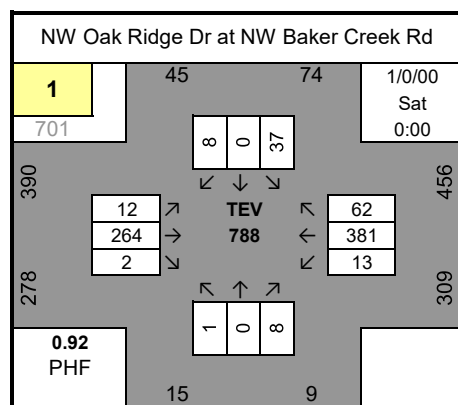
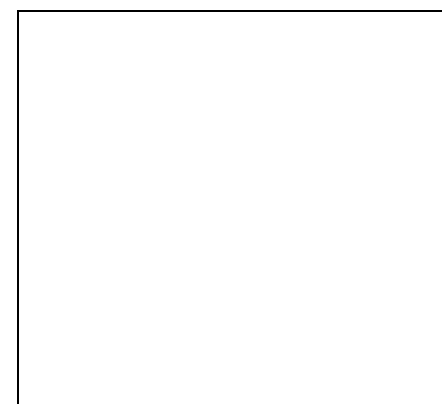
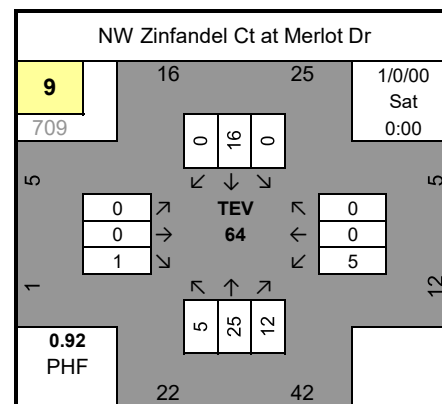
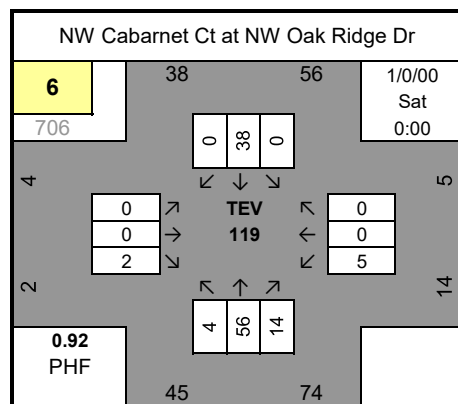
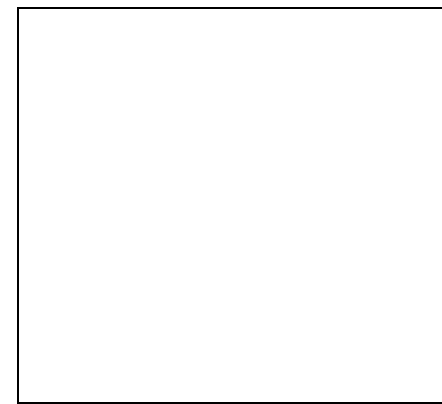
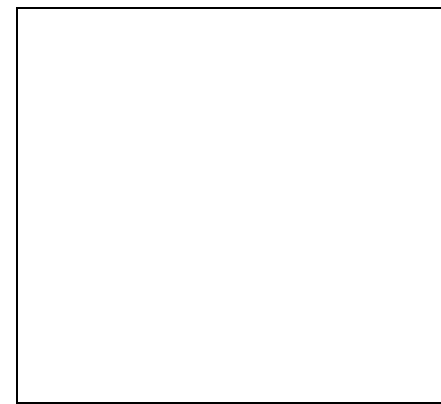
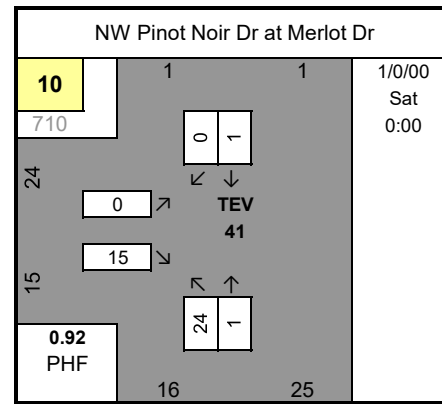
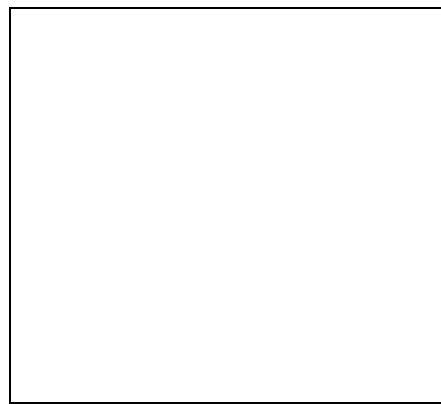
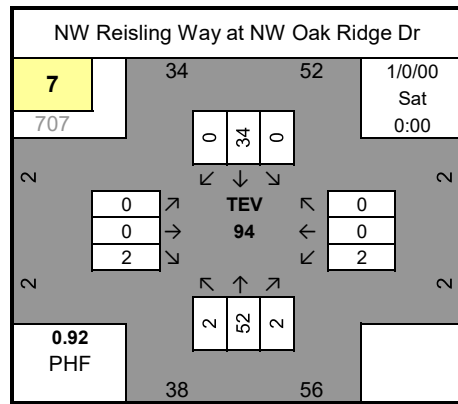
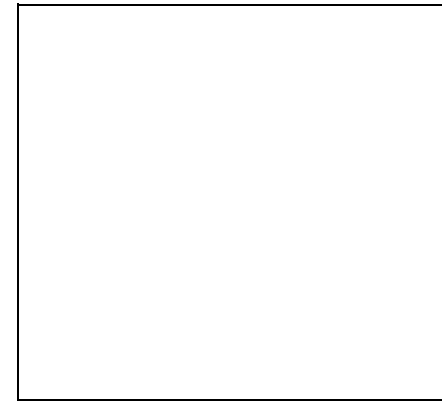
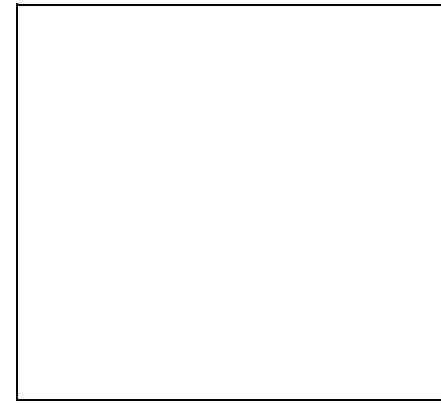
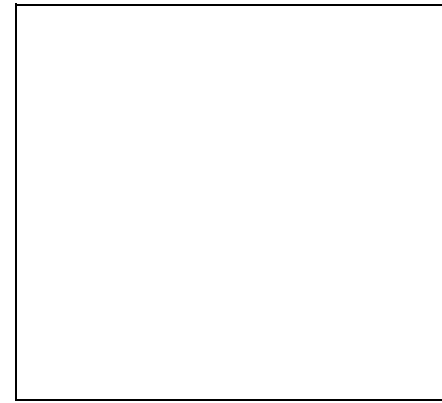
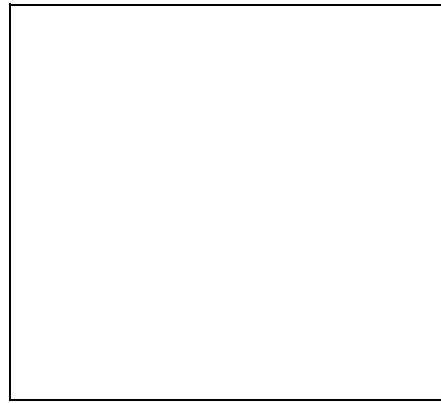
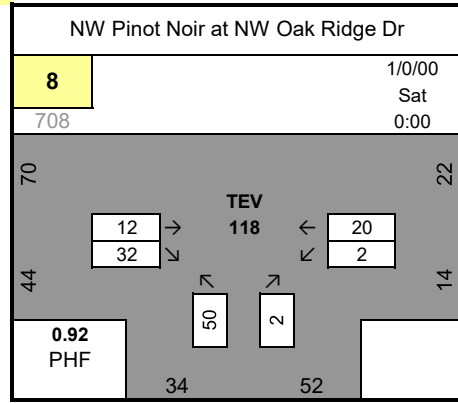
Interim Buildout - AM

600



Interim Buildout - PM

700



APPENDIX B

HCM Intersection Analysis

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	416	1	2	174	12	0	0	9	28	0	5
Future Vol, veh/h	2	416	1	2	174	12	0	0	9	28	0	5
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	1	1	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	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	1	0	0	6	0	0	0	0	0	0	0
Mvmt Flow	3	562	1	3	235	16	0	0	12	38	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	254	0	0	563	0	0	822	829	564	828	821	246
Stage 1	-	-	-	-	-	-	569	569	-	252	252	-
Stage 2	-	-	-	-	-	-	253	260	-	576	569	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1323	-	-	1019	-	-	295	308	529	293	312	798
Stage 1	-	-	-	-	-	-	511	509	-	757	702	-
Stage 2	-	-	-	-	-	-	756	697	-	506	509	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1319	-	-	1019	-	-	291	305	528	284	309	796
Mov Cap-2 Maneuver	-	-	-	-	-	-	291	305	-	284	309	-
Stage 1	-	-	-	-	-	-	509	507	-	752	698	-
Stage 2	-	-	-	-	-	-	747	693	-	492	507	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			12			18.3		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	528	1319	-	-	1019	-	-	315
HCM Lane V/C Ratio	0.023	0.002	-	-	0.003	-	-	0.142
HCM Control Delay (s)	12	7.7	0	-	8.5	0	-	18.3
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.5

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	0	456	0	1	185	8	0	0	6	28	0	1
Future Vol, veh/h	0	456	0	1	185	8	0	0	6	28	0	1
Conflicting Peds, #/hr	3	0	0	0	0	3	2	0	2	2	0	2
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	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	2	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	0	563	0	1	228	10	0	0	7	35	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	241	0	0	563	0	0	801	806	565	807	801	238
Stage 1	-	-	-	-	-	-	563	563	-	238	238	-
Stage 2	-	-	-	-	-	-	238	243	-	569	563	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1337	-	-	1019	-	-	305	318	528	302	320	806
Stage 1	-	-	-	-	-	-	514	512	-	770	712	-
Stage 2	-	-	-	-	-	-	770	708	-	511	512	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1333	-	-	1019	-	-	304	317	527	296	319	802
Mov Cap-2 Maneuver	-	-	-	-	-	-	304	317	-	296	319	-
Stage 1	-	-	-	-	-	-	514	512	-	768	709	-
Stage 2	-	-	-	-	-	-	767	705	-	503	512	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			11.9			18.5		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	527	1333	-	-	1019	-	-	303
HCM Lane V/C Ratio	0.014	-	-	-	0.001	-	-	0.118
HCM Control Delay (s)	11.9	0	-	-	8.5	0	-	18.5
HCM Lane LOS	B	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	450	3	0	186	2	6
Future Vol, veh/h	450	3	0	186	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	608	4	0	251	3	8

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	612	0	861
Stage 1	-	-	-	-	610
Stage 2	-	-	-	-	251
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	977	-	329
Stage 1	-	-	-	-	546
Stage 2	-	-	-	-	795
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	977	-	329
Mov Cap-2 Maneuver	-	-	-	-	329
Stage 1	-	-	-	-	546
Stage 2	-	-	-	-	795

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	441	-	-	977	-
HCM Lane V/C Ratio	0.025	-	-	-	-
HCM Control Delay (s)	13.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	482	5	4	192	4	1	0	14	13	0	1
Future Vol, veh/h	3	482	5	4	192	4	1	0	14	13	0	1
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	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	651	7	5	259	5	1	0	19	18	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	264	0	0	658	0	0	935	937	655	944	938	262
Stage 1	-	-	-	-	-	-	663	663	-	272	272	-
Stage 2	-	-	-	-	-	-	272	274	-	672	666	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1312	-	-	939	-	-	248	267	470	244	266	782
Stage 1	-	-	-	-	-	-	454	462	-	738	688	-
Stage 2	-	-	-	-	-	-	738	687	-	449	460	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1312	-	-	939	-	-	246	264	470	232	263	782
Mov Cap-2 Maneuver	-	-	-	-	-	-	246	264	-	232	263	-
Stage 1	-	-	-	-	-	-	452	460	-	734	684	-
Stage 2	-	-	-	-	-	-	732	683	-	429	458	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.2			13.5			21		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	443	1312	-	-	939	-	-	244
HCM Lane V/C Ratio	0.046	0.003	-	-	0.006	-	-	0.078
HCM Control Delay (s)	13.5	7.8	0	-	8.9	0	-	21
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	508	198	3	14	2
Future Vol, veh/h	1	508	198	3	14	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	686	268	4	19	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	272	0	-	0	958
Stage 1	-	-	-	-	270
Stage 2	-	-	-	-	688
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1303	-	-	-	288
Stage 1	-	-	-	-	780
Stage 2	-	-	-	-	503
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1303	-	-	-	288
Mov Cap-2 Maneuver	-	-	-	-	288
Stage 1	-	-	-	-	779
Stage 2	-	-	-	-	503

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1303	-	-	-	313
HCM Lane V/C Ratio	0.001	-	-	-	0.069
HCM Control Delay (s)	7.8	0	-	-	17.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	3	17	0	0	1	7	6	0	13	0
Future Vol, veh/h	0	0	3	17	0	0	1	7	6	0	13	0
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	4	23	0	0	1	9	8	0	18	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.4	7.3	6.8	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	0%	100%	0%
Vol Thru, %	50%	0%	0%	100%
Vol Right, %	43%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	3	17	13
LT Vol	1	0	17	0
Through Vol	7	0	0	13
RT Vol	6	3	0	0
Lane Flow Rate	19	4	23	18
Geometry Grp	1	1	1	1
Degree of Util (X)	0.02	0.004	0.027	0.019
Departure Headway (Hd)	3.717	3.381	4.168	3.961
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	964	1059	861	905
Service Time	1.734	1.399	2.18	1.978
HCM Lane V/C Ratio	0.02	0.004	0.027	0.02
HCM Control Delay	6.8	6.4	7.3	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	5	0	0	2	3	2	0	4	0
Future Vol, veh/h	0	0	4	5	0	0	2	3	2	0	4	0
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	5	7	0	0	3	4	3	0	5	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.4	7.2	6.9	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	0%	100%	0%
Vol Thru, %	43%	0%	0%	100%
Vol Right, %	29%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	4	5	4
LT Vol	2	0	5	0
Through Vol	3	0	0	4
RT Vol	2	4	0	0
Lane Flow Rate	9	5	7	5
Geometry Grp	1	1	1	1
Degree of Util (X)	0.01	0.005	0.008	0.006
Departure Headway (Hd)	3.811	3.33	4.13	3.928
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	944	1079	871	915
Service Time	1.816	1.338	2.136	1.934
HCM Lane V/C Ratio	0.01	0.005	0.008	0.005
HCM Control Delay	6.9	6.4	7.2	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0	0	0

Intersection						
Int Delay, s/veh	4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	2	2	2	1	2	1
Future Vol, veh/h	2	2	2	1	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	3	3	1	3	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	6	0	12
Stage 1	-	-	-	-	5
Stage 2	-	-	-	-	7
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1628	-	1013
Stage 1	-	-	-	-	1023
Stage 2	-	-	-	-	1021
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1628	-	1011
Mov Cap-2 Maneuver	-	-	-	-	1011
Stage 1	-	-	-	-	1023
Stage 2	-	-	-	-	1019

Approach	EB	WB	NB
HCM Control Delay, s	0	4.8	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1034	-	-	1628	-
HCM Lane V/C Ratio	0.004	-	-	0.002	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	6	13	0	0	1	4	3	0	10	0
Future Vol, veh/h	0	0	6	13	0	0	1	4	3	0	10	0
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	8	18	0	0	1	5	4	0	14	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.4	7.2	6.8	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	0%	100%	0%
Vol Thru, %	50%	0%	0%	100%
Vol Right, %	38%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	6	13	10
LT Vol	1	0	13	0
Through Vol	4	0	0	10
RT Vol	3	6	0	0
Lane Flow Rate	11	8	18	14
Geometry Grp	1	1	1	1
Degree of Util (X)	0.011	0.008	0.02	0.015
Departure Headway (Hd)	3.755	3.356	4.149	3.953
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	956	1069	866	908
Service Time	1.767	1.367	2.158	1.964
HCM Lane V/C Ratio	0.012	0.007	0.021	0.015
HCM Control Delay	6.8	6.4	7.2	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0	0.1	0

Intersection						
Int Delay, s/veh	6.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	0	8	3	1	2	0
Future Vol, veh/h	0	8	3	1	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	11	4	1	3	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	12	3	3	0	0
Stage 1	3	-	-	-	-
Stage 2	9	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	1013	1087	1632	-	-
Stage 1	1025	-	-	-	-
Stage 2	1019	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	1011	1087	1632	-	-
Mov Cap-2 Maneuver	1011	-	-	-	-
Stage 1	1023	-	-	-	-
Stage 2	1019	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.3	5.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1632	-	1087	-	-
HCM Lane V/C Ratio	0.002	-	0.01	-	-
HCM Control Delay (s)	7.2	0	8.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	261	2	13	379	22	1	0	8	13	0	4
Future Vol, veh/h	5	261	2	13	379	22	1	0	8	13	0	4
Conflicting Peds, #/hr	5	0	0	0	0	5	1	0	4	4	0	1
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	5	284	2	14	412	24	1	0	9	14	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	441	0	0	286	0	0	750	764	289	761	753	430
Stage 1	-	-	-	-	-	-	295	295	-	457	457	-
Stage 2	-	-	-	-	-	-	455	469	-	304	296	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1130	-	-	1288	-	-	330	336	755	325	341	629
Stage 1	-	-	-	-	-	-	718	673	-	587	571	-
Stage 2	-	-	-	-	-	-	589	564	-	710	672	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1125	-	-	1288	-	-	323	328	752	314	333	625
Mov Cap-2 Maneuver	-	-	-	-	-	-	323	328	-	314	333	-
Stage 1	-	-	-	-	-	-	714	670	-	581	560	-
Stage 2	-	-	-	-	-	-	576	553	-	696	669	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.2			10.6			15.7		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	655	1125	-	-	1288	-	-	356
HCM Lane V/C Ratio	0.015	0.005	-	-	0.011	-	-	0.052
HCM Control Delay (s)	10.6	8.2	0	-	7.8	0	-	15.7
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

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	0	271	0	2	412	22	0	0	2	10	0	0
Future Vol, veh/h	0	271	0	2	412	22	0	0	2	10	0	0
Conflicting Peds, #/hr	8	0	4	4	0	8	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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	291	0	2	443	24	0	0	2	11	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	475	0	0	295	0	0	754	774	295	759	762	463
Stage 1	-	-	-	-	-	-	295	295	-	467	467	-
Stage 2	-	-	-	-	-	-	459	479	-	292	295	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1098	-	-	1278	-	-	328	332	749	326	337	603
Stage 1	-	-	-	-	-	-	718	673	-	580	565	-
Stage 2	-	-	-	-	-	-	586	558	-	720	673	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1090	-	-	1273	-	-	326	327	746	322	332	598
Mov Cap-2 Maneuver	-	-	-	-	-	-	326	327	-	322	332	-
Stage 1	-	-	-	-	-	-	715	670	-	575	559	-
Stage 2	-	-	-	-	-	-	585	552	-	718	670	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			9.8			16.6		
HCM LOS							A			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	746	1090	-	-	1273	-	-	322
HCM Lane V/C Ratio	0.003	-	-	-	0.002	-	-	0.033
HCM Control Delay (s)	9.8	0	-	-	7.8	0	-	16.6
HCM Lane LOS	A	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	271	11	0	412	2	0
Future Vol, veh/h	271	11	0	412	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	295	12	0	448	2	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	307	0	749 301
Stage 1	-	-	-	-	301 -
Stage 2	-	-	-	-	448 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1265	-	382 743
Stage 1	-	-	-	-	755 -
Stage 2	-	-	-	-	648 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1265	-	382 743
Mov Cap-2 Maneuver	-	-	-	-	382 -
Stage 1	-	-	-	-	755 -
Stage 2	-	-	-	-	648 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	382	-	-	1265	-
HCM Lane V/C Ratio	0.006	-	-	-	-
HCM Control Delay (s)	14.5	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	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	11	268	4	4	420	20	12	4	8	4	0	4
Future Vol, veh/h	11	268	4	4	420	20	12	4	8	4	0	4
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	291	4	4	457	22	13	4	9	4	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	479	0	0	295	0	0	795	804	293	800	795	468
Stage 1	-	-	-	-	-	-	317	317	-	476	476	-
Stage 2	-	-	-	-	-	-	478	487	-	324	319	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1094	-	-	1278	-	-	308	319	751	306	323	599
Stage 1	-	-	-	-	-	-	698	658	-	574	560	-
Stage 2	-	-	-	-	-	-	572	554	-	692	657	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1094	-	-	1278	-	-	302	314	751	295	318	599
Mov Cap-2 Maneuver	-	-	-	-	-	-	302	314	-	295	318	-
Stage 1	-	-	-	-	-	-	689	649	-	567	558	-
Stage 2	-	-	-	-	-	-	566	552	-	671	648	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			15.2			14.3		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	380	1094	-	-	1278	-	-	395
HCM Lane V/C Ratio	0.069	0.011	-	-	0.003	-	-	0.022
HCM Control Delay (s)	15.2	8.3	0	-	7.8	0	-	14.3
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	3	277	442	13	8	2
Future Vol, veh/h	3	277	442	13	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	301	480	14	9	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	494	0	0	794	487
Stage 1	-	-	-	487	-
Stage 2	-	-	-	307	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1080	-	-	360	585
Stage 1	-	-	-	622	-
Stage 2	-	-	-	751	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1080	-	-	359	585
Mov Cap-2 Maneuver	-	-	-	359	-
Stage 1	-	-	-	620	-
Stage 2	-	-	-	751	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1080	-	-	-	389
HCM Lane V/C Ratio	0.003	-	-	-	0.028
HCM Control Delay (s)	8.3	0	-	-	14.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	5	0	0	4	9	14	0	10	0
Future Vol, veh/h	0	0	2	5	0	0	4	9	14	0	10	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	2	5	0	0	4	10	15	0	11	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.4	7.2	6.8	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	0%	100%	0%
Vol Thru, %	33%	0%	0%	100%
Vol Right, %	52%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	2	5	10
LT Vol	4	0	5	0
Through Vol	9	0	0	10
RT Vol	14	2	0	0
Lane Flow Rate	29	2	5	11
Geometry Grp	1	1	1	1
Degree of Util (X)	0.03	0.002	0.006	0.012
Departure Headway (Hd)	3.641	3.374	4.172	3.935
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	988	1063	860	914
Service Time	1.644	1.387	2.184	1.941
HCM Lane V/C Ratio	0.029	0.002	0.006	0.012
HCM Control Delay	6.8	6.4	7.2	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0

Intersection

Intersection Delay, s/veh 6.9

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	2	0	0	2	5	2	0	6	0
Future Vol, veh/h	0	0	2	2	0	0	2	5	2	0	6	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	2	2	0	0	2	5	2	0	7	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.3	7.1	6.9	6.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	0%	100%	0%
Vol Thru, %	56%	0%	0%	100%
Vol Right, %	22%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	2	2	6
LT Vol	2	0	2	0
Through Vol	5	0	0	6
RT Vol	2	2	0	0
Lane Flow Rate	10	2	2	7
Geometry Grp	1	1	1	1
Degree of Util (X)	0.01	0.002	0.002	0.007
Departure Headway (Hd)	3.824	3.331	4.131	3.915
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	941	1079	871	919
Service Time	1.825	1.335	2.135	1.916
HCM Lane V/C Ratio	0.011	0.002	0.002	0.008
HCM Control Delay	6.9	6.3	7.1	6.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0	0	0

Intersection						
Int Delay, s/veh	5.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	4	2	0	3	2
Future Vol, veh/h	0	4	2	0	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	4	2	0	3	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	4	0	6
Stage 1	-	-	-	-	2
Stage 2	-	-	-	-	4
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1631	-	1021
Stage 1	-	-	-	-	1026
Stage 2	-	-	-	-	1024
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1631	-	1020
Mov Cap-2 Maneuver	-	-	-	-	1020
Stage 1	-	-	-	-	1026
Stage 2	-	-	-	-	1023

Approach	EB	WB	NB
HCM Control Delay, s	0	7.2	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1046	-	-	1631	-
HCM Lane V/C Ratio	0.005	-	-	0.001	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	6.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	5	0	0	5	5	12	0	4	0
Future Vol, veh/h	0	0	1	5	0	0	5	5	12	0	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	1	5	0	0	5	5	13	0	4	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.4	7.2	6.7	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	0%	100%	0%
Vol Thru, %	23%	0%	0%	100%
Vol Right, %	55%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	1	5	4
LT Vol	5	0	5	0
Through Vol	5	0	0	4
RT Vol	12	1	0	0
Lane Flow Rate	24	1	5	4
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.001	0.006	0.005
Departure Headway (Hd)	3.633	3.353	4.15	3.929
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	990	1071	866	915
Service Time	1.636	1.361	2.158	1.934
HCM Lane V/C Ratio	0.024	0.001	0.006	0.004
HCM Control Delay	6.7	6.4	7.2	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0

Intersection						
Int Delay, s/veh	6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	0	3	4	1	1	0
Future Vol, veh/h	0	3	4	1	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	3	4	1	1	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	10	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1015	1090	1635	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1013	1090	1635	-	-	-
Mov Cap-2 Maneuver	1013	-	-	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	1019	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.3	5.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1635	-	1090	-	-
HCM Lane V/C Ratio	0.003	-	0.003	-	-
HCM Control Delay (s)	7.2	0	8.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	417	1	2	177	24	0	0	9	64	0	11
Future Vol, veh/h	4	417	1	2	177	24	0	0	9	64	0	11
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	1	1	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	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	1	0	0	6	0	0	0	0	0	0	0
Mvmt Flow	5	564	1	3	239	32	0	0	12	86	0	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	274	0	0	565	0	0	844	855	566	846	839	258
Stage 1	-	-	-	-	-	-	575	575	-	264	264	-
Stage 2	-	-	-	-	-	-	269	280	-	582	575	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1301	-	-	1017	-	-	285	298	528	284	304	786
Stage 1	-	-	-	-	-	-	507	506	-	746	694	-
Stage 2	-	-	-	-	-	-	741	683	-	502	506	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1297	-	-	1017	-	-	278	294	527	275	300	784
Mov Cap-2 Maneuver	-	-	-	-	-	-	278	294	-	275	300	-
Stage 1	-	-	-	-	-	-	504	503	-	739	690	-
Stage 2	-	-	-	-	-	-	725	679	-	487	503	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			12			22.7		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	527	1297	-	-	1017	-	-	304
HCM Lane V/C Ratio	0.023	0.004	-	-	0.003	-	-	0.333
HCM Control Delay (s)	12	7.8	0	-	8.5	0	-	22.7
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	1.4

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	492	0	1	197	13	0	0	6	43	0	4
Future Vol, veh/h	1	492	0	1	197	13	0	0	6	43	0	4
Conflicting Peds, #/hr	3	0	0	0	0	3	2	0	2	2	0	2
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	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	2	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	1	607	0	1	243	16	0	0	7	53	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	262	0	0	607	0	0	867	873	609	871	865	256
Stage 1	-	-	-	-	-	-	609	609	-	256	256	-
Stage 2	-	-	-	-	-	-	258	264	-	615	609	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1314	-	-	981	-	-	275	291	499	274	294	788
Stage 1	-	-	-	-	-	-	486	488	-	753	699	-
Stage 2	-	-	-	-	-	-	751	694	-	482	488	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1310	-	-	981	-	-	272	290	498	268	293	784
Mov Cap-2 Maneuver	-	-	-	-	-	-	272	290	-	268	293	-
Stage 1	-	-	-	-	-	-	486	488	-	750	696	-
Stage 2	-	-	-	-	-	-	744	691	-	473	488	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			12.3			20.9		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	498	1310	-	-	981	-	-	284
HCM Lane V/C Ratio	0.015	0.001	-	-	0.001	-	-	0.204
HCM Control Delay (s)	12.3	7.8	0	-	8.7	0	-	20.9
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.8

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	487	3	0	201	2	6
Future Vol, veh/h	487	3	0	201	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	658	4	0	272	3	8

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	662	0	932 660
Stage 1	-	-	-	-	660 -
Stage 2	-	-	-	-	272 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	936	-	298 467
Stage 1	-	-	-	-	518 -
Stage 2	-	-	-	-	778 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	936	-	298 467
Mov Cap-2 Maneuver	-	-	-	-	298 -
Stage 1	-	-	-	-	518 -
Stage 2	-	-	-	-	778 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	409	-	-	936	-
HCM Lane V/C Ratio	0.026	-	-	-	-
HCM Control Delay (s)	14	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	533	5	4	209	4	1	0	14	13	0	1
Future Vol, veh/h	3	533	5	4	209	4	1	0	14	13	0	1
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	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	720	7	5	282	5	1	0	19	18	0	1

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	287	0	0	727	0	0	1027	1029	724	1036	1030	285
Stage 1	-	-	-	-	-	-	732	732	-	295	295	-
Stage 2	-	-	-	-	-	-	295	297	-	741	735	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1287	-	-	886	-	-	215	236	429	212	235	759
Stage 1	-	-	-	-	-	-	416	430	-	718	673	-
Stage 2	-	-	-	-	-	-	718	671	-	411	428	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1287	-	-	886	-	-	213	233	429	201	232	759
Mov Cap-2 Maneuver	-	-	-	-	-	-	213	233	-	201	232	-
Stage 1	-	-	-	-	-	-	414	428	-	714	668	-
Stage 2	-	-	-	-	-	-	712	666	-	391	426	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		0.2		14.4		23.6	
HCM LOS					B		C	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	402	1287	-	-	886	-	-	212
HCM Lane V/C Ratio	0.05	0.003	-	-	0.006	-	-	0.089
HCM Control Delay (s)	14.4	7.8	0	-	9.1	0	-	23.6
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	1	559	215	3	14	2
Future Vol, veh/h	1	559	215	3	14	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	755	291	4	19	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	295	0	-	0	1050 293
Stage 1	-	-	-	-	293 -
Stage 2	-	-	-	-	757 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1278	-	-	-	254 751
Stage 1	-	-	-	-	762 -
Stage 2	-	-	-	-	467 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1278	-	-	-	254 751
Mov Cap-2 Maneuver	-	-	-	-	254 -
Stage 1	-	-	-	-	761 -
Stage 2	-	-	-	-	467 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	19.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1278	-	-	-	277
HCM Lane V/C Ratio	0.001	-	-	-	0.078
HCM Control Delay (s)	7.8	0	-	-	19.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	3	17	0	0	1	21	6	0	55	0
Future Vol, veh/h	0	0	3	17	0	0	1	21	6	0	55	0
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	4	23	0	0	1	28	8	0	74	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.6	7.5	7.1	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	100%	0%
Vol Thru, %	75%	0%	0%	100%
Vol Right, %	21%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	3	17	55
LT Vol	1	0	17	0
Through Vol	21	0	0	55
RT Vol	6	3	0	0
Lane Flow Rate	38	4	23	74
Geometry Grp	1	1	1	1
Degree of Util (X)	0.041	0.004	0.027	0.082
Departure Headway (Hd)	3.881	3.511	4.298	3.976
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	922	1011	829	902
Service Time	1.908	1.561	2.343	1.995
HCM Lane V/C Ratio	0.041	0.004	0.028	0.082
HCM Control Delay	7.1	6.6	7.5	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.3

Intersection												
Intersection Delay, s/veh	7.1											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	5	0	0	2	17	2	0	46	0
Future Vol, veh/h	0	0	4	5	0	0	2	17	2	0	46	0
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	5	7	0	0	3	23	3	0	62	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.5	7.3	7.1	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	0%	100%	0%
Vol Thru, %	81%	0%	0%	100%
Vol Right, %	10%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	4	5	46
LT Vol	2	0	5	0
Through Vol	17	0	0	46
RT Vol	2	4	0	0
Lane Flow Rate	28	5	7	62
Geometry Grp	1	1	1	1
Degree of Util (X)	0.031	0.005	0.008	0.068
Departure Headway (Hd)	3.929	3.46	4.26	3.942
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	913	1029	838	912
Service Time	1.944	1.499	2.297	1.951
HCM Lane V/C Ratio	0.031	0.005	0.008	0.068
HCM Control Delay	7.1	6.5	7.3	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0.2

Intersection						
Int Delay, s/veh	1.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	20	44	2	7	16	1
Future Vol, veh/h	20	44	2	7	16	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	59	3	9	22	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	86	0	72
Stage 1	-	-	-	-	57
Stage 2	-	-	-	-	15
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1523	-	937
Stage 1	-	-	-	-	971
Stage 2	-	-	-	-	1013
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1523	-	935
Mov Cap-2 Maneuver	-	-	-	-	935
Stage 1	-	-	-	-	971
Stage 2	-	-	-	-	1011

Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	939	-	-	1523	-
HCM Lane V/C Ratio	0.024	-	-	0.002	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	6	13	0	0	1	10	3	0	28	0
Future Vol, veh/h	0	0	6	13	0	0	1	10	3	0	28	0
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	8	18	0	0	1	14	4	0	38	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.5	7.3	7	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	0%	100%	0%
Vol Thru, %	71%	0%	0%	100%
Vol Right, %	21%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	6	13	28
LT Vol	1	0	13	0
Through Vol	10	0	0	28
RT Vol	3	6	0	0
Lane Flow Rate	19	8	18	38
Geometry Grp	1	1	1	1
Degree of Util (X)	0.02	0.008	0.021	0.042
Departure Headway (Hd)	3.859	3.413	4.206	3.959
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	929	1047	852	907
Service Time	1.878	1.438	2.228	1.974
HCM Lane V/C Ratio	0.02	0.008	0.021	0.042
HCM Control Delay	7	6.5	7.3	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.1

Intersection						
Int Delay, s/veh	7.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	26	9	1	2	0
Future Vol, veh/h	0	26	9	1	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	35	12	1	3	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	28	3	3	0	0
Stage 1	3	-	-	-	-
Stage 2	25	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	992	1087	1632	-	-
Stage 1	1025	-	-	-	-
Stage 2	1003	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	985	1087	1632	-	-
Mov Cap-2 Maneuver	985	-	-	-	-
Stage 1	1018	-	-	-	-
Stage 2	1003	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	6.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1632	-	1087	-	-
HCM Lane V/C Ratio	0.007	-	0.032	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	264	2	13	381	62	1	0	8	37	0	8
Future Vol, veh/h	12	264	2	13	381	62	1	0	8	37	0	8
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	1	1	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	6	0	0	0	0	0	0	0
Mvmt Flow	13	287	2	14	414	67	1	0	9	40	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	484	0	0	289	0	0	794	826	289	799	794	451
Stage 1	-	-	-	-	-	-	314	314	-	479	479	-
Stage 2	-	-	-	-	-	-	480	512	-	320	315	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1089	-	-	1284	-	-	308	310	755	306	323	613
Stage 1	-	-	-	-	-	-	701	660	-	571	558	-
Stage 2	-	-	-	-	-	-	571	540	-	696	659	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1086	-	-	1284	-	-	297	300	754	295	313	611
Mov Cap-2 Maneuver	-	-	-	-	-	-	297	300	-	295	313	-
Stage 1	-	-	-	-	-	-	691	651	-	561	548	-
Stage 2	-	-	-	-	-	-	554	530	-	678	650	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.2			10.7			18		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	644	1086	-	-	1284	-	-	325
HCM Lane V/C Ratio	0.015	0.012	-	-	0.011	-	-	0.151
HCM Control Delay (s)	10.7	8.4	0	-	7.8	0	-	18
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.5

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	3	295	0	2	452	39	0	0	2	20	0	2
Future Vol, veh/h	3	295	0	2	452	39	0	0	2	20	0	2
Conflicting Peds, #/hr	3	0	0	0	0	3	2	0	2	2	0	2
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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	2	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	3	317	0	2	486	42	0	0	2	22	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	531	0	0	317	0	0	837	858	319	840	837	512
Stage 1	-	-	-	-	-	-	323	323	-	514	514	-
Stage 2	-	-	-	-	-	-	514	535	-	326	323	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1047	-	-	1255	-	-	288	297	726	287	305	566
Stage 1	-	-	-	-	-	-	693	654	-	547	539	-
Stage 2	-	-	-	-	-	-	547	527	-	691	654	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1044	-	-	1255	-	-	285	295	725	284	303	563
Mov Cap-2 Maneuver	-	-	-	-	-	-	285	295	-	284	303	-
Stage 1	-	-	-	-	-	-	691	652	-	544	536	-
Stage 2	-	-	-	-	-	-	543	524	-	686	652	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0			10			18.2		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	725	1044	-	-	1255	-	-	297
HCM Lane V/C Ratio	0.003	0.003	-	-	0.002	-	-	0.08
HCM Control Delay (s)	10	8.5	0	-	7.9	0	-	18.2
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	298	11	0	454	2	0
Future Vol, veh/h	298	11	0	454	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	324	12	0	493	2	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	336	0	823 330
Stage 1	-	-	-	-	330 -
Stage 2	-	-	-	-	493 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1235	-	346 716
Stage 1	-	-	-	-	733 -
Stage 2	-	-	-	-	618 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1235	-	346 716
Mov Cap-2 Maneuver	-	-	-	-	346 -
Stage 1	-	-	-	-	733 -
Stage 2	-	-	-	-	618 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	346	-	-	1235	-
HCM Lane V/C Ratio	0.006	-	-	-	-
HCM Control Delay (s)	15.5	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	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	11	302	4	4	477	20	12	4	8	4	0	4
Future Vol, veh/h	11	302	4	4	477	20	12	4	8	4	0	4
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	328	4	4	518	22	13	4	9	4	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	540	0	0	332	0	0	893	902	330	898	893	529
Stage 1	-	-	-	-	-	-	354	354	-	537	537	-
Stage 2	-	-	-	-	-	-	539	548	-	361	356	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1039	-	-	1239	-	-	264	280	716	262	283	554
Stage 1	-	-	-	-	-	-	667	634	-	532	526	-
Stage 2	-	-	-	-	-	-	530	520	-	662	633	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1039	-	-	1239	-	-	258	275	716	252	278	554
Mov Cap-2 Maneuver	-	-	-	-	-	-	258	275	-	252	278	-
Stage 1	-	-	-	-	-	-	658	625	-	525	523	-
Stage 2	-	-	-	-	-	-	523	517	-	640	624	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			16.8			15.7		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	332	1039	-	-	1239	-	-	346
HCM Lane V/C Ratio	0.079	0.012	-	-	0.004	-	-	0.025
HCM Control Delay (s)	16.8	8.5	0	-	7.9	0	-	15.7
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	3	311	499	13	8	2
Future Vol, veh/h	3	311	499	13	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	338	542	14	9	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	556	0	-	0	893 549
Stage 1	-	-	-	-	549 -
Stage 2	-	-	-	-	344 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1025	-	-	-	315 539
Stage 1	-	-	-	-	583 -
Stage 2	-	-	-	-	722 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1025	-	-	-	314 539
Mov Cap-2 Maneuver	-	-	-	-	314 -
Stage 1	-	-	-	-	581 -
Stage 2	-	-	-	-	722 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	15.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1025	-	-	-	343
HCM Lane V/C Ratio	0.003	-	-	-	0.032
HCM Control Delay (s)	8.5	0	-	-	15.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	5	0	0	4	56	14	0	38	0
Future Vol, veh/h	0	0	2	5	0	0	4	56	14	0	38	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	2	5	0	0	4	61	15	0	41	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.6	7.4	7.2	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	0%	100%	0%
Vol Thru, %	76%	0%	0%	100%
Vol Right, %	19%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	2	5	38
LT Vol	4	0	5	0
Through Vol	56	0	0	38
RT Vol	14	2	0	0
Lane Flow Rate	80	2	5	41
Geometry Grp	1	1	1	1
Degree of Util (X)	0.086	0.002	0.007	0.046
Departure Headway (Hd)	3.842	3.513	4.312	3.973
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	935	1011	826	903
Service Time	1.853	1.561	2.358	1.99
HCM Lane V/C Ratio	0.086	0.002	0.006	0.045
HCM Control Delay	7.2	6.6	7.4	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0	0	0.1

Intersection												
Intersection Delay, s/veh	7.2											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	2	0	0	2	52	2	0	34	0
Future Vol, veh/h	0	0	2	2	0	0	2	52	2	0	34	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	2	2	0	0	2	57	2	0	37	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.5	7.3	7.2	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	100%	0%
Vol Thru, %	93%	0%	0%	100%
Vol Right, %	4%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	2	2	34
LT Vol	2	0	2	0
Through Vol	52	0	0	34
RT Vol	2	2	0	0
Lane Flow Rate	61	2	2	37
Geometry Grp	1	1	1	1
Degree of Util (X)	0.066	0.002	0.003	0.041
Departure Headway (Hd)	3.921	3.47	4.271	3.953
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	917	1026	835	908
Service Time	1.93	1.509	2.31	1.965
HCM Lane V/C Ratio	0.067	0.002	0.002	0.041
HCM Control Delay	7.2	6.5	7.3	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0	0	0.1

Intersection						
Int Delay, s/veh	4.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	12	32	2	20	50	2
Future Vol, veh/h	12	32	2	20	50	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	13	35	2	22	54	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	48	0	57
Stage 1	-	-	-	-	31
Stage 2	-	-	-	-	26
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1572	-	955
Stage 1	-	-	-	-	997
Stage 2	-	-	-	-	1002
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1572	-	954
Mov Cap-2 Maneuver	-	-	-	-	954
Stage 1	-	-	-	-	997
Stage 2	-	-	-	-	1001

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	957	-	-	1572	-
HCM Lane V/C Ratio	0.059	-	-	0.001	-
HCM Control Delay (s)	9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	0	1	5	0	0	5	25	12	0	16	0
Future Vol, veh/h	0	0	1	5	0	0	5	25	12	0	16	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	1	5	0	0	5	27	13	0	17	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.4	7.3	7	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	0%	100%	0%
Vol Thru, %	60%	0%	0%	100%
Vol Right, %	29%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	1	5	16
LT Vol	5	0	5	0
Through Vol	25	0	0	16
RT Vol	12	1	0	0
Lane Flow Rate	46	1	5	17
Geometry Grp	1	1	1	1
Degree of Util (X)	0.048	0.001	0.006	0.019
Departure Headway (Hd)	3.777	3.413	4.21	3.946
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	953	1048	851	911
Service Time	1.782	1.435	2.232	1.954
HCM Lane V/C Ratio	0.048	0.001	0.006	0.019
HCM Control Delay	7	6.4	7.3	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0	0	0.1

Intersection						
Int Delay, s/veh	7.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	0	15	24	1	1	0
Future Vol, veh/h	0	15	24	1	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	16	26	1	1	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	54	1	1	0	0
Stage 1	1	-	-	-	-
Stage 2	53	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	959	1090	1635	-	-
Stage 1	1028	-	-	-	-
Stage 2	975	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	944	1090	1635	-	-
Mov Cap-2 Maneuver	944	-	-	-	-
Stage 1	1012	-	-	-	-
Stage 2	975	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	6.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1635	-	1090	-	-
HCM Lane V/C Ratio	0.016	-	0.015	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-