TRAFFIC IMPACT STUDY

Danji Site Development

US 23/SR 365/Cornelia Highway |
White Sulphur Road
Gainesville, GA

Keck & Wood Project No.
260238.00

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1. INTRODUCTION

An industrial development, identified as the Danji Business Park, is proposed in Gainesville, Georgia along the south side of White Sulphur Road between Ramsey Road and US 23/SR 365/Cornelia Highway. A Traffic Impact Study was performed to determine the amount of new traffic that would be generated by the proposed development and how the new traffic would impact the existing roadway network. For the purpose of this study, US 23/SR 365/Cornelia Highway and White Sulphur Road will be considered in the east and west direction, while Ramsey Road will be considered in the north and south direction.

1.1. STUDY AREA

The study area is located to the south of White Sulphur Road in Gainesville, GA. Figure 1.1 presents the location of the project site and identifies the study intersections. Three (3) of the study intersections are existing and six (6) are driveways for the proposed development. The study intersections are listed below, with existing intersections indicated in bold.

1. **US 23/SR 365/Cornelia Highway at White Sulphur Road**
2. **US 23/SR 365/Cornelia Highway at Ramsey Road**
3. **White Sulphur Road at Ramsey Road**
4. White Sulphur Road at Site Driveway #1
5. White Sulphur Road at Site Driveway #2
6. White Sulphur Road at Site Driveway #3
7. White Sulphur Road at Site Driveway #4
8. White Sulphur Road at Site Driveway #5
9. White Sulphur Road at Site Driveway #6

1.2. PROPOSED DEVELOPMENT

The development will consist of three industrial buildings of varying sizes: a 50,000 square-foot building (Tract 1), a 650,000 square-foot building (Tract 2), and a 175,000 square-foot building (Tract 3). The proposed development will be positioned on 109.7 acres with 62.2 acres for the largest proposed building, 26 acres for the next largest building, and 21 acres for the smallest building.

Access to the site would be provided by six full access driveways along White Sulphur Road. One driveway will provide direct access to the 50,000 square-foot building, three driveways will provide access to the 650,000 square-foot building, and two driveways will provide access to the 175,000 square-foot building. The proposed site layout is provided in **Appendix A**. The proposed development is expected to be built out in the year 2031. Currently, the proposed project site is undeveloped and appears to contain no existing infrastructure (i.e., roads, paths, buildings).

1.3. PLANNED TRANSPORTATION IMPROVEMENTS

A search for planned Georgia Department of Transportation (GDOT) projects in or near the study area was performed using the GDOT GeoPI web application (http://www.dot.ga.gov/DS/Maps/geopi#). Based on that search, one project was identified within the proposed study area.

- PI: S015986 – Alignment and Widening of White Sulphur Road and Cagle Road
    - This project includes the alignment and widening of White Sulphur Road at US 23/SR 365/Cornelia Highway to Cagle Road. A second northwest-bound lane will be added on White Sulphur Road before transitioning into a right-turn lane for the Gainesville Inland Port entrance. This project will also create an additional left-turn lane from northbound US 23/SR 365/Cornelia Highway onto White Sulphur Road. Project completion is

completion is expected in Summer 2027.

- PI: 0020731 – Widening of US 23/SR 365/Cornelia Highway from I-985 to Belton Bridge Road
    - This project includes the widening of US 23/SR 365/Cornelia Highway from four (4) to six (6) lanes from I-985 to Belton Bridge Road. Additionally, the project will convert existing at-grade intersections to limited access interchanges at White Sulphur Road, Ramsey Road, and SR 52 in Lula. Project will also construct overpasses at Kubota Way and Cagle Road. The planned construction for this project is in 2037.

1.4. ROADWAYS

US 23/SR 365/Cornelia Highway is a four-lane, divided roadway that traverses east-west through the study area. It is classified as a principal arterial roadway with a posted 65-mph speed limit. Land uses consist primarily of industrial developments and vacant parcels along the roadway. Near the study area, there are no dedicated pedestrian or bicycle facilities.

Ramsey Road is a two-lane, undivided roadway that traverses north-south through the study area. It is classified as a local roadway with no posted speed limit sign in the vicinity of the project site. Land uses along the route consist primarily of industrial developments. Near the study area, there are no dedicated pedestrian or bicycle facilities.

White Sulphur Road is a two-lane, undivided roadway that traverses east-west through the study area. It is classified as a major collector roadway with a posted 35-mph speed limit in the vicinity of the project site. Land uses along the route consist primarily of industrial developments. Near the study area, there are no dedicated pedestrian or bicycle facilities.

1.5. INTERSECTIONS

The following nine (9) intersections were identified to be studied (existing intersections are in bold):

1. **US 23/SR 365/Cornelia Highway at White Sulphur Road**
2. **US 23/SR 365/Cornelia Highway at Ramsey Road**
3. **White Sulphur Road at Ramsey Road**
4. White Sulphur Road at Site Driveway #1
5. White Sulphur Road at Site Driveway #2
6. White Sulphur Road at Site Driveway #3
7. White Sulphur Road at Site Driveway #4
8. White Sulphur Road at Site Driveway #5
9. White Sulphur Road at Site Driveway #6

The existing lane geometries and intersection control types are presented in Figure 1.2.

Figure 1.1 – Aerial View of Study Area

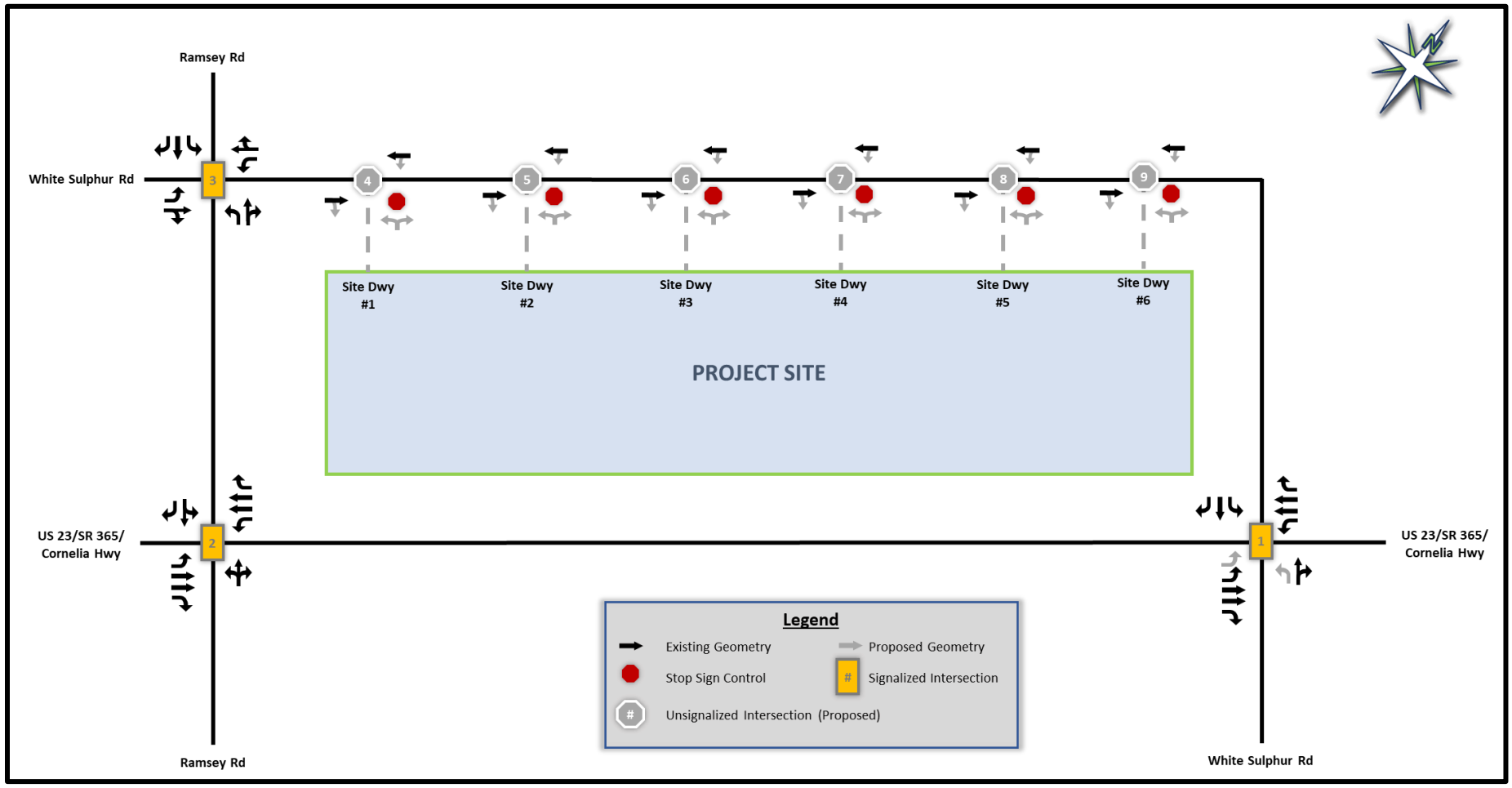


Figure 1.2 – Existing and Proposed Intersection Geometries

2. TRAFFIC ANALYSIS AND METHODOLOGY

2.1. TRAFFIC DATA COLLECTION

The traffic data for this project was collected on Tuesday, May 12, 2026. The following traffic counts were collected:

- 3 – 4-Hour TMCs (6:00 am to 8:00 am & 4:00 pm to 6:00 pm)
  - US 23/SR 365/Cornelia Highway at White Sulphur Road
  - US 23/SR 365/Cornelia Highway at Ramsey Road
  - White Sulphur Road and Ramsey Road
- 1 – 24-Hour Bi-Directional Classification Tube Counts
  - White Sulphur Road east of Ramsey Road

The traffic counts obtained for this study are included in **Appendix B**.

2.2. BACKGROUND GROWTH

A build-out year of 2031 is established for the project. An average annual growth rate was determined based on historic Average Annual Daily Traffic (AADT) counts recorded for nearby GDOT Count Stations. AADTs for the following count stations were obtained from GDOT's Traffic Analysis and Data Application (TADA) website (https://gdottrafficdata.drakewell.com/publicmultinodemap.asp):

- 139-0214: US 23/SR 365/Cornelia Highway north of White Sulphur Road
- 139-8198: Ramsey Road west of White Sulphur Road
- 139-0538: White Sulphur Road east of US 23/SR 365/Cornelia Highway
- 139-0536: White Sulphur Road south of Ramsey Road
- 139-0215: US 23/SR 365/Cornelia Highway south of Lula Road

Both the 5-year and 15-year growth rates were calculated at each of the historical traffic count locations. The 5-year growth rate of the five (5) locations averaged 2.7% while the 15-year growth rate averaged 2.1%. Overall, a 2.4% annual growth rate was used for the purpose of this study. The growth rate calculations can be found in **Appendix B**. The 2.4% growth rate was applied to the Existing Year 2026 peak hour traffic for a period of five (5) years to establish the 2031 future year background scenario volumes.

2.3. STUDY SCENARIOS

For the purposes of this study, two (2) scenarios will be analyzed beyond the Existing Year 2026 scenario. Details for each scenario analyzed can be found below:

- Opening Year 2031 – Background Scenario
  - This scenario will include the background growth rate applied for five (5) years and geometry changes from GDOT PI S015986 – Alignment and Widening of White Sulphur and Cagle Road. This scenario will not include any project trips from the proposed development.
- Opening Year 2031 – With Project Scenario
  - In addition to the background growth rate applied for five (5) years. This scenario will include trips from the manufacturing plant and two warehouse buildings along White Sulphur Road. It will also include GDOT PI S015986 – Alignment and Widening of White Sulphur and Cagle Road.

2.4. LEVEL OF SERVICE CRITERIA

In order to quantify the impacts of additional traffic and to determine any needed roadway and/or operational improvements, a capacity analysis was performed for each scenario's peak hour conditions based on the methodology outlined in the *Highway Capacity Manual (HCM).* Various computer programs are available which implement the *HCM* methodology. For this project, Synchro 12 was used to analyze each of the study intersections.

HCM defines level of service (LOS) in terms of the amount of control delay, including initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The LOS categories range from A to F, with different thresholds specified according to the type of stop control at the intersection. The LOS criteria for unsignalized and signalized intersections are listed in Table 2.1.

Table 2.1 – Level of Service Criteria

Level of Service (LOS)	Unsignalized or Roundabout Control Delay per Vehicle (sec)	Signalized Control Delay per Vehicle (sec)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Rural, sparsely developed areas have a minimum LOS requirement of C based on rural residents' expectation for relatively uncongested conditions in combination with design flexibility associated with lower right of way costs. The minimum LOS for urban areas is D, reflecting the greater acceptance of delay and congestion by urban residents. Additionally, the increased density of developments makes right of way costs much higher in urban areas. The study intersections are located in a suburban/transition area; therefore, a minimum LOS D is assumed for the study intersections.

2.5. BACK OF QUEUE ANALYSIS

A Back of Queue (BOQ) analysis was used to determine the storage needs for each of the scenarios listed in Section 2.3. The 95th percentile BOQ length was calculated for specific movements at each intersection. The queue is expected to be the reported length or shorter 95 percent of the time. The BOQ results were taken from the capacity analysis reports output by Synchro 12 for each study intersection.

3. EXISTING YEAR 2026 CONDITIONS

3.1. EXISTING INTERSECTION CAPACITY ANALYSIS

A capacity analysis was performed for the Existing Year 2026 conditions using the current intersection geometries. The results of the analysis are listed in Table 3.1 and the reports from the capacity analysis are included in **Appendix C**.

Table 3.1 – Existing Year 2026 Capacity Analysis Results

No.	Intersection	Intersection Control	Approach	Existing Year 2026			
				AM Peak		PM Peak	
				LOS	sec/veh	LOS	sec/veh
1	US 23/SR 365/Cornelia Highway @ White Sulphur Road	Signalized	Overall	B	14.2	B	19.4
			EB	A	9.9	B	18.8
			WB	B	11.9	B	10.8
			NB	F	88.2	E	68.8
			SB	F	81.9	E	78.8
2	US 23/SR 365/Cornelia Highway @ Ramsey Road	Signalized	Overall	B	13.7	B	13.4
			EB	B	12.6	B	13.9
			WB	B	12.7	A	8.4
			NB	E	78.1	E	73.5
			SB	F	87.9	F	85.7
3	White Sulphur Road @ Ramsey Road	Signalized	Overall	B	12.2	B	10.7
			EB	A	8.1	A	6.4
			WB	B	14.9	B	11.6
			NB	B	12.2	B	12.8
			SB	A	10.0	B	12.9

As shown in Table 3.1, each of the study intersections is currently operating with acceptable overall LOS during both the AM and PM peak periods.

For the intersection at US 23/SR 365/Cornelia Highway and White Sulphur Road, both the northbound and southbound movements on White Sulphur Road currently operate with LOS F during the AM peak period and LOS E during the PM peak period.

For the intersection at US 23/SR 365/Cornelia Highway and Ramsey Road, the northbound movement on Ramsey Road currently operates with LOS E during both peak periods, while the southbound approach operates at an inadequate LOS F during both peak periods.

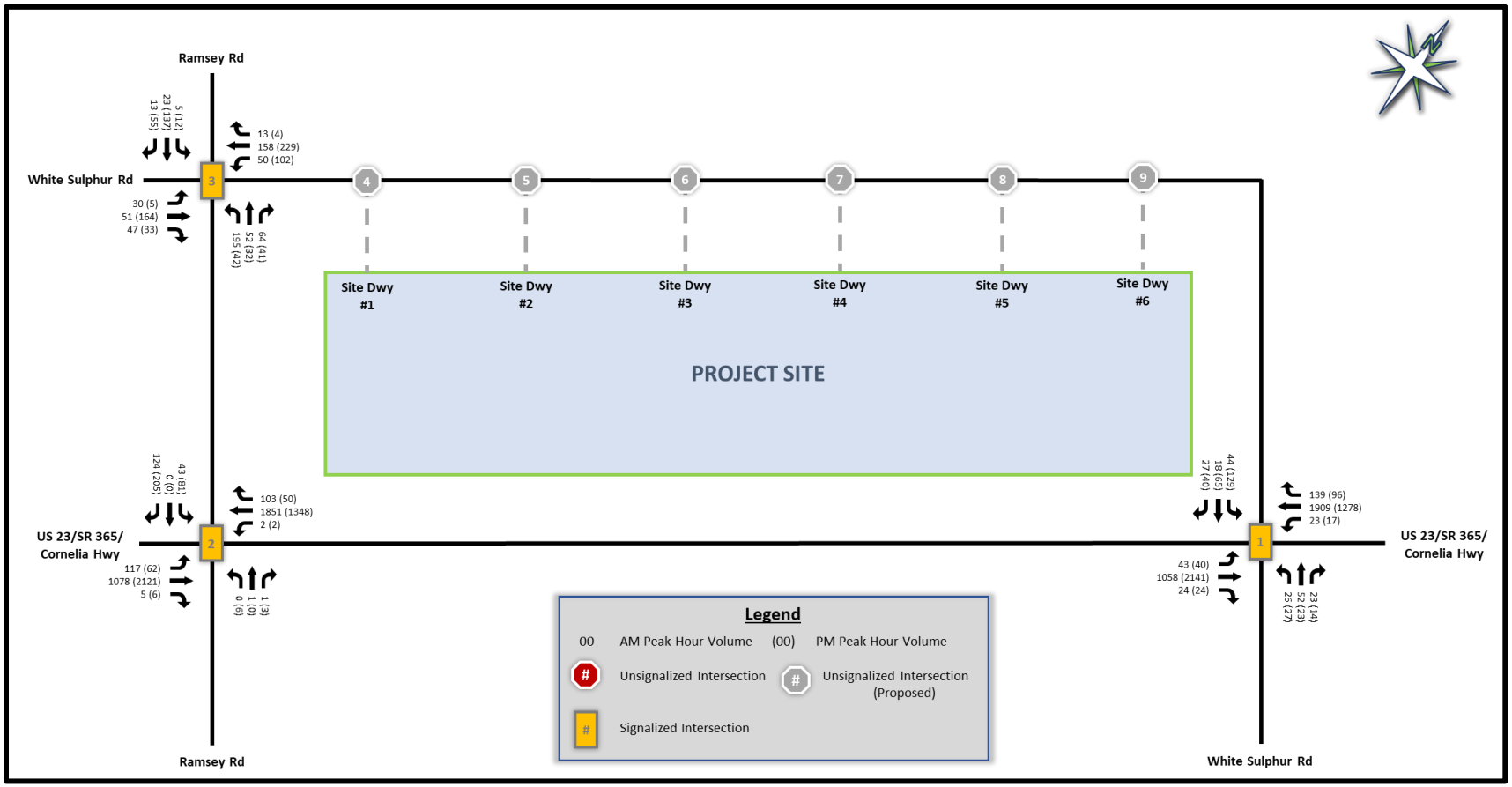


Figure 3.1 – Existing Year 2026 Peak Hour Traffic

4. TRIP GENERATION

The traffic that would be generated by the proposed development was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual (TGM) 12th Edition*. The number of trips expected to be generated by this development were determined using ITE Land Use Code 140 – Manufacturing for the largest building in the Danji Business Park, and ITE Land Use Code 150 – Industrial Warehouse for the smaller buildings.

The total number of project-generated trips was estimated for the typical weekday and the morning and evening peak hours. Since the development is considered an industrial development and will generate drivers that are employees or other business-related trips, pass-by trips will not be anticipated for the site. The full trip generation results can be found in Table 4.1.

Table 4.1 – Trip Generation

ITE	ITE	Size	Unit	Daily			AM Peak Hour			PM Peak Hour		
Category	Code			Total	In	Out	Total	In	Out	Total	In	Out
Warehouse - Car + Truck Trips	150	50	KSF	91	46	45	7	6	1	9	3	6
Pass-by Trips	0% AM / 0% PM			0	0	0	0	0	0	0	0	0
New Trips				91	46	45	7	6	1	9	3	6
Manufacturing - Car + Truck Trips	140	62	Acres	1899	950	949	169	130	39	176	41	135
Pass-by Trips	0% AM / 0% PM			0	0	0	0	0	0	0	0	0
New Trips				1899	950	949	169	130	39	176	41	135
Warehouse - Car + Truck Trips	150	175	KSF	316	159	157	25	18	7	30	9	21
Pass-by Trips	0% AM / 0% PM			0	0	0	0	0	0	0	0	0
New Trips				316	159	157	25	18	7	30	9	21
Overall Total Trips	(Car + Truck Trips)			2,306	1,155	1,151	201	154	47	215	53	162
Overall Pass-By Trips				0	0	0	0	0	0	0	0	0
Overall New Trips				2,306	1,155	1,151	201	154	47	215	53	162

4.1. DISTRIBUTION OF PROJECT-GENERATED TRIPS

The new trips generated by the project were distributed to the surrounding roadway network based on existing traffic patterns observed in the peak hours. The inbound trips were allocated based on the existing traffic patterns entering the study area. The outbound trips were then assigned to the site driveways and distributed based on the route vehicles would have taken if the site were not built. The new trip distribution of project-generated traffic is shown in Figure 4.1.

4.2. ASSIGNMENT OF PROJECT-GENERATED TRIPS

The number of new trips were assigned to the roadway network based on the trip distribution outlined previously. The project-generated traffic (Figure 4.2) was superimposed onto the Opening Year 2031 – Background traffic (Figure 5.1) to provide an estimate of the traffic expected to be present when the proposed development is complete (Figure 5.2).

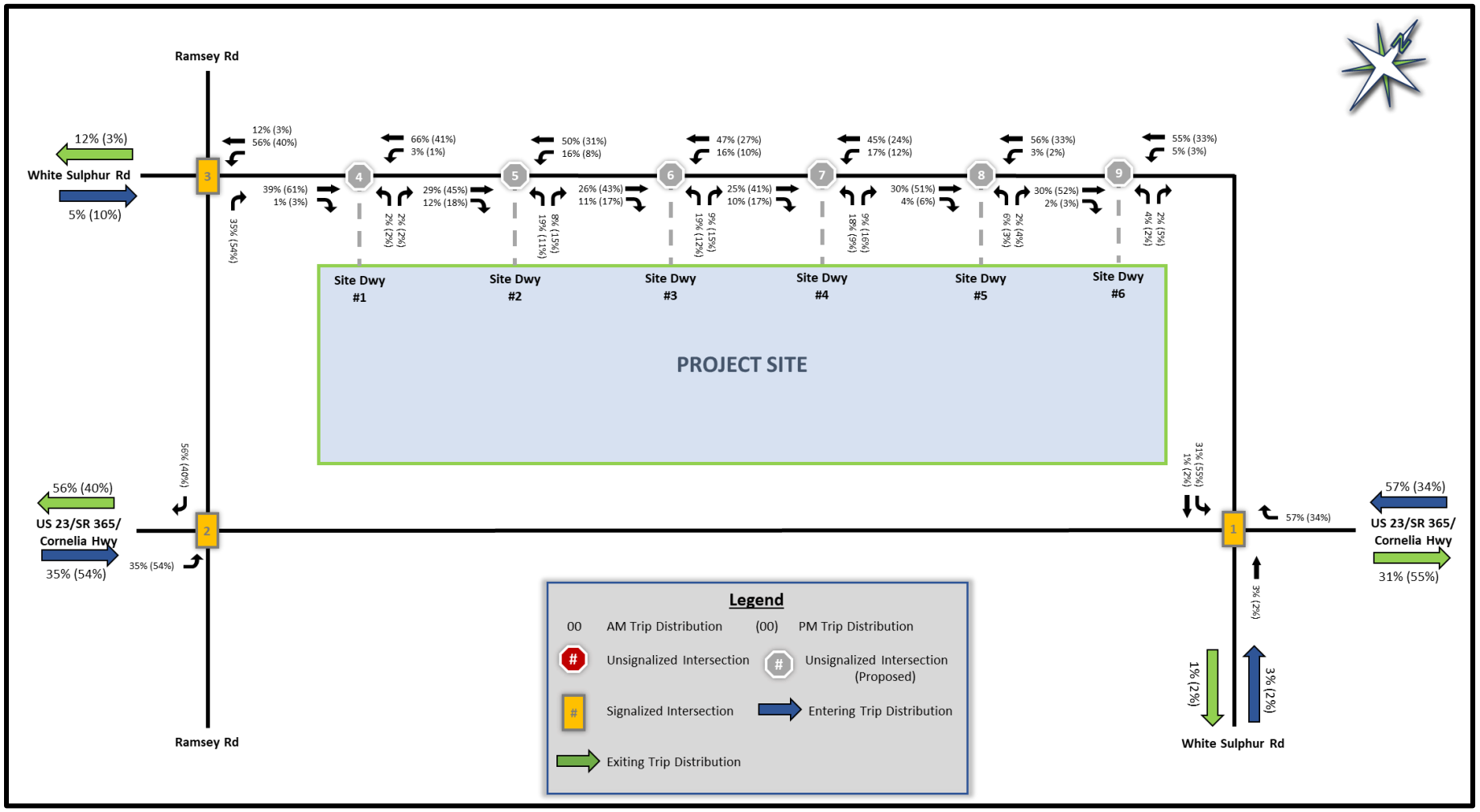


Figure 4.1 – New Trip Distribution

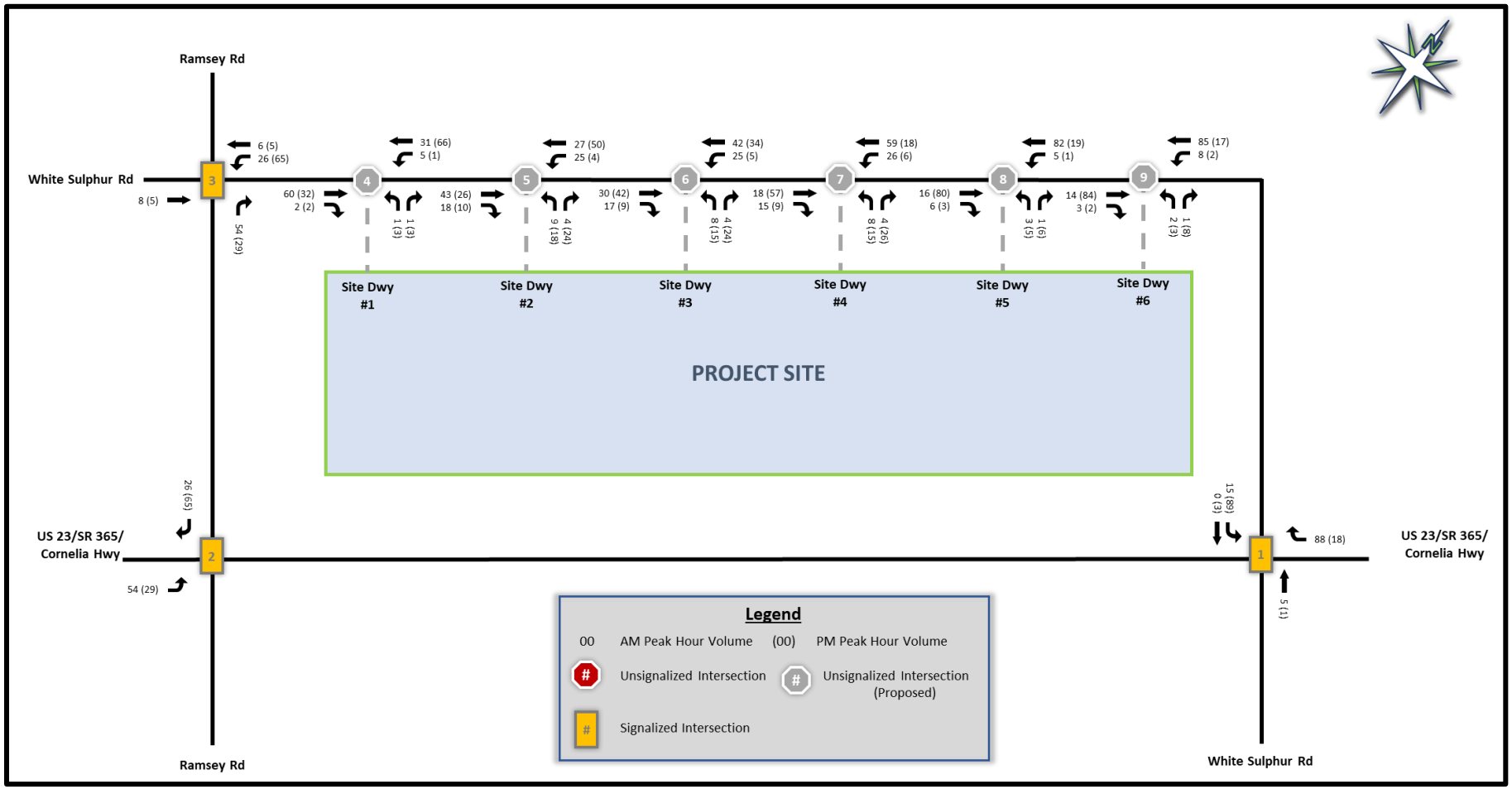


Figure 4.2 – Peak Hour Project Trip Adjustments

5. OPENING YEAR 2031 CONDITIONS

5.1. OPENING YEAR 2031 INTERSECTION CAPACITY ANALYSIS

A capacity analysis was performed to evaluate the AM and PM peak hour periods for both the Opening Year 2031 scenarios. The results of the analysis are listed in Table 5.1. Reports detailing the capacity analysis are included in **Appendix D**. The Opening Year peak hour traffic volumes are shown in Figures 5.1 and 5.2. For the purposes of this study, the following assumptions were made:

- Opening Year 2031 – Background
    - This scenario assumes the same roadway network and lane assignments as in the Existing Year 2026 conditions, with the addition of the White Sulphur Road project mentioned previously.
- Opening Year 2031 – With Project
    - This scenario assumes the same roadway network and lane assignments as in the Opening Year 2031 – Background scenario with the addition of the site driveways. The proposed driveways are detailed below:
        - The intersection at US 23/SR 365/Cornelia Highway and White Sulphur Road is expected to include the following upgrades:
            - Eastbound dual left-turn lanes on US 23/SR 365/Cornelia Highway
            - Two (2) northobund receiving lanes on White Sulphur Road
            - Extended left and right-turn lanes on White Sulphur Road for the southobund approach
            - The addition of a dedicated left-turn lane for the northbound approach on White Sulphur Road
        - Tract 1: A full access driveway at White Sulphur Road and Site Driveway #1 will be constructed with a single lane in and a single lane out of the project site. The eastbound and westbound lane configurations on White Sulphur Road will not be altered. The northbound approach will consist of a shared left and right-turn lane to exit the site.
        - Tract 2: Three full access driveways at White Sulphur Road and Site Driveway #2 through Site Driveway #4 will be constructed with a single lane in and a single lane out of the project site. The eastbound and westbound lane configurations on White Sulphur Road will not be altered. The northbound approach will consist of a shared left and right-turn lane to exit the site.
        - Tract 3: Two full access driveways along White Sulphur Road will be constructed at the intersections with Site Driveway #5 and Site Driveway #6 with a single lane in and a single lane out of the project site. The eastbound and westbound lane configurations on White Sulphur Road will not be altered. The northbound approach will consist of a shared left and right-turn lane to exit the site.

Table 5.1 – Opening Year 2031 Capacity Analysis Results

No.	Intersection	Intersection Control	Approach	Opening Year 2031							
				Background		With Project		Background		With Project	
				AM Peak				PM Peak			
				LOS	sec/veh	LOS	sec/veh	LOS	sec/veh	LOS	sec/veh
1	US 23/SR 365/Cornelia Highway @ White Sulphur Road	Signalized	Overall	B	17.7	B	19.6	C	32.4	D	45.3
			EB	B	10.9	B	11.9	D	39.5	D	54.9
			WB	B	17.4	B	19.4	B	13.9	B	16.1
			NB	E	77.3	E	74.3	E	66.9	E	63.1
			SB	F	82.5	F	82.5	E	78.8	F	115.5
2	US 23/SR 365/Cornelia Highway @ Ramsey Road	Signalized	Overall	B	16.9	C	21.8	B	18.0	B	19.1
			EB	B	13.2	B	17.4	C	20.4	C	21.2
			WB	B	17.7	C	23.2	B	10.2	B	11.7
			NB	E	77.3	E	77.3	E	72.2	E	72.2
			SB	F	87.6	F	87.6	F	85.2	F	85.2
3	White Sulphur Road @ Ramsey Road	Signalized	Overall	B	13.2	B	13.6	B	11.4	B	12.0
			EB	A	8.9	A	9.1	A	6.9	A	6.9
			WB	B	16.3	B	16.5	B	12.4	B	12.4
			NB	B	13.0	B	13.4	B	13.6	B	15.3
			SB	B	10.4	B	10.8	B	13.6	B	15.0
4	White Sulphur Road @ Site Driveway #1	Side Street Stop Controlled	EB	--	--	A	0.0	--	--	A	0.0
			WBL	--	--	A	7.9	--	--	A	8.1
			NB	--	--	B	11.6	--	--	B	12.3
5	White Sulphur Road @ Site Driveway #2	Side Street Stop Controlled	EB	--	--	A	0.0	--	--	A	0.0
			WBL	--	--	A	7.9	--	--	A	8.1
			NB	--	--	B	13.0	--	--	B	12.7
6	White Sulphur Road @ Site Driveway #3	Side Street Stop Controlled	EB	--	--	A	0.0	--	--	A	0.0
			WBL	--	--	A	7.9	--	--	A	8.2
			NB	--	--	B	13.0	--	--	B	12.9
7	White Sulphur Road @ Site Driveway #4	Side Street Stop Controlled	EB	--	--	A	0.0	--	--	A	0.0
			WBL	--	--	A	7.8	--	--	A	8.3
			NB	--	--	B	12.9	--	--	B	13.1
8	White Sulphur Road @ Site Driveway #5	Side Street Stop Controlled	EB	--	--	A	0.0	--	--	A	0.0
			WBL	--	--	A	7.8	--	--	A	8.3
			NB	--	--	B	12.6	--	--	B	12.5
9	White Sulphur Road @ Site Driveway #6	Side Street Stop Controlled	EB	--	--	A	0.0	--	--	A	0.0
			WBL	--	--	A	7.7	--	--	A	8.3
			NB	--	--	B	12.3	--	--	B	12.0

As shown in Table 5.1, each of the study intersections is currently operating with acceptable overall LOS during both the AM and PM peak periods.

For the intersection at US 23/SR 365/Cornelia Highway and White Sulphur Road, both the northbound and southbound movements on White Sulphur Road are expected to operate with LOS F in the AM peak scenarios, and LOS E during the PM peak in the Background scenario. The southbound LOS on White Sulphur Road is expected to degrade from E to F in the With Project PM peak scenario. This intersection is currently lacking a dedicated southbound left-turn phase, despite bordering on LOS F in the Background 2031 PM peak scenario.

For the intersection at US 23/SR 365/Cornelia Highway and Ramsey Road, the northbound movement on Ramsey Road is expected to operate with LOS E in all future scenarios, while the southbound approach operates at an inadequate LOS F in all future scenarios.

5.2. BACK OF QUEUE ANALYSIS

A Back of Queue (BOQ) analysis was used to determine the storage needs for the Opening Year 2031 scenarios. The 95th percentile BOQ length was calculated for specific movements at each intersection. The queue is expected to be the reported length or shorter 95 percent of the time. The BOQ results were taken from the capacity analysis reports for each study intersection (refer to **Appendix D** for the capacity analysis reports). Table 5.2 lists the BOQ lengths for each peak hour for the Opening Year 2031 – Background and With Project scenarios.

Table 5.2 – Opening Year 2031 Back of Queue Results

No.	Intersection	Intersection Control	Movement	Existing/Proposed Full Length Storage (feet)	95th Percentile Back of Queue (feet)			
					Background 2031		With Project 2031	
					AM Peak	PM Peak	AM Peak	PM Peak
1	US 23/SR 365/Cornelia Highway @ White Sulphur Road	Signalized	EBL	600	56	29	56	29
			EBT	N/A	321	1833	321	1833
			EBR	600	0	0	0	0
			WBL	460	25	25	25	25
			WBT	N/A	1537	626	1544	626
			WBR	350	44	27	64	29
			NBL	180	78	43	77	43
			NBT	N/A	142	69	151	73
			SBL	250	110	272	138	528
			SBT	N/A	54	137	54	140
			SBR	160	0	25	0	25
2	US 23/SR 365/Cornelia Highway @ Ramsey Road	Signalized	EBL	450	241	141	330	186
			EBT	N/A	390	1747	390	1747
			EBR	270	0	0	0	0
			WBL	460	25	25	25	25
			WBT	N/A	1687	515	1714	517
			WBR	280	50	25	49	25
			NBT	N/A	25	0	25	0
			SBT	N/A	110	178	110	178
			SBR	360	0	0	0	0
3	White Sulphur Road @ Ramsey Road	Signalized	EBL	230	25	25	25	25
			EBT	N/A	37	75	42	77
			WBL	100	51	72	70	115
			WBT	N/A	140	140	143	143
			NBL	80	151	41	156	42
			NBT	N/A	62	38	77	40
			SBL	160	25	25	25	25
			SBT	N/A	25	104	25	106
			SBR	280	0	25	0	25
4	White Sulphur Road @ Site Driveway #1	Side Street Stop Controlled	EB	N/A	--	--	0	0
			WB	N/A	--	--	0	0
			NB	N/A	--	--	0	0
5	White Sulphur Road @ Site Driveway #2	Side Street Stop Controlled	EB	N/A	--	--	0	0
			WB	N/A	--	--	25	0
			NB	N/A	--	--	25	25
6	White Sulphur Road @ Site Driveway #3	Side Street Stop Controlled	EB	N/A	--	--	0	0
			WB	N/A	--	--	25	0
			NB	N/A	--	--	25	25
7	White Sulphur Road @ Site Driveway #4	Side Street Stop Controlled	EB	N/A	--	--	0	0
			WB	N/A	--	--	25	0
			NB	N/A	--	--	25	25
8	White Sulphur Road @ Site Driveway #5	Side Street Stop Controlled	EB	N/A	--	--	0	0
			WB	N/A	--	--	0	0
			NB	N/A	--	--	0	25
9	White Sulphur Road @ Site Driveway #6	Side Street Stop Controlled	EB	N/A	--	--	0	0
			WB	N/A	--	--	0	0
			NB	N/A	--	--	0	25

As shown in Table 5.2, the results of the BOQ analysis indicate that five (5) of the seven (7) study intersections is expected to have sufficient storage to accommodate the project-generated traffic for each of the Opening Year 2031 scenarios.

For the intersection of US 23/SR 365/Cornelia Highway, the southbound left-turn queues off of White Sulphur Road are expected to extend beyond the existing 250 feet of storage space in each of the PM peak scenarios. The southbound left-turn queues are expected to extend 272 feet and 528 feet in the Background and With Project PM scenarios respectively. It is expected that the addition of a dedicated left-turn phase for this movement in the With Project scenario will reduce queueing.

For the intersection of White Sulphur Road and Ramsey Road, the northbound left-turn queues are expected to stretch roughly 150 feet from the stop bar in both AM peak scenarios, exceeding the existing storage space of 80 feet. However, the proposed development is not expected to impact the queuing on this approach.

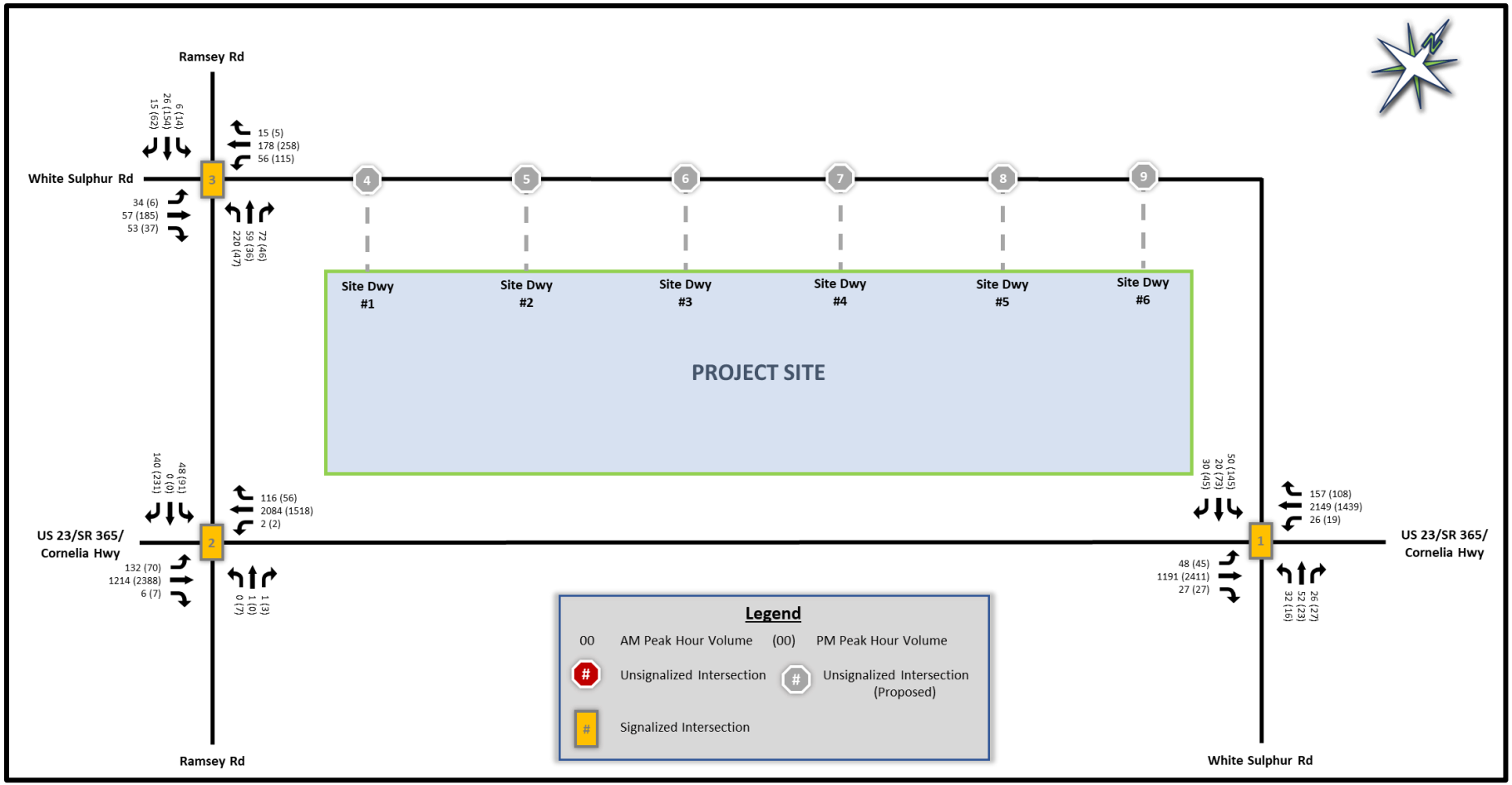


Figure 5.1 – Opening Year 2031 – Background Peak Hour Traffic

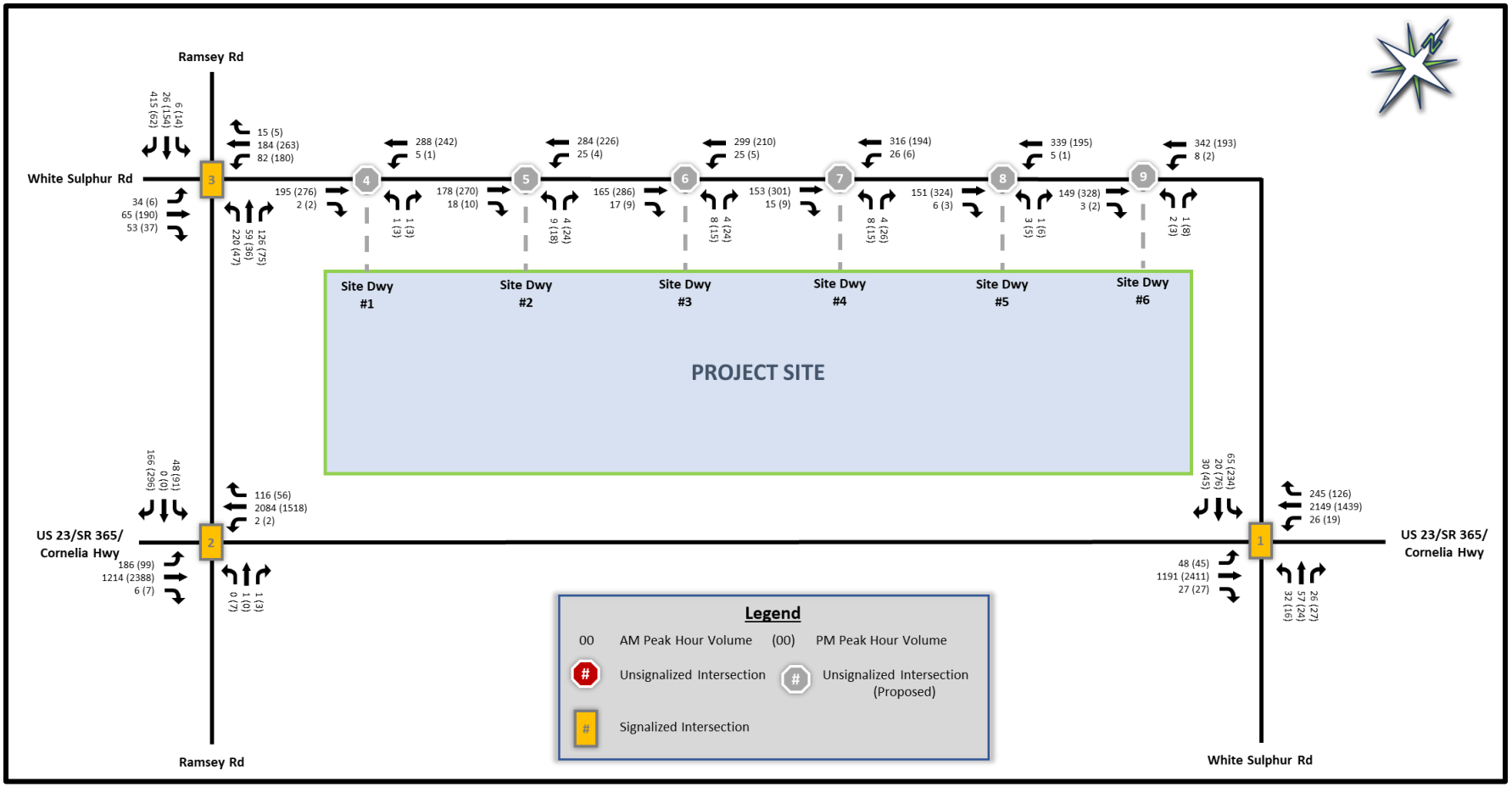


Figure 5.2 – Opening Year 2031 – With Project Peak Hour Traffic

6. AUXILIARY LANES

The GDOT manual *Regulations for Driveway and Encroachment Control* requires that the need for auxiliary turn lanes be determined in conjunction with commercial driveway permits on state-maintained roadways. The proposed driveways were evaluated based on the traffic expected for each development in the Opening Year 2031 – With Project scenarios. No other scenarios were evaluated for auxiliary turn lanes. The intersection evaluated is as follows:

- White Sulphur Road at Tract 1
- White Sulphur Road at Tract 2
- White Sulphur Road at Tract 3

6.1. RIGHT-TURN LANES

The minimum requirements for right-turn deceleration lanes can be found in Section 4.9.1.1 of the *Regulations for Driveway and Encroachment Control* manual by GDOT. Below is a recreation of "Table 4-6 – Minimum Volume Requiring Right Turn Lanes" taken from that manual:

Table 6.1 – Minimum Volumes Requiring Right-Turn Lanes

Posted Speed	2 Lane Routes		More than 2 Lanes on Main Road	
	AADT		AADT	
	< 6,000	>= 6,000	< 10,000	>= 10,000
35 MPH or Less	200 RTV a day	100 RTV a day	200 RTV a day	100 RTV a day
40 to 50 MPH	150 RTV a day	75 RTV a day	150 RTV a day	75 RTV a day
55 to 60 MPH	100 RTV a day	50 RTV a day	100 RTV a day	50 RTV a day
>= 65 MPH	Always	Always	Always	Always

- White Sulphur Road at Tract 1
    - White Sulphur Road is a 35-mph roadway with two lanes and a 2023 AADT of 3,950 vehicles along this roadway segment. Therefore, a threshold for warranting a right-turn lane is 200 right-turning vehicles a day. The eastbound right-turn movement from White Sulphur Road into Tract 1 is not expected to meet that volume threshold for the Site Driveway, with a daily entering total of 23 right turning vehicles. Therefore, an eastbound right-turn lane should not be evaluated for the Opening Year 2031 – With Project scenarios.
- White Sulphur Road at Tract 2
    - White Sulphur Road is a 35-mph roadway with two lanes and a 2023 AADT of 3,950 vehicles along this roadway segment. Therefore, a threshold for warranting a right-turn lane is 200 right-turning vehicles a day. The eastbound right-turn movement from White Sulphur Road into Tract 2 is not expected to meet that volume threshold for the three Site Driveways, with a daily entering total of 168 right turning vehicles. Therefore, an eastbound right-turn lane should not be evaluated for the Opening Year 2031 – With Project scenarios.

- White Sulphur Road at Tract 3
    - White Sulphur Road is a 35-mph roadway with two lanes and a 2023 AADT of 3,950 vehicles along this roadway segment. Therefore, a threshold for warranting a right-turn lane is 200 right-turning vehicles a day. The eastbound right-turn movement from White Sulphur Road into Tract 3 is not expected to meet that volume threshold for the two Site Driveways, with a daily entering total of 42 right turning vehicles. Therefore, an eastbound right-turn lane should not be evaluated for the Opening Year 2031 – With Project scenarios.

6.2. LEFT-TURN LANES

The minimum requirements for a left-turn lane can be found in Section 4.9.1.2 of the *Regulations for Driveway and Encroachment Control* manual by GDOT. Below is a recreation of "Table 4-7a – Minimum Volumes Requiring Left Turn Lanes" taken from that manual:

Table 6.2 – Minimum Volumes Requiring Left-Turn Lanes

Posted Speed	2 Lane Routes		More than 2 Lanes on Main Road	
	AADT		AADT	
	< 6,000	>= 6,000	< 10,000	>= 10,000
35 MPH or Less	300 LTV a day	200 LTV a day	400 LTV a day	300 LTV a day
40 to 50 MPH	250 LTV a day	175 LTV a day	325 LTV a day	250 LTV a day
>= 55 MPH	200 LTV a day	150 LTV a day	250 LTV a day	200 LTV a day

Based on the above table, a left-turn lane would be required as follows:

- White Sulphur Road at Tract 1
    - White Sulphur Road is a 35-mph roadway with two lanes and a 2023 AADT of 3,950 vehicles along this roadway segment. Therefore, a threshold for warranting a left-turn lane is 300 left-turning vehicles a day. The westbound left-turn movement from White Sulphur Road into Tract 1 is not expected to meet that volume threshold for the Site Driveway, with a daily entering total of 22 left turning vehicles. Therefore, a westbound left-turn lane should not be evaluated for the Opening Year 2031 – With Project scenarios.
- White Sulphur Road at Tract 2
    - White Sulphur Road is a 35-mph roadway with two lanes and a 2023 AADT of 3,950 vehicles along this roadway segment. Therefore, a threshold for warranting a left-turn lane is 300 left-turning vehicles a day. The westbound left-turn movement from White Sulphur Road into Tract 3 is not expected to meet that volume threshold for the three Site Driveways, with a daily entering total of 149 left turning vehicles. Therefore, a westbound left-turn lane should not be evaluated for the Opening Year 2031 – With Project scenarios.
- White Sulphur Road at Tract 3
    - White Sulphur Road is a 35-mph roadway with two lanes and a 2023 AADT of 3,950 vehicles along this roadway segment. Therefore, a threshold for warranting a left-turn lane is 300 left-turning vehicles a day. The westbound left-turn movement from White Sulphur Road into Tract 3 is not expected to meet that volume threshold for the two Site Driveways, with a daily entering total of 37 left turning vehicles. Therefore, a westbound left-turn lane should not be evaluated for the Opening Year 2031 – With Project scenarios.

7. CONCLUSIONS

An industrial development, identified as the Danji Business Park, is proposed in Gainesville, Georgia along the south side of White Sulphur Road between Ramsey Road and US 23/SR 365/Cornelia Highway. The proposed site includes three industrial buildings of varying sizes: a 50,000 square-foot building (Tract 1), a 650,000 square-foot building (Tract 2), and a 175,000 square-foot building (Tract 3).

Access to the site would be provided by six full access driveways along White Sulphur Road. One driveway will provide access to the 50,000 square-foot building, three will provide access to the 650,000 square-foot building, and two driveways will provide access to the 175,000 square-foot building. The proposed project is expected to generate a total of 2,306 total trips on a typical weekday, 201 new trips during the AM peak hour, and 215 new trips during the PM peak hour.

A search for planned GDOT projects in or near the study area was performed using the GDOT GeoPI web application (http://www.dot.ga.gov/DS/Maps/geopi#). Based on the results of that search, one project was found in the vicinity of the study area. This project is tied to the widening and realignment of White Sulphur Road.

For the Existing Year 2026 capacity analysis, each of the study intersections is currently operating with acceptable overall LOS during both the AM and PM peak periods. For the intersection at US 23/ SR 365/Cornelia Highway and White Sulphur Road, both the northbound and southbound movements on White Sulphur Road currently operate with LOS F during the AM peak, and LOS E during the PM peak. For the intersection at US 23/SR 365/Cornelia Highway and Ramsey Road, the northbound movement on Ramsey Road currently operates with LOS E during both peak periods, while the southbound approach operates at an inadequate LOS F during both peak periods.

For the Opening Year 2031 scenarios, each of the study intersections is expected to operate with acceptable overall LOS for both the AM and PM peaks. For the intersection at US 23/SR 365/Cornelia Highway and White Sulphur Road, both the northbound and southbound movements on White Sulphur Road are expected to operate with LOS E or worse in each of the Opening Year scenarios. For the intersection at US 23/SR 365/Cornelia Highway and Ramsey Road, the northbound movement on Ramsey Road is expected to operate with LOS E in all studied scenarios, while the southbound approach operates with LOS F in all studied scenarios.

According to the BOQ analysis, the southbound left-turn queues on White Sulphur Road at US 23/ SR 365/Cornelia Highway are expected to exceed the existing 250 feet of storage space in each of the PM peak scenarios. The southbound left-turn queues are expected to extend 272 feet and 528 feet in the Background and With Project PM scenarios respectively. It is expected that the addition of a dedicated left-turn phase for this movement in the With Project scenario will reduce queueing.

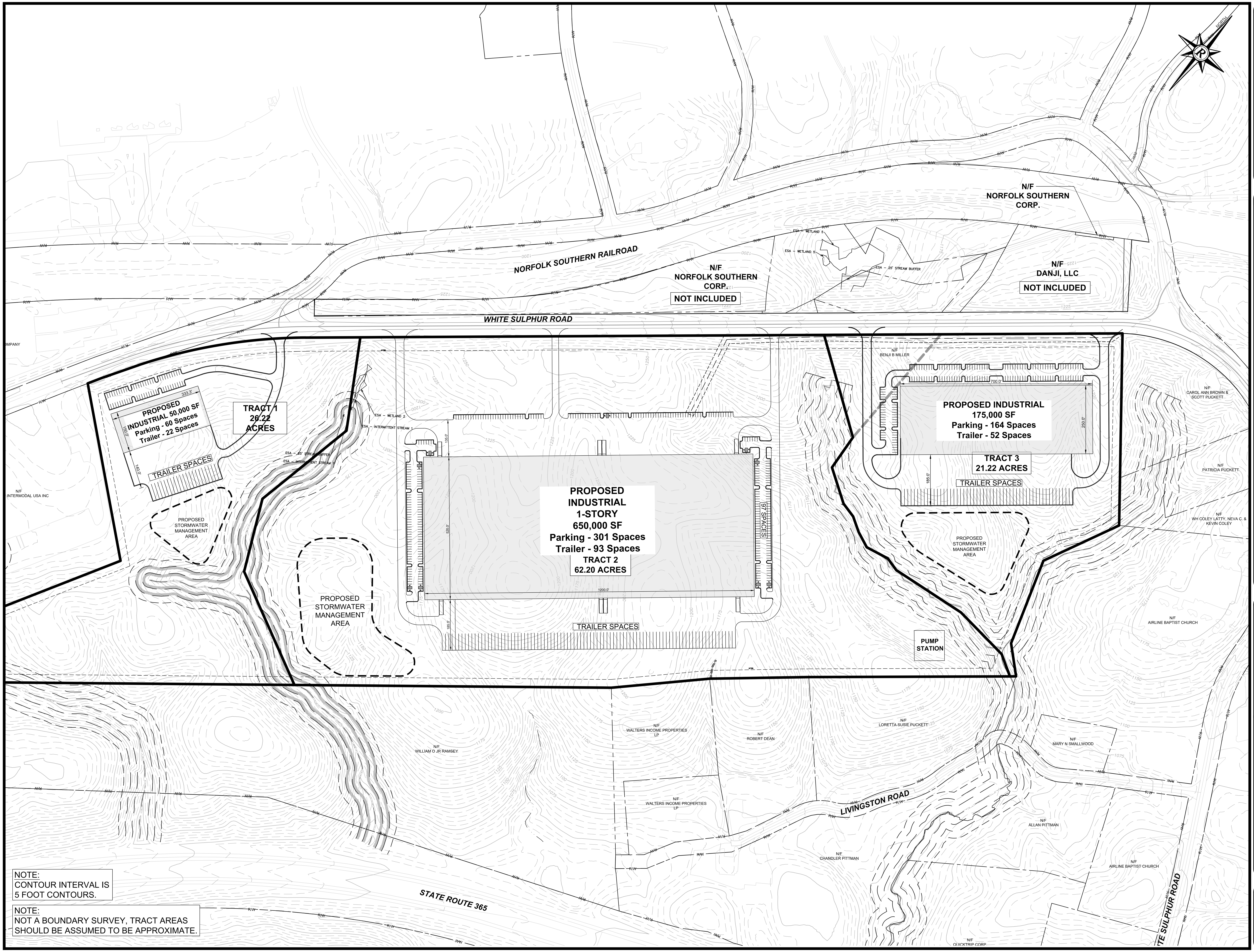
For the intersection of White Sulphur Road and Ramsey Road, the northbound left-turn queues in the AM peak for both the Background and With Project scenarios are expected to be around 150 feet from the stop bar, exceeding the existing storage space of 80 feet on this approach.

The need for auxiliary lanes was also evaluated. The information provided in the GDOT manual *Regulations for Driveway and Encroachment Control* states that auxiliary turn lanes be determined in conjunction with commercial driveway permits on state-maintained roadways. Based on information in the manual, it was determined that auxiliary lanes should not be considered at any of the driveways at the proposed development in the Opening Year 2031.

8. REFERENCES

1. Trip Generation, 12th Edition + Supplement, Institute of Transportation Engineers, Washington, DC, 2021.
2. Synchro, Version 12, Trafficware Ltd., Sugar Land, TX, 2019.
3. Highway Capacity Manual, 7th Edition, Transportation Research Board, Washington, DC, 2016.
4. Highway Capacity Software, Version 2023, McTrans, Gainesville, FL, 2023.

APPENDIX A – SITE LAYOUT



DCCM
DCCM Infrastructure, Inc.
425 Oak Street NW, Gainesville, GA 30501
770.718.0600 | DCCM.com

REZONING EXHIBIT
FOR:
WHITE SULPHUR ROAD
DANJI TRACTS

LOCATED IN
HALL COUNTY, GEORGIA

NO.	DATE	DESCRIPTION

REVISIONS

ANY CHANGES OR ALTERATIONS MADE TO THESE CONSTRUCTION DRAWINGS WITHOUT THE WRITTEN APPROVAL OF DCCM VOIDS THE SEAL SHOWN HEREON AND ANY LIABILITY ASSOCIATED WITH THIS PROJECT. ORIGINAL DRAWINGS ARE KEPT ON FILE FOR VERIFICATION OF ANY CHANGES.

GRAPHIC SCALE
50' 0' 100' 200'

SHEET
1
OF
1

DATE: 7/17/2026
SCALE: 1"=100'
JOB NO. G204151.DAN
DWG NO. SEW-CNCP
DRAWN BY: ATM

APPENDIX B – TRAFFIC COUNTS & GROWTH RATE CALCULATIONS

All Traffic Data Services

1 - WHITE SULPHUR ROAD

NB Time	Lights	Mediums	Trucks	Total
12/5/2026	0	0	0	0
12/5/2026 12:15:00 AM	1	0	0	1
12/5/2026 12:30:00 AM	1	0	0	1
12/5/2026 12:45:00 AM	0	0	0	0
Hour	2	0	0	2
12/5/2026 1:00:00 AM	2	0	0	2
12/5/2026 1:15:00 AM	0	0	0	0
12/5/2026 1:30:00 AM	1	0	0	1
12/5/2026 1:45:00 AM	0	0	0	0
Hour	3	0	0	3
12/5/2026 2:00:00 AM	1	0	0	1
12/5/2026 2:15:00 AM	0	0	0	0
12/5/2026 2:30:00 AM	1	0	0	1
12/5/2026 2:45:00 AM	0	0	0	0
Hour	2	0	0	2
12/5/2026 3:00:00 AM	2	0	0	2
12/5/2026 3:15:00 AM	0	0	0	0
12/5/2026 3:30:00 AM	2	0	0	2
12/5/2026 3:45:00 AM	0	0	0	0
Hour	4	0	0	4
12/5/2026 4:00:00 AM	1	0	0	1
12/5/2026 4:15:00 AM	7	0	0	7
12/5/2026 4:30:00 AM	4	0	0	4
12/5/2026 4:45:00 AM	2	0	1	3
Hour	14	0	1	15
12/5/2026 5:00:00 AM	2	0	0	2
12/5/2026 5:15:00 AM	10	0	0	10
12/5/2026 5:30:00 AM	22	0	0	22
12/5/2026 5:45:00 AM	22	0	0	22
Hour	56	0	0	56
12/5/2026 6:00:00 AM	24	1	0	25
12/5/2026 6:15:00 AM	19	0	0	19
12/5/2026 6:30:00 AM	13	0	0	13
12/5/2026 6:45:00 AM	20	0	0	20
Hour	76	1	0	77
12/5/2026 7:00:00 AM	9	1	1	11
12/5/2026 7:15:00 AM	10	2	0	12
12/5/2026 7:30:00 AM	15	1	0	16
12/5/2026 7:45:00 AM	12	0	0	12
Hour	46	4	1	51
12/5/2026 8:00:00 AM	18	1	0	19
12/5/2026 8:15:00 AM	7	1	2	10
12/5/2026 8:30:00 AM	12	1	0	13
12/5/2026 8:45:00 AM	5	1	0	6
Hour	42	4	2	48
12/5/2026 9:00:00 AM	10	0	0	10
12/5/2026 9:15:00 AM	15	0	0	15
12/5/2026 9:30:00 AM	6	0	0	6
12/5/2026 9:45:00 AM	7	0	1	8
Hour	38	0	1	39
12/5/2026 10:00:00 AM	8	1	1	10
12/5/2026 10:15:00 AM	4	0	1	5
12/5/2026 10:30:00 AM	12	1	0	13
12/5/2026 10:45:00 AM	14	1	1	16
Hour	38	3	3	44
12/5/2026 11:00:00 AM	9	0	0	9
12/5/2026 11:15:00 AM	23	2	1	26
12/5/2026 11:30:00 AM	13	1	0	14
12/5/2026 11:45:00 AM	16	0	0	16
Hour	61	3	1	65
Grand Total	382	15	9	406
Percentage	94.1%	3.7%	2.2%	

All Traffic Data Services

1 - WHITE SULPHUR ROAD

NB Time	Lights	Mediums	Trucks	Total
12/5/2026 12:00:00 PM	15	1	2	18
12/5/2026 12:15:00 PM	14	0	0	14
12/5/2026 12:30:00 PM	13	1	0	14
12/5/2026 12:45:00 PM	8	2	1	11
Hour	50	4	3	57
12/5/2026 1:00:00 PM	19	0	0	19
12/5/2026 1:15:00 PM	11	0	0	11
12/5/2026 1:30:00 PM	19	0	1	20
12/5/2026 1:45:00 PM	15	1	0	16
Hour	64	1	1	66
12/5/2026 2:00:00 PM	29	0	1	30
12/5/2026 2:15:00 PM	19	0	1	20
12/5/2026 2:30:00 PM	10	0	1	11
12/5/2026 2:45:00 PM	16	0	1	17
Hour	74	0	4	78
12/5/2026 3:00:00 PM	13	1	1	15
12/5/2026 3:15:00 PM	18	0	0	18
12/5/2026 3:30:00 PM	23	0	2	25
12/5/2026 3:45:00 PM	17	0	1	18
Hour	71	1	4	76
12/5/2026 4:00:00 PM	24	0	1	25
12/5/2026 4:15:00 PM	34	1	0	35
12/5/2026 4:30:00 PM	39	1	0	40
12/5/2026 4:45:00 PM	30	0	1	31
Hour	127	2	2	131
12/5/2026 5:00:00 PM	71	0	0	71
12/5/2026 5:15:00 PM	53	1	0	54
12/5/2026 5:30:00 PM	26	0	0	26
12/5/2026 5:45:00 PM	30	0	0	30
Hour	180	1	0	181
12/5/2026 6:00:00 PM	35	0	0	35
12/5/2026 6:15:00 PM	22	0	0	22
12/5/2026 6:30:00 PM	14	2	0	16
12/5/2026 6:45:00 PM	14	0	0	14
Hour	85	2	0	87
12/5/2026 7:00:00 PM	7	0	0	7
12/5/2026 7:15:00 PM	6	0	0	6
12/5/2026 7:30:00 PM	11	1	0	12
12/5/2026 7:45:00 PM	9	0	0	9
Hour	33	1	0	34
12/5/2026 8:00:00 PM	5	0	0	5
12/5/2026 8:15:00 PM	3	0	0	3
12/5/2026 8:30:00 PM	10	0	0	10
12/5/2026 8:45:00 PM	5	0	0	5
Hour	23	0	0	23
12/5/2026 9:00:00 PM	4	0	0	4
12/5/2026 9:15:00 PM	6	0	0	6
12/5/2026 9:30:00 PM	7	0	0	7
12/5/2026 9:45:00 PM	1	0	0	1
Hour	18	0	0	18
12/5/2026 10:00:00 PM	3	0	0	3
12/5/2026 10:15:00 PM	8	0	0	8
12/5/2026 10:30:00 PM	2	0	0	2
12/5/2026 10:45:00 PM	6	0	0	6
Hour	19	0	0	19
12/5/2026 11:00:00 PM	0	0	0	0
12/5/2026 11:15:00 PM	1	0	0	1
12/5/2026 11:30:00 PM	0	0	0	0
12/5/2026 11:45:00 PM	1	0	0	1
Hour	2	0	0	2
Grand Total	746	12	14	772
Percentage	96.6%	1.6%	1.8%	
Total	1,128	27	23	1,178
Percentage	95.8%	2.3%	2.0%	

All Traffic Data Services

1 - WHITE SULPHUR ROAD

SB	Time	Lights	Mediums	Trucks	Total
	12/5/2026	0	0	0	0
	12/5/2026 12:15:00 AM	1	0	0	1
	12/5/2026 12:30:00 AM	1	0	0	1
	12/5/2026 12:45:00 AM	3	0	0	3
	Hour	5	0	0	5
	12/5/2026 1:00:00 AM	1	0	0	1
	12/5/2026 1:15:00 AM	0	0	0	0
	12/5/2026 1:30:00 AM	1	0	0	1
	12/5/2026 1:45:00 AM	0	0	0	0
	Hour	2	0	0	2
	12/5/2026 2:00:00 AM	0	0	0	0
	12/5/2026 2:15:00 AM	0	0	0	0
	12/5/2026 2:30:00 AM	0	0	0	0
	12/5/2026 2:45:00 AM	0	0	0	0
	Hour	0	0	0	0
	12/5/2026 3:00:00 AM	0	0	0	0
	12/5/2026 3:15:00 AM	0	0	0	0
	12/5/2026 3:30:00 AM	0	0	0	0
	12/5/2026 3:45:00 AM	10	0	0	10
	Hour	10	0	0	10
	12/5/2026 4:00:00 AM	3	0	0	3
	12/5/2026 4:15:00 AM	6	0	0	6
	12/5/2026 4:30:00 AM	10	0	0	10
	12/5/2026 4:45:00 AM	9	0	0	9
	Hour	28	0	0	28
	12/5/2026 5:00:00 AM	3	0	0	3
	12/5/2026 5:15:00 AM	10	0	2	12
	12/5/2026 5:30:00 AM	18	0	0	18
	12/5/2026 5:45:00 AM	19	1	0	20
	Hour	50	1	2	53
	12/5/2026 6:00:00 AM	34	1	0	35
	12/5/2026 6:15:00 AM	41	0	0	41
	12/5/2026 6:30:00 AM	18	0	1	19
	12/5/2026 6:45:00 AM	14	1	0	15
	Hour	107	2	1	110
	12/5/2026 7:00:00 AM	19	0	0	19
	12/5/2026 7:15:00 AM	28	0	0	28
	12/5/2026 7:30:00 AM	37	1	0	38
	12/5/2026 7:45:00 AM	31	0	0	31
	Hour	115	1	0	116
	12/5/2026 8:00:00 AM	8	0	0	8
	12/5/2026 8:15:00 AM	18	1	0	19
	12/5/2026 8:30:00 AM	14	0	0	14
	12/5/2026 8:45:00 AM	9	1	1	11
	Hour	49	2	1	52
	12/5/2026 9:00:00 AM	11	1	0	12
	12/5/2026 9:15:00 AM	8	0	0	8
	12/5/2026 9:30:00 AM	10	1	0	11
	12/5/2026 9:45:00 AM	6	0	1	7
	Hour	35	2	1	38
	12/5/2026 10:00:00 AM	7	1	1	9
	12/5/2026 10:15:00 AM	5	0	0	5
	12/5/2026 10:30:00 AM	5	0	0	5
	12/5/2026 10:45:00 AM	5	1	1	7
	Hour	22	2	2	26
	12/5/2026 11:00:00 AM	8	0	1	9
	12/5/2026 11:15:00 AM	14	1	1	16
	12/5/2026 11:30:00 AM	13	1	0	14
	12/5/2026 11:45:00 AM	12	0	0	12
	Hour	47	2	2	51
	Grand Total	470	12	9	491
	Percentage	95.7%	2.4%	1.8%	

All Traffic Data Services

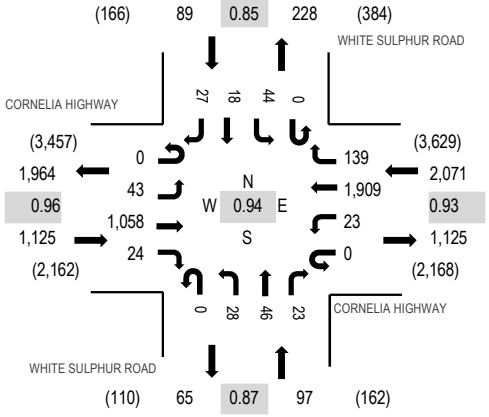
1 - WHITE SULPHUR ROAD

SB	Time	Lights	Mediums	Trucks	Total
	12/5/2026 12:00:00 PM	11	0	0	11
	12/5/2026 12:15:00 PM	7	1	0	8
	12/5/2026 12:30:00 PM	10	1	0	11
	12/5/2026 12:45:00 PM	16	0	0	16
	Hour	44	2	0	46
	12/5/2026 1:00:00 PM	16	1	0	17
	12/5/2026 1:15:00 PM	7	1	0	8
	12/5/2026 1:30:00 PM	11	1	0	12
	12/5/2026 1:45:00 PM	8	0	0	8
	Hour	42	3	0	45
	12/5/2026 2:00:00 PM	13	0	0	13
	12/5/2026 2:15:00 PM	18	3	1	22
	12/5/2026 2:30:00 PM	8	0	0	8
	12/5/2026 2:45:00 PM	8	0	0	8
	Hour	47	3	1	51
	12/5/2026 3:00:00 PM	9	0	1	10
	12/5/2026 3:15:00 PM	15	0	0	15
	12/5/2026 3:30:00 PM	33	0	0	33
	12/5/2026 3:45:00 PM	8	1	0	9
	Hour	65	1	1	67
	12/5/2026 4:00:00 PM	14	1	0	15
	12/5/2026 4:15:00 PM	14	1	0	15
	12/5/2026 4:30:00 PM	19	1	0	20
	12/5/2026 4:45:00 PM	35	2	1	38
	Hour	82	5	1	88
	12/5/2026 5:00:00 PM	37	0	1	38
	12/5/2026 5:15:00 PM	37	0	0	37
	12/5/2026 5:30:00 PM	28	1	0	29
	12/5/2026 5:45:00 PM	20	0	0	20
	Hour	122	1	1	124
	12/5/2026 6:00:00 PM	15	0	0	15
	12/5/2026 6:15:00 PM	7	0	1	8
	12/5/2026 6:30:00 PM	18	1	0	19
	12/5/2026 6:45:00 PM	5	0	0	5
	Hour	45	1	1	47
	12/5/2026 7:00:00 PM	9	0	0	9
	12/5/2026 7:15:00 PM	1	0	0	1
	12/5/2026 7:30:00 PM	11	0	0	11
	12/5/2026 7:45:00 PM	7	0	0	7
	Hour	28	0	0	28
	12/5/2026 8:00:00 PM	9	0	0	9
	12/5/2026 8:15:00 PM	5	0	0	5
	12/5/2026 8:30:00 PM	5	0	0	5
	12/5/2026 8:45:00 PM	2	0	0	2
	Hour	21	0	0	21
	12/5/2026 9:00:00 PM	4	0	0	4
	12/5/2026 9:15:00 PM	12	0	0	12
	12/5/2026 9:30:00 PM	5	0	0	5
	12/5/2026 9:45:00 PM	5	0	0	5
	Hour	26	0	0	26
	12/5/2026 10:00:00 PM	3	0	0	3
	12/5/2026 10:15:00 PM	1	0	0	1
	12/5/2026 10:30:00 PM	1	0	0	1
	12/5/2026 10:45:00 PM	2	0	0	2
	Hour	7	0	0	7
	12/5/2026 11:00:00 PM	1	0	0	1
	12/5/2026 11:15:00 PM	1	0	0	1
	12/5/2026 11:30:00 PM	2	0	0	2
	12/5/2026 11:45:00 PM	0	0	0	0
	Hour	4	0	0	4
	Grand Total	533	16	5	554
	Percentage	96.2%	2.9%	0.9%	
	Total	1,003	28	14	1,045
	Percentage	96.0%	2.7%	1.3%	

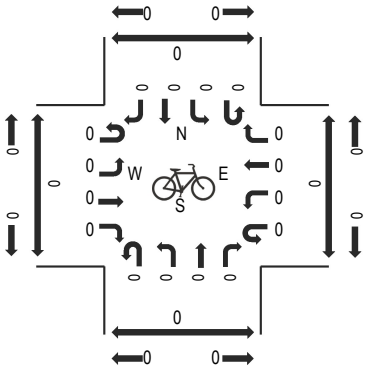
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 WHITE SULPHUR ROAD & CORNELIA HIGHWAY AM
Date: Tuesday, May 12, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

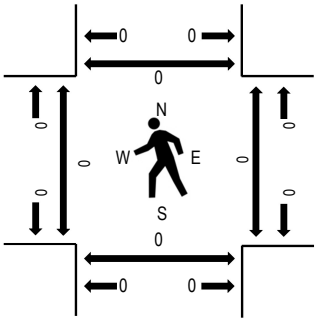
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CORNELIA HIGHWAY Eastbound				CORNELIA HIGHWAY Westbound				WHITE SULPHUR ROAD Northbound				WHITE SULPHUR ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	10	268	1	0	6	479	33	0	7	8	3	0	9	0	6	830	3,382	0	0	0	0
7:15 AM	0	6	273	6	0	7	499	36	0	4	15	7	0	16	3	10	882	3,285	0	0	0	0
7:30 AM	0	5	278	11	0	3	519	32	0	12	10	6	0	10	6	8	900	3,142	0	0	0	0
7:45 AM	0	22	239	6	0	7	412	38	0	5	13	7	0	9	9	3	770	2,871	0	0	0	0
8:00 AM	0	8	248	6	0	6	397	28	0	6	3	6	0	12	6	7	733	2,737	0	0	0	0
8:15 AM	0	12	251	3	0	5	389	27	0	12	8	3	0	19	6	4	739		0	0	0	0
8:30 AM	0	7	224	3	0	4	340	21	0	5	5	4	0	6	3	7	629		0	0	0	0
8:45 AM	0	14	261	0	0	2	318	21	0	7	2	4	0	5	1	1	636		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	8	59	0	0	0	38	4	0	0	0	0	0	5	0	3	117
Lights	0	34	950	24	0	23	1,852	127	0	26	46	23	0	34	17	22	3,178
Mediums	0	1	49	0	0	0	19	8	0	2	0	0	0	5	1	2	87
Total	0	43	1,058	24	0	23	1,909	139	0	28	46	23	0	44	18	27	3,382

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		10.4%				3.3%				2.1%				18.0%			6.0%
Heavy Vehicle %	0.0%	20.9%	10.2%	0.0%	0.0%	0.0%	3.0%	8.6%	0.0%	7.1%	0.0%	0.0%	0.0%	22.7%	5.6%	18.5%	6.0%
Peak Hour Factor		0.96				0.93				0.87				0.85			0.94
Peak Hour Factor	0.00	0.56	0.95	0.66	0.00	0.82	0.92	0.91	0.00	0.73	0.77	0.93	0.00	0.66	0.75	0.70	0.94

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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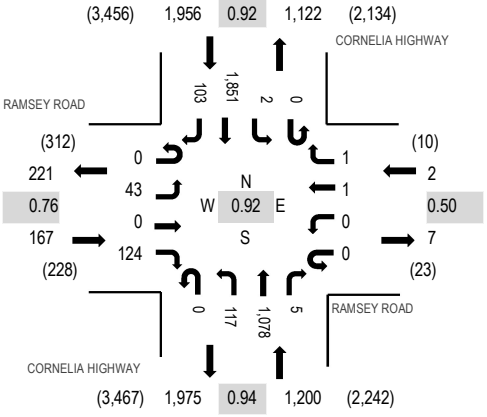
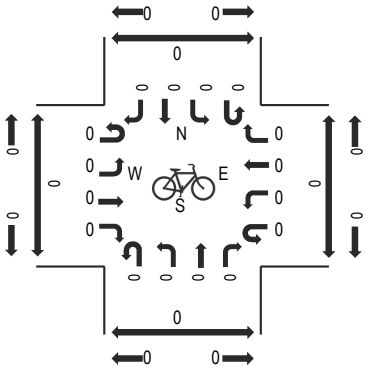
Location: 2 CORNELIA HIGHWAY & RAMSEY ROAD AM
Date: Tuesday, May 12, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

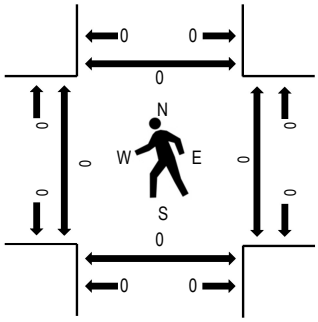
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	RAMSEY ROAD Eastbound				RAMSEY ROAD Westbound				CORNELIA HIGHWAY Northbound				CORNELIA HIGHWAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	3	0	22	0	0	0	0	0	34	270	1	0	0	473	26	829	3,325	0	0	0	0
7:15 AM	0	12	0	40	0	0	0	0	0	25	269	0	0	0	473	23	842	3,228	0	0	0	0
7:30 AM	0	20	0	35	0	0	1	1	0	38	280	2	0	1	492	38	908	3,062	0	0	0	0
7:45 AM	0	8	0	27	0	0	0	0	0	20	259	2	0	1	413	16	746	2,772	0	0	0	0
8:00 AM	0	3	0	14	0	1	0	1	0	16	261	4	0	3	416	13	732	2,611	0	0	0	0
8:15 AM	0	9	0	13	0	0	0	2	0	11	256	3	0	1	365	16	676		0	0	0	0
8:30 AM	0	0	0	9	0	3	0	1	0	8	243	1	0	0	342	11	618		0	0	0	0
8:45 AM	0	7	0	6	0	0	0	0	0	9	229	1	0	3	323	7	585		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	3	0	4	0	0	0	0	0	9	61	0	0	0	41	7	125
Lights	0	38	0	110	0	0	1	1	0	99	966	5	0	2	1,779	91	3,092
Mediums	0	2	0	10	0	0	0	0	0	9	51	0	0	0	31	5	108
Total	0	43	0	124	0	0	1	1	0	117	1,078	5	0	2	1,851	103	3,325

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		11.4%				0.0%				10.8%				4.3%			7.0%
Heavy Vehicle %	0.0%	11.6%	0.0%	11.3%	0.0%	0.0%	0.0%	0.0%	0.0%	15.4%	10.4%	0.0%	0.0%	0.0%	3.9%	11.7%	7.0%
Peak Hour Factor		0.76				0.50				0.94				0.92			0.92
Peak Hour Factor	0.00	0.54	0.00	0.78	0.00	0.33	0.25	0.50	0.00	0.77	0.96	0.69	0.00	0.58	0.94	0.68	0.92

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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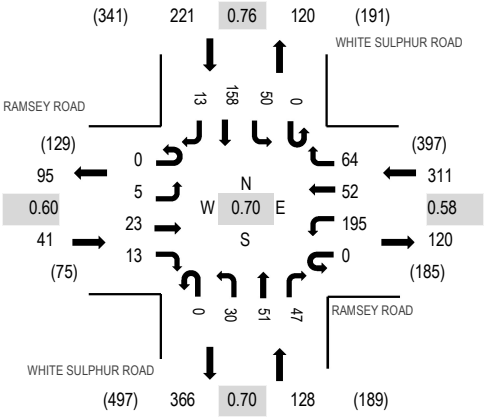
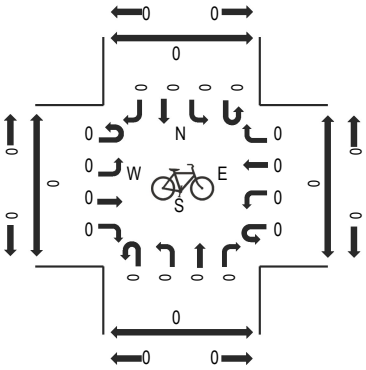
Location: 3 WHITE SULPHUR ROAD & RAMSEY ROAD AM
Date: Tuesday, May 12, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

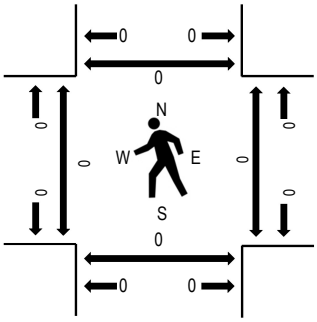
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	RAMSEY ROAD Eastbound				RAMSEY ROAD Westbound				WHITE SULPHUR ROAD Northbound				WHITE SULPHUR ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	3	5	9	0	9	18	13	0	9	12	25	0	20	30	5	158	701	0	0	0	0
7:15 AM	0	0	5	1	0	53	13	17	0	5	13	11	0	10	33	4	165	631	0	0	0	0
7:30 AM	0	0	6	3	0	100	16	19	0	11	14	7	0	11	59	3	249	545	0	0	0	0
7:45 AM	0	2	7	0	0	33	5	15	0	5	12	4	0	9	36	1	129	370	0	0	0	0
8:00 AM	0	2	5	2	0	13	6	9	0	2	11	6	0	9	23	0	88	301	0	0	0	0
8:15 AM	0	2	8	0	0	12	5	4	0	3	7	4	0	7	26	1	79		0	0	0	0
8:30 AM	0	2	3	1	0	10	3	6	0	1	10	5	0	6	23	4	74		0	0	0	0
8:45 AM	0	1	8	0	0	7	3	8	0	1	9	2	0	2	14	5	60		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	11	0	0	0	7	0	0	0	0	0	0	3	0	0	21
Lights	0	4	10	13	0	189	44	59	0	29	50	39	0	43	157	9	646
Mediums	0	1	2	0	0	6	1	5	0	1	1	8	0	4	1	4	34
Total	0	5	23	13	0	195	52	64	0	30	51	47	0	50	158	13	701

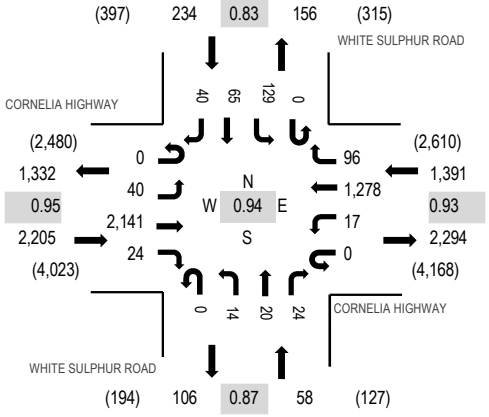
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		34.1%				6.1%				7.8%				5.4%			7.8%
Heavy Vehicle %	0.0%	20.0%	56.5%	0.0%	0.0%	3.1%	15.4%	7.8%	0.0%	3.3%	2.0%	17.0%	0.0%	14.0%	0.6%	30.8%	7.8%
Peak Hour Factor		0.60				0.58				0.70				0.76			0.70
Peak Hour Factor	0.00	1.00	0.81	0.36	0.00	0.50	0.72	0.84	0.00	0.68	0.91	0.47	0.00	0.63	0.67	0.65	0.70

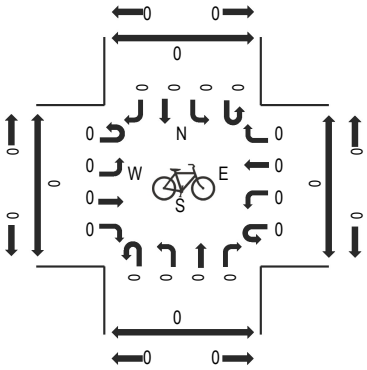
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 WHITE SULPHUR ROAD & CORNELIA HIGHWAY PM
Date: Tuesday, May 12, 2026
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

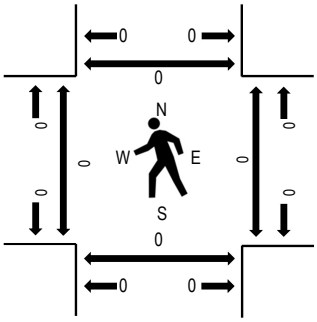
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CORNELIA HIGHWAY Eastbound				CORNELIA HIGHWAY Westbound				WHITE SULPHUR ROAD Northbound				WHITE SULPHUR ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	1	18	457	4	0	5	235	15	0	3	5	7	0	22	7	7	786	3,524	0	0	0	0
4:15 PM	1	18	474	6	0	6	265	13	0	3	7	9	0	29	11	2	844	3,699	0	0	0	0
4:30 PM	0	11	508	4	0	2	328	24	0	2	6	10	0	22	11	6	934	3,888	0	0	0	0
4:45 PM	0	16	537	5	0	3	307	26	0	4	7	3	0	23	14	15	960	3,883	0	0	0	0
5:00 PM	0	4	526	12	0	7	305	25	0	5	1	4	0	38	21	13	961	3,633	0	0	0	0
5:15 PM	0	9	570	3	0	5	338	21	0	3	6	7	0	46	19	6	1,033		0	0	0	0
5:30 PM	0	9	465	3	0	13	348	23	0	3	11	9	0	22	12	11	929		0	0	0	0
5:45 PM	0	9	348	5	0	9	261	26	0	2	5	5	0	27	7	6	710		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	3	23	1	0	0	37	3	0	0	0	0	0	1	0	1	69
Lights	0	36	2,104	23	0	17	1,214	82	0	14	20	24	0	128	64	39	3,765
Mediums	0	1	14	0	0	0	27	11	0	0	0	0	0	0	1	0	54
Total	0	40	2,141	24	0	17	1,278	96	0	14	20	24	0	129	65	40	3,888

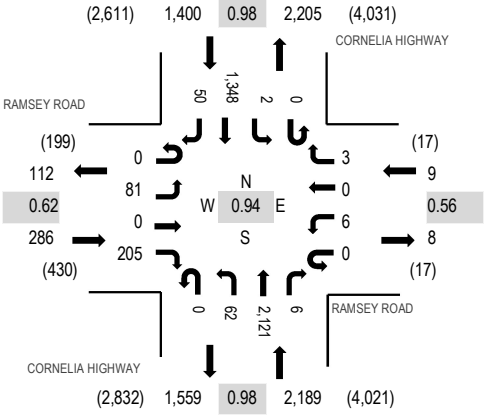
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %			1.9%				5.6%				0.0%				1.3%		3.2%
Heavy Vehicle %	0.0%	10.0%	1.7%	4.2%	0.0%	0.0%	5.0%	14.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	1.5%	2.5%	3.2%
Peak Hour Factor			0.95				0.93				0.87				0.83		0.94
Peak Hour Factor	0.50	0.88	0.94	0.56	0.00	0.65	0.93	0.92	0.00	0.75	0.57	0.73	0.00	0.72	0.79	0.75	0.94

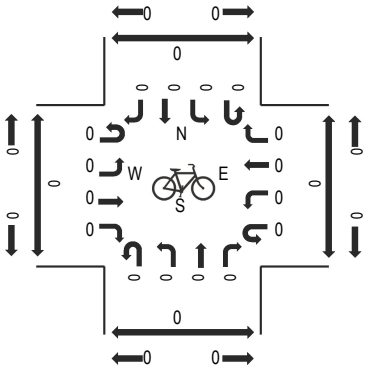
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 CORNELIA HIGHWAY & RAMSEY ROAD PM
Date: Tuesday, May 12, 2026
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

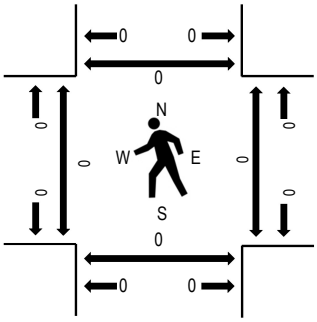
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	RAMSEY ROAD Eastbound				RAMSEY ROAD Westbound				CORNELIA HIGHWAY Northbound				CORNELIA HIGHWAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	12	0	19	0	3	0	1	0	15	483	3	0	0	234	12	782	3,470	0	0	0	0
4:15 PM	0	16	0	19	0	0	0	1	0	13	484	2	0	1	281	7	824	3,724	0	0	0	0
4:30 PM	0	21	0	44	0	3	0	0	0	17	508	0	0	0	311	11	915	3,884	0	0	0	0
4:45 PM	0	18	0	16	0	1	0	0	0	18	539	3	0	1	338	15	949	3,843	0	0	0	0
5:00 PM	0	26	0	90	0	0	0	3	0	11	537	2	0	0	353	14	1,036	3,609	0	0	0	0
5:15 PM	0	16	0	55	0	2	0	0	0	16	537	1	0	1	346	10	984		0	0	0	0
5:30 PM	0	15	0	29	0	0	0	0	0	9	450	1	0	0	362	8	874		0	0	0	0
5:45 PM	0	7	0	27	0	1	0	2	0	15	355	2	0	0	298	8	715		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	2	0	6	0	0	0	0	0	7	24	0	0	0	36	5	80
Lights	0	78	0	197	0	6	0	3	0	54	2,071	6	0	2	1,283	42	3,742
Mediums	0	1	0	2	0	0	0	0	0	1	26	0	0	0	29	3	62
Total	0	81	0	205	0	6	0	3	0	62	2,121	6	0	2	1,348	50	3,884

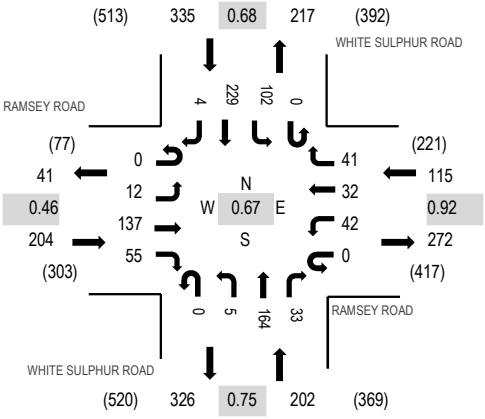
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		3.8%				0.0%				2.6%				5.2%			3.7%
Heavy Vehicle %	0.0%	3.7%	0.0%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	12.9%	2.4%	0.0%	0.0%	0.0%	4.8%	16.0%	3.7%
Peak Hour Factor		0.62				0.56				0.98				0.98			0.94
Peak Hour Factor	0.00	0.78	0.00	0.57	0.00	0.58	0.00	0.42	0.00	0.88	0.98	0.67	0.00	0.50	0.97	0.83	0.94

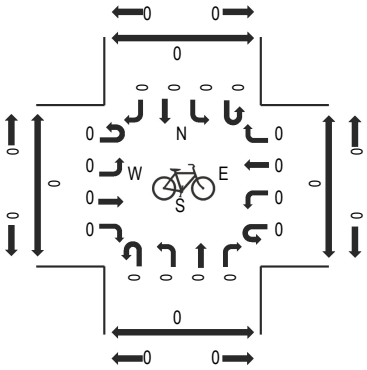
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 WHITE SULPHUR ROAD & RAMSEY ROAD PM
Date: Tuesday, May 12, 2026
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

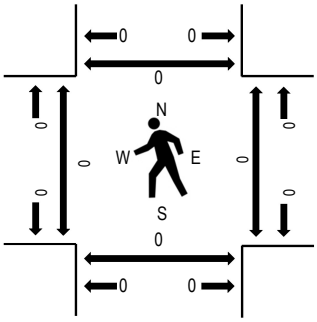
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	RAMSEY ROAD Eastbound				RAMSEY ROAD Westbound				WHITE SULPHUR ROAD Northbound				WHITE SULPHUR ROAD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	2	17	7	0	6	11	10	0	0	31	5	0	6	28	0	123	591	0	0	0	0
4:15 PM	0	2	15	4	0	12	8	8	0	1	39	12	0	11	23	0	135	786	0	0	0	0
4:30 PM	0	1	32	8	0	7	8	7	0	2	55	13	0	16	38	0	187	856	0	0	0	0
4:45 PM	0	2	14	8	0	15	9	8	0	0	36	4	0	9	40	1	146	834	0	0	0	0
5:00 PM	0	8	71	33	0	10	9	12	0	3	35	10	0	42	82	3	318	815	0	0	0	0
5:15 PM	0	1	20	6	0	10	6	14	0	0	38	6	0	35	69	0	205		0	0	0	0
5:30 PM	0	1	20	8	0	15	2	8	0	1	36	12	0	13	48	1	165		0	0	0	0
5:45 PM	0	1	14	8	0	7	10	9	0	1	28	1	0	19	28	1	127		0	0	0	0

Peak Rolling Hour Flow Rates

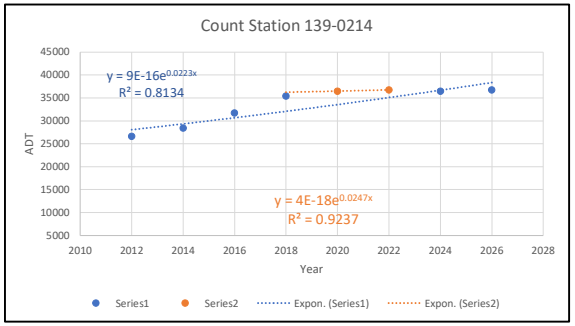
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	9	0	0	1	11	0	0	0	0	0	0	0	1	0	22
Lights	0	12	128	55	0	41	13	41	0	4	163	31	0	102	227	4	821
Mediums	0	0	0	0	0	0	8	0	0	1	1	2	0	0	1	0	13
Total	0	12	137	55	0	42	32	41	0	5	164	33	0	102	229	4	856

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		4.4%				17.4%				2.0%				0.6%			4.1%
Heavy Vehicle %	0.0%	0.0%	6.6%	0.0%	0.0%	2.4%	59.4%	0.0%	0.0%	20.0%	0.6%	6.1%	0.0%	0.0%	0.9%	0.0%	4.1%
Peak Hour Factor		0.46				0.92				0.75				0.68			0.67
Peak Hour Factor	0.00	0.41	0.48	0.42	0.00	0.83	0.82	0.77	0.00	0.50	0.75	0.75	0.00	0.65	0.73	0.42	0.67

Growth Rate Calculations

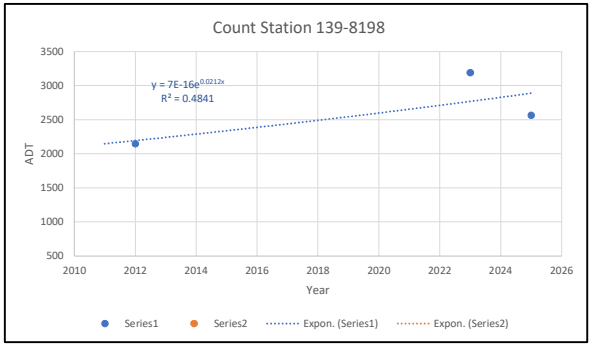
Count Station #	139-0214		
Count Station Description	US 23/SR 365/Cornelia Hwy north of White Sulphur Rd		
Functional Classification	Principal Arterial - Other (Rural)		
Years	ADT	AADT	Notes
2006			
2007			
2008			
2009			
2010			
2011			
2012	26636		
2013			
2014	28406		
2015			
2016	31740		
2017			
2018	35424	35500	
2019			
2020			
2021			
2022			
2023			
2024	36498	39000	
2025			
2026	36747		



5-Year Growth Rate: 2.47%
15-Year Growth Rate: 2.23%

Average 5-Year Growth Rate:	2.7%
Average 15-Year Growth Rate:	2.1%
Proposed:	2.4%

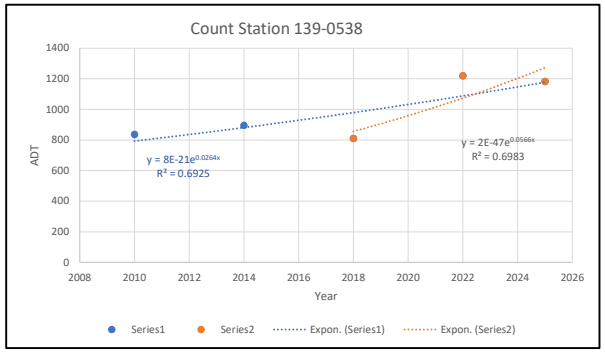
Count Station #	139-8198		
Count Station Description	Ramsey Rd west of White Sulphur Rd		
Functional Classification	Local - Other (Urban)		
Years	ADT	AADT	Notes
2006			
2007			
2008			
2009			
2010			
2011			
2012	2146		
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023	3188		
2024			
2025	2562		



5-Year Growth Rate:
15-Year Growth Rate: 2.12%

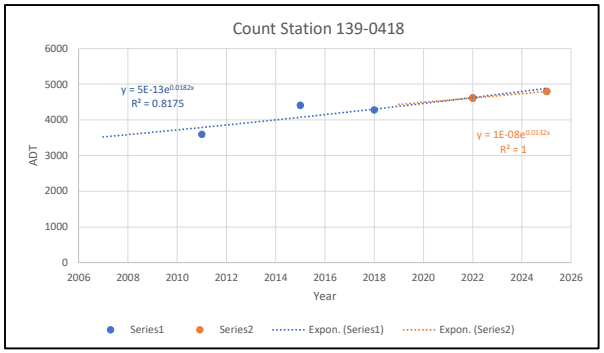
Growth Rate Calculations

Count Station #	139-0538		
Count Station Description	White Sulphur Rd east of US 23/SR 365/ Cornelia Hwy		
Functional Classification	Major Collector - Other (Rural)		
Years	ADT	AADT	Notes
2006			
2007			
2008			
2009			
2010	836		
2011			
2012			
2013			
2014	895		
2015			
2016			
2017			
2018	810	760	
2019			
2020			
2021			
2022	1220	1120	
2023			
2024			
2025	1182		



5-Year Growth Rate:
15-Year Growth Rate: 2.64%

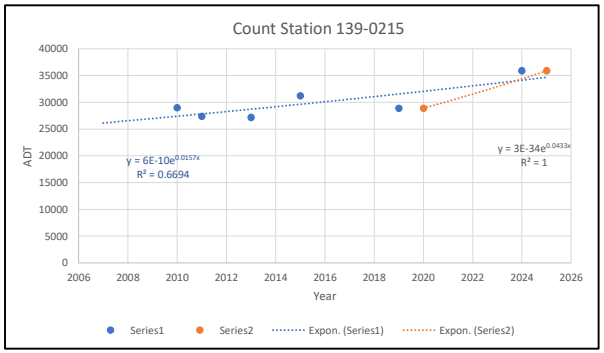
Count Station #	0139-0536		
Count Station Description	White Sulphur Road south of Ramsey Road		
Functional Classification	Minor-Arterial (Urban)		
Years	ADT	AADT	Notes
2006			
2007			
2008			
2009			
2010			
2011	3592		
2012			
2013			
2014			
2015	4405		
2016			
2017			
2018	4277	3780	
2019			
2020			
2021			
2022	4612	3890	
2023			
2024			
2025	4798		



5-Year Growth Rate: 1.32%
15-Year Growth Rate: 1.82%

Growth Rate Calculations

Count Station #	139-0215		
Count Station Description	US 23/SR 365/Cornelia Hwy south of Lula Rd		
Functional Classification	Principal Arterial - Other (Rural)		
Years	ADT	AADT	Notes
2006			
2007			
2008			
2009			
2010	28969		
2011	27398		
2012			
2013	27163		
2014			
2015	31210		
2016		12500	
2017			
2018		16500	
2019	28906		
2020			
2021			
2022		18400	
2023			
2024	35894	20100	
2025			



5-Year Growth Rate: 4.30%
15-Year Growth Rate: 1.57%

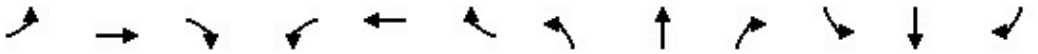
APPENDIX C – EXISTING YEAR 2026 OPERATIONAL ANALYSIS REPORTS

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	46	1126	26	24	2031	148	103	47	19	29
v/c Ratio	0.42	0.43	0.02	0.07	0.82	0.13	0.64	0.46	0.11	0.11
Control Delay (s/veh)	83.3	8.0	0.0	4.5	21.9	2.6	85.8	85.9	69.0	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	83.3	8.0	0.0	4.5	21.9	2.6	85.8	85.9	69.0	0.9
Queue Length 50th (ft)	53	242	0	5	854	9	109	52	20	0
Queue Length 95th (ft)	100	288	0	12	1121	38	180	102	50	0
Internal Link Dist (ft)		5013			864		491		2991	
Turn Bay Length (ft)	600		600	460		350		100		185
Base Capacity (vph)	232	2603	1182	425	2467	1137	193	123	216	288
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.43	0.02	0.06	0.82	0.13	0.53	0.38	0.09	0.10

Intersection Summary

HCM 7th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	1058	24	23	1909	139	28	46	23	44	18	27
Future Volume (veh/h)	43	1058	24	23	1909	139	28	46	23	44	18	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	46	1126	26	24	2031	148	30	49	0	47	19	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	59	2709	1208	400	2671	1191	61	68		110	112	
Arrive On Green	0.03	0.79	0.79	0.02	0.78	0.78	0.06	0.06	0.00	0.06	0.06	0.00
Sat Flow, veh/h	1725	3441	1535	1725	3441	1535	511	1109	0	1313	1811	1535
Grp Volume(v), veh/h	46	1126	26	24	2031	148	79	0	0	47	19	0
Grp Sat Flow(s),veh/h/ln	1725	1721	1535	1725	1721	1535	1620	0	0	1313	1811	1535
Q Serve(g_s), s	4.5	17.6	0.6	0.5	54.8	4.1	6.5	0.0	0.0	0.0	1.7	0.0
Cycle Q Clear(g_c), s	4.5	17.6	0.6	0.5	54.8	4.1	8.2	0.0	0.0	7.5	1.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.38		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	59	2709	1208	400	2671	1191	129	0		110	112	
V/C Ratio(X)	0.78	0.42	0.02	0.06	0.76	0.12	0.61	0.00		0.43	0.17	
Avail Cap(c_a), veh/h	235	2709	1208	493	2671	1191	224	0		188	218	
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)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	81.4	5.7	3.9	4.3	10.4	4.7	78.6	0.0	0.0	78.4	75.6	0.0
Incr Delay (d2), s/veh	24.0	0.4	0.0	0.1	2.1	0.2	9.6	0.0	0.0	5.5	1.5	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	2.4	5.2	0.2	0.1	17.1	1.1	3.8	0.0	0.0	2.2	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	105.4	6.2	3.9	4.4	12.5	4.9	88.2	0.0	0.0	83.9	77.1	0.0
LnGrp LOS	F	A	A	A	B	A	F			F	E	
Approach Vol, veh/h		1198			2203			79			66	
Approach Delay, s/veh		9.9			11.9			88.2			81.9	
Approach LOS		A			B			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	141.2		18.0	12.6	139.4		18.0				
Change Period (Y+Rc), s	7.4	7.4		7.5	6.8	7.4		7.5				
Max Green Setting (Gmax), s	12.6	114.6		20.5	23.2	104.6		20.5				
Max Q Clear Time (g_c+I1), s	2.5	19.6		9.5	6.5	56.8		10.2				
Green Ext Time (p_c), s	0.0	43.4		0.2	0.1	46.1		0.4				

Intersection Summary			
HCM 7th Control Delay, s/veh		14.2	
HCM 7th LOS		B	

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	127	1172	5	2	2012	112	2	47	135
v/c Ratio	0.68	0.41	0.00	0.03	0.83	0.10	0.02	0.45	0.09
Control Delay (s/veh)	89.4	4.8	0.0	67.0	22.9	6.6	57.0	87.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	89.4	4.8	0.0	67.0	22.9	6.6	57.0	87.5	0.1
Queue Length 50th (ft)	146	144	0	2	596	16	1	54	0
Queue Length 95th (ft)	219	317	0	m2	790	m48	12	102	0
Internal Link Dist (ft)		684			5013		634	1097	
Turn Bay Length (ft)	450		265	480		290			350
Base Capacity (vph)	267	2873	1293	136	2421	1109	212	171	1509
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.00	0.01	0.83	0.10	0.01	0.27	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1078	5	2	1851	103	0	1	1	43	0	124
Future Volume (veh/h)	117	1078	5	2	1851	103	0	1	1	43	0	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	127	1172	5	2	2012	112	0	1	0	47	0	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
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	149	2858	1275	5	2595	1157	0	77		100	0	
Arrive On Green	0.09	0.84	0.84	0.00	0.76	0.76	0.00	0.04	0.00	0.04	0.00	0.00
Sat Flow, veh/h	1711	3413	1522	1711	3413	1522	0	1796	0	1343	0	1522
Grp Volume(v), veh/h	127	1172	5	2	2012	112	0	1	0	47	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1522	1711	1706	1522	0	1796	0	1343	0	1522
Q Serve(g_s), s	12.4	14.5	0.1	0.2	58.5	3.2	0.0	0.1	0.0	5.8	0.0	0.0
Cycle Q Clear(g_c), s	12.4	14.5	0.1	0.2	58.5	3.2	0.0	0.1	0.0	5.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	2858	1275	5	2595	1157	0	77		100	0	
V/C Ratio(X)	0.85	0.41	0.00	0.44	0.78	0.10	0.00	0.01		0.47	0.00	
Avail Cap(c_a), veh/h	272	2858	1275	139	2595	1157	0	229		215	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	1.00	1.00	0.48	0.48	0.48	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	76.6	3.4	2.3	84.6	11.9	5.3	0.0	77.9	0.0	80.8	0.0	0.0
Incr Delay (d2), s/veh	17.3	0.4	0.0	40.0	1.1	0.1	0.0	0.1	0.0	7.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	3.4	0.0	0.1	18.4	0.9	0.0	0.0	0.0	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	93.9	3.9	2.3	124.6	13.0	5.4	0.0	78.1	0.0	87.9	0.0	0.0
LnGrp LOS	F	A		F	B	A		E		F		
Approach Vol, veh/h		1304			2126			1			47	
Approach Delay, s/veh		12.6			12.7			78.1			87.9	
Approach LOS		B			B			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.8	136.7		13.6	6.7	149.8		13.6				
Change Period (Y+Rc), s	5.0	7.4		6.3	6.2	7.4		6.3				
Max Green Setting (Gmax), s	27.0	102.6		21.7	13.8	114.6		21.7				
Max Q Clear Time (g_c+I1), s	14.4	60.5		2.1	2.2	16.5		7.9				
Green Ext Time (p_c), s	0.4	40.6		0.0	0.0	46.1		0.2				

Intersection Summary			
HCM 7th Control Delay, s/veh		13.7	
HCM 7th LOS		B	

Notes

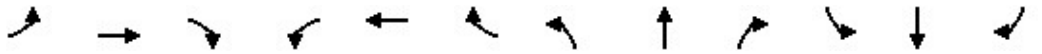
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	43	140	71	245	279	165	7	33	19
v/c Ratio	0.10	0.21	0.22	0.52	0.59	0.26	0.02	0.05	0.03
Control Delay (s/veh)	10.8	7.1	20.8	23.3	21.3	10.6	13.4	13.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	10.8	7.1	20.8	23.3	21.3	10.6	13.4	13.5	0.1
Queue Length 50th (ft)	8	13	20	74	82	26	2	8	0
Queue Length 95th (ft)	22	35	47	125	126	50	8	21	0
Internal Link Dist (ft)		479		347		890		558	
Turn Bay Length (ft)	225		100		100		150		200
Base Capacity (vph)	1096	1592	765	1132	845	1073	749	1147	1005
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.09	0.09	0.22	0.33	0.15	0.01	0.03	0.02

Intersection Summary

HCM 7th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	51	47	50	158	13	195	52	64	5	23	13
Future Volume (veh/h)	30	51	47	50	158	13	195	52	64	5	23	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	43	73	67	71	226	19	279	74	91	7	33	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	365	351	322	445	352	30	565	220	270	446	538	
Arrive On Green	0.05	0.41	0.41	0.22	0.22	0.22	0.30	0.30	0.30	0.30	0.30	0.00
Sat Flow, veh/h	1697	855	785	1189	1621	136	1310	727	894	1163	1781	1510
Grp Volume(v), veh/h	43	0	140	71	0	245	279	0	165	7	33	0
Grp Sat Flow(s),veh/h/ln	1697	0	1640	1189	0	1757	1310	0	1621	1163	1781	1510
Q Serve(g_s), s	0.7	0.0	2.1	1.9	0.0	4.9	7.4	0.0	3.1	0.2	0.5	0.0
Cycle Q Clear(g_c), s	0.7	0.0	2.1	1.9	0.0	4.9	7.9	0.0	3.1	3.2	0.5	0.0
Prop In Lane	1.00		0.48	1.00		0.08	1.00		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	365	0	673	445	0	381	565	0	490	446	538	
V/C Ratio(X)	0.12	0.00	0.21	0.16	0.00	0.64	0.49	0.00	0.34	0.02	0.06	
Avail Cap(c_a), veh/h	1577	0	1250	1093	0	1339	1172	0	1239	984	1362	
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	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.9	0.0	7.3	12.6	0.0	13.7	12.4	0.0	10.5	11.7	9.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.2	0.0	1.8	0.7	0.0	0.4	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.5	0.4	0.0	1.6	1.7	0.0	0.9	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.0	0.0	7.5	12.7	0.0	15.6	13.1	0.0	10.9	11.7	9.6	0.0
LnGrp LOS	B		A	B		B	B		B	B	A	
Approach Vol, veh/h		183			316			444			40	
Approach Delay, s/veh		8.1			14.9			12.2			10.0	
Approach LOS		A			B			B			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.4	14.0		17.2		21.4		17.2				
Change Period (Y+Rc), s	5.6	5.6		5.5		5.6		5.5				
Max Green Setting (Gmax), s	29.4	29.4		29.5		29.4		29.5				
Max Q Clear Time (g_c+I1), s	2.7	6.9		9.9		4.1		5.2				
Green Ext Time (p_c), s	0.1	1.5		1.8		0.7		0.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			12.2									
HCM 7th LOS			B									

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	43	2278	26	18	1360	102	62	137	69	43
v/c Ratio	0.15	0.89	0.02	0.17	0.55	0.09	0.27	0.74	0.28	0.16
Control Delay (s/veh)	6.5	19.9	0.0	9.1	14.0	1.8	48.4	93.8	67.5	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.5	19.9	0.0	9.1	14.0	1.8	48.4	93.8	67.5	2.9
Queue Length 50th (ft)	10	572	0	4	391	0	45	152	71	0
Queue Length 95th (ft)	m19	#1114	m0	12	493	22	95	232	124	8
Internal Link Dist (ft)		5013			864		491		1352	
Turn Bay Length (ft)	600		600	460		350		100		185
Base Capacity (vph)	403	2555	1163	213	2484	1141	272	220	298	317
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.89	0.02	0.08	0.55	0.09	0.23	0.62	0.23	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	2141	24	17	1278	96	14	20	24	129	65	40
Future Volume (veh/h)	40	2141	24	17	1278	96	14	20	24	129	65	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	43	2278	26	18	1360	102	15	21	0	137	69	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	289	2592	1156	112	2574	1148	85	107		200	216	
Arrive On Green	0.03	0.74	0.74	0.02	0.73	0.73	0.12	0.12	0.00	0.12	0.12	0.00
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	468	916	0	1380	1856	1572
Grp Volume(v), veh/h	43	2278	26	18	1360	102	36	0	0	137	69	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1384	0	0	1380	1856	1572
Q Serve(g_s), s	1.0	82.2	0.8	0.4	28.8	3.2	0.3	0.0	0.0	10.9	5.8	0.0
Cycle Q Clear(g_c), s	1.0	82.2	0.8	0.4	28.8	3.2	6.1	0.0	0.0	17.0	5.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.42		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	289	2592	1156	112	2574	1148	191	0		200	216	
V/C Ratio(X)	0.15	0.88	0.02	0.16	0.53	0.09	0.19	0.00		0.68	0.32	
Avail Cap(c_a), veh/h	465	2592	1156	255	2574	1148	263	0		262	300	
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)	0.48	0.48	0.48	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.0	16.8	6.1	27.4	10.1	6.6	67.8	0.0	0.0	74.0	68.9	0.0
Incr Delay (d2), s/veh	0.2	2.3	0.0	0.7	0.8	0.2	1.0	0.0	0.0	8.9	1.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	28.2	0.2	0.4	9.9	1.0	1.5	0.0	0.0	6.3	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.1	19.1	6.1	28.1	10.9	6.8	68.8	0.0	0.0	82.9	70.7	0.0
LnGrp LOS	A	B	A	C	B	A	E			F	E	
Approach Vol, veh/h		2347			1480			36			206	
Approach Delay, s/veh		18.8			10.8			68.8			78.8	
Approach LOS		B			B			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	132.4		27.3	11.1	131.5		27.3				
Change Period (Y+Rc), s	7.4	7.4		7.5	6.8	7.4		7.5				
Max Green Setting (Gmax), s	16.6	103.6		27.5	21.2	99.6		27.5				
Max Q Clear Time (g_c+I1), s	2.4	84.2		19.0	3.0	30.8		8.1				
Green Ext Time (p_c), s	0.0	19.3		0.8	0.1	49.2		0.2				

Intersection Summary												
HCM 7th Control Delay, s/veh			19.4									
HCM 7th LOS			B									

Notes

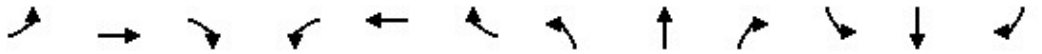
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	66	2256	6	2	1434	53	9	86	218
v/c Ratio	0.51	0.81	0.00	0.03	0.58	0.05	0.04	0.62	0.14
Control Delay (s/veh)	88.2	14.3	0.0	71.5	12.5	0.2	0.3	91.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	88.2	14.3	0.0	71.5	12.5	0.2	0.3	91.6	0.2
Queue Length 50th (ft)	74	620	0	2	341	0	0	96	0
Queue Length 95th (ft)	128	1188	0	m4	382	m2	0	159	0
Internal Link Dist (ft)		684			5013		634	1097	
Turn Bay Length (ft)	450		265	480		290			350
Base Capacity (vph)	224	2783	1257	140	2475	1134	271	175	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.81	0.00	0.01	0.58	0.05	0.03	0.49	0.14

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	2121	6	2	1348	50	6	0	3	81	0	205
Future Volume (veh/h)	62	2121	6	2	1348	50	6	0	3	81	0	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	66	2256	6	2	1434	53	6	0	0	86	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	84	2823	1259	5	2691	1200	166	0		145	0	
Arrive On Green	0.05	0.81	0.81	0.00	0.77	0.77	0.07	0.00	0.00	0.07	0.00	0.00
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1689	0	0	1411	0	1560
Grp Volume(v), veh/h	66	2256	6	2	1434	53	6	0	0	86	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1689	0	0	1411	0	1560
Q Serve(g_s), s	6.3	59.5	0.1	0.2	27.3	1.4	0.0	0.0	0.0	9.7	0.0	0.0
Cycle Q Clear(g_c), s	6.3	59.5	0.1	0.2	27.3	1.4	0.5	0.0	0.0	10.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	2823	1259	5	2691	1200	166	0		145	0	
V/C Ratio(X)	0.79	0.80	0.00	0.43	0.53	0.04	0.04	0.00		0.59	0.00	
Avail Cap(c_a), veh/h	227	2823	1259	142	2691	1200	242	0		222	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	1.00	1.00	0.83	0.83	0.83	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	80.1	8.9	3.2	84.6	7.7	4.7	73.3	0.0	0.0	77.7	0.0	0.0
Incr Delay (d2), s/veh	20.5	2.5	0.0	60.5	0.6	0.1	0.2	0.0	0.0	8.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	17.2	0.0	0.2	8.6	0.4	0.3	0.0	0.0	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	100.6	11.4	3.2	145.2	8.3	4.7	73.5	0.0	0.0	85.7	0.0	0.0
LnGrp LOS	F	B		F	A	A	E			F		
Approach Vol, veh/h		2328			1489			6			86	
Approach Delay, s/veh		13.9			8.4			73.5			85.7	
Approach LOS		B			A			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.1	138.2		18.7	6.7	144.6		18.7				
Change Period (Y+Rc), s	5.0	7.4		6.3	6.2	7.4		6.3				
Max Green Setting (Gmax), s	22.0	107.6		21.7	13.8	114.6		21.7				
Max Q Clear Time (g_c+I1), s	8.3	29.3		2.5	2.2	61.5		12.2				
Green Ext Time (p_c), s	0.1	55.9		0.0	0.0	51.8		0.4				

Intersection Summary			
HCM 7th Control Delay, s/veh		13.4	
HCM 7th LOS		B	

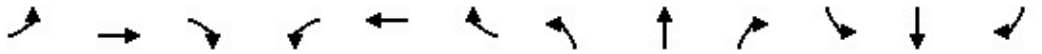
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	7	294	152	348	63	109	18	204	82
v/c Ratio	0.02	0.39	0.38	0.50	0.19	0.21	0.05	0.40	0.16
Control Delay (s/veh)	6.8	9.2	14.1	13.8	14.8	8.6	13.7	15.8	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.8	9.2	14.1	13.8	14.8	8.6	13.7	15.8	5.3
Queue Length 50th (ft)	1	36	19	47	8	6	2	29	0
Queue Length 95th (ft)	4	64	62	121	35	30	14	86	13
Internal Link Dist (ft)		479		5273		890		558	
Turn Bay Length (ft)	225		100		100		150		200
Base Capacity (vph)	1396	1781	844	1451	920	1350	1003	1461	1259
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.17	0.18	0.24	0.07	0.08	0.02	0.14	0.07

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	164	33	102	229	4	42	32	41	12	137	55
Future Volume (veh/h)	5	164	33	102	229	4	42	32	41	12	137	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	7	245	49	152	342	6	63	48	61	18	204	0
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	352	688	138	518	529	9	349	163	207	416	408	
Arrive On Green	0.01	0.46	0.46	0.29	0.29	0.29	0.22	0.22	0.22	0.22	0.22	0.00
Sat Flow, veh/h	1753	1489	298	1068	1803	32	1159	736	936	1264	1841	1560
Grp Volume(v), veh/h	7	0	294	152	0	348	63	0	109	18	204	0
Grp Sat Flow(s),veh/h/ln	1753	0	1787	1068	0	1835	1159	0	1672	1264	1841	1560
Q Serve(g_s), s	0.1	0.0	3.7	4.1	0.0	5.8	1.8	0.0	1.9	0.4	3.4	0.0
Cycle Q Clear(g_c), s	0.1	0.0	3.7	4.1	0.0	5.8	5.2	0.0	1.9	2.3	3.4	0.0
Prop In Lane	1.00		0.17	1.00		0.02	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	352	0	826	518	0	538	349	0	370	416	408	
V/C Ratio(X)	0.02	0.00	0.36	0.29	0.00	0.65	0.18	0.00	0.29	0.04	0.50	
Avail Cap(c_a), veh/h	1804	0	1497	1100	0	1537	1067	0	1406	1199	1547	
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	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.1	0.0	6.1	10.2	0.0	10.8	14.2	0.0	11.4	12.3	12.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.3	0.0	1.3	0.2	0.0	0.4	0.0	1.0	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	0.0	0.0	0.7	0.6	0.0	1.6	0.4	0.0	0.6	0.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.1	0.0	6.3	10.5	0.0	12.1	14.5	0.0	11.8	12.4	12.9	0.0
LnGrp LOS	A		A	B		B	B		B	B	B	
Approach Vol, veh/h		301			500			172			222	
Approach Delay, s/veh		6.4			11.6			12.8			12.9	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	5.9	15.9		13.3		21.8		13.3				
Change Period (Y+Rc), s	5.6	5.6		5.5		5.6		5.5				
Max Green Setting (Gmax), s	29.4	29.4		29.5		29.4		29.5				
Max Q Clear Time (g_c+I1), s	2.1	7.8		7.2		5.7		5.4				
Green Ext Time (p_c), s	0.0	2.5		0.8		1.5		1.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			10.7									
HCM 7th LOS			B									

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX D – OPENING YEAR 2031 OPERATIONAL ANALYSIS REPORTS

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	51	1267	29	28	2286	167	34	83	53	21	32
v/c Ratio	0.29	0.48	0.02	0.09	0.89	0.14	0.30	0.53	0.50	0.14	0.13
Control Delay (s/veh)	77.3	7.7	0.0	4.0	24.0	2.7	78.2	75.1	88.7	71.8	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	77.3	7.7	0.0	4.0	24.0	2.7	78.2	75.1	88.7	71.8	1.2
Queue Length 50th (ft)	30	266	0	5	1041	14	38	81	60	23	0
Queue Length 95th (ft)	56	321	m0	13	#1537	44	78	142	110	54	0
Internal Link Dist (ft)		5013			864			491		2991	
Turn Bay Length (ft)	600		600	460		350	180		250		185
Base Capacity (vph)	450	2652	1203	384	2555	1173	160	215	151	216	288
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.48	0.02	0.07	0.89	0.14	0.21	0.39	0.35	0.10	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	1191	27	26	2149	157	32	52	26	50	20	30
Future Volume (veh/h)	48	1191	27	26	2149	157	32	52	26	50	20	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	51	1267	29	28	2286	167	34	55	0	53	21	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	90	2635	1175	339	2629	1173	138	148		111	148	
Arrive On Green	0.03	0.77	0.77	0.02	0.76	0.76	0.08	0.08	0.00	0.08	0.08	0.00
Sat Flow, veh/h	3346	3441	1535	1725	3441	1535	1347	1811	0	1306	1811	1535
Grp Volume(v), veh/h	51	1267	29	28	2286	167	34	55	0	53	21	0
Grp Sat Flow(s),veh/h/ln	1673	1721	1535	1725	1721	1535	1347	1811	0	1306	1811	1535
Q Serve(g_s), s	2.6	23.2	0.8	0.6	79.4	4.9	4.1	4.9	0.0	6.8	1.8	0.0
Cycle Q Clear(g_c), s	2.6	23.2	0.8	0.6	79.4	4.9	5.9	4.9	0.0	11.7	1.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	2635	1175	339	2629	1173	138	148		111	148	
V/C Ratio(X)	0.57	0.48	0.02	0.08	0.87	0.14	0.25	0.37		0.48	0.14	
Avail Cap(c_a), veh/h	457	2635	1175	429	2629	1173	190	218		162	218	
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)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	81.8	7.4	4.8	5.6	14.1	5.3	75.3	73.9	0.0	79.5	72.5	0.0
Incr Delay (d2), s/veh	7.0	0.6	0.0	0.1	4.3	0.3	2.0	3.3	0.0	6.6	0.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	7.3	0.2	0.2	25.9	1.4	1.5	2.4	0.0	2.5	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	88.8	7.9	4.8	5.7	18.4	5.6	77.3	77.2	0.0	86.1	73.5	0.0
LnGrp LOS	F	A	A	A	B	A	E	E		F	E	
Approach Vol, veh/h		1347			2481			89			74	
Approach Delay, s/veh		10.9			17.4			77.3			82.5	
Approach LOS		B			B			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	137.6		21.4	11.4	137.3		21.4				
Change Period (Y+Rc), s	7.4	7.4		7.5	6.8	7.4		7.5				
Max Green Setting (Gmax), s	12.6	114.6		20.5	23.2	104.6		20.5				
Max Q Clear Time (g_c+I1), s	2.6	25.2		13.7	4.6	81.4		7.9				
Green Ext Time (p_c), s	0.0	50.9		0.2	0.1	23.0		0.4				

Intersection Summary			
HCM 7th Control Delay, s/veh		17.7	
HCM 7th LOS		B	

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	143	1320	7	2	2265	126	2	52	152
v/c Ratio	0.70	0.46	0.01	0.03	0.95	0.12	0.01	0.48	0.10
Control Delay (s/veh)	89.4	5.5	0.0	67.0	29.8	7.4	56.5	87.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	89.4	5.5	0.0	67.0	29.8	7.4	56.5	87.8	0.1
Queue Length 50th (ft)	164	180	0	2	698	24	1	60	0
Queue Length 95th (ft)	241	390	0	m2	#1687	m50	12	110	0
Internal Link Dist (ft)		684			5013		634	1097	
Turn Bay Length (ft)	450		265	480		290			350
Base Capacity (vph)	268	2862	1289	136	2379	1091	212	171	1509
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.46	0.01	0.01	0.95	0.12	0.01	0.30	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	1214	6	2	2084	116	0	1	1	48	0	140
Future Volume (veh/h)	132	1214	6	2	2084	116	0	1	1	48	0	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	143	1320	7	2	2265	126	0	1	0	52	0	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
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	165	2843	1268	5	2547	1136	0	85		106	0	
Arrive On Green	0.10	0.83	0.83	0.00	0.75	0.75	0.00	0.05	0.00	0.05	0.00	0.00
Sat Flow, veh/h	1711	3413	1522	1711	3413	1522	0	1796	0	1345	0	1522
Grp Volume(v), veh/h	143	1320	7	2	2265	126	0	1	0	52	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1522	1711	1706	1522	0	1796	0	1345	0	1522
Q Serve(g_s), s	14.0	17.9	0.1	0.2	85.1	3.9	0.0	0.1	0.0	6.4	0.0	0.0
Cycle Q Clear(g_c), s	14.0	17.9	0.1	0.2	85.1	3.9	0.0	0.1	0.0	6.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	2843	1268	5	2547	1136	0	85		106	0	
V/C Ratio(X)	0.87	0.46	0.01	0.44	0.89	0.11	0.00	0.01		0.49	0.00	
Avail Cap(c_a), veh/h	272	2843	1268	139	2547	1136	0	229		215	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	1.00	1.00	0.36	0.36	0.36	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	75.7	3.9	2.4	84.6	16.3	6.0	0.0	77.2	0.0	80.3	0.0	0.0
Incr Delay (d2), s/veh	18.8	0.5	0.0	30.9	2.0	0.1	0.0	0.1	0.0	7.3	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	6.9	4.4	0.0	0.1	27.6	1.1	0.0	0.0	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	94.5	4.4	2.4	115.6	18.2	6.0	0.0	77.3	0.0	87.6	0.0	0.0
LnGrp LOS	F	A	A	F	B	A		E		F		
Approach Vol, veh/h		1470			2393			1			52	
Approach Delay, s/veh		13.2			17.7			77.3			87.6	
Approach LOS		B			B			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.4	134.3		14.3	6.7	149.0		14.3				
Change Period (Y+Rc), s	5.0	7.4		6.3	6.2	7.4		6.3				
Max Green Setting (Gmax), s	27.0	102.6		21.7	13.8	114.6		21.7				
Max Q Clear Time (g_c+I1), s	16.0	87.1		2.1	2.2	19.9		8.5				
Green Ext Time (p_c), s	0.4	15.4		0.0	0.0	55.0		0.2				

Intersection Summary												
HCM 7th Control Delay, s/veh			16.9									
HCM 7th LOS			B									

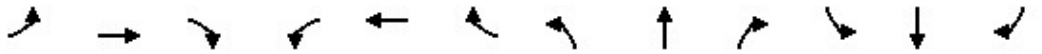
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	49	157	80	275	314	187	9	37	21
v/c Ratio	0.13	0.23	0.25	0.58	0.62	0.28	0.02	0.05	0.03
Control Delay (s/veh)	11.8	7.5	22.2	25.7	22.3	11.3	14.0	13.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.8	7.5	22.2	25.7	22.3	11.3	14.0	13.8	0.1
Queue Length 50th (ft)	11	18	26	97	102	34	2	9	0
Queue Length 95th (ft)	24	37	51	140	151	62	9	23	0
Internal Link Dist (ft)		479		5284		890		558	
Turn Bay Length (ft)	225		100		100		150		200
Base Capacity (vph)	995	1553	678	1022	759	973	663	1035	915
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.10	0.12	0.27	0.41	0.19	0.01	0.04	0.02

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	57	53	56	178	15	220	59	72	6	26	15
Future Volume (veh/h)	34	57	53	56	178	15	220	59	72	6	26	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	49	81	76	80	254	21	314	84	103	9	37	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	348	349	327	438	372	31	576	237	291	441	581	
Arrive On Green	0.05	0.41	0.41	0.23	0.23	0.23	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1697	845	793	1171	1623	134	1306	728	893	1140	1781	1510
Grp Volume(v), veh/h	49	0	157	80	0	275	314	0	187	9	37	0
Grp Sat Flow(s),veh/h/ln	1697	0	1639	1171	0	1757	1306	0	1621	1140	1781	1510
Q Serve(g_s), s	0.8	0.0	2.6	2.4	0.0	6.1	9.3	0.0	3.7	0.3	0.6	0.0
Cycle Q Clear(g_c), s	0.8	0.0	2.6	2.4	0.0	6.1	9.9	0.0	3.7	4.0	0.6	0.0
Prop In Lane	1.00		0.48	1.00		0.08	1.00		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	348	0	676	438	0	403	576	0	528	441	581	
V/C Ratio(X)	0.14	0.00	0.23	0.18	0.00	0.68	0.54	0.00	0.35	0.02	0.06	
Avail Cap(c_a), veh/h	1434	0	1133	979	0	1215	1057	0	1125	860	1236	
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	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.7	0.0	8.1	13.5	0.0	15.0	13.3	0.0	10.9	12.4	9.9	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.2	0.0	2.0	0.8	0.0	0.4	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.6	0.5	0.0	2.0	2.2	0.0	1.1	0.1	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.9	0.0	8.3	13.7	0.0	17.0	14.1	0.0	11.3	12.5	9.9	0.0
LnGrp LOS	B		A	B		B	B		B	B	A	
Approach Vol, veh/h		206			355			501			46	
Approach Delay, s/veh		8.9			16.3			13.0			10.4	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.8	15.4		19.4		23.2		19.4				
Change Period (Y+Rc), s	5.6	5.6		5.5		5.6		5.5				
Max Green Setting (Gmax), s	29.4	29.4		29.5		29.4		29.5				
Max Q Clear Time (g_c+I1), s	2.8	8.1		11.9		4.6		6.0				
Green Ext Time (p_c), s	0.1	1.7		2.0		0.8		0.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			13.2									
HCM 7th LOS			B									

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	48	2565	29	20	1531	115	17	53	154	78	48
v/c Ratio	0.27	1.02	0.03	0.19	0.63	0.10	0.09	0.20	0.80	0.29	0.16
Control Delay (s/veh)	66.4	38.1	0.4	10.2	17.1	2.2	62.4	34.0	98.5	66.9	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.4	38.1	0.4	10.2	17.1	2.2	62.4	34.0	98.5	66.9	4.5
Queue Length 50th (ft)	27	~1707	0	5	523	2	17	24	170	79	0
Queue Length 95th (ft)	m29	#1833	m0	13	626	27	43	69	#272	137	14
Internal Link Dist (ft)		5013			864			491		1352	
Turn Bay Length (ft)	600		600	460		350	180		250		185
Base Capacity (vph)	424	2521	1149	213	2424	1118	210	298	215	298	317
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	1.02	0.03	0.09	0.63	0.10	0.08	0.18	0.72	0.26	0.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 7th Signalized Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2411	27	19	1439	108	16	23	27	145	73	45
Future Volume (veh/h)	45	2411	27	19	1439	108	16	23	27	145	73	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	48	2565	29	20	1531	115	17	24	0	154	78	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	2517	1123	74	2500	1115	172	254		215	254	
Arrive On Green	0.03	0.71	0.71	0.02	0.71	0.71	0.14	0.14	0.00	0.14	0.14	0.00
Sat Flow, veh/h	3428	3526	1572	1767	3526	1572	1311	1856	0	1376	1856	1572
Grp Volume(v), veh/h	48	2565	29	20	1531	115	17	24	0	154	78	0
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1572	1311	1856	0	1376	1856	1572
Q Serve(g_s), s	2.4	121.4	0.9	0.5	38.0	3.9	2.0	1.9	0.0	18.7	6.4	0.0
Cycle Q Clear(g_c), s	2.4	121.4	0.9	0.5	38.0	3.9	8.5	1.9	0.0	20.7	6.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	2517	1123	74	2500	1115	172	254		215	254	
V/C Ratio(X)	0.53	1.02	0.03	0.27	0.61	0.10	0.10	0.09		0.72	0.31	
Avail Cap(c_a), veh/h	428	2517	1123	215	2500	1115	205	300		249	300	
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)	0.27	0.27	0.27	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	81.7	24.3	7.1	49.1	12.7	7.8	69.9	64.1	0.0	73.2	66.1	0.0
Incr Delay (d2), s/veh	1.9	14.7	0.0	1.9	1.1	0.2	0.5	0.3	0.0	11.4	1.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	47.0	0.3	0.6	13.6	1.3	0.7	0.9	0.0	7.2	3.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	83.6	39.0	7.1	51.1	13.9	8.0	70.4	64.5	0.0	84.5	67.5	0.0
LnGrp LOS	F	F	A	D	B	A	E	E		F	E	
Approach Vol, veh/h		2642			1666			41			232	
Approach Delay, s/veh		39.5			13.9			66.9			78.8	
Approach LOS		D			B			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	128.8		30.8	11.3	127.9		30.8				
Change Period (Y+Rc), s	7.4	7.4		7.5	6.8	7.4		7.5				
Max Green Setting (Gmax), s	16.6	103.6		27.5	21.2	99.6		27.5				
Max Q Clear Time (g_c+I1), s	2.5	123.4		22.7	4.4	40.0		10.5				
Green Ext Time (p_c), s	0.0	0.0		0.6	0.1	49.2		0.2				

Intersection Summary			
HCM 7th Control Delay, s/veh		32.4	
HCM 7th LOS		C	

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	74	2540	7	2	1615	60	10	97	246
v/c Ratio	0.54	0.92	0.01	0.03	0.66	0.05	0.04	0.66	0.16
Control Delay (s/veh)	88.7	21.1	0.0	67.5	16.1	1.9	0.3	93.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	88.7	21.1	0.0	67.5	16.1	1.9	0.3	93.7	0.2
Queue Length 50th (ft)	83	958	0	2	395	0	0	108	0
Queue Length 95th (ft)	141	#1747	0	m4	515	m9	0	178	0
Internal Link Dist (ft)		684			5013		634	1097	
Turn Bay Length (ft)	450		265	480		290			350
Base Capacity (vph)	224	2764	1249	140	2441	1120	269	175	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.92	0.01	0.01	0.66	0.05	0.04	0.55	0.16

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	2388	7	2	1518	56	7	0	3	91	0	231
Future Volume (veh/h)	70	2388	7	2	1518	56	7	0	3	91	0	231
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	2540	7	2	1615	60	7	0	0	97	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	93	2795	1247	5	2644	1179	180	0		157	0	
Arrive On Green	0.05	0.80	0.80	0.00	0.76	0.76	0.08	0.00	0.00	0.08	0.00	0.00
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1694	0	0	1411	0	1560
Grp Volume(v), veh/h	74	2540	7	2	1615	60	7	0	0	97	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1694	0	0	1411	0	1560
Q Serve(g_s), s	7.1	90.6	0.2	0.2	35.6	1.7	0.0	0.0	0.0	10.9	0.0	0.0
Cycle Q Clear(g_c), s	7.1	90.6	0.2	0.2	35.6	1.7	0.6	0.0	0.0	11.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	2795	1247	5	2644	1179	180	0		157	0	
V/C Ratio(X)	0.80	0.91	0.01	0.43	0.61	0.05	0.04	0.00		0.62	0.00	
Avail Cap(c_a), veh/h	227	2795	1247	142	2644	1179	245	0		222	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	1.00	1.00	0.76	0.76	0.76	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	79.6	12.5	3.4	84.6	9.4	5.3	72.1	0.0	0.0	77.0	0.0	0.0
Incr Delay (d2), s/veh	19.5	5.6	0.0	56.2	0.8	0.1	0.2	0.0	0.0	8.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	27.7	0.0	0.2	11.6	0.5	0.3	0.0	0.0	4.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	99.2	18.2	3.5	140.8	10.2	5.3	72.2	0.0	0.0	85.2	0.0	0.0
LnGrp LOS	F	B	A	F	B	A	E			F		
Approach Vol, veh/h		2621			1677			7			97	
Approach Delay, s/veh		20.4			10.2			72.2			85.2	
Approach LOS		C			B			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	135.9		20.1	6.7	143.3		20.1				
Change Period (Y+Rc), s	5.0	7.4		6.3	6.2	7.4		6.3				
Max Green Setting (Gmax), s	22.0	107.6		21.7	13.8	114.6		21.7				
Max Q Clear Time (g_c+I1), s	9.1	37.6		2.6	2.2	92.6		13.5				
Green Ext Time (p_c), s	0.2	57.6		0.0	0.0	21.9		0.4				

Intersection Summary			
HCM 7th Control Delay, s/veh		18.0	
HCM 7th LOS		B	

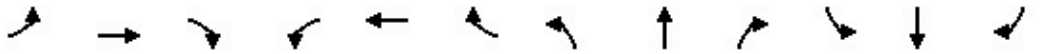
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	9	331	172	392	70	123	21	230	93
v/c Ratio	0.02	0.43	0.43	0.55	0.22	0.23	0.06	0.44	0.18
Control Delay (s/veh)	6.8	9.7	14.8	14.4	16.4	10.0	15.1	17.5	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.8	9.7	14.8	14.4	16.4	10.0	15.1	17.5	5.6
Queue Length 50th (ft)	1	45	25	59	11	9	3	39	0
Queue Length 95th (ft)	5	75	72	140	41	38	17	104	15
Internal Link Dist (ft)		479		5273		890		558	
Turn Bay Length (ft)	225		100		100		150		200
Base Capacity (vph)	1329	1750	773	1374	851	1281	938	1383	1198
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.19	0.22	0.29	0.08	0.10	0.02	0.17	0.08

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	185	37	115	258	5	47	36	46	14	154	62
Future Volume (veh/h)	6	185	37	115	258	5	47	36	46	14	154	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	9	276	55	172	385	7	70	54	69	21	230	0
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	333	703	140	511	565	10	335	175	224	411	440	
Arrive On Green	0.01	0.47	0.47	0.31	0.31	0.31	0.24	0.24	0.24	0.24	0.24	0.00
Sat Flow, veh/h	1753	1490	297	1032	1802	33	1132	734	938	1248	1841	1560
Grp Volume(v), veh/h	9	0	331	172	0	392	70	0	123	21	230	0
Grp Sat Flow(s),veh/h/ln	1753	0	1787	1032	0	1835	1132	0	1672	1248	1841	1560
Q Serve(g_s), s	0.1	0.0	4.6	5.3	0.0	7.1	2.2	0.0	2.3	0.5	4.2	0.0
Cycle Q Clear(g_c), s	0.1	0.0	4.6	5.3	0.0	7.1	6.4	0.0	2.3	2.9	4.2	0.0
Prop In Lane	1.00		0.17	1.00		0.02	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	333	0	843	511	0	575	335	0	399	411	440	
V/C Ratio(X)	0.03	0.00	0.39	0.34	0.00	0.68	0.21	0.00	0.31	0.05	0.52	
Avail Cap(c_a), veh/h	1656	0	1371	980	0	1407	936	0	1287	1073	1417	
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	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	6.6	10.8	0.0	11.5	15.5	0.0	12.0	13.2	12.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.4	0.0	1.4	0.3	0.0	0.4	0.1	1.0	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	0.0	0.0	0.9	0.8	0.0	2.1	0.5	0.0	0.7	0.1	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.6	0.0	6.9	11.2	0.0	12.9	15.8	0.0	12.4	13.2	13.7	0.0
LnGrp LOS	A		A	B		B	B		B	B	B	
Approach Vol, veh/h		340			564			193			251	
Approach Delay, s/veh		6.9			12.4			13.6			13.6	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	6.1	17.6		14.7		23.7		14.7				
Change Period (Y+Rc), s	5.6	5.6		5.5		5.6		5.5				
Max Green Setting (Gmax), s	29.4	29.4		29.5		29.4		29.5				
Max Q Clear Time (g_c+I1), s	2.1	9.1		8.4		6.6		6.2				
Green Ext Time (p_c), s	0.0	2.9		0.9		1.8		1.3				

Intersection Summary												
HCM 7th Control Delay, s/veh			11.4									
HCM 7th LOS			B									

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	51	1267	29	28	2286	261	34	89	69	21	32
v/c Ratio	0.29	0.48	0.02	0.09	0.91	0.22	0.27	0.52	0.60	0.12	0.13
Control Delay (s/veh)	77.4	8.2	0.0	4.3	25.9	3.2	75.2	74.0	94.4	70.0	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	77.4	8.2	0.0	4.3	25.9	3.2	75.2	74.0	94.4	70.0	1.0
Queue Length 50th (ft)	30	284	0	5	1102	26	37	88	78	23	0
Queue Length 95th (ft)	56	321	m0	14	#1544	64	77	151	138	54	0
Internal Link Dist (ft)		5013			864			491		2991	
Turn Bay Length (ft)	600		600	460		350	180		250		185
Base Capacity (vph)	450	2619	1189	379	2522	1175	160	215	146	216	288
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.48	0.02	0.07	0.91	0.22	0.21	0.41	0.47	0.10	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	1191	27	26	2149	245	32	57	26	65	20	30
Future Volume (veh/h)	48	1191	27	26	2149	245	32	57	26	65	20	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	51	1267	29	28	2286	261	34	61	0	69	21	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	6	6	6
Cap, veh/h	90	2583	1152	329	2577	1150	158	175		127	175	
Arrive On Green	0.03	0.75	0.75	0.02	0.75	0.75	0.10	0.10	0.00	0.10	0.10	0.00
Sat Flow, veh/h	3346	3441	1535	1725	3441	1535	1347	1811	0	1299	1811	1535
Grp Volume(v), veh/h	51	1267	29	28	2286	261	34	61	0	69	21	0
Grp Sat Flow(s),veh/h/ln	1673	1721	1535	1725	1721	1535	1347	1811	0	1299	1811	1535
Q Serve(g_s), s	2.6	24.7	0.8	0.6	84.4	8.7	4.0	5.4	0.0	8.9	1.8	0.0
Cycle Q Clear(g_c), s	2.6	24.7	0.8	0.6	84.4	8.7	5.8	5.4	0.0	14.3	1.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	2583	1152	329	2577	1150	158	175		127	175	
V/C Ratio(X)	0.57	0.49	0.03	0.09	0.89	0.23	0.21	0.35		0.54	0.12	
Avail Cap(c_a), veh/h	457	2583	1152	420	2577	1150	190	218		158	218	
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)	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	81.8	8.4	5.4	6.4	16.0	6.5	72.9	71.8	0.0	78.5	70.2	0.0
Incr Delay (d2), s/veh	7.0	0.6	0.0	0.1	5.0	0.5	1.4	2.5	0.0	7.5	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.0	0.2	0.2	28.5	2.6	1.5	2.6	0.0	3.2	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	88.8	9.0	5.4	6.5	20.9	6.9	74.3	74.3	0.0	86.0	70.8	0.0
LnGrp LOS	F	A	A	A	C	A	E	E		F	E	
Approach Vol, veh/h		1347			2575			95			90	
Approach Delay, s/veh		11.9			19.4			74.3			82.5	
Approach LOS		B			B			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	135.0		23.9	11.4	134.7		23.9				
Change Period (Y+Rc), s	7.4	7.4		7.5	6.8	7.4		7.5				
Max Green Setting (Gmax), s	12.6	114.6		20.5	23.2	104.6		20.5				
Max Q Clear Time (g_c+I1), s	2.6	26.7		16.3	4.6	86.4		7.8				
Green Ext Time (p_c), s	0.0	50.4		0.2	0.1	18.1		0.5				

Intersection Summary			
HCM 7th Control Delay, s/veh		19.6	
HCM 7th LOS		B	

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	202	1320	7	2	2265	126	2	52	180
v/c Ratio	0.79	0.46	0.01	0.03	1.00	0.12	0.01	0.48	0.12
Control Delay (s/veh)	91.2	5.5	0.0	71.0	39.5	8.6	56.5	87.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	91.2	5.5	0.0	71.0	39.5	8.6	56.5	87.8	0.2
Queue Length 50th (ft)	231	180	0	2	~1482	29	1	60	0
Queue Length 95th (ft)	330	390	0	m2	#1714	m49	12	110	0
Internal Link Dist (ft)		684			5013		634	1097	
Turn Bay Length (ft)	450		265	480		290			350
Base Capacity (vph)	278	2862	1289	136	2276	1048	212	171	1509
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.46	0.01	0.01	1.00	0.12	0.01	0.30	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	1214	6	2	2084	116	0	1	1	48	0	166
Future Volume (veh/h)	186	1214	6	2	2084	116	0	1	1	48	0	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796	1796
Adj Flow Rate, veh/h	202	1320	7	2	2265	126	0	1	0	52	0	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
Percent Heavy Veh, %	7	7	7	7	7	7	7	7	7	7	7	7
Cap, veh/h	223	2843	1268	5	2431	1084	0	85		106	0	
Arrive On Green	0.13	0.83	0.83	0.00	0.71	0.71	0.00	0.05	0.00	0.05	0.00	0.00
Sat Flow, veh/h	1711	3413	1522	1711	3413	1522	0	1796	0	1345	0	1522
Grp Volume(v), veh/h	202	1320	7	2	2265	126	0	1	0	52	0	0
Grp Sat Flow(s),veh/h/ln	1711	1706	1522	1711	1706	1522	0	1796	0	1345	0	1522
Q Serve(g_s), s	19.8	17.9	0.1	0.2	96.5	4.4	0.0	0.1	0.0	6.4	0.0	0.0
Cycle Q Clear(g_c), s	19.8	17.9	0.1	0.2	96.5	4.4	0.0	0.1	0.0	6.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	223	2843	1268	5	2431	1084	0	85		106	0	
V/C Ratio(X)	0.91	0.46	0.01	0.44	0.93	0.12	0.00	0.01		0.49	0.00	
Avail Cap(c_a), veh/h	272	2843	1268	139	2431	1084	0	229		215	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	1.00	1.00	0.34	0.34	0.34	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	72.9	3.9	2.4	84.6	20.9	7.7	0.0	77.2	0.0	80.3	0.0	0.0
Incr Delay (d2), s/veh	29.6	0.5	0.0	29.4	3.1	0.1	0.0	0.1	0.0	7.3	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	10.3	4.4	0.0	0.1	33.3	1.3	0.0	0.0	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	102.5	4.4	2.4	114.0	24.0	7.7	0.0	77.3	0.0	87.6	0.0	0.0
LnGrp LOS	F	A	A	F	C	A		E		F		
Approach Vol, veh/h		1529			2393			1			52	
Approach Delay, s/veh		17.4			23.2			77.3			87.6	
Approach LOS		B			C			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.2	128.5		14.3	6.7	149.0		14.3				
Change Period (Y+Rc), s	5.0	7.4		6.3	6.2	7.4		6.3				
Max Green Setting (Gmax), s	27.0	102.6		21.7	13.8	114.6		21.7				
Max Q Clear Time (g_c+I1), s	21.8	98.5		2.1	2.2	19.9		8.5				
Green Ext Time (p_c), s	0.4	4.1		0.0	0.0	55.0		0.2				

Intersection Summary			
HCM 7th Control Delay, s/veh		21.8	
HCM 7th LOS		C	

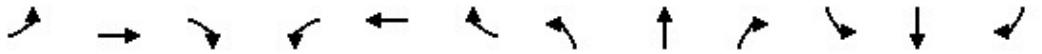
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	49	169	117	284	314	264	9	37	21
v/c Ratio	0.13	0.25	0.37	0.59	0.62	0.39	0.02	0.05	0.03
Control Delay (s/veh)	11.8	8.1	24.1	25.8	22.7	11.2	14.5	14.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.8	8.1	24.1	25.8	22.7	11.2	14.5	14.2	0.1
Queue Length 50th (ft)	11	23	40	104	103	45	2	9	0
Queue Length 95th (ft)	24	42	70	143	156	77	10	24	0
Internal Link Dist (ft)		479		2071		890		558	
Turn Bay Length (ft)	225		100		100		150		200
Base Capacity (vph)	985	1554	662	1009	749	961	591	1022	904
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.11	0.18	0.28	0.42	0.27	0.02	0.04	0.02

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	65	53	82	184	15	220	59	126	6	26	15
Future Volume (veh/h)	34	65	53	82	184	15	220	59	126	6	26	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	49	93	76	117	263	21	314	84	180	9	37	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	343	376	307	437	383	31	580	168	360	376	593	
Arrive On Green	0.05	0.41	0.41	0.24	0.24	0.24	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1697	907	741	1158	1628	130	1306	505	1082	1062	1781	1510
Grp Volume(v), veh/h	49	0	169	117	0	284	314	0	264	9	37	0
Grp Sat Flow(s),veh/h/ln	1697	0	1648	1158	0	1758	1306	0	1587	1062	1781	1510
Q Serve(g_s), s	0.9	0.0	2.9	3.8	0.0	6.5	9.5	0.0	5.8	0.3	0.6	0.0
Cycle Q Clear(g_c), s	0.9	0.0	2.9	3.8	0.0	6.5	10.1	0.0	5.8	6.1	0.6	0.0
Prop In Lane	1.00		0.45	1.00		0.07	1.00		0.68	1.00		1.00
Lane Grp Cap(c), veh/h	343	0	683	437	0	414	580	0	528	376	593	
V/C Ratio(X)	0.14	0.00	0.25	0.27	0.00	0.69	0.54	0.00	0.50	0.02	0.06	
Avail Cap(c_a), veh/h	1393	0	1104	940	0	1178	1023	0	1067	737	1198	
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	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.9	0.0	8.4	14.3	0.0	15.3	13.4	0.0	11.7	14.2	10.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.3	0.0	2.0	0.8	0.0	0.7	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.7	0.8	0.0	2.2	2.3	0.0	1.7	0.1	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.1	0.0	8.6	14.6	0.0	17.3	14.2	0.0	12.5	14.2	10.0	0.0
LnGrp LOS	B		A	B		B	B		B	B	B	
Approach Vol, veh/h		218			401			578			46	
Approach Delay, s/veh		9.1			16.5			13.4			10.8	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.8	15.9		20.1		23.8		20.1				
Change Period (Y+Rc), s	5.6	5.6		5.5		5.6		5.5				
Max Green Setting (Gmax), s	29.4	29.4		29.5		29.4		29.5				
Max Q Clear Time (g_c+I1), s	2.9	8.5		12.1		4.9		8.1				
Green Ext Time (p_c), s	0.1	1.9		2.5		0.8		0.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			13.6									
HCM 7th LOS			B									

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	195	2	5	288	1	1
Future Vol, veh/h	195	2	5	288	1	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	78	78	78	78	78	78
Heavy Vehicles, %	12	12	12	12	12	12
Mvmt Flow	250	3	6	369	1	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	253	0	633	251
Stage 1	-	-	-	-	251	-
Stage 2	-	-	-	-	382	-
Critical Hdwy	-	-	4.22	-	6.52	6.32
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.308	-	3.608	3.408
Pot Cap-1 Maneuver	-	-	1257	-	428	764
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	669	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1257	-	425	764
Mov Cap-2 Maneuver	-	-	-	-	425	-
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	669	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.13	11.62
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	546	-	-	31	-
HCM Lane V/C Ratio	0.005	-	-	0.005	-
HCM Ctrl Dly (s/v)	11.6	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	178	18	25	284	9	4
Future Vol, veh/h	178	18	25	284	9	4
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	78	78	78	78	78	78
Heavy Vehicles, %	12	12	12	12	12	12
Mvmt Flow	228	23	32	364	12	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	251	0	668	240
Stage 1	-	-	-	-	240	-
Stage 2	-	-	-	-	428	-
Critical Hdwy	-	-	4.22	-	6.52	6.32
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.308	-	3.608	3.408
Pot Cap-1 Maneuver	-	-	1258	-	408	775
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	636	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1258	-	395	775
Mov Cap-2 Maneuver	-	-	-	-	395	-
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	636	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.64	13.02
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	465	-	-	146	-
HCM Lane V/C Ratio	0.036	-	-	0.025	-
HCM Ctrl Dly (s/v)	13	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	165	17	25	299	9	4
Future Vol, veh/h	165	17	25	299	9	4
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	78	78	78	78	78	78
Heavy Vehicles, %	12	12	12	12	12	12
Mvmt Flow	212	22	32	383	12	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	233	0	670	222
Stage 1	-	-	-	-	222	-
Stage 2	-	-	-	-	447	-
Critical Hdwy	-	-	4.22	-	6.52	6.32
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.308	-	3.608	3.408
Pot Cap-1 Maneuver	-	-	1277	-	407	793
Stage 1	-	-	-	-	791	-
Stage 2	-	-	-	-	623	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1277	-	394	793
Mov Cap-2 Maneuver	-	-	-	-	394	-
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	623	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.61	13.01
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	466	-	-	139	-
HCM Lane V/C Ratio	0.036	-	-	0.025	-
HCM Ctrl Dly (s/v)	13	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	153	15	26	316	8	4
Future Vol, veh/h	153	15	26	316	8	4
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	78	78	78	78	78	78
Heavy Vehicles, %	12	12	12	12	12	12
Mvmt Flow	196	19	33	405	10	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	215	0	678	206
Stage 1	-	-	-	-	206	-
Stage 2	-	-	-	-	472	-
Critical Hdwy	-	-	4.22	-	6.52	6.32
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.308	-	3.608	3.408
Pot Cap-1 Maneuver	-	-	1297	-	403	810
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	607	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1297	-	390	810
Mov Cap-2 Maneuver	-	-	-	-	390	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	607	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.6	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	471	-	-	137	-
HCM Lane V/C Ratio	0.033	-	-	0.026	-
HCM Ctrl Dly (s/v)	12.9	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	151	6	5	339	3	1
Future Vol, veh/h	151	6	5	339	3	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	78	78	78	78	78	78
Heavy Vehicles, %	12	12	12	12	12	12
Mvmt Flow	194	8	6	435	4	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	201	0	645	197
Stage 1	-	-	-	-	197	-
Stage 2	-	-	-	-	447	-
Critical Hdwy	-	-	4.22	-	6.52	6.32
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.308	-	3.608	3.408
Pot Cap-1 Maneuver	-	-	1313	-	421	819
Stage 1	-	-	-	-	812	-
Stage 2	-	-	-	-	623	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1313	-	419	819
Mov Cap-2 Maneuver	-	-	-	-	419	-
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	623	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.11	12.63
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	477	-	-	26	-
HCM Lane V/C Ratio	0.011	-	-	0.005	-
HCM Ctrl Dly (s/v)	12.6	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	149	3	8	342	2	1
Future Vol, veh/h	149	3	8	342	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	78	78	78	78	78	78
Heavy Vehicles, %	12	12	12	12	12	12
Mvmt Flow	191	4	10	438	3	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	195	0	652	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	459	-
Critical Hdwy	-	-	4.22	-	6.52	6.32
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.52	-
Follow-up Hdwy	-	-	2.308	-	3.608	3.408
Pot Cap-1 Maneuver	-	-	1320	-	417	824
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	616	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1320	-	413	824
Mov Cap-2 Maneuver	-	-	-	-	413	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	616	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.18	12.32
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	495	-	-	41	-
HCM Lane V/C Ratio	0.008	-	-	0.008	-
HCM Ctrl Dly (s/v)	12.3	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Queues

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	48	2565	29	20	1531	134	17	55	249	81	48
v/c Ratio	0.27	1.04	0.03	0.19	0.65	0.12	0.08	0.18	1.16	0.27	0.15
Control Delay (s/veh)	66.4	47.2	0.4	10.2	18.3	2.1	61.9	35.4	169.9	65.3	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.4	47.2	0.4	10.2	18.3	2.1	61.9	35.4	169.9	65.3	4.3
Queue Length 50th (ft)	27	~1715	0	5	528	2	17	27	~334	82	0
Queue Length 95th (ft)	m29	#1833	m0	13	626	29	43	73	#528	140	14
Internal Link Dist (ft)		5013			864			491		1352	
Turn Bay Length (ft)	600		600	460		350	180		250		185
Base Capacity (vph)	424	2462	1124	213	2365	1099	210	298	215	298	317
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	1.04	0.03	0.09	0.65	0.12	0.08	0.18	1.16	0.27	0.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2411	27	19	1439	126	16	24	27	234	76	45
Future Volume (veh/h)	45	2411	27	19	1439	126	16	24	27	234	76	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	48	2565	29	20	1531	134	17	26	0	249	81	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	90	2429	1084	74	2412	1076	204	300		248	300	
Arrive On Green	0.03	0.69	0.69	0.02	0.68	0.68	0.16	0.16	0.00	0.16	0.16	0.00
Sat Flow, veh/h	3428	3526	1572	1767	3526	1572	1307	1856	0	1374	1856	1572
Grp Volume(v), veh/h	48	2565	29	20	1531	134	17	26	0	249	81	0
Grp Sat Flow(s),veh/h/ln	1714	1763	1572	1767	1763	1572	1307	1856	0	1374	1856	1572
Q Serve(g_s), s	2.4	117.1	1.0	0.6	41.2	5.0	2.0	2.0	0.0	25.5	6.5	0.0
Cycle Q Clear(g_c), s	2.4	117.1	1.0	0.6	41.2	5.0	8.5	2.0	0.0	27.5	6.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	2429	1084	74	2412	1076	204	300		248	300	
V/C Ratio(X)	0.53	1.06	0.03	0.27	0.63	0.12	0.08	0.09		1.00	0.27	
Avail Cap(c_a), veh/h	428	2429	1084	215	2412	1076	204	300		248	300	
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)	0.27	0.27	0.27	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	81.7	26.4	8.4	47.4	15.0	9.3	66.2	60.6	0.0	74.4	62.5	0.0
Incr Delay (d2), s/veh	1.9	28.5	0.0	1.9	1.3	0.2	0.4	0.3	0.0	57.9	1.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	51.3	0.3	0.6	15.2	1.7	0.7	1.0	0.0	14.8	3.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	83.6	54.9	8.4	49.3	16.3	9.5	66.5	60.8	0.0	132.4	63.5	0.0
LnGrp LOS	F	F	A	D	B	A	E	E		F	E	
Approach Vol, veh/h		2642			1685			43			330	
Approach Delay, s/veh		54.9			16.1			63.1			115.5	
Approach LOS		D			B			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	124.5		35.0	11.3	123.7		35.0				
Change Period (Y+Rc), s	7.4	7.4		7.5	6.8	7.4		7.5				
Max Green Setting (Gmax), s	16.6	103.6		27.5	21.2	99.6		27.5				
Max Q Clear Time (g_c+I1), s	2.6	119.1		29.5	4.4	43.2		10.5				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	47.2		0.2				

Intersection Summary			
HCM 7th Control Delay, s/veh		45.3	
HCM 7th LOS		D	

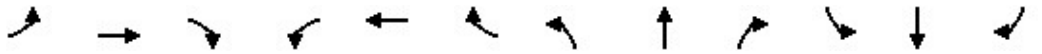
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	105	2540	7	2	1615	60	10	97	315
v/c Ratio	0.63	0.92	0.01	0.03	0.68	0.05	0.04	0.66	0.20
Control Delay (s/veh)	89.5	21.1	0.0	67.5	17.4	2.0	0.3	93.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	89.5	21.1	0.0	67.5	17.4	2.0	0.3	93.7	0.3
Queue Length 50th (ft)	118	958	0	2	397	0	0	108	0
Queue Length 95th (ft)	186	#1747	0	m4	517	m8	0	178	0
Internal Link Dist (ft)		684			5013		634	1097	
Turn Bay Length (ft)	450		265	480		290			350
Base Capacity (vph)	224	2764	1249	140	2381	1094	269	175	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.92	0.01	0.01	0.68	0.05	0.04	0.55	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	2388	7	2	1518	56	7	0	3	91	0	296
Future Volume (veh/h)	99	2388	7	2	1518	56	7	0	3	91	0	296
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	105	2540	7	2	1615	60	7	0	0	97	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	126	2795	1247	5	2578	1150	180	0		157	0	
Arrive On Green	0.07	0.80	0.80	0.00	0.74	0.74	0.08	0.00	0.00	0.08	0.00	0.00
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1694	0	0	1411	0	1560
Grp Volume(v), veh/h	105	2540	7	2	1615	60	7	0	0	97	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1694	0	0	1411	0	1560
Q Serve(g_s), s	10.1	90.6	0.2	0.2	38.3	1.8	0.0	0.0	0.0	10.9	0.0	0.0
Cycle Q Clear(g_c), s	10.1	90.6	0.2	0.2	38.3	1.8	0.6	0.0	0.0	11.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	126	2795	1247	5	2578	1150	180	0		157	0	
V/C Ratio(X)	0.83	0.91	0.01	0.43	0.63	0.05	0.04	0.00		0.62	0.00	
Avail Cap(c_a), veh/h	227	2795	1247	142	2578	1150	245	0		222	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	1.00	1.00	0.74	0.74	0.74	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	77.9	12.5	3.4	84.6	10.9	6.1	72.1	0.0	0.0	77.0	0.0	0.0
Incr Delay (d2), s/veh	17.9	5.6	0.0	54.9	0.9	0.1	0.2	0.0	0.0	8.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	27.7	0.0	0.2	12.9	0.5	0.3	0.0	0.0	4.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	95.8	18.2	3.5	139.6	11.8	6.2	72.2	0.0	0.0	85.2	0.0	0.0
LnGrp LOS	F	B	A	F	B	A	E			F		
Approach Vol, veh/h		2652			1677			7			97	
Approach Delay, s/veh		21.2			11.7			72.2			85.2	
Approach LOS		C			B			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.2	132.7		20.1	6.7	143.3		20.1				
Change Period (Y+Rc), s	5.0	7.4		6.3	6.2	7.4		6.3				
Max Green Setting (Gmax), s	22.0	107.6		21.7	13.8	114.6		21.7				
Max Q Clear Time (g_c+I1), s	12.1	40.3		2.6	2.2	92.6		13.5				
Green Ext Time (p_c), s	0.2	55.7		0.0	0.0	21.9		0.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			19.1									
HCM 7th LOS			B									

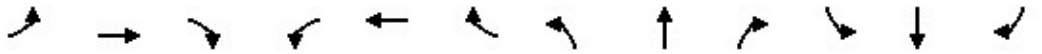
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Queues

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	9	339	269	400	70	166	21	230	93
v/c Ratio	0.02	0.36	0.54	0.45	0.27	0.35	0.07	0.51	0.21
Control Delay (s/veh)	6.3	8.1	16.2	12.0	20.2	10.7	17.6	22.2	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	6.3	8.1	16.2	12.0	20.2	10.7	17.6	22.2	6.3
Queue Length 50th (ft)	1	47	44	61	16	15	4	55	0
Queue Length 95th (ft)	5	77	115	143	42	40	17	106	15
Internal Link Dist (ft)		479		2034		890		558	
Turn Bay Length (ft)	225		100		100		150		200
Base Capacity (vph)	1101	1748	633	1132	667	1061	742	1139	1003
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.19	0.42	0.35	0.10	0.16	0.03	0.20	0.09

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	190	37	180	263	5	47	36	75	14	154	62
Future Volume (veh/h)	6	190	37	180	263	5	47	36	75	14	154	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	9	284	55	269	393	7	70	54	112	21	230	0
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	360	747	145	533	639	11	318	128	265	355	441	
Arrive On Green	0.01	0.50	0.50	0.35	0.35	0.35	0.24	0.24	0.24	0.24	0.24	0.00
Sat Flow, veh/h	1753	1498	290	1025	1803	32	1132	534	1107	1200	1841	1560
Grp Volume(v), veh/h	9	0	339	269	0	400	70	0	166	21	230	0
Grp Sat Flow(s),veh/h/ln	1753	0	1788	1025	0	1835	1132	0	1641	1200	1841	1560
Q Serve(g_s), s	0.1	0.0	5.0	9.7	0.0	7.6	2.4	0.0	3.6	0.6	4.6	0.0
Cycle Q Clear(g_c), s	0.1	0.0	5.0	9.7	0.0	7.6	7.0	0.0	3.6	4.3	4.6	0.0
Prop In Lane	1.00		0.16	1.00		0.02	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	360	0	892	533	0	651	318	0	393	355	441	
V/C Ratio(X)	0.02	0.00	0.38	0.50	0.00	0.61	0.22	0.00	0.42	0.06	0.52	
Avail Cap(c_a), veh/h	1556	0	1241	881	0	1273	835	0	1143	903	1282	
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	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.4	0.0	6.6	12.0	0.0	11.3	17.1	0.0	13.6	15.4	14.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.7	0.0	0.9	0.3	0.0	0.7	0.1	1.0	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	0.0	0.0	1.0	1.6	0.0	2.2	0.6	0.0	1.2	0.2	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.5	0.0	6.8	12.7	0.0	12.2	17.4	0.0	14.4	15.5	15.0	0.0
LnGrp LOS	A		A	B		B	B		B	B	B	
Approach Vol, veh/h		348			669			236			251	
Approach Delay, s/veh		6.9			12.4			15.3			15.0	
Approach LOS		A			B			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	6.1	20.6		15.6		26.7		15.6				
Change Period (Y+Rc), s	5.6	5.6		5.5		5.6		5.5				
Max Green Setting (Gmax), s	29.4	29.4		29.5		29.4		29.5				
Max Q Clear Time (g_c+I1), s	2.1	11.7		9.0		7.0		6.6				
Green Ext Time (p_c), s	0.0	3.3		1.1		1.8		1.3				

Intersection Summary												
HCM 7th Control Delay, s/veh			12.0									
HCM 7th LOS			B									

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	276	2	1	242	3	3
Future Vol, veh/h	276	2	1	242	3	3
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	76	76	76	76	76	76
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	363	3	1	318	4	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	366	0	686	364
Stage 1	-	-	-	-	364	-
Stage 2	-	-	-	-	321	-
Critical Hdwy	-	-	4.19	-	6.49	6.29
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.281	-	3.581	3.381
Pot Cap-1 Maneuver	-	-	1155	-	403	665
Stage 1	-	-	-	-	687	-
Stage 2	-	-	-	-	720	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1155	-	402	665
Mov Cap-2 Maneuver	-	-	-	-	402	-
Stage 1	-	-	-	-	687	-
Stage 2	-	-	-	-	720	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.03	12.29
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	501	-	-	7	-
HCM Lane V/C Ratio	0.016	-	-	0.001	-
HCM Ctrl Dly (s/v)	12.3	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	270	10	4	226	18	24
Future Vol, veh/h	270	10	4	226	18	24
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	76	76	76	76	76	76
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	355	13	5	297	24	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	368	0	670	362
Stage 1	-	-	-	-	362	-
Stage 2	-	-	-	-	308	-
Critical Hdwy	-	-	4.19	-	6.49	6.29
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.281	-	3.581	3.381
Pot Cap-1 Maneuver	-	-	1153	-	412	667
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	730	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1153	-	409	667
Mov Cap-2 Maneuver	-	-	-	-	409	-
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	730	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.14	12.65
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	526	-	-	31	-
HCM Lane V/C Ratio	0.105	-	-	0.005	-
HCM Ctrl Dly (s/v)	12.7	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	286	9	5	210	19	24
Future Vol, veh/h	286	9	5	210	19	24
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	76	76	76	76	76	76
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	376	12	7	276	25	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	388	0	672	382
Stage 1	-	-	-	-	382	-
Stage 2	-	-	-	-	289	-
Critical Hdwy	-	-	4.19	-	6.49	6.29
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.281	-	3.581	3.381
Pot Cap-1 Maneuver	-	-	1133	-	411	650
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	744	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1133	-	408	650
Mov Cap-2 Maneuver	-	-	-	-	408	-
Stage 1	-	-	-	-	670	-
Stage 2	-	-	-	-	744	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.19	12.85
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	515	-	-	42	-
HCM Lane V/C Ratio	0.11	-	-	0.006	-
HCM Ctrl Dly (s/v)	12.9	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	301	9	6	194	21	26
Future Vol, veh/h	301	9	6	194	21	26
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	76	76	76	76	76	76
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	396	12	8	255	28	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	408	0	673	402
Stage 1	-	-	-	-	402	-
Stage 2	-	-	-	-	271	-
Critical Hdwy	-	-	4.19	-	6.49	6.29
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.281	-	3.581	3.381
Pot Cap-1 Maneuver	-	-	1114	-	410	633
Stage 1	-	-	-	-	661	-
Stage 2	-	-	-	-	759	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1114	-	406	633
Mov Cap-2 Maneuver	-	-	-	-	406	-
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.25	13.09
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	507	-	-	54	-
HCM Lane V/C Ratio	0.122	-	-	0.007	-
HCM Ctrl Dly (s/v)	13.1	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	324	3	1	195	5	6
Future Vol, veh/h	324	3	1	195	5	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	76	76	76	76	76	76
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	426	4	1	257	7	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	430	0	688	428
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	259	-
Critical Hdwy	-	-	4.19	-	6.49	6.29
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.281	-	3.581	3.381
Pot Cap-1 Maneuver	-	-	1093	-	402	612
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	768	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1093	-	401	612
Mov Cap-2 Maneuver	-	-	-	-	401	-
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	768	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.04	12.51
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	494	-	-	9	-
HCM Lane V/C Ratio	0.029	-	-	0.001	-
HCM Ctrl Dly (s/v)	12.5	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	328	2	2	193	3	8
Future Vol, veh/h	328	2	2	193	3	8
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	76	76	76	76	76	76
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	432	3	3	254	4	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	434	0	692	433
Stage 1	-	-	-	-	433	-
Stage 2	-	-	-	-	259	-
Critical Hdwy	-	-	4.19	-	6.49	6.29
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.281	-	3.581	3.381
Pot Cap-1 Maneuver	-	-	1089	-	399	608
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	768	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1089	-	398	608
Mov Cap-2 Maneuver	-	-	-	-	398	-
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	768	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.09	11.96
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	532	-	-	18	-
HCM Lane V/C Ratio	0.027	-	-	0.002	-
HCM Ctrl Dly (s/v)	12	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-