

TRAFFIC IMPACT STUDY

Grubb Smyrna Apartments

US 41 / SR 3 / Cobb Parkway
Smyrna, Georgia

PREPARED FOR:

Grubb Properties, Inc.

PREPARED BY:



Architects ■ Engineers ■ Planners

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Pond Project # 1200308

EXECUTIVE SUMMARY

The purpose of this study is to evaluate the traffic impacts of further developing the property located at 2400 Lake Park Drive. Grubb Properties, Inc. is proposing that the project location be rezoned to allow for multi-use development including residential, retail, and office uses. Vehicular access to the development is currently served through two driveways: one to Lake Park Drive and the other to US 41 / Cobb Parkway. The adjacent intersection of Lake Park Drive at US 41 serves as a primary access point to Interstate 285 and Interstate 75 for the offices and apartment complexes located along Lake Park Drive. **Figures 1 and 2** in the appendix illustrates the conditions in the study area, including the development location and the surrounding access location.

This study analyzes the intersections of the development's driveways with US 41 and Lake Park Drive as well as the adjacent signalized intersection of Lake Park Drive at US 41. Traffic counts were taken at all three intersections and the analysis was performed for existing traffic conditions and future traffic conditions. The future conditions analysis was performed for two scenarios – No-Build (without any new development) and Build (with a new development) to compare the impacts. The Build condition was based on the development of a five-story building consisting of 277 housing units, 10,351 square feet of co-working space, and 10,531 square feet of retail space.

Under existing and future No-Build conditions, without any further development, the intersection of 2400 Lake Park Driveway at US 41 operates at an acceptable level of service (LOS D or better) during the AM and PM peak hours. This due to the presence of the center turn lane allowing for left turning vehicles from the side street to make a two-stage left turn. The intersection of US 41 and Cobb Parkway is expected to operate at LOS E in the design year (2027) under No-Build conditions. All other study intersections operate at LOS D or better in the existing, opening year (2022) and design year (2027).

The implementation of the proposed zoning and accompanying new apartment development does not induce significant repercussions on the intersection of Lake Park Drive with 2300 Lake Park Driveway. This intersection operates at an acceptable LOS in the AM and PM peak hour of the opening and design years under build conditions, without any significant increase in average delay. The proposed development results in an increase of delay at the intersection of 2400 Lake Park driveway and US 41, leading to an unacceptable LOS in the AM peak hour of the opening and design year under the build conditions. At the intersection of Lake Park Drive and US 41, the development results in increased delay and unacceptable LOS (LOS E) in the PM peak hour of the opening and design year. The intersection operates at an acceptable level of service in the AM peak hour in all scenarios.

The findings of this analysis indicate that the proposed development will lead to increased vehicle delays of significance at the intersections of US 41 at Lake Park Drive and US 41 and US 41 at 2400 Lake Park Driveway.

EXECUTIVE SUMMARY

However, the intersection of US 41 at Lake Park Drive currently experiences significant delay in the afternoon hours and will have an unacceptable LOS in the design year without any additional development. Due to the intersection failing without additional project traffic, the addition of project traffic from the development is not the cause of the unacceptable LOS. The development results in an unacceptable LOS in the AM peak hour of the opening and design year at the unsignalized intersection of US 41 at 2400 Lake Park Driveway. However, the existing traffic volumes utilizing this intersection are minimal, and it is not uncommon for stop sign controlled side street movements on arterial facilities to experience LOS E or F conditions in urban areas. In addition, the HCM 6th Edition analysis methodology utilized assumes a constant arrival rate of vehicles along the arterial road, when in reality the signals upstream and downstream from the intersection will provide gaps where vehicles can make turns off and onto the stop controlled side street, resulting in lower delays than calculated in the analysis. The intersection already provides turn lanes for all movements and lacks the traffic volumes to warrant a signal. Access restrictions for left turning vehicles at this location were considered but determined to be detrimental to the intersection of US 41 and Lake Park Drive. Therefore, it is recommended that the existing geometric conditions not be altered at this location. However, in order to reduce crash risk, it is recommended to install traffic hatching and flexible delineators around the existing raised islands, to effectively delineate the southbound deceleration lane into the private drive from deceleration lane for Lake Park Drive. This will prevent vehicles from confusing/using this area as a continuous right turn lane. It is also recommended to install crosswalks across the existing private driveway to identify areas of pedestrian crossing. Finally, a stop bar and double yellow striping shall be added to the existing private driveway leg to clearly indicate lane configuration.

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EXISTING CONDITIONS

1.0 Existing Conditions

1.1 Site Conditions

The proposed development is located on a previously developed property zoned for general commercial. **Figure 1** provides a general location map. **Figure 2** is an aerial that shows the site location and study intersections (Figures included in the Appendix). Vehicular access to the property is provided through a driveway along Lake Park Drive and a driveway along US 41.

1.2 Roadway Conditions

US 41 / Cobb Parkway is a north-south oriented roadway adjacent to the east of the proposed development. It is a four-lane undivided highway with a two-way left-turn lane and a posted speed limit of 45 MPH. The GDOT roadway classification is a principal arterial. The roadway consists of an urban section with curb and gutter. There is sidewalk on both sides of the roadway near the development property. US 41/Cobb Pkwy is a significant commuter route running parallel to interstate 75 and connecting to interstate 285 about a mile south of the project location.

Lake Park Drive is an east-west oriented roadway adjacent to the south of the proposed development. Lake Park Dr is a four-lane divided roadway with an urban section and a posted speed limit of 30 MPH. Lake Park Dr is classified by GDOT as a public road. Lake Park Dr is a road connecting several office buildings and apartment complexes together and providing access to both directions of travel along US 41. There is sidewalk on the north side of the roadway near the development property

At the unsignalized intersection of the eastern driveway of the development at US 41, the driveway is a full-access stop-controlled, one-lane eastbound approach with a channelized right turn.

Crash history for the years 2015-2019 at the intersection of US 41 at Lake Park Dr and the intersections of each of the existing driveways lining the development were researched. The intersections of each of the driveways had less than four crashes per year. The intersection of Lake Park Drive at US 41, however, had over 350 crashes in the five year period. Most of the crashes at this intersection, roughly 60 percent, were rear end crashes due to the high volumes in the peak hours along US 41. Furthermore, approximately 25% of the crashes at this intersection were angle crashes, predominantly involving vehicles turning left onto Lake Park Drive.

EXISTING CONDITIONS

1.3 *Traffic Data Collection*

GDOT annual coverage counts were downloaded in order to understand traffic growth trends within the study area. The GDOT Annual Count Station # 067-2143 is located on US 41 roughly 1,000 ft south of Lake Park Drive. The count station reported a daily volume of 37,700 vpd in 2018. 24-hour volume counts were performed along Lake Park Drive on November 20th, 2019 which had a daily volume of 16,500 vpd.

Three intersection turning movement counts were performed on Thursday, November 20th, 2019 during the 7:00-9:00am and 4:00-6:00pm peak period. The counts were performed at the study intersections listed below which can also be seen in **Figure 2**. In order to adjust this count data to the existing year of 2021, a growth rate of 0.8%, based on GDOT historical count data, was utilized. The traffic counts and the historic traffic volumes from the GDOT Annual Count Station are included in the Appendix.

- Lake Park Drive at Floor & Décor Driveway/2300 Lake Park Driveway
- US 41/Cobb Parkway at Lake Park Drive
- US 41/Cobb Parkway at 2400 Lake Park Driveway

BUILD CONDITIONS

2.0 Build Conditions

2.1 Existing and Future No-Build Conditions Traffic Volumes

Traffic volumes for the existing year of 2021 and the future no build conditions were developed utilizing the GDOT historical traffic counts and 2019 count data. The historical counts indicated the volumes have been increasing at the count location approximately 0.8% per year between the years 2009 to 2019.

For the purposes of this study, the proposed development is expected to be completed and opened by 2020. A design year of 2025 was used to evaluate future traffic conditions at all study intersections. Based on the GDOT historical counts, a 0.8% growth rate was applied to the 2019 existing volumes to estimate future No-Build traffic volumes. The 2021, 2022 and 2027 No-Build traffic volumes are indicated in the Intersection Volume Development table included in the Appendix.

PROPOSED DEVELOPMENT TRAFFIC

3.0 Proposed Development Traffic

Project traffic was calculated for two scenarios for the proposed development. Project traffic is defined as the vehicular trips expected to be generated by the development and distributed over the roadway network.

3.1 Trip Generation

The project driveway volumes were calculated based on the Institute of Transportation Engineers' (ITE) Trip Generation Manual, Tenth Edition. The proposed development includes 277 housing units, 10,351 square feet of co-working space, and 10,531 square feet of retail space. **Table 1** below summarizes the expected daily, AM peak hour, and PM peak hour generated trips for the proposed development.

Land Use Type	Units	Intensity	Generated Traffic Volumes							
			Daily Trips		AM Peak Hour of Adjacent Street			PM Peak Hour of Adjacent Street		
			Two Way	Total	Entering	Exiting	Total	Entering	Exiting	
General Office Building	Square Feet	10351	118	36	31	5	13	2	11	
Multifamily Housing (Mid Rise)	Dwelling Units	277	1508	93	24	69	118	72	46	
Shopping Center	Square Feet	10531	1301	157	97	60	103	49	53	
Proposed Development (Total)	N/A		2927	286	153	133	234	123	110	

3.2 Trip Distribution and Assignment

An overall trip distribution and assignment of project trips was based on existing traffic patterns, as well as a review of land uses and the street network in the area. This information was used to apply the project traffic volumes at the study intersections and development driveway.

The directional distribution for the proposed development is shown in **Figure 3** (in the appendix) and estimated to be:

- 60% to/from the south along US 41/Cobb Pkwy
- 40% to/from the north along US 41/Cobb Pkwy

3.3 Future Build Traffic Volumes

The 2022 future Build traffic volumes were calculated by adding the proposed development traffic volumes to the projected 2022 No-Build traffic volumes. The 2027 volumes were calculated by applying the GDOT historical growth rate of 0.8% to the 2022 Build traffic volumes. The 2022 and 2027 Build traffic volumes are indicated in the Intersection Volume Development table included in the Appendix.

CAPACITY ANALYSIS

4.0 Capacity Analysis

Capacity analysis was performed at the study intersections for the weekday AM and PM peak hours and the weekend mid-day peak hour. Intersection Level of Service (LOS) was calculated based on the methodologies contained in the *Highway Capacity Manual 6th Edition*. The *Synchro Studio 11* software, which utilizes the HCM 6th Edition methodology, was utilized to perform the analyses.

Capacity is defined as the maximum number of vehicles that can pass over a particular road segment or through a particular intersection within a specified period under prevailing roadway, traffic, and control conditions.

Level of service is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists' perceptions. The Highway Capacity Manual defines six levels of service, LOS A through LOS F. Level of service A indicates excellent operations with little delay to motorists, while level of service F indicates extremely long delay.

Level of service for unsignalized intersections is calculated for the average controlled delay incurred for vehicles on the stop-controlled approach. Controlled delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Several factors affect the controlled delay for unsignalized intersections, including the availability of gaps in the cross-street traffic, and acceptable gap time to make the movement from the stop position. The level-of-service criteria for unsignalized and signalized intersections is presented in **Table 2**. For stop-controlled intersections, LOS E and F exist when there are insufficient gaps in traffic, resulting in long delays. Low level of service for stop-controlled approaches are not uncommon at major cross-streets.

Table 2 – Level of Service Summary Criteria for:		
	Unsignalized Intersections	Signalized Intersections
LOS	Average Delay (seconds)	Average Delay (seconds)
A	<= 10	<= 10
B	> 10 and <= 15	> 10 and <= 20
C	> 15 and <= 25	> 20 and <= 35
D	> 25 and <= 35	> 35 and <= 55
E	> 35 and <= 50	> 55 and <= 80
F	> 50	> 80

Source: 2010 Highway Capacity Manual

CAPACITY ANALYSIS

Level-of-service at signalized intersections is defined in terms of average control delay per vehicle. Control delay for vehicles includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Level-of-service “D” is typically considered to be the limit of acceptable delay.

In order to properly compare the level of service in each year and condition, a constant cycle length for the signalized intersection was used for each of the AM and PM peak hours. The cycle length for each peak hour was gathered from the existing signal timing plans. However, while analyzing, the phase splits were optimized for the traffic volumes present in each year and condition.

4.1 Existing Conditions Capacity Analysis

Capacity analysis was performed for the 2021 existing traffic volumes and the existing roadway conditions at the study intersections. **Table 3** summarizes the results of the capacity analysis. All analyzed intersections operate at an acceptable level of service during the AM and PM peak hours.

Table 3- Level of Service Summary, Existing Conditions 2021			
Intersection	Traffic Control	AM Peak Hour	PM Peak Hour
		LOS (Delay*)	LOS (Delay*)
Lake Park Drive at Floor & Décor Driveway/ 2300 Lake Park Driveway	Signal	C (26.2)	B (16.4)
US 41 / Cobb Parkway at Lake Park Drive	Signal	C (27.7)	D (54.0)
US 41 / Cobb Parkway at 2400 Lake Park Driveway	Side-Street Stop Control	D (25.8)	C (19.0)

* Average Delay in seconds

4.2 Future No-Build Conditions Capacity Analysis

Capacity analysis was performed for the 2022 and 2027 No-Build traffic volumes utilizing the existing roadway and intersection configurations. **Table 4** summarizes the results of the capacity analysis for the Opening Year of 2022. **Table 5** summarizes the results of the capacity analysis for the Design Year of 2027. The intersection of US 41 with Lake Park Drive operates with an unacceptable LOS in the PM peak hour of the design year. All other intersections operate with an acceptable LOS in the AM and PM peak hours of the opening and design years.

CAPACITY ANALYSIS

Table 4 - Level of Service Summary, No-Build Conditions, Open Year 2022

Intersection	Traffic Control	AM Peak Hour	PM Peak Hour
		LOS (Delay*)	LOS (Delay*)
Lake Park Drive at Floor & Décor Driveway/ 2300 Lake Park Driveway	Signal	C (26.9)	B (16.4)
US 41 / Cobb Parkway at Lake Park Drive	Signal	C (28.2)	D (55.6)
US 41 / Cobb Parkway at 2400 Lake Park Driveway	Side-Street Stop Control	D (26.0)	C (19.1)

* Delay is shown in seconds

Table 5 - Level of Service Summary, No-Build Conditions, Design Year 2027

Intersection	Traffic Control	AM Peak Hour	PM Peak Hour
		LOS (Delay*)	LOS (Delay*)
Lake Park Drive at Floor & Décor Driveway/ 2300 Lake Park Driveway	Signal	C (30.5)	B (15.8)
US 41 / Cobb Parkway at Lake Park Drive	Signal	C (31.4)	E (62.5)
US 41 / Cobb Parkway at 2400 Lake Park Driveway	Side-Street Stop Control	D (27.6)	C (20.0)

* Delay is shown in seconds

4.3 Future Build Conditions Capacity Analysis

Capacity analyses were performed for the 2022 Opening Year Conditions. **Table 6** summarizes the results of the capacity analysis. The intersection of Lake Park Drive at 2300 Lake Park Driveway is the only intersection that will remain at an acceptable level of service in both peak hours. The intersection of US 41 at Lake Park Drive operates at LOS E in the PM peak hour while the intersection of US 41 at 2400 Lake Park Driveway operates at LOS E in the AM peak hour.

Table 6 - Level of Service Summary, Build Conditions, Open Year 2022

Intersection	Traffic Control	AM Peak Hour	PM Peak Hour
		LOS (Delay*)	LOS (Delay*)
Lake Park Drive at Floor & Décor Driveway/ 2300 Lake Park Driveway	Signal	C (26.3)	B (17.2)
US 41 / Cobb Parkway at Lake Park Drive	Signal	C (34.1)	E (62.9)
US 41 / Cobb Parkway at 2400 Lake Park Driveway	Side-Street Stop Control	E (44.0)	D (30.6)

* Delay is shown in seconds

CAPACITY ANALYSIS

Table 7 - Level of Service Summary, Build Conditions, Design Year 2027			
Intersection	Traffic Control	AM Peak Hour	PM Peak Hour
		LOS (Delay*)	LOS (Delay*)
Lake Park Drive at Floor & Décor Driveway/ 2300 Lake Park Driveway	Signal	C (29.6)	B (17.2)
US 41 / Cobb Parkway at Lake Park Drive	Signal	D (38.0)	E (71.0)
US 41 / Cobb Parkway at 2400 Lake Park Driveway	Side-Street Stop Control	F (50.2)	D (33.8)

* Delay is shown in seconds

Capacity analyses was performed for the 2027 Design Year Conditions. **Table 7** summarizes the results of the capacity analysis. The intersection of Lake Park Drive at 2300 Lake Park Driveway is the only intersection that will remain at an acceptable level of service in both peak hours. The intersection of US 41 at Lake Park Drive operates at LOS E in the PM peak hour while the intersection of US 41 at 2400 Lake Park Driveway operates at LOS F in the AM peak hour.

RECOMMENDATIONS

5.0 Recommendations

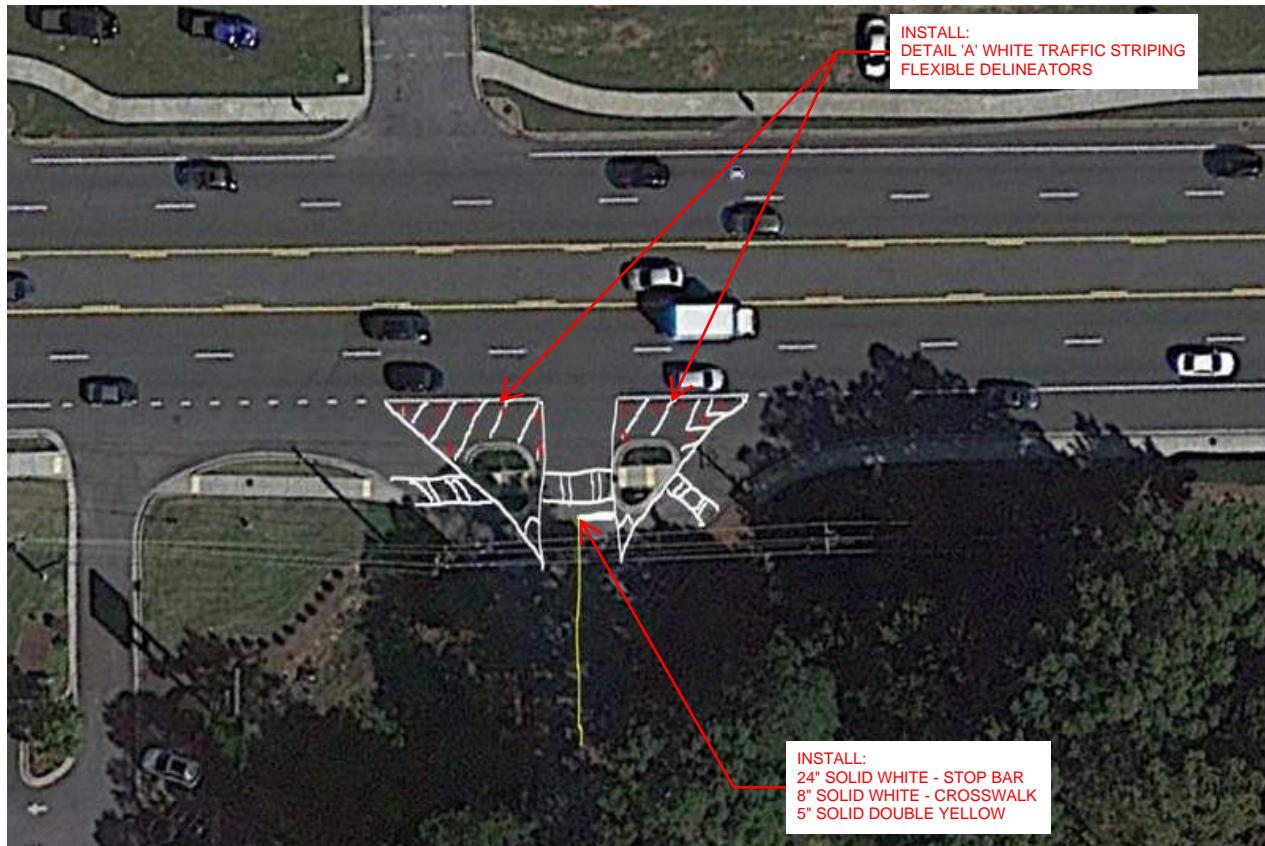
This traffic impact study evaluated existing and future traffic conditions at study area intersections, both with and without the proposed development.

The intersection of US 41 / Cobb Parkway at Lake Park Drive is currently experiencing significant delay in the afternoon hours and will have a failing LOS in the design year without any additional development. Due to the intersection failing without additional project traffic, the effects of the proposed development are not the cause of the intersection failure. Improvements are needed at this intersection, regardless of the impact of the traffic generated by the proposed development.

The development results in an unacceptable LOS in the AM peak hour of the opening and design year at the unsignalized intersection of US 41 at 2400 Lake Park Driveway. However, the existing traffic volumes utilizing this intersection are minimal, and it is not uncommon for stop sign controlled side street movements on arterial facilities to experience LOS E or F conditions in urban areas. In addition, the HCM 6th Edition analysis methodology utilized assumes a constant arrival rate of vehicles along the arterial road, when in reality the signals upstream and downstream from the intersection will provide gaps where vehicles can make turns off and onto the stop controlled side street, resulting in lower delays than calculated in the analysis. The intersection already provides turn lanes for all movements and lacks the traffic volumes to warrant a signal. Access restrictions for left turning vehicles at this location were considered but determined to be detrimental to the intersection of US 41 and Lake Park Drive. Therefore, it is recommended to install traffic hatching and flexible delineators around the existing raised islands, to effectively delineate the southbound deceleration lane into the private drive from deceleration lane for Lake Park Drive. This will prevent vehicles from confusing/using this area as a continuous right turn lane. It is also recommended to install crosswalks across the existing private driveway to identify areas of pedestrian crossing. Finally, a stop bar and double yellow striping shall be added to the existing private driveway leg to clearly indicate lane configuration. See the figure on the following page regarding the proposed improvements.

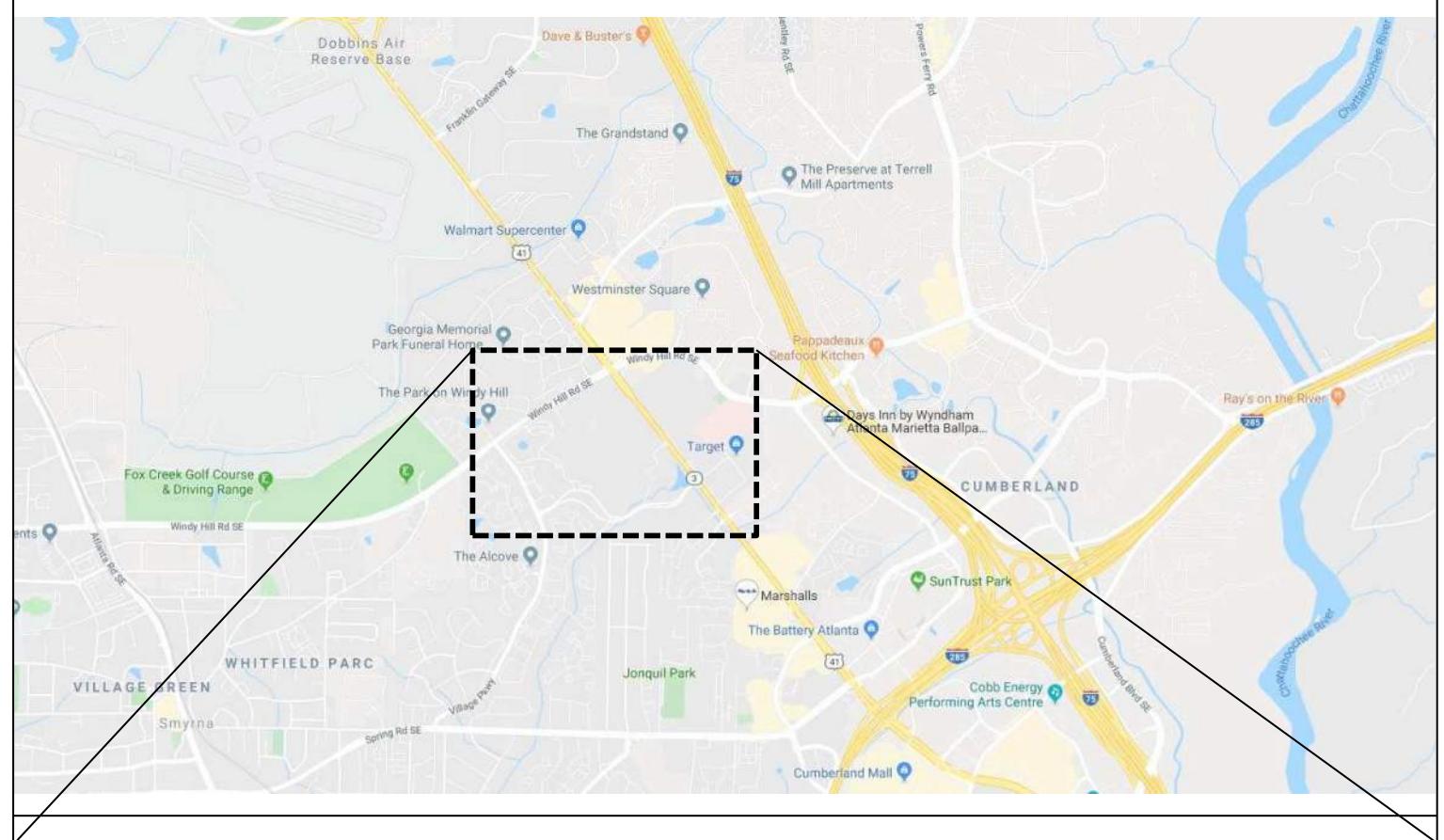
RECOMMENDATIONS

Proposed Improvements to the Intersection of US 41 and Lake Park Drive

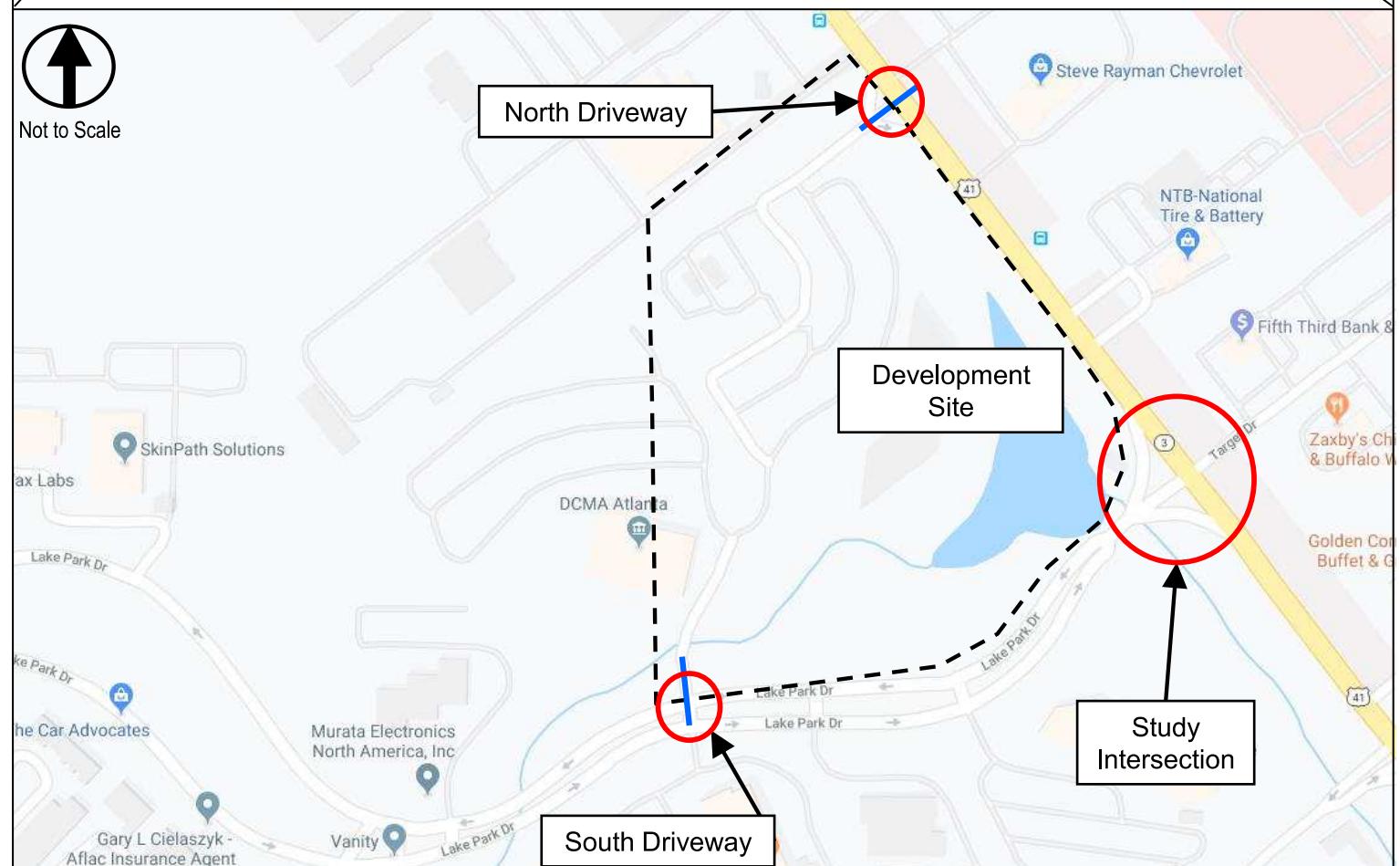


APPENDIX A

Figures



Not to Scale

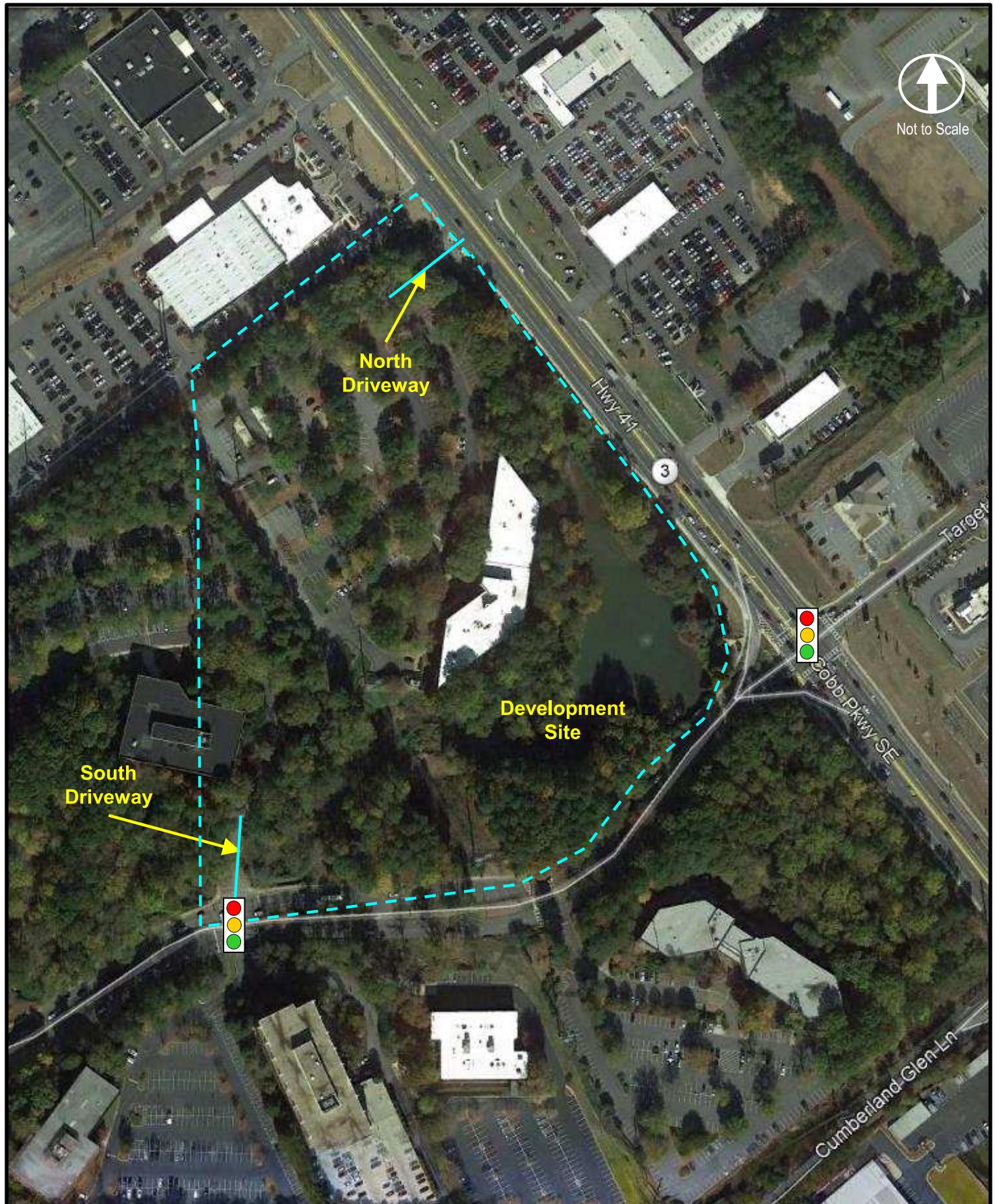


POND

Traffic Impact Study Grubb Smyrna Apartments Smyrna, Georgia

Location
Map

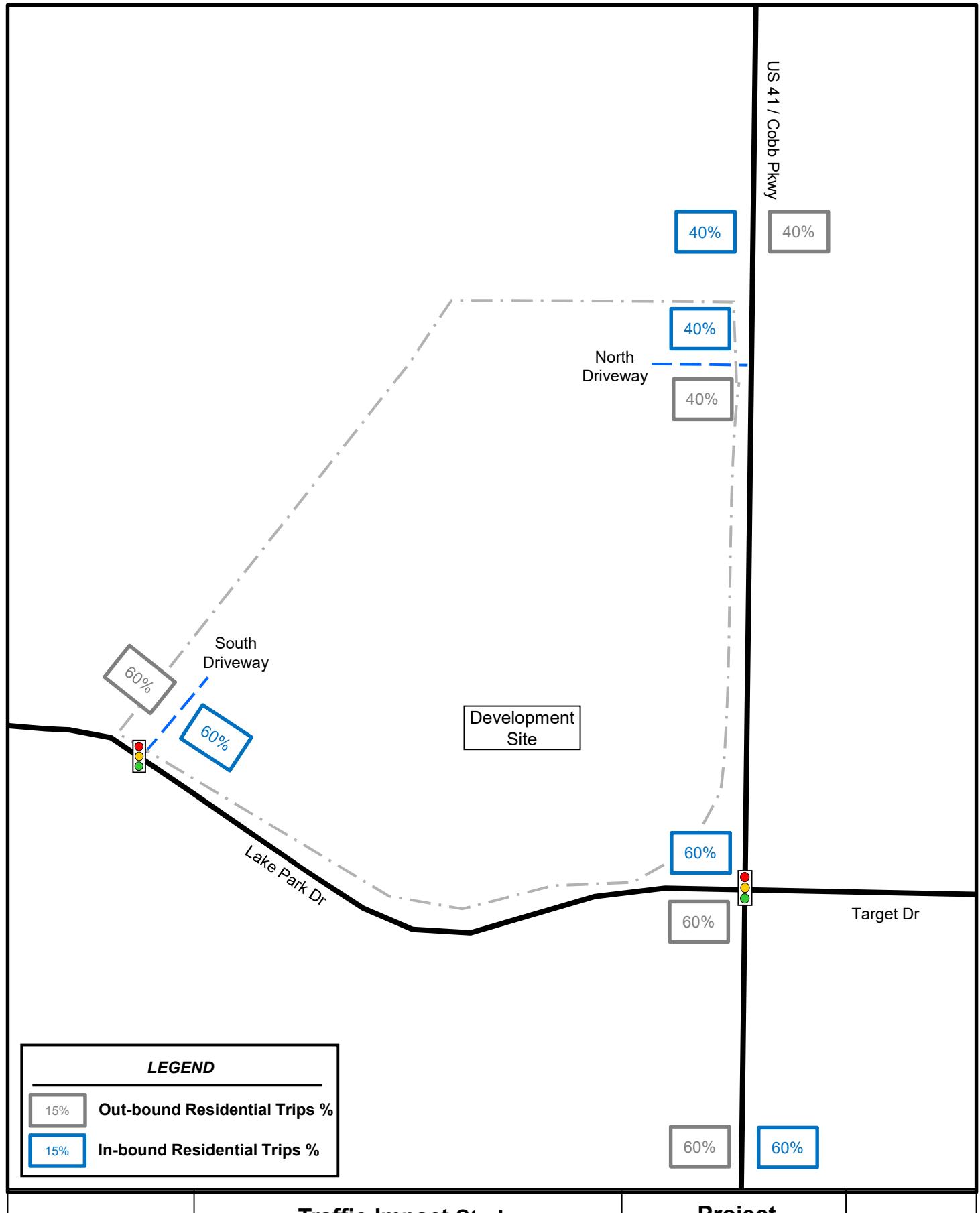
Figure
1

 Not to Scale**POND**

**Traffic Impact Study
Grubb Smyrna Apartments
Smyrna, Georgia**


Aerial

**Figure
2**



APPENDIX B

Development Site Plan



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
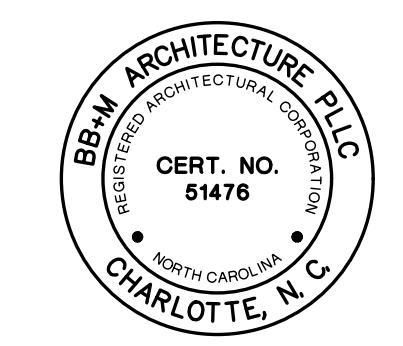
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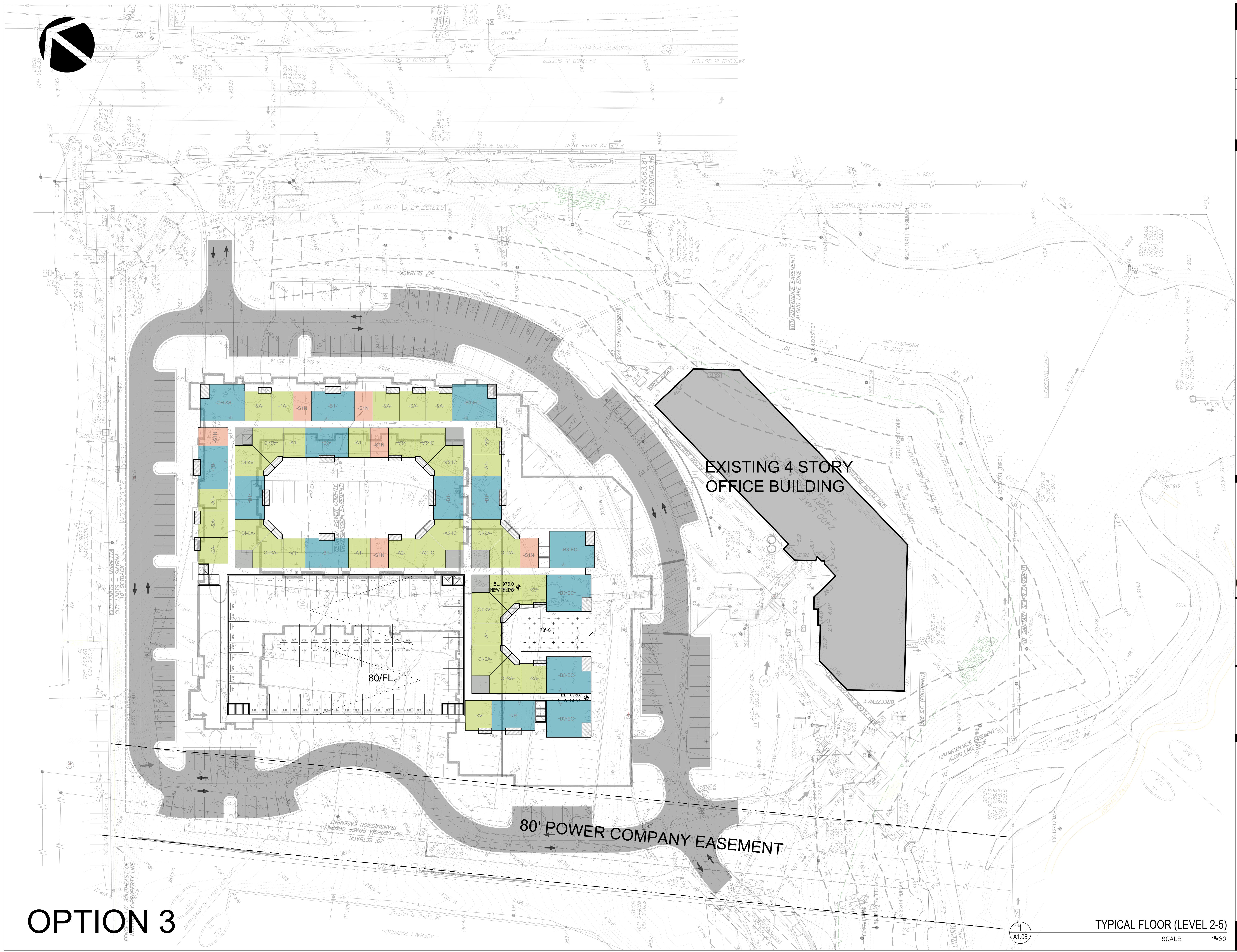
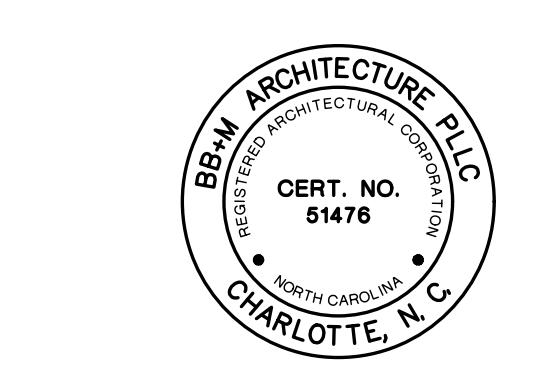
GRUBB PROPERTIES
 People who care. Places that matter.

 LOCATION / PROJECT LOCATION
 PROJECT # / #####
 DATE / 2.24.2021
 DRAWN /

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SITE PLAN TESTFIT LAKE PARK, SMYRNA





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SITE PLAN
TESTFIT
LAKE PARK, SMYRNA

APPENDIX C

Traffic Counts

Project ID: 19-09746-001

Location: SR 41/SR 3/Cobb Pkwy & Chevrolet Middle Dwy

City: Smyrna

Day: Wednesday

Date: 11/20/2019

Groups Printed - Cars, PU, Vans - Heavy Trucks

	SR 41/SR 3/Cobb Pkwy Northbound						SR 41/SR 3/Cobb Pkwy Southbound						Chevrolet Middle Dwy Eastbound						Chevrolet Middle Dwy Westbound						Int. Total	
	Start Time	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	
7:00 AM	1	171	2	0	0	0	174	1	239	2	0	0	242	0	0	0	0	0	0	1	0	0	0	0	0	417
7:15 AM	1	197	0	0	0	0	198	0	281	3	0	0	284	0	0	2	0	0	2	1	0	0	0	0	0	485
7:30 AM	1	210	4	0	0	0	215	0	310	3	0	0	313	1	0	0	0	0	1	0	0	1	0	0	0	530
7:45 AM	1	226	4	0	0	0	231	2	341	2	0	0	345	0	0	2	0	0	2	1	0	3	0	0	0	582
Total		4	804	10	0	0	818	3	1171	10	0	0	1184	1	0	4	0	0	5	3	0	4	0	0	0	2014
8:00 AM	1	197	5	0	0	0	203	2	381	4	0	0	387	1	0	0	0	0	1	0	0	2	0	0	0	593
8:15 AM	0	236	4	0	0	0	240	1	332	9	0	0	342	0	0	0	0	0	0	1	0	0	0	0	0	583
8:30 AM	1	224	2	1	0	0	228	1	326	3	0	0	330	0	0	0	0	0	0	2	0	1	0	0	0	561
8:45 AM	1	269	2	0	0	0	272	4	338	12	0	0	354	2	0	1	0	0	3	1	0	2	0	0	0	632
Total		3	926	13	1	0	943	8	1377	28	0	0	1413	3	0	1	0	0	4	4	0	5	0	0	0	2369
BREAK																										
4:00 PM	1	396	1	0	0	0	398	1	249	2	0	0	252	5	0	7	0	0	12	0	0	2	0	0	0	664
4:15 PM	0	421	3	0	0	0	424	2	273	1	0	0	276	3	0	2	0	0	5	0	0	2	0	0	0	707
4:30 PM	1	413	1	0	0	0	415	0	252	0	0	0	252	4	0	2	0	0	6	0	0	4	0	0	0	677
4:45 PM	4	387	1	0	0	0	392	2	279	1	0	0	282	3	0	3	0	0	6	0	0	3	0	0	0	683
Total		6	1617	6	0	0	1629	5	1053	4	0	0	1062	15	0	14	0	0	29	0	0	11	0	0	0	2731
5:00 PM	3	391	2	2	0	0	398	0	297	1	0	0	298	1	0	3	0	0	4	3	0	3	0	0	0	706
5:15 PM	3	432	0	0	0	0	435	1	273	0	0	0	274	4	0	2	0	0	6	2	0	1	0	0	0	718
5:30 PM	3	392	0	3	0	0	398	0	280	0	0	0	280	2	0	3	0	0	5	0	0	1	0	0	0	684
5:45 PM	1	432	1	2	0	0	436	1	267	0	0	0	268	1	0	2	0	0	3	0	0	2	0	0	0	709
Total		10	1647	3	7	0	1667	2	1117	1	0	0	1120	8	0	10	0	0	18	5	0	7	0	0	0	2817
Grand Total		23	4994	32	8	0	5057	18	4718	43	0	0	4779	27	0	29	0	0	56	12	0	27	0	0	39	9931
Apprch %		0.5	98.8	0.6	0.2	0.0		0.4	98.7	0.9	0.0	0.0		48.2	0.0	51.8	0.0	0.0		30.8	0.0	69.2	0.0	0.0		
Total %		0.2	50.3	0.3	0.1	0.0	50.9	0.2	47.5	0.4	0.0	0.0	48.1	0.3	0.0	0.3	0.0	0.0	0.6	0.1	0.0	0.3	0.0	0.0	0.4	
Cars, PU, Vans		23	4994	32	8		5057	18	4718	43	0		4779	27	0	29	0		56	12	0	27	0		39	9931
% Cars, PU, Vans		100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0		100.0	100.0	

Project ID: 19-09746-001

Location: SR 41/SR 3/Cobb Pkwy & Chevrolet Middle Dwy

City: Smyrna

PEAK HOURS

Day: Wednesday

Date: 11/20/2019

AM

	SR 41/SR 3/Cobb Pkwy Northbound					SR 41/SR 3/Cobb Pkwy Southbound					Chevrolet Middle Dwy Eastbound					Chevrolet Middle Dwy Westbound						
	Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM to 09:00 AM																						
Peak Hour for Entire Intersection Begins at 08:00 AM																						
8:00 AM	1	197	5	0	203		2	381	4	0	387	1	0	0	0	1	0	0	2	0	2	593
8:15 AM	0	236	4	0	240		1	332	9	0	342	0	0	0	0	0	1	0	0	0	1	583
8:30 AM	1	224	2	1	228		1	326	3	0	330	0	0	0	0	0	2	0	1	0	3	561
8:45 AM	1	269	2	0	272		4	338	12	0	354	2	0	1	0	3	1	0	2	0	3	632
Total Volume	3	926	13	1	943		8	1377	28	0	1413	3	0	1	0	4	4	0	5	0	9	2369
% App. Total	0.3	98.2	1.4	0.1	100		0.6	97.5	2.0	0.0	100	75.0	0.0	25.0	0.0	100	44.4	0.0	55.6	0.0	100	
PHF		0.867						0.913							0.333					0.750	0.937	
Cars, PU, Vans	3	926	13	1	943		8	1377	28	0	1413	3	0	1	0	4	4	0	5	0	9	2369
% Cars, PU, Vans	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	

PM

	SR 41/SR 3/Cobb Pkwy Northbound					SR 41/SR 3/Cobb Pkwy Southbound					Chevrolet Middle Dwy Eastbound					Chevrolet Middle Dwy Westbound						
	Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 04:00 PM to 06:00 PM																						
Peak Hour for Entire Intersection Begins at 05:00 PM																						
5:00 PM	3	391	2	2	398		0	297	1	0	298	1	0	3	0	4	3	0	3	0	6	706
5:15 PM	3	432	0	0	435		1	273	0	0	274	4	0	2	0	6	2	0	1	0	3	718
5:30 PM	3	392	0	3	398		0	280	0	0	280	2	0	3	0	5	0	0	1	0	1	684
5:45 PM	1	432	1	2	436		1	267	0	0	268	1	0	2	0	3	0	0	2	0	2	709
Total Volume	10	1647	3	7	1667		2	1117	1	0	1120	8	0	10	0	18	5	0	7	0	12	2817
% App. Total	0.6	98.8	0.2	0.4	100		0.2	99.7	0.1	0.0	100	44.4	0.0	55.6	0.0	100	41.7	0.0	58.3	0.0	100	
PHF		0.956						0.940							0.750					0.500	0.981	
Cars, PU, Vans	10	1647	3	7	1667		2	1117	1	0	1120	8	0	10	0	18	5	0	7	0	12	2817
% Cars, PU, Vans	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	

Project ID: 19-09746-002

Location: SR 41/SR 3/Cobb Pkwy & Lake Park Dr/Target Dr

City: Smyrna

Day: Wednesday

Date: 11/20/2019

Groups Printed - Cars, PU, Vans - Heavy Trucks

	SR 41/SR 3/Cobb Pkwy Northbound						SR 41/SR 3/Cobb Pkwy Southbound						Lake Park Dr/Target Dr Eastbound						Lake Park Dr/Target Dr Westbound						Int. Total
	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	
Start Time	28	120	7	0	0	155	1	216	20	0	0	237	57	12	246	0	0	315	1	0	3	0	0	4	711
7:00 AM	26	136	10	0	0	172	1	238	21	0	0	260	80	29	293	0	0	402	3	6	6	0	0	15	849
7:15 AM	22	156	15	1	0	194	2	317	24	0	0	343	76	37	313	0	0	426	2	7	4	0	0	13	976
7:30 AM	29	147	11	0	0	187	5	287	34	0	0	326	89	36	305	0	0	430	4	4	9	0	0	17	960
Total	105	559	43	1	0	708	9	1058	99	0	0	1166	302	114	1157	0	0	1573	10	17	22	0	0	49	3496
8:00 AM	53	151	9	0	0	213	6	349	31	0	0	386	68	34	280	0	0	382	3	4	4	0	0	11	992
8:15 AM	40	166	9	0	0	215	6	307	30	0	0	343	83	34	260	0	0	377	8	18	9	0	0	35	970
8:30 AM	37	160	7	0	0	204	1	290	24	0	0	315	78	24	273	0	0	375	5	8	6	0	0	19	913
8:45 AM	50	179	14	0	0	243	9	297	28	0	0	334	107	31	212	0	0	350	9	11	7	0	0	27	954
Total	180	656	39	0	0	875	22	1243	113	0	0	1378	336	123	1025	0	0	1484	25	41	26	0	0	92	3829
BREAK																									
4:00 PM	72	351	28	0	0	451	11	224	29	0	0	264	34	15	77	0	0	126	31	21	15	0	0	67	908
4:15 PM	86	370	28	0	0	484	18	235	27	1	0	281	39	16	64	0	0	119	40	45	19	0	0	104	988
4:30 PM	84	325	23	0	0	432	18	193	20	0	0	231	46	21	63	0	0	130	45	46	15	0	0	106	899
4:45 PM	83	334	12	0	0	429	16	250	31	0	0	297	38	17	97	0	0	152	52	43	22	0	0	117	995
Total	325	1380	91	0	0	1796	63	902	107	1	0	1073	157	69	301	0	0	527	168	155	71	0	0	394	3790
5:00 PM	102	330	21	0	0	453	19	224	60	0	0	303	44	18	88	0	0	150	44	56	26	0	0	126	1032
5:15 PM	130	389	26	0	0	545	19	240	50	0	0	309	25	14	95	0	0	134	58	61	25	0	0	144	1132
5:30 PM	119	334	29	0	0	482	20	219	51	0	0	290	42	10	69	0	0	121	50	68	17	0	0	135	1028
5:45 PM	129	395	40	0	0	564	8	244	40	0	0	292	32	15	77	0	0	124	25	59	22	0	0	106	1086
Total	480	1448	116	0	0	2044	66	927	201	0	0	1194	143	57	329	0	0	529	177	244	90	0	0	511	4278
Grand Total	1090	4043	289	1	0	5423	160	4130	520	1	0	4811	938	363	2812	0	0	4113	380	457	209	0	0	1046	15393
Apprch %	20.1	74.6	5.3	0.0	0.0		3.3	85.8	10.8	0.0	0.0		22.8	8.8	68.4	0.0	0.0		36.3	43.7	20.0	0.0	0.0		
Total %	7.1	26.3	1.9	0.0	0.0	35.2	1.0	26.8	3.4	0.0	0.0	31.3	6.1	2.4	18.3	0.0	0.0	26.7	2.5	3.0	1.4	0.0	0.0	6.8	
Cars, PU, Vans	1090	4043	289	1		5423	160	4130	520	1		4811	938	363	2812	0		4113	380	457	209	0		1046	15393
% Cars, PU, Vans	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0	0.0		100.0	100.0	100.0	100.0	0.0		100.0	

Project ID: 19-09746-002

Location: SR 41/SR 3/Cobb Pkwy & Lake Park Dr/Target Dr

City: Smyrna

PEAK HOURS

Day: Wednesday

Date: 11/20/2019

AM

	SR 41/SR 3/Cobb Pkwy Northbound					SR 41/SR 3/Cobb Pkwy Southbound					Lake Park Dr/Target Dr Eastbound					Lake Park Dr/Target Dr Westbound					
	Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total
Peak Hour Analysis from 07:00 AM to 09:00 AM																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
7:30 AM	22	156	15	1	194	2	317	24	0	343	76	37	313	0	426	2	7	4	0	13	976
7:45 AM	29	147	11	0	187	5	287	34	0	326	89	36	305	0	430	4	4	9	0	17	960
8:00 AM	53	151	9	0	213	6	349	31	0	386	68	34	280	0	382	3	4	4	0	11	992
8:15 AM	40	166	9	0	215	6	307	30	0	343	83	34	260	0	377	8	18	9	0	35	970
Total Volume	144	620	44	1	809	19	1260	119	0	1398	316	141	1158	0	1615	17	33	26	0	76	3898
% App. Total	17.8	76.6	5.4	0.1	100	1.4	90.1	8.5	0.0	100	19.6	8.7	71.7	0.0	100	22.4	43.4	34.2	0.0	100	
PHF		0.941					0.905					0.939						0.543		0.982	
Cars, PU, Vans	144	620	44	1	809	19	1260	119	0	1398	316	141	1158	0	1615	17	33	26	0	76	3898
% Cars, PU, Vans	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0

PM

	SR 41/SR 3/Cobb Pkwy Northbound					SR 41/SR 3/Cobb Pkwy Southbound					Lake Park Dr/Target Dr Eastbound					Lake Park Dr/Target Dr Westbound					
	Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total
Peak Hour Analysis from 04:00 PM to 06:00 PM																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
5:00 PM	102	330	21	0	453	19	224	60	0	303	44	18	88	0	150	44	56	26	0	126	1032
5:15 PM	130	389	26	0	545	19	240	50	0	309	25	14	95	0	134	58	61	25	0	144	1132
5:30 PM	119	334	29	0	482	20	219	51	0	290	42	10	69	0	121	50	68	17	0	135	1028
5:45 PM	129	395	40	0	564	8	244	40	0	292	32	15	77	0	124	25	59	22	0	106	1086
Total Volume	480	1448	116	0	2044	66	927	201	0	1194	143	57	329	0	529	177	244	90	0	511	4278
% App. Total	23.5	70.8	5.7	0.0	100	5.5	77.6	16.8	0.0	100	27.0	10.8	62.2	0.0	100	34.6	47.7	17.6	0.0	100	
PHF		0.906					0.966					0.882						0.887		0.945	
Cars, PU, Vans	480	1448	116	0	2044	66	927	201	0	1194	143	57	329	0	529	177	244	90	0	511	4278
% Cars, PU, Vans	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0

Project ID: 19-09746-003

Location: 2300 & 2400 Lake Park Dr Entrance/Floor & Décor Office Entrance & Lake Park Dr

City: Smyrna

Day: Wednesday

Date: 11/20/2019

Groups Printed - Cars, PU, Vans - Heavy Trucks

	0 Lake Park Dr Entrance/Floor & Décor Offic						0 Lake Park Dr Entrance/Floor & Décor Offic						Lake Park Dr Eastbound						Lake Park Dr Westbound									
Start Time	Northbound						Southbound						Eastbound						Westbound									
	Left	Thru	Rgt	Uturn	Peds	App. Total		Left	Thru	Rgt	Uturn	Peds	App. Total		Left	Thru	Rgt	Uturn	Peds	App. Total		Left	Thru	Rgt	Uturn	Peds	App. Total	Int. Total
7:00 AM	0	0	0	0	0	0		0	0	0	0	0	0		2	338	0	0	0	340		2	29	13	2	0	46	386
7:15 AM	0	0	0	0	0	0		1	0	0	0	0	1		2	394	2	0	0	398		3	37	7	1	0	48	447
7:30 AM	0	1	1	0	0	2		0	0	0	0	0	0		5	439	4	0	0	448		6	36	5	1	0	48	498
7:45 AM	0	0	1	0	0	1		2	0	0	0	0	2		14	404	6	0	0	424		10	36	12	2	0	60	487
Total	0	1	2	0	0	3		3	0	0	0	0	3		23	1575	12	0	0	1610		21	138	37	6	0	202	1818
8:00 AM	0	0	0	0	0	0		2	0	1	0	0	3		6	412	2	0	0	420		5	57	14	1	0	77	500
8:15 AM	0	0	0	0	0	0		2	0	0	0	0	2		7	334	3	0	0	344		10	59	15	1	0	85	431
8:30 AM	3	0	0	0	0	3		1	1	1	0	0	3		8	351	8	1	0	368		2	47	15	0	0	64	438
8:45 AM	0	0	1	0	0	1		5	0	3	0	0	8		10	344	4	1	0	359		8	55	17	0	0	80	448
Total	3	0	1	0	0	4		10	1	5	0	0	16		31	1441	17	2	0	1491		25	218	61	2	0	306	1817
BREAK																												
4:00 PM	1	1	4	0	0	6		14	0	11	0	0	25		0	85	1	1	0	87		0	131	1	0	0	132	250
4:15 PM	1	1	2	0	0	4		10	0	9	0	0	19		0	100	1	0	0	101		1	151	1	0	0	153	277
4:30 PM	4	0	10	0	0	14		7	0	7	0	0	14		0	101	1	0	0	102		1	145	1	0	0	147	277
4:45 PM	0	0	4	0	0	4		11	0	7	0	0	18		0	118	0	0	0	118		0	156	0	0	0	156	296
Total	6	2	20	0	0	28		42	0	34	0	0	76		0	404	3	1	0	408		2	583	3	0	0	588	1100
5:00 PM	4	0	8	0	0	12		7	0	7	0	0	14		1	127	0	0	0	128		1	203	1	0	0	205	359
5:15 PM	5	0	5	0	0	10		3	0	3	0	0	6		0	111	1	0	0	112		0	251	0	0	0	251	379
5:30 PM	2	0	4	0	0	6		4	0	3	0	0	7		0	100	0	0	0	100		1	219	1	0	0	221	334
5:45 PM	3	0	6	0	0	9		1	0	5	0	0	6		0	107	1	1	0	109		1	223	1	0	0	225	349
Total	14	0	23	0	0	37		15	0	18	0	0	33		1	445	2	1	0	449		3	896	3	0	0	902	1421
Grand Total	23	3	46	0	0	72		70	1	57	0	0	128		55	3865	34	4	0	3958		51	1835	104	8	0	1998	6156
Apprch %	31.9	4.2	63.9	0.0	0.0			54.7	0.8	44.5	0.0	0.0			1.4	97.7	0.9	0.1	0.0			2.6	91.8	5.2	0.4	0.0		
Total %	0.4	0.0	0.7	0.0	0.0	1.2		1.1	0.0	0.9	0.0	0.0	2.1		0.9	62.8	0.6	0.1	0.0	64.3		0.8	29.8	1.7	0.1	0.0	32.5	
Cars, PU, Vans	23	3	46	0		72		70	1	57	0		128		55	3865	34	4		3958		51	1835	104	8		1998	6156
% Cars, PU, Vans	100.0	100.0	100.0	0.0		100.0		100.0	100.0	100.0	0.0		100.0		100.0	100.0	100.0	100.0		100.0		100.0	100.0	100.0	100.0			

Project ID: 19-09746-003

Location: 2300 & 2400 Lake Park Dr Entrance/Floor & Décor
City: Smyrna

PEAK HOURS

Day: Wednesday
Date: 11/20/2019

AM

PM

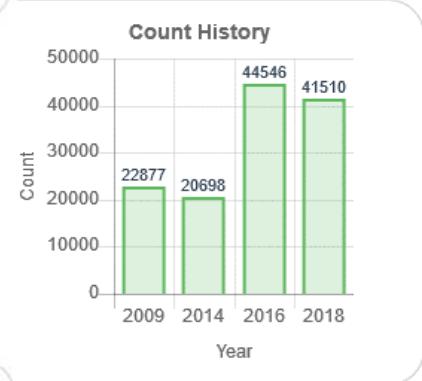
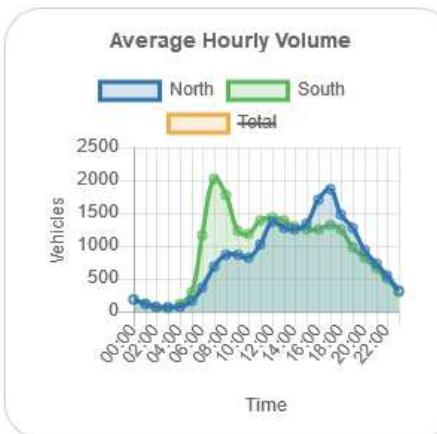
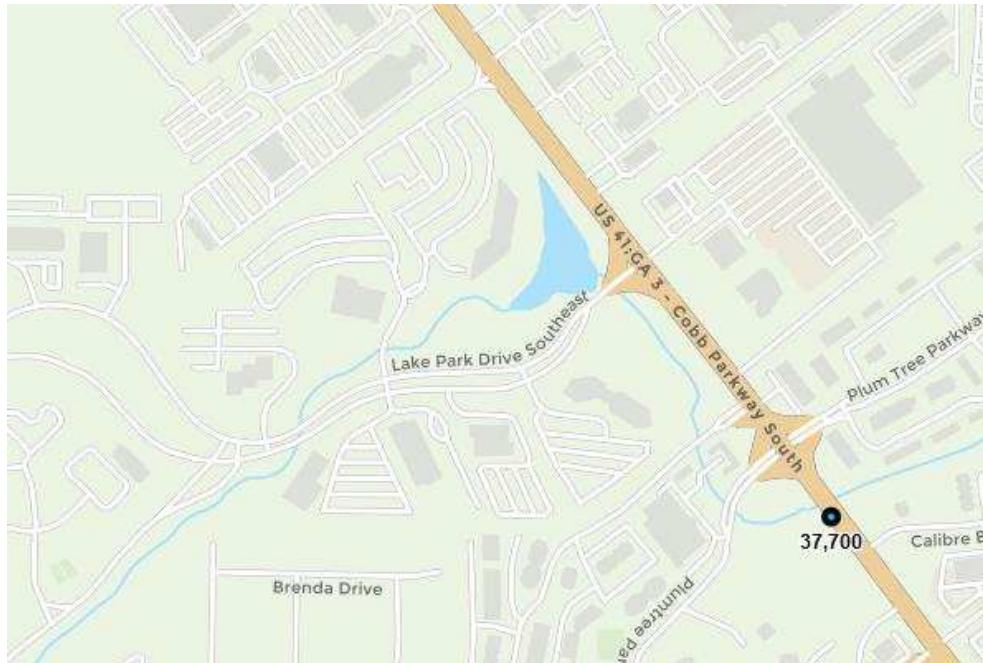
	Lake Park Dr Entrance/Floor & Décor Northbound					Lake Park Dr Entrance/Floor & Décor Southbound					Lake Park Dr Eastbound					Lake Park Dr Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 04:00 PM to 06:00 PM																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
5:00 PM	4	0	8	0	12	7	0	7	0	14	1	127	0	0	128	1	203	1	0	205	355
5:15 PM	5	0	5	0	10	3	0	3	0	6	0	111	1	0	112	0	251	0	0	251	375
5:30 PM	2	0	4	0	6	4	0	3	0	7	0	100	0	0	100	1	219	1	0	221	334
5:45 PM	3	0	6	0	9	1	0	5	0	6	0	107	1	1	109	1	223	1	0	225	349
Total Volume	14	0	23	0	37	15	0	18	0	33	1	445	2	1	449	3	896	3	0	902	1427
% App. Total	37.8	0.0	62.2	0.0	100	45.5	0.0	54.5	0.0	100	0.2	99.1	0.4	0.2	100	0.3	99.3	0.3	0.0	100	
PHF	0.771					0.589					0.877					0.898					
Cars, PU, Vans	14	0	23	0	37	15	0	18	0	33	1	445	2	1	449	3	896	3	0	902	1427
% Cars, PU, Vans	100.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	

APPENDIX D

Historic Traffic Counts

GDOT Count Data

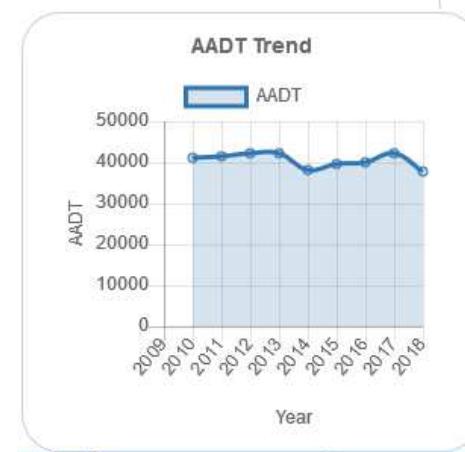
U.S. 41 / S.R. 3, South of Lake Park Drive



Station Id: 067-2143
Description: RPX 407047L407048R

	2018	2017	2016
AADT	37,700	42,300	40,000
Single Unit AADT	723	-	922
Combo Unit AADT	261	-	397
Truck %	3%	-	3%

[Site dashboard](#) [Site data](#) [Zoom to site](#) [Street view](#)



APPENDIX E

Intersection Volume Development

ID	Intersection	2019 Traffic Count Volume Data																							
		AM					PM																		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBC	WBL	WBT	WBR		
1	Lake Park Drive at Floor & Décor Drwy / 2300 Lake Park Drwy	0	1	2	5	0	1	27	1649	14	29	166	38	14	23	15	18	2	445	2	3	896	3		
2	US 41 / Cobb Parkway at Lake Park Drive	145	620	44	19	1260	119	316	141	1158	17	33	26	480	1448	116	66	67	201	143	57	329	244		
3	US 41 / Cobb Parkway at 2400 Lake Park Drwy	4	916	13	6	1377	26	3	16	1	0	0	17	1	1117	3	2	1117	1	1	8	0	10		
2021 Existing Year Volumes																									
ID		AM					PM																		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBC	WBL	WBT	WBR		
1	Lake Park Drive at Floor & Décor Drwy / 2300 Lake Park Drwy	0	1	2	5	0	1	27	1675	14	29	169	39	14	23	15	0	18	2	452	2	3	910	3	
2	US 41 / Cobb Parkway at Lake Park Drive	147	630	45	19	1280	121	321	143	1177	17	34	26	488	1471	118	67	942	204	145	58	334	180	248	
3	US 41 / Cobb Parkway at 2400 Lake Park Drwy	4	941	13	8	1399	28	3	0	1	0	0	17	1	1135	3	2	1135	1	1	8	0	10	0	0
2022 Opening Year No Build Volumes																									
ID	Intersection	AM					PM																		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBC	WBL	WBT	WBR		
1	Lake Park Drive at Floor & Décor Drwy / 2300 Lake Park Drwy	0	1	2	5	0	1	28	1689	14	30	170	39	14	0	24	15	0	18	2	456	2	3	918	3
2	US 41 / Cobb Parkway at Lake Park Drive	149	635	45	19	1290	122	324	144	1186	17	34	27	492	1483	119	68	949	206	146	58	337	181	250	
3	US 41 / Cobb Parkway at 2400 Lake Park Drwy	4	948	13	8	1410	29	3	0	1	0	0	17	1	1144	1	8	0	10	0	0	0	0	0	
2027 Design Year No Build Volumes																									
ID	Intersection	AM					PM																		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBC	WBL	WBT	WBR		
1	Lake Park Drive at Floor & Décor Drwy / 2300 Lake Park Drwy	0	1	2	85	0	1	29	1669	14	30	170	31	14	0	24	81	0	18	2	456	2	3	955	3
2	US 41 / Cobb Parkway at Lake Park Drive	241	635	45	19	1290	122	324	144	1166	17	34	27	500	1483	119	68	949	206	146	58	403	181	250	
3	US 41 / Cobb Parkway at 2400 Lake Park Drwy	4	948	13	8	1410	90	56	0	1	0	0	17	1	1147	3	2	1144	50	52	0	10	0	0	0
2027 Design Year Build Volumes																									
ID	Intersection	AM					PM																		
NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBC	WBL	WBT	WBR		
1	Lake Park Drive at Floor & Décor Drwy / 2300 Lake Park Drwy	0	1	2	88	0	1	29	1758	15	31	177	136	15	0	25	84	0	19	2	475	2	3	955	80
2	US 41 / Cobb Parkway at Lake Park Drive	251	661	47	20	1342	127	337	150	1234	18	35	28	512	1543	124	71	988	214	152	60	351	188	260	
3	US 41 / Cobb Parkway at 2400 Lake Park Drwy	4	987	14	8	1467	94	58	0	1	0	0	17	1	1176	3	2	1190	52	54	0	10	0	0	0

APPENDIX F

Capacity Analysis

HCM 6th Signalized Intersection Summary

1: Floor & Decor Driveway/2300 Lake Park Driveway & Lake Park Drive

Existing Roadway Netork

Existing Year 2021- AM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	1675	14	29	169	39	0	1	2	5	0	1
Future Volume (veh/h)	27	1675	14	29	169	39	0	1	2	5	0	1
Initial Q (Q _b), 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	1821	15	32	184	42	0	1	2	5	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	2016	17	55	1617	361	84	121	243	391	0	346
Arrive On Green	0.03	0.56	0.56	0.03	0.56	0.56	0.00	0.22	0.22	0.22	0.00	0.22
Sat Flow, veh/h	1781	3612	30	1781	2887	644	1416	557	1113	1414	0	1585
Grp Volume(v), veh/h	29	895	941	32	112	114	0	0	3	5	0	1
Grp Sat Flow(s),veh/h/ln	1781	1777	1865	1781	1777	1754	1416	0	1670	1414	0	1585
Q Serve(g_s), s	1.4	38.4	38.6	1.5	2.5	2.6	0.0	0.0	0.1	0.2	0.0	0.0
Cycle Q Clear(g_c), s	1.4	38.4	38.6	1.5	2.5	2.6	0.0	0.0	0.1	0.4	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.37	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	52	992	1041	55	995	983	84	0	364	391	0	346
V/C Ratio(X)	0.56	0.90	0.90	0.58	0.11	0.12	0.00	0.00	0.01	0.01	0.00	0.00
Avail Cap(c_a), veh/h	123	1026	1077	110	1014	1001	84	0	364	391	0	346
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.1	16.9	16.9	41.0	8.8	8.9	0.0	0.0	26.2	26.4	0.0	26.2
Incr Delay (d2), s/veh	9.1	10.8	10.5	9.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	16.7	17.6	0.8	0.9	0.9	0.0	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.2	27.6	27.4	50.1	8.9	8.9	0.0	0.0	26.3	26.4	0.0	26.2
LnGrp LOS	D	C	C	D	A	A	A	A	C	C	A	C
Approach Vol, veh/h		1865			258			3			6	
Approach Delay, s/veh		27.9			14.0			26.3			26.4	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R _c), s	24.2	8.2	53.3		24.2	8.0	53.5					
Change Period (Y+R _c), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	18.7	5.3	49.5		18.7	5.9	48.9					
Max Q Clear Time (g_c+l1), s	2.1	3.5	40.6		2.4	3.4	4.6					
Green Ext Time (p_c), s	0.0	0.0	7.2		0.0	0.0	1.4					
Intersection Summary												
HCM 6th Ctrl Delay		26.2										
HCM 6th LOS		C										

HCM 6th Signalized Intersection Summary
2: US 41 / Cobb Pkwy & Lake Park Drive/Target Dr

Existing Roadway Netork
Existing Year 2021- AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1
Traffic Volume (veh/h)	321	143	1177	17	34	26	147	630	45	19	1280	121
Future Volume (veh/h)	321	143	1177	17	34	26	147	630	45	19	1280	121
Initial Q (Q _b), 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											
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	349	155	0	18	37	28	160	685	49	21	1391	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	364		174	57	43	257	1974	880	432	1835	
Arrive On Green	0.16	0.19	0.00	0.02	0.06	0.06	0.06	0.56	0.56	0.02	0.52	0.00
Sat Flow, veh/h	1781	1870	1585	1781	988	748	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	349	155	0	18	0	65	160	685	49	21	1391	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1736	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	16.5	7.7	0.0	1.0	0.0	3.9	4.3	11.2	1.5	0.6	32.8	0.0
Cycle Q Clear(g_c), s	16.5	7.7	0.0	1.0	0.0	3.9	4.3	11.2	1.5	0.6	32.8	0.0
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	375	364		174	0	99	257	1974	880	432	1835	
V/C Ratio(X)	0.93	0.43		0.10	0.00	0.65	0.62	0.35	0.06	0.05	0.76	
Avail Cap(c_a), veh/h	375	524		223	0	297	326	1974	880	478	1835	
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	37.3	0.0	45.4	0.0	48.6	19.0	12.9	10.7	11.6	20.2	0.0
Incr Delay (d2), s/veh	29.5	0.8	0.0	0.3	0.0	7.1	2.5	0.5	0.1	0.0	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	4.1	3.6	0.0	0.4	0.0	1.9	1.7	4.1	0.5	0.2	12.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.1	38.0	0.0	45.6	0.0	55.7	21.5	13.4	10.9	11.7	23.2	0.0
LnGrp LOS	E	D		D	A	E	C	B	B	B	C	
Approach Vol, veh/h	504		A		83			894		1412		A
Approach Delay, s/veh	59.5				53.5			14.7		23.1		
Approach LOS	E			D			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	64.0	7.5	26.0	11.9	59.9	22.0	11.5				
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	5.6	58.5	5.0	29.5	10.5	53.0	16.5	18.0				
Max Q Clear Time (g_c+l), s	12.6	13.2	3.0	9.7	6.3	34.8	18.5	5.9				
Green Ext Time (p_c), s	0.0	5.0	0.0	0.7	0.1	9.2	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay 27.7
HCM 6th LOS C

Notes

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

HCM 6th TWSC
3: US 41 / Cobb Pkwy & 2400 Lake Park Driveway

Existing Roadway Netork
Existing Year 2021- AM Peak Hour

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑↑	↑↑	↑
Traffic Vol, veh/h	3	1	4	941	1399	28
Future Vol, veh/h	3	1	4	941	1399	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	125	-	-	125
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	1	4	1023	1521	30

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2041	761	1521	0	-	0
Stage 1	1521	-	-	-	-	-
Stage 2	520	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	49	348	435	-	-	-
Stage 1	167	-	-	-	-	-
Stage 2	561	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	49	348	435	-	-	-
Mov Cap-2 Maneuver	152	-	-	-	-	-
Stage 1	165	-	-	-	-	-
Stage 2	561	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.8	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	435	-	152	348	-	-
HCM Lane V/C Ratio	0.01	-	0.021	0.003	-	-
HCM Control Delay (s)	13.4	-	29.2	15.4	-	-
HCM Lane LOS	B	-	D	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

HCM 6th Signalized Intersection Summary

Existing Roadway Network

1: Floor & Decor Driveway/2300 Lake Park Driveway & Lake Park Drive Existing Year 2021- PM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	452	2	3	910	3	14	0	23	15	0	18
Future Volume (veh/h)	2	452	2	3	910	3	14	0	23	15	0	18
Initial Q (Q _b), 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	491	2	3	989	3	15	0	25	16	0	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1387	6	7	1393	4	588	0	551	583	0	551
Arrive On Green	0.00	0.38	0.38	0.00	0.38	0.38	0.35	0.00	0.35	0.35	0.00	0.35
Sat Flow, veh/h	1781	3630	15	1781	3634	11	1392	0	1585	1386	0	1585
Grp Volume(v), veh/h	2	240	253	3	484	508	15	0	25	16	0	20
Grp Sat Flow(s), veh/h/ln	1781	1777	1868	1781	1777	1868	1392	0	1585	1386	0	1585
Q Serve(g_s), s	0.1	6.0	6.0	0.1	14.3	14.3	0.4	0.0	0.6	0.5	0.0	0.5
Cycle Q Clear(g_c), s	0.1	6.0	6.0	0.1	14.3	14.3	1.0	0.0	0.6	1.1	0.0	0.5
Prop In Lane	1.00		0.01	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	679	714	7	681	716	588	0	551	583	0	551
V/C Ratio(X)	0.41	0.35	0.35	0.41	0.71	0.71	0.03	0.00	0.05	0.03	0.00	0.04
Avail Cap(c_a), veh/h	187	1306	1373	187	1306	1373	588	0	551	583	0	551
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	30.8	13.7	13.7	30.8	16.2	16.2	13.7	0.0	13.4	13.8	0.0	13.4
Incr Delay (d2), s/veh	47.4	0.3	0.3	33.8	1.4	1.3	0.1	0.0	0.2	0.1	0.0	0.1
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	2.2	2.3	0.1	5.4	5.6	0.1	0.0	0.2	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	78.2	14.0	14.0	64.5	17.6	17.5	13.8	0.0	13.6	13.9	0.0	13.5
LnGrp LOS	E	B	B	E	B	B	B	A	B	B	A	B
Approach Vol, veh/h		495			995			40			36	
Approach Delay, s/veh		14.2			17.7			13.6			13.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R _c), s	27.0	5.8	29.1		27.0	5.7	29.2					
Change Period (Y+R _c), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	21.5	6.5	45.5		21.5	6.5	45.5					
Max Q Clear Time (g_c+l1), s	3.0	2.1	8.0		3.1	2.1	16.3					
Green Ext Time (p_c), s	0.1	0.0	3.2		0.1	0.0	7.5					
Intersection Summary												
HCM 6th Ctrl Delay		16.4										
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
2: US 41 / Cobb Pkwy & Lake Park Drive/Target Dr

Existing Roadway Network
Existing Year 2021- PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	145	58	334	180	248	91	488	1471	118	67	942	204
Future Volume (veh/h)	145	58	334	180	248	91	488	1471	118	67	942	204
Initial Q (Q _b), 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	158	63	0	196	270	99	530	1599	128	73	1024	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	298		418	258	95	522	1824	814	165	1066	
Arrive On Green	0.07	0.16	0.00	0.10	0.20	0.20	0.25	0.51	0.51	0.04	0.30	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1306	479	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	158	63	0	196	0	369	530	1599	128	73	1024	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1784	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.8	3.5	0.0	10.8	0.0	23.7	30.5	47.8	5.1	3.4	34.0	0.0
Cycle Q Clear(g_c), s	7.8	3.5	0.0	10.8	0.0	23.7	30.5	47.8	5.1	3.4	34.0	0.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	298		418	0	352	522	1824	814	165	1066	
V/C Ratio(X)	0.90	0.21		0.47	0.00	1.05	1.02	0.88	0.16	0.44	0.96	
Avail Cap(c_a), veh/h	176	298		418	0	352	522	1824	814	168	1066	
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	43.1	43.9	0.0	35.9	0.0	48.2	35.9	25.8	15.5	29.9	41.3	0.0
Incr Delay (d2), s/veh	40.5	0.4	0.0	0.8	0.0	60.8	43.3	6.3	0.4	1.9	19.6	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/lr	2.9	1.7	0.0	4.8	0.0	16.4	15.9	20.0	1.9	1.5	17.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.7	44.2	0.0	36.7	0.0	109.0	79.2	32.1	15.9	31.8	60.9	0.0
LnGrp LOS	F	D		D	A	F	F	C	B	C	E	
Approach Vol, veh/h	221	A		565			2257			1097	A	
Approach Delay, s/veh	72.4			83.9			42.3			58.9		
Approach LOS	E			F			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$0.4	67.1	17.9	24.6	36.0	41.5	13.3	29.2					
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), \$	61.4	12.4	19.1	30.5	36.0	7.8	23.7					
Max Q Clear Time (g_c+l), \$	49.8	12.8	5.5	32.5	36.0	9.8	25.7					
Green Ext Time (p_c), s	0.0	8.1	0.0	0.2	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay		54.0										
HCM 6th LOS		D										
Notes												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑↑	↑↑	↑
Traffic Vol, veh/h	8	10	17	1673	1135	1
Future Vol, veh/h	8	10	17	1673	1135	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	125	-	-	125
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	11	18	1818	1234	1
Major/Minor						
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2179	617	1234	0	-	0
Stage 1	1234	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	39	433	560	-	-	-
Stage 1	238	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	38	433	560	-	-	-
Mov Cap-2 Maneuver	182	-	-	-	-	-
Stage 1	230	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Approach						
Approach	EB	NB	SB			
HCM Control Delay, s	19	0.1	0			
HCM LOS	C					
Minor Lane/Major Mvmt		NBL	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)		560	-	182	433	-
HCM Lane V/C Ratio	0.033	-	0.048	0.025	-	-
HCM Control Delay (s)	11.6	-	25.8	13.5	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.1	-	-

HCM 6th Signalized Intersection Summary

1: Floor & Decor Driveway/2300 Lake Park Driveway & Lake Park Driveway Opening Year 2022- AM Peak Hour

Existing Roadway Network

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑		↑	↑		↑	↑	
Traffic Volume (veh/h)	28	1689	14	30	170	39	0	1	2	5	0	1
Future Volume (veh/h)	28	1689	14	30	170	39	0	1	2	5	0	1
Initial Q (Q _b), 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		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	1836	15	33	185	42	0	1	2	5	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	2019	16	56	1621	360	84	121	242	389	0	345
Arrive On Green	0.03	0.56	0.56	0.03	0.56	0.56	0.00	0.22	0.22	0.22	0.00	0.22
Sat Flow, veh/h	1781	3612	29	1781	2890	642	1416	557	1113	1414	0	1585
Grp Volume(v), veh/h	30	902	949	33	112	115	0	0	3	5	0	1
Grp Sat Flow(s), veh/h/ln	1781	1777	1865	1781	1777	1755	1416	0	1670	1414	0	1585
Q Serve(g_s), s	1.4	39.1	39.3	1.6	2.5	2.6	0.0	0.0	0.1	0.2	0.0	0.0
Cycle Q Clear(g_c), s	1.4	39.1	39.3	1.6	2.5	2.6	0.0	0.0	0.1	0.4	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.37	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	53	993	1042	56	997	984	84	0	363	389	0	345
V/C Ratio(X)	0.57	0.91	0.91	0.58	0.11	0.12	0.00	0.00	0.01	0.01	0.00	0.00
Avail Cap(c_a), veh/h	122	1023	1074	110	1010	998	84	0	363	389	0	345
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.2	17.0	17.0	41.1	8.8	8.9	0.0	0.0	26.4	26.5	0.0	26.4
Incr Delay (d2), s/veh	9.1	11.4	11.2	9.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	17.2	18.0	0.8	0.9	0.9	0.0	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.3	28.4	28.2	50.3	8.9	8.9	0.0	0.0	26.4	26.6	0.0	26.4
LnGrp LOS	D	C	C	D	A	A	A	A	C	C	A	C
Approach Vol, veh/h		1881			260			3			6	
Approach Delay, s/veh		28.7			14.2			26.4			26.5	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R _c), s	24.2	8.2	53.6		24.2	8.1	53.7					
Change Period (Y+R _c), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	18.7	5.3	49.5		18.7	5.9	48.9					
Max Q Clear Time (g_c+l1), s	2.1	3.6	41.3		2.4	3.4	4.6					
Green Ext Time (p_c), s	0.0	0.0	6.8		0.0	0.0	1.4					
Intersection Summary												
HCM 6th Ctrl Delay		26.9										
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
2: US 41 / Cobb Pkwy & Lake Park Drive/Target Dr

Existing Roadway Network
No Build Conditions- Opening Year 2022- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	324	144	1186	17	34	27	149	635	45	19	1290	122
Future Volume (veh/h)	324	144	1186	17	34	27	149	635	45	19	1290	122
Initial Q (Q _b), 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											
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	352	157	0	18	37	29	162	690	49	21	1402	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	375	365		174	56	44	254	1972	880	429	1832	
Arrive On Green	0.16	0.20	0.00	0.02	0.06	0.06	0.06	0.56	0.56	0.02	0.52	0.00
Sat Flow, veh/h	1781	1870	1585	1781	972	762	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	352	157	0	18	0	66	162	690	49	21	1402	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1733	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	16.5	7.8	0.0	1.0	0.0	3.9	4.4	11.3	1.5	0.6	33.3	0.0
Cycle Q Clear(g_c), s	16.5	7.8	0.0	1.0	0.0	3.9	4.4	11.3	1.5	0.6	33.3	0.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	375	365		174	0	100	254	1972	880	429	1832	
V/C Ratio(X)	0.94	0.43		0.10	0.00	0.66	0.64	0.35	0.06	0.05	0.77	
Avail Cap(c_a), veh/h	375	523		224	0	296	306	1972	880	475	1832	
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	39.7	37.3	0.0	45.3	0.0	48.6	19.4	12.9	10.8	11.7	20.4	0.0
Incr Delay (d2), s/veh	31.3	0.8	0.0	0.3	0.0	7.1	3.2	0.5	0.1	0.0	3.1	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	4.4	3.6	0.0	0.4	0.0	1.9	1.9	4.2	0.5	0.2	13.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	38.1	0.0	45.6	0.0	55.7	22.6	13.4	10.9	11.7	23.5	0.0
LnGrp LOS	E	D		D	A	E	C	B	B	B	C	
Approach Vol, veh/h	509	A		84			901			1423	A	
Approach Delay, s/veh	60.8			53.6			15.0			23.4		
Approach LOS	E			D			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	64.0	7.5	26.1	12.0	59.8	22.0	11.6				
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	5.6	58.5	5.0	29.5	9.5	54.0	16.5	18.0				
Max Q Clear Time (g_c+l), s	12.6	13.3	3.0	9.8	6.4	35.3	18.5	5.9				
Green Ext Time (p_c), s	0.0	5.0	0.0	0.8	0.1	9.5	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay		28.2										
HCM 6th LOS		C										
Notes												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1	1	1	2	2	1
Traffic Vol, veh/h	3	1	4	948	1410	29
Future Vol, veh/h	3	1	4	948	1410	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	125	-	-	125
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	1	4	1030	1533	32
Major/Minor						
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2056	767	1533	0	-	0
Stage 1	1533	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	48	345	430	-	-	-
Stage 1	164	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	48	345	430	-	-	-
Mov Cap-2 Maneuver	150	-	-	-	-	-
Stage 1	163	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Approach						
Approach	EB	NB	SB			
HCM Control Delay, s	26	0.1	0			
HCM LOS	D					
Minor Lane/Major Mvmt		NBL	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)		430	-	150	345	-
HCM Lane V/C Ratio		0.01	-	0.022	0.003	-
HCM Control Delay (s)		13.5	-	29.5	15.5	-
HCM Lane LOS		B	-	D	C	-
HCM 95th %tile Q(veh)		0	-	0.1	0	-

HCM 6th Signalized Intersection Summary

1: Floor & Decor Driveway/2300 Lake Park Driveway & Lake Park Driveway Opening Year 2022- PM Peak Hour

Existing Roadway Network

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	456	2	3	918	3	14	0	24	15	0	18
Future Volume (veh/h)	2	456	2	3	918	3	14	0	24	15	0	18
Initial Q (Q _b), 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	496	2	3	998	3	15	0	26	16	0	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1396	6	7	1403	4	586	0	548	580	0	548
Arrive On Green	0.00	0.38	0.38	0.00	0.39	0.39	0.35	0.00	0.35	0.35	0.00	0.35
Sat Flow, veh/h	1781	3630	15	1781	3634	11	1392	0	1585	1385	0	1585
Grp Volume(v), veh/h	2	243	255	3	488	513	15	0	26	16	0	20
Grp Sat Flow(s), veh/h/ln	1781	1777	1868	1781	1777	1868	1392	0	1585	1385	0	1585
Q Serve(g_s), s	0.1	6.1	6.1	0.1	14.4	14.4	0.4	0.0	0.7	0.5	0.0	0.5
Cycle Q Clear(g_c), s	0.1	6.1	6.1	0.1	14.4	14.4	1.0	0.0	0.7	1.2	0.0	0.5
Prop In Lane	1.00		0.01	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	683	718	7	686	721	586	0	548	580	0	548
V/C Ratio(X)	0.41	0.36	0.36	0.41	0.71	0.71	0.03	0.00	0.05	0.03	0.00	0.04
Avail Cap(c_a), veh/h	186	1301	1367	186	1301	1368	586	0	548	580	0	548
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	30.9	13.6	13.6	30.9	16.2	16.2	13.8	0.0	13.5	13.9	0.0	13.5
Incr Delay (d2), s/veh	47.4	0.3	0.3	33.8	1.4	1.3	0.1	0.0	0.2	0.1	0.0	0.1
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	2.2	2.3	0.1	5.5	5.7	0.1	0.0	0.2	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	78.3	13.9	13.9	64.7	17.5	17.5	13.9	0.0	13.7	14.0	0.0	13.6
LnGrp LOS	E	B	B	E	B	B	B	A	B	B	A	B
Approach Vol, veh/h		500			1004			41			36	
Approach Delay, s/veh		14.2			17.6			13.8			13.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R _c), s	27.0	5.8	29.4		27.0	5.7	29.5					
Change Period (Y+R _c), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	21.5	6.5	45.5		21.5	6.5	45.5					
Max Q Clear Time (g_c+l1), s	3.0	2.1	8.1		3.2	2.1	16.4					
Green Ext Time (p_c), s	0.1	0.0	3.3		0.1	0.0	7.5					
Intersection Summary												
HCM 6th Ctrl Delay		16.4										
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
2: US 41 / Cobb Pkwy & Lake Park Drive/Target Dr

Existing Roadway Network
No Build Conditions- Opening Year 2022- PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	146	58	337	181	250	92	492	1483	119	68	949	206
Future Volume (veh/h)	146	58	337	181	250	92	492	1483	119	68	949	206
Initial Q (Q _b), 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		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	159	63	0	197	272	100	535	1612	129	74	1032	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	298		419	258	95	519	1819	811	163	1063	
Arrive On Green	0.07	0.16	0.00	0.10	0.20	0.20	0.25	0.51	0.51	0.04	0.30	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1304	480	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	159	63	0	197	0	372	535	1612	129	74	1032	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1784	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.9	3.5	0.0	10.9	0.0	23.7	30.5	48.6	5.2	3.4	34.4	0.0
Cycle Q Clear(g_c), s	7.9	3.5	0.0	10.9	0.0	23.7	30.5	48.6	5.2	3.4	34.4	0.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	298		419	0	352	519	1819	811	163	1063	
V/C Ratio(X)	0.90	0.21		0.47	0.00	1.06	1.03	0.89	0.16	0.45	0.97	
Avail Cap(c_a), veh/h	177	298		419	0	352	519	1819	811	165	1063	
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	43.0	43.9	0.0	35.8	0.0	48.2	36.2	26.2	15.6	30.3	41.5	0.0
Incr Delay (d2), s/veh	39.9	0.4	0.0	0.8	0.0	63.4	47.3	6.8	0.4	2.0	21.4	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/lr	2.9	1.7	0.0	4.8	0.0	16.7	16.5	20.5	2.0	1.5	17.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.9	44.2	0.0	36.6	0.0	111.5	83.5	33.0	16.0	32.2	62.9	0.0
LnGrp LOS	F	D		D	A	F	F	C	B	C	E	
Approach Vol, veh/h	222	A		569			2276			1106	A	
Approach Delay, s/veh	71.9			85.6			43.9			60.9		
Approach LOS	E			F			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$0.5	66.9	18.0	24.6	36.0	41.4	13.4	29.2					
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), \$	61.3	12.5	19.1	30.5	35.9	7.9	23.7					
Max Q Clear Time (g_c+l), \$	50.6	12.9	5.5	32.5	36.4	9.9	25.7					
Green Ext Time (p_c), s	0.0	7.6	0.0	0.2	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay		55.6										
HCM 6th LOS		E										
Notes												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
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Lane Configurations						
Traffic Vol, veh/h	8	10	17	1687	1144	1
Future Vol, veh/h	8	10	17	1687	1144	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	125	-	-	125
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	11	18	1834	1243	1

Major/Minor	Minor2	Major1	Major2
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Conflicting Flow All	2196	622	1243	0	-	0
Stage 1	1243	-	-	-	-	-
Stage 2	953	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	38	430	556	-	-	-
Stage 1	235	-	-	-	-	-
Stage 2	335	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	37	430	556	-	-	-
Mov Cap-2 Maneuver	180	-	-	-	-	-
Stage 1	227	-	-	-	-	-
Stage 2	335	-	-	-	-	-

Approach	EB	NB	SB
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HCM Control Delay, s	19.1	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	556	-	180	430	-	-
HCM Lane V/C Ratio	0.033	-	0.048	0.025	-	-
HCM Control Delay (s)	11.7	-	26	13.6	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

HCM 6th Signalized Intersection Summary

1: Floor & Decor Driveway/2300 Lake Park Driveway & Lake Park Drive Design Year 2027- AM Peak Hour

Existing Roadway Network

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1758	15	31	177	41	0	1	2	5	0	1
Future Volume (veh/h)	29	1758	15	31	177	41	0	1	2	5	0	1
Initial Q (Q _b), 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	32	1911	16	34	192	45	0	1	2	5	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	2040	17	57	1625	372	83	119	237	382	0	338
Arrive On Green	0.03	0.56	0.56	0.03	0.57	0.57	0.00	0.21	0.21	0.21	0.00	0.21
Sat Flow, veh/h	1781	3612	30	1781	2871	658	1416	557	1113	1414	0	1585
Grp Volume(v), veh/h	32	939	988	34	117	120	0	0	3	5	0	1
Grp Sat Flow(s), veh/h/ln	1781	1777	1865	1781	1777	1752	1416	0	1670	1414	0	1585
Q Serve(g_s), s	1.5	42.3	42.6	1.6	2.7	2.8	0.0	0.0	0.1	0.2	0.0	0.0
Cycle Q Clear(g_c), s	1.5	42.3	42.6	1.6	2.7	2.8	0.0	0.0	0.1	0.4	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.38	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	55	1004	1054	57	1006	992	83	0	356	382	0	338
V/C Ratio(X)	0.58	0.94	0.94	0.59	0.12	0.12	0.00	0.00	0.01	0.01	0.00	0.00
Avail Cap(c_a), veh/h	125	1016	1067	109	1006	992	83	0	356	382	0	338
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.5	17.4	17.5	41.5	8.8	8.8	0.0	0.0	27.0	27.1	0.0	26.9
Incr Delay (d2), s/veh	9.3	15.0	14.9	9.4	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	19.3	20.3	0.9	1.0	1.0	0.0	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.8	32.5	32.4	50.8	8.8	8.8	0.0	0.0	27.0	27.2	0.0	26.9
LnGrp LOS	D	C	C	D	A	A	A	A	C	C	A	C
Approach Vol, veh/h	1959				271				3			6
Approach Delay, s/veh	32.7				14.1				27.0			27.1
Approach LOS	C				B				C			C
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R _c), s	24.0	8.3	54.6		24.0	8.2	54.7					
Change Period (Y+R _c), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	18.5	5.3	49.7		18.5	6.1	48.9					
Max Q Clear Time (g_c+l1), s	2.1	3.6	44.6		2.4	3.5	4.8					
Green Ext Time (p_c), s	0.0	0.0	4.5		0.0	0.0	1.5					
Intersection Summary												
HCM 6th Ctrl Delay				30.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
2: US 41 / Cobb Pkwy & Lake Park Drive/Target Dr

Existing Roadway Network
No Build Conditions- Design Year 2027- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	337	150	1234	18	35	28	155	661	47	20	1342	127
Future Volume (veh/h)	337	150	1234	18	35	28	155	661	47	20	1342	127
Initial Q (Q _b), 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											
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	366	163	0	20	38	30	168	718	51	22	1459	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	356	344		177	57	45	249	2008	896	426	1869	
Arrive On Green	0.15	0.18	0.00	0.02	0.06	0.06	0.06	0.57	0.57	0.02	0.53	0.00
Sat Flow, veh/h	1781	1870	1585	1781	968	764	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	366	163	0	20	0	68	168	718	51	22	1459	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1733	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	15.5	8.3	0.0	1.1	0.0	4.1	4.5	11.7	1.5	0.6	35.0	0.0
Cycle Q Clear(g_c), s	15.5	8.3	0.0	1.1	0.0	4.1	4.5	11.7	1.5	0.6	35.0	0.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	356	344		177	0	102	249	2008	896	426	1869	
V/C Ratio(X)	1.03	0.47		0.11	0.00	0.67	0.68	0.36	0.06	0.05	0.78	
Avail Cap(c_a), veh/h	356	502		224	0	294	285	2008	896	470	1869	
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	41.2	38.7	0.0	45.4	0.0	48.9	20.3	12.6	10.4	11.2	20.2	0.0
Incr Delay (d2), s/veh	55.5	1.0	0.0	0.3	0.0	7.2	5.2	0.5	0.1	0.0	3.3	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	7.3	3.9	0.0	0.5	0.0	2.0	2.3	4.3	0.6	0.2	13.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.7	39.7	0.0	45.7	0.0	56.1	25.5	13.1	10.5	11.3	23.5	0.0
LnGrp LOS	F	D		D	A	E	C	B	B	B	C	
Approach Vol, veh/h	529		A		88			937		1481		A
Approach Delay, s/veh	79.2			53.7				15.2		23.4		
Approach LOS		E			D			B		C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	65.4	7.7	25.0	12.0	61.3	21.0	11.8				
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	5.6	59.5	5.0	28.5	8.7	55.8	15.5	18.0				
Max Q Clear Time (g_c+l), s	12.6	13.7	3.1	10.3	6.5	37.0	17.5	6.1				
Green Ext Time (p_c), s	0.0	5.3	0.0	0.8	0.1	9.9	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay		31.4										
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1	1	1	2	2	1
Traffic Vol, veh/h	3	1	4	987	1467	30
Future Vol, veh/h	3	1	4	987	1467	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	125	-	-	125
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	1	4	1073	1595	33

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2140	798	1595	0	-	0
Stage 1	1595	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	42	329	407	-	-	-
Stage 1	152	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	42	329	407	-	-	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	150	-	-	-	-	-
Stage 2	545	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s 27.6 0.1 0

HCM LOS D

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	407	-	139	329	-	-
HCM Lane V/C Ratio	0.011	-	0.023	0.003	-	-
HCM Control Delay (s)	13.9	-	31.5	16	-	-
HCM Lane LOS	B	-	D	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

HCM 6th Signalized Intersection Summary

1: Floor & Decor Driveway/2300 Lake Park Driveway & Lake Park Drive

Existing Roadway Network

NBDPM Existing Roadway Network 1:11 pm 02/26/2021 No Build Conditions- Design Year 2027- PM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	475	2	3	955	3	15	0	25	16	0	19
Future Volume (veh/h)	2	475	2	3	955	3	15	0	25	16	0	19
Initial Q (Q _b), 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	516	2	3	1038	3	16	0	27	17	0	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1450	6	7	1457	4	563	0	524	557	0	524
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40	0.33	0.00	0.33	0.33	0.00	0.33
Sat Flow, veh/h	1781	3631	14	1781	3635	11	1391	0	1585	1383	0	1585
Grp Volume(v), veh/h	2	252	266	3	507	534	16	0	27	17	0	21
Grp Sat Flow(s), veh/h/ln	1781	1777	1868	1781	1777	1868	1391	0	1585	1383	0	1585
Q Serve(g_s), s	0.1	6.2	6.2	0.1	14.9	14.9	0.5	0.0	0.7	0.5	0.0	0.6
Cycle Q Clear(g_c), s	0.1	6.2	6.2	0.1	14.9	14.9	1.0	0.0	0.7	1.2	0.0	0.6
Prop In Lane	1.00		0.01	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	710	746	7	712	749	563	0	524	557	0	524
V/C Ratio(X)	0.41	0.36	0.36	0.41	0.71	0.71	0.03	0.00	0.05	0.03	0.00	0.04
Avail Cap(c_a), veh/h	187	1332	1400	187	1332	1401	563	0	524	557	0	524
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	30.9	13.0	13.0	30.8	15.6	15.6	14.4	0.0	14.1	14.6	0.0	14.1
Incr Delay (d2), s/veh	47.4	0.3	0.3	33.8	1.3	1.3	0.1	0.0	0.2	0.1	0.0	0.1
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	2.3	2.4	0.1	5.6	5.8	0.2	0.0	0.3	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	78.3	13.3	13.3	64.6	16.9	16.9	14.5	0.0	14.3	14.7	0.0	14.2
LnGrp LOS	E	B	B	E	B	B	B	A	B	B	A	B
Approach Vol, veh/h		520			1044			43			38	
Approach Delay, s/veh		13.6			17.0			14.4			14.4	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R _c), s	26.0	5.8	30.3		26.0	5.7	30.4					
Change Period (Y+R _c), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	20.5	6.5	46.5		20.5	6.5	46.5					
Max Q Clear Time (g_c+l1), s	3.0	2.1	8.2		3.2	2.1	16.9					
Green Ext Time (p_c), s	0.1	0.0	3.4		0.1	0.0	8.0					
Intersection Summary												
HCM 6th Ctrl Delay		15.8										
HCM 6th LOS		B										

HCM 6th Signalized Intersection Summary
2: US 41 / Cobb Pkwy & Lake Park Drive/Target Dr

Existing Roadway Network
No Build Conditions- Design Year 2027- PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	152	60	351	188	260	96	512	1543	124	71	988	214
Future Volume (veh/h)	152	60	351	188	260	96	512	1543	124	71	988	214
Initial Q (Q _b), 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		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	165	65	0	204	283	104	557	1677	135	77	1074	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	287		414	255	94	513	1830	816	155	1075	
Arrive On Green	0.06	0.15	0.00	0.11	0.20	0.20	0.25	0.52	0.52	0.04	0.30	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1305	479	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	165	65	0	204	0	387	557	1677	135	77	1074	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1784	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.7	3.7	0.0	11.3	0.0	23.5	30.5	52.0	5.4	3.6	36.3	0.0
Cycle Q Clear(g_c), s	7.7	3.7	0.0	11.3	0.0	23.5	30.5	52.0	5.4	3.6	36.3	0.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	287		414	0	349	513	1830	816	155	1075	
V/C Ratio(X)	0.95	0.23		0.49	0.00	1.11	1.09	0.92	0.17	0.50	1.00	
Avail Cap(c_a), veh/h	174	287		414	0	349	513	1830	816	155	1075	
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	44.6	44.6	0.0	35.9	0.0	48.3	37.0	26.7	15.4	31.1	41.8	0.0
Incr Delay (d2), s/veh	52.6	0.4	0.0	0.9	0.0	80.4	65.0	8.7	0.4	2.4	27.2	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	1.7	0.0	5.0	0.0	18.2	23.8	22.2	2.1	1.6	19.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.2	45.0	0.0	36.8	0.0	128.6	102.0	35.5	15.9	33.6	69.1	0.0
LnGrp LOS	F	D		D	A	F	F	D	B	C	E	
Approach Vol, veh/h	230	A		591			2369			1151	A	
Approach Delay, s/veh	82.4			97.0			50.0			66.7		
Approach LOS	F			F			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$0.5	67.3	18.3	23.9	36.0	41.8	13.2	29.0					
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	61.8	12.8	18.4	30.5	36.3	7.7	23.5					
Max Q Clear Time (g_c+l), s	54.0	13.3	5.7	32.5	38.3	9.7	25.5					
Green Ext Time (p_c), s	0.0	6.0	0.0	0.2	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			62.5									
HCM 6th LOS			E									
Notes												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑↑	↑↑	↑
Traffic Vol, veh/h	8	10	18	1756	1190	1
Future Vol, veh/h	8	10	18	1756	1190	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	125	-	-	125
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	11	20	1909	1293	1

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2288	647	1293	0	-	0
Stage 1	1293	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	33	414	532	-	-	-
Stage 1	221	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	32	414	532	-	-	-
Mov Cap-2 Maneuver	168	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	318	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	532	-	168	414	-	-
HCM Lane V/C Ratio	0.037	-	0.052	0.026	-	-
HCM Control Delay (s)	12	-	27.6	13.9	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

HCM 6th Signalized Intersection Summary

1: Floor & Decor Driveway/2300 Lake Park Driveway & Lake Park Driveway

Existing Roadway Network

Build Conditions- Opening Year 2022- AM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	1689	14	30	170	131	0	1	2	85	0	1
Future Volume (veh/h)	28	1689	14	30	170	131	0	1	2	85	0	1
Initial Q (Q _b), 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	1836	15	33	185	142	0	1	2	92	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	2019	16	56	1102	800	84	121	242	389	0	345
Arrive On Green	0.03	0.56	0.56	0.03	0.56	0.56	0.00	0.22	0.22	0.22	0.00	0.22
Sat Flow, veh/h	1781	3612	29	1781	1965	1426	1416	557	1113	1414	0	1585
Grp Volume(v), veh/h	30	902	949	33	166	161	0	0	3	92	0	1
Grp Sat Flow(s), veh/h/ln	1781	1777	1865	1781	1777	1614	1416	0	1670	1414	0	1585
Q Serve(g_s), s	1.4	39.1	39.3	1.6	3.9	4.2	0.0	0.0	0.1	4.7	0.0	0.0
Cycle Q Clear(g_c), s	1.4	39.1	39.3	1.6	3.9	4.2	0.0	0.0	0.1	4.8	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.88	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	53	993	1042	56	997	905	84	0	363	389	0	345
V/C Ratio(X)	0.57	0.91	0.91	0.58	0.17	0.18	0.00	0.00	0.01	0.24	0.00	0.00
Avail Cap(c_a), veh/h	122	1023	1074	110	1010	918	84	0	363	389	0	345
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.2	17.0	17.0	41.1	9.1	9.2	0.0	0.0	26.4	28.3	0.0	26.4
Incr Delay (d2), s/veh	9.1	11.4	11.2	9.2	0.1	0.1	0.0	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	17.2	18.0	0.8	1.4	1.4	0.0	0.0	0.1	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.3	28.4	28.2	50.3	9.2	9.3	0.0	0.0	26.4	29.7	0.0	26.4
LnGrp LOS	D	C	C	D	A	A	A	A	C	C	A	C
Approach Vol, veh/h	1881				360			3			93	
Approach Delay, s/veh	28.7				13.0			26.4			29.7	
Approach LOS	C				B			C			C	
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R _c), s	24.2	8.2	53.6		24.2	8.1	53.7					
Change Period (Y+R _c), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	18.7	5.3	49.5		18.7	5.9	48.9					
Max Q Clear Time (g_c+l1), s	2.1	3.6	41.3		6.8	3.4	6.2					
Green Ext Time (p_c), s	0.0	0.0	6.8		0.1	0.0	2.2					
Intersection Summary												
HCM 6th Ctrl Delay			26.3									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
2: US 41 / Cobb Pkwy & Lake Park Drive/Target Dr

Existing Roadway Network
Build Conditions- Opening Year 2022- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	324	144	1266	17	34	27	241	635	45	19	1290	122
Future Volume (veh/h)	324	144	1266	17	34	27	241	635	45	19	1290	122
Initial Q (Q _b), 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		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	352	157	0	18	37	29	262	690	49	21	1402	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	312		174	56	44	302	2074	925	455	1841	
Arrive On Green	0.13	0.17	0.00	0.02	0.06	0.06	0.09	0.58	0.58	0.02	0.52	0.00
Sat Flow, veh/h	1781	1870	1585	1781	972	762	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	352	157	0	18	0	66	262	690	49	21	1402	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1733	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	13.5	8.0	0.0	1.0	0.0	3.9	6.8	10.6	1.4	0.6	33.1	0.0
Cycle Q Clear(g_c), s	13.5	8.0	0.0	1.0	0.0	3.9	6.8	10.6	1.4	0.6	33.1	0.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	324	312		174	0	100	302	2074	925	455	1841	
V/C Ratio(X)	1.09	0.50		0.10	0.00	0.66	0.87	0.33	0.05	0.05	0.76	
Avail Cap(c_a), veh/h	324	470		224	0	296	395	2074	925	500	1841	
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	42.1	40.0	0.0	45.3	0.0	48.6	20.7	11.3	9.4	11.4	20.2	0.0
Incr Delay (d2), s/veh	75.0	1.3	0.0	0.3	0.0	7.1	14.7	0.4	0.1	0.0	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/lr	8.6	3.8	0.0	0.4	0.0	1.9	4.4	3.8	0.5	0.2	13.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	117.2	41.2	0.0	45.6	0.0	55.7	35.4	11.8	9.5	11.4	23.3	0.0
LnGrp LOS	F	D		D	A	E	D	B	A	B	C	
Approach Vol, veh/h	509		A		84			1001		1423		A
Approach Delay, s/veh	93.8				53.6			17.9		23.1		
Approach LOS	F				D			B		C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	67.0	7.5	23.1	14.7	60.1	19.0	11.6				
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	5.6	61.5	5.0	26.5	14.7	51.8	13.5	18.0				
Max Q Clear Time (g_c+l), s	12.6	12.6	3.0	10.0	8.8	35.1	15.5	5.9				
Green Ext Time (p_c), s	0.0	0.0	0.7	0.4	8.8	0.0	0.2					
Intersection Summary												
HCM 6th Ctrl Delay		34.1										
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th TWSC
3: US 41 / Cobb Pkwy & 2400 Lake Park Driveway

Existing Roadway Network
Build Conditions- Opening Year 2022- AM Peak Hour

Intersection

Int Delay, s/veh 1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1	1	1	2	2	1
Traffic Vol, veh/h	56	1	4	948	1410	90
Future Vol, veh/h	56	1	4	948	1410	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	125	-	-	125
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	61	1	4	1030	1533	98

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2056	767	1533	0	-	0
Stage 1	1533	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 48	345	430	-	-	-
Stage 1	164	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 48	345	430	-	-	-
Mov Cap-2 Maneuver	150	-	-	-	-	-
Stage 1	163	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	44	0.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	430	-	150	345	-	-
HCM Lane V/C Ratio	0.01	-	0.406	0.003	-	-
HCM Control Delay (s)	13.5	-	44.5	15.5	-	-
HCM Lane LOS	B	-	E	C	-	-
HCM 95th %tile Q(veh)	0	-	1.8	0	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary

1: Floor & Decor Driveway/2300 Lake Park Driveway & Lake Park Driveway

Existing Roadway Network

Build Conditions- Opening Year 2022- PM Peak Hour

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	456	2	3	918	77	14	0	24	81	0	18
Future Volume (veh/h)	2	456	2	3	918	77	14	0	24	81	0	18
Initial Q (Q _b), 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	496	2	3	998	84	15	0	26	88	0	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1467	6	7	1345	113	579	0	551	573	0	551
Arrive On Green	0.00	0.40	0.40	0.00	0.41	0.41	0.35	0.00	0.35	0.35	0.00	0.35
Sat Flow, veh/h	1781	3630	15	1781	3318	279	1392	0	1585	1385	0	1585
Grp Volume(v), veh/h	2	243	255	3	534	548	15	0	26	88	0	20
Grp Sat Flow(s), veh/h/ln	1781	1777	1868	1781	1777	1820	1392	0	1585	1385	0	1585
Q Serve(g_s), s	0.1	6.4	6.4	0.1	17.3	17.3	0.5	0.0	0.7	3.0	0.0	0.6
Cycle Q Clear(g_c), s	0.1	6.4	6.4	0.1	17.3	17.3	1.0	0.0	0.7	3.8	0.0	0.6
Prop In Lane	1.00			1.00			1.00	1.00		1.00	1.00	1.00
Lane Grp Cap(c), veh/h	5	718	755	7	720	738	579	0	551	573	0	551
V/C Ratio(X)	0.41	0.34	0.34	0.42	0.74	0.74	0.03	0.00	0.05	0.15	0.00	0.04
Avail Cap(c_a), veh/h	145	1170	1230	145	1170	1198	579	0	551	573	0	551
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	33.6	13.9	13.9	33.6	17.1	17.1	14.9	0.0	14.6	15.9	0.0	14.6
Incr Delay (d2), s/veh	47.5	0.3	0.3	34.0	1.5	1.5	0.1	0.0	0.2	0.6	0.0	0.1
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	2.4	2.5	0.1	6.6	6.8	0.2	0.0	0.3	1.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.2	14.2	14.2	67.5	18.6	18.6	15.0	0.0	14.8	16.4	0.0	14.7
LnGrp LOS	F	B	B	E	B	B	B	A	B	B	A	B
Approach Vol, veh/h	500				1085			41			108	
Approach Delay, s/veh	14.4				18.7			14.9			16.1	
Approach LOS	B				B			B			B	
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R _c), s	29.0	5.8	32.8		29.0	5.7	32.9					
Change Period (Y+R _c), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	23.5	5.5	44.5		23.5	5.5	44.5					
Max Q Clear Time (g_c+l1), s	3.0	2.1	8.4		5.8	2.1	19.3					
Green Ext Time (p_c), s	0.1	0.0	3.2		0.3	0.0	8.1					
Intersection Summary												
HCM 6th Ctrl Delay				17.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
2: US 41 / Cobb Pkwy & Lake Park Drive/Target Dr

Existing Roadway Network
Build Conditions- Opening Year 2022- PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	146	58	403	181	250	92	566	1483	119	68	949	206
Future Volume (veh/h)	146	58	403	181	250	92	566	1483	119	68	949	206
Initial Q (Q _b), 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		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	159	63	0	197	272	100	615	1612	129	74	1032	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	309		392	246	90	560	1868	833	171	1019	
Arrive On Green	0.06	0.16	0.00	0.08	0.19	0.19	0.28	0.53	0.53	0.04	0.29	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1304	480	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	159	63	0	197	0	372	615	1612	129	74	1032	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1784	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	7.3	3.5	0.0	10.1	0.0	22.6	33.7	47.3	5.0	3.5	34.4	0.0
Cycle Q Clear(g_c), s	7.3	3.5	0.0	10.1	0.0	22.6	33.7	47.3	5.0	3.5	34.4	0.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	168	309		392	0	336	560	1868	833	171	1019	
V/C Ratio(X)	0.94	0.20		0.50	0.00	1.11	1.10	0.86	0.15	0.43	1.01	
Avail Cap(c_a), veh/h	168	309		392	0	336	560	1868	833	172	1019	
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	44.0	43.3	0.0	38.4	0.0	48.7	36.0	24.7	14.7	30.2	42.8	0.0
Incr Delay (d2), s/veh	53.1	0.3	0.0	1.0	0.0	81.1	67.5	5.6	0.4	1.7	31.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	1.7	0.0	5.0	0.0	17.6	21.3	19.5	1.9	1.5	18.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.1	43.6	0.0	39.4	0.0	129.8	103.5	30.3	15.1	31.9	74.3	0.0
LnGrp LOS	F	D		D	A	F	F	C	B	C	F	
Approach Vol, veh/h	222	A			569			2356			1106	A
Approach Delay, s/veh	81.9				98.5			48.6			71.4	
Approach LOS	F			F			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$0.5	68.6	15.6	25.3	39.2	39.9	12.8	28.1					
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), \$	63.0	10.1	19.8	33.7	34.4	7.3	22.6					
Max Q Clear Time (g_c+l), \$	49.3	12.1	5.5	35.7	36.4	9.3	24.6					
Green Ext Time (p_c), s	0.0	9.2	0.0	0.2	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				62.9								
HCM 6th LOS				E								
Notes												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th TWSC
3: US 41 / Cobb Pkwy & 2400 Lake Park Driveway

Existing Roadway Network
Build Conditions- Opening Year 2022- PM Peak Hour

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑↑	↑↑	↑
Traffic Vol, veh/h	52	10	17	1687	1144	50
Future Vol, veh/h	52	10	17	1687	1144	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	125	-	-	125
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	11	18	1834	1243	54

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2196	622	1243	0	-	0
Stage 1	1243	-	-	-	-	-
Stage 2	953	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 38	430	556	-	-	-
Stage 1	235	-	-	-	-	-
Stage 2	335	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 37	430	556	-	-	-
Mov Cap-2 Maneuver	180	-	-	-	-	-
Stage 1	227	-	-	-	-	-
Stage 2	335	-	-	-	-	-

Approach	EB	NB	SB
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HCM Control Delay, s 30.6 0.1 0

HCM LOS D

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	556	-	180	430	-	-
HCM Lane V/C Ratio	0.033	-	0.314	0.025	-	-
HCM Control Delay (s)	11.7	-	33.9	13.6	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.3	0.1	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary

1: Floor & Decor Driveway/2300 Lake Park Driveway & Lake Park Drive Design Year 2027- AM Peak Hour

Existing Roadway Network

Planned Drive

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1758	15	31	177	136	0	1	2	88	0	1
Future Volume (veh/h)	29	1758	15	31	177	136	0	1	2	88	0	1
Initial Q (Q _b), 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	32	1911	16	34	192	148	0	1	2	96	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	2040	17	57	1109	810	83	119	237	382	0	338
Arrive On Green	0.03	0.56	0.56	0.03	0.57	0.57	0.00	0.21	0.21	0.21	0.00	0.21
Sat Flow, veh/h	1781	3612	30	1781	1959	1430	1416	557	1113	1414	0	1585
Grp Volume(v), veh/h	32	939	988	34	173	167	0	0	3	96	0	1
Grp Sat Flow(s), veh/h/ln	1781	1777	1865	1781	1777	1613	1416	0	1670	1414	0	1585
Q Serve(g_s), s	1.5	42.3	42.6	1.6	4.1	4.3	0.0	0.0	0.1	5.0	0.0	0.0
Cycle Q Clear(g_c), s	1.5	42.3	42.6	1.6	4.1	4.3	0.0	0.0	0.1	5.1	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.89	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	55	1004	1054	57	1006	913	83	0	356	382	0	338
V/C Ratio(X)	0.58	0.94	0.94	0.59	0.17	0.18	0.00	0.00	0.01	0.25	0.00	0.00
Avail Cap(c_a), veh/h	125	1016	1067	109	1006	913	83	0	356	382	0	338
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.5	17.4	17.5	41.5	9.1	9.1	0.0	0.0	27.0	29.0	0.0	26.9
Incr Delay (d2), s/veh	9.3	15.0	14.9	9.4	0.1	0.1	0.0	0.0	0.0	1.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	19.3	20.3	0.9	1.5	1.4	0.0	0.0	0.1	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.8	32.5	32.4	50.8	9.1	9.2	0.0	0.0	27.0	30.5	0.0	26.9
LnGrp LOS	D	C	C	D	A	A	A	A	C	C	A	C
Approach Vol, veh/h		1959			374			3			97	
Approach Delay, s/veh		32.7			13.0			27.0			30.5	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R _c), s	24.0	8.3	54.6		24.0	8.2	54.7					
Change Period (Y+R _c), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	18.5	5.3	49.7		18.5	6.1	48.9					
Max Q Clear Time (g_c+l1), s	2.1	3.6	44.6		7.1	3.5	6.3					
Green Ext Time (p_c), s	0.0	0.0	4.5		0.1	0.0	2.3					
Intersection Summary												
HCM 6th Ctrl Delay		29.6										
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
2: US 41 / Cobb Pkwy & Lake Park Drive/Target Dr

Existing Roadway Network
Build Conditions- Design Year 2027- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	337	150	1317	18	35	28	251	661	47	20	1342	127
Future Volume (veh/h)	337	150	1317	18	35	28	251	661	47	20	1342	127
Initial Q (Q _b), 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		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	366	163	0	20	38	30	273	718	51	22	1459	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	312		178	57	45	306	2066	921	441	1784	
Arrive On Green	0.13	0.17	0.00	0.02	0.06	0.06	0.10	0.58	0.58	0.02	0.50	0.00
Sat Flow, veh/h	1781	1870	1585	1781	968	764	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	366	163	0	20	0	68	273	718	51	22	1459	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1733	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	13.6	8.4	0.0	1.1	0.0	4.1	8.4	11.2	1.5	0.6	36.6	0.0
Cycle Q Clear(g_c), s	13.6	8.4	0.0	1.1	0.0	4.1	8.4	11.2	1.5	0.6	36.6	0.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	312		178	0	102	306	2066	921	441	1784	
V/C Ratio(X)	1.13	0.52		0.11	0.00	0.66	0.89	0.35	0.06	0.05	0.82	
Avail Cap(c_a), veh/h	325	471		225	0	295	376	2066	921	485	1784	
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	42.1	40.2	0.0	45.2	0.0	48.7	24.6	11.6	9.6	12.1	22.2	0.0
Incr Delay (d2), s/veh	88.4	1.4	0.0	0.3	0.0	7.2	19.7	0.5	0.1	0.0	4.3	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/lr	9.9	4.0	0.0	0.5	0.0	2.0	4.9	4.1	0.5	0.2	14.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	130.5	41.5	0.0	45.5	0.0	55.8	44.3	12.1	9.7	12.2	26.5	0.0
LnGrp LOS	F	D		D	A	E	D	B	A	B	C	
Approach Vol, veh/h		529	A		88			1042		1481		A
Approach Delay, s/veh		103.1			53.5			20.4		26.3		
Approach LOS		F			D			C		C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	66.9	7.7	23.1	16.3	58.5	19.1	11.7				
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	5.6	61.4	5.0	26.6	14.9	51.5	13.6	18.0				
Max Q Clear Time (g_c+l), s	12.6	13.2	3.1	10.4	10.4	38.6	15.6	6.1				
Green Ext Time (p_c), s	0.0	5.3	0.0	0.7	0.3	7.8	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay		38.0										
HCM 6th LOS		D										
Notes												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑↑	↑↑	↑
Traffic Vol, veh/h	58	1	4	987	1467	94
Future Vol, veh/h	58	1	4	987	1467	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	125	-	-	125
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	63	1	4	1073	1595	102

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2140	798	1595	0	-	0
Stage 1	1595	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 42	329	407	-	-	-
Stage 1	152	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 42	329	407	-	-	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	150	-	-	-	-	-
Stage 2	545	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s 50.2 0.1 0

HCM LOS F

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	407	-	139	329	-	-
HCM Lane V/C Ratio	0.011	-	0.454	0.003	-	-
HCM Control Delay (s)	13.9	-	50.8	16	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0	-	2	0	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th Signalized Intersection Summary

1: Floor & Decor Driveway/2300 Lake Park Driveway & Lake Park Drive Design Year 2027- PM Peak Hour

Existing Roadway Network

BDPM Existing

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	475	2	3	955	80	15	0	25	84	0	19
Future Volume (veh/h)	2	475	2	3	955	80	15	0	25	84	0	19
Initial Q (Q _b), 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	516	2	3	1038	87	16	0	27	91	0	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	5	1508	6	7	1383	116	567	0	541	561	0	541
Arrive On Green	0.00	0.42	0.42	0.00	0.42	0.42	0.34	0.00	0.34	0.34	0.00	0.34
Sat Flow, veh/h	1781	3631	14	1781	3319	278	1391	0	1585	1383	0	1585
Grp Volume(v), veh/h	2	252	266	3	556	569	16	0	27	91	0	21
Grp Sat Flow(s), veh/h/ln	1781	1777	1868	1781	1777	1820	1391	0	1585	1383	0	1585
Q Serve(g_s), s	0.1	6.7	6.7	0.1	18.3	18.3	0.5	0.0	0.8	3.3	0.0	0.6
Cycle Q Clear(g_c), s	0.1	6.7	6.7	0.1	18.3	18.3	1.1	0.0	0.8	4.0	0.0	0.6
Prop In Lane	1.00		0.01	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	5	738	776	7	740	759	567	0	541	561	0	541
V/C Ratio(X)	0.41	0.34	0.34	0.42	0.75	0.75	0.03	0.00	0.05	0.16	0.00	0.04
Avail Cap(c_a), veh/h	142	1148	1206	142	1148	1176	567	0	541	561	0	541
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	34.3	13.7	13.7	34.2	17.1	17.1	15.5	0.0	15.2	16.6	0.0	15.2
Incr Delay (d2), s/veh	47.6	0.3	0.3	34.0	1.6	1.5	0.1	0.0	0.2	0.6	0.0	0.1
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	2.5	2.6	0.1	7.0	7.2	0.2	0.0	0.3	1.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.9	14.0	14.0	68.2	18.6	18.6	15.6	0.0	15.4	17.2	0.0	15.3
LnGrp LOS	F	B	B	E	B	B	B	A	B	B	A	B
Approach Vol, veh/h		520			1128			43			112	
Approach Delay, s/veh		14.3			18.7			15.5			16.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R _c), s	29.0	5.8	34.1		29.0	5.7	34.2					
Change Period (Y+R _c), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	23.5	5.5	44.5		23.5	5.5	44.5					
Max Q Clear Time (g_c+l1), s	3.1	2.1	8.7		6.0	2.1	20.3					
Green Ext Time (p_c), s	0.1	0.0	3.4		0.3	0.0	8.4					
Intersection Summary												
HCM 6th Ctrl Delay			17.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
2: US 41 / Cobb Pkwy & Lake Park Drive/Target Dr

Existing Roadway Network
Build Conditions- Design Year 2027- PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	152	60	419	188	260	96	589	1543	124	71	988	214
Future Volume (veh/h)	152	60	419	188	260	96	589	1543	124	71	988	214
Initial Q (Q _b), 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	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		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	165	65	0	204	283	104	640	1677	135	77	1074	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	98		383	234	86	542	1925	859	134	1111	
Arrive On Green	0.05	0.05	0.00	0.18	0.18	0.18	0.27	0.54	0.54	0.04	0.31	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1305	479	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	165	65	0	204	0	387	640	1677	135	77	1074	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1784	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	6.5	4.1	0.0	8.1	0.0	21.5	32.5	49.1	5.1	1.0	35.7	0.0
Cycle Q Clear(g_c), s	6.5	4.1	0.0	8.1	0.0	21.5	32.5	49.1	5.1	1.0	35.7	0.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	156	98		383	0	320	542	1925	859	134	1111	
V/C Ratio(X)	1.05	0.67		0.53	0.00	1.21	1.18	0.87	0.16	0.57	0.97	
Avail Cap(c_a), veh/h	156	285		383	0	320	542	1925	859	134	1111	
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	57.9	55.8	0.0	42.4	0.0	49.3	42.0	23.9	13.8	55.2	40.6	0.0
Incr Delay (d2), s/veh	87.1	7.6	0.0	1.4	0.0	120.3	98.8	5.8	0.4	5.8	20.2	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/lr	8.6	2.1	0.0	5.5	0.0	20.2	29.3	20.1	1.9	2.4	18.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	145.1	63.4	0.0	43.8	0.0	169.6	140.7	29.6	14.2	61.0	60.8	0.0
LnGrp LOS	F	E		D	A	F	F	C	B	E	E	
Approach Vol, veh/h	230	A			591			2452			1151	A
Approach Delay, s/veh	122.0				126.2			57.8			60.8	
Approach LOS	F			F			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), \$0.5	70.5	27.2	11.8	38.0	43.0	12.0	27.0					
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	65.0	9.7	18.3	32.5	37.5	6.5	21.5					
Max Q Clear Time (g_c+l), s	51.1	10.1	6.1	34.5	37.7	8.5	23.5					
Green Ext Time (p_c), s	0.0	9.6	0.0	0.2	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay		71.0										
HCM 6th LOS			E									
Notes												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection

Int Delay, s/veh 0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
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Lane Configurations						
Traffic Vol, veh/h	54	10	18	1756	1190	52
Future Vol, veh/h	54	10	18	1756	1190	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	125	-	-	125
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	59	11	20	1909	1293	57

Major/Minor	Minor2	Major1	Major2
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Conflicting Flow All	2288	647	1293	0	-	0
Stage 1	1293	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 33	414	532	-	-	-
Stage 1	221	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 32	414	532	-	-	-
Mov Cap-2 Maneuver	168	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	318	-	-	-	-	-

Approach	EB	NB	SB
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HCM Control Delay, s	33.8	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	532	-	168	414	-	-
HCM Lane V/C Ratio	0.037	-	0.349	0.026	-	-
HCM Control Delay (s)	12	-	37.5	13.9	-	-
HCM Lane LOS	B	-	E	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.5	0.1	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

APPENDIX

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