

**TRAFFIC IMPACT STUDY  
FOR  
AMANA ACADEMY CHARTER SCHOOL AT  
2200 LAKE PARK DRIVE, SMYRNA  
COBB COUNTY, GEORGIA**



*Prepared for:*

***Amana Academy  
285 South Main Street  
Alpharetta, GA 30009***

*Prepared By:*



**A&R Engineering Inc.**

2160 Kingston Court, Suite O  
Marietta, GA 30067

Tel: (770) 690-9255 Fax: (770) 690-9210  
[www.areng.com](http://www.areng.com)

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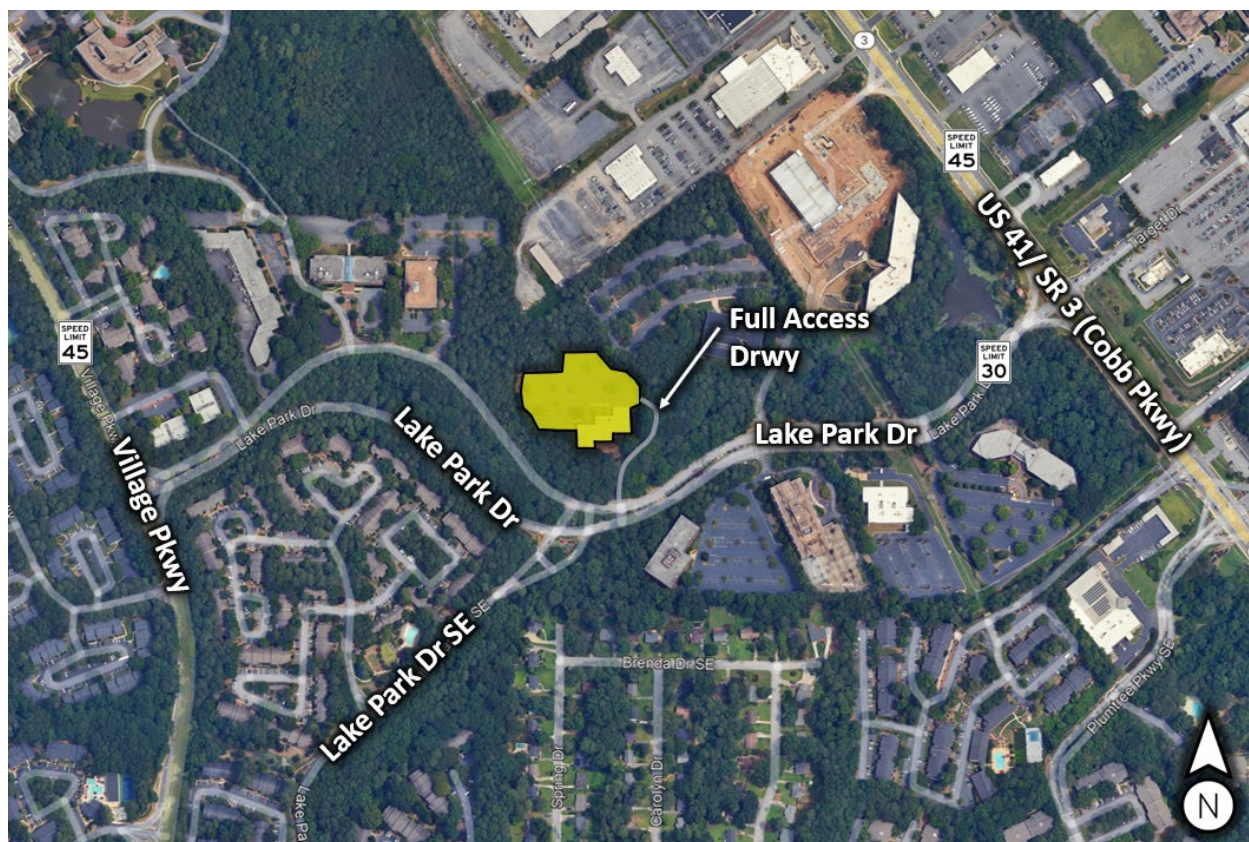
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# 1.0 INTRODUCTION

The purpose of this study is to determine the traffic impact from the proposed Amana Academy Charter School that will be located at 2200 Lake Park Drive, Smyrna, in Cobb County, Georgia. The traffic analysis evaluates the current operations and future “No-Build” and “Build” conditions for Phase 1 (opening year 2025) and full build out year (2031) with the traffic generated by the proposed development.

Phase 1 consists of only the kindergarten through 5th grade classrooms opening with 314 students in 2025. Phase 2 will represent full build-out in 2031. At full build-out, the kindergarten through 8th grade classrooms will have a total of 618 students.

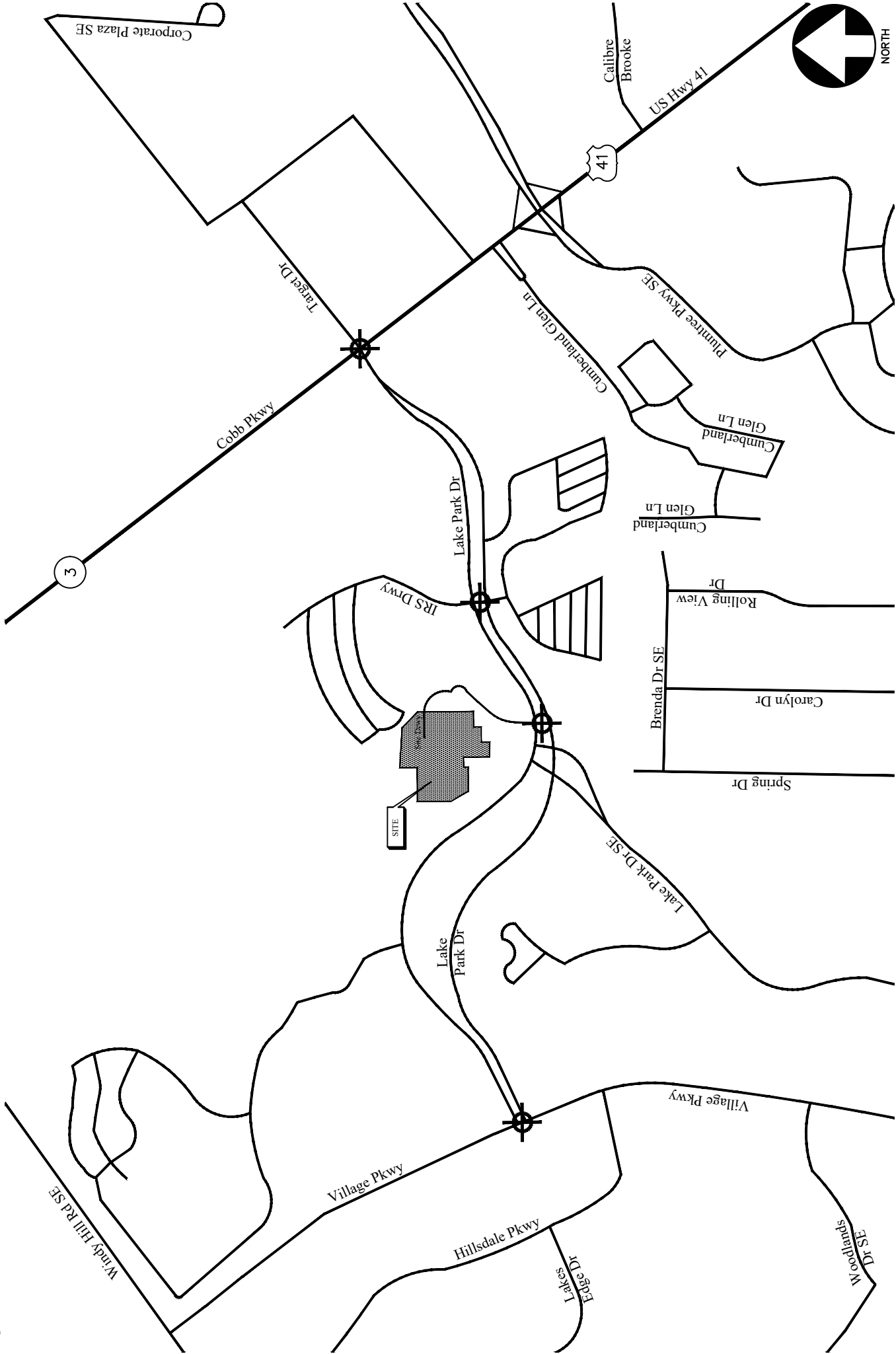


The development proposes using the existing full access driveway on Lake Park Drive. The existing building, consisting of 35,600 sf, is currently occupied by Murata Electronics Inc. and will be vacated by Murata Electronics. The school will add 3 modular buildings of 4,000 sf each.

The AM, PM and school dismissal peak hours have been analyzed in this study. In addition to the site access, this study includes the evaluation of traffic operations at the intersections of:

- Lake Park Drive at US 41/ SR 3 (Cobb Parkway)
- Lake Park Drive at Internal Revenue Service’s Driveway
- Lake Park Drive at 2200 Lake Park Drive Site Driveway (Murata Electronics Driveway)
- Lake Park Drive at Village Parkway

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report. The location of the development and the surrounding roadway network is shown in Figure 1.



LOCATION MAP

FIGURE 1

## **2.0 EXISTING FACILITIES / CONDITIONS**

### **2.1 Roadway Facilities**

The following is a brief description of each of the roadway facilities located in proximity to the site:

#### **2.1.1 US 41/ SR 3 (Cobb Parkway)**

US 41/ SR 3 (Cobb Parkway) is a northwest-southeast, four-lane roadway with a two-way left-turn lane and posted with a speed limit of 45 mph in the vicinity of the site. Cobb County DOT traffic counts (Station ID 067-2143) indicate that the daily traffic volume on US 41/ SR 3 (Cobb Parkway) in 2022 was 35,800 vehicles per day southeast of Lake Park Drive. Cobb County DOT classifies US 41/ SR 3 (Cobb Parkway) as a Principal Urban Arterial roadway.

#### **2.1.2 Lake Park Drive**

Lake Park Drive is an east-west, two-lane, undivided roadway with a posted speed limit of 30 mph. Cobb County DOT classifies Lake Park Drive as a Local Street.

#### **2.1.3 Village Parkway**

Village Parkway is a north-south, four-lane, undivided roadway with a posted speed limit of 45 mph. Cobb County DOT classifies Village Parkway as a Local Street.

## 3.0 STUDY METHODOLOGY

In this study, the methodology used for evaluating traffic operations at each of the subject intersections is based on the criteria set forth in the Transportation Research Board's Highway Capacity Manual, 6<sup>th</sup> edition (HCM 6). Synchro software, which utilizes the HCM methodology, was used for the analysis. HCM 2000 was used to report the level of service at the entry only driveway because HCM 6<sup>th</sup> expects at least one stop-controlled approach at the intersection to report the results and the intersection of Pebblebrook Road at the entry only site driveway does not have any traffic control. The following is a description of the methodology employed for the analysis of unsignalized and signalized intersections.

### 3.1 Unsignalized Intersections

For unsignalized intersections controlled by a stop sign on minor streets, the level-of-service (LOS) for motor vehicles with controlled movements is determined by the computed control delay according to the thresholds stated in Table 1 below. LOS is determined for each minor street movement (or shared movement), as well as major street left turns. LOS is not defined for the intersection as a whole or for major street approaches. The LOS of any controlled movement which experiences a volume to capacity ratio greater than 1 is designated as "F" regardless of the control delay.

Control delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Several factors affect the control delay for unsignalized intersections, such as the availability and distribution of gaps in the conflicting traffic stream, critical gaps, and follow-up time for a vehicle in the queue.

Level-of-service is assigned a letter designation from "A" through "F". Level-of-service "A" indicates excellent operations with little delay to motorists, while level-of-service "F" exists when there are insufficient gaps of acceptable size to allow vehicles on the side street to cross the main road without experiencing long delays.

TABLE 1 — LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS		
Control Delay (sec/vehicle)	LOS by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	v/c > 1.0
≤ 10	A	F
> 10 and ≤ 15	B	F
> 15 and ≤ 25	C	F
> 25 and ≤ 35	D	F
> 35 and ≤ 50	E	F
> 50	F	F

\*The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection.

Source: Highway Capacity Manual, 6<sup>th</sup> edition, Exhibit 20-2 *LOS Criteria: Motorized Vehicle Mode*

## 3.2 Signalized Intersections

According to HCM procedures, LOS can be calculated for the entire intersection, each intersection approach, and each lane group. HCM uses control delay alone to characterize LOS for the entire intersection or an approach. Control delay per vehicle is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Both control delay and volume-to-capacity ratio is used to characterize LOS for a lane group. A volume-to-capacity ratio greater than 1.0 for a lane group indicates failure from capacity perspective. Therefore, such a lane group is assigned LOS F regardless of the amount of control delay.

Table 2 below summarizes the LOS criteria from HCM for motorized vehicles at signalized intersection.

TABLE 2 — LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS		
Control Delay (sec/vehicle) *	LOS for Lane Group by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	v/c > 1.0
≤ 10	A	F
> 10 and ≤ 20	B	F
> 20 and ≤ 35	C	F
> 35 and ≤ 55	D	F
> 55 and ≤ 80	E	F
> 80	F	F

\*For approach-based and intersection wide assessments, LOS is defined solely by control delay

Source: Highway Capacity Manual, 6<sup>th</sup> edition, Exhibit 19-8 *LOS Criteria: Motorized Vehicle Mode*

LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. However, more vehicles are stopped than with LOS A. LOS C is typically assigned when progression is favorable, or the cycle length is moderate. Individual *cycle failures* (one or more queued vehicles are not able to depart because of insufficient capacity during the cycle) may begin to appear at this level. Many vehicles still pass through the intersection without stopping, but the number of vehicles stopping is significant. LOS D is typically assigned when the v/c ratio is high and either progression is ineffective, or the cycle length is long. There are many vehicle-stops and individual cycle failures are noticeable. LOS E is typically assigned when the v/c ratio is high, progression is very poor, the cycle length is long, and individual cycle failures are frequent. LOS F is typically assigned when the v/c ratio is very high, progression is very poor, the cycle length is long, and most cycles fail to clear the queue.

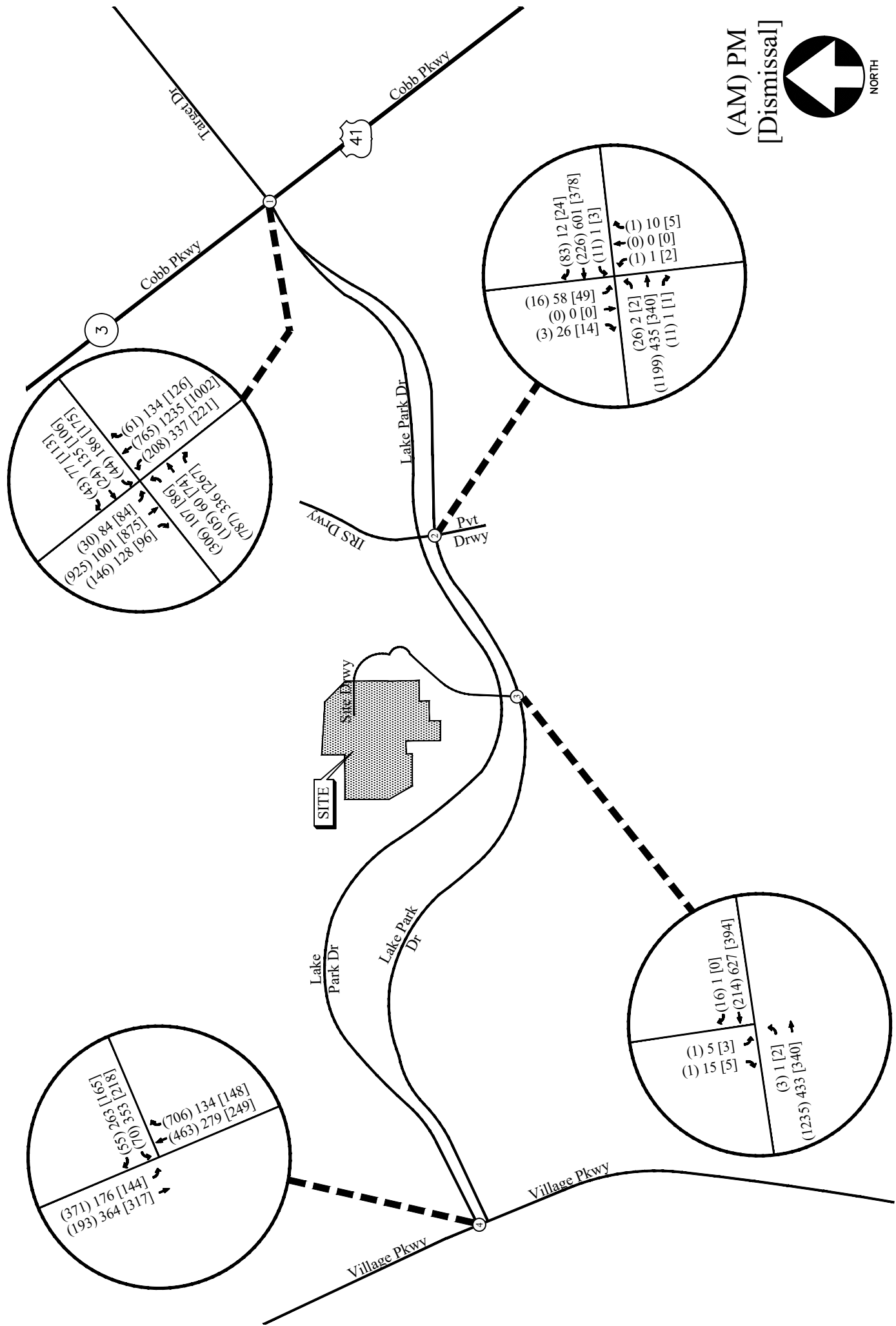
## **4.0 EXISTING 2023 TRAFFIC ANALYSIS**

### **4.1 Existing 2023 Traffic Volumes**

Existing traffic counts were obtained at the following study intersection:

- Lake Park Drive at US 41/ SR 3 (Cobb Parkway)
- Lake Park Drive at Internal Revenue Service's Driveway
- Lake Park Drive at 2200 Lake Park Drive Site Driveway (Murata Electronics Driveway)
- Lake Park Drive at Village Parkway

Turning movement counts were collected on Wednesday, November 15, 2023. All turning movement counts were recorded during the AM, PM and school dismissal peak hours between 7:00 AM to 9:00 AM, 2:00 PM to 6:00 PM respectively. The four consecutive 15-minute interval volumes that produced the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersections are shown in Figure 3.

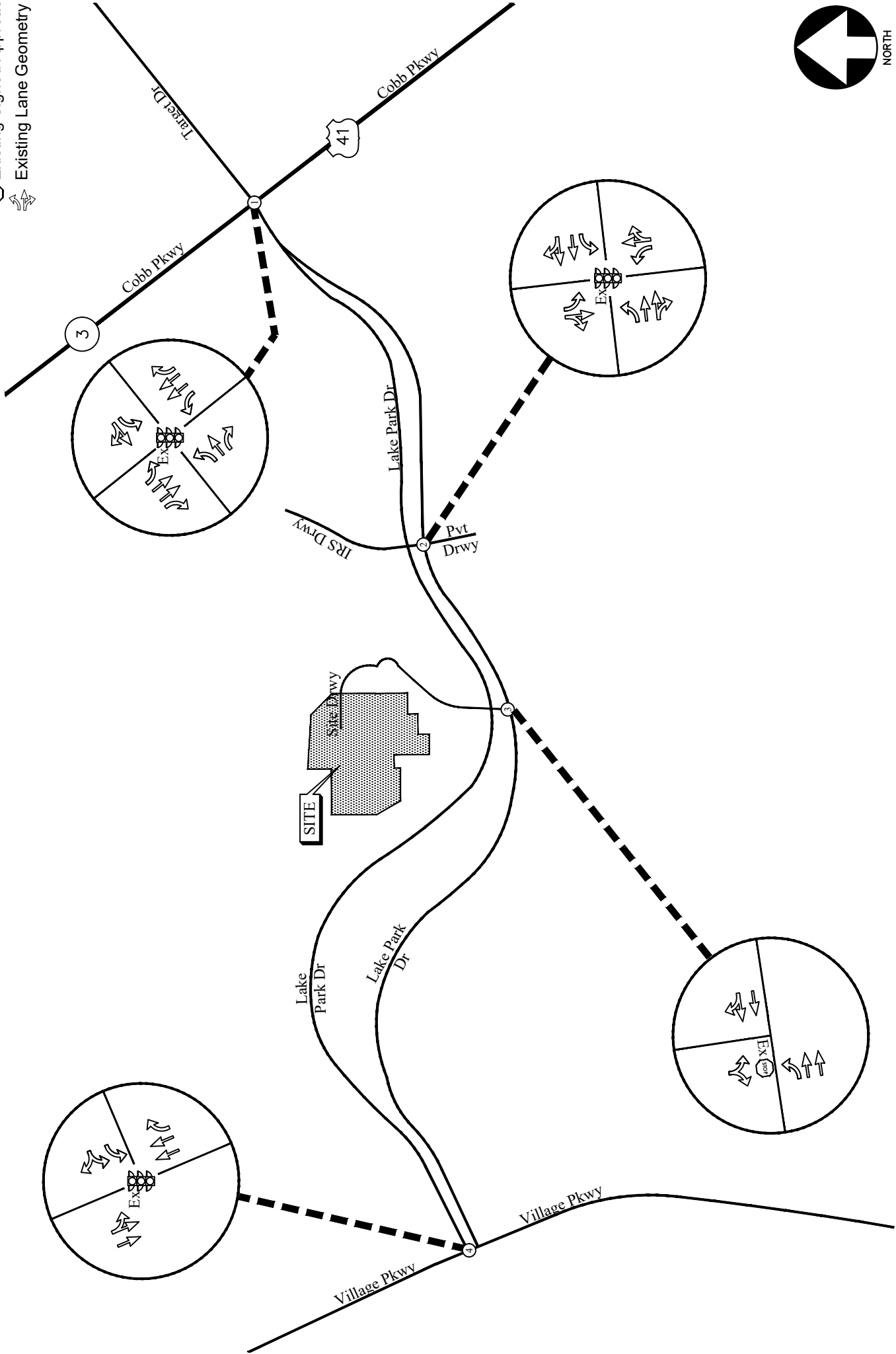


EXISTING WEEKDAY PEAK-HOUR VOLUMES

FIGURE 2

LEGEND

- Ex (with circle and arrow) Existing Signed Approach
- Existing Lane Geometry



EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 3

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## 4.2 Existing 2023 Traffic Operations

Existing 2023 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analysis are shown in Table 3.

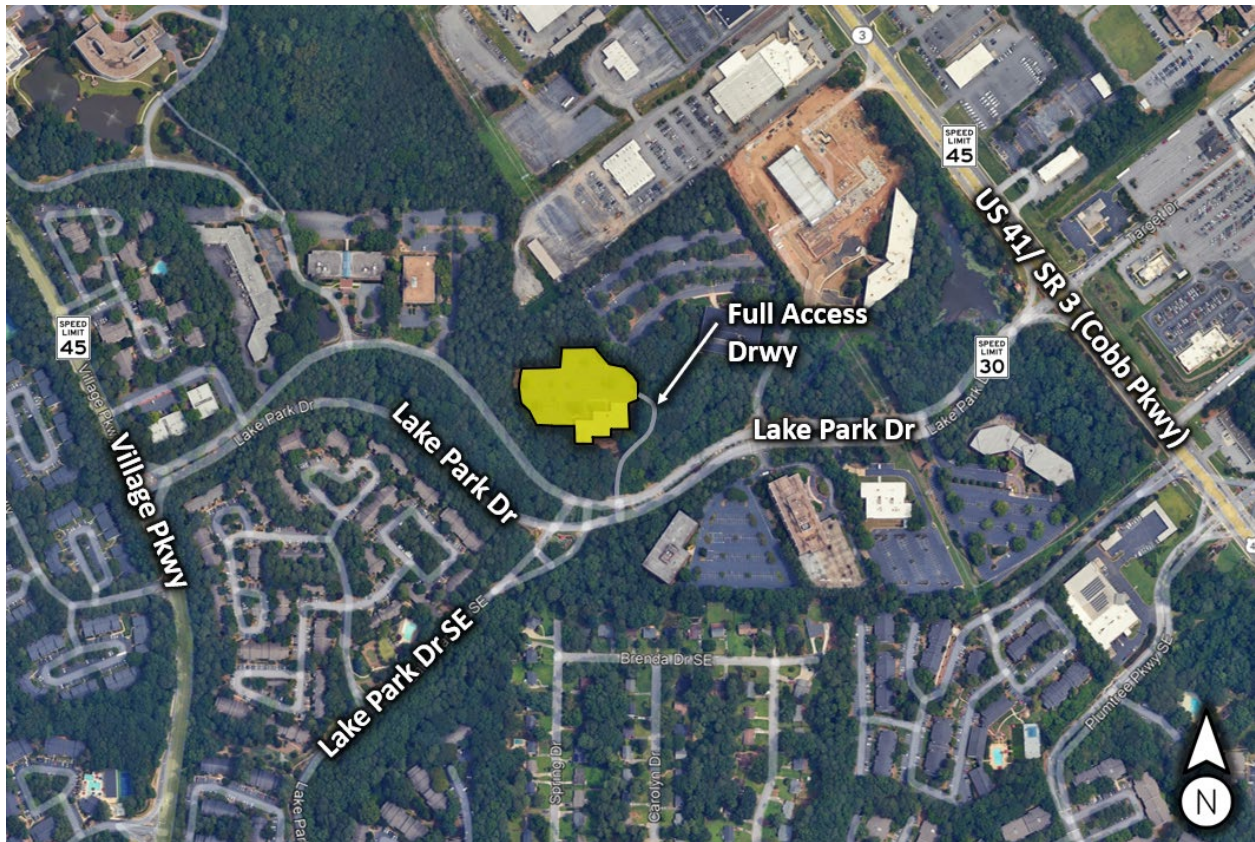
TABLE 3 — EXISTING INTERSECTION OPERATIONS					
Intersection		Traffic Control	LOS (Delay)		
			AM Peak	PM Peak	Dismissal Peak
<b>1</b>	<b><u>US 41/ SR 3 (Cobb Parkway) @ Lake Park Dr/ Target Drwy</u></b>	Signalized	<b><u>C (25.4)</u></b>	<b><u>C (27.2)</u></b>	<b><u>C (23.3)</u></b>
	-Eastbound Approach		E (55.0)	D (44.6)	D (46.1)
	-Westbound Approach		E (58.7)	D (52.5)	D (53.1)
	-Northbound Approach		B (15.1)	C (21.8)	C (15.7)
	-Southbound Approach		B (19.8)	C (23.8)	C (18.0)
<b>2</b>	<b><u>Lake Park Dr @ Internal Revenue Service's Drwy/ Private Drwy</u></b>	Signalized	<b><u>A (6.0)</u></b>	<b><u>A (8.0)</u></b>	<b><u>A (8.0)</u></b>
	-Eastbound Approach		A (5.4)	A (3.6)	A (3.3)
	-Westbound Approach		A (4.9)	A (3.7)	A (3.4)
	-Northbound Approach		D (57.1)	D (53.2)	D (54.5)
	-Southbound Approach		E (58.4)	E (56.6)	E (57.6)
<b>3</b>	<b><u>Lake Park Dr @ Murata Electronics Drwy</u></b>	Stop Controlled on SB approach	A (7.8)	A (9.0)	A (8.2)
	-Eastbound Left -Southbound Approach		B (14.2)	B (12.9)	B (11.1)
<b>4</b>	<b><u>Lake Park Dr @ Village Pkwy</u></b>	Signalized	<b><u>A (6.6)</u></b>	<b><u>C (20.1)</u></b>	<b><u>B (15.7)</u></b>
	-Westbound Approach		E (69.7)	D (54.7)	E (59.5)
	-Northbound Approach		A (1.5)	A (5.8)	A (3.4)
	-Southbound Approach		A (3.8)	A (7.6)	A (4.3)

The results of existing traffic operations analysis indicate that all signalized study intersections are operating at a level of service "C" or better in all the AM, PM and School dismissal peak hours. The approaches at unsignalized study intersection of Lake Park Dr at Murata Electronics Driveway are operating at a level of service "B" or better in all the AM, PM and School dismissal peak hours.

## 5.0 PROPOSED DEVELOPMENT

The proposed Amana Academy Charter School will be located at 2200 Lake Park Drive, Smyrna, in Cobb County. The existing building consisting of 35,600 sf is currently occupied by Murata Electronics Inc. and will be vacated by Murata Electronics. The school will add 3 modular buildings of 4,000 sf each. The school proposes to open in two phases. Phase 1 consists of only the kindergarten through 5th grade classrooms opening with 314 students in 2025. Phase 2 will represent full build-out in 2031. At full build-out, the kindergarten through 8th grade classrooms will have a total of 618 students.

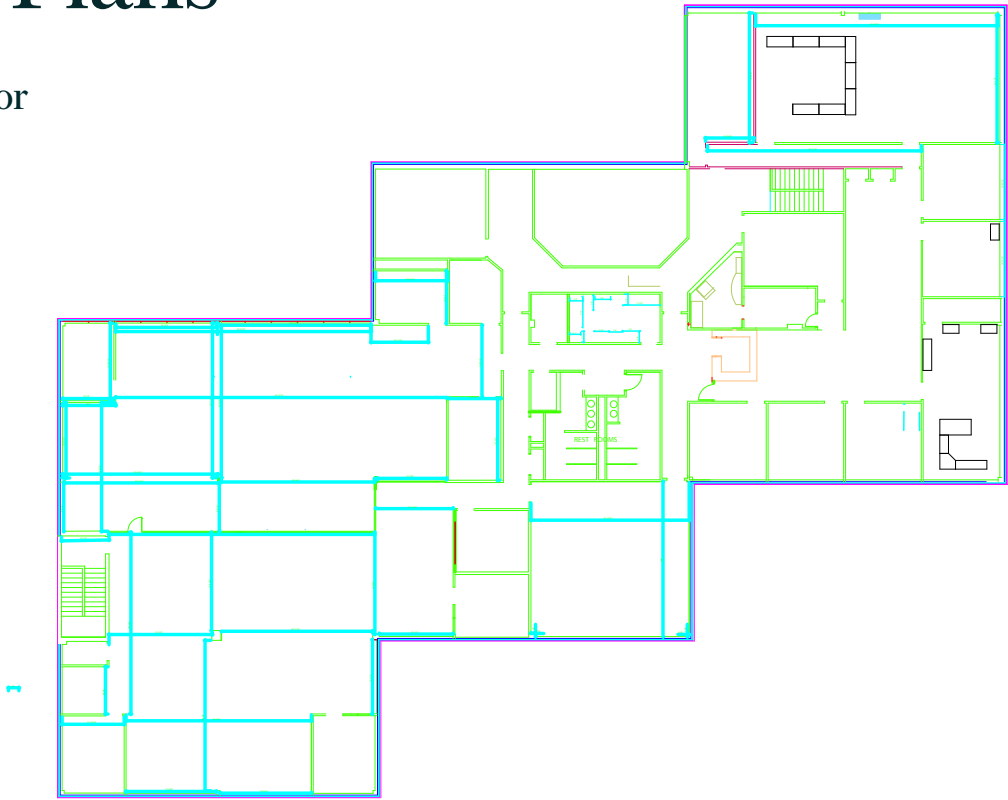
The development proposes using the existing full access driveway on Lake Park Drive.



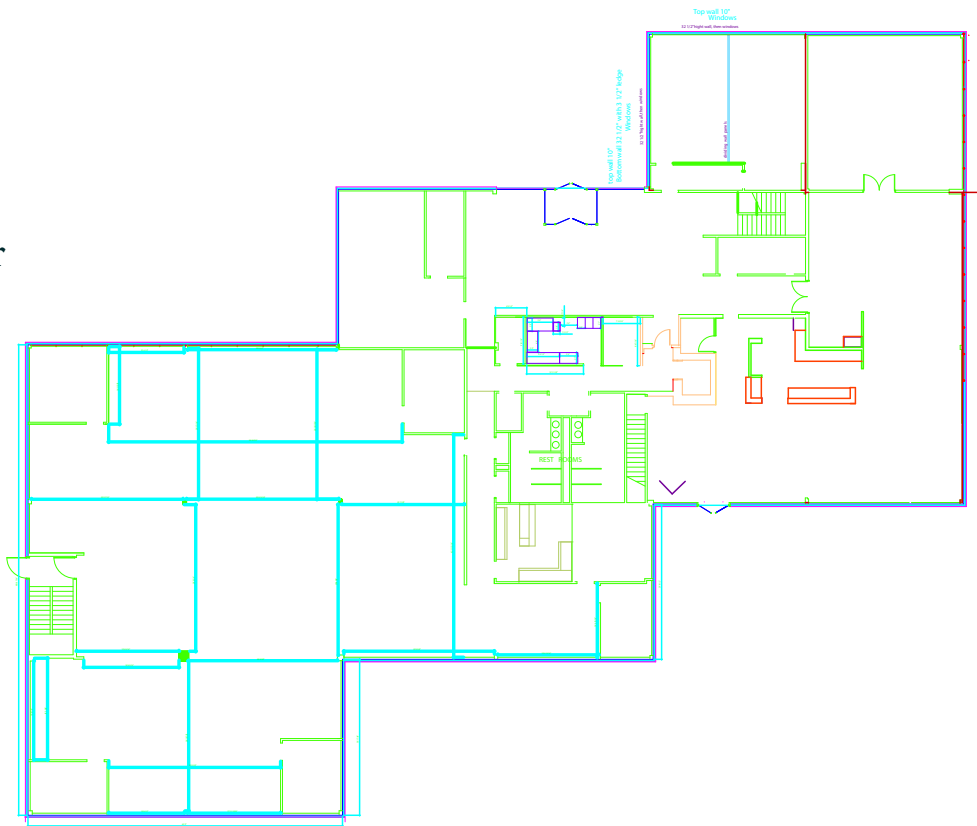
A site plan is shown in Figure 4.

# Floor Plans

First Floor



Second Floor



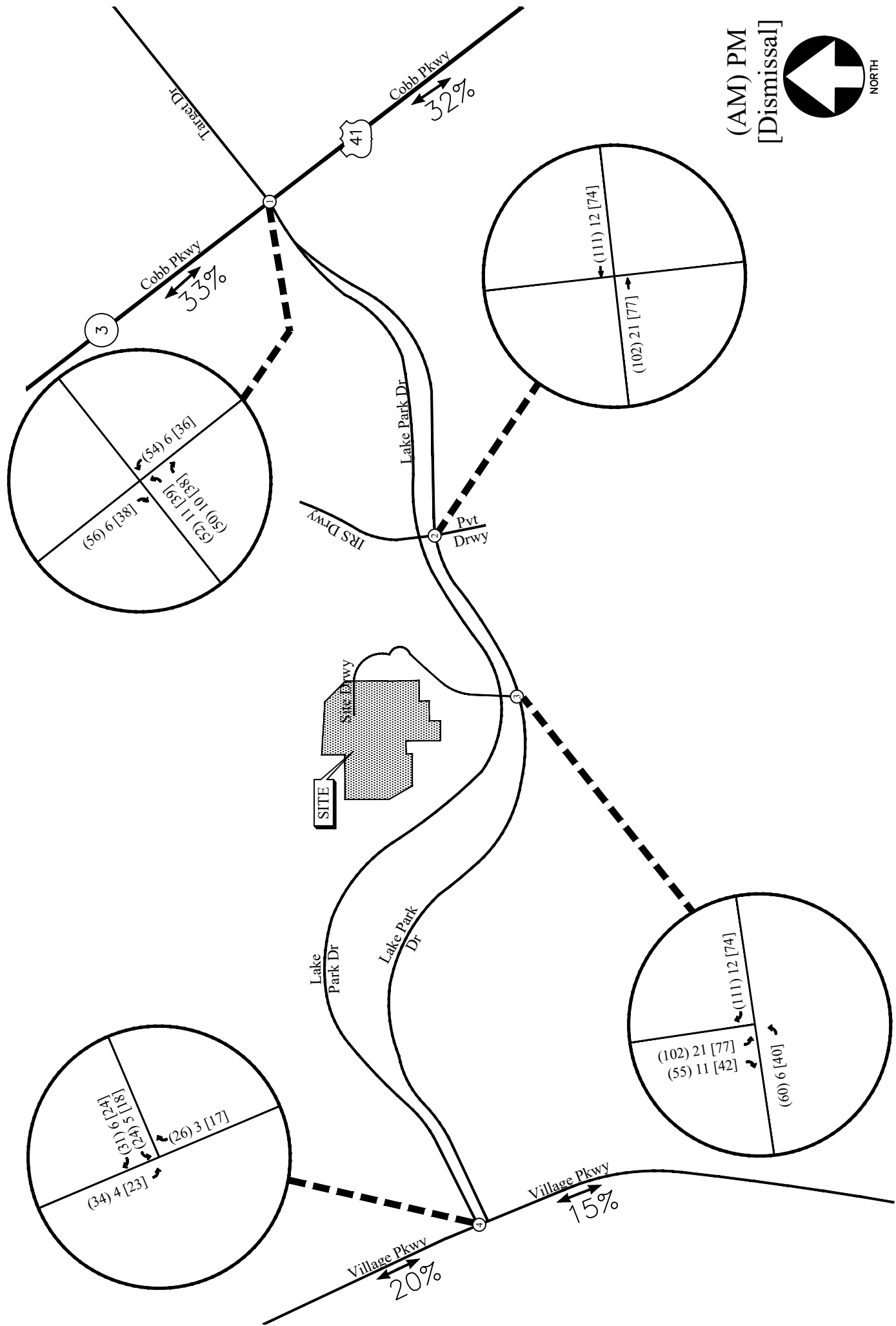
## 5.1 Trip Generation

Trip generation estimates for the project were based on the rates and equations published in the 11<sup>th</sup> edition of the Institute of Transportation Engineers (ITE) Trip Generation report. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE Land Uses: 536 - *Charter Elementary School* and 530 – *Private School (K-8)*. The calculated trip generation for the proposed development for the opening year 2025 and full build-out year 2031 is shown below in Table 4.

TABLE 4 – TRIP GENERATION									
Year	Land Use	Number of Students	AM Peak Hour		PM Peak Hour		School Dismissal Peak Hour		24-Hr
			Enter	Exit	Enter	Exit	Enter	Exit	2-way
2025 (Opening Year)	Charter Elementary School	314	170	157	18	32	114	119	581
2031 (Full Build-out)	Private School (K-8)	618	361	284	74	87	175	197	2,540

## 5.2 Trip Distribution

The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on a review of the existing travel patterns in the area and the locations of major roadways and highways that will serve the development and location of the school in the school district. The site-generated peak hour traffic volumes, shown in Table 4, were assigned to the study area intersections based on this distribution. The outer-leg distribution along with the AM, School Dismissal, and PM peak hour traffic generated by the development are shown in Figures 5 and 6 for the opening year 2025 and full build-out year 2031.



(AM) PM  
[Dismissal]



TRIP DISTRIBUTION AND SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES (2025)

FIGURE 5

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## **6.0 FUTURE TRAFFIC ANALYSIS**

The future 2025 traffic operations are analyzed for the “Build” and “No-Build” conditions.

### **6.1 Future “No-Build” Conditions**

The “No-Build” (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future “No-Build” volumes consist of the existing traffic volumes (Figure 2) plus increases for annual growth of traffic.

#### **6.1.1 Annual Traffic Growth**

To evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last three years has revealed a growth of approximately 1% in the area. This growth factor was applied to the existing traffic volumes between collector and arterial roadways to estimate the future year traffic volumes prior to the addition of site-generated traffic. The future “No-Build” peak hour volumes for the opening year 2025 and full build out year 2031 are shown in Figures 7 and 8 respectively.

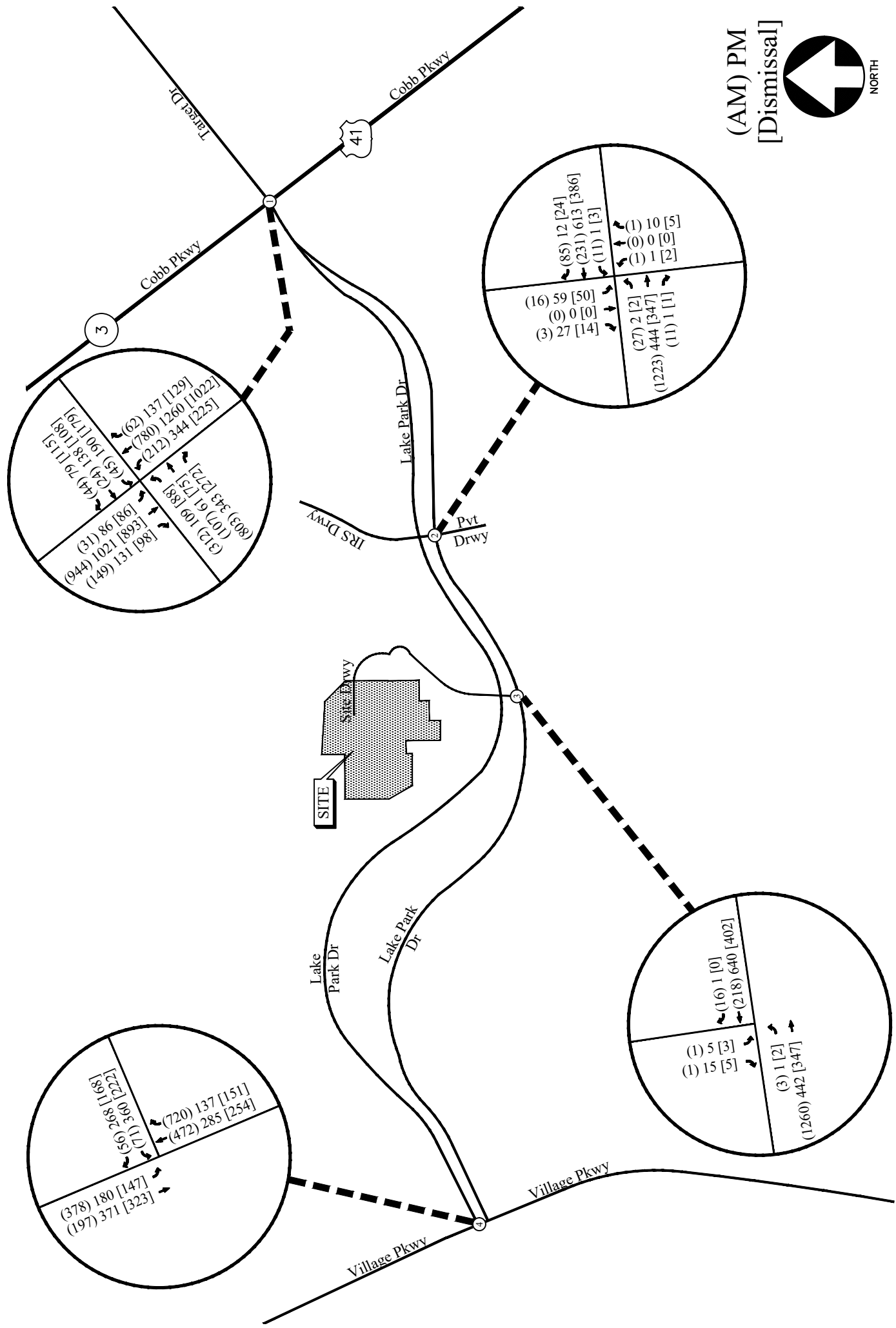
### **6.2 Future “Build” Conditions**

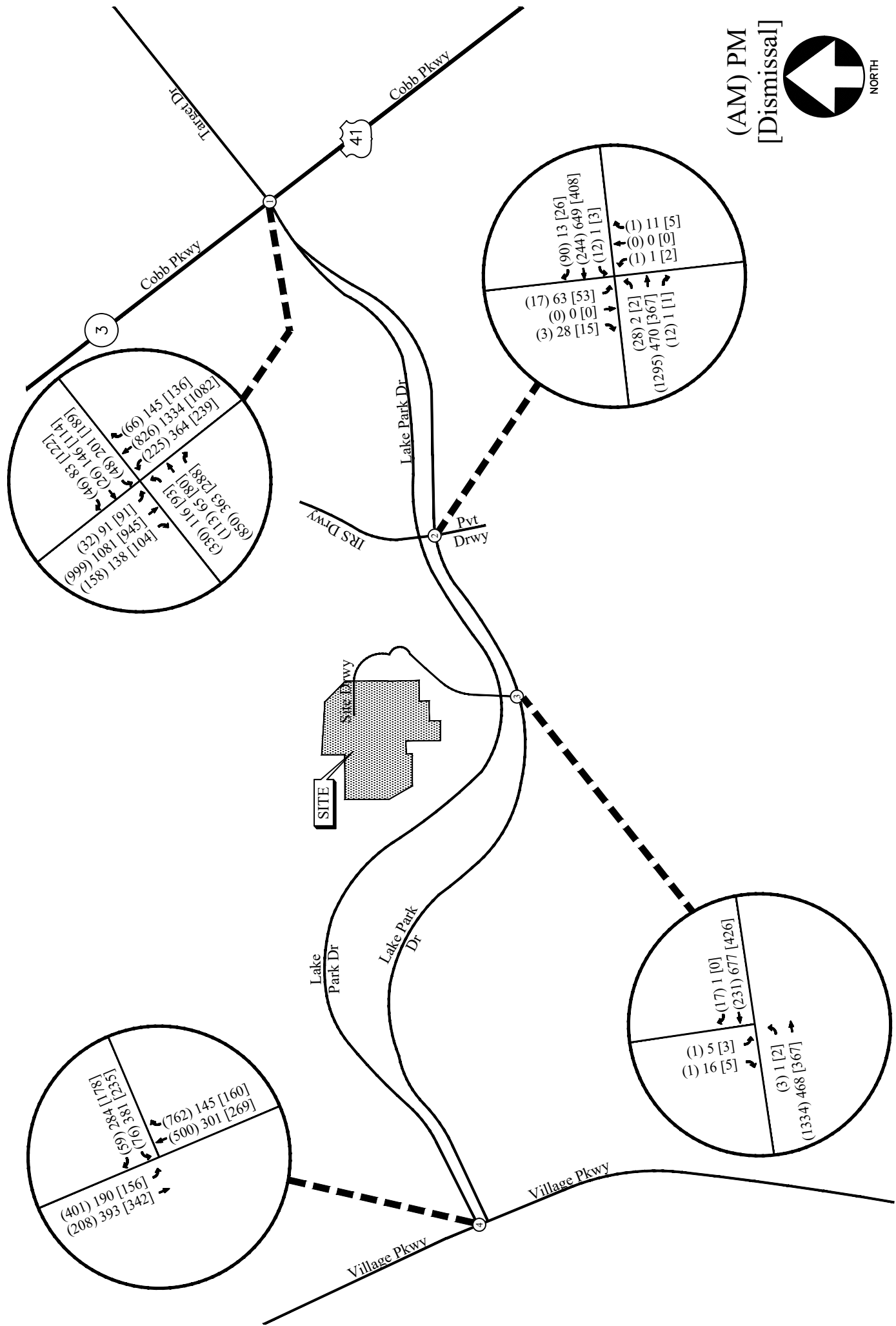
The “Build” or development conditions include the estimated background traffic from the “No-Build” conditions plus removed existing trips and the traffic from the proposed development.

#### **6.2.1 Removed Existing Trips of Murata Electronics Inc**

The Amana Academy Charter School will occupy the existing 35,600 sf building that is currently occupied by Murata Electronics company. The existing trips from this development are removed for the opening year 2025 and full build out year 2031 and are shown in Figures 9 and 10 respectively.

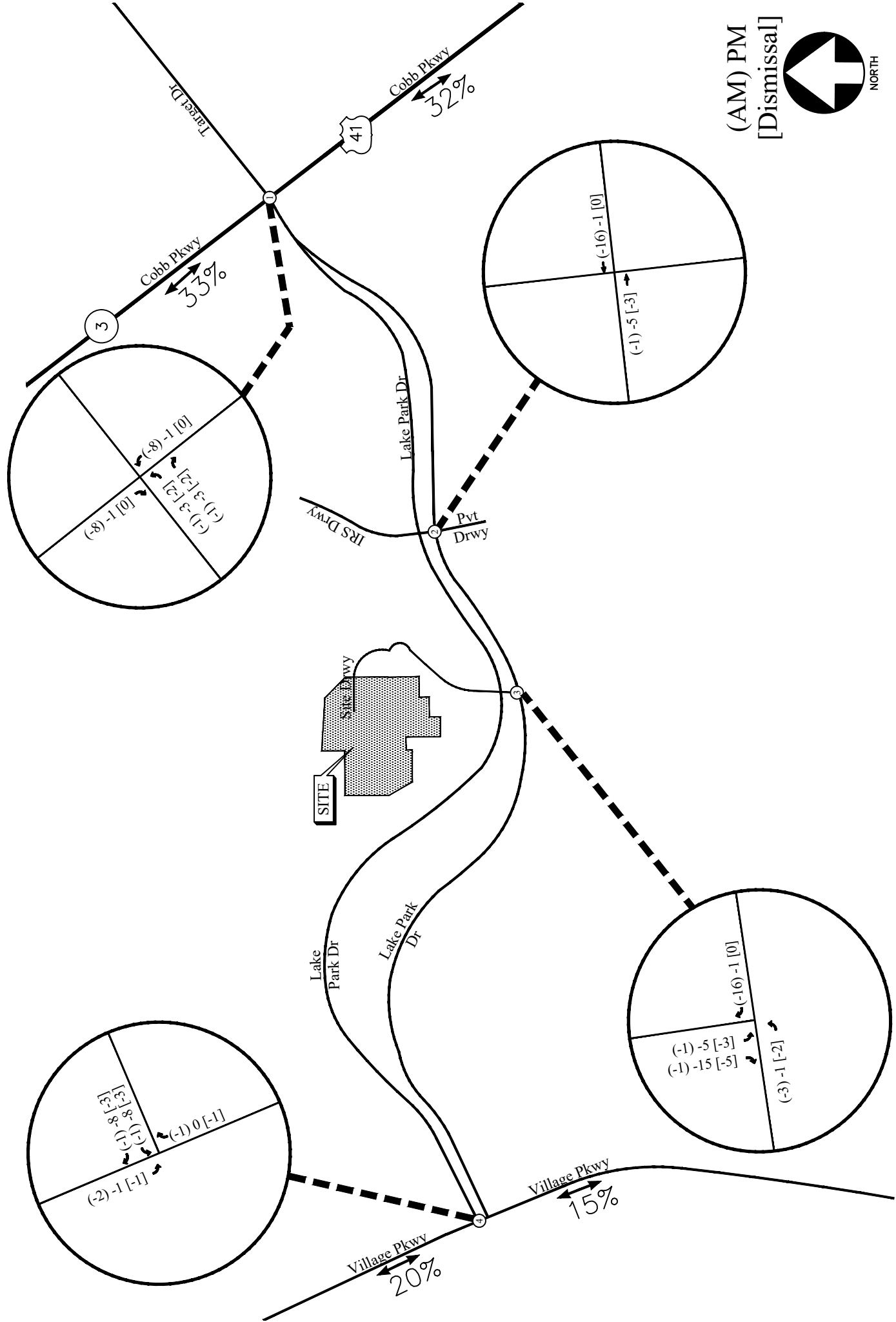
The new traffic volumes from the proposed site (Figure 5 and 6) and removed existing trips (Figure 9 and 10) were added to the base traffic volumes (Figure 7 and 8) to calculate the future traffic volumes after the construction of the new school for the opening year 2025 and full build out year 2031. These total future “Build” traffic volumes are shown in Figure 11 and 12.





FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES (2031)

FIGURE 8



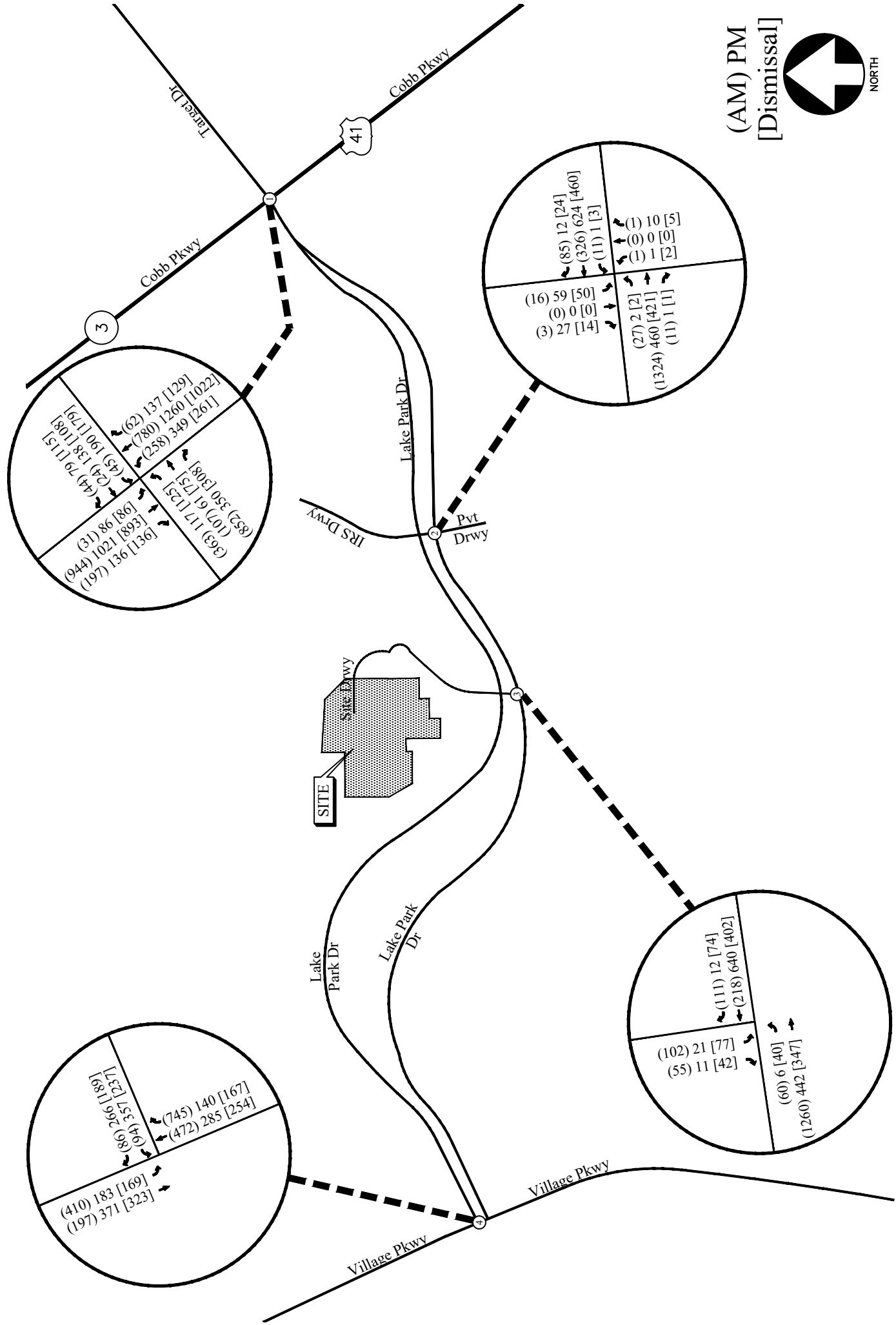
(AM) PM  
[Dismissal]



REMOVED TRIP (2025)

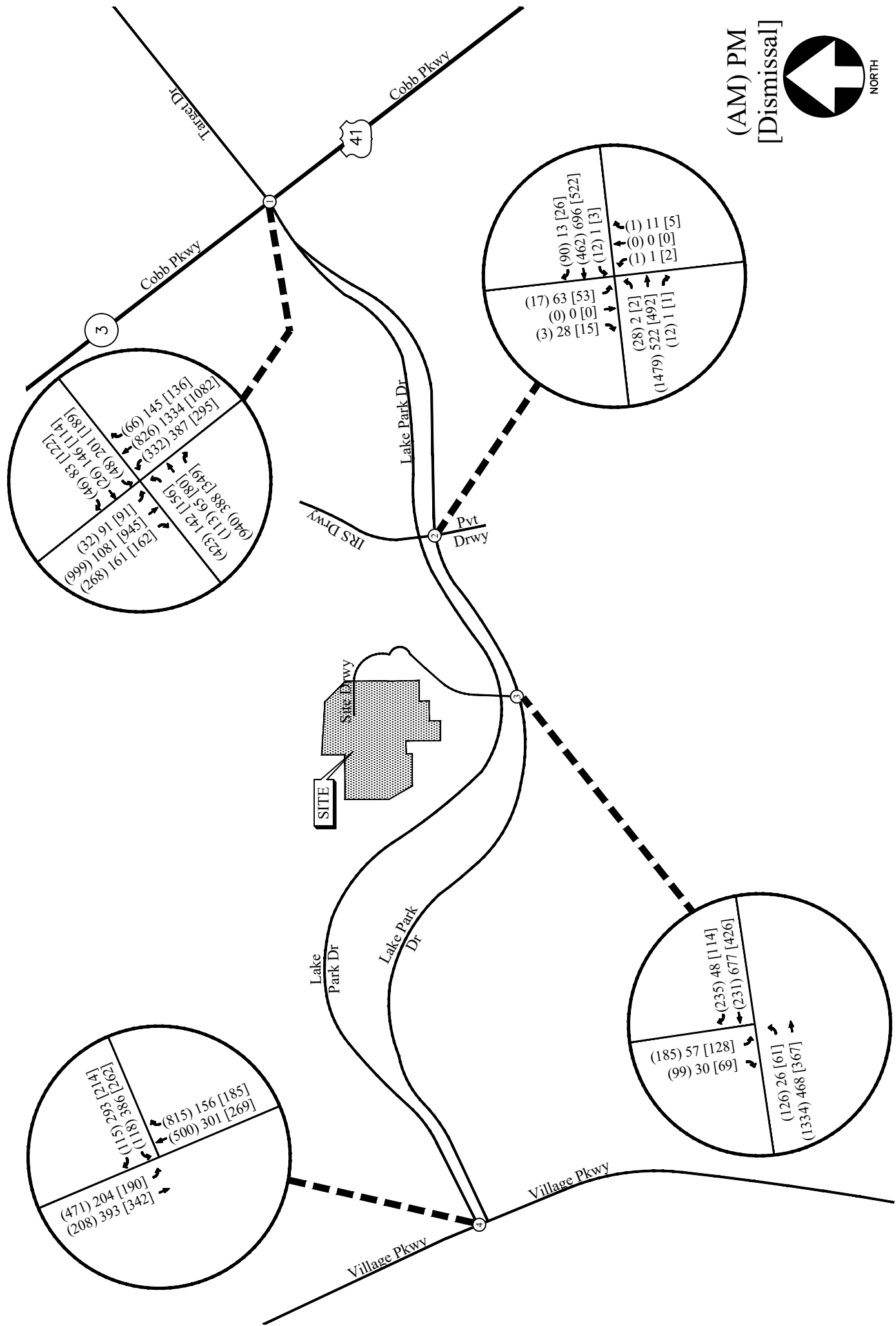
FIGURE 9





FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES (2025)

FIGURE 11  
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(AM) PM  
[Dismissal]



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES (2031) FIGURE 12  
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### 6.3 Future (Opening Year 2025) Traffic Operations

The future “No-Build” and “Build” traffic operations were analyzed using the volumes in Figure 7 and Figure 11, respectively. The results of the future traffic operations analysis are shown below in Table 6. Recommendations for future traffic control and lane geometry are shown in Figure 13.

TABLE 6— FUTURE (OPENING YEAR 2025) INTERSECTION OPERATIONS							
Intersection		Future Conditions: LOS (Delay)					
		NO-BUILD			BUILD		
		AM Peak	PM Peak	Dismissal Peak	AM Peak	PM Peak	Dismissal Peak
1	<b><u>US 41/ SR 3 (Cobb Parkway) @ Lake Park Dr/ Target Drwy</u></b>	<b><u>C (25.9)</u></b>	<b><u>C (28.4)</u></b>	<b><u>C (23.8)</u></b>	<b><u>C (29.1)</u></b>	<b><u>C (30.6)</u></b>	<b><u>C (25.5)</u></b>
	-Eastbound Approach	E (56.8)	D (44.2)	D (45.8)	D (49.7)	D (45.6)	D (45.1)
	-Westbound Approach	E (58.6)	D (52.6)	D (53.5)	E (58.7)	D (51.4)	D (51.5)
	-Northbound Approach	B (15.4)	C (23.5)	B (16.2)	C (20.1)	C (28.9)	B (18.3)
	-Southbound Approach	C (20.1)	C (24.8)	B (18.5)	C (26.0)	C (23.3)	C (21.2)
2	<b><u>Lake Park Dr @ Internal Revenue Service's Drwy/ Private Drwy</u></b>	<b><u>A (6.1)</u></b>	<b><u>A (8.0)</u></b>	<b><u>A (8.0)</u></b>	<b><u>A (5.7)</u></b>	<b><u>A (7.9)</u></b>	<b><u>A (7.3)</u></b>
	-Eastbound Approach	A (5.5)	A (3.6)	A (3.3)	A (5.3)	A (3.6)	A (3.3)
	-Westbound Approach	A (4.9)	A (3.8)	A (3.4)	A (4.5)	A (3.8)	A (3.4)
	-Northbound Approach	E (57.1)	D (53.1)	D (54.4)	E (57.1)	D (53.2)	D (54.5)
	-Southbound Approach	E (58.4)	E (56.5)	E (57.5)	E (58.4)	E (56.6)	E (57.6)
3	<b><u>Lake Park Dr @ School Drwy</u></b>				<b><u>B (15.4) *</u></b>		<b><u>B (11.2) *</u></b>
	-Eastbound Approach/ Left	A (7.8)	A (9.1)	A (8.2)	B (11.2)	A (9.1)	A (8.1)
	-Westbound Approach	-	-	-	B (10.9)	-	B (11.4)
	-Southbound Approach	B (14.4)	B (13.0)	B (11.1)	D (39.6)	C (17.8)	B (16.8)
4	<b><u>Lake Park Dr @ Village Pkwy</u></b>	<b><u>A (6.7)</u></b>	<b><u>C (20.1)</u></b>	<b><u>B (15.8)</u></b>	<b><u>A (8.6)</u></b>	<b><u>C (20.3)</u></b>	<b><u>B (16.6)</u></b>
	-Westbound Approach	E (69.5)	D (54.5)	E (59.3)	E (66.0)	D (54.6)	E (58.5)
	-Northbound Approach	A (1.5)	A (6.0)	A (3.5)	A (1.9)	A (5.9)	A (3.9)
	-Southbound Approach	A (4.0)	A (7.9)	A (4.4)	A (5.4)	A (7.8)	A (5.0)

\* Police Officer modeled as actuated-uncoordinated traffic signal

The results of “No-Build” operations analysis indicate that all signalized intersections and the stop-controlled approaches at un-signalized intersection will operate at satisfactory levels-of-service “C” or better in all three peak hours.

The results of “Build” traffic (opening year 2025) operations analysis indicate that all the signalized study intersections and the stop-controlled approaches at un-signalized intersection will operate at satisfactory levels-of-service “C” or better in all three peak hours.



## 6.4 Future (Build-out year 2031) Traffic Operations

The future “No-Build” and “Build” traffic operations were analyzed using the volumes in Figure 8 and Figure 12, respectively. The results of the future traffic operations analysis are shown below in Table 7. Recommendations for future traffic control and lane geometry are shown in Figure 14.

TABLE 7 — FUTURE (BUILD-OUT YEAR 2031) INTERSECTION OPERATIONS							
Intersection		Future Conditions: LOS (Delay)					
		NO-BUILD			BUILD		
		AM Peak	PM Peak	Dismissal Peak	AM Peak	PM Peak	Dismissal Peak
1	<b><u>US 41/ SR 3 (Cobb Parkway) @ Lake Park Dr/ Target Drwy</u></b>	<b><u>C (27.8)</u></b>	<b><u>C (32.6)</u></b>	<b><u>C (25.0)</u></b>	<b><u>D (40.1)</u></b>	<b><u>D (40.1)</u></b>	<b><u>C (28.4)</u></b>
	-Eastbound Approach	E (63.2)	D (43.7)	D (44.8)	D (46.9)	D (43.5)	D (42.8)
	-Westbound Approach	E (58.3)	D (53.0)	D (53.7)	E (58.7)	D (51.0)	D (51.2)
	-Northbound Approach	B (16.5)	C (28.4)	B (17.6)	D (42.3)	D (45.8)	C (22.5)
	-Southbound Approach	C (21.3)	C (29.9)	C (20.3)	C (31.7)	C (26.3)	C (24.6)
2	<b><u>Lake Park Dr @ Internal Revenue Service's Drwy/ Private Drwy</u></b>	<b><u>A (6.3)</u></b>	<b><u>A (8.2)</u></b>	<b><u>A (8.0)</u></b>	<b><u>A (5.7)</u></b>	<b><u>A (7.9)</u></b>	<b><u>A (7.0)</u></b>
	-Eastbound Approach	A (5.8)	A (3.8)	A (3.4)	A (5.4)	A (3.8)	A (3.3)
	-Westbound Approach	A (5.0)	A (4.0)	A (3.5)	A (4.5)	A (4.0)	A (3.5)
	-Northbound Approach	E (57.0)	D (52.6)	D (54.1)	E (57.0)	D (52.7)	D (54.2)
	-Southbound Approach	E (58.4)	E (56.2)	E (57.4)	E (58.4)	E (56.3)	E (57.5)
3	<b><u>Lake Park Dr @ School Drwy</u></b>				<b><u>C (32.7) *</u></b>		<b><u>B (15.1) *</u></b>
	-Eastbound Approach/Left	A (7.8)	A (9.2)	A (8.3)	C (24.8)	A (9.3)	B (12.1)
	-Westbound Approach	-	-	-	C (22.6)	-	B (15.0)
	-Southbound Approach	C (15.0)	B (13.4)	B (11.4)	E (61.7)	C (24.8)	B (19.0)
4	<b><u>Lake Park Dr @ Village Pkwy</u></b>	<b><u>A (7.0)</u></b>	<b><u>C (20.7)</u></b>	<b><u>B (15.9)</u></b>	<b><u>B (11.2)</u></b>	<b><u>C (21.1)</u></b>	<b><u>B (17.3)</u></b>
	-Westbound Approach	E (68.8)	D (54.4)	E (58.8)	E (64.0)	D (54.7)	E (57.5)
	-Northbound Approach	A (1.6)	A (6.5)	A (3.7)	A (2.4)	A (6.7)	A (4.4)
	-Southbound Approach	A (4.7)	A (8.8)	A (4.8)	A (8.6)	A (9.3)	A (5.9)

\* Police Officer modeled as actuated-uncoordinated traffic signal

The results of “No-Build 2031” operations analysis indicate that all signalized intersections and the stop-controlled approaches at un-signalized intersection will operate at satisfactory levels-of-service “C” or better in all three peak hours.

The results of “Build” traffic (build-out year 2031) operations analysis indicate that all the signalized study intersections will continue to operate at an overall level of service “D” or better during the AM, School Dismissal and PM peak hours.



## 7.0 CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the proposed Amana Academy Charter School located at 2200 Lake Park Drive, Smyrna, in Cobb County, Georgia.

Phase 1 consists of only the kindergarten through 5th grade classrooms opening with 314 students in 2025. Phase 2 will represent full build-out in 2031. At full build-out, the kindergarten through 8th grade classrooms will have a total of 618 students.

The development proposes using the existing full access driveway on Lake Park Drive.

Existing and future operations after completion of the project were analyzed at the intersections of:

- Lake Park Drive at US 41/ SR 3 (Cobb Parkway)
- Lake Park Drive at Internal Revenue Service's Driveway
- Lake Park Drive at 2200 Lake Park Drive Site Driveway (Murata Electronics / School Driveway)
- Lake Park Drive at Village Parkway

The results of "No-Build 2025 & 2031" operations analysis indicate that all signalized intersections and the stop-controlled approaches at un-signalized intersection will operate at satisfactory levels-of-service "C" or better in all three peak hours.

The results of "Build" traffic (opening year 2025) operations analysis indicate that all the signalized study intersections and the stop-controlled approaches at un-signalized intersection will operate at satisfactory levels-of-service "C" or better in all three peak hours.

The results of "Build" traffic (build-out year 2031) operations analysis indicate that all the signalized study intersections will continue to operate at an overall level of service "D" or better during the AM, School Dismissal and PM peak hours. The southbound school driveway approach will operate at level-of-service "F" in the AM peak hour.

### 7.1 Recommendation for Site Access Configuration

The following configuration is recommended for the site driveway intersections.

- Site Driveway 1: Existing full access driveway on Lake Park Drive
  - Two entering lanes and one exiting lane
  - Police Officer will control the traffic during AM and School Dismissal peak hours and Stop-sign control during rest of the day.
  - Provide required sight distance by removing the existing vegetation.

## Appendix

Existing Intersection Traffic Counts .....	
Linear Regression of Daily Traffic.....	
Existing Intersection Analysis.....	
Phase 1 (Opening Year 2025) “No Build” Intersection Analysis .....	
Phase 1 (Opening Year 2025) “Build” Intersection Analysis .....	
Build-out Year 2031 “No-Build” Intersection Analysis.....	
Build-out Year 2031 “Build” Intersection Analysis.....	
Traffic Volume Worksheets .....	

## **EXISTING INTERSECTION TRAFFIC COUNTS**

# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ US Hwy 41  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230392  
Site Code : 20230392  
Start Date : 11-15-2023  
Page No : 1

## Groups Printed- Cars & Buses - Trucks

	US Hwy 41 Northbound				US Hwy 41 Southbound				Lake Park Drive Eastbound				Target Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	28	175	7	210	2	157	20	179	54	11	116	181	3	2	8	13	583
07:15 AM	38	210	8	256	2	183	15	200	53	9	158	220	1	3	4	8	684
07:30 AM	33	230	5	268	2	168	21	191	71	16	172	259	4	2	9	15	733
07:45 AM	45	212	14	271	7	213	29	249	73	26	162	261	4	3	7	14	795
Total	144	827	34	1005	13	721	85	819	251	62	608	921	12	10	28	50	2795
08:00 AM	41	212	11	264	8	252	39	299	70	31	171	272	6	3	8	17	852
08:15 AM	56	203	15	274	10	247	33	290	81	21	190	292	15	11	10	36	892
08:30 AM	53	162	16	231	8	226	30	264	91	33	218	342	9	5	12	26	863
08:45 AM	58	188	19	265	4	200	44	248	64	20	208	292	14	5	13	32	837
Total	208	765	61	1034	30	925	146	1101	306	105	787	1198	44	24	43	111	3444
*** BREAK ***																	
02:00 PM	41	238	31	310	16	209	22	247	21	15	54	90	40	26	33	99	746
02:15 PM	47	252	40	339	19	208	16	243	17	12	62	91	38	23	25	86	759
02:30 PM	50	284	35	369	15	220	13	248	18	12	60	90	45	28	23	96	803
02:45 PM	55	271	27	353	24	239	12	275	25	11	68	104	38	20	28	86	818
Total	193	1045	133	1371	74	876	63	1013	81	50	244	375	161	97	109	367	3126
03:00 PM	43	238	35	316	22	222	28	272	16	26	60	102	48	26	29	103	793
03:15 PM	65	249	24	338	29	216	28	273	19	13	62	94	42	24	23	89	794
03:30 PM	56	264	33	353	12	214	20	246	24	14	78	116	42	32	26	100	815
03:45 PM	57	251	34	342	21	223	20	264	27	21	67	115	43	24	35	102	823
Total	221	1002	126	1349	84	875	96	1055	86	74	267	427	175	106	113	394	3225
04:00 PM	73	281	21	375	11	229	32	272	40	18	76	134	49	33	31	113	894
04:15 PM	78	299	25	402	17	240	31	288	23	17	67	107	43	25	19	87	884
04:30 PM	79	299	32	410	26	256	32	314	21	9	68	98	36	31	24	91	913
04:45 PM	85	296	39	420	19	252	35	306	27	22	93	142	47	34	16	97	965
Total	315	1175	117	1607	73	977	130	1180	111	66	304	481	175	123	90	388	3656
05:00 PM	90	307	35	432	19	261	22	302	29	17	97	143	55	39	19	113	990
05:15 PM	83	333	28	444	20	232	39	291	30	12	78	120	48	31	18	97	952
05:30 PM	96	297	21	414	12	220	47	279	32	19	68	119	48	28	25	101	913
05:45 PM	92	266	49	407	19	197	32	248	25	22	56	103	51	36	23	110	868
Total	361	1203	133	1697	70	910	140	1120	116	70	299	485	202	134	85	421	3723
Grand Total	1442	6017	604	8063	344	5284	660	6288	951	427	2509	3887	769	494	468	1731	19969
Apprch %	17.9	74.6	7.5		5.5	84	10.5		24.5	11	64.5		44.4	28.5	27		
Total %	7.2	30.1	3	40.4	1.7	26.5	3.3	31.5	4.8	2.1	12.6	19.5	3.9	2.5	2.3	8.7	
Cars & Buses	1434	5838	601	7873	339	5140	654	6133	937	425	2501	3863	763	493	461	1717	19586
% Cars & Buses	99.4	97	99.5	97.6	98.5	97.3	99.1	97.5	98.5	99.5	99.7	99.4	99.2	99.8	98.5	99.2	98.1
Trucks	8	179	3	190	5	144	6	155	14	2	8	24	6	1	7	14	383
% Trucks	0.6	3	0.5	2.4	1.5	2.7	0.9	2.5	1.5	0.5	0.3	0.6	0.8	0.2	1.5	0.8	1.9

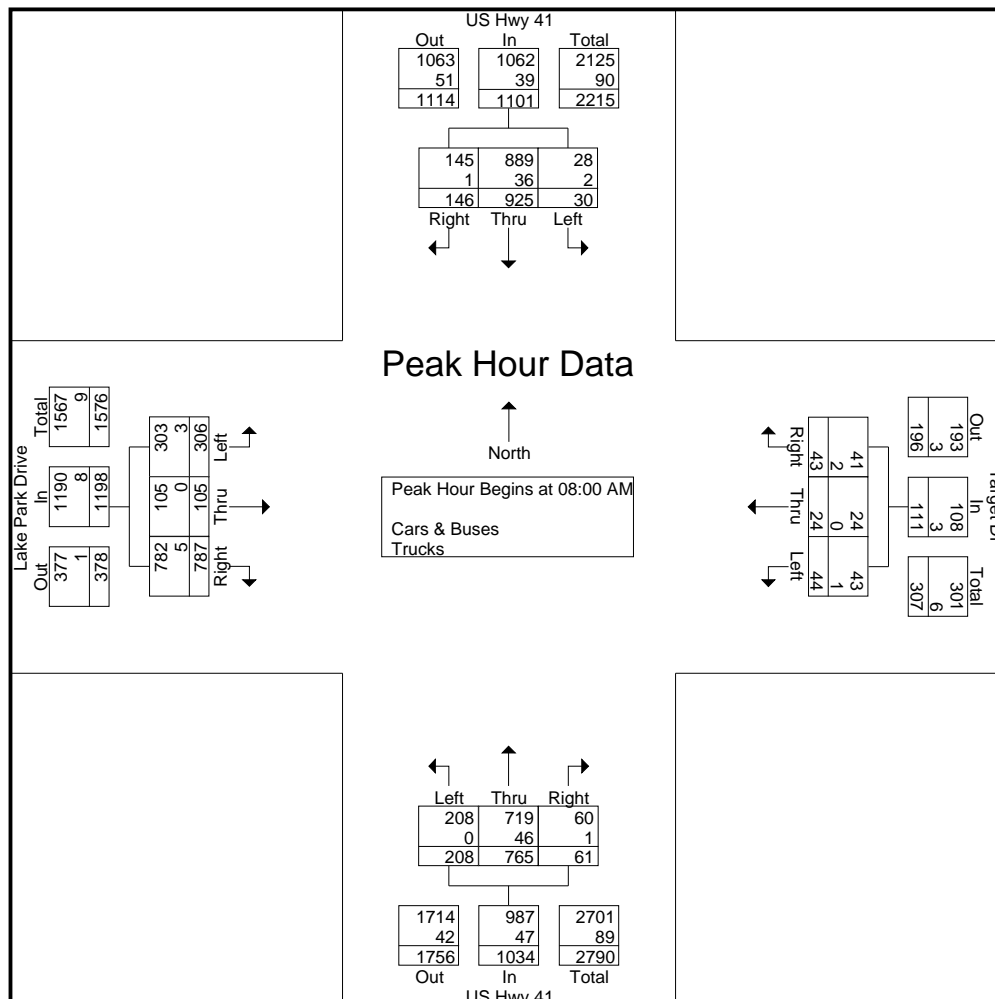
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ US Hwy 41  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230392  
Site Code : 20230392  
Start Date : 11-15-2023  
Page No : 2

	US Hwy 41 Northbound				US Hwy 41 Southbound				Lake Park Drive Eastbound				Target Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	41	<b>212</b>	11	264	8	<b>252</b>	39	<b>299</b>	70	31	171	272	6	3	8	17	852
08:15 AM	56	203	15	<b>274</b>	<b>10</b>	247	33	290	81	21	190	292	<b>15</b>	<b>11</b>	10	<b>36</b>	<b>892</b>
08:30 AM	53	162	16	231	8	226	30	264	<b>91</b>	<b>33</b>	<b>218</b>	<b>342</b>	9	5	12	26	863
08:45 AM	<b>58</b>	188	<b>19</b>	265	4	200	<b>44</b>	248	64	20	208	292	14	5	<b>13</b>	32	837
Total Volume	208	765	61	1034	30	925	146	1101	306	105	787	1198	44	24	43	111	3444
% App. Total	20.1	74	5.9		2.7	84	13.3		25.5	8.8	65.7		39.6	21.6	38.7		
PHF	.897	.902	.803	.943	.750	.918	.830	.921	.841	.795	.903	.876	.733	.545	.827	.771	.965
Cars & Buses	208	719	60	987	28	889	145	1062	303	105	782	1190	43	24	41	108	3347
% Cars & Buses	100	94.0	98.4	95.5	93.3	96.1	99.3	96.5	99.0	100	99.4	99.3	97.7	100	95.3	97.3	97.2
Trucks	0	46	1	47	2	36	1	39	3	0	5	8	1	0	2	3	97
% Trucks	0	6.0	1.6	4.5	6.7	3.9	0.7	3.5	1.0	0	0.6	0.7	2.3	0	4.7	2.7	2.8



# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ US Hwy 41  
7-9 am | 2-4 pm | 4-6 pm

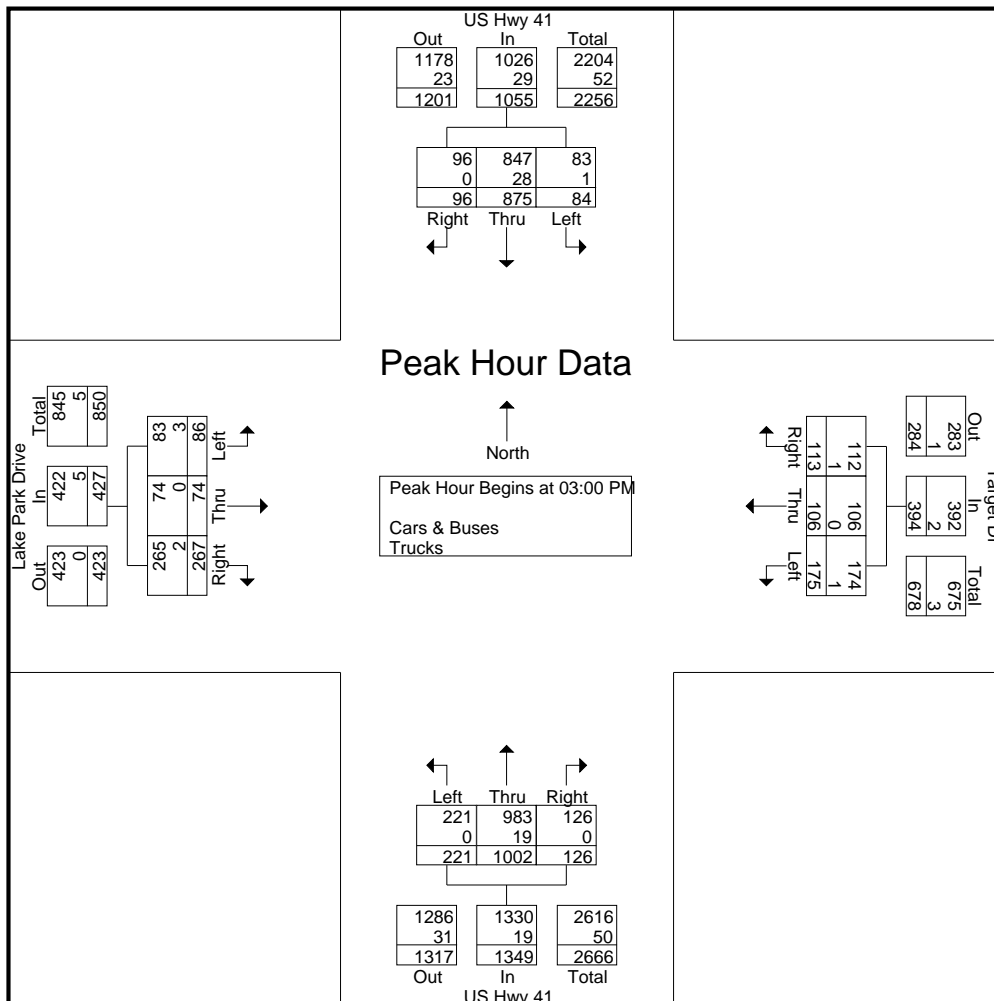
File Name : 20230392  
Site Code : 20230392  
Start Date : 11-15-2023  
Page No : 3

	US Hwy 41 Northbound				US Hwy 41 Southbound				Lake Park Drive Eastbound				Target Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 03:00 PM

03:00 PM	43	238	<b>35</b>	316	22	222	<b>28</b>	272	16	<b>26</b>	60	102	<b>48</b>	26	29	<b>103</b>	793
03:15 PM	<b>65</b>	249	24	338	<b>29</b>	216	28	<b>273</b>	19	13	62	94	42	24	23	89	794
03:30 PM	56	<b>264</b>	33	<b>353</b>	12	214	20	246	24	14	<b>78</b>	<b>116</b>	42	<b>32</b>	26	100	815
03:45 PM	57	251	34	342	21	<b>223</b>	20	264	<b>27</b>	21	67	115	43	24	<b>35</b>	102	<b>823</b>
Total Volume	221	1002	126	1349	84	875	96	1055	86	74	267	427	175	106	113	394	3225
% App. Total	16.4	74.3	9.3		8	82.9	9.1		20.1	17.3	62.5		44.4	26.9	28.7		
PHF	.850	.949	.900	.955	.724	.981	.857	.966	.796	.712	.856	.920	.911	.828	.807	.956	.980
Cars & Buses	221	983	126	1330	83	847	96	1026	83	74	265	422	174	106	112	392	3170
% Cars & Buses	100	98.1	100	98.6	98.8	96.8	100	97.3	96.5	100	99.3	98.8	99.4	100	99.1	99.5	98.3
Trucks	0	19	0	19	1	28	0	29	3	0	2	5	1	0	1	2	55
% Trucks	0	1.9	0	1.4	1.2	3.2	0	2.7	3.5	0	0.7	1.2	0.6	0	0.9	0.5	1.7



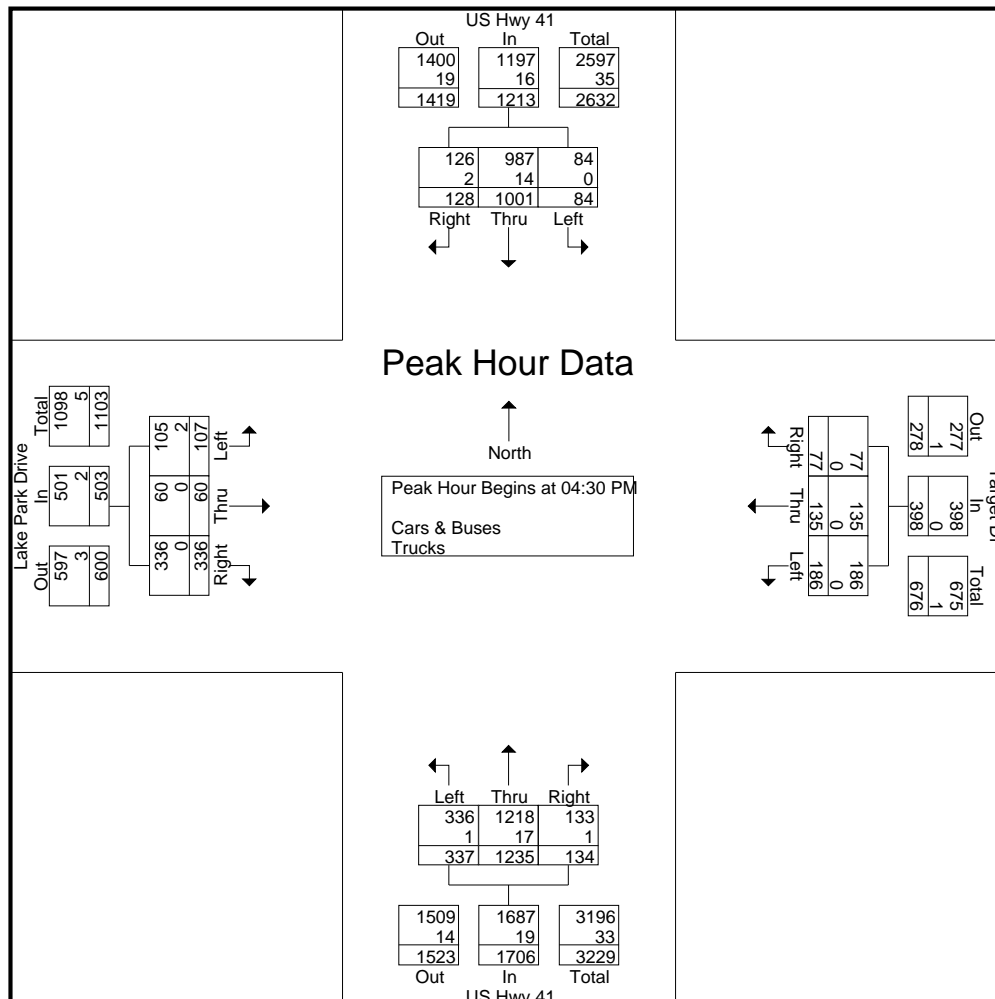
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ US Hwy 41  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230392  
Site Code : 20230392  
Start Date : 11-15-2023  
Page No : 4

	US Hwy 41 Northbound				US Hwy 41 Southbound				Lake Park Drive Eastbound				Target Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	79	299	32	410	26	256	32	314	21	9	68	98	36	31	24	91	913
04:45 PM	85	296	39	420	19	252	35	306	27	22	93	142	47	34	16	97	965
05:00 PM	90	307	35	432	19	261	22	302	29	17	97	143	55	39	19	113	990
05:15 PM	83	333	28	444	20	232	39	291	30	12	78	120	48	31	18	97	952
Total Volume	337	1235	134	1706	84	1001	128	1213	107	60	336	503	186	135	77	398	3820
% App. Total	19.8	72.4	7.9		6.9	82.5	10.6		21.3	11.9	66.8		46.7	33.9	19.3		
PHF	.936	.927	.859	.961	.808	.959	.821	.966	.892	.682	.866	.879	.845	.865	.802	.881	.965
Cars & Buses	336	1218	133	1687	84	987	126	1197	105	60	336	501	186	135	77	398	3783
% Cars & Buses	99.7	98.6	99.3	98.9	100	98.6	98.4	98.7	98.1	100	100	99.6	100	100	100	100	99.0
Trucks	1	17	1	19	0	14	2	16	2	0	0	2	0	0	0	0	37
% Trucks	0.3	1.4	0.7	1.1	0	1.4	1.6	1.3	1.9	0	0	0.4	0	0	0	0	1.0



# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ Internal Revenue  
Service Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230393  
Site Code : 20230393  
Start Date : 11-15-2023  
Page No : 1

## Groups Printed- Cars & Buses - Trucks

	Cortland At The Village building 2219 Drwy Northbound				Internal Revenue Services Drwy Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	3	178	0	181	0	28	10	38	219
07:15 AM	0	0	0	0	3	0	3	6	5	184	0	189	2	26	20	48	243
07:30 AM	0	0	1	1	2	0	0	2	4	233	1	238	0	27	26	53	294
07:45 AM	0	0	0	0	2	0	0	2	5	249	3	257	0	41	17	58	317
Total	0	0	1	1	7	0	3	10	17	844	4	865	2	122	73	197	1073
08:00 AM	0	0	1	1	5	0	1	6	8	264	4	276	3	51	29	83	366
08:15 AM	1	0	0	1	1	0	0	1	6	294	2	302	4	56	22	82	386
08:30 AM	0	0	0	0	3	0	0	3	4	294	2	300	4	62	15	81	384
08:45 AM	0	0	0	0	7	0	2	9	8	347	3	358	0	57	17	74	441
Total	1	0	1	2	16	0	3	19	26	1199	11	1236	11	226	83	320	1577
*** BREAK ***																	
02:00 PM	0	0	0	0	6	0	3	9	0	88	0	88	2	67	10	79	176
02:15 PM	0	0	2	2	6	0	5	11	0	75	1	76	0	89	8	97	186
02:30 PM	0	0	2	2	9	0	2	11	1	75	1	77	0	72	5	77	167
02:45 PM	0	0	2	2	7	0	5	12	2	78	0	80	0	84	6	90	184
Total	0	0	6	6	28	0	15	43	3	316	2	321	2	312	29	343	713
03:00 PM	0	0	1	1	14	0	7	21	0	92	1	93	1	83	7	91	206
03:15 PM	2	0	1	3	7	0	0	7	0	84	0	84	1	88	6	95	189
03:30 PM	0	0	2	2	11	0	3	14	1	86	0	87	1	109	3	113	216
03:45 PM	0	0	1	1	17	0	4	21	1	78	0	79	0	98	8	106	207
Total	2	0	5	7	49	0	14	63	2	340	1	343	3	378	24	405	818
04:00 PM	3	1	2	6	14	0	5	19	0	97	0	97	2	93	4	99	221
04:15 PM	3	0	5	8	16	0	9	25	1	83	0	84	1	133	11	145	262
04:30 PM	1	0	0	1	14	0	10	24	3	83	0	86	1	113	11	125	236
04:45 PM	2	0	2	4	22	0	11	33	1	83	0	84	1	144	6	151	272
Total	9	1	9	19	66	0	35	101	5	346	0	351	5	483	32	520	991
05:00 PM	0	0	2	2	11	0	5	16	1	127	0	128	0	159	3	162	308
05:15 PM	0	0	2	2	16	0	8	24	0	105	0	105	0	128	8	136	267
05:30 PM	1	0	4	5	12	0	8	20	0	112	0	112	1	161	0	162	299
05:45 PM	0	0	2	2	19	0	5	24	1	91	1	93	0	153	1	154	273
Total	1	0	10	11	58	0	26	84	2	435	1	438	1	601	12	614	1147
Grand Total	13	1	32	46	224	0	96	320	55	3480	19	3554	24	2122	253	2399	6319
Apprch %	28.3	2.2	69.6		70	0	30		1.5	97.9	0.5		1	88.5	10.5		
Total %	0.2	0	0.5	0.7	3.5	0	1.5	5.1	0.9	55.1	0.3	56.2	0.4	33.6	4	38	
Cars & Buses	13	1	31	45	223	0	95	318	55	3455	18	3528	24	2112	252	2388	6279
% Cars & Buses	100	100	96.9	97.8	99.6	0	99	99.4	100	99.3	94.7	99.3	100	99.5	99.6	99.5	99.4
Trucks	0	0	1	1	1	0	1	2	0	25	1	26	0	10	1	11	40
% Trucks	0	0	3.1	2.2	0.4	0	1	0.6	0	0.7	5.3	0.7	0	0.5	0.4	0.5	0.6

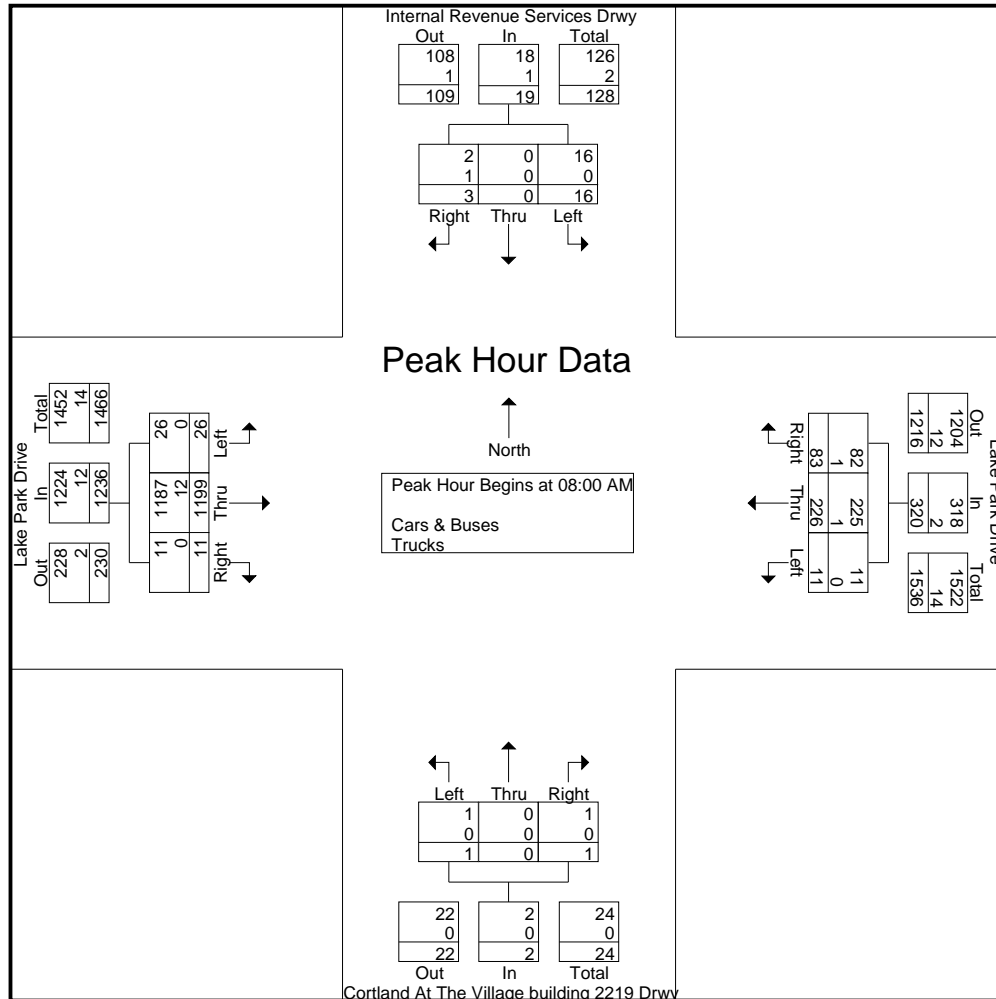
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ Internal Revenue  
Service Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230393  
Site Code : 20230393  
Start Date : 11-15-2023  
Page No : 2

	Cortland At The Village building 2219 Drwy Northbound				Internal Revenue Services Drwy Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	1	1	5	0	1	6	8	264	4	276	3	51	29	83	366
08:15 AM	1	0	0	1	1	0	0	1	6	294	2	302	4	56	22	82	386
08:30 AM	0	0	0	0	3	0	0	3	4	294	2	300	4	62	15	81	384
08:45 AM	0	0	0	0	7	0	2	9	8	347	3	358	0	57	17	74	441
Total Volume	1	0	1	2	16	0	3	19	26	1199	11	1236	11	226	83	320	1577
% App. Total	50	0	50		84.2	0	15.8		2.1	97	0.9		3.4	70.6	25.9		
PHF	.250	.000	.250	.500	.571	.000	.375	.528	.813	.864	.688	.863	.688	.911	.716	.964	.894
Cars & Buses	1	0	1	2	16	0	2	18	26	1187	11	1224	11	225	82	318	1562
% Cars & Buses	100	0	100	100	100	0	66.7	94.7	100	99.0	100	99.0	100	99.6	98.8	99.4	99.0
Trucks	0	0	0	0	0	0	1	1	0	12	0	12	0	1	1	2	15
% Trucks	0	0	0	0	0	0	33.3	5.3	0	1.0	0	1.0	0	0.4	1.2	0.6	1.0



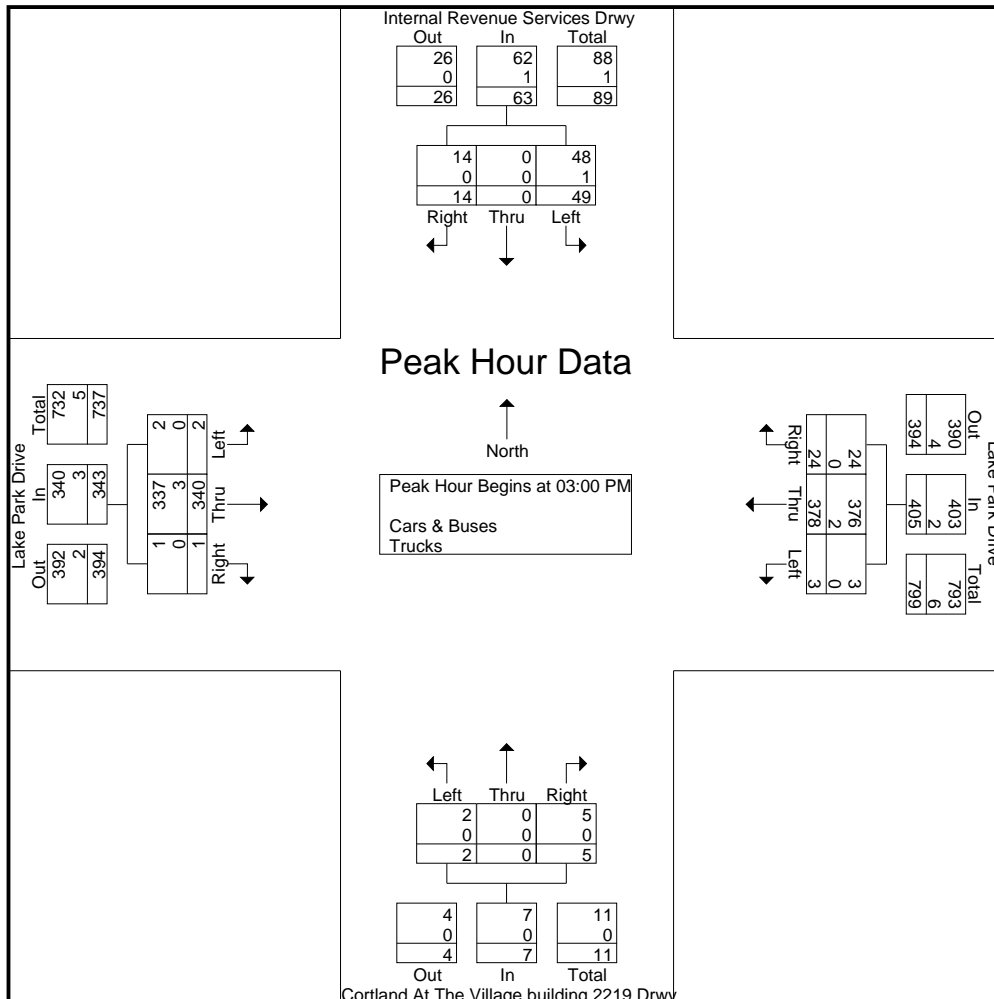
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ Internal Revenue  
Service Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230393  
Site Code : 20230393  
Start Date : 11-15-2023  
Page No : 3

	Cortland At The Village building 2219 Drwy Northbound				Internal Revenue Services Drwy Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	1	1	14	0	7	21	0	92	1	93	1	83	7	91	206
03:15 PM	2	0	1	3	7	0	0	7	0	84	0	84	1	88	6	95	189
03:30 PM	0	0	2	2	11	0	3	14	1	86	0	87	1	109	3	113	216
03:45 PM	0	0	1	1	17	0	4	21	1	78	0	79	0	98	8	106	207
Total Volume	2	0	5	7	49	0	14	63	2	340	1	343	3	378	24	405	818
% App. Total	28.6	0	71.4		77.8	0	22.2		0.6	99.1	0.3		0.7	93.3	5.9		
PHF	.250	.000	.625	.583	.721	.000	.500	.750	.500	.924	.250	.922	.750	.867	.750	.896	.947
Cars & Buses	2	0	5	7	48	0	14	62	2	337	1	340	3	376	24	403	812
% Cars & Buses	100	0	100	100	98.0	0	100	98.4	100	99.1	100	99.1	100	99.5	100	99.5	99.3
Trucks	0	0	0	0	1	0	0	1	0	3	0	3	0	2	0	2	6
% Trucks	0	0	0	0	2.0	0	0	1.6	0	0.9	0	0.9	0	0.5	0	0.5	0.7



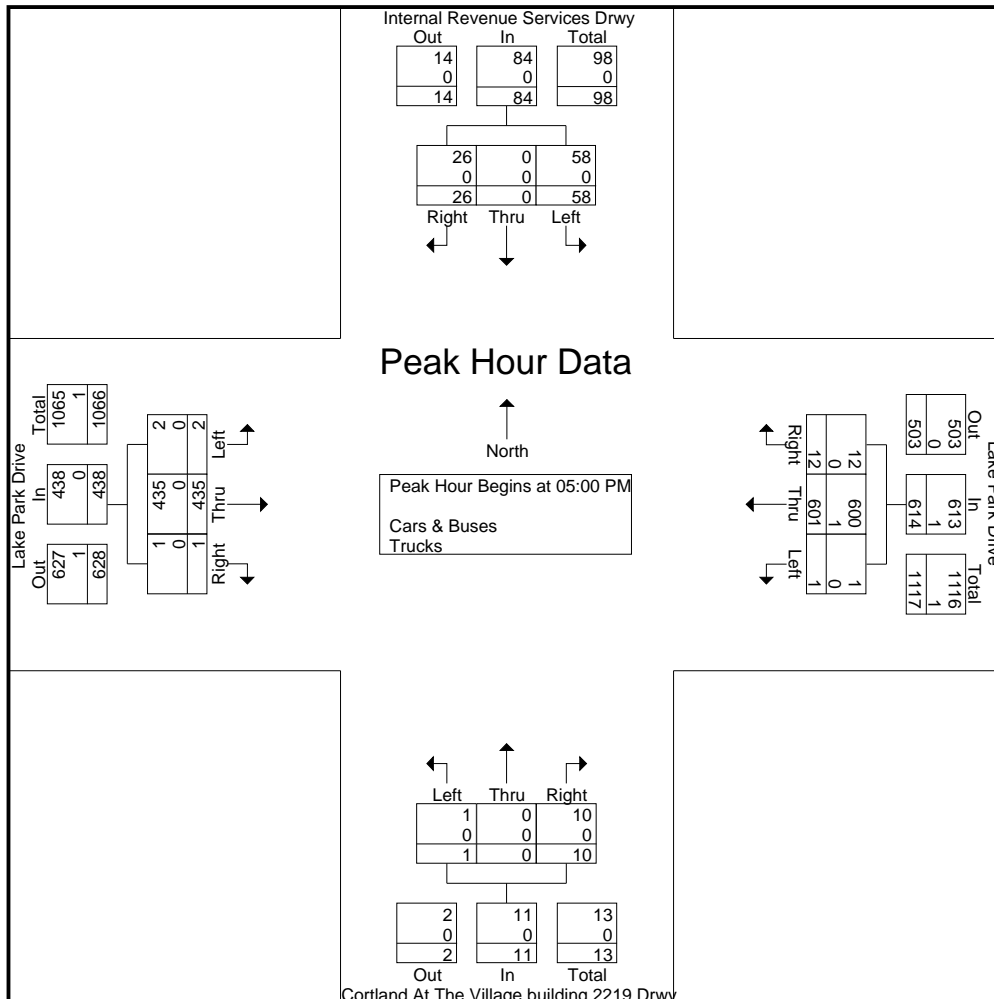
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ Internal Revenue  
Service Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230393  
Site Code : 20230393  
Start Date : 11-15-2023  
Page No : 4

	Cortland At The Village building 2219 Drwy Northbound				Internal Revenue Services Drwy Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	2	2	11	0	5	16	1	127	0	128	0	159	3	162	308
05:15 PM	0	0	2	2	16	0	8	24	0	105	0	105	0	128	8	136	267
05:30 PM	1	0	4	5	12	0	8	20	0	112	0	112	1	161	0	162	299
05:45 PM	0	0	2	2	19	0	5	24	1	91	1	93	0	153	1	154	273
Total Volume	1	0	10	11	58	0	26	84	2	435	1	438	1	601	12	614	1147
% App. Total	9.1	0	90.9		69	0	31		0.5	99.3	0.2		0.2	97.9	2		
PHF	.250	.000	.625	.550	.763	.000	.813	.875	.500	.856	.250	.855	.250	.933	.375	.948	.931
Cars & Buses	1	0	10	11	58	0	26	84	2	435	1	438	1	600	12	613	1146
% Cars & Buses	100	0	100	100	100	0	100	100	100	100	100	100	100	99.8	100	99.8	99.9
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0.1



# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Dr @ Murata Electronics Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230394  
Site Code : 20230394  
Start Date : 11-15-2023  
Page No : 1

## Groups Printed- Cars & Buses - Trucks

	Northbound				Murata Electronics Driveway Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	0	0	1	1	180	0	181	0	25	3	28	210
07:15 AM	0	0	0	0	0	0	0	0	2	189	0	191	0	29	0	29	220
07:30 AM	0	0	0	0	0	0	0	0	0	238	0	238	0	27	0	27	265
07:45 AM	0	0	0	0	0	0	0	0	1	257	0	258	0	37	4	41	299
Total	0	0	0	0	1	0	0	1	4	864	0	868	0	118	7	125	994
08:00 AM	0	0	0	0	0	0	1	1	0	276	0	276	0	49	3	52	329
08:15 AM	0	0	0	0	1	0	0	1	2	301	0	303	0	53	4	57	361
08:30 AM	0	0	0	0	0	0	0	0	0	300	0	300	0	56	6	62	362
08:45 AM	0	0	0	0	0	0	0	0	1	358	0	359	0	56	3	59	418
Total	0	0	0	0	1	0	1	2	3	1235	0	1238	0	214	16	230	1470
*** BREAK ***																	
02:00 PM	0	0	0	0	0	0	0	0	0	88	0	88	0	69	1	70	158
02:15 PM	0	0	0	0	0	0	1	1	0	76	0	76	0	94	0	94	171
02:30 PM	0	0	0	0	0	0	1	1	0	77	0	77	0	73	1	74	152
02:45 PM	0	0	0	0	0	0	2	2	0	80	0	80	0	87	2	89	171
Total	0	0	0	0	0	0	4	4	0	321	0	321	0	323	4	327	652
03:00 PM	0	0	0	0	1	0	2	3	0	92	0	92	0	90	0	90	185
03:15 PM	0	0	0	0	0	0	0	0	0	84	0	84	0	90	0	90	174
03:30 PM	0	0	0	0	2	0	0	2	0	85	0	85	0	112	0	112	199
03:45 PM	0	0	0	0	0	0	3	3	2	79	0	81	0	102	0	102	186
Total	0	0	0	0	3	0	5	8	2	340	0	342	0	394	0	394	744
04:00 PM	0	0	0	0	1	0	9	10	0	96	0	96	0	101	0	101	207
04:15 PM	0	0	0	0	3	0	3	6	1	81	0	82	0	145	0	145	233
04:30 PM	0	0	0	0	4	0	1	5	0	82	0	82	0	124	0	124	211
04:45 PM	0	0	0	0	9	0	4	13	0	75	0	75	0	156	1	157	245
Total	0	0	0	0	17	0	17	34	1	334	0	335	0	526	1	527	896
05:00 PM	0	0	0	0	4	0	5	9	1	124	0	125	0	164	0	164	298
05:15 PM	0	0	0	0	0	0	5	5	0	105	0	105	0	136	0	136	246
05:30 PM	0	0	0	0	1	0	3	4	0	111	0	111	0	170	0	170	285
05:45 PM	0	0	0	0	0	0	2	2	0	93	0	93	0	157	1	158	253
Total	0	0	0	0	5	0	15	20	1	433	0	434	0	627	1	628	1082
Grand Total	0	0	0	0	27	0	42	69	11	3527	0	3538	0	2202	29	2231	5838
Apprch %	0	0	0		39.1	0	60.9		0.3	99.7	0		0	98.7	1.3		
Total %	0	0	0	0	0.5	0	0.7	1.2	0.2	60.4	0	60.6	0	37.7	0.5	38.2	
Cars & Buses	0	0	0	0	27	0	42	69	11	3501	0	3512	0	2191	29	2220	5801
% Cars & Buses	0	0	0	0	100	0	100	100	100	99.3	0	99.3	0	99.5	100	99.5	99.4
Trucks	0	0	0	0	0	0	0	0	0	26	0	26	0	11	0	11	37
% Trucks	0	0	0	0	0	0	0	0	0	0.7	0	0.7	0	0.5	0	0.5	0.6

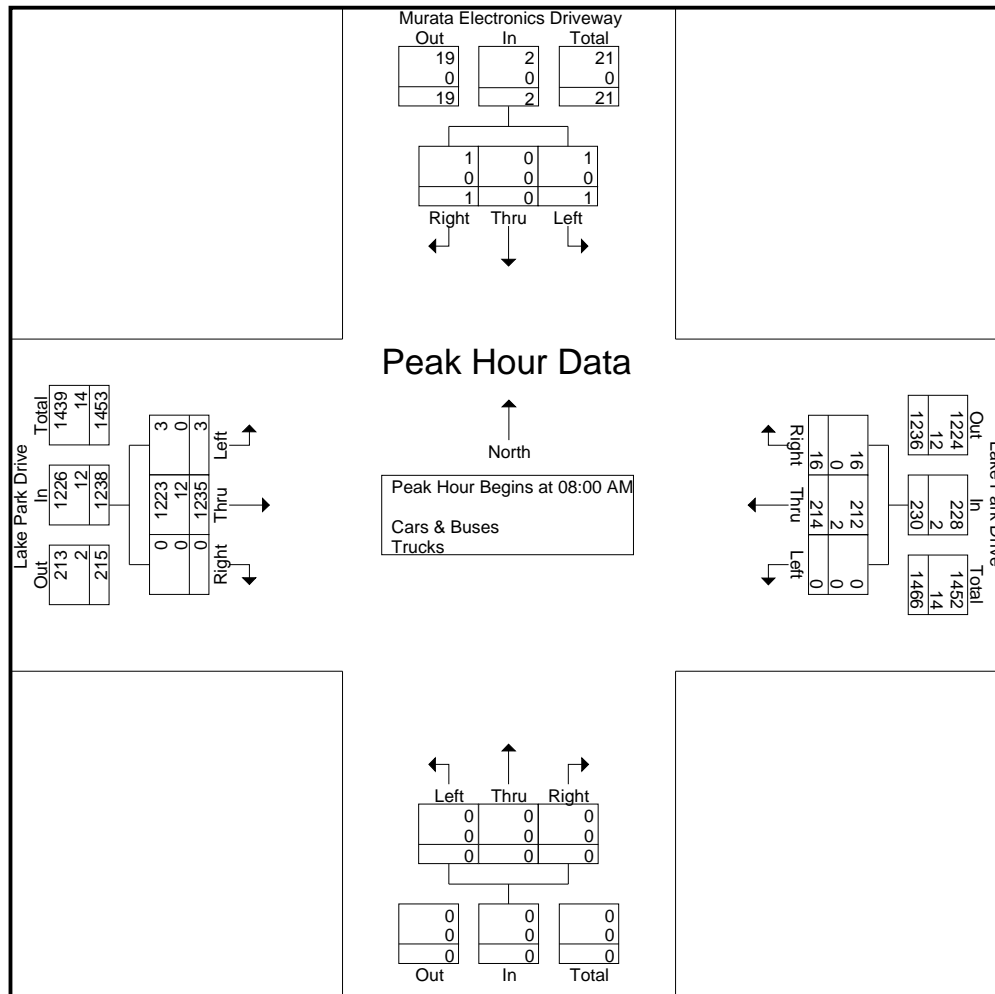
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Dr @ Murata Electronics Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230394  
Site Code : 20230394  
Start Date : 11-15-2023  
Page No : 2

	Northbound				Murata Electronics Driveway Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	0	1	1	0	276	0	276	0	49	3	52	329
08:15 AM	0	0	0	0	1	0	0	1	2	301	0	303	0	53	4	57	361
08:30 AM	0	0	0	0	0	0	0	0	0	300	0	300	0	56	6	62	362
08:45 AM	0	0	0	0	0	0	0	0	1	358	0	359	0	56	3	59	418
Total Volume	0	0	0	0	1	0	1	2	3	1235	0	1238	0	214	16	230	1470
% App. Total	0	0	0	0	50	0	50	2	0.2	99.8	0	99.0	0	93	7	99.1	99.0
PHF	.000	.000	.000	.000	.250	.000	.250	.500	.375	.862	.000	.862	.000	.955	.667	.927	.879
Cars & Buses	0	0	0	0	1	0	1	2	3	1223	0	1226	0	212	16	228	1456
% Cars & Buses	0	0	0	0	100	0	100	100	100	99.0	0	99.0	0	99.1	100	99.1	99.0
Trucks	0	0	0	0	0	0	0	0	0	12	0	12	0	2	0	2	14
% Trucks	0	0	0	0	0	0	0	0	0	1.0	0	1.0	0	0.9	0	0.9	1.0



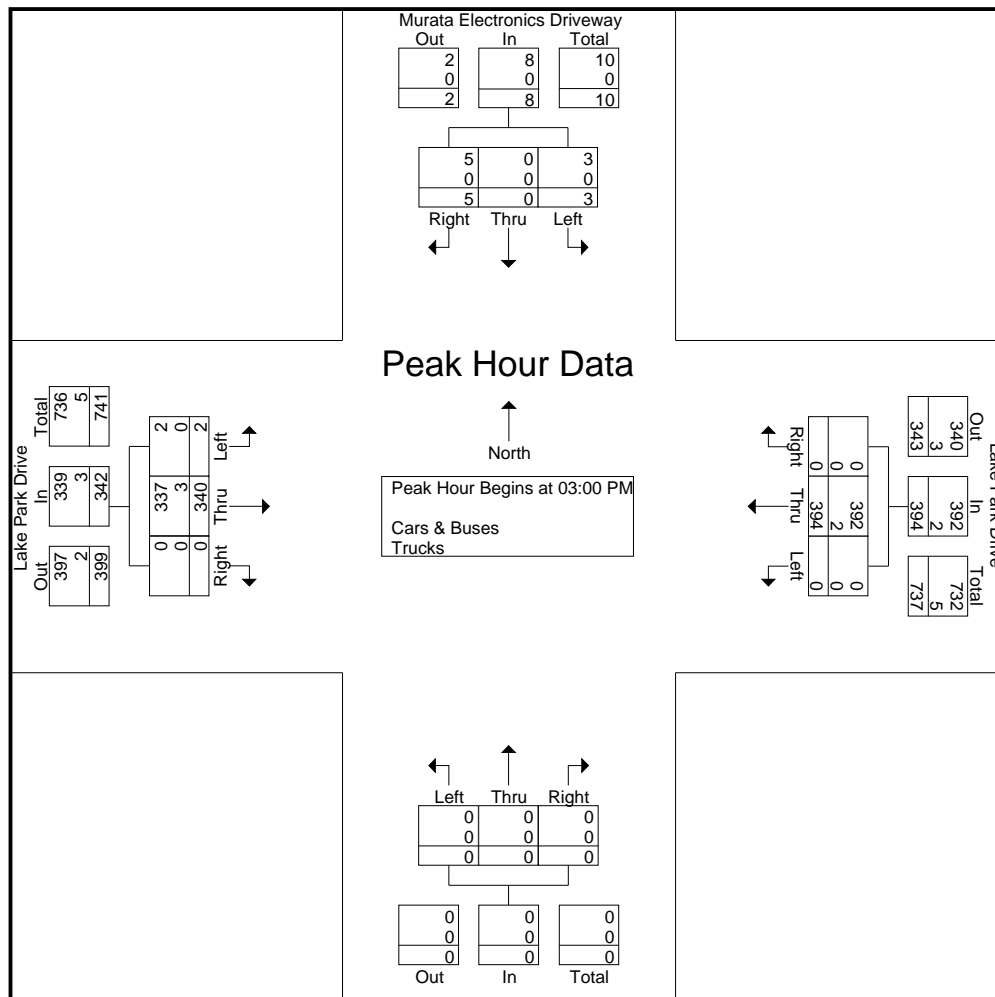
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Dr @ Murata Electronics Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230394  
Site Code : 20230394  
Start Date : 11-15-2023  
Page No : 3

	Northbound				Murata Electronics Driveway Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	0	0	1	0	2	3	0	92	0	92	0	90	0	90	185
03:15 PM	0	0	0	0	0	0	0	0	0	84	0	84	0	90	0	90	174
03:30 PM	0	0	0	0	2	0	0	2	0	85	0	85	0	112	0	112	199
03:45 PM	0	0	0	0	0	0	3	3	2	79	0	81	0	102	0	102	186
Total Volume	0	0	0	0	3	0	5	8	2	340	0	342	0	394	0	394	744
% App. Total	0	0	0		37.5	0	62.5		0.6	99.4	0		0	100	0		
PHF	.000	.000	.000	.000	.375	.000	.417	.667	.250	.924	.000	.929	.000	.879	.000	.879	.935
Cars & Buses	0	0	0	0	3	0	5	8	2	337	0	339	0	392	0	392	739
% Cars & Buses	0	0	0	0	100	0	100	100	100	99.1	0	99.1	0	99.5	0	99.5	99.3
Trucks	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5
% Trucks	0	0	0	0	0	0	0	0	0	0.9	0	0.9	0	0.5	0	0.5	0.7



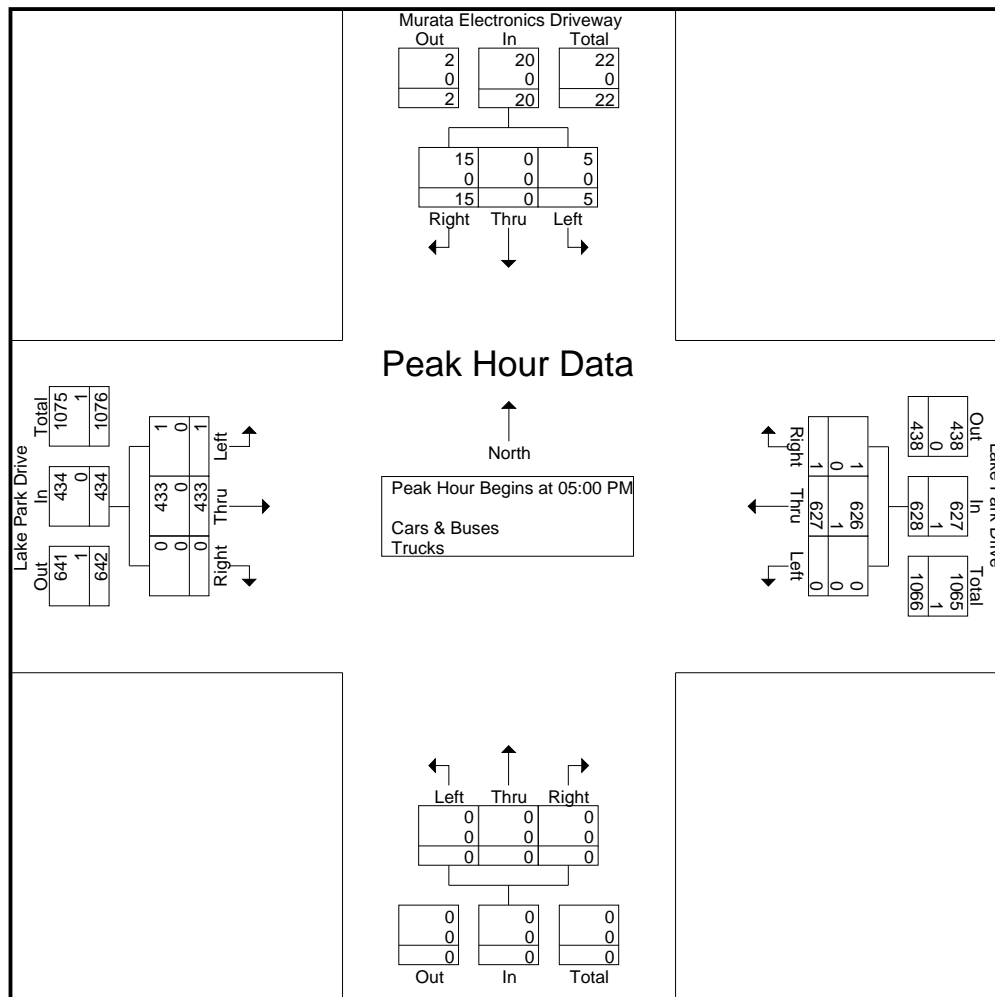
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Dr @ Murata Electronics Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230394  
Site Code : 20230394  
Start Date : 11-15-2023  
Page No : 4

	Northbound				Murata Electronics Driveway Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	4	0	5	9	1	124	0	125	0	164	0	164	298
05:15 PM	0	0	0	0	0	0	5	5	0	105	0	105	0	136	0	136	246
05:30 PM	0	0	0	0	1	0	3	4	0	111	0	111	0	170	0	170	285
05:45 PM	0	0	0	0	0	0	2	2	0	93	0	93	0	157	1	158	253
Total Volume	0	0	0	0	5	0	15	20	1	433	0	434	0	627	1	628	1082
% App. Total	0	0	0	0	25	0	75	20	0.2	99.8	0	434	0	99.8	0.2	628	1082
PHF	.000	.000	.000	.000	.313	.000	.750	.556	.250	.873	.000	.868	.000	.922	.250	.924	.908
Cars & Buses	0	0	0	0	5	0	15	20	1	433	0	434	0	626	1	627	1081
% Cars & Buses	0	0	0	0	100	0	100	100	100	100	0	100	0	99.8	100	99.8	99.9
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0.1



# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ Village Parkway  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230395  
Site Code : 20230395  
Start Date : 11-15-2023  
Page No : 1

## Groups Printed- Cars & Buses - Trucks

	Village Pkwy Northbound				Village Pkwy Southbound				Eastbound				Lake Park Dr Westbound						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total	
07:00 AM	0	83	64	147	73	28	0	101	0	0	0	0	7	0	11	0	18	266	
07:15 AM	0	90	103	193	101	27	0	128	0	0	0	0	8	0	10	1	19	340	
07:30 AM	0	126	133	259	83	34	0	117	0	0	0	0	10	0	15	0	25	401	
07:45 AM	0	119	150	269	86	54	0	140	0	0	0	0	13	0	14	2	29	438	
Total	0	418	450	868	343	143	0	486	0	0	0	0	38	0	50	3	91	1445	
08:00 AM	0	136	166	302	78	49	0	127	0	0	0	0	16	0	16	0	32	461	
08:15 AM	0	109	185	294	89	41	0	130	0	0	0	0	21	0	12	0	33	457	
08:30 AM	0	99	205	304	118	49	0	167	0	0	0	0	16	0	13	2	31	502	
08:45 AM	0	77	123	200	120	46	0	166	0	0	0	0	17	0	10	0	27	393	
Total	0	421	679	1100	405	185	0	590	0	0	0	0	70	0	51	2	123	1813	
*** BREAK ***																			
02:00 PM	0	51	28	79	30	63	0	93	0	0	0	0	46	0	34	0	80	252	
02:15 PM	0	63	28	91	30	49	0	79	0	0	0	0	37	0	25	3	65	235	
02:30 PM	0	69	32	101	25	57	0	82	0	0	0	0	54	0	32	0	86	269	
02:45 PM	0	62	27	89	33	66	0	99	0	0	0	0	34	0	36	2	72	260	
Total	0	245	115	360	118	235	0	353	0	0	0	0	171	0	127	5	303	1016	
03:00 PM	0	64	32	96	36	66	0	102	0	0	0	0	34	0	41	0	75	273	
03:15 PM	0	77	32	109	39	88	0	127	0	0	0	0	61	0	36	3	100	336	
03:30 PM	0	50	40	90	30	76	0	106	0	0	0	0	58	0	46	3	107	303	
03:45 PM	0	58	44	102	39	87	0	126	0	0	0	0	53	0	42	6	101	329	
Total	0	249	148	397	144	317	0	461	0	0	0	0	206	0	165	12	383	1241	
04:00 PM	0	79	45	124	29	80	0	109	0	0	0	0	61	0	51	8	120	353	
04:15 PM	0	62	33	95	37	96	1	134	0	0	0	0	52	0	43	3	98	327	
04:30 PM	0	76	25	101	34	78	1	113	0	0	0	0	74	0	63	9	146	360	
04:45 PM	0	67	41	108	56	108	0	164	0	0	0	0	86	0	54	7	147	419	
Total	0	284	144	428	156	362	2	520	0	0	0	0	273	0	211	27	511	1459	
05:00 PM	0	66	32	98	40	83	0	123	0	0	0	0	81	0	74	10	165	386	
05:15 PM	0	70	36	106	46	95	0	141	0	0	0	0	82	0	72	4	158	405	
05:30 PM	0	59	27	86	25	107	0	132	0	0	0	0	54	0	60	2	116	334	
05:45 PM	0	60	37	97	39	83	0	122	0	0	0	0	82	0	33	5	120	339	
Total	0	255	132	387	150	368	0	518	0	0	0	0	299	0	239	21	559	1464	
Grand Total	0	1872	1668	3540	1316	1610	2	2928	0	0	0	0	1057	0	843	70	1970	8438	
Apprch %	0	52.9	47.1		44.9	55	0.1		0	0	0		53.7	0	42.8	3.6			
Total %	0	22.2	19.8	42	15.6	19.1	0	34.7	0	0	0	0	12.5	0	10	0.8	23.3		
Cars & Buses	0	1865	1655	3520	1309	1605	0	2914	0	0	0	0	1054	0	840	70	1964	8398	
% Cars & Buses	0	99.6	99.2	99.4	99.5	99.7	0	99.5	0	0	0	0	99.7	0	99.6	100	99.7	99.5	
Trucks	0	7	13	20	7	5	2	14	0	0	0	0	3	0	3	0	6	40	
% Trucks	0	0.4	0.8	0.6	0.5	0.3	100	0.5	0	0	0	0	0.3	0	0.4	0	0.3	0.5	

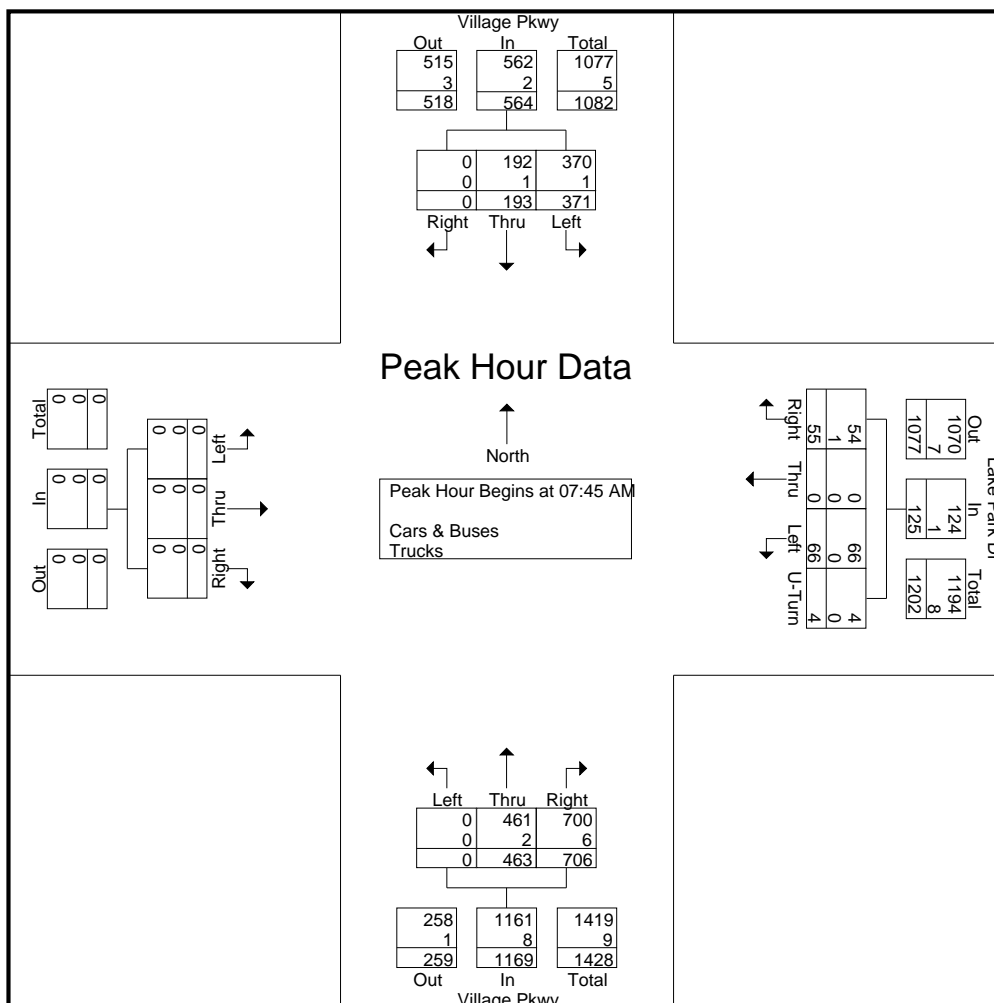
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ Village Parkway  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230395  
Site Code : 20230395  
Start Date : 11-15-2023  
Page No : 2

	Village Pkwy Northbound				Village Pkwy Southbound				Eastbound				Lake Park Dr Westbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:45 AM																		
07:45 AM	0	119	150	269	86	<b>54</b>	0	140	0	0	0	0	13	0	14	<b>2</b>	29	438
08:00 AM	0	<b>136</b>	166	302	78	49	0	127	0	0	0	0	16	0	<b>16</b>	0	32	461
08:15 AM	0	109	185	294	89	41	0	130	0	0	0	0	<b>21</b>	0	12	0	<b>33</b>	457
08:30 AM	0	99	<b>205</b>	<b>304</b>	<b>118</b>	49	0	<b>167</b>	0	0	0	0	16	0	13	2	31	<b>502</b>
Total Volume	0	463	706	1169	371	193	0	564	0	0	0	0	66	0	55	4	125	1858
% App. Total	0	39.6	60.4		65.8	34.2	0		0	0	0	0	52.8	0	44	3.2		
PHF	.000	.851	.861	.961	.786	.894	.000	.844	.000	.000	.000	.000	.786	.000	.859	.500	.947	.925
Cars & Buses	0	461	700	1161	370	192	0	562	0	0	0	0	66	0	54	4	124	1847
% Cars & Buses	0	99.6	99.2	99.3	99.7	99.5	0	99.6	0	0	0	0	100	0	98.2	100	99.2	99.4
Trucks	0	2	6	8	1	1	0	2	0	0	0	0	0	0	1	0	1	11
% Trucks	0	0.4	0.8	0.7	0.3	0.5	0	0.4	0	0	0	0	0	0	1.8	0	0.8	0.6



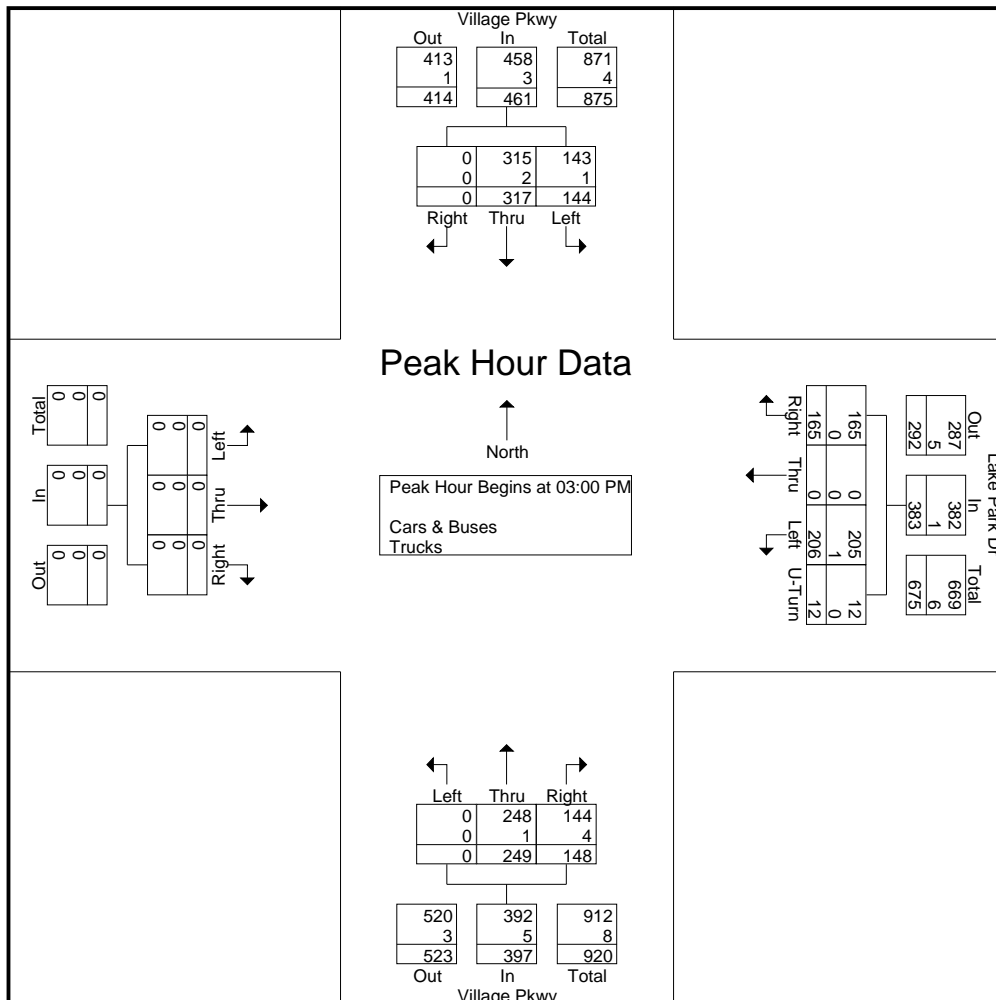
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ Village Parkway  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230395  
Site Code : 20230395  
Start Date : 11-15-2023  
Page No : 3

	Village Pkwy Northbound				Village Pkwy Southbound				Eastbound				Lake Park Dr Westbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 03:00 PM																		
03:00 PM	0	64	32	96	36	66	0	102	0	0	0	0	34	0	41	0	75	273
03:15 PM	0	<b>77</b>	32	<b>109</b>	<b>39</b>	<b>88</b>	0	<b>127</b>	0	0	0	0	<b>61</b>	0	36	3	100	<b>336</b>
03:30 PM	0	50	40	90	30	76	0	106	0	0	0	0	58	0	<b>46</b>	3	<b>107</b>	303
03:45 PM	0	58	<b>44</b>	102	39	87	0	126	0	0	0	0	53	0	42	<b>6</b>	101	329
Total Volume	0	249	148	397	144	317	0	461	0	0	0	0	206	0	165	12	383	1241
% App. Total	0	62.7	37.3		31.2	68.8	0		0	0	0		53.8	0	43.1	3.1		
PHF	.000	.808	.841	.911	.923	.901	.000	.907	.000	.000	.000	.000	.844	.000	.897	.500	.895	.923
Cars & Buses	0	248	144	392	143	315	0	458	0	0	0	0	205	0	165	12	382	1232
% Cars & Buses	0	99.6	97.3	98.7	99.3	99.4	0	99.3	0	0	0	0	99.5	0	100	100	99.7	99.3
Trucks	0	1	4	5	1	2	0	3	0	0	0	0	1	0	0	0	1	9
% Trucks	0	0.4	2.7	1.3	0.7	0.6	0	0.7	0	0	0	0	0.5	0	0	0	0.3	0.7



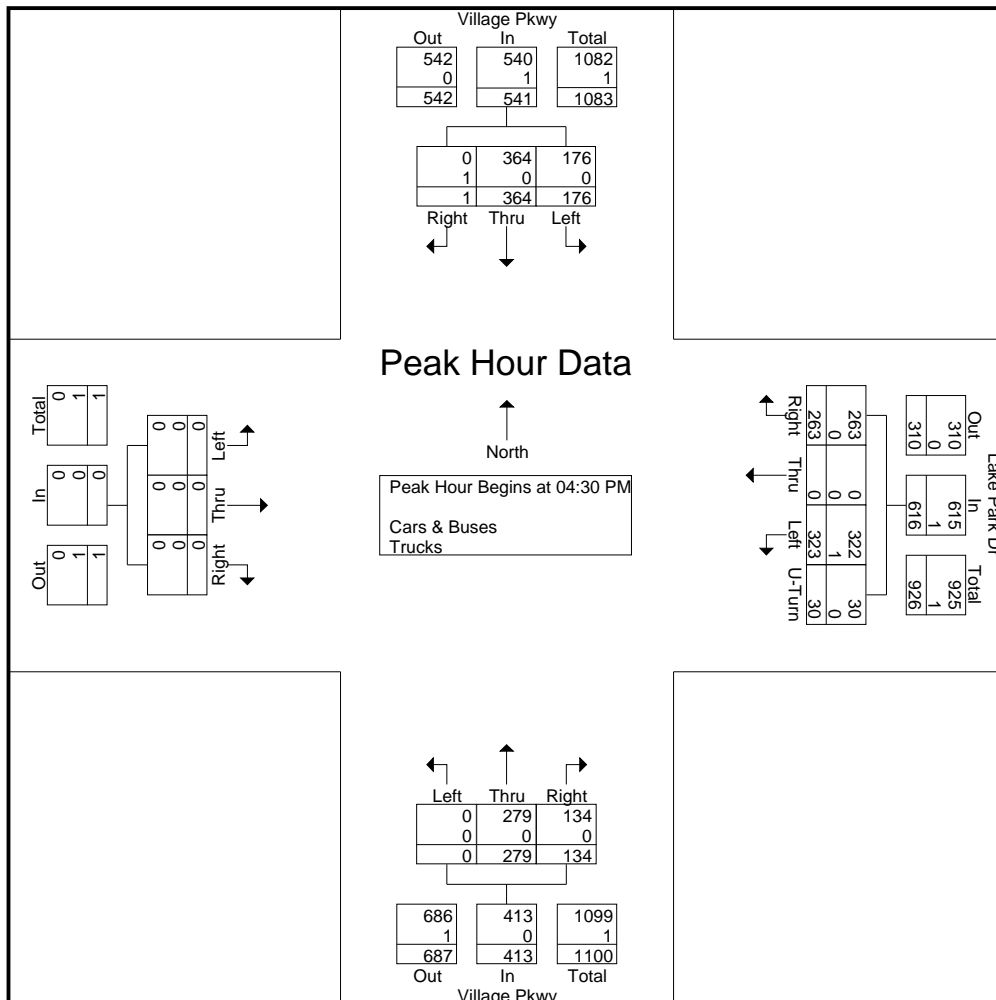
# A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'  
Marietta, GA 30067

TMC Data  
Lake Park Drive @ Village Parkway  
7-9 am | 2-4 pm | 4-6 pm

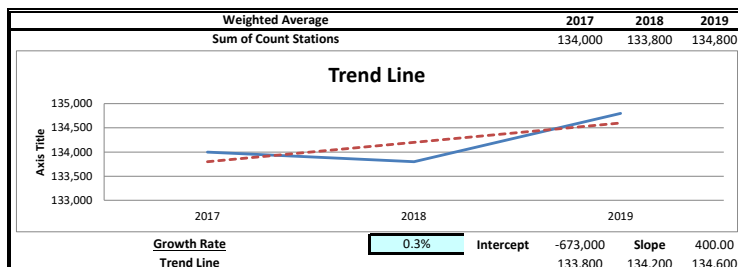
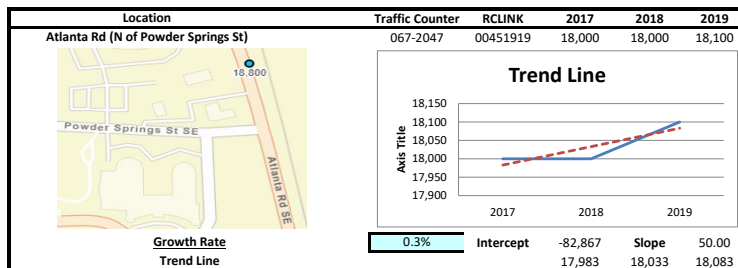
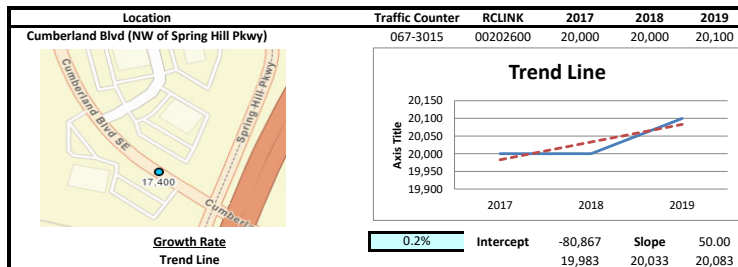
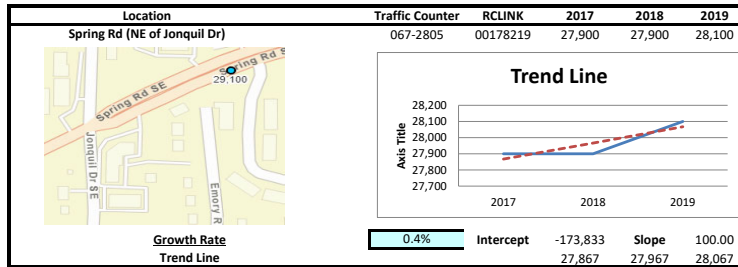
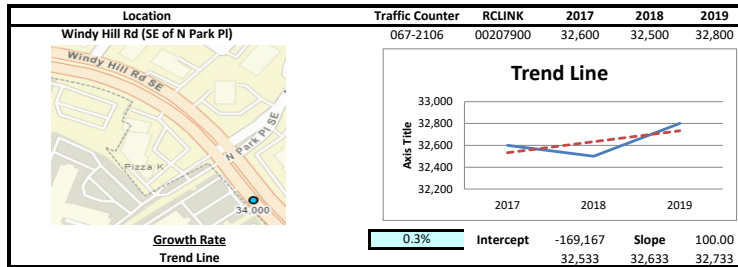
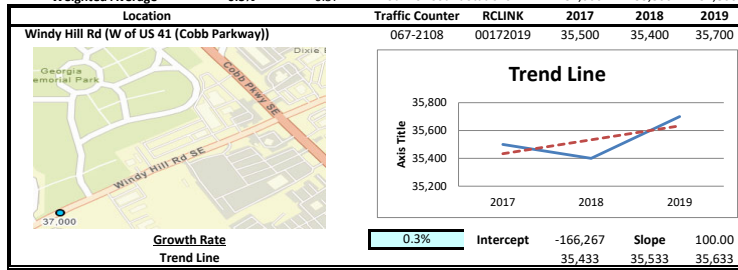
File Name : 20230395  
Site Code : 20230395  
Start Date : 11-15-2023  
Page No : 4

	Village Pkwy Northbound				Village Pkwy Southbound				Eastbound				Lake Park Dr Westbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	0	76	25	101	34	78	1	113	0	0	0	0	74	0	63	9	146	360
04:45 PM	0	67	41	108	56	108	0	164	0	0	0	0	86	0	54	7	147	419
05:00 PM	0	66	32	98	40	83	0	123	0	0	0	0	81	0	74	10	165	386
05:15 PM	0	70	36	106	46	95	0	141	0	0	0	0	82	0	72	4	158	405
Total Volume	0	279	134	413	176	364	1	541	0	0	0	0	323	0	263	30	616	1570
% App. Total	0	67.6	32.4		32.5	67.3	0.2		0	0	0		52.4	0	42.7	4.9		
PHF	.000	.918	.817	.956	.786	.843	.250	.825	.000	.000	.000	.000	.939	.000	.889	.750	.933	.937
Cars & Buses	0	279	134	413	176	364	0	540	0	0	0	0	322	0	263	30	615	1568
% Cars & Buses	0	100	100	100	100	100	0	99.8	0	0	0	0	99.7	0	100	100	99.8	99.9
Trucks	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	1	2
% Trucks	0	0	0	0	0	0	100	0.2	0	0	0	0	0.3	0	0	0	0.2	0.1



## **LINEAR REGRESSION OF DAILY TRAFFIC**

Location	Growth Rate	R Squared	Station ID	Route	2017	2018	2019
Windy Hill Rd (W of US 41 (Cobb Pkwy))	0.3%	0.43	067-2108	00172019	35,500	35,400	35,700
Windy Hill Rd (SE of N Park Pl)	0.3%	0.43	067-2106	00207900	32,600	32,500	32,800
Spring Rd (NE of Jonquil Dr)	0.4%	0.75	067-2805	00178219	27,900	27,900	28,100
Cumberland Blvd (NW of Spring Hill Pkwy)	0.2%	0.75	067-3015	00202600	20,000	20,000	20,100
Atlanta Rd (N of Powder Springs St)	0.3%	0.75	067-2047	00451919	18,000	18,000	18,100
Weighted Average	0.3%	0.57	Sum of Count Stations =		134,000	133,800	134,800



## **EXISTING INTERSECTION ANALYSIS**

# Timings

## 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

1a. Existing 2023 AM

02/27/2024

	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (vph)	306	105	787	44	24	208	765	61	30	925	146
Future Volume (vph)	306	105	787	44	24	208	765	61	30	925	146
Lane Group Flow (vph)	319	109	820	46	70	217	797	64	31	964	152
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	22.0	48.0	48.0	17.0	43.0	16.0	40.0	40.0	15.0	39.0	39.0
Total Split (%)	18.3%	40.0%	40.0%	14.2%	35.8%	13.3%	33.3%	33.3%	12.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.47	0.15	0.96	0.11	0.15	0.92	0.65	0.10	0.15	1.00	0.28
Control Delay	18.2	21.3	42.9	17.1	14.1	72.6	37.1	0.3	23.2	71.4	9.2
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	18.2	21.3	42.9	17.1	14.1	72.6	37.1	0.3	23.2	71.4	9.2
Queue Length 50th (ft)	150	55	395	18	14	~121	292	0	14	392	11
Queue Length 95th (ft)	219	97	#703	38	48	#290	375	0	34	#538	63
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	672	729	856	490	548	235	1219	657	244	968	537
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	0.47	0.15	0.96	0.09	0.13	0.92	0.65	0.10	0.13	1.00	0.28

### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

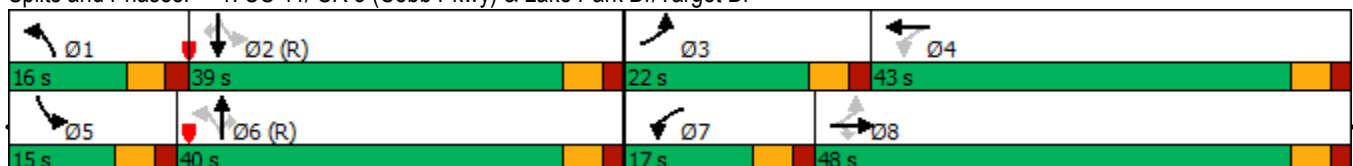
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

### Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



























# HCM 6th Signalized Intersection Summary

## 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

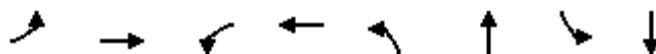
1a. Existing 2023 AM

02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	306	105	787	44	24	43	208	765	61	30	925	146
Future Volume (veh/h)	306	105	787	44	24	43	208	765	61	30	925	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1826	1870	1811	1900	1796	1841	1870
Adj Flow Rate, veh/h	319	109	0	46	25	45	217	797	64	31	964	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	5	2	6	0	7	4	2
Cap, veh/h	331	310		196	36	65	403	2036	953	395	1922	
Arrive On Green	0.14	0.17	0.00	0.03	0.06	0.06	0.07	0.59	0.59	0.03	0.55	0.00
Sat Flow, veh/h	1781	1870	1585	1781	599	1078	1781	3441	1610	1711	3497	1585
Grp Volume(v), veh/h	319	109	0	46	0	70	217	797	64	31	964	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1676	1781	1721	1610	1711	1749	1585
Q Serve(g_s), s	16.5	6.2	0.0	2.9	0.0	4.9	6.1	14.8	2.0	0.9	20.6	0.0
Cycle Q Clear(g_c), s	16.5	6.2	0.0	2.9	0.0	4.9	6.1	14.8	2.0	0.9	20.6	0.0
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	331	310		196	0	102	403	2036	953	395	1922	
V/C Ratio(X)	0.96	0.35		0.23	0.00	0.69	0.54	0.39	0.07	0.08	0.50	
Avail Cap(c_a), veh/h	331	662		309	0	524	436	2036	953	484	1922	
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.4	44.4	0.0	50.6	0.0	55.2	12.5	13.0	10.4	11.4	16.8	0.0
Incr Delay (d2), s/veh	39.5	0.7	0.0	0.6	0.0	8.0	1.1	0.6	0.1	0.1	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	5.2	2.9	0.0	1.3	0.0	2.3	2.3	5.4	0.7	0.3	7.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.0	45.0	0.0	51.2	0.0	63.2	13.6	13.6	10.6	11.5	17.7	0.0
LnGrp LOS	F	D		D	A	E	B	B	B	B	B	
Approach Vol, veh/h	428			116			1078			995		
Approach Delay, s/veh	75.6			58.5			13.4			17.5		
Approach LOS	E			E			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.8	71.5	22.0	12.8	8.7	76.5	9.4	25.4				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	10.5	33.5	16.5	37.5	9.5	34.5	11.5	42.5				
Max Q Clear Time (g_c+I1), s	8.1	22.6	18.5	6.9	2.9	16.8	4.9	8.2				
Green Ext Time (p_c), s	0.1	6.9	0.0	0.4	0.0	8.5	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay	27.1											
HCM 6th LOS	C											

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

1a. Existing 2023 AM  
02/27/2024

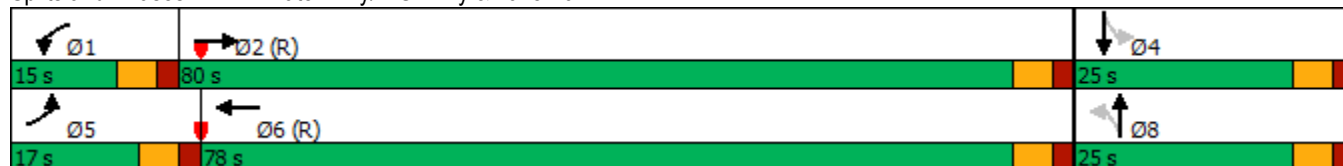


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	26	1199	11	226	1	0	16	0
Future Volume (vph)	26	1199	11	226	1	0	16	0
Lane Group Flow (vph)	29	1359	12	347	1	1	18	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	17.0	80.0	15.0	78.0	25.0	25.0	25.0	25.0
Total Split (%)	14.2%	66.7%	12.5%	65.0%	20.8%	20.8%	20.8%	20.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.26	0.43	0.13	0.12	0.01	0.00	0.16	0.00
Control Delay	57.9	4.0	66.6	0.6	52.0	0.0	56.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	4.0	66.6	0.6	52.0	0.0	56.0	0.0
Queue Length 50th (ft)	22	0	9	2	1	0	14	0
Queue Length 95th (ft)	m46	265	m19	m8	7	0	37	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	169	3153	140	2916	302	407	302	834
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.43	0.09	0.12	0.00	0.00	0.06	0.00

## Intersection Summary





















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 m Volume for 95th percentile queue is metered by upstream signal.





## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr













1a. Existing 2023 AM  
02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	1199	11	11	226	83	1	0	1	16	0	3
Future Volume (veh/h)	26	1199	11	11	226	83	1	0	1	16	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	1347	12	12	254	93	1	0	1	18	0	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	2967	26	24	2079	742	95	0	42	97	0	42
Arrive On Green	0.03	0.82	0.82	0.01	0.81	0.81	0.03	0.00	0.03	0.03	0.00	0.03
Sat Flow, veh/h	1781	3609	32	1781	2566	916	1414	0	1585	1416	0	1585
Grp Volume(v), veh/h	29	663	696	12	174	173	1	0	1	18	0	3
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1705	1414	0	1585	1416	0	1585
Q Serve(g_s), s	1.9	12.7	12.7	0.8	2.5	2.6	0.1	0.0	0.1	1.5	0.0	0.2
Cycle Q Clear(g_c), s	1.9	12.7	12.7	0.8	2.5	2.6	0.3	0.0	0.1	1.6	0.0	0.2
Prop In Lane	1.00		0.02	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	46	1461	1533	24	1439	1381	95	0	42	97	0	42
V/C Ratio(X)	0.63	0.45	0.45	0.49	0.12	0.13	0.01	0.00	0.02	0.19	0.00	0.07
Avail Cap(c_a), veh/h	171	1461	1533	141	1439	1381	287	0	258	289	0	258
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.9	3.0	3.0	58.8	2.4	2.4	57.1	0.0	56.9	57.6	0.0	56.9
Incr Delay (d2), s/veh	13.4	1.0	1.0	14.4	0.2	0.2	0.0	0.0	0.2	0.9	0.0	0.7
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	3.6	3.8	0.5	0.7	0.7	0.0	0.0	0.0	0.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.2	4.1	4.0	73.2	2.6	2.6	57.1	0.0	57.1	58.5	0.0	57.6
LnGrp LOS	E	A	A	E	A	A	E	A	E	E	A	E
Approach Vol, veh/h	1388				359				2			
Approach Delay, s/veh	5.4				4.9				57.1			
Approach LOS	A				A				E			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	104.1		8.7	8.6	102.7		8.7				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	74.5		19.5	11.5	72.5		19.5				
Max Q Clear Time (g_c+I1), s	2.8	14.7		3.6	3.9	4.6		2.3				
Green Ext Time (p_c), s	0.0	30.9		0.0	0.0	4.7		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	6.0											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	1235	214	16	1	1
Future Vol, veh/h	3	1235	214	16	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	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	1403	243	18	1	1
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	261	0	-	0	960	131
Stage 1	-	-	-	-	252	-
Stage 2	-	-	-	-	708	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1300	-	-	-	254	894
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	449	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1300	-	-	-	253	894
Mov Cap-2 Maneuver	-	-	-	-	253	-
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	449	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		14.2		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1300	-	-	-	394	
HCM Lane V/C Ratio	0.003	-	-	-	0.006	
HCM Control Delay (s)	7.8	-	-	-	14.2	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	

# Timings 4: Village Pkwy & Lake Park Dr

1a. Existing 2023 AM  
02/27/2024

					
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 
Traffic Volume (vph)	70	463	706	371	193
Future Volume (vph)	70	463	706	371	193
Lane Group Flow (vph)	134	498	759	0	607
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	25.0	95.0	95.0	95.0	95.0
Total Split (%)	20.8%	79.2%	79.2%	79.2%	79.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.47	0.17	0.52		0.35
Control Delay	21.5	2.0	1.5		2.9
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	21.5	2.0	1.5		2.9
Queue Length 50th (ft)	29	27	0		41
Queue Length 95th (ft)	60	44	18		68
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	583	2968	1450		1743
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.23	0.17	0.52		0.35

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated











Splits and Phases: 4: Village Pkwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

1a. Existing 2023 AM  
02/27/2024























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	70	55	463	706	371	193
Future Volume (veh/h)	70	55	463	706	371	193
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	0	498	0	399	208
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	87		3055		813	1390
Arrive On Green	0.05	0.00	0.86	0.00	0.86	0.86
Sat Flow, veh/h	1781	1585	3647	1585	876	1702
Grp Volume(v), veh/h	67	0	498	0	399	208
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	876	1617
Q Serve(g_s), s	4.5	0.0	2.7	0.0	15.6	2.5
Cycle Q Clear(g_c), s	4.5	0.0	2.7	0.0	18.4	2.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	87		3055		813	1390
V/C Ratio(X)	0.77		0.16		0.49	0.15
Avail Cap(c_a), veh/h	289		3055		813	1390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	56.4	0.0	1.4	0.0	2.9	1.4
Incr Delay (d2), s/veh	13.3	0.0	0.1	0.0	2.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.4	0.0	1.8	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	69.7	0.0	1.5	0.0	5.0	1.6
LnGrp LOS	E		A		A	A
Approach Vol, veh/h	67		498			607
Approach Delay, s/veh	69.7		1.5			3.8
Approach LOS	E		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	108.6		11.4		108.6	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	89.5		19.5		89.5	
Max Q Clear Time (g_c+I1), s	20.4		6.5		4.7	
Green Ext Time (p_c), s	11.2		0.1		7.1	
Intersection Summary						
HCM 6th Ctrl Delay			6.6			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# Timings

## 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

1b. Existing 2023 PM

02/27/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	107	60	336	186	135	337	1235	134	84	1001	128
Future Volume (vph)	107	60	336	186	135	337	1235	134	84	1001	128
Lane Group Flow (vph)	111	63	350	194	221	351	1286	140	88	1043	133
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	15.0	33.5	33.5	15.0	33.5	26.0	56.5	56.5	15.0	45.5	45.5
Total Split (%)	12.5%	27.9%	27.9%	12.5%	27.9%	21.7%	47.1%	47.1%	12.5%	37.9%	37.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.47	0.22	0.68	0.56	0.75	0.80	0.74	0.16	0.41	0.80	0.19
Control Delay	38.8	42.9	16.9	41.4	58.2	42.7	27.7	5.0	19.0	40.1	2.3
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	38.8	42.9	16.9	41.4	58.2	42.7	27.7	5.0	19.0	40.1	2.3
Queue Length 50th (ft)	63	39	0	121	149	189	396	6	25	393	0
Queue Length 95th (ft)	97	68	126	174	222	#378	#581	46	55	#527	21
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	241	434	616	347	423	439	1746	887	239	1308	704
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	0.46	0.15	0.57	0.56	0.52	0.80	0.74	0.16	0.37	0.80	0.19

### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

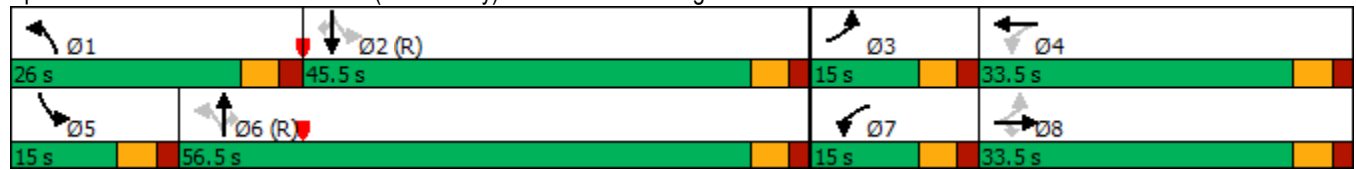
Natural Cycle: 105

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.
























### Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



HCM 6th Signalized Intersection Summary  
1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

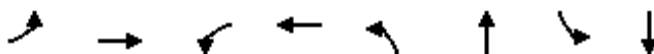
1b. Existing 2023 PM

02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	60	336	186	135	77	337	1235	134	84	1001	128
Future Volume (veh/h)	107	60	336	186	135	77	337	1235	134	84	1001	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1826	1870	1811	1900	1796	1841	1870
Adj Flow Rate, veh/h	111	62	0	194	141	80	351	1286	140	88	1043	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	5	2	6	0	7	4	2
Cap, veh/h	210	255		344	165	94	410	1929	903	237	1698	
Arrive On Green	0.07	0.14	0.00	0.08	0.15	0.15	0.12	0.56	0.56	0.04	0.49	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1120	636	1781	3441	1610	1711	3497	1585
Grp Volume(v), veh/h	111	62	0	194	0	221	351	1286	140	88	1043	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1756	1781	1721	1610	1711	1749	1585
Q Serve(g_s), s	6.3	3.6	0.0	9.5	0.0	14.7	11.3	31.5	5.0	3.1	26.2	0.0
Cycle Q Clear(g_c), s	6.3	3.6	0.0	9.5	0.0	14.7	11.3	31.5	5.0	3.1	26.2	0.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	255		344	0	259	410	1929	903	237	1698	
V/C Ratio(X)	0.53	0.24		0.56	0.00	0.85	0.86	0.67	0.16	0.37	0.61	
Avail Cap(c_a), veh/h	230	436		344	0	410	509	1929	903	303	1698	
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.3	46.3	0.0	42.1	0.0	49.9	19.5	18.5	12.7	17.0	22.6	0.0
Incr Delay (d2), s/veh	2.1	0.5	0.0	2.1	0.0	9.8	11.3	1.8	0.4	1.0	1.7	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	2.9	1.7	0.0	0.9	0.0	7.2	5.6	11.9	1.9	1.2	10.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	46.8	0.0	44.3	0.0	59.7	30.8	20.3	13.0	17.9	24.3	0.0
LnGrp LOS	D	D		D	A	E	C	C	B	B	C	
Approach Vol, veh/h		173			415			1777			1131	
Approach Delay, s/veh		44.6			52.5			21.8			23.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.4	63.8	13.7	23.2	10.4	72.8	15.0	21.8				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	20.5	40.0	9.5	28.0	9.5	51.0	9.5	28.0				
Max Q Clear Time (g_c+I1), s	13.3	28.2	8.3	16.7	5.1	33.5	11.5	5.6				
Green Ext Time (p_c), s	0.6	7.8	0.0	1.0	0.1	13.1	0.0	0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			27.2									
HCM 6th LOS			C									
<b>Notes</b>												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

1b. Existing 2023 PM  
02/27/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	435	1	601	1	0	58	0
Future Volume (vph)	2	435	1	601	1	0	58	0
Lane Group Flow (vph)	2	469	1	659	1	11	62	28
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	19.0	66.0	19.0	66.0	35.0	35.0	35.0	35.0
Total Split (%)	15.8%	55.0%	15.8%	55.0%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.02	0.16	0.01	0.23	0.01	0.02	0.50	0.06
Control Delay	56.5	3.4	86.0	1.5	47.0	0.1	64.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	3.4	86.0	1.5	47.0	0.1	64.8	0.2
Queue Length 50th (ft)	2	31	1	15	1	0	47	0
Queue Length 95th (ft)	m8	84	m1	62	6	0	90	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	199	2932	199	2923	338	741	343	665
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.16	0.01	0.23	0.00	0.01	0.18	0.04

## Intersection Summary





















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 m Volume for 95th percentile queue is metered by upstream signal.





## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr













1b. Existing 2023 PM  
02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	435	1	1	601	12	1	0	10	58	0	26
Future Volume (veh/h)	2	435	1	1	601	12	1	0	10	58	0	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	468	1	1	646	13	1	0	11	62	0	28
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	2891	6	2	2826	57	129	0	105	144	0	105
Arrive On Green	0.00	0.79	0.79	0.00	0.79	0.79	0.07	0.00	0.07	0.07	0.00	0.07
Sat Flow, veh/h	1781	3638	8	1781	3563	72	1382	0	1585	1404	0	1585
Grp Volume(v), veh/h	2	229	240	1	322	337	1	0	11	62	0	28
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1857	1382	0	1585	1404	0	1585
Q Serve(g_s), s	0.1	3.6	3.6	0.1	5.5	5.5	0.1	0.0	0.8	5.2	0.0	2.0
Cycle Q Clear(g_c), s	0.1	3.6	3.6	0.1	5.5	5.5	2.1	0.0	0.8	6.0	0.0	2.0
Prop In Lane	1.00		0.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1412	1485	2	1409	1473	129	0	105	144	0	105
V/C Ratio(X)	0.42	0.16	0.16	0.41	0.23	0.23	0.01	0.00	0.10	0.43	0.00	0.27
Avail Cap(c_a), veh/h	200	1412	1485	200	1409	1473	377	0	390	396	0	390
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	2.9	2.9	59.9	3.1	3.1	54.2	0.0	52.6	55.5	0.0	53.2
Incr Delay (d2), s/veh	49.1	0.2	0.2	84.5	0.4	0.4	0.0	0.0	0.4	2.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.1	1.2	0.1	1.7	1.8	0.0	0.0	0.3	1.9	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.8	3.2	3.1	144.4	3.5	3.5	54.2	0.0	53.1	57.5	0.0	54.5
LnGrp LOS	F	A	A	F	A	A	D	A	D	E	A	D
Approach Vol, veh/h	471			660			12			90		
Approach Delay, s/veh	3.6			3.7			53.2			56.6		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	100.8		13.5	5.8	100.7		13.5				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	13.5	60.5		29.5	13.5	60.5		29.5				
Max Q Clear Time (g_c+I1), s	2.1	5.6		8.0	2.1	7.5		4.1				
Green Ext Time (p_c), s	0.0	6.5		0.3	0.0	9.9		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				8.0								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	433	627	1	5	15
Future Vol, veh/h	1	433	627	1	5	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	476	689	1	5	16
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	690	0	-	0	930	345
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	240	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	900	-	-	-	266	651
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	777	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	900	-	-	-	266	651
Mov Cap-2 Maneuver	-	-	-	-	266	-
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	777	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		12.9		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	900	-	-	-	478	
HCM Lane V/C Ratio	0.001	-	-	-	0.046	
HCM Control Delay (s)	9	-	-	-	12.9	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

# Timings 4: Village Pkwy & Lake Park Dr

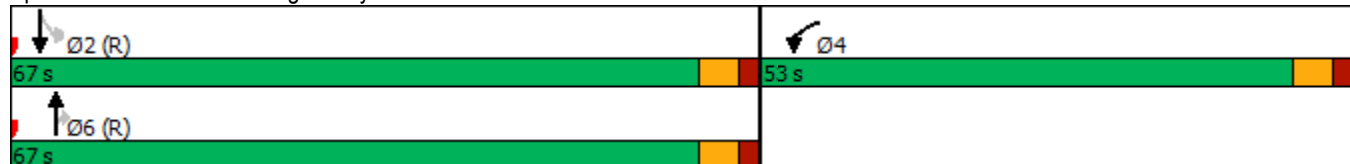
1b. Existing 2023 PM  
02/27/2024

					
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 
Traffic Volume (vph)	353	279	134	176	364
Future Volume (vph)	353	279	134	176	364
Lane Group Flow (vph)	656	297	143	0	574
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	53.0	67.0	67.0	67.0	67.0
Total Split (%)	44.2%	55.8%	55.8%	55.8%	55.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.81	0.12	0.12		0.31
Control Delay	30.1	6.5	1.5		7.9
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	30.1	6.5	1.5		7.9
Queue Length 50th (ft)	200	34	0		77
Queue Length 95th (ft)	251	62	23		132
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	1413	2497	1159		1825
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.46	0.12	0.12		0.31

## Intersection Summary











Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated

Splits and Phases: 4: Village Pkwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary 4: Village Pkwy & Lake Park Dr

1b. Existing 2023 PM  
02/27/2024























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	353	263	279	134	176	364
Future Volume (veh/h)	353	263	279	134	176	364
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	328	0	297	0	187	387
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	364		2502		646	1389
Arrive On Green	0.20	0.00	0.70	0.00	0.70	0.70
Sat Flow, veh/h	1781	1585	3647	1585	845	2058
Grp Volume(v), veh/h	328	0	297	0	262	312
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1201	1617
Q Serve(g_s), s	21.5	0.0	3.2	0.0	8.9	8.5
Cycle Q Clear(g_c), s	21.5	0.0	3.2	0.0	12.2	8.5
Prop In Lane	1.00	1.00		1.00	0.71	
Lane Grp Cap(c), veh/h	364		2502		897	1138
V/C Ratio(X)	0.90		0.12		0.29	0.27
Avail Cap(c_a), veh/h	705		2502		897	1138
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	0.0	5.7	0.0	7.4	6.5
Incr Delay (d2), s/veh	8.2	0.0	0.1	0.0	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	0.0	1.1	0.0	2.5	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.7	0.0	5.8	0.0	8.2	7.1
LnGrp LOS	D		A		A	A
Approach Vol, veh/h	328		297			574
Approach Delay, s/veh	54.7		5.8			7.6
Approach LOS	D		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	90.0		30.0		90.0	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	61.5		47.5		61.5	
Max Q Clear Time (g_c+I1), s	14.2		23.5		5.2	
Green Ext Time (p_c), s	7.9		1.0		3.8	
Intersection Summary						
HCM 6th Ctrl Delay			20.1			
HCM 6th LOS			C			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# Timings

1c. Existing 2023 Dismissal

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

02/27/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	86	74	267	175	106	221	1002	126	84	875	96
Future Volume (vph)	86	74	267	175	106	221	1002	126	84	875	96
Lane Group Flow (vph)	88	76	272	179	223	226	1022	129	86	893	98
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	15.0	34.0	34.0	15.0	34.0	23.0	56.0	56.0	15.0	48.0	48.0
Total Split (%)	12.5%	28.3%	28.3%	12.5%	28.3%	19.2%	46.7%	46.7%	12.5%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.41	0.28	0.59	0.54	0.76	0.55	0.53	0.14	0.27	0.54	0.12
Control Delay	41.1	49.1	16.0	41.5	55.1	15.5	20.8	4.1	12.9	25.9	0.3
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	41.1	49.1	16.0	41.5	55.1	15.5	20.8	4.1	12.9	25.9	0.3
Queue Length 50th (ft)	51	55	0	112	136	69	270	2	24	254	0
Queue Length 95th (ft)	87	94	103	163	210	126	396	38	53	387	0
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	223	442	583	331	440	450	1931	919	343	1656	839
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	0.39	0.17	0.47	0.54	0.51	0.50	0.53	0.14	0.25	0.54	0.12

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr


























# HCM 6th Signalized Intersection Summary

## 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

1c. Existing 2023 Dismissal

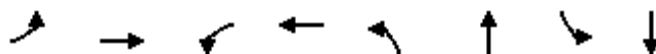
02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	74	267	175	106	113	221	1002	126	84	875	96
Future Volume (veh/h)	86	74	267	175	106	113	221	1002	126	84	875	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	88	76	0	179	108	115	226	1022	129	86	893	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	2	2	2	2	2	2	2	2	2	3	2
Cap, veh/h	188	242		324	126	134	428	2021	901	323	1876	
Arrive On Green	0.06	0.13	0.00	0.08	0.15	0.15	0.08	0.57	0.57	0.04	0.53	0.00
Sat Flow, veh/h	1753	1870	1585	1781	829	883	1781	3554	1585	1781	3526	1585
Grp Volume(v), veh/h	88	76	0	179	0	223	226	1022	129	86	893	0
Grp Sat Flow(s),veh/h/ln	1753	1870	1585	1781	0	1711	1781	1777	1585	1781	1763	1585
Q Serve(g_s), s	5.2	4.4	0.0	9.5	0.0	15.2	6.7	20.9	4.6	2.6	19.0	0.0
Cycle Q Clear(g_c), s	5.2	4.4	0.0	9.5	0.0	15.2	6.7	20.9	4.6	2.6	19.0	0.0
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	242		324	0	260	428	2021	901	323	1876	
V/C Ratio(X)	0.47	0.31		0.55	0.00	0.86	0.53	0.51	0.14	0.27	0.48	
Avail Cap(c_a), veh/h	227	444		324	0	406	552	2021	901	394	1876	
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(l)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.5	47.4	0.0	42.3	0.0	49.6	12.8	15.7	12.2	13.0	17.6	0.0
Incr Delay (d2), s/veh	1.8	0.7	0.0	2.0	0.0	10.5	1.0	0.9	0.3	0.4	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	2.3	2.1	0.0	0.5	0.0	7.3	2.5	8.0	1.7	1.0	7.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	48.1	0.0	44.3	0.0	60.1	13.8	16.6	12.5	13.4	18.5	0.0
LnGrp LOS	D	D		D	A	E	B	B	B	B	B	
Approach Vol, veh/h		164			402			1377			979	
Approach Delay, s/veh		46.1			53.1			15.7			18.0	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.6	69.4	12.3	23.7	10.2	73.7	15.0	21.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	17.5	42.5	9.5	28.5	9.5	50.5	9.5	28.5				
Max Q Clear Time (g_c+l1), s	8.7	21.0	7.2	17.2	4.6	22.9	11.5	6.4				
Green Ext Time (p_c), s	0.4	10.2	0.0	1.0	0.1	14.8	0.0	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			23.3									
HCM 6th LOS			C									
<b>Notes</b>												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

1c. Existing 2023 Dismissal

02/27/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	←	↑↑	←	↑↑	←	↑	←	↑
Traffic Volume (vph)	2	340	3	378	2	0	49	0
Future Volume (vph)	2	340	3	378	2	0	49	0
Lane Group Flow (vph)	2	359	3	423	2	5	52	15
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	21.0	60.0	21.0	60.0	39.0	39.0	39.0	39.0
Total Split (%)	17.5%	50.0%	17.5%	50.0%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.02	0.12	0.04	0.14	0.02	0.01	0.45	0.02
Control Delay	57.0	3.2	70.7	2.0	48.5	0.0	63.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.0	3.2	70.7	2.0	48.5	0.0	63.6	0.1
Queue Length 50th (ft)	2	21	3	18	1	0	39	0
Queue Length 95th (ft)	m9	62	m6	32	10	0	79	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	228	2952	228	2927	388	837	392	812
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.12	0.01	0.14	0.01	0.01	0.13	0.02

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

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

## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



























# HCM 6th Signalized Intersection Summary

## 2: Private Drwy/IRS Drwy & Lake Park Dr

1c. Existing 2023 Dismissal













02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	340	1	3	378	24	2	0	5	49	0	14
Future Volume (veh/h)	2	340	1	3	378	24	2	0	5	49	0	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	358	1	3	398	25	2	0	5	52	0	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	2929	8	7	2741	172	121	0	83	130	0	83
Arrive On Green	0.00	0.81	0.81	0.00	0.81	0.81	0.05	0.00	0.05	0.05	0.00	0.05
Sat Flow, veh/h	1781	3635	10	1781	3396	213	1398	0	1585	1411	0	1585
Grp Volume(v), veh/h	2	175	184	3	208	215	2	0	5	52	0	15
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1832	1398	0	1585	1411	0	1585
Q Serve(g_s), s	0.1	2.5	2.5	0.2	3.1	3.1	0.2	0.0	0.4	4.4	0.0	1.1
Cycle Q Clear(g_c), s	0.1	2.5	2.5	0.2	3.1	3.1	1.3	0.0	0.4	4.7	0.0	1.1
Prop In Lane	1.00		0.01	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1432	1506	7	1434	1479	121	0	83	130	0	83
V/C Ratio(X)	0.42	0.12	0.12	0.42	0.14	0.15	0.02	0.00	0.06	0.40	0.00	0.18
Avail Cap(c_a), veh/h	230	1432	1506	230	1434	1479	438	0	442	450	0	442
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	2.5	2.5	59.6	2.5	2.5	55.0	0.0	54.0	56.3	0.0	54.4
Incr Delay (d2), s/veh	49.1	0.2	0.2	35.7	0.2	0.2	0.1	0.0	0.3	2.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.8	0.8	0.2	0.9	1.0	0.1	0.0	0.2	1.6	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.8	2.7	2.7	95.4	2.7	2.7	55.0	0.0	54.3	58.2	0.0	55.4
LnGrp LOS	F	A	A	F	A	A	E	A	D	E	A	E
Approach Vol, veh/h	361			426			7			67		
Approach Delay, s/veh	3.3			3.4			54.5			57.6		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	102.2		11.8	5.8	102.4		11.8				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	15.5	54.5		33.5	15.5	54.5		33.5				
Max Q Clear Time (g_c+I1), s	2.2	4.5		6.7	2.1	5.1		3.3				
Green Ext Time (p_c), s	0.0	4.7		0.2	0.0	5.7		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	8.0											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	340	394	0	3	5
Future Vol, veh/h	2	340	394	0	3	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	362	419	0	3	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	419	0	-	0	604	210
Stage 1	-	-	-	-	419	-
Stage 2	-	-	-	-	185	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1137	-	-	-	430	796
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	828	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1137	-	-	-	429	796
Mov Cap-2 Maneuver	-	-	-	-	429	-
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	828	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		11.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1137	-	-	-	603	
HCM Lane V/C Ratio	0.002	-	-	-	0.014	
HCM Control Delay (s)	8.2	-	-	-	11.1	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	

# Timings 4: Village Pkwy & Lake Park Dr

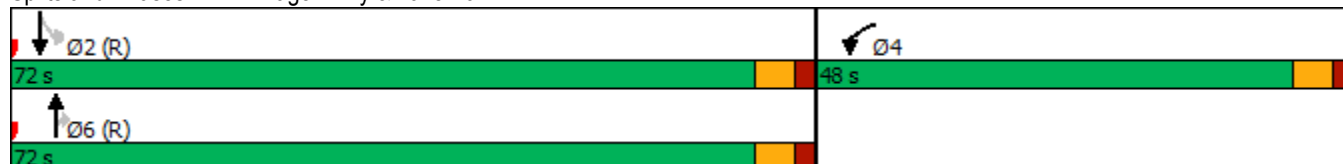
1c. Existing 2023 Dismissal  
02/27/2024

					
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 
Traffic Volume (vph)	218	249	148	144	317
Future Volume (vph)	218	249	148	144	317
Lane Group Flow (vph)	416	271	161	0	502
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	48.0	72.0	72.0	72.0	72.0
Total Split (%)	40.0%	60.0%	60.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.75	0.10	0.13		0.24
Control Delay	29.7	3.4	0.8		4.1
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	29.7	3.4	0.8		4.1
Queue Length 50th (ft)	97	21	0		44
Queue Length 95th (ft)	150	38	16		77
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	1277	2781	1266		2072
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.33	0.10	0.13		0.24

## Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated

Splits and Phases: 4: Village Pkwy & Lake Park Dr


















# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

1c. Existing 2023 Dismissal

02/27/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	  		 			  
Traffic Volume (veh/h)	218	165	249	148	144	317
Future Volume (veh/h)	218	165	249	148	144	317
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	208	0	271	0	157	345
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	2	2
Cap, veh/h	242		2746		695	1587
Arrive On Green	0.14	0.00	0.77	0.00	0.77	0.77
Sat Flow, veh/h	1781	1585	3647	1572	834	2139
Grp Volume(v), veh/h	208	0	271	0	235	267
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1572	1271	1617
Q Serve(g_s), s	13.7	0.0	2.3	0.0	4.9	5.4
Cycle Q Clear(g_c), s	13.7	0.0	2.3	0.0	7.1	5.4
Prop In Lane	1.00	1.00		1.00	0.67	
Lane Grp Cap(c), veh/h	242		2746		1032	1249
V/C Ratio(X)	0.86		0.10		0.23	0.21
Avail Cap(c_a), veh/h	631		2746		1032	1249
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	50.7	0.0	3.4	0.0	4.0	3.7
Incr Delay (d2), s/veh	8.7	0.0	0.1	0.0	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	0.6	0.0	1.4	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.5	0.0	3.4	0.0	4.5	4.1
LnGrp LOS	E		A		A	A
Approach Vol, veh/h	208		271			502
Approach Delay, s/veh	59.5		3.4			4.3
Approach LOS	E		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	98.2		21.8		98.2	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	66.5		42.5		66.5	
Max Q Clear Time (g_c+I1), s	9.1		15.7		4.3	
Green Ext Time (p_c), s	6.8		0.6		3.5	
Intersection Summary						
HCM 6th Ctrl Delay			15.7			
HCM 6th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

**PHASE 1 (OPENING YEAR 2025) "NO BUILD"  
INTERSECTION ANALYSIS**

# Timings

2a. No Build 2025 AM

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

12/04/2023

	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (vph)	312	107	803	45	24	212	780	62	31	944	149
Future Volume (vph)	312	107	803	45	24	212	780	62	31	944	149
Lane Group Flow (vph)	325	111	836	47	71	221	813	65	32	983	155
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	25.0	43.0	43.0	16.0	34.0	16.0	46.0	46.0	15.0	45.0	45.0
Total Split (%)	20.8%	35.8%	35.8%	13.3%	28.3%	13.3%	38.3%	38.3%	12.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.52	0.17	1.08	0.13	0.19	1.02	0.60	0.09	0.14	0.86	0.24
Control Delay	22.2	25.1	78.5	21.0	17.4	98.0	32.1	0.2	19.5	46.7	4.1
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	22.2	25.1	78.5	21.0	17.4	98.0	32.1	0.2	19.5	46.7	4.1
Queue Length 50th (ft)	169	60	~555	20	15	~131	275	0	13	373	0
Queue Length 95th (ft)	237	103	#818	44	54	#297	354	0	32	462	36
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	631	657	777	401	432	216	1354	746	271	1142	637
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	0.52	0.17	1.08	0.12	0.16	1.02	0.60	0.09	0.12	0.86	0.24

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

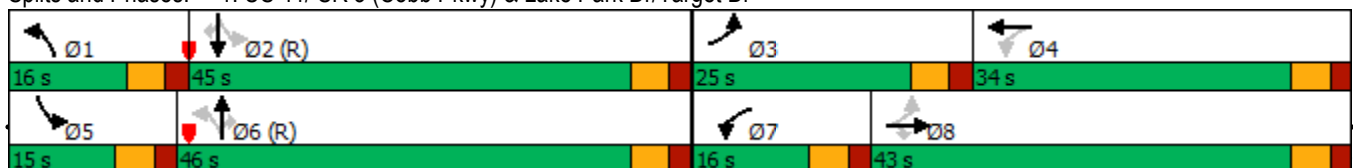
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.
























Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



HCM 6th Signalized Intersection Summary  
1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

2a. No Build 2025 AM

12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	107	803	45	24	44	212	780	62	31	944	149
Future Volume (veh/h)	312	107	803	45	24	44	212	780	62	31	944	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1826	1870	1811	1900	1796	1841	1870
Adj Flow Rate, veh/h	325	111	0	47	25	46	221	812	65	32	983	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	5	2	6	0	7	4	2
Cap, veh/h	375	356		197	36	66	380	1948	911	369	1820	
Arrive On Green	0.16	0.19	0.00	0.03	0.06	0.06	0.07	0.57	0.57	0.03	0.52	0.00
Sat Flow, veh/h	1781	1870	1585	1781	590	1085	1781	3441	1610	1711	3497	1585
Grp Volume(v), veh/h	325	111	0	47	0	71	221	812	65	32	983	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1675	1781	1721	1610	1711	1749	1585
Q Serve(g_s), s	19.5	6.1	0.0	2.9	0.0	5.0	6.6	16.1	2.2	1.0	22.5	0.0
Cycle Q Clear(g_c), s	19.5	6.1	0.0	2.9	0.0	5.0	6.6	16.1	2.2	1.0	22.5	0.0
Prop In Lane	1.00		1.00	1.00		0.65	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	375	356		197	0	102	380	1948	911	369	1820	
V/C Ratio(X)	0.87	0.31		0.24	0.00	0.70	0.58	0.42	0.07	0.09	0.54	
Avail Cap(c_a), veh/h	375	584		294	0	398	406	1948	911	458	1820	
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.9	41.8	0.0	50.6	0.0	55.3	14.5	14.8	11.8	13.0	19.2	0.0
Incr Delay (d2), s/veh	18.8	0.5	0.0	0.6	0.0	8.3	1.8	0.7	0.2	0.1	1.2	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	10.8	2.9	0.0	1.4	0.0	2.4	2.6	6.0	0.8	0.4	8.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.7	42.3	0.0	51.2	0.0	63.5	16.3	15.5	11.9	13.1	20.3	0.0
LnGrp LOS	E	D		D	A	E	B	B	B	B	C	
Approach Vol, veh/h		436			118			1098			1015	
Approach Delay, s/veh		56.8			58.6			15.4			20.1	
Approach LOS		E			E			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.2	68.0	25.0	12.8	8.8	73.4	9.5	28.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	10.5	39.5	19.5	28.5	9.5	40.5	10.5	37.5				
Max Q Clear Time (g_c+I1), s	8.6	24.5	21.5	7.0	3.0	18.1	4.9	8.1				
Green Ext Time (p_c), s	0.1	8.9	0.0	0.3	0.0	10.0	0.0	0.6				

Intersection Summary

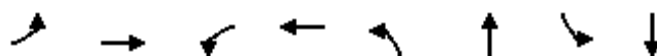
HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

Notes

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

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

2a. No Build 2025 AM  
12/04/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	1223	11	231	1	0	16	0
Future Volume (vph)	27	1223	11	231	1	0	16	0
Lane Group Flow (vph)	30	1386	12	356	1	1	18	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	17.0	80.0	15.0	78.0	25.0	25.0	25.0	25.0
Total Split (%)	14.2%	66.7%	12.5%	65.0%	20.8%	20.8%	20.8%	20.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.27	0.44	0.13	0.12	0.01	0.00	0.16	0.00
Control Delay	58.9	4.1	66.1	0.7	52.0	0.0	56.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.9	4.1	66.1	0.7	52.0	0.0	56.0	0.0
Queue Length 50th (ft)	22	0	9	6	1	0	14	0
Queue Length 95th (ft)	m47	274	m18	m10	7	0	37	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	169	3153	140	2916	302	404	302	828
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.44	0.09	0.12	0.00	0.00	0.06	0.00

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated





















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





## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr

2a. No Build 2025 AM  
12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	1223	11	11	231	85	1	0	1	16	0	3
Future Volume (veh/h)	27	1223	11	11	231	85	1	0	1	16	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	1374	12	12	260	96	1	0	1	18	0	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	2967	26	24	2072	746	95	0	42	97	0	42
Arrive On Green	0.03	0.82	0.82	0.01	0.81	0.81	0.03	0.00	0.03	0.03	0.00	0.03
Sat Flow, veh/h	1781	3610	32	1781	2560	922	1414	0	1585	1416	0	1585
Grp Volume(v), veh/h	30	676	710	12	178	178	1	0	1	18	0	3
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1704	1414	0	1585	1416	0	1585
Q Serve(g_s), s	2.0	13.1	13.1	0.8	2.6	2.7	0.1	0.0	0.1	1.5	0.0	0.2
Cycle Q Clear(g_c), s	2.0	13.1	13.1	0.8	2.6	2.7	0.3	0.0	0.1	1.6	0.0	0.2
Prop In Lane	1.00		0.02	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	1461	1533	24	1438	1380	95	0	42	97	0	42
V/C Ratio(X)	0.64	0.46	0.46	0.49	0.12	0.13	0.01	0.00	0.02	0.19	0.00	0.07
Avail Cap(c_a), veh/h	171	1461	1533	141	1438	1380	287	0	258	289	0	258
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.9	3.1	3.1	58.8	2.4	2.4	57.1	0.0	56.9	57.6	0.0	56.9
Incr Delay (d2), s/veh	13.6	1.1	1.0	14.4	0.2	0.2	0.0	0.0	0.2	0.9	0.0	0.7
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	1.1	3.8	3.9	0.5	0.8	0.8	0.0	0.0	0.0	0.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.4	4.1	4.1	73.2	2.6	2.6	57.1	0.0	57.1	58.5	0.0	57.6
LnGrp LOS	E	A	A	E	A	A	E	A	E	E	A	E
Approach Vol, veh/h	1416				368				2		21	
Approach Delay, s/veh	5.5				4.9				57.1		58.4	
Approach LOS	A				A				E		E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	104.1		8.7	8.7	102.6		8.7				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	74.5		19.5	11.5	72.5		19.5				
Max Q Clear Time (g_c+I1), s	2.8	15.1		3.6	4.0	4.7		2.3				
Green Ext Time (p_c), s	0.0	31.7		0.0	0.0	4.9		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	6.1											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	1260	218	16	1	1
Future Vol, veh/h	3	1260	218	16	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	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	1432	248	18	1	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	266	0	-	0	979	133
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	722	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1295	-	-	-	247	892
Stage 1	-	-	-	-	762	-
Stage 2	-	-	-	-	442	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1295	-	-	-	247	892
Mov Cap-2 Maneuver	-	-	-	-	247	-
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	442	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		14.4		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1295	-	-	-	387	
HCM Lane V/C Ratio	0.003	-	-	-	0.006	
HCM Control Delay (s)	7.8	-	-	-	14.4	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Timings  
4: Village Pkwy & Lake Park Dr

2a. No Build 2025 AM  
12/04/2023

	↖	↑	↗	↘	↓
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	↖↖	↑↑	↗		↘↘
Traffic Volume (vph)	71	472	720	378	197
Future Volume (vph)	71	472	720	378	197
Lane Group Flow (vph)	136	508	774	0	618
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	25.0	95.0	95.0	95.0	95.0
Total Split (%)	20.8%	79.2%	79.2%	79.2%	79.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.48	0.17	0.53		0.36
Control Delay	23.9	2.1	1.6		3.0
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	23.9	2.1	1.6		3.0
Queue Length 50th (ft)	30	28	0		42
Queue Length 95th (ft)	61	46	19		71
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	583	2967	1452		1733
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.23	0.17	0.53		0.36

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 4: Village Pkwy & Lake Park Dr

















# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

2a. No Build 2025 AM

12/04/2023























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	  		 			 
Traffic Volume (veh/h)	71	56	472	720	378	197
Future Volume (veh/h)	71	56	472	720	378	197
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	0	508	0	406	212
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	88		3052		805	1389
Arrive On Green	0.05	0.00	0.86	0.00	0.86	0.86
Sat Flow, veh/h	1781	1585	3647	1585	867	1702
Grp Volume(v), veh/h	68	0	508	0	406	212
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	867	1617
Q Serve(g_s), s	4.5	0.0	2.8	0.0	16.5	2.6
Cycle Q Clear(g_c), s	4.5	0.0	2.8	0.0	19.4	2.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	88		3052		805	1389
V/C Ratio(X)	0.77		0.17		0.50	0.15
Avail Cap(c_a), veh/h	289		3052		805	1389
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	56.4	0.0	1.4	0.0	3.0	1.4
Incr Delay (d2), s/veh	13.2	0.0	0.1	0.0	2.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.4	0.0	1.9	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	69.5	0.0	1.5	0.0	5.2	1.6
LnGrp LOS	E		A		A	A
Approach Vol, veh/h	68		508			618
Approach Delay, s/veh	69.5		1.5			4.0
Approach LOS	E		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	108.6		11.4		108.6	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	89.5		19.5		89.5	
Max Q Clear Time (g_c+I1), s	21.4		6.5		4.8	
Green Ext Time (p_c), s	11.6		0.1		7.2	
Intersection Summary						
HCM 6th Ctrl Delay			6.7			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# Timings

2b. No Build 2025 PM

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

12/04/2023

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	109	61	343	190	138	344	1260	137	86	1021	131
Future Volume (vph)	109	61	343	190	138	344	1260	137	86	1021	131
Lane Group Flow (vph)	114	64	357	198	226	358	1313	143	90	1064	136
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	15.0	33.5	33.5	15.0	33.5	25.0	56.5	56.5	15.0	46.5	46.5
Total Split (%)	12.5%	27.9%	27.9%	12.5%	27.9%	20.8%	47.1%	47.1%	12.5%	38.8%	38.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.49	0.22	0.70	0.56	0.75	0.81	0.76	0.16	0.43	0.84	0.20
Control Delay	38.9	42.6	19.5	41.3	58.3	46.3	28.5	5.2	20.1	43.2	2.4
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	38.9	42.6	19.5	41.3	58.3	46.3	28.5	5.2	20.1	43.2	2.4
Queue Length 50th (ft)	64	39	50	123	153	206	413	8	26	409	0
Queue Length 95th (ft)	99	68	131	177	225	#423	#637	48	56	#533	23
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	241	434	603	351	423	443	1736	883	230	1260	684
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	0.47	0.15	0.59	0.56	0.53	0.81	0.76	0.16	0.39	0.84	0.20

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

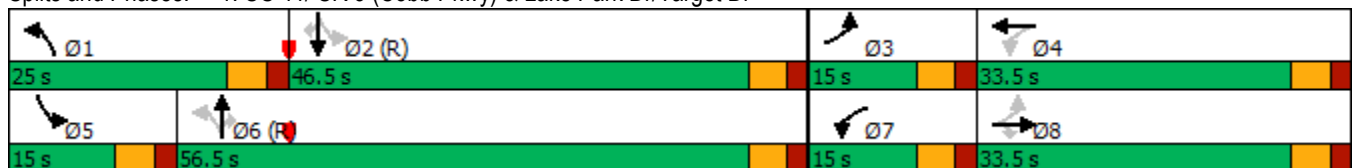
Natural Cycle: 115

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.
























Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



HCM 6th Signalized Intersection Summary  
1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

2b. No Build 2025 PM

12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	61	343	190	138	79	344	1260	137	86	1021	131
Future Volume (veh/h)	109	61	343	190	138	79	344	1260	137	86	1021	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1826	1870	1811	1900	1796	1841	1870
Adj Flow Rate, veh/h	114	64	0	198	144	82	358	1312	143	90	1064	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	5	2	6	0	7	4	2
Cap, veh/h	212	263		348	168	96	404	1911	894	230	1674	
Arrive On Green	0.07	0.14	0.00	0.08	0.15	0.15	0.12	0.56	0.56	0.04	0.48	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1119	637	1781	3441	1610	1711	3497	1585
Grp Volume(v), veh/h	114	64	0	198	0	226	358	1312	143	90	1064	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1756	1781	1721	1610	1711	1749	1585
Q Serve(g_s), s	6.5	3.7	0.0	9.5	0.0	15.1	11.7	32.9	5.2	3.2	27.4	0.0
Cycle Q Clear(g_c), s	6.5	3.7	0.0	9.5	0.0	15.1	11.7	32.9	5.2	3.2	27.4	0.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	263		348	0	264	404	1911	894	230	1674	
V/C Ratio(X)	0.54	0.24		0.57	0.00	0.86	0.89	0.69	0.16	0.39	0.64	
Avail Cap(c_a), veh/h	230	436		348	0	410	482	1911	894	294	1674	
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(l)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.9	45.9	0.0	41.9	0.0	49.7	20.3	19.2	13.0	17.7	23.4	0.0
Incr Delay (d2), s/veh	2.1	0.5	0.0	2.2	0.0	10.4	15.8	2.0	0.4	1.1	1.9	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	3.0	1.7	0.0	1.0	0.0	7.4	6.4	12.5	2.0	1.2	11.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	46.4	0.0	44.1	0.0	60.2	36.1	21.2	13.4	18.8	25.3	0.0
LnGrp LOS	D	D		D	A	E	D	C	B	B	C	
Approach Vol, veh/h	178			424			1813			1154		
Approach Delay, s/veh	44.2			52.6			23.5			24.8		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.7	62.9	13.8	23.5	10.5	72.2	15.0	22.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	19.5	41.0	9.5	28.0	9.5	51.0	9.5	28.0				
Max Q Clear Time (g_c+I1), s	13.7	29.4	8.5	17.1	5.2	34.9	11.5	5.7				
Green Ext Time (p_c), s	0.6	7.8	0.0	1.0	0.1	12.4	0.0	0.2				

Intersection Summary

















HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

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

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

2b. No Build 2025 PM  
12/04/2023

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	444	1	613	1	0	59	0
Future Volume (vph)	2	444	1	613	1	0	59	0
Lane Group Flow (vph)	2	478	1	672	1	11	63	29
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	19.0	66.0	19.0	66.0	35.0	35.0	35.0	35.0
Total Split (%)	15.8%	55.0%	15.8%	55.0%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.02	0.16	0.01	0.23	0.01	0.02	0.50	0.06
Control Delay	56.5	3.5	81.0	1.5	47.0	0.1	65.0	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	3.5	81.0	1.5	47.0	0.1	65.0	0.3
Queue Length 50th (ft)	2	32	1	15	1	0	47	0
Queue Length 95th (ft)	m8	85	m1	58	6	0	91	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	199	2930	199	2920	338	736	343	660
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.16	0.01	0.23	0.00	0.01	0.18	0.04

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated





















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





Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary 2: Private Drwy/IRS Drwy & Lake Park Dr

2b. No Build 2025 PM  
12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	444	1	1	613	12	1	0	10	59	0	27
Future Volume (veh/h)	2	444	1	1	613	12	1	0	10	59	0	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	477	1	1	659	13	1	0	11	63	0	29
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	2888	6	2	2824	56	129	0	107	145	0	107
Arrive On Green	0.00	0.79	0.79	0.00	0.79	0.79	0.07	0.00	0.07	0.07	0.00	0.07
Sat Flow, veh/h	1781	3638	8	1781	3564	70	1381	0	1585	1404	0	1585
Grp Volume(v), veh/h	2	233	245	1	328	344	1	0	11	63	0	29
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1858	1381	0	1585	1404	0	1585
Q Serve(g_s), s	0.1	3.7	3.7	0.1	5.6	5.7	0.1	0.0	0.8	5.3	0.0	2.1
Cycle Q Clear(g_c), s	0.1	3.7	3.7	0.1	5.6	5.7	2.2	0.0	0.8	6.1	0.0	2.1
Prop In Lane	1.00		0.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1410	1483	2	1408	1472	129	0	107	145	0	107
V/C Ratio(X)	0.42	0.17	0.17	0.41	0.23	0.23	0.01	0.00	0.10	0.43	0.00	0.27
Avail Cap(c_a), veh/h	200	1410	1483	200	1408	1472	375	0	390	396	0	390
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	2.9	2.9	59.9	3.2	3.2	54.2	0.0	52.5	55.4	0.0	53.2
Incr Delay (d2), s/veh	49.1	0.3	0.2	84.5	0.4	0.4	0.0	0.0	0.4	2.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.2	1.2	0.1	1.8	1.9	0.0	0.0	0.3	2.0	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.8	3.2	3.2	144.4	3.6	3.5	54.2	0.0	53.0	57.4	0.0	54.5
LnGrp LOS	F	A	A	F	A	A	D	A	D	E	A	D
Approach Vol, veh/h	480			673			12			92		
Approach Delay, s/veh	3.6			3.8			53.1			56.5		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	100.7		13.6	5.8	100.6		13.6				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	13.5	60.5		29.5	13.5	60.5		29.5				
Max Q Clear Time (g_c+I1), s	2.1	5.7		8.1	2.1	7.7		4.2				
Green Ext Time (p_c), s	0.0	6.6		0.3	0.0	10.2		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				8.0								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	442	640	1	5	15
Future Vol, veh/h	1	442	640	1	5	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	486	703	1	5	16
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	704	0	-	0	949	352
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	890	-	-	-	259	644
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	773	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	890	-	-	-	259	644
Mov Cap-2 Maneuver	-	-	-	-	259	-
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	773	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		13		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	890	-	-	-	470	
HCM Lane V/C Ratio	0.001	-	-	-	0.047	
HCM Control Delay (s)	9.1	-	-	-	13	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Timings  
4: Village Pkwy & Lake Park Dr

2b. No Build 2025 PM  
12/04/2023

	↖	↑	↗	↘	↓
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	WY	↑↑	↗		↑↑
Traffic Volume (vph)	360	285	137	180	371
Future Volume (vph)	360	285	137	180	371
Lane Group Flow (vph)	668	303	146	0	586
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	53.0	67.0	67.0	67.0	67.0
Total Split (%)	44.2%	55.8%	55.8%	55.8%	55.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.81	0.12	0.13		0.32
Control Delay	29.0	6.6	1.5		8.2
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	29.0	6.6	1.5		8.2
Queue Length 50th (ft)	206	35	0		82
Queue Length 95th (ft)	260	64	23		137
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	1413	2483	1154		1810
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.47	0.12	0.13		0.32

Intersection Summary

Cycle Length: 120

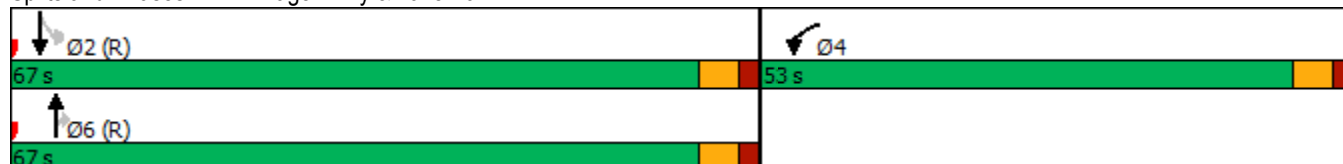
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 4: Village Pkwy & Lake Park Dr













# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

2b. No Build 2025 PM

12/04/2023























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	360	268	285	137	180	371
Future Volume (veh/h)	360	268	285	137	180	371
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	334	0	303	0	191	395
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	370		2489		642	1377
Arrive On Green	0.21	0.00	0.70	0.00	0.70	0.70
Sat Flow, veh/h	1781	1585	3647	1585	843	2051
Grp Volume(v), veh/h	334	0	303	0	266	320
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1192	1617
Q Serve(g_s), s	21.9	0.0	3.3	0.0	9.4	8.9
Cycle Q Clear(g_c), s	21.9	0.0	3.3	0.0	12.7	8.9
Prop In Lane	1.00	1.00		1.00	0.72	
Lane Grp Cap(c), veh/h	370		2489		886	1133
V/C Ratio(X)	0.90		0.12		0.30	0.28
Avail Cap(c_a), veh/h	705		2489		886	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	0.0	5.9	0.0	7.6	6.7
Incr Delay (d2), s/veh	8.2	0.0	0.1	0.0	0.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	0.0	1.1	0.0	2.6	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.5	0.0	6.0	0.0	8.5	7.3
LnGrp LOS	D		A		A	A
Approach Vol, veh/h	334		303			586
Approach Delay, s/veh	54.5		6.0			7.9
Approach LOS	D		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	89.6		30.4		89.6	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	61.5		47.5		61.5	
Max Q Clear Time (g_c+I1), s	14.7		23.9		5.3	
Green Ext Time (p_c), s	8.2		1.0		3.9	
Intersection Summary						
HCM 6th Ctrl Delay			20.1			
HCM 6th LOS			C			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# Timings

2c. No Build 2025 Dismissal

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

12/04/2023

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	88	75	272	179	108	225	1022	129	86	893	98
Future Volume (vph)	88	75	272	179	108	225	1022	129	86	893	98
Lane Group Flow (vph)	90	77	278	183	227	230	1043	132	88	911	100
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	15.0	33.6	33.6	15.0	33.6	24.0	56.4	56.4	15.0	47.4	47.4
Total Split (%)	12.5%	28.0%	28.0%	12.5%	28.0%	20.0%	47.0%	47.0%	12.5%	39.5%	39.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.42	0.28	0.59	0.55	0.76	0.57	0.56	0.15	0.29	0.56	0.12
Control Delay	41.3	49.0	15.9	41.5	54.9	16.2	22.3	4.4	13.5	26.9	0.3
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	41.3	49.0	15.9	41.5	54.9	16.2	22.3	4.4	13.5	26.9	0.3
Queue Length 50th (ft)	52	54	1	114	139	71	280	3	25	263	0
Queue Length 95th (ft)	88	92	98	165	213	129	410	41	55	403	0
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	225	436	583	335	434	451	1849	886	326	1630	828
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	0.40	0.18	0.48	0.55	0.52	0.51	0.56	0.15	0.27	0.56	0.12

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated
























Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



HCM 6th Signalized Intersection Summary  
1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

















2c. No Build 2025 Dismissal

12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	75	272	179	108	115	225	1022	129	86	893	98
Future Volume (veh/h)	88	75	272	179	108	115	225	1022	129	86	893	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	90	77	0	183	110	117	230	1043	132	88	911	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	2	2	2	2	2	2	2	2	2	3	2
Cap, veh/h	189	248		327	128	136	420	2009	896	314	1859	
Arrive On Green	0.06	0.13	0.00	0.08	0.15	0.15	0.08	0.57	0.57	0.04	0.53	0.00
Sat Flow, veh/h	1753	1870	1585	1781	829	882	1781	3554	1585	1781	3526	1585
Grp Volume(v), veh/h	90	77	0	183	0	227	230	1043	132	88	911	0
Grp Sat Flow(s),veh/h/ln	1753	1870	1585	1781	0	1712	1781	1777	1585	1781	1763	1585
Q Serve(g_s), s	5.3	4.5	0.0	9.5	0.0	15.5	6.9	21.7	4.7	2.7	19.8	0.0
Cycle Q Clear(g_c), s	5.3	4.5	0.0	9.5	0.0	15.5	6.9	21.7	4.7	2.7	19.8	0.0
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	248		327	0	264	420	2009	896	314	1859	
V/C Ratio(X)	0.48	0.31		0.56	0.00	0.86	0.55	0.52	0.15	0.28	0.49	
Avail Cap(c_a), veh/h	227	438		327	0	401	557	2009	896	385	1859	
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.2	47.1	0.0	42.2	0.0	49.5	13.2	16.0	12.4	13.3	18.1	0.0
Incr Delay (d2), s/veh	1.8	0.7	0.0	2.1	0.0	11.4	1.1	1.0	0.3	0.5	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	2.4	2.1	0.0	0.6	0.0	7.5	2.6	8.3	1.8	1.0	7.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	47.8	0.0	44.3	0.0	60.9	14.3	17.0	12.7	13.8	19.0	0.0
LnGrp LOS	D	D		D	A	E	B	B	B	B	B	
Approach Vol, veh/h	167			410			1405			999		
Approach Delay, s/veh	45.8			53.5			16.2			18.5		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	68.8	12.4	24.0	10.2	73.3	15.0	21.4				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	18.5	41.9	9.5	28.1	9.5	50.9	9.5	28.1				
Max Q Clear Time (g_c+I1), s	8.9	21.8	7.3	17.5	4.7	23.7	11.5	6.5				
Green Ext Time (p_c), s	0.4	10.1	0.0	1.0	0.1	15.0	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	23.8											
HCM 6th LOS	C											

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

2c. No Build 2025 Dismissal  
12/04/2023

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	347	3	386	2	0	50	0
Future Volume (vph)	2	347	3	386	2	0	50	0
Lane Group Flow (vph)	2	366	3	431	2	5	53	15
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	21.0	60.0	21.0	60.0	39.0	39.0	39.0	39.0
Total Split (%)	17.5%	50.0%	17.5%	50.0%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.02	0.12	0.04	0.15	0.02	0.01	0.46	0.03
Control Delay	60.0	3.2	70.7	1.9	48.0	0.0	63.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.0	3.2	70.7	1.9	48.0	0.0	63.9	0.1
Queue Length 50th (ft)	1	22	3	18	1	0	40	0
Queue Length 95th (ft)	m8	63	m6	32	10	0	80	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	228	2950	228	2925	388	832	392	808
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.12	0.01	0.15	0.01	0.01	0.14	0.02

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

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























Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr







HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr

2c. No Build 2025 Dismissal

12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	2	347	1	3	386	24	2	0	5	50	0	14
Future Volume (veh/h)	2	347	1	3	386	24	2	0	5	50	0	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	365	1	3	406	25	2	0	5	53	0	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	2927	8	7	2742	168	122	0	85	131	0	85
Arrive On Green	0.00	0.81	0.81	0.00	0.81	0.81	0.05	0.00	0.05	0.05	0.00	0.05
Sat Flow, veh/h	1781	3635	10	1781	3401	209	1398	0	1585	1411	0	1585
Grp Volume(v), veh/h	2	178	188	3	211	220	2	0	5	53	0	15
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1833	1398	0	1585	1411	0	1585
Q Serve(g_s), s	0.1	2.6	2.6	0.2	3.1	3.2	0.2	0.0	0.4	4.4	0.0	1.1
Cycle Q Clear(g_c), s	0.1	2.6	2.6	0.2	3.1	3.2	1.2	0.0	0.4	4.8	0.0	1.1
Prop In Lane	1.00		0.01	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1430	1504	7	1433	1478	122	0	85	131	0	85
V/C Ratio(X)	0.42	0.12	0.12	0.42	0.15	0.15	0.02	0.00	0.06	0.40	0.00	0.18
Avail Cap(c_a), veh/h	230	1430	1504	230	1433	1478	438	0	442	450	0	442
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	2.5	2.5	59.6	2.6	2.6	54.9	0.0	53.9	56.2	0.0	54.3
Incr Delay (d2), s/veh	49.1	0.2	0.2	35.7	0.2	0.2	0.1	0.0	0.3	2.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.8	0.8	0.2	0.9	1.0	0.1	0.0	0.2	1.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.8	2.7	2.7	95.4	2.8	2.8	54.9	0.0	54.2	58.2	0.0	55.2
LnGrp LOS	F	A	A	F	A	A	D	A	D	E	A	E
Approach Vol, veh/h	368			434			7			68		
Approach Delay, s/veh	3.3			3.4			54.4			57.5		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	102.1		11.9	5.8	102.3		11.9				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	15.5	54.5		33.5	15.5	54.5		33.5				
Max Q Clear Time (g_c+I1), s	2.2	4.6		6.8	2.1	5.2		3.2				
Green Ext Time (p_c), s	0.0	4.8		0.2	0.0	5.8		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	8.0											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	347	402	0	3	5
Future Vol, veh/h	2	347	402	0	3	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	369	428	0	3	5













Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	428	0	0 617 214
Stage 1	-	-	- 428 -
Stage 2	-	-	- 189 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	1128	-	- 422 791
Stage 1	-	-	- 625 -
Stage 2	-	-	- 824 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1128	-	- 421 791
Mov Cap-2 Maneuver	-	-	- 421 -
Stage 1	-	-	- 624 -
Stage 2	-	-	- 824 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1128	-	-	-	595
HCM Lane V/C Ratio	0.002	-	-	-	0.014
HCM Control Delay (s)	8.2	-	-	-	11.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

# Timings 4: Village Pkwy & Lake Park Dr

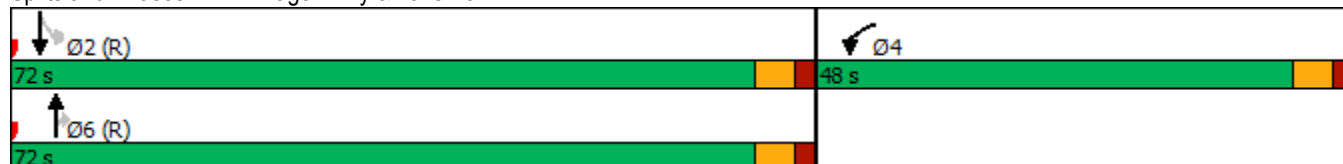
2c. No Build 2025 Dismissal  
12/04/2023

					
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 
Traffic Volume (vph)	222	254	151	147	323
Future Volume (vph)	222	254	151	147	323
Lane Group Flow (vph)	424	276	164	0	511
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	48.0	72.0	72.0	72.0	72.0
Total Split (%)	40.0%	60.0%	60.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.75	0.10	0.13		0.25
Control Delay	30.1	3.5	0.9		4.2
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	30.1	3.5	0.9		4.2
Queue Length 50th (ft)	100	21	0		46
Queue Length 95th (ft)	154	40	17		80
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	1277	2772	1263		2060
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.33	0.10	0.13		0.25

## Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated

Splits and Phases: 4: Village Pkwy & Lake Park Dr













# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

2c. No Build 2025 Dismissal

12/04/2023

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	222	168	254	151	147	323
Future Volume (veh/h)	222	168	254	151	147	323
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	212	0	276	0	160	351
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	2	2
Cap, veh/h	246		2738		692	1577
Arrive On Green	0.14	0.00	0.77	0.00	0.77	0.77
Sat Flow, veh/h	1781	1585	3647	1572	833	2133
Grp Volume(v), veh/h	212	0	276	0	239	272
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1572	1264	1617
Q Serve(g_s), s	14.0	0.0	2.3	0.0	5.1	5.6
Cycle Q Clear(g_c), s	14.0	0.0	2.3	0.0	7.4	5.6
Prop In Lane	1.00	1.00		1.00	0.67	
Lane Grp Cap(c), veh/h	246		2738		1024	1246
V/C Ratio(X)	0.86		0.10		0.23	0.22
Avail Cap(c_a), veh/h	631		2738		1024	1246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	0.0	3.4	0.0	4.1	3.8
Incr Delay (d2), s/veh	8.7	0.0	0.1	0.0	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	0.6	0.0	1.4	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.3	0.0	3.5	0.0	4.6	4.2
LnGrp LOS	E		A		A	A
Approach Vol, veh/h	212		276			511
Approach Delay, s/veh	59.3		3.5			4.4
Approach LOS	E		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	97.9		22.1		97.9	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	66.5		42.5		66.5	
Max Q Clear Time (g_c+I1), s	9.4		16.0		4.3	
Green Ext Time (p_c), s	7.0		0.6		3.6	
Intersection Summary						
HCM 6th Ctrl Delay			15.8			
HCM 6th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						























**PHASE 1 (OPENING YEAR 2025) "BUILD"**  
**INTERSECTION ANALYSIS**

# Timings

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

3a. Build 2025 AM

02/27/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	363	107	852	45	24	258	780	62	31	944	197
Future Volume (vph)	363	107	852	45	24	258	780	62	31	944	197
Lane Group Flow (vph)	378	111	888	47	71	269	813	65	32	983	205
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	30.0	43.0	43.0	18.0	31.0	17.0	44.0	44.0	15.0	42.0	42.0
Total Split (%)	25.0%	35.8%	35.8%	15.0%	25.8%	14.2%	36.7%	36.7%	12.5%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.57	0.16	1.08	0.14	0.20	1.16	0.63	0.09	0.15	0.93	0.34
Control Delay	21.9	23.2	79.3	20.7	18.5	138.8	34.1	0.2	20.8	56.4	8.0
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	21.9	23.2	79.3	20.7	18.5	138.8	34.1	0.2	20.8	56.4	8.0
Queue Length 50th (ft)	197	60	~594	20	15	~195	283	0	14	388	13
Queue Length 95th (ft)	284	106	#855	42	56	#373	365	0	33	#518	71
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	671	690	819	414	403	232	1297	721	258	1055	607
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	0.56	0.16	1.08	0.11	0.18	1.16	0.63	0.09	0.12	0.93	0.34

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

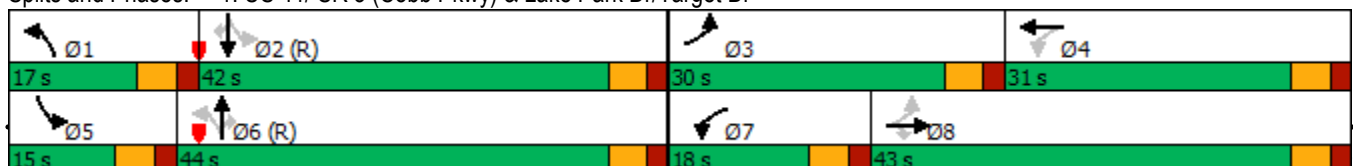
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.
























Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



# HCM 6th Signalized Intersection Summary

## 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

3a. Build 2025 AM  
02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	363	107	852	45	24	44	258	780	62	31	944	197
Future Volume (veh/h)	363	107	852	45	24	44	258	780	62	31	944	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1826	1870	1811	1900	1796	1841	1870
Adj Flow Rate, veh/h	378	111	0	47	25	46	269	812	65	32	983	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	5	2	6	0	7	4	2
Cap, veh/h	449	434		196	36	66	368	1805	845	336	1603	
Arrive On Green	0.20	0.23	0.00	0.03	0.06	0.06	0.09	0.52	0.52	0.03	0.46	0.00
Sat Flow, veh/h	1781	1870	1585	1781	590	1085	1781	3441	1610	1711	3497	1585
Grp Volume(v), veh/h	378	111	0	47	0	71	269	812	65	32	983	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1675	1781	1721	1610	1711	1749	1585
Q Serve(g_s), s	23.2	5.8	0.0	2.9	0.0	5.0	9.2	17.6	2.4	1.2	25.4	0.0
Cycle Q Clear(g_c), s	23.2	5.8	0.0	2.9	0.0	5.0	9.2	17.6	2.4	1.2	25.4	0.0
Prop In Lane	1.00		1.00	1.00		0.65	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	449	434		196	0	102	368	1805	845	336	1603	
V/C Ratio(X)	0.84	0.26		0.24	0.00	0.70	0.73	0.45	0.08	0.10	0.61	
Avail Cap(c_a), veh/h	449	584		323	0	356	372	1805	845	425	1603	
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(l)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.6	37.6	0.0	50.6	0.0	55.3	19.1	17.8	14.1	16.6	24.5	0.0
Incr Delay (d2), s/veh	13.5	0.3	0.0	0.6	0.0	8.4	7.1	0.8	0.2	0.1	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	11.8	2.7	0.0	1.4	0.0	2.4	4.2	6.7	0.9	0.5	10.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	37.9	0.0	51.2	0.0	63.7	26.2	18.6	14.3	16.7	26.3	0.0
LnGrp LOS	D	D		D	A	E	C	B	B	B	C	
Approach Vol, veh/h	489			118			1146			1015		
Approach Delay, s/veh	49.7			58.7			20.1			26.0		
Approach LOS	D			E			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	60.5	30.0	12.8	8.8	68.4	9.5	33.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	11.5	36.5	24.5	25.5	9.5	38.5	12.5	37.5				
Max Q Clear Time (g_c+I1), s	11.2	27.4	25.2	7.0	3.2	19.6	4.9	7.8				
Green Ext Time (p_c), s	0.0	6.0	0.0	0.3	0.0	9.0	0.0	0.6				

### Intersection Summary

HCM 6th Ctrl Delay 29.1  
HCM 6th LOS C

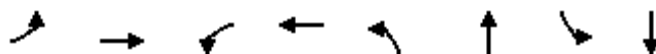
### Notes

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

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

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

3a. Build 2025 AM  
02/27/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	1324	11	326	1	0	16	0
Future Volume (vph)	27	1324	11	326	1	0	16	0
Lane Group Flow (vph)	30	1500	12	462	1	1	18	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	15.0	81.0	15.0	81.0	24.0	24.0	24.0	24.0
Total Split (%)	12.5%	67.5%	12.5%	67.5%	20.0%	20.0%	20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.27	0.48	0.13	0.16	0.01	0.00	0.16	0.00
Control Delay	59.0	4.4	68.8	0.8	52.0	0.0	56.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	4.4	68.8	0.8	52.0	0.0	56.0	0.0
Queue Length 50th (ft)	23	0	9	6	1	0	14	0
Queue Length 95th (ft)	53	312	m18	m14	7	0	37	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	141	3153	140	2939	287	381	287	735
Starvation Cap Reductn	0	233	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.51	0.09	0.16	0.00	0.00	0.06	0.00

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated





















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

## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr

3a. Build 2025 AM  
02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	1324	11	11	326	85	1	0	1	16	0	3
Future Volume (veh/h)	27	1324	11	11	326	85	1	0	1	16	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	1488	12	12	366	96	1	0	1	18	0	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	2970	24	24	2261	586	95	0	42	97	0	42
Arrive On Green	0.03	0.82	0.82	0.01	0.81	0.81	0.03	0.00	0.03	0.03	0.00	0.03
Sat Flow, veh/h	1781	3613	29	1781	2793	724	1414	0	1585	1416	0	1585
Grp Volume(v), veh/h	30	732	768	12	231	231	1	0	1	18	0	3
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1740	1414	0	1585	1416	0	1585
Q Serve(g_s), s	2.0	14.9	15.0	0.8	3.4	3.5	0.1	0.0	0.1	1.5	0.0	0.2
Cycle Q Clear(g_c), s	2.0	14.9	15.0	0.8	3.4	3.5	0.3	0.0	0.1	1.6	0.0	0.2
Prop In Lane	1.00		0.02	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	1461	1533	24	1438	1408	95	0	42	97	0	42
V/C Ratio(X)	0.64	0.50	0.50	0.49	0.16	0.16	0.01	0.00	0.02	0.19	0.00	0.07
Avail Cap(c_a), veh/h	141	1461	1533	141	1438	1408	275	0	244	277	0	244
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)	0.70	0.70	0.70	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.9	3.2	3.2	58.8	2.5	2.5	57.1	0.0	56.9	57.6	0.0	56.9
Incr Delay (d2), s/veh	9.7	0.9	0.8	14.4	0.2	0.3	0.0	0.0	0.2	0.9	0.0	0.7
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	4.1	4.3	0.5	1.0	1.0	0.0	0.0	0.0	0.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	4.1	4.1	73.2	2.7	2.8	57.1	0.0	57.1	58.5	0.0	57.6
LnGrp LOS	E	A	A	E	A	A	E	A	E	E	A	E
Approach Vol, veh/h	1530				474				2			
Approach Delay, s/veh	5.3				4.5				57.1			
Approach LOS	A				A				E			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	104.1		8.7	8.7	102.6		8.7				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	75.5		18.5	9.5	75.5		18.5				
Max Q Clear Time (g_c+I1), s	2.8	17.0		3.6	4.0	5.5		2.3				
Green Ext Time (p_c), s	0.0	35.6		0.0	0.0	6.6		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	5.7											
HCM 6th LOS	A											

# Timings 3: Lake Park Dr & Site Drwy

3a. Build 2025 AM  
02/27/2024



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	60	1260	218	102
Future Volume (vph)	60	1260	218	102
Lane Group Flow (vph)	120	1432	470	314
Turn Type	Prot	NA	NA	Prot
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	23.5	23.5	23.5
Total Split (s)	17.0	64.0	47.0	26.0
Total Split (%)	18.9%	71.1%	52.2%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
v/c Ratio	0.55	0.63	0.27	0.79
Control Delay	46.0	10.4	7.7	44.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	46.0	10.4	7.7	44.1
Queue Length 50th (ft)	65	224	41	153
Queue Length 95th (ft)	63	275	68	113
Internal Link Dist (ft)		805	476	297
Turn Bay Length (ft)	80			
Base Capacity (vph)	264	2653	1877	478
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.54	0.25	0.66

## Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 79.7

Natural Cycle: 65

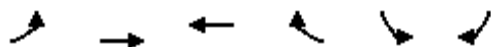
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Lake Park Dr & Site Drwy



# HCM 6th Signalized Intersection Summary 3: Lake Park Dr & Site Drwy

3a. Build 2025 AM  
02/27/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	1260	218	111	102	55
Future Volume (veh/h)	60	1260	218	111	102	55
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	1432	248	0	204	110
Peak Hour Factor	0.50	0.88	0.88	0.50	0.50	0.50
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	154	2257	1679		235	127
Arrive On Green	0.09	0.64	0.47	0.00	0.21	0.21
Sat Flow, veh/h	1781	3647	3741	0	1106	596
Grp Volume(v), veh/h	120	1432	248	0	315	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	0	1708	0
Q Serve(g_s), s	4.8	17.8	2.9	0.0	12.9	0.0
Cycle Q Clear(g_c), s	4.8	17.8	2.9	0.0	12.9	0.0
Prop In Lane	1.00			0.00	0.65	0.35
Lane Grp Cap(c), veh/h	154	2257	1679		363	0
V/C Ratio(X)	0.78	0.63	0.15		0.87	0.00
Avail Cap(c_a), veh/h	283	2873	2038		484	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	32.4	8.1	10.8	0.0	27.5	0.0
Incr Delay (d2), s/veh	8.2	0.6	0.1	0.0	12.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	5.5	1.0	0.0	6.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.5	8.7	10.9	0.0	39.6	0.0
LnGrp LOS	D	A	B		D	A
Approach Vol, veh/h		1552	248		315	
Approach Delay, s/veh		11.2	10.9		39.6	
Approach LOS		B	B		D	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		51.5			11.8	39.7
Change Period (Y+Rc), s		5.5			5.5	5.5
Max Green Setting (Gmax), s		58.5			11.5	41.5
Max Q Clear Time (g_c+I1), s		19.8			6.8	4.9
Green Ext Time (p_c), s		26.1			0.1	3.2

## Intersection Summary

HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B













## Notes

User approved volume balancing among the lanes for turning movement.

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

# Timings 4: Village Pkwy & Lake Park Dr

3a. Build 2025 AM  
02/27/2024

					
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 
Traffic Volume (vph)	94	472	745	410	197
Future Volume (vph)	94	472	745	410	197
Lane Group Flow (vph)	193	508	801	0	653
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	25.0	95.0	95.0	95.0	95.0
Total Split (%)	20.8%	79.2%	79.2%	79.2%	79.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.57	0.17	0.55		0.38
Control Delay	34.1	2.3	1.7		3.4
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	34.1	2.3	1.7		3.4
Queue Length 50th (ft)	39	30	0		50
Queue Length 95th (ft)	74	51	20		84
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	608	2941	1450		1711
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.32	0.17	0.55		0.38

## Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated















Splits and Phases: 4: Village Pkwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

3a. Build 2025 AM  
02/27/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	  		 			 
Traffic Volume (veh/h)	94	86	472	745	410	197
Future Volume (veh/h)	94	86	472	745	410	197
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	0	508	0	441	212
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	121		2986		785	1359
Arrive On Green	0.07	0.00	0.84	0.00	0.84	0.84
Sat Flow, veh/h	1781	1585	3647	1585	863	1702
Grp Volume(v), veh/h	96	0	508	0	441	212
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	863	1617
Q Serve(g_s), s	6.4	0.0	3.2	0.0	21.9	2.9
Cycle Q Clear(g_c), s	6.4	0.0	3.2	0.0	25.1	2.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	121		2986		785	1359
V/C Ratio(X)	0.79		0.17		0.56	0.16
Avail Cap(c_a), veh/h	289		2986		785	1359
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	1.8	0.0	4.1	1.8
Incr Delay (d2), s/veh	10.9	0.0	0.1	0.0	2.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.6	0.0	2.9	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	66.0	0.0	1.9	0.0	7.0	2.0
LnGrp LOS	E		A		A	A
Approach Vol, veh/h	96		508			653
Approach Delay, s/veh	66.0		1.9			5.4
Approach LOS	E		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	106.3		13.7		106.3	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	89.5		19.5		89.5	
Max Q Clear Time (g_c+I1), s	27.1		8.4		5.2	
Green Ext Time (p_c), s	12.5		0.1		7.2	
Intersection Summary						
HCM 6th Ctrl Delay			8.6			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# Timings

3b. Build 2025 PM

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

12/04/2023

	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (vph)	117	61	350	190	138	349	1260	137	86	1021	136
Future Volume (vph)	117	61	350	190	138	349	1260	137	86	1021	136
Lane Group Flow (vph)	122	64	365	198	226	364	1313	143	90	1064	142
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	27.0	43.0	43.0	18.0	34.0	17.0	44.0	44.0	15.0	42.0	42.0
Total Split (%)	22.5%	35.8%	35.8%	15.0%	28.3%	14.2%	36.7%	36.7%	12.5%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.45	0.22	0.76	0.51	0.75	0.71	0.79	0.16	0.45	1.01	0.24
Control Delay	33.2	40.4	21.1	36.4	58.3	37.8	32.1	2.4	23.1	71.6	3.3
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	33.2	40.4	21.1	36.4	58.3	37.8	32.1	2.4	23.1	71.6	3.3
Queue Length 50th (ft)	69	40	58	120	153	202	432	0	28	~439	0
Queue Length 95th (ft)	100	66	120	163	225	#442	#717	27	63	#588	28
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	398	582	683	393	430	510	1657	874	219	1055	601
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	0.31	0.11	0.53	0.50	0.53	0.71	0.79	0.16	0.41	1.01	0.24

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

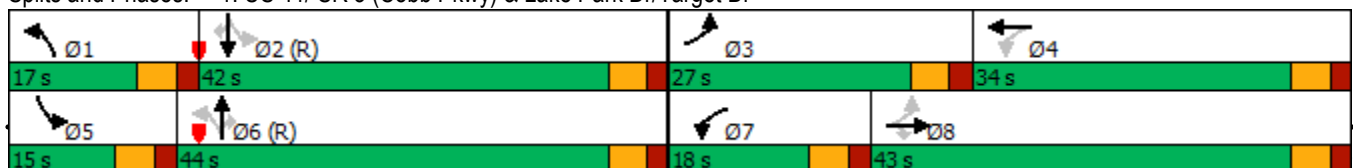
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.
























Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



HCM 6th Signalized Intersection Summary  
1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

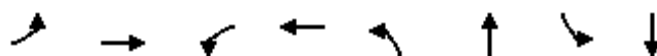
3b. Build 2025 PM

12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	61	350	190	138	79	349	1260	137	86	1021	136
Future Volume (veh/h)	117	61	350	190	138	79	349	1260	137	86	1021	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1826	1870	1811	1900	1796	1841	1870
Adj Flow Rate, veh/h	122	64	0	198	144	82	364	1312	143	90	1064	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	5	2	6	0	7	4	2
Cap, veh/h	224	229		368	168	96	376	1890	884	225	1729	
Arrive On Green	0.08	0.12	0.00	0.10	0.15	0.15	0.10	0.55	0.55	0.04	0.49	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1119	637	1781	3441	1610	1711	3497	1585
Grp Volume(v), veh/h	122	64	0	198	0	226	364	1312	143	90	1064	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1756	1781	1721	1610	1711	1749	1585
Q Serve(g_s), s	7.1	3.7	0.0	11.6	0.0	15.1	11.5	33.3	5.3	3.1	26.5	0.0
Cycle Q Clear(g_c), s	7.1	3.7	0.0	11.6	0.0	15.1	11.5	33.3	5.3	3.1	26.5	0.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	229		368	0	264	376	1890	884	225	1729	
V/C Ratio(X)	0.54	0.28		0.54	0.00	0.86	0.97	0.69	0.16	0.40	0.62	
Avail Cap(c_a), veh/h	408	584		368	0	417	376	1890	884	291	1729	
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(l)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.0	47.9	0.0	40.5	0.0	49.7	22.0	19.7	13.4	17.7	22.1	0.0
Incr Delay (d2), s/veh	2.0	0.7	0.0	1.6	0.0	9.9	38.2	2.1	0.4	1.1	1.7	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	3.2	1.8	0.0	5.3	0.0	7.4	9.1	12.7	2.0	1.2	10.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	48.5	0.0	42.0	0.0	59.6	60.2	21.8	13.8	18.8	23.7	0.0
LnGrp LOS	D	D		D	A	E	E	C	B	B	C	
Approach Vol, veh/h	186			424			1819			1154		
Approach Delay, s/veh	45.6			51.4			28.9			23.3		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	64.8	14.6	23.6	10.4	71.4	18.0	20.2				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	11.5	36.5	21.5	28.5	9.5	38.5	12.5	37.5				
Max Q Clear Time (g_c+I1), s	13.5	28.5	9.1	17.1	5.1	35.3	13.6	5.7				
Green Ext Time (p_c), s	0.0	5.7	0.2	1.0	0.1	2.8	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	30.6											
HCM 6th LOS	C											

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

3b. Build 2025 PM  
12/04/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	460	1	624	1	0	59	0
Future Volume (vph)	2	460	1	624	1	0	59	0
Lane Group Flow (vph)	2	496	1	684	1	11	63	29
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	15.0	81.0	15.0	81.0	24.0	24.0	24.0	24.0
Total Split (%)	12.5%	67.5%	12.5%	67.5%	20.0%	20.0%	20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.02	0.17	0.01	0.23	0.01	0.02	0.51	0.06
Control Delay	57.5	3.5	78.0	2.6	47.0	0.1	65.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	3.5	78.0	2.6	47.0	0.1	65.1	0.3
Queue Length 50th (ft)	2	33	1	45	1	0	47	0
Queue Length 95th (ft)	m8	89	m1	97	6	0	91	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	140	2930	140	2921	211	644	215	551
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.17	0.01	0.23	0.00	0.02	0.29	0.05

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

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





















## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr







HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr

3b. Build 2025 PM

12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	460	1	1	624	12	1	0	10	59	0	27
Future Volume (veh/h)	2	460	1	1	624	12	1	0	10	59	0	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	495	1	1	671	13	1	0	11	63	0	29
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	2891	6	2	2828	55	128	0	106	144	0	106
Arrive On Green	0.00	0.79	0.79	0.00	0.79	0.79	0.07	0.00	0.07	0.07	0.00	0.07
Sat Flow, veh/h	1781	3639	7	1781	3566	69	1381	0	1585	1404	0	1585
Grp Volume(v), veh/h	2	242	254	1	334	350	1	0	11	63	0	29
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1858	1381	0	1585	1404	0	1585
Q Serve(g_s), s	0.1	3.9	3.9	0.1	5.8	5.8	0.1	0.0	0.8	5.3	0.0	2.1
Cycle Q Clear(g_c), s	0.1	3.9	3.9	0.1	5.8	5.8	2.2	0.0	0.8	6.1	0.0	2.1
Prop In Lane	1.00		0.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1412	1485	2	1409	1474	128	0	106	144	0	106
V/C Ratio(X)	0.42	0.17	0.17	0.41	0.24	0.24	0.01	0.00	0.10	0.44	0.00	0.27
Avail Cap(c_a), veh/h	141	1412	1485	141	1409	1474	249	0	244	267	0	244
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	2.9	2.9	59.9	3.2	3.2	54.3	0.0	52.6	55.5	0.0	53.2
Incr Delay (d2), s/veh	49.1	0.3	0.3	84.5	0.4	0.4	0.0	0.0	0.4	2.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.2	1.3	0.1	1.8	1.9	0.0	0.0	0.3	2.0	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.8	3.2	3.2	144.4	3.6	3.5	54.3	0.0	53.1	57.6	0.0	54.6
LnGrp LOS	F	A	A	F	A	A	D	A	D	E	A	D
Approach Vol, veh/h	498			685			12			92		
Approach Delay, s/veh	3.6			3.8			53.2			56.6		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	100.8		13.5	5.8	100.7		13.5				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	75.5		18.5	9.5	75.5		18.5				
Max Q Clear Time (g_c+I1), s	2.1	5.9		8.1	2.1	7.8		4.2				
Green Ext Time (p_c), s	0.0	7.0		0.2	0.0	10.7		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				7.9								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	442	640	12	21	11
Future Vol, veh/h	6	442	640	12	21	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	486	703	13	23	12
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	716	0	-	0	967	358
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	257	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	880	-	-	-	252	638
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	762	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	880	-	-	-	250	638
Mov Cap-2 Maneuver	-	-	-	-	250	-
Stage 1	-	-	-	-	444	-
Stage 2	-	-	-	-	762	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		17.8		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	880	-	-	-	316	
HCM Lane V/C Ratio	0.007	-	-	-	0.111	
HCM Control Delay (s)	9.1	-	-	-	17.8	
HCM Lane LOS	A	-	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.4	

Timings  
4: Village Pkwy & Lake Park Dr

3b. Build 2025 PM  
12/04/2023

	↖	↑	↗	↘	↓
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	↖↖	↑↑	↗		↘↘
Traffic Volume (vph)	357	285	140	183	371
Future Volume (vph)	357	285	140	183	371
Lane Group Flow (vph)	663	303	149	0	590
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	53.0	67.0	67.0	67.0	67.0
Total Split (%)	44.2%	55.8%	55.8%	55.8%	55.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.81	0.12	0.13		0.33
Control Delay	28.5	6.6	1.5		8.1
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	28.5	6.6	1.5		8.1
Queue Length 50th (ft)	204	35	0		82
Queue Length 95th (ft)	249	63	23		138
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	1413	2489	1157		1812
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.47	0.12	0.13		0.33

Intersection Summary

Cycle Length: 120

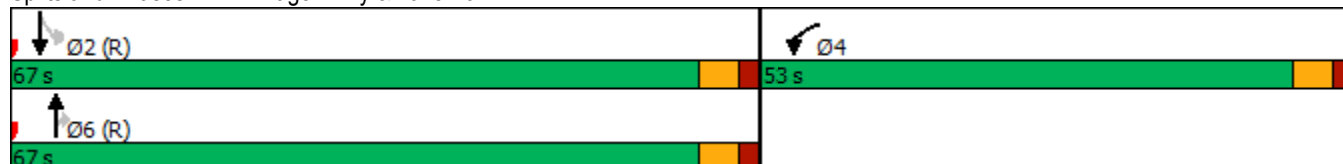
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 4: Village Pkwy & Lake Park Dr













# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

3b. Build 2025 PM

12/04/2023























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	357	266	285	140	183	371
Future Volume (veh/h)	357	266	285	140	183	371
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	332	0	303	0	195	395
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	368		2493		650	1367
Arrive On Green	0.21	0.00	0.70	0.00	0.70	0.70
Sat Flow, veh/h	1781	1585	3647	1585	852	2034
Grp Volume(v), veh/h	332	0	303	0	267	323
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1184	1617
Q Serve(g_s), s	21.8	0.0	3.3	0.0	9.6	8.9
Cycle Q Clear(g_c), s	21.8	0.0	3.3	0.0	12.9	8.9
Prop In Lane	1.00	1.00		1.00	0.73	
Lane Grp Cap(c), veh/h	368		2493		883	1135
V/C Ratio(X)	0.90		0.12		0.30	0.28
Avail Cap(c_a), veh/h	705		2493		883	1135
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	0.0	5.8	0.0	7.6	6.7
Incr Delay (d2), s/veh	8.2	0.0	0.1	0.0	0.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	0.0	1.1	0.0	2.6	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.6	0.0	5.9	0.0	8.5	7.3
LnGrp LOS	D		A		A	A
Approach Vol, veh/h	332		303			590
Approach Delay, s/veh	54.6		5.9			7.8
Approach LOS	D		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	89.7		30.3		89.7	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	61.5		47.5		61.5	
Max Q Clear Time (g_c+I1), s	14.9		23.8		5.3	
Green Ext Time (p_c), s	8.2		1.0		3.9	
Intersection Summary						
HCM 6th Ctrl Delay			20.0			
HCM 6th LOS			C			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# Timings

3c. Build 2025 Dismissal

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

02/27/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	125	75	308	179	108	261	1022	129	86	893	136
Future Volume (vph)	125	75	308	179	108	261	1022	129	86	893	136
Lane Group Flow (vph)	128	77	314	183	227	266	1043	132	88	911	139
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	27.0	43.0	43.0	18.0	34.0	17.0	44.0	44.0	15.0	42.0	42.0
Total Split (%)	22.5%	35.8%	35.8%	15.0%	28.3%	14.2%	36.7%	36.7%	12.5%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.48	0.27	0.64	0.48	0.76	0.58	0.60	0.15	0.31	0.72	0.20
Control Delay	35.9	44.4	15.8	35.8	54.9	23.3	25.7	1.8	16.8	38.4	2.8
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	35.9	44.4	15.8	35.8	54.9	23.3	25.7	1.8	16.8	38.4	2.8
Queue Length 50th (ft)	78	54	0	110	139	97	296	0	27	317	0
Queue Length 95th (ft)	116	92	137	152	213	216	457	19	62	433	27
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	380	582	693	387	440	457	1742	867	306	1258	679
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	0.34	0.13	0.45	0.47	0.52	0.58	0.60	0.15	0.29	0.72	0.20

## Intersection Summary

Cycle Length: 120

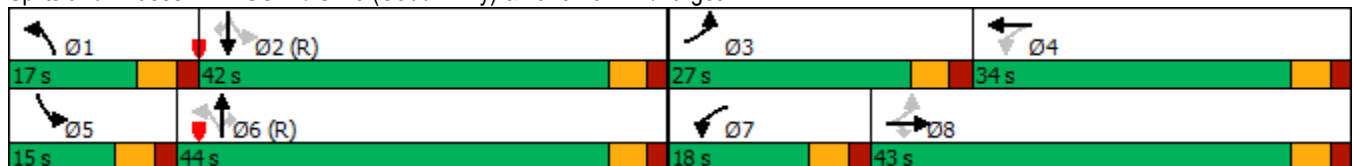
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated
























Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



HCM 6th Signalized Intersection Summary  
1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

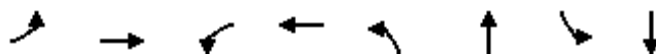
3c. Build 2025 Dismissal

02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	75	308	179	108	115	261	1022	129	86	893	136
Future Volume (veh/h)	125	75	308	179	108	115	261	1022	129	86	893	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	128	77	0	183	110	117	266	1043	132	88	911	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	2	2	2	2	2	2	2	2	2	3	2
Cap, veh/h	228	243		368	128	136	412	1931	861	299	1745	
Arrive On Green	0.08	0.13	0.00	0.10	0.15	0.15	0.09	0.54	0.54	0.04	0.49	0.00
Sat Flow, veh/h	1753	1870	1585	1781	829	882	1781	3554	1585	1781	3526	1585
Grp Volume(v), veh/h	128	77	0	183	0	227	266	1043	132	88	911	0
Grp Sat Flow(s),veh/h/ln	1753	1870	1585	1781	0	1712	1781	1777	1585	1781	1763	1585
Q Serve(g_s), s	7.5	4.5	0.0	10.5	0.0	15.5	8.4	22.8	5.0	2.9	21.1	0.0
Cycle Q Clear(g_c), s	7.5	4.5	0.0	10.5	0.0	15.5	8.4	22.8	5.0	2.9	21.1	0.0
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	243		368	0	264	412	1931	861	299	1745	
V/C Ratio(X)	0.56	0.32		0.50	0.00	0.86	0.65	0.54	0.15	0.29	0.52	
Avail Cap(c_a), veh/h	402	584		368	0	406	426	1931	861	370	1745	
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.2	47.4	0.0	39.3	0.0	49.5	15.3	17.7	13.7	15.2	20.6	0.0
Incr Delay (d2), s/veh	2.2	0.7	0.0	1.0	0.0	11.0	3.2	1.1	0.4	0.5	1.1	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	3.4	2.1	0.0	4.8	0.0	7.5	3.4	8.9	1.9	1.1	8.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	48.1	0.0	40.4	0.0	60.5	18.5	18.8	14.0	15.7	21.8	0.0
LnGrp LOS	D	D		D	A	E	B	B	B	B	C	
Approach Vol, veh/h		205			410			1441			999	
Approach Delay, s/veh		45.1			51.5			18.3			21.2	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	64.9	15.1	24.0	10.2	70.7	18.0	21.1				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	11.5	36.5	21.5	28.5	9.5	38.5	12.5	37.5				
Max Q Clear Time (g_c+I1), s	10.4	23.1	9.5	17.5	4.9	24.8	12.5	6.5				
Green Ext Time (p_c), s	0.1	7.6	0.2	1.0	0.1	9.3	0.0	0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			25.5									
HCM 6th LOS			C									
<b>Notes</b>												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

3c. Build 2025 Dismissal  
02/27/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	421	3	460	2	0	50	0
Future Volume (vph)	2	421	3	460	2	0	50	0
Lane Group Flow (vph)	2	444	3	509	2	5	53	15
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	15.0	81.0	15.0	81.0	24.0	24.0	24.0	24.0
Total Split (%)	12.5%	67.5%	12.5%	67.5%	20.0%	20.0%	20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.02	0.15	0.04	0.17	0.02	0.01	0.46	0.03
Control Delay	55.0	3.2	69.0	2.1	48.5	0.0	64.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	3.2	69.0	2.1	48.5	0.0	64.0	0.1
Queue Length 50th (ft)	2	27	2	23	1	0	40	0
Queue Length 95th (ft)	11	77	m6	69	10	0	80	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	140	2951	140	2933	214	677	216	650
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.15	0.02	0.17	0.01	0.01	0.25	0.02

## Intersection Summary





















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 m Volume for 95th percentile queue is metered by upstream signal.

## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr

3c. Build 2025 Dismissal  
02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	421	1	3	460	24	2	0	5	50	0	14
Future Volume (veh/h)	2	421	1	3	460	24	2	0	5	50	0	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	443	1	3	484	25	2	0	5	53	0	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	2930	7	7	2774	143	121	0	84	130	0	84
Arrive On Green	0.00	0.81	0.81	0.00	0.81	0.81	0.05	0.00	0.05	0.05	0.00	0.05
Sat Flow, veh/h	1781	3638	8	1781	3438	177	1398	0	1585	1411	0	1585
Grp Volume(v), veh/h	2	216	228	3	250	259	2	0	5	53	0	15
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1838	1398	0	1585	1411	0	1585
Q Serve(g_s), s	0.1	3.2	3.2	0.2	3.8	3.8	0.2	0.0	0.4	4.4	0.0	1.1
Cycle Q Clear(g_c), s	0.1	3.2	3.2	0.2	3.8	3.8	1.3	0.0	0.4	4.8	0.0	1.1
Prop In Lane	1.00		0.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1431	1506	7	1434	1483	121	0	84	130	0	84
V/C Ratio(X)	0.42	0.15	0.15	0.42	0.17	0.17	0.02	0.00	0.06	0.41	0.00	0.18
Avail Cap(c_a), veh/h	141	1431	1506	141	1434	1483	263	0	244	273	0	244
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)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	2.6	2.6	59.6	2.6	2.6	54.9	0.0	54.0	56.3	0.0	54.3
Incr Delay (d2), s/veh	47.0	0.2	0.2	35.7	0.3	0.3	0.1	0.0	0.3	2.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.0	1.0	0.2	1.1	1.2	0.1	0.0	0.2	1.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	106.7	2.8	2.8	95.4	2.9	2.9	55.0	0.0	54.3	58.3	0.0	55.3
LnGrp LOS	F	A	A	F	A	A	D	A	D	E	A	E
Approach Vol, veh/h	446			512			7			68		
Approach Delay, s/veh	3.3			3.4			54.5			57.6		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	102.2		11.9	5.8	102.3		11.9				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	75.5		18.5	9.5	75.5		18.5				
Max Q Clear Time (g_c+I1), s	2.2	5.2		6.8	2.1	5.8		3.3				
Green Ext Time (p_c), s	0.0	6.2		0.1	0.0	7.3		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				7.3								
HCM 6th LOS				A								

# Timings 3: Lake Park Dr & Site Drwy

3c. Build 2025 Dismissal  
02/27/2024



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	40	347	402	77
Future Volume (vph)	40	347	402	77
Lane Group Flow (vph)	80	369	576	238
Turn Type	Prot	NA	NA	Prot
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	23.5	23.5	23.5
Total Split (s)	19.0	59.0	40.0	31.0
Total Split (%)	21.1%	65.6%	44.4%	34.4%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
v/c Ratio	0.27	0.20	0.45	0.53
Control Delay	26.9	6.8	14.1	22.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.9	6.8	14.1	22.2
Queue Length 50th (ft)	24	26	68	61
Queue Length 95th (ft)	39	57	139	68
Internal Link Dist (ft)		805	476	297
Turn Bay Length (ft)	80			
Base Capacity (vph)	523	3204	2452	973
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.15	0.12	0.23	0.24

## Intersection Summary

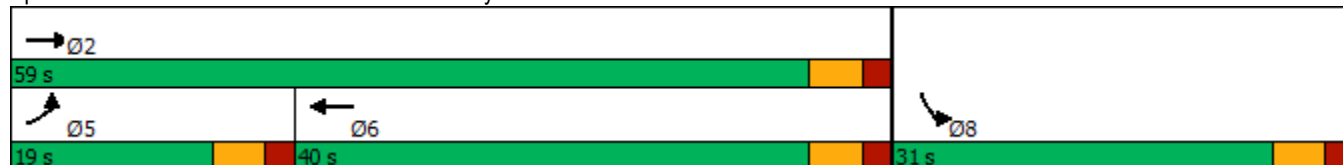
Cycle Length: 90

Actuated Cycle Length: 51.8

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

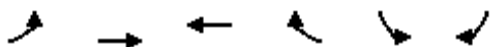
Splits and Phases: 3: Lake Park Dr & Site Drwy



# HCM 6th Signalized Intersection Summary

## 3: Lake Park Dr & Site Drwy

3c. Build 2025 Dismissal  
02/27/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	347	402	74	77	42
Future Volume (veh/h)	40	347	402	74	77	42
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	369	428	0	154	84
Peak Hour Factor	0.50	0.94	0.94	0.50	0.50	0.50
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	133	1822	1046		220	120
Arrive On Green	0.07	0.51	0.29	0.00	0.20	0.20
Sat Flow, veh/h	1781	3647	3741	0	1100	600
Grp Volume(v), veh/h	80	369	428	0	239	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	0	1707	0
Q Serve(g_s), s	1.7	2.2	3.7	0.0	5.0	0.0
Cycle Q Clear(g_c), s	1.7	2.2	3.7	0.0	5.0	0.0
Prop In Lane	1.00			0.00	0.64	0.35
Lane Grp Cap(c), veh/h	133	1822	1046		342	0
V/C Ratio(X)	0.60	0.20	0.41		0.70	0.00
Avail Cap(c_a), veh/h	628	4963	3201		1137	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	17.2	5.1	10.8	0.0	14.2	0.0
Incr Delay (d2), s/veh	4.3	0.1	0.6	0.0	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.5	1.2	0.0	1.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.4	5.2	11.4	0.0	16.8	0.0
LnGrp LOS	C	A	B		B	A
Approach Vol, veh/h		449	428		239	
Approach Delay, s/veh		8.1	11.4		16.8	
Approach LOS		A	B		B	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		25.1			8.4	16.8
Change Period (Y+Rc), s		5.5			5.5	5.5
Max Green Setting (Gmax), s		53.5			13.5	34.5
Max Q Clear Time (g_c+I1), s		4.2			3.7	5.7
Green Ext Time (p_c), s		5.3			0.1	5.6

### Intersection Summary

HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B














### Notes

User approved volume balancing among the lanes for turning movement.

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

# Timings 4: Village Pkwy & Lake Park Dr

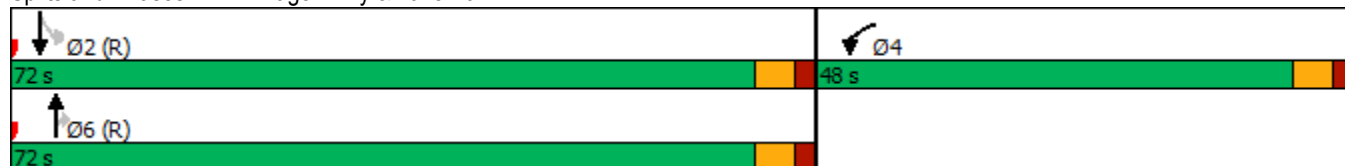
3c. Build 2025 Dismissal  
02/27/2024

					
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	  	 			 
Traffic Volume (vph)	237	254	167	169	323
Future Volume (vph)	237	254	167	169	323
Lane Group Flow (vph)	463	276	182	0	535
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	48.0	72.0	72.0	72.0	72.0
Total Split (%)	40.0%	60.0%	60.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.77	0.10	0.15		0.27
Control Delay	38.0	3.8	0.9		4.6
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	38.0	3.8	0.9		4.6
Queue Length 50th (ft)	107	23	0		52
Queue Length 95th (ft)	157	42	18		89
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	1283	2738	1254		2004
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.36	0.10	0.15		0.27

## Intersection Summary
















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated

Splits and Phases: 4: Village Pkwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary 4: Village Pkwy & Lake Park Dr

3c. Build 2025 Dismissal  
02/27/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	  		 			  
Traffic Volume (veh/h)	237	189	254	167	169	323
Future Volume (veh/h)	237	189	254	167	169	323
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	232	0	276	0	184	351
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	2	2
Cap, veh/h	266		2697		733	1465
Arrive On Green	0.15	0.00	0.76	0.00	0.76	0.76
Sat Flow, veh/h	1781	1585	3647	1572	897	2016
Grp Volume(v), veh/h	232	0	276	0	246	289
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1572	1211	1617
Q Serve(g_s), s	15.3	0.0	2.4	0.0	6.6	6.3
Cycle Q Clear(g_c), s	15.3	0.0	2.4	0.0	9.0	6.3
Prop In Lane	1.00	1.00		1.00	0.75	
Lane Grp Cap(c), veh/h	266		2697		971	1227
V/C Ratio(X)	0.87		0.10		0.25	0.24
Avail Cap(c_a), veh/h	631		2697		971	1227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	0.0	3.8	0.0	4.7	4.2
Incr Delay (d2), s/veh	8.6	0.0	0.1	0.0	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.0	0.7	0.0	1.7	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.5	0.0	3.9	0.0	5.4	4.7
LnGrp LOS	E		A		A	A
Approach Vol, veh/h	232		276			535
Approach Delay, s/veh	58.5		3.9			5.0
Approach LOS	E		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	96.6		23.4		96.6	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	66.5		42.5		66.5	
Max Q Clear Time (g_c+I1), s	11.0		17.3		4.4	
Green Ext Time (p_c), s	7.4		0.7		3.6	
Intersection Summary						
HCM 6th Ctrl Delay			16.6			
HCM 6th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

**BUILD-OUT YEAR 2031 "NO-BUILD"  
INTERSECTION ANALYSIS**

# Timings

4a. No Build 2031 AM

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

12/04/2023

	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (vph)	330	113	850	48	26	225	826	66	32	999	158
Future Volume (vph)	330	113	850	48	26	225	826	66	32	999	158
Lane Group Flow (vph)	344	118	885	50	75	234	860	69	33	1041	165
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	25.0	43.0	43.0	17.0	35.0	15.0	45.0	45.0	15.0	45.0	45.0
Total Split (%)	20.8%	35.8%	35.8%	14.2%	29.2%	12.5%	37.5%	37.5%	12.5%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.54	0.18	1.12	0.14	0.20	1.16	0.65	0.09	0.16	0.91	0.26
Control Delay	21.1	23.7	93.6	20.5	17.2	143.9	34.0	0.3	20.3	51.4	4.8
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	21.1	23.7	93.6	20.5	17.2	143.9	34.0	0.3	20.3	51.4	4.8
Queue Length 50th (ft)	177	63	~623	21	16	~167	302	0	14	405	0
Queue Length 95th (ft)	247	108	#889	45	56	#336	386	0	33	#532	44
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	641	670	790	421	445	201	1324	733	249	1142	637
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	0.54	0.18	1.12	0.12	0.17	1.16	0.65	0.09	0.13	0.91	0.26

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

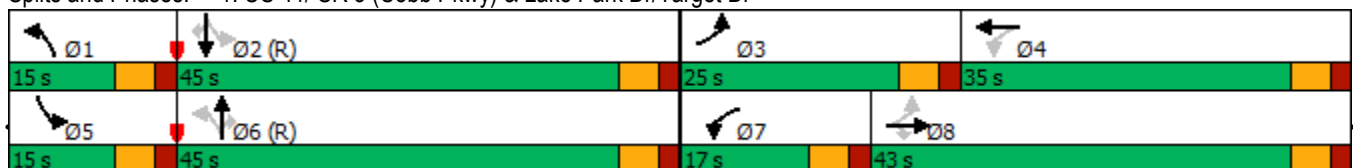
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

























Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



HCM 6th Signalized Intersection Summary  
1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

4a. No Build 2031 AM

12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	113	850	48	26	46	225	826	66	32	999	158
Future Volume (veh/h)	330	113	850	48	26	46	225	826	66	32	999	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1826	1870	1811	1900	1796	1841	1870
Adj Flow Rate, veh/h	344	118	0	50	27	48	234	860	69	33	1041	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	5	2	6	0	7	4	2
Cap, veh/h	375	357		203	38	68	363	1937	906	349	1800	
Arrive On Green	0.16	0.19	0.00	0.03	0.06	0.06	0.08	0.56	0.56	0.03	0.51	0.00
Sat Flow, veh/h	1781	1870	1585	1781	604	1073	1781	3441	1610	1711	3497	1585
Grp Volume(v), veh/h	344	118	0	50	0	75	234	860	69	33	1041	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1677	1781	1721	1610	1711	1749	1585
Q Serve(g_s), s	19.5	6.5	0.0	3.1	0.0	5.3	7.1	17.5	2.3	1.1	24.7	0.0
Cycle Q Clear(g_c), s	19.5	6.5	0.0	3.1	0.0	5.3	7.1	17.5	2.3	1.1	24.7	0.0
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	375	357		203	0	106	363	1937	906	349	1800	
V/C Ratio(X)	0.92	0.33		0.25	0.00	0.71	0.64	0.44	0.08	0.09	0.58	
Avail Cap(c_a), veh/h	375	584		311	0	412	368	1937	906	437	1800	
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(l)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.6	41.9	0.0	50.2	0.0	55.1	15.9	15.3	12.0	13.4	20.1	0.0
Incr Delay (d2), s/veh	26.7	0.5	0.0	0.6	0.0	8.2	3.8	0.7	0.2	0.1	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	12.3	3.1	0.0	1.4	0.0	2.5	2.9	6.5	0.9	0.4	9.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.3	42.4	0.0	50.8	0.0	63.3	19.6	16.0	12.1	13.5	21.5	0.0
LnGrp LOS	E	D		D	A	E	B	B	B	B	C	
Approach Vol, veh/h		462			125			1163			1074	
Approach Delay, s/veh		63.2			58.3			16.5			21.3	
Approach LOS		E			E			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.6	67.2	25.0	13.1	8.8	73.1	9.7	28.4				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	9.5	39.5	19.5	29.5	9.5	39.5	11.5	37.5				
Max Q Clear Time (g_c+l1), s	9.1	26.7	21.5	7.3	3.1	19.5	5.1	8.5				
Green Ext Time (p_c), s	0.0	8.3	0.0	0.3	0.0	9.9	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay 27.8

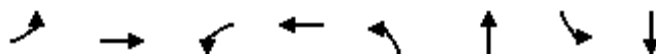
HCM 6th LOS C

Notes

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

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

4a. No Build 2031 AM  
12/04/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	28	1295	12	244	1	0	17	0
Future Volume (vph)	28	1295	12	244	1	0	17	0
Lane Group Flow (vph)	31	1468	13	375	1	1	19	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	15.0	81.0	15.0	81.0	24.0	24.0	24.0	24.0
Total Split (%)	12.5%	67.5%	12.5%	67.5%	20.0%	20.0%	20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.28	0.48	0.14	0.13	0.01	0.00	0.20	0.00
Control Delay	58.3	4.8	65.5	0.8	52.0	0.0	58.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	4.8	65.5	0.8	52.0	0.0	58.0	0.0
Queue Length 50th (ft)	24	110	10	10	1	0	14	0
Queue Length 95th (ft)	m47	305	m19	m9	7	0	39	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	142	3043	140	2843	234	383	234	816
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.48	0.09	0.13	0.00	0.00	0.08	0.00

## Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 m Volume for 95th percentile queue is metered by upstream signal.





















## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr







HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr

4a. No Build 2031 AM













12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	1295	12	12	244	90	1	0	1	17	0	3
Future Volume (veh/h)	28	1295	12	12	244	90	1	0	1	17	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	1455	13	13	274	101	1	0	1	19	0	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	2961	26	26	2069	745	96	0	44	98	0	44
Arrive On Green	0.03	0.82	0.82	0.01	0.81	0.81	0.03	0.00	0.03	0.03	0.00	0.03
Sat Flow, veh/h	1781	3609	32	1781	2560	922	1414	0	1585	1416	0	1585
Grp Volume(v), veh/h	31	716	752	13	188	187	1	0	1	19	0	3
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1704	1414	0	1585	1416	0	1585
Q Serve(g_s), s	2.1	14.6	14.6	0.9	2.7	2.8	0.1	0.0	0.1	1.6	0.0	0.2
Cycle Q Clear(g_c), s	2.1	14.6	14.6	0.9	2.7	2.8	0.3	0.0	0.1	1.7	0.0	0.2
Prop In Lane	1.00		0.02	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	1458	1530	26	1436	1377	96	0	44	98	0	44
V/C Ratio(X)	0.65	0.49	0.49	0.50	0.13	0.14	0.01	0.00	0.02	0.19	0.00	0.07
Avail Cap(c_a), veh/h	141	1458	1530	141	1436	1377	275	0	244	277	0	244
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.8	3.2	3.2	58.7	2.5	2.5	57.0	0.0	56.8	57.6	0.0	56.8
Incr Delay (d2), s/veh	13.8	1.2	1.1	13.9	0.2	0.2	0.0	0.0	0.2	0.9	0.0	0.7
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	1.1	4.2	4.4	0.5	0.8	0.8	0.0	0.0	0.0	0.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.6	4.4	4.4	72.6	2.7	2.7	57.0	0.0	57.0	58.5	0.0	57.5
LnGrp LOS	E	A	A	E	A	A	E	A	E	E	A	E
Approach Vol, veh/h	1499				388				2		22	
Approach Delay, s/veh	5.8				5.0				57.0		58.4	
Approach LOS	A				A				E		E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	103.9		8.8	8.7	102.5		8.8				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	75.5		18.5	9.5	75.5		18.5				
Max Q Clear Time (g_c+I1), s	2.9	16.6		3.7	4.1	4.8		2.3				
Green Ext Time (p_c), s	0.0	34.6		0.0	0.0	5.2		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	6.3											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	1334	231	17	1	1
Future Vol, veh/h	3	1334	231	17	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	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	1516	263	19	1	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	282	0	-	0	1037	141
Stage 1	-	-	-	-	273	-
Stage 2	-	-	-	-	764	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1277	-	-	-	227	881
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	420	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1277	-	-	-	227	881
Mov Cap-2 Maneuver	-	-	-	-	227	-
Stage 1	-	-	-	-	747	-
Stage 2	-	-	-	-	420	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		15		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1277	-	-	-	361	
HCM Lane V/C Ratio	0.003	-	-	-	0.006	
HCM Control Delay (s)	7.8	-	-	-	15	
HCM Lane LOS	A	-	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Timings  
4: Village Pkwy & Lake Park Dr

4a. No Build 2031 AM  
12/04/2023

					
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 
Traffic Volume (vph)	76	500	762	401	208
Future Volume (vph)	76	500	762	401	208
Lane Group Flow (vph)	145	538	819	0	655
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	25.0	95.0	95.0	95.0	95.0
Total Split (%)	20.8%	79.2%	79.2%	79.2%	79.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.49	0.18	0.56		0.38
Control Delay	24.0	2.1	1.8		3.2
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	24.0	2.1	1.8		3.2
Queue Length 50th (ft)	32	31	0		47
Queue Length 95th (ft)	64	50	19		78
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	587	2962	1458		1709
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.25	0.18	0.56		0.38

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 4: Village Pkwy & Lake Park Dr













# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

4a. No Build 2031 AM

12/04/2023























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	76	59	500	762	401	208
Future Volume (veh/h)	76	59	500	762	401	208
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	0	538	0	431	224
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	93		3042		780	1384
Arrive On Green	0.05	0.00	0.86	0.00	0.86	0.86
Sat Flow, veh/h	1781	1585	3647	1585	841	1702
Grp Volume(v), veh/h	72	0	538	0	431	224
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	841	1617
Q Serve(g_s), s	4.8	0.0	3.1	0.0	20.1	2.8
Cycle Q Clear(g_c), s	4.8	0.0	3.1	0.0	23.2	2.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	93		3042		780	1384
V/C Ratio(X)	0.77		0.18		0.55	0.16
Avail Cap(c_a), veh/h	289		3042		780	1384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	0.0	1.5	0.0	3.4	1.4
Incr Delay (d2), s/veh	12.7	0.0	0.1	0.0	2.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.4	0.0	2.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	68.8	0.0	1.6	0.0	6.2	1.7
LnGrp LOS	E		A		A	A
Approach Vol, veh/h	72		538			655
Approach Delay, s/veh	68.8		1.6			4.7
Approach LOS	E		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	108.2		11.8		108.2	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	89.5		19.5		89.5	
Max Q Clear Time (g_c+I1), s	25.2		6.8		5.1	
Green Ext Time (p_c), s	12.7		0.1		7.8	
Intersection Summary						
HCM 6th Ctrl Delay			7.0			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# Timings

## 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

4b. No Build 2031 PM

12/04/2023

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	116	65	363	201	146	364	1334	145	91	1081	138
Future Volume (vph)	116	65	363	201	146	364	1334	145	91	1081	138
Lane Group Flow (vph)	121	68	378	209	238	379	1390	151	95	1126	144
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	15.0	33.5	33.5	15.0	33.5	26.0	56.5	56.5	15.0	45.5	45.5
Total Split (%)	12.5%	27.9%	27.9%	12.5%	27.9%	21.7%	47.1%	47.1%	12.5%	37.9%	37.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.51	0.22	0.72	0.58	0.76	0.83	0.81	0.17	0.51	0.93	0.22
Control Delay	39.4	42.2	20.0	41.3	58.3	48.1	31.3	5.8	26.2	52.8	3.1
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	39.4	42.2	20.0	41.3	58.3	48.1	31.3	5.8	26.2	52.8	3.1
Queue Length 50th (ft)	69	42	56	130	162	224	463	11	28	451	0
Queue Length 95th (ft)	106	74	146	183	235	#460	#703	53	68	#599	29
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	240	434	610	360	423	458	1711	872	206	1206	663
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	0.50	0.16	0.62	0.58	0.56	0.83	0.81	0.17	0.46	0.93	0.22

### Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green



Natural Cycle: 115

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.
























Queue shown is maximum after two cycles.

### Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

					
Ø1	Ø2 (R)		Ø3		Ø4
26 s	45.5 s		15 s		33.5 s
					
Ø5	Ø6 (R)		Ø7		Ø8
15 s	56.5 s		15 s		33.5 s

















HCM 6th Signalized Intersection Summary  
1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

4b. No Build 2031 PM  
12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	65	363	201	146	83	364	1334	145	91	1081	138
Future Volume (veh/h)	116	65	363	201	146	83	364	1334	145	91	1081	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1826	1870	1811	1900	1796	1841	1870
Adj Flow Rate, veh/h	121	68	0	209	152	86	379	1390	151	95	1126	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	5	2	6	0	7	4	2
Cap, veh/h	217	281		358	176	100	407	1866	873	212	1547	
Arrive On Green	0.07	0.15	0.00	0.08	0.16	0.16	0.15	0.54	0.54	0.05	0.44	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1122	635	1781	3441	1610	1711	3497	1585
Grp Volume(v), veh/h	121	68	0	209	0	238	379	1390	151	95	1126	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1756	1781	1721	1610	1711	1749	1585
Q Serve(g_s), s	6.8	3.8	0.0	9.5	0.0	15.9	15.0	37.2	5.7	3.6	31.8	0.0
Cycle Q Clear(g_c), s	6.8	3.8	0.0	9.5	0.0	15.9	15.0	37.2	5.7	3.6	31.8	0.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	217	281		358	0	276	407	1866	873	212	1547	
V/C Ratio(X)	0.56	0.24		0.58	0.00	0.86	0.93	0.75	0.17	0.45	0.73	
Avail Cap(c_a), veh/h	229	436		358	0	410	453	1866	873	270	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(l)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.0	45.0	0.0	41.4	0.0	49.3	26.2	21.1	13.9	20.4	27.5	0.0
Incr Delay (d2), s/veh	2.7	0.4	0.0	2.4	0.0	11.8	24.6	2.8	0.4	1.5	3.0	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	3.1	1.8	0.0	1.3	0.0	7.9	8.5	14.4	2.2	1.4	13.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	45.4	0.0	43.8	0.0	61.2	50.8	23.9	14.3	21.9	30.6	0.0
LnGrp LOS	D	D		D	A	E	D	C	B	C	C	
Approach Vol, veh/h		189			447			1920			1221	
Approach Delay, s/veh		43.7			53.0			28.4			29.9	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.9	58.6	14.2	24.3	10.9	70.6	15.0	23.5				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	20.5	40.0	9.5	28.0	9.5	51.0	9.5	28.0				
Max Q Clear Time (g_c+l1), s	17.0	33.8	8.8	17.9	5.6	39.2	11.5	5.8				
Green Ext Time (p_c), s	0.4	4.8	0.0	1.0	0.1	9.8	0.0	0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			32.6									
HCM 6th LOS			C									
<b>Notes</b>												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

4b. No Build 2031 PM  
12/04/2023

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	470	1	649	1	0	63	0
Future Volume (vph)	2	470	1	649	1	0	63	0
Lane Group Flow (vph)	2	506	1	712	1	12	68	30
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	19.0	68.0	18.0	67.0	34.0	34.0	34.0	34.0
Total Split (%)	15.8%	56.7%	15.0%	55.8%	28.3%	28.3%	28.3%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.02	0.17	0.01	0.24	0.01	0.02	0.52	0.07
Control Delay	56.0	3.8	78.0	1.5	46.0	0.1	65.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	3.8	78.0	1.5	46.0	0.1	65.1	0.3
Queue Length 50th (ft)	2	35	0	15	1	0	51	0
Queue Length 95th (ft)	m8	96	m1	71	6	0	96	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	199	2918	184	2909	326	712	331	632
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.17	0.01	0.24	0.00	0.02	0.21	0.05

## Intersection Summary





















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 m Volume for 95th percentile queue is metered by upstream signal.





Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr

4b. No Build 2031 PM  
12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	470	1	1	649	13	1	0	11	63	0	28
Future Volume (veh/h)	2	470	1	1	649	13	1	0	11	63	0	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	505	1	1	698	14	1	0	12	68	0	30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	2872	6	2	2807	56	135	0	114	151	0	114
Arrive On Green	0.00	0.79	0.79	0.00	0.79	0.79	0.07	0.00	0.07	0.07	0.00	0.07
Sat Flow, veh/h	1781	3639	7	1781	3563	71	1380	0	1585	1402	0	1585
Grp Volume(v), veh/h	2	247	259	1	348	364	1	0	12	68	0	30
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1858	1380	0	1585	1402	0	1585
Q Serve(g_s), s	0.1	4.1	4.1	0.1	6.2	6.2	0.1	0.0	0.8	5.7	0.0	2.1
Cycle Q Clear(g_c), s	0.1	4.1	4.1	0.1	6.2	6.2	2.2	0.0	0.8	6.6	0.0	2.1
Prop In Lane	1.00		0.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1402	1475	2	1400	1463	135	0	114	151	0	114
V/C Ratio(X)	0.42	0.18	0.18	0.41	0.25	0.25	0.01	0.00	0.11	0.45	0.00	0.26
Avail Cap(c_a), veh/h	200	1402	1475	186	1400	1463	363	0	376	383	0	376
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	3.1	3.1	59.9	3.4	3.4	53.7	0.0	52.1	55.1	0.0	52.7
Incr Delay (d2), s/veh	49.1	0.3	0.3	84.5	0.4	0.4	0.0	0.0	0.4	2.1	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	1.4	0.1	2.0	2.1	0.0	0.0	0.4	2.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.8	3.4	3.4	144.4	3.8	3.8	53.7	0.0	52.5	57.2	0.0	53.9
LnGrp LOS	F	A	A	F	A	A	D	A	D	E	A	D
Approach Vol, veh/h	508			713			13			98		
Approach Delay, s/veh	3.8			4.0			52.6			56.2		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	100.2		14.1	5.8	100.0		14.1				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	12.5	62.5		28.5	13.5	61.5		28.5				
Max Q Clear Time (g_c+I1), s	2.1	6.1		8.6	2.1	8.2		4.2				
Green Ext Time (p_c), s	0.0	7.1		0.3	0.0	11.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				8.2								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	468	677	1	5	16
Future Vol, veh/h	1	468	677	1	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	514	744	1	5	18

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	745	0	0 1004 373
Stage 1	-	-	- 745 -
Stage 2	-	-	- 259 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	859	-	- 238 624
Stage 1	-	-	- 430 -
Stage 2	-	-	- 761 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	859	-	- 238 624
Mov Cap-2 Maneuver	-	-	- 238 -
Stage 1	-	-	- 430 -
Stage 2	-	-	- 761 -

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	859	-	-	-	450
HCM Lane V/C Ratio	0.001	-	-	-	0.051
HCM Control Delay (s)	9.2	-	-	-	13.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

# Timings 4: Village Pkwy & Lake Park Dr

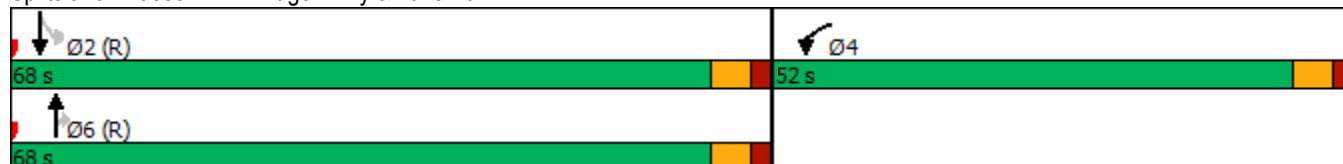
4b. No Build 2031 PM  
12/04/2023

	↖	↑	↗	↘	↓
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	WY	↑↑	↗		↑↑
Traffic Volume (vph)	381	301	145	190	393
Future Volume (vph)	381	301	145	190	393
Lane Group Flow (vph)	707	320	154	0	620
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	52.0	68.0	68.0	68.0	68.0
Total Split (%)	43.3%	56.7%	56.7%	56.7%	56.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.82	0.13	0.14		0.35
Control Delay	30.2	7.2	1.6		9.1
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	30.2	7.2	1.6		9.1
Queue Length 50th (ft)	224	40	0		93
Queue Length 95th (ft)	284	71	25		154
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	1386	2437	1138		1764
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.51	0.13	0.14		0.35

## Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated














Splits and Phases: 4: Village Pkwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

4b. No Build 2031 PM  
12/04/2023























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 		 			 
Traffic Volume (veh/h)	381	284	301	145	190	393
Future Volume (veh/h)	381	284	301	145	190	393
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	0	320	0	202	418
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	390		2449		627	1340
Arrive On Green	0.22	0.00	0.69	0.00	0.69	0.69
Sat Flow, veh/h	1781	1585	3647	1585	835	2029
Grp Volume(v), veh/h	354	0	320	0	278	342
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1162	1617
Q Serve(g_s), s	23.2	0.0	3.7	0.0	11.1	10.0
Cycle Q Clear(g_c), s	23.2	0.0	3.7	0.0	14.8	10.0
Prop In Lane	1.00	1.00		1.00	0.73	
Lane Grp Cap(c), veh/h	390		2449		853	1114
V/C Ratio(X)	0.91		0.13		0.33	0.31
Avail Cap(c_a), veh/h	690		2449		853	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	0.0	6.4	0.0	8.6	7.3
Incr Delay (d2), s/veh	8.8	0.0	0.1	0.0	1.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	0.0	1.2	0.0	3.0	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.4	0.0	6.5	0.0	9.6	8.1
LnGrp LOS	D		A		A	A
Approach Vol, veh/h	354		320			620
Approach Delay, s/veh	54.4		6.5			8.8
Approach LOS	D		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	88.2		31.8		88.2	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	62.5		46.5		62.5	
Max Q Clear Time (g_c+I1), s	16.8		25.2		5.7	
Green Ext Time (p_c), s	8.8		1.1		4.2	
Intersection Summary						
HCM 6th Ctrl Delay			20.7			
HCM 6th LOS			C			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# Timings

4c. No Build 2031 Dismissal

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

12/04/2023

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	93	80	288	189	114	239	1082	136	91	945	104
Future Volume (vph)	93	80	288	189	114	239	1082	136	91	945	104
Lane Group Flow (vph)	95	82	294	193	240	244	1104	139	93	964	106
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	15.0	34.0	34.0	15.0	34.0	23.0	56.0	56.0	15.0	48.0	48.0
Total Split (%)	12.5%	28.3%	28.3%	12.5%	28.3%	19.2%	46.7%	46.7%	12.5%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.44	0.28	0.60	0.56	0.77	0.63	0.61	0.16	0.34	0.61	0.13
Control Delay	41.0	47.9	16.7	41.2	55.2	19.8	24.0	5.0	14.9	29.2	0.6
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	41.0	47.9	16.7	41.2	55.2	19.8	24.0	5.0	14.9	29.2	0.6
Queue Length 50th (ft)	55	56	0	120	149	78	310	6	27	296	0
Queue Length 95th (ft)	90	92	105	171	224	156	454	46	58	430	3
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	225	442	590	345	439	415	1814	871	300	1571	805
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	0.42	0.19	0.50	0.56	0.55	0.59	0.61	0.16	0.31	0.61	0.13

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 95

Control Type: Actuated-Coordinated
























Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



HCM 6th Signalized Intersection Summary  
1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

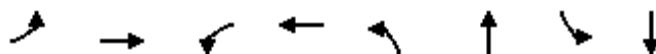
4c. No Build 2031 Dismissal

12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	80	288	189	114	122	239	1082	136	91	945	104
Future Volume (veh/h)	93	80	288	189	114	122	239	1082	136	91	945	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	95	82	0	193	116	124	244	1104	139	93	964	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	2	2	2	2	2	2	2	2	2	3	2
Cap, veh/h	193	267		337	134	143	398	1972	880	290	1807	
Arrive On Green	0.06	0.14	0.00	0.08	0.16	0.16	0.08	0.55	0.55	0.04	0.51	0.00
Sat Flow, veh/h	1753	1870	1585	1781	827	884	1781	3554	1585	1781	3526	1585
Grp Volume(v), veh/h	95	82	0	193	0	240	244	1104	139	93	964	0
Grp Sat Flow(s),veh/h/ln	1753	1870	1585	1781	0	1711	1781	1777	1585	1781	1763	1585
Q Serve(g_s), s	5.5	4.7	0.0	9.5	0.0	16.4	7.5	24.1	5.1	3.0	22.0	0.0
Cycle Q Clear(g_c), s	5.5	4.7	0.0	9.5	0.0	16.4	7.5	24.1	5.1	3.0	22.0	0.0
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	267		337	0	277	398	1972	880	290	1807	
V/C Ratio(X)	0.49	0.31		0.57	0.00	0.87	0.61	0.56	0.16	0.32	0.53	
Avail Cap(c_a), veh/h	227	444		337	0	406	512	1972	880	360	1807	
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.2	46.1	0.0	41.6	0.0	49.0	14.7	17.2	13.0	14.6	19.6	0.0
Incr Delay (d2), s/veh	1.9	0.6	0.0	2.3	0.0	12.5	1.5	1.2	0.4	0.6	1.1	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	2.5	2.3	0.0	0.9	0.0	8.0	2.9	9.3	1.9	1.2	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	46.8	0.0	43.9	0.0	61.6	16.2	18.4	13.4	15.2	20.8	0.0
LnGrp LOS	D	D		D	A	E	B	B	B	B	C	
Approach Vol, veh/h	177				433				1487			
Approach Delay, s/veh	44.8				53.7				17.6			
Approach LOS	D				D				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	67.0	12.7	24.9	10.3	72.1	15.0	22.6				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	17.5	42.5	9.5	28.5	9.5	50.5	9.5	28.5				
Max Q Clear Time (g_c+I1), s	9.5	24.0	7.5	18.4	5.0	26.1	11.5	6.7				
Green Ext Time (p_c), s	0.4	10.1	0.0	1.0	0.1	14.8	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	25.0											
HCM 6th LOS	C											

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

4c. No Build 2031 Dismissal  
12/04/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	←	↑↑	←	↑↑	←	↑	←	↑
Traffic Volume (vph)	2	367	3	408	2	0	53	0
Future Volume (vph)	2	367	3	408	2	0	53	0
Lane Group Flow (vph)	2	387	3	456	2	5	56	16
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	21.0	61.0	21.0	61.0	38.0	38.0	38.0	38.0
Total Split (%)	17.5%	50.8%	17.5%	50.8%	31.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.02	0.13	0.04	0.16	0.02	0.01	0.47	0.03
Control Delay	59.5	3.3	71.0	1.9	48.0	0.0	63.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	3.3	71.0	1.9	48.0	0.0	63.9	0.1
Queue Length 50th (ft)	1	24	3	20	1	0	42	0
Queue Length 95th (ft)	m8	68	m7	31	10	0	83	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	228	2942	228	2918	376	813	380	788
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.13	0.01	0.16	0.01	0.01	0.15	0.02

## Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 m Volume for 95th percentile queue is metered by upstream signal.





















## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr







HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr

4c. No Build 2031 Dismissal










12/04/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	367	1	3	408	26	2	0	5	53	0	15
Future Volume (veh/h)	2	367	1	3	408	26	2	0	5	53	0	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	386	1	3	429	27	2	0	5	56	0	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	2918	8	7	2729	171	125	0	89	135	0	89
Arrive On Green	0.00	0.80	0.80	0.00	0.80	0.80	0.06	0.00	0.06	0.06	0.00	0.06
Sat Flow, veh/h	1781	3636	9	1781	3396	213	1397	0	1585	1411	0	1585
Grp Volume(v), veh/h	2	189	198	3	224	232	2	0	5	56	0	16
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1832	1397	0	1585	1411	0	1585
Q Serve(g_s), s	0.1	2.8	2.8	0.2	3.4	3.4	0.2	0.0	0.4	4.7	0.0	1.2
Cycle Q Clear(g_c), s	0.1	2.8	2.8	0.2	3.4	3.4	1.3	0.0	0.4	5.1	0.0	1.2
Prop In Lane	1.00		0.01	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1426	1499	7	1428	1472	125	0	89	135	0	89
V/C Ratio(X)	0.42	0.13	0.13	0.42	0.16	0.16	0.02	0.00	0.06	0.42	0.00	0.18
Avail Cap(c_a), veh/h	230	1426	1499	230	1428	1472	425	0	429	438	0	429
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	2.6	2.6	59.6	2.6	2.6	54.6	0.0	53.6	56.0	0.0	54.0
Incr Delay (d2), s/veh	49.1	0.2	0.2	35.7	0.2	0.2	0.1	0.0	0.3	2.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.9	0.9	0.2	1.0	1.1	0.1	0.0	0.2	1.8	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.8	2.8	2.8	95.4	2.9	2.9	54.7	0.0	53.9	58.0	0.0	55.0
LnGrp LOS	F	A	A	F	A	A	D	A	D	E	A	D
Approach Vol, veh/h	389			459			7			72		
Approach Delay, s/veh	3.4			3.5			54.1			57.4		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	101.8		12.2	5.8	101.9		12.2				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	15.5	55.5		32.5	15.5	55.5		32.5				
Max Q Clear Time (g_c+I1), s	2.2	4.8		7.1	2.1	5.4		3.3				
Green Ext Time (p_c), s	0.0	5.1		0.2	0.0	6.2		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	8.0											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	367	426	0	3	5
Future Vol, veh/h	2	367	426	0	3	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	80	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	390	453	0	3	5
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	453	0	-	0	652	227
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	199	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1104	-	-	-	401	776
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	815	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1104	-	-	-	400	776
Mov Cap-2 Maneuver	-	-	-	-	400	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	815	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		11.4		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1104	-	-	-	574	
HCM Lane V/C Ratio	0.002	-	-	-	0.015	
HCM Control Delay (s)	8.3	-	-	-	11.4	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	

# Timings 4: Village Pkwy & Lake Park Dr

4c. No Build 2031 Dismissal  
12/04/2023

					
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	235	269	160	156	342
Future Volume (vph)	235	269	160	156	342
Lane Group Flow (vph)	448	292	174	0	542
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	47.0	73.0	73.0	73.0	73.0
Total Split (%)	39.2%	60.8%	60.8%	60.8%	60.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.76	0.11	0.14		0.27
Control Delay	31.0	3.8	0.9		4.6
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	31.0	3.8	0.9		4.6
Queue Length 50th (ft)	111	24	0		52
Queue Length 95th (ft)	168	44	18		90
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	1249	2741	1254		2020
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.36	0.11	0.14		0.27

## Intersection Summary
















Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green  
Natural Cycle: 50  
Control Type: Actuated-Coordinated

Splits and Phases: 4: Village Pkwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary 4: Village Pkwy & Lake Park Dr

4c. No Build 2031 Dismissal  
12/04/2023

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	  		 			  
Traffic Volume (veh/h)	235	178	269	160	156	342
Future Volume (veh/h)	235	178	269	160	156	342
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	224	0	292	0	170	372
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	2	2
Cap, veh/h	258		2713		683	1549
Arrive On Green	0.14	0.00	0.76	0.00	0.76	0.76
Sat Flow, veh/h	1781	1585	3647	1572	829	2113
Grp Volume(v), veh/h	224	0	292	0	250	292
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1572	1240	1617
Q Serve(g_s), s	14.8	0.0	2.5	0.0	5.9	6.2
Cycle Q Clear(g_c), s	14.8	0.0	2.5	0.0	8.5	6.2
Prop In Lane	1.00	1.00		1.00	0.68	
Lane Grp Cap(c), veh/h	258		2713		997	1234
V/C Ratio(X)	0.87		0.11		0.25	0.24
Avail Cap(c_a), veh/h	616		2713		997	1234
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	0.0	3.7	0.0	4.5	4.1
Incr Delay (d2), s/veh	8.7	0.0	0.1	0.0	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	0.7	0.0	1.6	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.8	0.0	3.7	0.0	5.1	4.5
LnGrp LOS	E		A		A	A
Approach Vol, veh/h	224		292			542
Approach Delay, s/veh	58.8		3.7			4.8
Approach LOS	E		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	97.1		22.9		97.1	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	67.5		41.5		67.5	
Max Q Clear Time (g_c+I1), s	10.5		16.8		4.5	
Green Ext Time (p_c), s	7.5		0.6		3.8	
Intersection Summary						
HCM 6th Ctrl Delay			15.9			
HCM 6th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

**BUILD-OUT YEAR 2031 "BUILD"**  
**INTERSECTION ANALYSIS**

# Timings

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

5a. Build 2031 AM

02/27/2024

	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (vph)	423	113	940	48	26	332	826	66	32	999	268
Future Volume (vph)	423	113	940	48	26	332	826	66	32	999	268
Lane Group Flow (vph)	441	118	979	50	75	346	860	69	33	1041	279
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	35.0	43.0	43.0	18.0	26.0	17.0	44.0	44.0	15.0	42.0	42.0
Total Split (%)	29.2%	35.8%	35.8%	15.0%	21.7%	14.2%	36.7%	36.7%	12.5%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.65	0.17	1.21	0.16	0.24	1.49	0.66	0.10	0.16	0.99	0.43
Control Delay	23.0	22.1	126.4	22.0	21.1	270.1	35.1	0.3	21.1	66.5	9.1
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	23.0	22.1	126.4	22.0	21.1	270.1	35.1	0.3	21.1	66.5	9.1
Queue Length 50th (ft)	241	63	~756	21	17	~321	306	0	14	421	26
Queue Length 95th (ft)	340	112	#1023	44	62	#517	392	0	34	#569	96
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	687	690	812	376	346	232	1295	721	242	1055	643
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	0.64	0.17	1.21	0.13	0.22	1.49	0.66	0.10	0.14	0.99	0.43

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

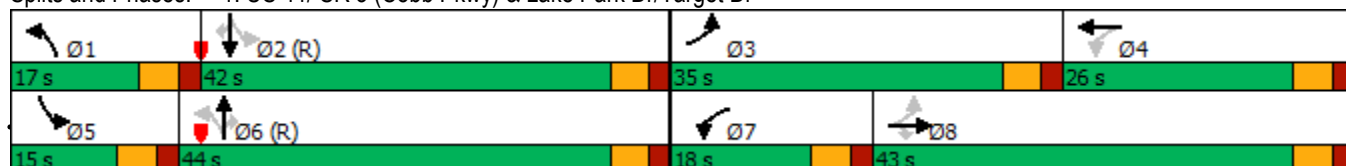
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.
























Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



# HCM 6th Signalized Intersection Summary

## 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

5a. Build 2031 AM  
02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	423	113	940	48	26	46	332	826	66	32	999	268
Future Volume (veh/h)	423	113	940	48	26	46	332	826	66	32	999	268
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1826	1870	1811	1900	1796	1841	1870
Adj Flow Rate, veh/h	441	118	0	50	27	48	346	860	69	33	1041	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	5	2	6	0	7	4	2
Cap, veh/h	515	503		202	38	67	323	1669	781	289	1458	
Arrive On Green	0.24	0.27	0.00	0.03	0.06	0.06	0.10	0.48	0.48	0.03	0.42	0.00
Sat Flow, veh/h	1781	1870	1585	1781	604	1073	1781	3441	1610	1711	3497	1585
Grp Volume(v), veh/h	441	118	0	50	0	75	346	860	69	33	1041	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1677	1781	1721	1610	1711	1749	1585
Q Serve(g_s), s	26.8	5.9	0.0	3.1	0.0	5.3	11.5	20.6	2.8	1.3	29.7	0.0
Cycle Q Clear(g_c), s	26.8	5.9	0.0	3.1	0.0	5.3	11.5	20.6	2.8	1.3	29.7	0.0
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	515	503		202	0	105	323	1669	781	289	1458	
V/C Ratio(X)	0.86	0.23		0.25	0.00	0.71	1.07	0.52	0.09	0.11	0.71	
Avail Cap(c_a), veh/h	523	584		325	0	287	323	1669	781	377	1458	
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.1	34.2	0.0	50.3	0.0	55.2	26.5	21.2	16.6	19.5	29.0	0.0
Incr Delay (d2), s/veh	13.1	0.2	0.0	0.6	0.0	8.7	70.5	1.1	0.2	0.2	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.4	2.7	0.0	1.4	0.0	2.5	11.1	8.1	1.1	0.5	12.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	34.5	0.0	50.9	0.0	63.9	97.1	22.4	16.8	19.7	32.0	0.0
LnGrp LOS	D	C		D	A	E	F	C	B	B	C	
Approach Vol, veh/h		559			125			1275			1074	
Approach Delay, s/veh		46.9			58.7			42.3			31.7	
Approach LOS		D			E			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	55.5	34.5	13.0	8.8	63.7	9.7	37.8				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	11.5	36.5	29.5	20.5	9.5	38.5	12.5	37.5				
Max Q Clear Time (g_c+I1), s	13.5	31.7	28.8	7.3	3.3	22.6	5.1	7.9				
Green Ext Time (p_c), s	0.0	3.6	0.1	0.3	0.0	8.6	0.0	0.6				

### Intersection Summary

HCM 6th Ctrl Delay 40.1  
HCM 6th LOS D

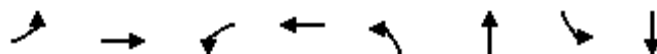
### Notes

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

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

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

5a. Build 2031 AM  
02/27/2024

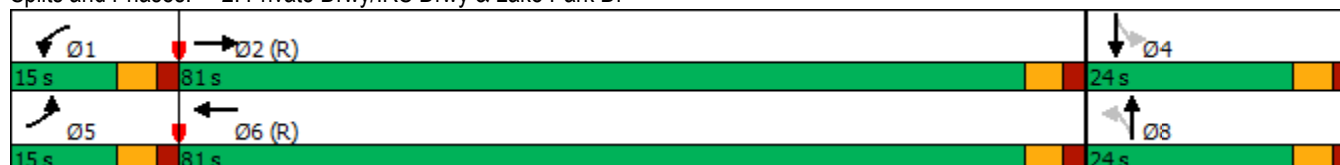


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	28	1479	12	462	1	0	17	0
Future Volume (vph)	28	1479	12	462	1	0	17	0
Lane Group Flow (vph)	31	1675	13	620	1	1	19	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	15.0	81.0	15.0	81.0	24.0	24.0	24.0	24.0
Total Split (%)	12.5%	67.5%	12.5%	67.5%	20.0%	20.0%	20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.28	0.55	0.14	0.22	0.01	0.00	0.20	0.01
Control Delay	59.1	5.6	68.8	1.0	52.0	0.0	58.0	0.0
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	6.2	68.8	1.0	52.0	0.0	58.0	0.0
Queue Length 50th (ft)	23	139	11	20	1	0	14	0
Queue Length 95th (ft)	54	385	m16	m16	7	0	39	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	142	3043	140	2882	234	370	234	628
Starvation Cap Reductn	0	861	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.77	0.09	0.22	0.00	0.00	0.08	0.00

## Intersection Summary





















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 m Volume for 95th percentile queue is metered by upstream signal.

## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary 2: Private Drwy/IRS Drwy & Lake Park Dr

5a. Build 2031 AM  
02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	1479	12	12	462	90	1	0	1	17	0	3
Future Volume (veh/h)	28	1479	12	12	462	90	1	0	1	17	0	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	1662	13	13	519	101	1	0	1	19	0	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	2965	23	26	2399	465	96	0	44	98	0	44
Arrive On Green	0.03	0.82	0.82	0.01	0.81	0.81	0.03	0.00	0.03	0.03	0.00	0.03
Sat Flow, veh/h	1781	3614	28	1781	2969	575	1414	0	1585	1416	0	1585
Grp Volume(v), veh/h	31	817	858	13	310	310	1	0	1	19	0	3
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1767	1414	0	1585	1416	0	1585
Q Serve(g_s), s	2.1	18.3	18.4	0.9	4.9	4.9	0.1	0.0	0.1	1.6	0.0	0.2
Cycle Q Clear(g_c), s	2.1	18.3	18.4	0.9	4.9	4.9	0.3	0.0	0.1	1.7	0.0	0.2
Prop In Lane	1.00		0.02	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	1458	1530	26	1436	1428	96	0	44	98	0	44
V/C Ratio(X)	0.65	0.56	0.56	0.50	0.22	0.22	0.01	0.00	0.02	0.19	0.00	0.07
Avail Cap(c_a), veh/h	141	1458	1530	141	1436	1428	275	0	244	277	0	244
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)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.8	3.6	3.6	58.7	2.7	2.7	57.0	0.0	56.8	57.6	0.0	56.8
Incr Delay (d2), s/veh	6.3	0.7	0.7	13.9	0.3	0.3	0.0	0.0	0.2	0.9	0.0	0.7
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	5.0	5.2	0.5	1.5	1.5	0.0	0.0	0.0	0.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	4.3	4.2	72.6	3.0	3.0	57.0	0.0	57.0	58.5	0.0	57.5
LnGrp LOS	E	A	A	E	A	A	E	A	E	E	A	E
Approach Vol, veh/h	1706				633				2		22	
Approach Delay, s/veh	5.3				4.5				57.0		58.4	
Approach LOS	A				A				E		E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	103.9		8.8	8.7	102.5		8.8				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	75.5		18.5	9.5	75.5		18.5				
Max Q Clear Time (g_c+I1), s	2.9	20.4		3.7	4.1	6.9		2.3				
Green Ext Time (p_c), s	0.0	39.8		0.0	0.0	9.5		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	5.6											
HCM 6th LOS	A											

# Timings 3: Lake Park Dr & Site Drwy

5a. Build 2031 AM  
02/27/2024



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	126	1334	231	185
Future Volume (vph)	126	1334	231	185
Lane Group Flow (vph)	252	1516	733	568
Turn Type	Prot	NA	NA	Prot
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	23.5	23.5	23.5
Total Split (s)	20.0	55.0	35.0	35.0
Total Split (%)	22.2%	61.1%	38.9%	38.9%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
v/c Ratio	0.89	0.78	0.54	0.97
Control Delay	70.5	19.7	9.9	59.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	70.5	19.7	9.9	59.2
Queue Length 50th (ft)	142	334	57	301
Queue Length 95th (ft)	114	408	102	185
Internal Link Dist (ft)		805	476	297
Turn Bay Length (ft)	80			250
Base Capacity (vph)	288	1966	1373	590
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.88	0.77	0.53	0.96

## Intersection Summary

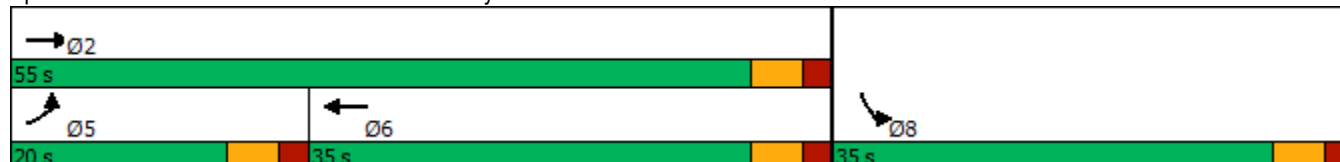
Cycle Length: 90

Actuated Cycle Length: 89.1

Natural Cycle: 80

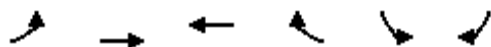
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Lake Park Dr & Site Drwy



# HCM 6th Signalized Intersection Summary 3: Lake Park Dr & Site Drwy

5a. Build 2031 AM  
02/27/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	126	1334	231	235	185	99
Future Volume (veh/h)	126	1334	231	235	185	99
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	1516	262	0	370	198
Peak Hour Factor	0.50	0.88	0.88	0.50	0.50	0.50
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	287	1901	1104		376	201
Arrive On Green	0.16	0.53	0.31	0.00	0.34	0.34
Sat Flow, veh/h	1781	3647	3741	0	1111	594
Grp Volume(v), veh/h	252	1516	262	0	569	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	0	1708	0
Q Serve(g_s), s	12.0	30.1	4.8	0.0	28.8	0.0
Cycle Q Clear(g_c), s	12.0	30.1	4.8	0.0	28.8	0.0
Prop In Lane	1.00			0.00	0.65	0.35
Lane Grp Cap(c), veh/h	287	1901	1104		578	0
V/C Ratio(X)	0.88	0.80	0.24		0.98	0.00
Avail Cap(c_a), veh/h	297	2020	1204		578	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	35.7	16.4	22.3	0.0	28.6	0.0
Incr Delay (d2), s/veh	23.9	2.7	0.2	0.0	33.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	11.7	2.0	0.0	16.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.6	19.1	22.6	0.0	61.7	0.0
LnGrp LOS	E	B	C		E	A
Approach Vol, veh/h		1768	262		569	
Approach Delay, s/veh		24.8	22.6		61.7	
Approach LOS		C	C		E	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		52.1			19.5	32.6
Change Period (Y+Rc), s		5.5			5.5	5.5
Max Green Setting (Gmax), s		49.5			14.5	29.5
Max Q Clear Time (g_c+I1), s		32.1			14.0	6.8
Green Ext Time (p_c), s		14.5			0.0	2.9

## Intersection Summary

HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

## Notes

User approved volume balancing among the lanes for turning movement.

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

# Timings 4: Village Pkwy & Lake Park Dr

5a. Build 2031 AM  
02/27/2024

	↙	↑	↘	↘	↓
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	↙↙	↑↑	↘		↘↘
Traffic Volume (vph)	118	500	815	471	208
Future Volume (vph)	118	500	815	471	208
Lane Group Flow (vph)	251	538	876	0	730
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	25.0	95.0	95.0	95.0	95.0
Total Split (%)	20.8%	79.2%	79.2%	79.2%	79.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.64	0.18	0.60		0.44
Control Delay	34.0	2.6	2.1		4.1
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	34.0	2.6	2.1		4.1
Queue Length 50th (ft)	48	35	0		63
Queue Length 95th (ft)	89	58	23		109
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	634	2913	1458		1669
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.40	0.18	0.60		0.44

## Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated
















Splits and Phases: 4: Village Pkwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

5a. Build 2031 AM  
02/27/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	  		 			  
Traffic Volume (veh/h)	118	115	500	815	471	208
Future Volume (veh/h)	118	115	500	815	471	208
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	126	0	538	0	506	224
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	154		2921		745	1329
Arrive On Green	0.09	0.00	0.82	0.00	0.82	0.82
Sat Flow, veh/h	1781	1585	3647	1585	834	1702
Grp Volume(v), veh/h	126	0	538	0	506	224
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	834	1617
Q Serve(g_s), s	8.3	0.0	3.8	0.0	35.3	3.4
Cycle Q Clear(g_c), s	8.3	0.0	3.8	0.0	39.1	3.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	154		2921		745	1329
V/C Ratio(X)	0.82		0.18		0.68	0.17
Avail Cap(c_a), veh/h	289		2921		745	1329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	0.0	2.2	0.0	6.3	2.2
Incr Delay (d2), s/veh	10.1	0.0	0.1	0.0	4.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	0.8	0.0	5.2	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.0	0.0	2.4	0.0	11.3	2.5
LnGrp LOS	E		A		B	A
Approach Vol, veh/h	126		538			730
Approach Delay, s/veh	64.0		2.4			8.6
Approach LOS	E		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	104.1		15.9		104.1	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	89.5		19.5		89.5	
Max Q Clear Time (g_c+I1), s	41.1		10.3		5.8	
Green Ext Time (p_c), s	14.4		0.2		7.8	
Intersection Summary						
HCM 6th Ctrl Delay			11.2			
HCM 6th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# Timings

5b. Build 2031 PM

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

02/27/2024

	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱	↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (vph)	142	65	388	201	146	387	1334	145	91	1081	161
Future Volume (vph)	142	65	388	201	146	387	1334	145	91	1081	161
Lane Group Flow (vph)	148	68	404	209	238	403	1390	151	95	1126	168
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	27.0	43.0	43.0	18.0	34.0	17.0	44.0	44.0	15.0	42.0	42.0
Total Split (%)	22.5%	35.8%	35.8%	15.0%	28.3%	14.2%	36.7%	36.7%	12.5%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.51	0.21	0.81	0.51	0.76	0.84	0.88	0.18	0.52	1.07	0.28
Control Delay	33.2	38.4	25.5	35.0	57.8	49.5	38.1	3.1	28.0	87.8	5.5
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	33.2	38.4	25.5	35.0	57.8	49.5	38.1	3.1	28.0	87.8	5.5
Queue Length 50th (ft)	83	42	78	124	162	245	496	0	31	~507	0
Queue Length 95th (ft)	114	69	140	164	234	#551	#822	33	74	#642	48
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	400	582	681	409	430	478	1586	844	202	1055	601
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	0.37	0.12	0.59	0.51	0.55	0.84	0.88	0.18	0.47	1.07	0.28

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

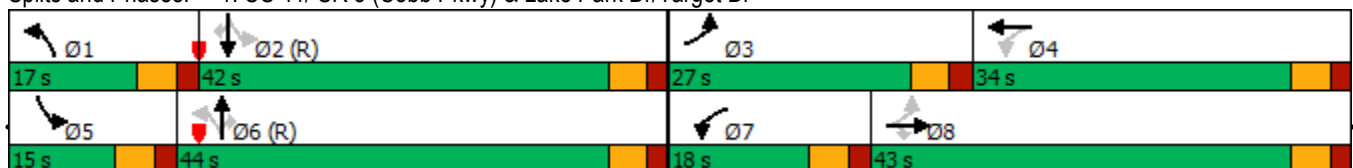
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.
























Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr



HCM 6th Signalized Intersection Summary  
1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

5b. Build 2031 PM

02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	65	388	201	146	83	387	1334	145	91	1081	161
Future Volume (veh/h)	142	65	388	201	146	83	387	1334	145	91	1081	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1826	1870	1811	1900	1796	1841	1870
Adj Flow Rate, veh/h	148	68	0	209	152	86	403	1390	151	95	1126	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	5	2	6	0	7	4	2
Cap, veh/h	246	264		391	176	100	344	1816	850	202	1663	
Arrive On Green	0.09	0.14	0.00	0.10	0.16	0.16	0.10	0.53	0.53	0.04	0.48	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1122	635	1781	3441	1610	1711	3497	1585
Grp Volume(v), veh/h	148	68	0	209	0	238	403	1390	151	95	1126	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1756	1781	1721	1610	1711	1749	1585
Q Serve(g_s), s	8.4	3.9	0.0	12.0	0.0	15.9	11.5	38.4	5.9	3.4	29.9	0.0
Cycle Q Clear(g_c), s	8.4	3.9	0.0	12.0	0.0	15.9	11.5	38.4	5.9	3.4	29.9	0.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	246	264		391	0	276	344	1816	850	202	1663	
V/C Ratio(X)	0.60	0.26		0.54	0.00	0.86	1.17	0.77	0.18	0.47	0.68	
Avail Cap(c_a), veh/h	408	584		391	0	417	344	1816	850	263	1663	
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.8	45.9	0.0	38.8	0.0	49.3	23.4	22.4	14.8	20.8	24.3	0.0
Incr Delay (d2), s/veh	2.4	0.5	0.0	1.4	0.0	11.3	103.8	3.1	0.5	1.7	2.2	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	3.8	1.9	0.0	5.5	0.0	7.9	14.5	15.0	2.2	1.3	12.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	46.4	0.0	40.2	0.0	60.6	127.2	25.6	15.2	22.5	26.6	0.0
LnGrp LOS	D	D		D	A	E	F	C	B	C	C	
Approach Vol, veh/h		216			447			1944			1221	
Approach Delay, s/veh		43.5			51.0			45.8			26.3	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	62.6	16.1	24.4	10.7	68.8	18.0	22.4				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	11.5	36.5	21.5	28.5	9.5	38.5	12.5	37.5				
Max Q Clear Time (g_c+I1), s	13.5	31.9	10.4	17.9	5.4	40.4	14.0	5.9				
Green Ext Time (p_c), s	0.0	3.6	0.3	1.0	0.1	0.0	0.0	0.3				

Intersection Summary

HCM 6th Ctrl Delay 40.1

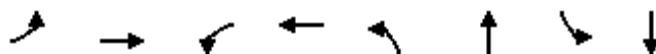
HCM 6th LOS D

Notes

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

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

5b. Build 2031 PM  
02/27/2024

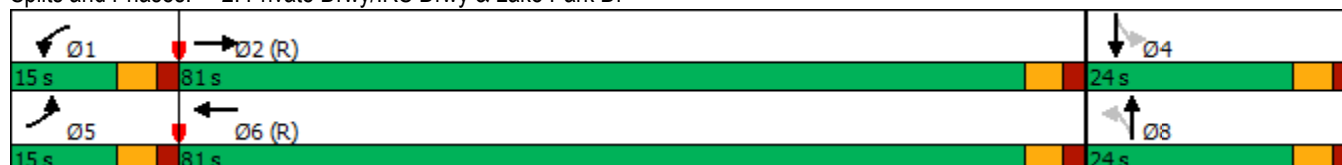


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	522	1	696	1	0	63	0
Future Volume (vph)	2	522	1	696	1	0	63	0
Lane Group Flow (vph)	2	562	1	762	1	12	68	30
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	15.0	81.0	15.0	81.0	24.0	24.0	24.0	24.0
Total Split (%)	12.5%	67.5%	12.5%	67.5%	20.0%	20.0%	20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.02	0.19	0.01	0.26	0.01	0.02	0.53	0.07
Control Delay	55.0	3.6	79.0	2.3	46.0	0.1	65.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	3.6	79.0	2.3	46.0	0.1	65.3	0.3
Queue Length 50th (ft)	2	39	0	45	1	0	51	0
Queue Length 95th (ft)	m8	103	m1	m100	6	0	96	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	140	2919	140	2910	211	605	215	520
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.19	0.01	0.26	0.00	0.02	0.32	0.06

## Intersection Summary





















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 m Volume for 95th percentile queue is metered by upstream signal.





## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr

5b. Build 2031 PM  
02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	522	1	1	696	13	1	0	11	63	0	28
Future Volume (veh/h)	2	522	1	1	696	13	1	0	11	63	0	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	561	1	1	748	14	1	0	12	68	0	30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	2875	5	2	2814	53	133	0	113	150	0	113
Arrive On Green	0.00	0.79	0.79	0.00	0.79	0.79	0.07	0.00	0.07	0.07	0.00	0.07
Sat Flow, veh/h	1781	3640	6	1781	3568	67	1380	0	1585	1402	0	1585
Grp Volume(v), veh/h	2	274	288	1	372	390	1	0	12	68	0	30
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1858	1380	0	1585	1402	0	1585
Q Serve(g_s), s	0.1	4.6	4.6	0.1	6.7	6.7	0.1	0.0	0.9	5.7	0.0	2.2
Cycle Q Clear(g_c), s	0.1	4.6	4.6	0.1	6.7	6.7	2.2	0.0	0.9	6.6	0.0	2.2
Prop In Lane	1.00		0.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1404	1477	2	1401	1466	133	0	113	150	0	113
V/C Ratio(X)	0.42	0.20	0.20	0.41	0.27	0.27	0.01	0.00	0.11	0.45	0.00	0.27
Avail Cap(c_a), veh/h	141	1404	1477	141	1401	1466	248	0	244	266	0	244
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	3.1	3.1	59.9	3.4	3.4	53.8	0.0	52.2	55.2	0.0	52.8
Incr Delay (d2), s/veh	49.1	0.3	0.3	84.5	0.5	0.4	0.0	0.0	0.4	2.1	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.5	1.5	0.1	2.1	2.2	0.0	0.0	0.4	2.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.8	3.4	3.4	144.4	3.9	3.8	53.8	0.0	52.6	57.4	0.0	54.0
LnGrp LOS	F	A	A	F	A	A	D	A	D	E	A	D
Approach Vol, veh/h	564			763			13			98		
Approach Delay, s/veh	3.8			4.0			52.7			56.3		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	100.3		14.0	5.8	100.1		14.0				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	75.5		18.5	9.5	75.5		18.5				
Max Q Clear Time (g_c+I1), s	2.1	6.6		8.6	2.1	8.7		4.2				
Green Ext Time (p_c), s	0.0	8.2		0.2	0.0	12.5		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				7.9								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	468	677	48	57	30
Future Vol, veh/h	26	468	677	48	57	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	80	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	514	744	53	63	33
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	744	0	-	0	1059	372
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	315	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	859	-	-	0	220	625
Stage 1	-	-	-	0	431	-
Stage 2	-	-	-	0	713	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	859	-	-	-	213	625
Mov Cap-2 Maneuver	-	-	-	-	213	-
Stage 1	-	-	-	-	416	-
Stage 2	-	-	-	-	713	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		24.8		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1		
Capacity (veh/h)	859	-	-	276		
HCM Lane V/C Ratio	0.033	-	-	0.346		
HCM Control Delay (s)	9.3	-	-	24.8		
HCM Lane LOS	A	-	-	C		
HCM 95th %tile Q(veh)	0.1	-	-	1.5		

Timings  
4: Village Pkwy & Lake Park Dr

5b. Build 2031 PM  
02/27/2024

	↖	↑	↗	↘	↓
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	W	↑↑	↗		↑↑
Traffic Volume (vph)	386	301	156	204	393
Future Volume (vph)	386	301	156	204	393
Lane Group Flow (vph)	723	320	166	0	635
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	52.0	68.0	68.0	68.0	68.0
Total Split (%)	43.3%	56.7%	56.7%	56.7%	56.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.82	0.13	0.15		0.37
Control Delay	28.7	7.5	1.6		9.5
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	28.7	7.5	1.6		9.5
Queue Length 50th (ft)	228	41	0		100
Queue Length 95th (ft)	274	72	26		163
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	1386	2416	1133		1734
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.52	0.13	0.15		0.37

Intersection Summary

Cycle Length: 120

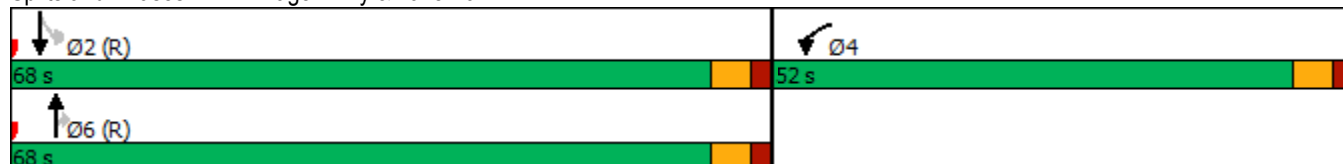
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 50











Control Type: Actuated-Coordinated

Splits and Phases: 4: Village Pkwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary 4: Village Pkwy & Lake Park Dr

5b. Build 2031 PM  
02/27/2024























						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	386	293	301	156	204	393
Future Volume (veh/h)	386	293	301	156	204	393
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	362	0	320	0	217	418
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	398		2433		646	1285
Arrive On Green	0.22	0.00	0.68	0.00	0.68	0.68
Sat Flow, veh/h	1781	1585	3647	1585	866	1962
Grp Volume(v), veh/h	362	0	320	0	281	354
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1126	1617
Q Serve(g_s), s	23.8	0.0	3.7	0.0	12.8	10.6
Cycle Q Clear(g_c), s	23.8	0.0	3.7	0.0	16.5	10.6
Prop In Lane	1.00	1.00		1.00	0.77	
Lane Grp Cap(c), veh/h	398		2433		824	1107
V/C Ratio(X)	0.91		0.13		0.34	0.32
Avail Cap(c_a), veh/h	690		2433		824	1107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	0.0	6.6	0.0	9.3	7.6
Incr Delay (d2), s/veh	9.3	0.0	0.1	0.0	1.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	0.0	1.3	0.0	3.2	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.7	0.0	6.7	0.0	10.5	8.4
LnGrp LOS	D		A		B	A
Approach Vol, veh/h	362		320			635
Approach Delay, s/veh	54.7		6.7			9.3
Approach LOS	D		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	87.7		32.3		87.7	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	62.5		46.5		62.5	
Max Q Clear Time (g_c+I1), s	18.5		25.8		5.7	
Green Ext Time (p_c), s	9.0		1.1		4.2	
Intersection Summary						
HCM 6th Ctrl Delay			21.1			
HCM 6th LOS			C			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# Timings

5c. Build 2031 Dismissal

1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

02/27/2024

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	156	80	349	189	114	295	1082	136	91	945	162
Future Volume (vph)	156	80	349	189	114	295	1082	136	91	945	162
Lane Group Flow (vph)	159	82	356	193	240	301	1104	139	93	964	165
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8		7	4	1	6		5	2	
Permitted Phases	8		8	4		6		6	2		2
Detector Phase	3	8	8	7	4	1	6	6	5	2	2
Switch Phase											
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	33.5	33.5	15.0	33.5	15.0	29.5	29.5	15.0	23.5	23.5
Total Split (s)	27.0	43.0	43.0	18.0	34.0	17.0	44.0	44.0	15.0	42.0	42.0
Total Split (%)	22.5%	35.8%	35.8%	15.0%	28.3%	14.2%	36.7%	36.7%	12.5%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.56	0.25	0.70	0.49	0.77	0.64	0.66	0.17	0.37	0.89	0.27
Control Delay	35.9	41.6	19.2	34.4	55.2	34.2	29.2	2.3	19.6	50.7	5.2
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	35.9	41.6	19.2	34.4	55.2	34.2	29.2	2.3	19.6	50.7	5.2
Queue Length 50th (ft)	95	57	61	113	149	155	337	0	30	373	0
Queue Length 95th (ft)	135	95	177	152	224	#362	#548	25	68	#497	45
Internal Link Dist (ft)		569			377		308			841	
Turn Bay Length (ft)	100					110		110	105		240
Base Capacity (vph)	382	582	688	396	439	470	1661	834	273	1086	609
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	0.42	0.14	0.52	0.49	0.55	0.64	0.66	0.17	0.34	0.89	0.27

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

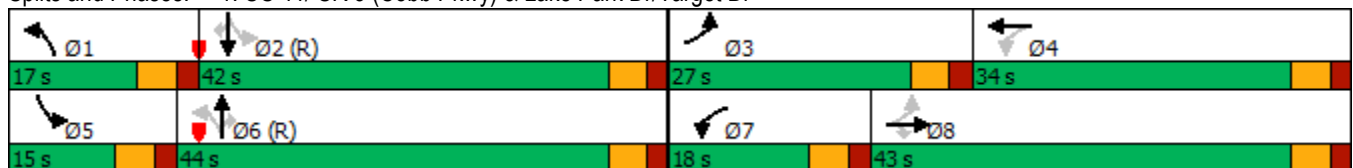
Natural Cycle: 95

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr


























# HCM 6th Signalized Intersection Summary

## 1: US 41/ SR 3 (Cobb Pkwy) & Lake Park Dr/Target Dr

5c. Build 2031 Dismissal

02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	80	349	189	114	122	295	1082	136	91	945	162
Future Volume (veh/h)	156	80	349	189	114	122	295	1082	136	91	945	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1870	1870	1870	1870	1870	1870	1870	1870	1870	1856	1870
Adj Flow Rate, veh/h	159	82	0	193	116	124	301	1104	139	93	964	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	2	2	2	2	2	2	2	2	2	3	2
Cap, veh/h	253	283		394	134	143	384	1843	822	270	1640	
Arrive On Green	0.09	0.15	0.00	0.10	0.16	0.16	0.10	0.52	0.52	0.04	0.47	0.00
Sat Flow, veh/h	1753	1870	1585	1781	827	884	1781	3554	1585	1781	3526	1585
Grp Volume(v), veh/h	159	82	0	193	0	240	301	1104	139	93	964	0
Grp Sat Flow(s),veh/h/ln	1753	1870	1585	1781	0	1711	1781	1777	1585	1781	1763	1585
Q Serve(g_s), s	9.0	4.7	0.0	10.9	0.0	16.4	10.3	26.0	5.6	3.3	24.2	0.0
Cycle Q Clear(g_c), s	9.0	4.7	0.0	10.9	0.0	16.4	10.3	26.0	5.6	3.3	24.2	0.0
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	253	283		394	0	277	384	1843	822	270	1640	
V/C Ratio(X)	0.63	0.29		0.49	0.00	0.87	0.78	0.60	0.17	0.34	0.59	
Avail Cap(c_a), veh/h	402	584		394	0	406	384	1843	822	336	1640	
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.7	45.2	0.0	37.4	0.0	49.0	18.8	20.2	15.2	17.4	23.6	0.0
Incr Delay (d2), s/veh	2.6	0.6	0.0	0.9	0.0	12.5	10.1	1.4	0.4	0.8	1.6	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	4.1	2.2	0.0	4.9	0.0	8.0	4.9	10.4	2.1	1.3	9.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	45.7	0.0	38.3	0.0	61.6	28.9	21.6	15.7	18.1	25.2	0.0
LnGrp LOS	D	D		D	A	E	C	C	B	B	C	
Approach Vol, veh/h		241			433			1544			1057	
Approach Delay, s/veh		42.8			51.2			22.5			24.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	61.3	16.8	24.9	10.6	67.7	18.0	23.7				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	11.5	36.5	21.5	28.5	9.5	38.5	12.5	37.5				
Max Q Clear Time (g_c+I1), s	12.3	26.2	11.0	18.4	5.3	28.0	12.9	6.7				
Green Ext Time (p_c), s	0.0	6.6	0.3	1.0	0.1	7.8	0.0	0.4				

### Intersection Summary

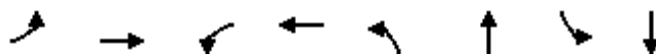
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

### Notes

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

# Timings 2: Private Drwy/IRS Drwy & Lake Park Dr

5c. Build 2031 Dismissal  
02/27/2024



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	492	3	522	2	0	53	0
Future Volume (vph)	2	492	3	522	2	0	53	0
Lane Group Flow (vph)	2	519	3	576	2	5	56	16
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases					8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	23.5	23.5	23.5	23.5
Total Split (s)	15.0	81.0	15.0	81.0	24.0	24.0	24.0	24.0
Total Split (%)	12.5%	67.5%	12.5%	67.5%	20.0%	20.0%	20.0%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.02	0.18	0.04	0.20	0.02	0.01	0.47	0.03
Control Delay	55.0	3.4	71.0	1.8	48.0	0.0	64.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	3.4	71.0	1.8	48.0	0.0	64.1	0.1
Queue Length 50th (ft)	2	33	0	20	1	0	42	0
Queue Length 95th (ft)	11	92	m4	69	10	0	83	0
Internal Link Dist (ft)		476		476		77		176
Turn Bay Length (ft)	110		120					
Base Capacity (vph)	140	2943	140	2925	214	629	216	611
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.18	0.02	0.20	0.01	0.01	0.26	0.03

## Intersection Summary





















Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 m Volume for 95th percentile queue is metered by upstream signal.

## Splits and Phases: 2: Private Drwy/IRS Drwy & Lake Park Dr



HCM 6th Signalized Intersection Summary  
2: Private Drwy/IRS Drwy & Lake Park Dr

5c. Build 2031 Dismissal  
02/27/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	492	1	3	522	26	2	0	5	53	0	15
Future Volume (veh/h)	2	492	1	3	522	26	2	0	5	53	0	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	518	1	3	549	27	2	0	5	56	0	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	2922	6	7	2773	136	124	0	88	134	0	88
Arrive On Green	0.00	0.80	0.80	0.00	0.80	0.80	0.06	0.00	0.06	0.06	0.00	0.06
Sat Flow, veh/h	1781	3639	7	1781	3447	169	1397	0	1585	1411	0	1585
Grp Volume(v), veh/h	2	253	266	3	283	293	2	0	5	56	0	16
Grp Sat Flow(s),veh/h/ln	1781	1777	1869	1781	1777	1840	1397	0	1585	1411	0	1585
Q Serve(g_s), s	0.1	3.9	3.9	0.2	4.4	4.5	0.2	0.0	0.4	4.7	0.0	1.2
Cycle Q Clear(g_c), s	0.1	3.9	3.9	0.2	4.4	4.5	1.3	0.0	0.4	5.1	0.0	1.2
Prop In Lane	1.00		0.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	1427	1501	7	1429	1480	124	0	88	134	0	88
V/C Ratio(X)	0.42	0.18	0.18	0.42	0.20	0.20	0.02	0.00	0.06	0.42	0.00	0.18
Avail Cap(c_a), veh/h	141	1427	1501	141	1429	1480	262	0	244	273	0	244
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	2.7	2.7	59.6	2.7	2.7	54.7	0.0	53.7	56.1	0.0	54.1
Incr Delay (d2), s/veh	44.4	0.2	0.2	35.7	0.3	0.3	0.1	0.0	0.3	2.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.2	1.2	0.2	1.3	1.4	0.1	0.0	0.2	1.8	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.1	3.0	2.9	95.4	3.0	3.0	54.7	0.0	54.0	58.1	0.0	55.0
LnGrp LOS	F	A	A	F	A	A	D	A	D	E	A	E
Approach Vol, veh/h	521			579			7			72		
Approach Delay, s/veh	3.3			3.5			54.2			57.5		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	101.9		12.2	5.8	102.0		12.2				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	75.5		18.5	9.5	75.5		18.5				
Max Q Clear Time (g_c+I1), s	2.2	5.9		7.1	2.1	6.5		3.3				
Green Ext Time (p_c), s	0.0	7.5		0.1	0.0	8.5		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				7.0								
HCM 6th LOS				A								

# Timings 3: Lake Park Dr & Site Drwy

5c. Build 2031 Dismissal  
02/27/2024



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	61	367	426	128
Future Volume (vph)	61	367	426	128
Lane Group Flow (vph)	122	390	681	394
Turn Type	Prot	NA	NA	Prot
Protected Phases	5	2	6	8
Permitted Phases				
Detector Phase	5	2	6	8
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	15.0	23.5	23.5	23.5
Total Split (s)	29.0	70.0	41.0	45.0
Total Split (%)	25.2%	60.9%	35.7%	39.1%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
v/c Ratio	0.44	0.21	0.56	0.71
Control Delay	39.6	10.0	21.7	31.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	39.6	10.0	21.7	31.1
Queue Length 50th (ft)	53	44	119	152
Queue Length 95th (ft)	70	92	235	140
Internal Link Dist (ft)		805	476	297
Turn Bay Length (ft)	80			250
Base Capacity (vph)	624	2980	1828	1030
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.13	0.37	0.38

## Intersection Summary

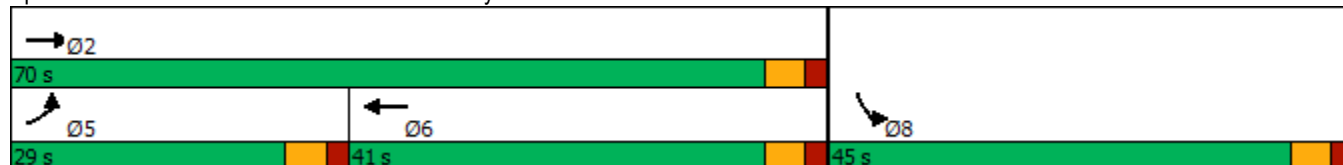
Cycle Length: 115

Actuated Cycle Length: 74.3

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

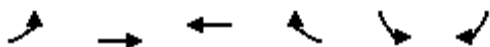
Splits and Phases: 3: Lake Park Dr & Site Drwy



# HCM 6th Signalized Intersection Summary

## 3: Lake Park Dr & Site Drwy

5c. Build 2031 Dismissal  
02/27/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	61	367	426	114	128	69
Future Volume (veh/h)	61	367	426	114	128	69
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	390	453	0	256	138
Peak Hour Factor	0.50	0.94	0.94	0.50	0.50	0.50
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	163	1711	972		316	170
Arrive On Green	0.09	0.48	0.27	0.00	0.29	0.29
Sat Flow, veh/h	1781	3647	3741	0	1107	597
Grp Volume(v), veh/h	122	390	453	0	395	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	0	1708	0
Q Serve(g_s), s	3.2	3.0	5.0	0.0	10.2	0.0
Cycle Q Clear(g_c), s	3.2	3.0	5.0	0.0	10.2	0.0
Prop In Lane	1.00			0.00	0.65	0.35
Lane Grp Cap(c), veh/h	163	1711	972		488	0
V/C Ratio(X)	0.75	0.23	0.47		0.81	0.00
Avail Cap(c_a), veh/h	885	4847	2668		1426	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	20.9	7.1	14.3	0.0	15.7	0.0
Incr Delay (d2), s/veh	6.6	0.1	0.7	0.0	3.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.9	1.8	0.0	3.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.6	7.3	15.0	0.0	19.0	0.0
LnGrp LOS	C	A	B		B	A
Approach Vol, veh/h		512	453		395	
Approach Delay, s/veh		12.1	15.0		19.0	
Approach LOS		B	B		B	
Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		28.3			9.8	18.4
Change Period (Y+Rc), s		5.5			5.5	5.5
Max Green Setting (Gmax), s		64.5			23.5	35.5
Max Q Clear Time (g_c+I1), s		5.0			5.2	7.0
Green Ext Time (p_c), s		5.8			0.3	5.9

### Intersection Summary

HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B













### Notes

User approved volume balancing among the lanes for turning movement.

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

# Timings 4: Village Pkwy & Lake Park Dr

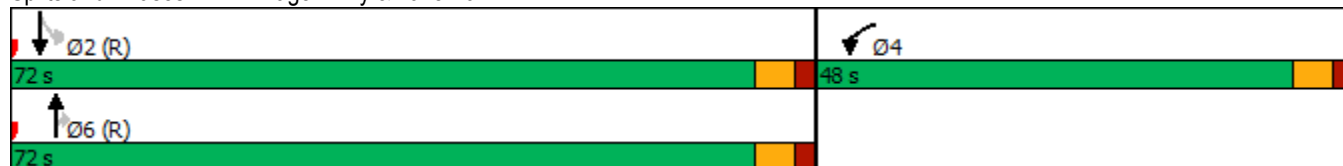
5c. Build 2031 Dismissal  
02/27/2024

					
Lane Group	WBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 
Traffic Volume (vph)	262	269	185	190	342
Future Volume (vph)	262	269	185	190	342
Lane Group Flow (vph)	518	292	201	0	579
Turn Type	Prot	NA	Perm	Perm	NA
Protected Phases	4	6			2
Permitted Phases			6	2	
Detector Phase	4	6	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5
Total Split (s)	48.0	72.0	72.0	72.0	72.0
Total Split (%)	40.0%	60.0%	60.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5		5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.79	0.11	0.16		0.30
Control Delay	39.3	4.4	1.0		5.5
Queue Delay	0.0	0.0	0.0		0.0
Total Delay	39.3	4.4	1.0		5.5
Queue Length 50th (ft)	128	26	0		63
Queue Length 95th (ft)	178	48	21		107
Internal Link Dist (ft)	328	623			427
Turn Bay Length (ft)			195		
Base Capacity (vph)	1284	2677	1235		1930
Starvation Cap Reductn	0	0	0		0
Spillback Cap Reductn	0	0	0		0
Storage Cap Reductn	0	0	0		0
Reduced v/c Ratio	0.40	0.11	0.16		0.30

## Intersection Summary

Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green  
Natural Cycle: 50  
Control Type: Actuated-Coordinated
















Splits and Phases: 4: Village Pkwy & Lake Park Dr



# HCM 6th Signalized Intersection Summary

## 4: Village Pkwy & Lake Park Dr

5c. Build 2031 Dismissal  
02/27/2024

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	  		 			  
Traffic Volume (veh/h)	262	214	269	185	190	342
Future Volume (veh/h)	262	214	269	185	190	342
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	259	0	292	0	207	372
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	2	2
Cap, veh/h	294		2642		735	1386
Arrive On Green	0.16	0.00	0.74	0.00	0.74	0.74
Sat Flow, veh/h	1781	1585	3647	1572	916	1949
Grp Volume(v), veh/h	259	0	292	0	260	319
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1572	1163	1617
Q Serve(g_s), s	17.0	0.0	2.8	0.0	8.4	7.6
Cycle Q Clear(g_c), s	17.0	0.0	2.8	0.0	11.1	7.6
Prop In Lane	1.00	1.00		1.00	0.80	
Lane Grp Cap(c), veh/h	294		2642		919	1202
V/C Ratio(X)	0.88		0.11		0.28	0.27
Avail Cap(c_a), veh/h	631		2642		919	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	0.0	4.3	0.0	5.7	4.9
Incr Delay (d2), s/veh	8.5	0.0	0.1	0.0	0.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	0.8	0.0	2.0	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	57.5	0.0	4.4	0.0	6.4	5.5
LnGrp LOS	E		A		A	A
Approach Vol, veh/h	259		292			579
Approach Delay, s/veh	57.5		4.4			5.9
Approach LOS	E		A			A
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	94.7		25.3		94.7	
Change Period (Y+Rc), s	5.5		5.5		5.5	
Max Green Setting (Gmax), s	66.5		42.5		66.5	
Max Q Clear Time (g_c+I1), s	13.1		19.0		4.8	
Green Ext Time (p_c), s	8.2		0.7		3.8	
Intersection Summary						
HCM 6th Ctrl Delay			17.3			
HCM 6th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

# **TRAFFIC VOLUME WORKSHEETS**

23-207 Amana Academy Charter School at 2200 Lake Park Drive, Smyrna, GA  
Traffic Volumes

A&R Engineering  
December 2023

1. Lake Park Dr @ US 41  
A.M. Peak Hour

Condition	US 41/ SR 3 (Cobb Parkway)				US 41/ SR 3 (Cobb Parkway)				Lake Park Drive				Target Driveway			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	208	765	61	1034	30	925	146	1101	306	105	787	1198	44	24	43	111
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2025 Volumes:	212	780	62	1054	31	944	149	1124	312	107	803	1222	45	24	44	113
No-Build 2031 Volumes:	225	826	66	1117	32	999	158	1189	330	113	850	1293	48	26	46	120
New Trips (2025):	54	0	0	54	0	0	56	56	52	0	50	102	0	0	0	0
New Trips (2031):	116	0	0	116	0	0	119	119	94	0	91	185	0	0	0	0
Removed Trips (2025):	-8	0	0	-8	0	0	-8	-8	-1	0	-1	-2	0	0	0	0
Removed Trips (2031):	-9	0	0	-9	0	0	-9	-9	-1	0	-1	-2	0	0	0	0
Build 2025 Volumes:	258	780	62	1100	31	944	197	1172	363	107	852	1322	45	24	44	113
Build 2031 Volumes:	332	826	66	1224	32	999	268	1299	423	113	940	1476	48	26	46	120

P.M. Peak Hour

Condition	US 41/ SR 3 (Cobb Parkway)				US 41/ SR 3 (Cobb Parkway)				Lake Park Drive				Target Driveway			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	337	1235	134	1706	84	1001	128	1213	107	60	336	503	186	135	77	398
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2025 Volumes:	344	1260	137	1741	86	1021	131	1238	109	61	343	513	190	138	79	407
No-Build 2031 Volumes:	364	1334	145	1843	91	1081	138	1310	116	65	363	544	201	146	83	430
New Trips (2025):	6	0	0	6	0	0	6	6	11	0	10	21	0	0	0	0
New Trips (2031):	24	0	0	24	0	0	24	24	29	0	28	57	0	0	0	0
Removed Trips (2025):	-1	0	0	-1	0	0	-1	-1	-3	0	-3	-6	0	0	0	0
Removed Trips (2031):	-1	0	0	-1	0	0	-1	-1	-3	0	-3	-6	0	0	0	0
Build 2025 Volumes:	349	1260	137	1746	86	1021	136	1243	117	61	350	528	190	138	79	407
Build 2031 Volumes:	387	1334	145	1866	91	1081	161	1333	142	65	388	595	201	146	83	430

School Dismissal Peak Hour

Condition	US 41/ SR 3 (Cobb Parkway)				US 41/ SR 3 (Cobb Parkway)				Lake Park Drive				Target Driveway			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	221	1002	126	1349	84	875	96	1055	86	74	267	427	175	106	113	394
Growth Factor (%):	1	1	1		1	1	1		1	1	1		1	1	1	
No-Build 2025 Volumes:	225	1022	129	1376	86	893	98	1077	88	75	272	435	179	108	115	402
No-Build 2031 Volumes:	239	1082	136	1457	91	945	104	1140	93	80	288	461	189	114	122	425
New Trips (2025):	36	0	0	36	0	0	38	38	39	0	38	77	0	0	0	0
New Trips (2031):	56	0	0	56	0	0	58	58	65	0	63	128	0	0	0	0
Removed Trips (2025):	0	0	0	0	0	0	0	0	-2	0	-2	-4	0	0	0	0
Removed Trips (2031):	0	0	0	0	0	0	0	0	-2	0	-2	-4	0	0	0	0
Build 2025 Volumes:	261	1022	129	1412	86	893	136	1115	125	75	308	508	179	108	115	402
Build 2031 Volumes:	295	1082	136	1513	91	945	162	1198	156	80	349	585	189	114	122	425

23-207 Amana Academy Charter School at 2200 Lake Park Drive, Smyrna, GA  
Traffic Volumes

A&R Engineering  
December 2023

2. Lake Park Dr @ IRS Drwy

A.M. Peak Hour

Condition	Cortland At The Village Building 2219 Driveway Northbound				Internal Revenue Service's Driveway Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
	Tot				Tot				Tot				Tot			
Existing 2023 Traffic Counts:	1	0	1	2	16	0	3	19	26	1199	11	1236	11	226	83	320
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2025 Volumes:	1	0	1	2	16	0	3	19	27	1223	11	1261	11	231	85	327
No-Build 2031 Volumes:	1	0	1	2	17	0	3	20	28	1295	12	1335	12	244	90	346
New Trips (2025):	0	0	0	0	0	0	0	0	0	102	0	102	0	111	0	111
New Trips (2031):	0	0	0	0	0	0	0	0	0	185	0	185	0	235	0	235
Removed Trips (2025):	0	0	0	0	0	0	0	0	0	-1	0	-1	0	-16	0	-16
Removed Trips (2031):	0	0	0	0	0	0	0	0	0	-1	0	-1	0	-17	0	-17
Build 2025 Volumes:	1	0	1	2	16	0	3	19	27	1324	11	1362	11	236	85	422
Build 2031 Volumes:	1	0	1	2	17	0	3	20	28	1479	12	1519	12	462	90	564

P.M. Peak Hour

Condition	Cortland At The Village Building 2219 Driveway Northbound				Internal Revenue Service's Driveway Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
	Tot				Tot				Tot				Tot			
Existing 2023 Traffic Counts:	1	0	10	11	58	0	26	84	2	435	1	438	1	601	12	614
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2025 Volumes:	1	0	10	11	59	0	27	86	2	444	1	447	1	613	12	626
No-Build 2031 Volumes:	1	0	11	12	63	0	28	91	2	470	1	473	1	649	13	663
New Trips (2025):	0	0	0	0	0	0	0	0	0	21	0	21	0	12	0	12
New Trips (2031):	0	0	0	0	0	0	0	0	0	57	0	57	0	48	0	48
Removed Trips (2025):	0	0	0	0	0	0	0	0	0	-5	0	-5	0	-1	0	-1
Removed Trips (2031):	0	0	0	0	0	0	0	0	0	-5	0	-5	0	-1	0	-1
Build 2025 Volumes:	1	0	10	11	59	0	27	86	2	460	1	463	1	624	12	637
Build 2031 Volumes:	1	0	11	12	63	0	28	91	2	522	1	525	1	696	13	710

School Dismissal Peak Hour

Condition	Cortland At The Village Building 2219 Driveway Northbound				Internal Revenue Service's Driveway Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
	Tot				Tot				Tot				Tot			
Existing 2023 Traffic Counts:	2	0	5	7	49	0	14	63	2	340	1	343	3	378	24	405
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2025 Volumes:	2	0	5	7	50	0	14	64	2	347	1	350	3	386	24	413
No-Build 2031 Volumes:	2	0	5	7	53	0	15	68	2	367	1	370	3	408	26	437
New Trips (2025):	0	0	0	0	0	0	0	0	0	77	0	77	0	74	0	74
New Trips (2031):	0	0	0	0	0	0	0	0	0	128	0	128	0	114	0	114
Removed Trips (2025):	0	0	0	0	0	0	0	0	0	-3	0	-3	0	0	0	0
Removed Trips (2031):	0	0	0	0	0	0	0	0	0	-3	0	-3	0	0	0	0
Build 2025 Volumes:	2	0	5	7	50	0	14	64	2	421	1	424	3	460	24	487
Build 2031 Volumes:	2	0	5	7	53	0	15	68	2	492	1	495	3	522	26	551

23-207 Amana Academy Charter School at 2200 Lake Park Drive, Smyrna, GA  
Traffic Volumes

A&R Engineering  
December 2023

3. Lake Park Dr @ Site Drwy

A.M. Peak Hour

Condition	Northbound				Murata Electronics/ Amana Academy School Driveway Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound			
	-				-				-				-			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	1	0	1	2	3	1235	0	1238	0	214	16	230
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2025 Volumes:	0	0	0	0	1	0	1	2	3	1260	0	1263	0	218	16	234
No-Build 2031 Volumes:	0	0	0	0	1	0	1	2	3	1334	0	1337	0	231	17	248
New Trips (2025):	0	0	0	0	102	0	55	157	60	0	0	60	0	0	111	111
New Trips (2031):	0	0	0	0	185	0	99	284	126	0	0	126	0	0	235	235
Removed Trips (2025):	0	0	0	0	-1	0	-1	-2	-3	0	0	-3	0	0	-16	-16
Removed Trips (2031):	0	0	0	0	-1	0	-1	-2	-3	0	0	-3	0	0	-17	-17
Build 2025 Volumes:	0	0	0	0	102	0	55	157	60	1260	0	1320	0	218	111	329
Build 2031 Volumes:	0	0	0	0	185	0	99	284	126	1334	0	1460	0	231	235	466

P.M. Peak Hour

Condition	Northbound				Murata Electronics/ Amana Academy School Driveway Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound			
	-				-				-				-			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	5	0	15	20	1	433	0	434	0	627	1	628
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2025 Volumes:	0	0	0	0	5	0	15	20	1	442	0	443	0	640	1	641
No-Build 2031 Volumes:	0	0	0	0	5	0	16	21	1	468	0	469	0	677	1	678
New Trips (2025):	0	0	0	0	21	0	11	32	6	0	0	6	0	0	12	12
New Trips (2031):	0	0	0	0	57	0	30	87	26	0	0	26	0	0	48	48
Removed Trips (2025):	0	0	0	0	-5	0	-15	-20	-1	0	0	-1	0	0	-1	-1
Removed Trips (2031):	0	0	0	0	-5	0	-16	-21	-1	0	0	-1	0	0	-1	-1
Build 2025 Volumes:	0	0	0	0	21	0	11	32	6	442	0	448	0	640	12	652
Build 2031 Volumes:	0	0	0	0	57	0	30	87	26	468	0	494	0	677	48	725

School Dismissal Peak Hour

Condition	Northbound				Murata Electronics/ Amana Academy School Driveway Southbound				Lake Park Drive Eastbound				Lake Park Drive Westbound			
	-				-				-				-			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	3	0	5	8	2	340	0	342	0	394	0	394
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2025 Volumes:	0	0	0	0	3	0	5	8	2	347	0	349	0	402	0	402
No-Build 2031 Volumes:	0	0	0	0	3	0	5	8	2	367	0	369	0	426	0	426
New Trips (2025):	0	0	0	0	77	0	42	119	40	0	0	40	0	0	74	74
New Trips (2031):	0	0	0	0	128	0	69	197	61	0	0	61	0	0	114	114
Removed Trips (2025):	0	0	0	0	-3	0	-5	-8	-2	0	0	-2	0	0	0	0
Removed Trips (2031):	0	0	0	0	-3	0	-5	-8	-2	0	0	-2	0	0	0	0
Build 2025 Volumes:	0	0	0	0	77	0	42	119	40	347	0	387	0	402	74	476
Build 2031 Volumes:	0	0	0	0	128	0	69	197	61	367	0	428	0	426	114	540

23-207 Amiana Academy Charter School at 2200 Lake Park Drive, Smyrna, GA  
Traffic Volumes

A&R Engineering  
December 2023

4. Lake Park Dr @ Village Pkwy

A.M. Peak Hour

Condition	Village Parkway				Village Parkway				-				Lake Park Drive			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	463	706	1169	371	193	0	564	0	0	0	0	70	0	55	125
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2025 Volumes	0	472	720	1192	378	197	0	575	0	0	0	0	71	0	56	127
New Trips (2025):	0	500	762	1262	401	208	0	609	0	0	0	0	76	0	59	135
Build 2025 Volumes:	0	0	26	26	34	0	0	34	0	0	0	0	24	0	31	55
Removed Trips (2025):	0	0	54	54	72	0	0	72	0	0	0	0	43	0	57	100
Build 2025 Volumes:	0	0	-1	-1	-2	0	0	-2	0	0	0	0	-1	0	-1	-2
Removed Trips (2025):	0	0	-1	-1	-2	0	0	-2	0	0	0	0	-1	0	-1	-2
Build 2025 Volumes:	0	472	745	1217	410	197	0	607	0	0	0	0	94	0	86	180
Build 2031 Volumes:	0	500	815	1315	471	208	0	679	0	0	0	0	118	0	115	233

P.M. Peak Hour

Condition	Village Parkway				Village Parkway				-				Lake Park Drive			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	279	134	413	176	364	1	541	0	0	0	0	353	0	263	616
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2025 Volumes	0	285	137	422	180	371	1	552	0	0	0	0	360	0	268	628
New Trips (2025):	0	301	145	446	190	393	1	584	0	0	0	0	381	0	284	665
Build 2025 Volumes:	0	0	3	3	4	0	0	4	0	0	0	0	5	0	6	11
Removed Trips (2025):	0	0	11	11	15	0	0	15	0	0	0	0	13	0	17	30
Build 2025 Volumes:	0	0	0	0	-1	0	0	-1	0	0	0	0	-8	0	-8	-16
Build 2031 Volumes:	0	285	140	425	183	371	1	555	0	0	0	0	357	0	266	623
Build 2031 Volumes:	0	301	156	457	204	393	1	598	0	0	0	0	386	0	293	679

School Dismissal Peak Hour

Condition	Village Parkway				Village Parkway				-				Lake Park Drive			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	249	148	397	144	317	0	461	0	0	0	0	218	0	165	383
Growth Factor (%):	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No-Build 2025 Volumes	0	254	151	405	147	323	0	470	0	0	0	0	222	0	168	390
New Trips (2025):	0	269	160	429	156	342	0	498	0	0	0	0	235	0	178	413
Build 2025 Volumes:	0	0	17	17	23	0	0	23	0	0	0	0	18	0	24	42
Removed Trips (2025):	0	0	26	26	35	0	0	35	0	0	0	0	30	0	39	69
Build 2025 Volumes:	0	0	-1	-1	-1	0	0	-1	0	0	0	0	-3	0	-3	-6
Build 2031 Volumes:	0	254	167	421	169	323	0	492	0	0	0	0	237	0	189	426
Build 2031 Volumes:	0	269	185	454	190	342	0	532	0	0	0	0	262	0	214	476