



Traffic Impact Study

Hanover Ashford Green

City of Brookhaven, Georgia

Report Prepared:

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Prepared for:

The Hanover Company

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2017 FORMER PROGRAM

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1.0 INTRODUCTION

This report presents the analysis of the anticipated traffic impacts associated with the *Hanover Ashford Green* development, which is expected to be completed through multiple phases. Phase 1 is expected to consist of approximately 300 apartment units and to be completed in 2019. Full build-out of the development is still in the conceptual phase and is expected to consist of approximately 500,000 SF of office; however, the completion year has yet to be determined. For the purposes of analysis, the full build-out year is assumed to be 2024.

The approximate 18.33-acre site is bordered by Ashford Dunwoody Road to the east, Parkside Place to the west, Lake Hearn Drive to the north, and Perimeter Summit Parkway to the south in the City of Brookhaven, Georgia. The site is currently occupied by an approximate 270,000 SF office building that will remain.

This report will summarize the analyses of the following five (5) scenarios:

1. Adjusted 2017 Traffic Conditions
2. Projected 2019 No-Build Traffic Conditions
3. Projected 2019 Build (Phase 1) Traffic Conditions
4. Projected 2024 No-Build Traffic Conditions
5. Projected 2024 Build (Full Build-out) Traffic Conditions

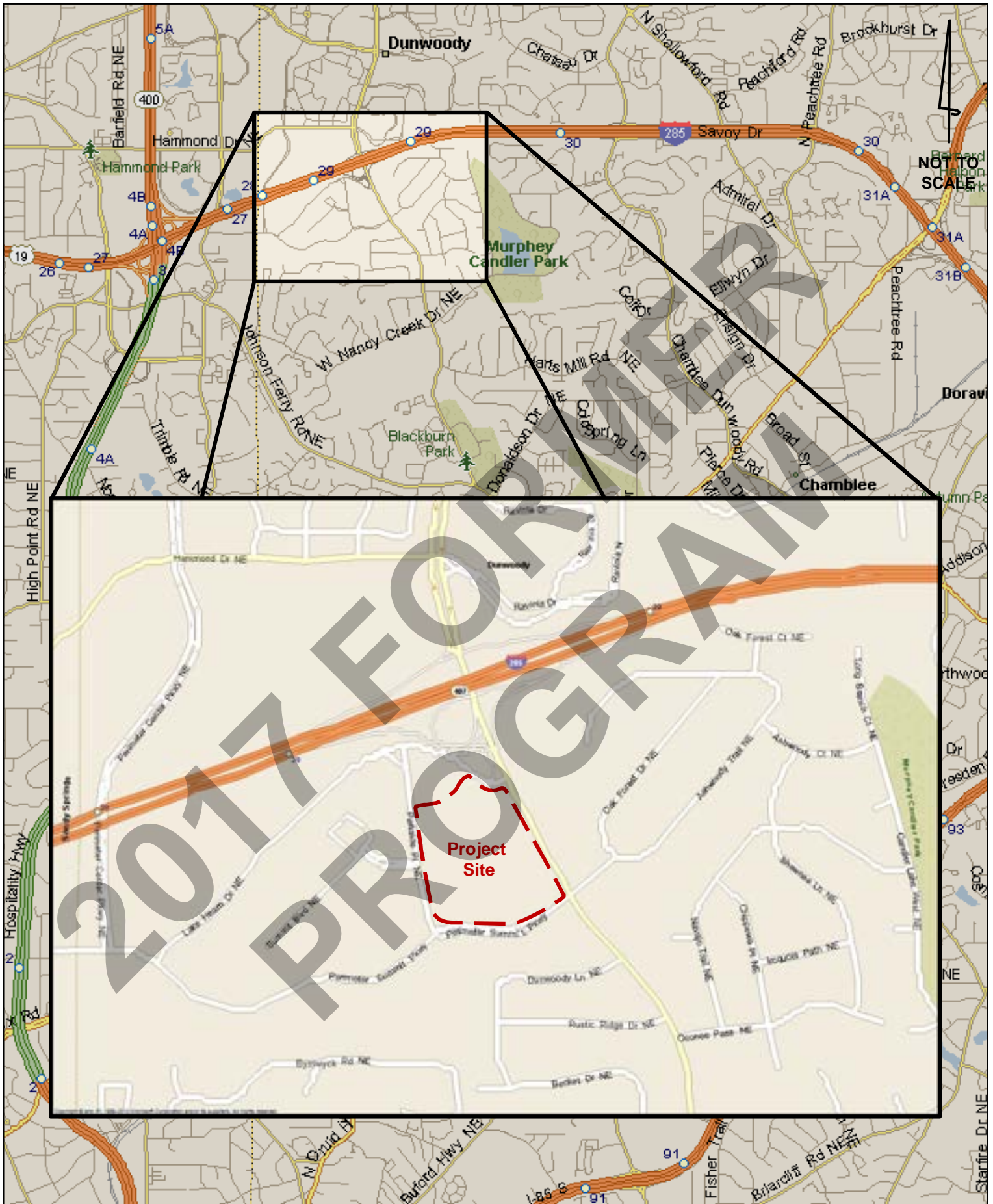
Figure 1 provides a site location map. **Figure 2** provides an aerial imagery of the project site. Additionally, a copy of the proposed site plan is provided in Appendix A.

2.0 STUDY AREA DETERMINATION

The study area consists of the following existing intersections:

1. Ashford Dunwoody Road @ Lake Hearn Drive (signalized)
2. Ashford Dunwoody Road @ Ashford Green (signalized)
3. Ashford Dunwoody Road @ Perimeter Summit Parkway (signalized)
4. Perimeter Summit Parkway @ Parkside Place (signalized)
5. Parkside Place @ Lake Hearn Drive (signalized)
6. Ashford Dunwoody Road @ Existing Site Driveway 1 (unsignalized)
7. Perimeter Summit Parkway @ Existing Site Driveway 2 (unsignalized)
8. Parkside Place @ Perimeter Summit Boulevard / Proposed Site Driveway (unsignalized)

This analysis considers Ashford Dunwoody Road and Parkside Place as having a north-south orientation, and Perimeter Summit Parkway and Lake Hearn Drive as having an east-west orientation.





3.0 EXISTING TRAFFIC CONDITIONS

The roadways within the study network have the following characteristics:

Ashford Dunwoody Road is a five-lane, undivided roadway with turn lanes and a posted speed limit of 40 MPH. GDOT counts taken south of Perimeter Summit Parkway indicate a 2015 AADT of 18,900 vehicles per day.

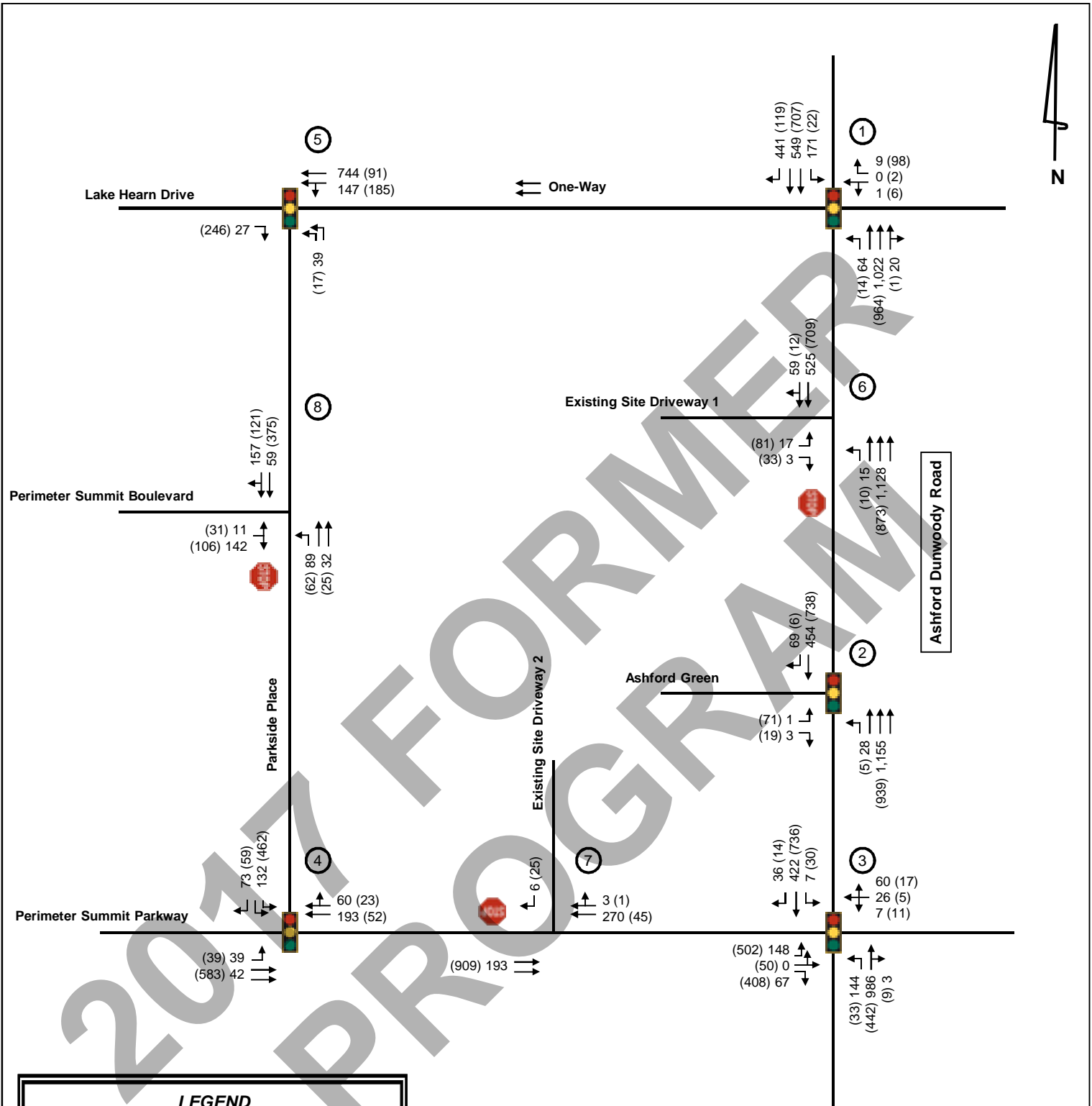
Perimeter Summit Parkway is a four-lane divided roadway with turn lanes and a posted speed limit of 35 MPH. There are no GDOT count stations along Perimeter Summit Parkway.

Parkside Place is a four-lane divided roadway with turn lanes and there are no posted speed limit signs along Parkside Place. Additionally, there are no GDOT count stations along Parkside Place.

Lake Hearn Drive is a four-lane divided roadway with turn lanes west of Parkside Place and with a posted speed limit of 35 MPH. Lake Hearn Drive is a two lane, westbound one-way street east of Parkside Place. There are no GDOT count stations along Lake Hearn Drive.

Vehicle peak hour turning movement counts for the signalized intersections in the study area (intersections 1 through 5), obtained from the Perimeter Community Improvement District (PCID), were collected on Wednesday, September 14, 2016. The counts were performed during the AM period (7:00 AM to 10:00 PM) and the PM period (4:00 PM to 7:00 PM). The vehicle peak hour turning movement counts for the unsignalized intersections in the study area (intersections 6 through 8) were separately collected on Tuesday, February 7, 2017. The counts were performed during the AM period (7:15 AM to 9:15 PM) and the PM period (4:15 PM to 6:15 PM). Based on the traffic count data, the AM peak hour generally occurs from 7:45 AM to 8:45 AM and the PM peak hour generally occurs from 4:00 PM to 5:00 PM. The counts are provided in Appendix D.

Since the counts were from different years (2016 and 2017), for the purposes of analysis, the counts from year 2016 were grown at 1% for one year to account for growth of traffic from 2016 and 2017. **Figure 3** illustrates the Adjusted 2017 peak hour volumes.



LEGEND

- Existing Laneage
- XX AM Peak Hour Traffic Volume
- (XX) PM Peak Hour Traffic Volume
- Existing Stop Control
- Existing Traffic Signal
- (X) Intersection Reference Number

*Intersections 1-5 were collected in September 2016 and grown by 1% to year 2017. Intersections 6-8 were collected in February 2017.

4.0 PROJECTED BACKGROUND (NON-PROJECT) TRAFFIC

Projected background (non-project) traffic is defined as the expected traffic on the roadway network in the future year(s) absent the construction and opening of the proposed project. The Adjusted 2017 peak hour traffic volumes were increased by 1.0% per year for two (2) years to account for the expected background growth in traffic to 2019.

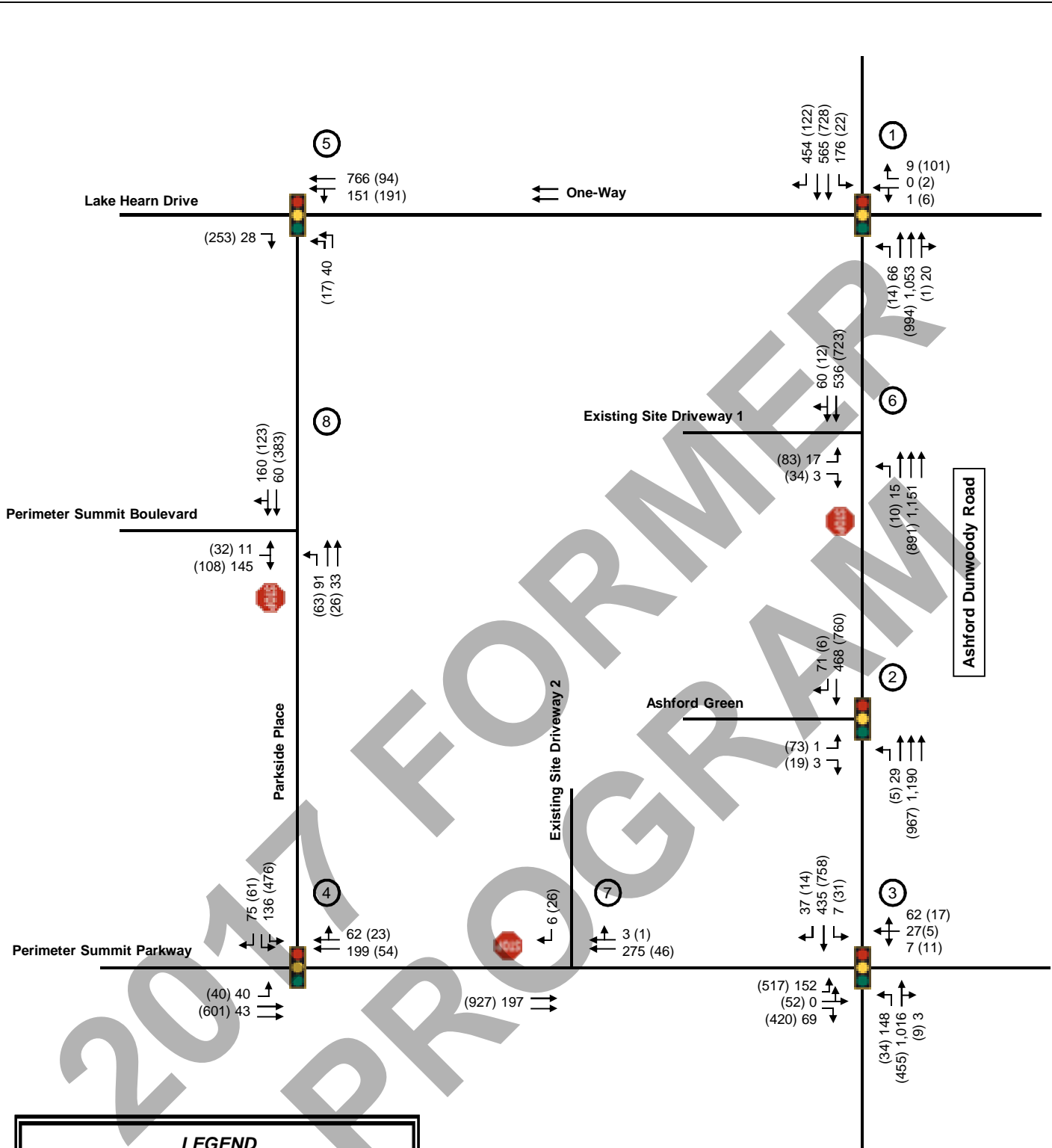
Figure 4 illustrates the Projected 2019 No-Build traffic volumes (which does not include traffic associated with the proposed *Hanover Ashford Green* development).

4.1 FUTURE ROADWAY/INTERSECTION PROJECTS

The ARC's Transportation Improvement Program (TIP), Atlanta Region's Plan, GDOT Statewide TIP (STIP), Regional Transportation Program (RTP), GDOT's Construction Work Program, and City of Brookhaven's Comprehensive Transportation Plan (CTP) were researched for currently programmed transportation projects within the vicinity of the proposed development. Four (4) major projects were identified:

1. **Atlanta Region's Plan project AR-ML-200** is a long range project to add managed lanes and improve the collector/distributor lane from I-75 north to I-85 north.
2. **Atlanta Region's Plan project DK-419** is a programmed project expand the ITS system along Ashford Dunwoody Road from Perimeter Summit Parkway to SR 141 (Peachtree Road).
3. **Atlanta Region's Plan project DK-440** is a programmed project which includes a complete street typical section connecting Dunwoody MARTA Station and Medical Center MARTA Station.
4. **PCID's Lake Hearn Project** is a programmed project to make intersection improvements along Peachtree Dunwoody Road and Lake Hearn Drive to be more user friendly to pedestrians, cyclists, and vehicular traffic.

Fact sheets for the future roadway/intersection projects are included in Appendix E.



LEGEND

- Existing Laneage
- XX AM Peak Hour Traffic Volume
- (XX) PM Peak Hour Traffic Volume
- Existing Stop Control
- Existing Traffic Signal
- (X) Intersection Reference Number

5.0 PROJECT TRAFFIC

Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the development and the distribution and assignment of that traffic through the study roadway network. This traffic impact study evaluated the impacts of developing 300 apartment units and approximately 500,000 SF of office.

5.1 PROJECT SITE ACCESS

Access to the proposed *Hanover Ashford Green* development will be provided at four (4) locations, which is shown on the site plan in Appendix A. A brief description of each vehicle access location follows:

1. Ashford Green - an existing signalized full-movement driveway along Ashford Dunwoody Road located approximately 325 feet north of Perimeter Summit Parkway.
2. Existing Site Driveway 1 - an existing unsignalized full-movement driveway along Ashford Dunwoody Road located approximately 225 feet south of Lake Hearn Drive.
3. Existing Site Driveway 2 - an existing unsignalized right-in/right-out driveway along Perimeter Summit Parkway located approximately 675 feet west of Ashford Dunwoody Road.
4. Proposed Site Driveway (Full Build-out) – a proposed unsignalized full-movement driveway to be aligned with Perimeter Summit Boulevard along Parkside Place. Note: this driveway is proposed to be constructed under Full Build-out.

See the referenced site plan in Appendix A for a visual representation of vehicular access and circulation throughout the proposed site.

5.2 TRIP GENERATION

Traffic for the proposed development was calculated using equations contained in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, Ninth Edition, 2012. The trip generation was calculated assuming 300 apartment units (Land Use 220) and 500,000 SF of general office (Land Use 710).

Table 1 summarizes the trip generation for the proposed development under Phase 1 and Full Build-out.

Table 1: Project Trip Generation Summary							
Land Use (Intensity)	ITE Code	Daily Traffic		AM Peak Hour		PM Peak Hour	
		Enter	Exit	Enter	Exit	Enter	Exit
Phase 1							
Apartments (300 units)	220	971	971	30	121	119	64
<i>Alternative Mode Reduction (5%)</i>		-49	-49	-2	-6	-6	-3
Phase 1 Total New Trips		922	922	28	115	113	61
Full Build-out (includes Phase 1)							
Apartments (300 units)	220	971	971	30	121	119	64
General Office (500,000 SF)	710	2,231	2,231	610	83	108	530
<i>Mixed-Use Reduction</i>		-29	-29	-2	-2	-8	-8
<i>Alternative Mode Reduction (5%)</i>		-159	-159	-32	-10	-11	-29
Full Build-out Total New Trips		3,014	3,014	606	192	208	557

Mixed-use vehicle trip reductions were taken according to the *ITE Trip Generation Handbook*, Second Edition, 2004, for daily volumes and the *ITE Trip Generation Handbook*, Third Edition, 2014, for the AM and PM peak hour volumes. Total internal capture and vehicle trip reduction between the land uses is expected to be 0.9% daily, 0.5% for the AM peak hour, and 1.9% for the PM peak hour as a result of the anticipated interaction between the residential and office land uses within the proposed development.

Due to the proximity of the *Hanover Ashford Green* development to a local transit station (Dunwoody MARTA Station and the Medical Center MARTA Station), a 5% reduction in trips was assumed for the future development.

5.3 TRIP DISTRIBUTION AND ASSIGNMENT (PHASE 1)

The directional distribution and assignment of new project trips were based on a review of land uses and population densities in the area; and the existing peak hour turning movement counts.

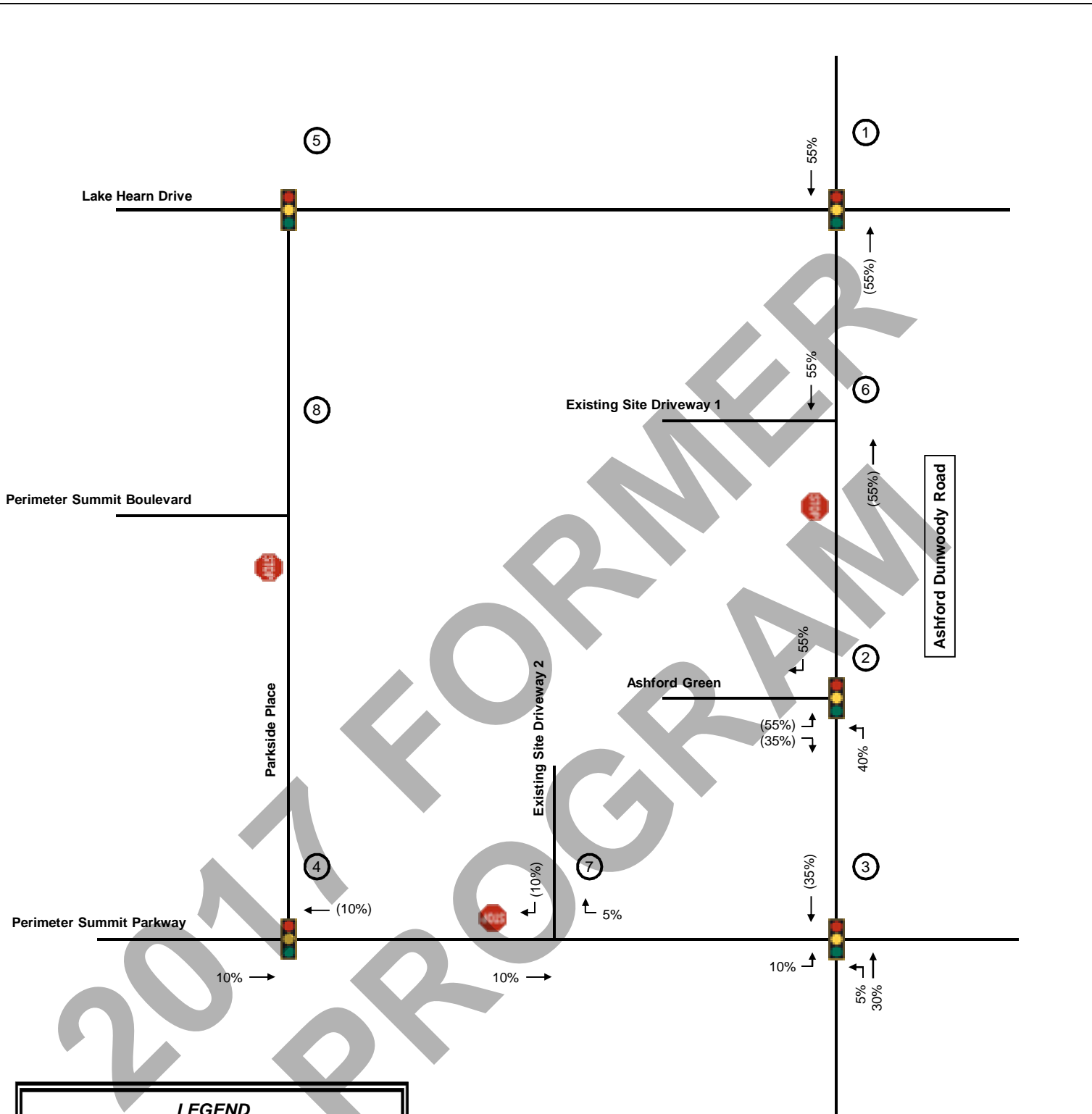
Figure 5 displays the anticipated trip distribution and assignment of the AM and PM peak hour Phase 1 project trips throughout the study network. **Figure 6** illustrates the Projected 2019 Build (Phase 1) traffic conditions for the AM and PM peak hours. Appendix B provides intersection volume worksheets for all intersections and driveways within the study network.

5.4 PROJECTED YEAR 2024 TRAFFIC (FULL BUILD-OUT)

Full Build-out is expected to be completed in year 2024. To account for expected traffic on the roadway network in the future year(s) absent the construction and opening of Full Build-out of the proposed project, the Projected 2019 No-Build peak hour traffic volumes were increased by 0.5% per year for five (5) years to account for the expected background growth in traffic to 2024 and the Phase 1 project trips were added to develop the Projected 2024 Build (Full Build-out) volumes.

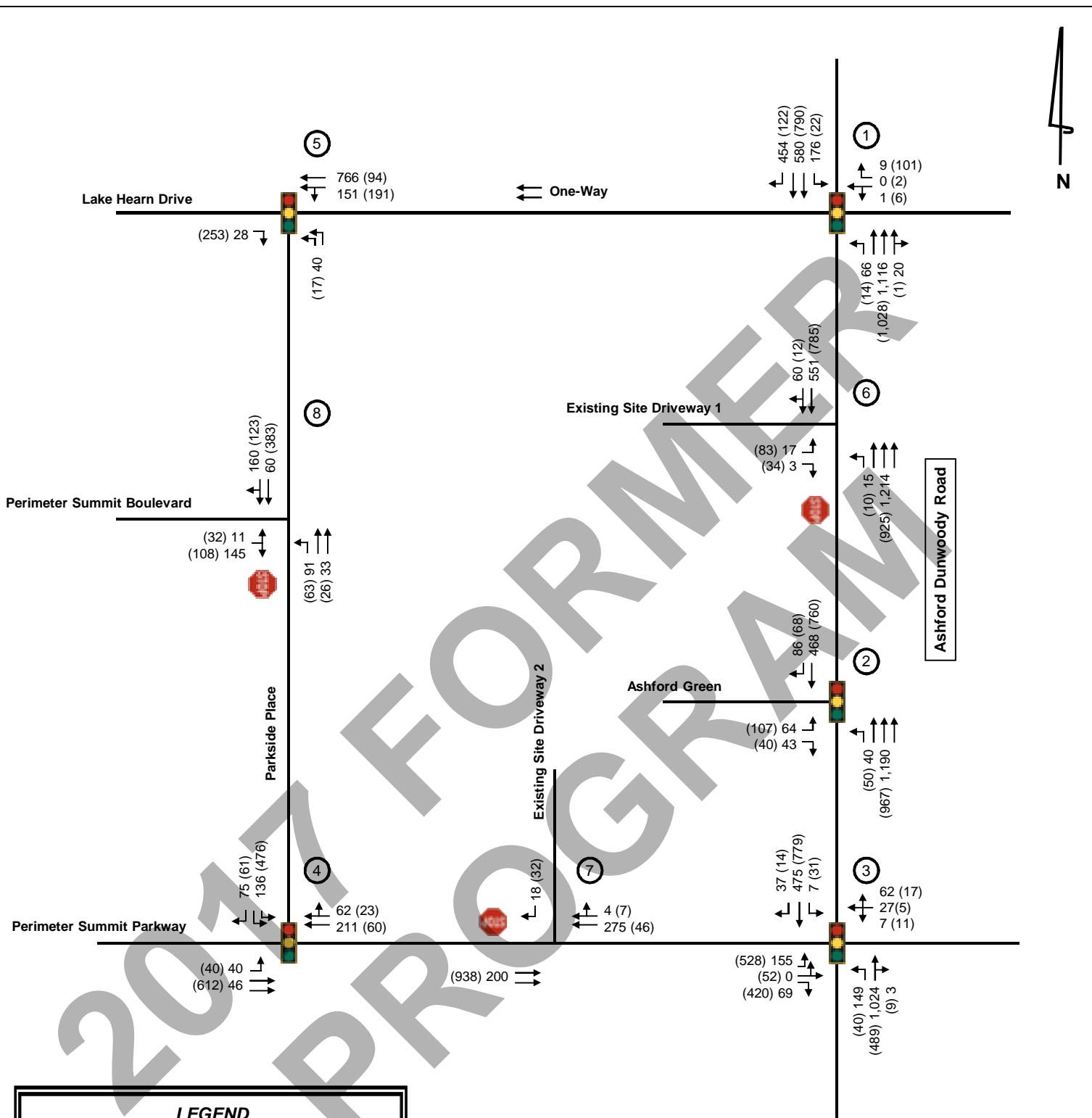
Figure 7 illustrates the Projected 2024 No-Build traffic volumes (which does not include traffic associated with Full Build-out of the proposed *Hanover Ashford Green* development, but does include traffic associated with Phase 1 of the proposed *Hanover Ashford Green* development).

Figure 8 and **Figure 9** display the anticipated trip distribution and assignment of the AM and PM peak hour Full Build-out residential and office project trips, respectively, throughout the study network. **Figure 10** illustrates the Projected 2024 Build (Full Build-out) traffic conditions for the AM and PM peak hours. Appendix B provides intersection volume worksheets for all intersections and driveways within the study network.



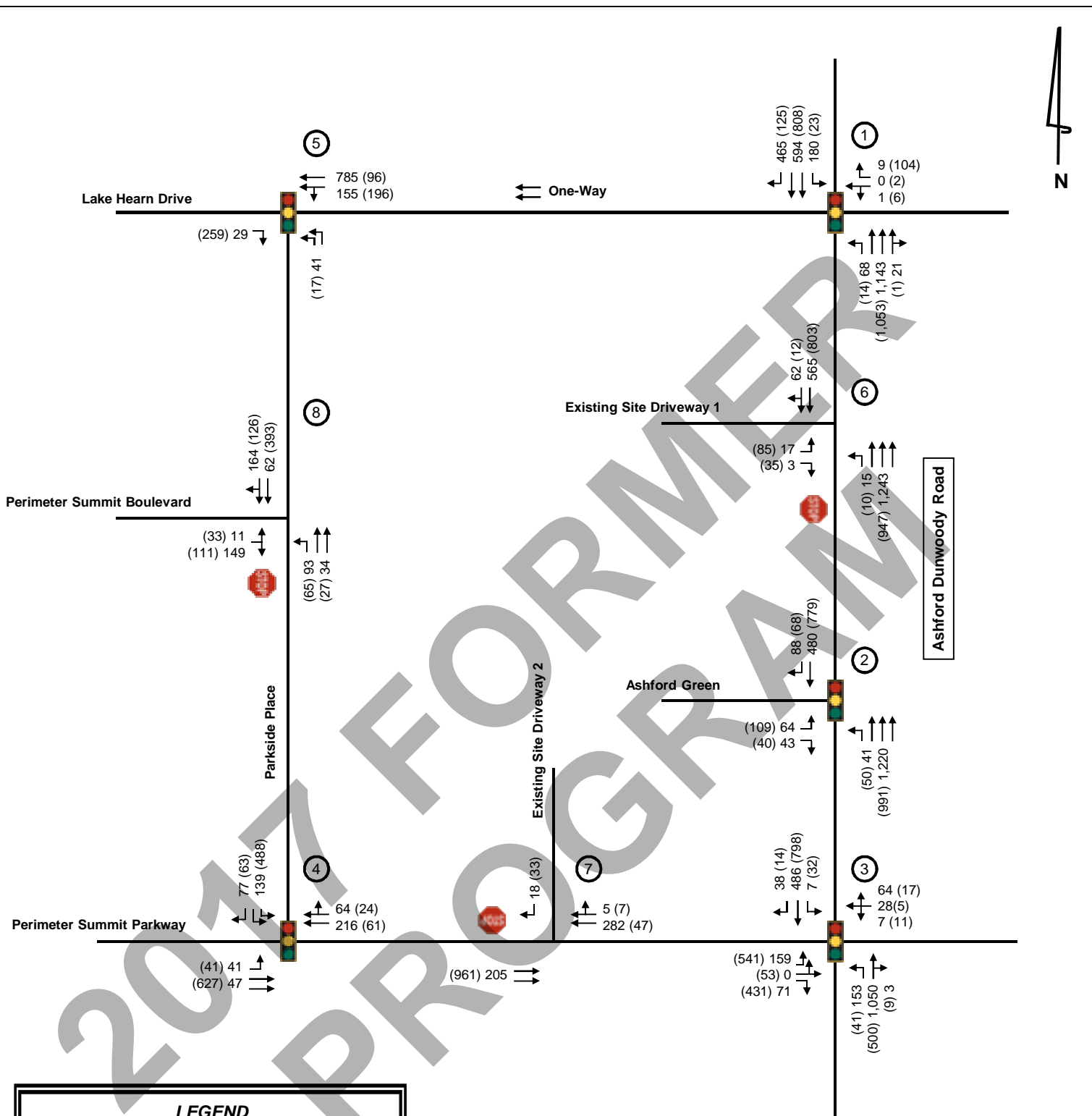
LEGEND

- Turning Movement
- XX % Entering Trips
- (XX) % Exiting Trips
- Existing Stop Control
- Existing Traffic Signal
- (X) Intersection Reference Number



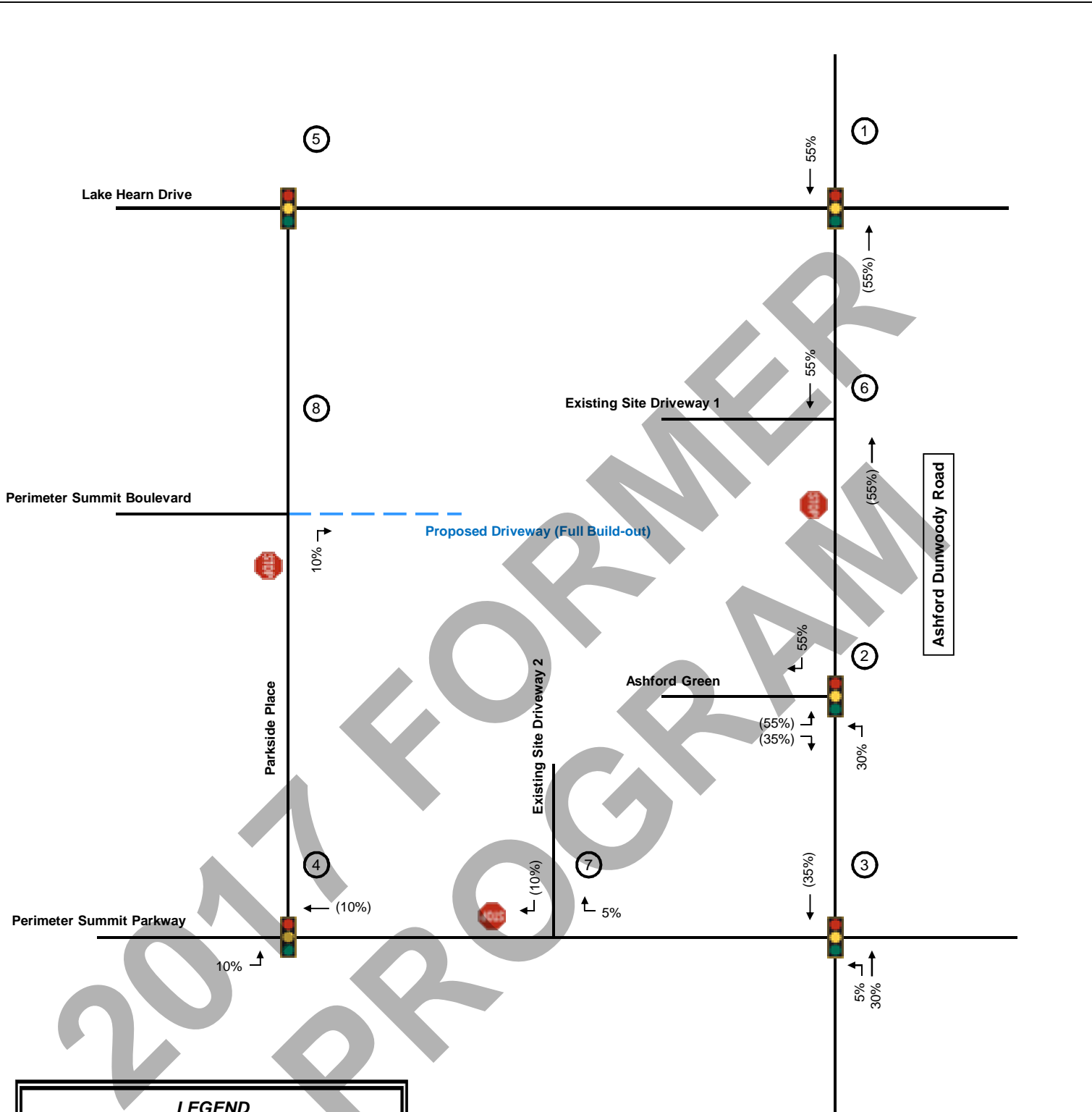
LEGEND

- Existing Laneage
- XX AM Peak Hour Traffic Volume
- (XX) PM Peak Hour Traffic Volume
- Existing Stop Control
- Existing Traffic Signal
- (X) Intersection Reference Number



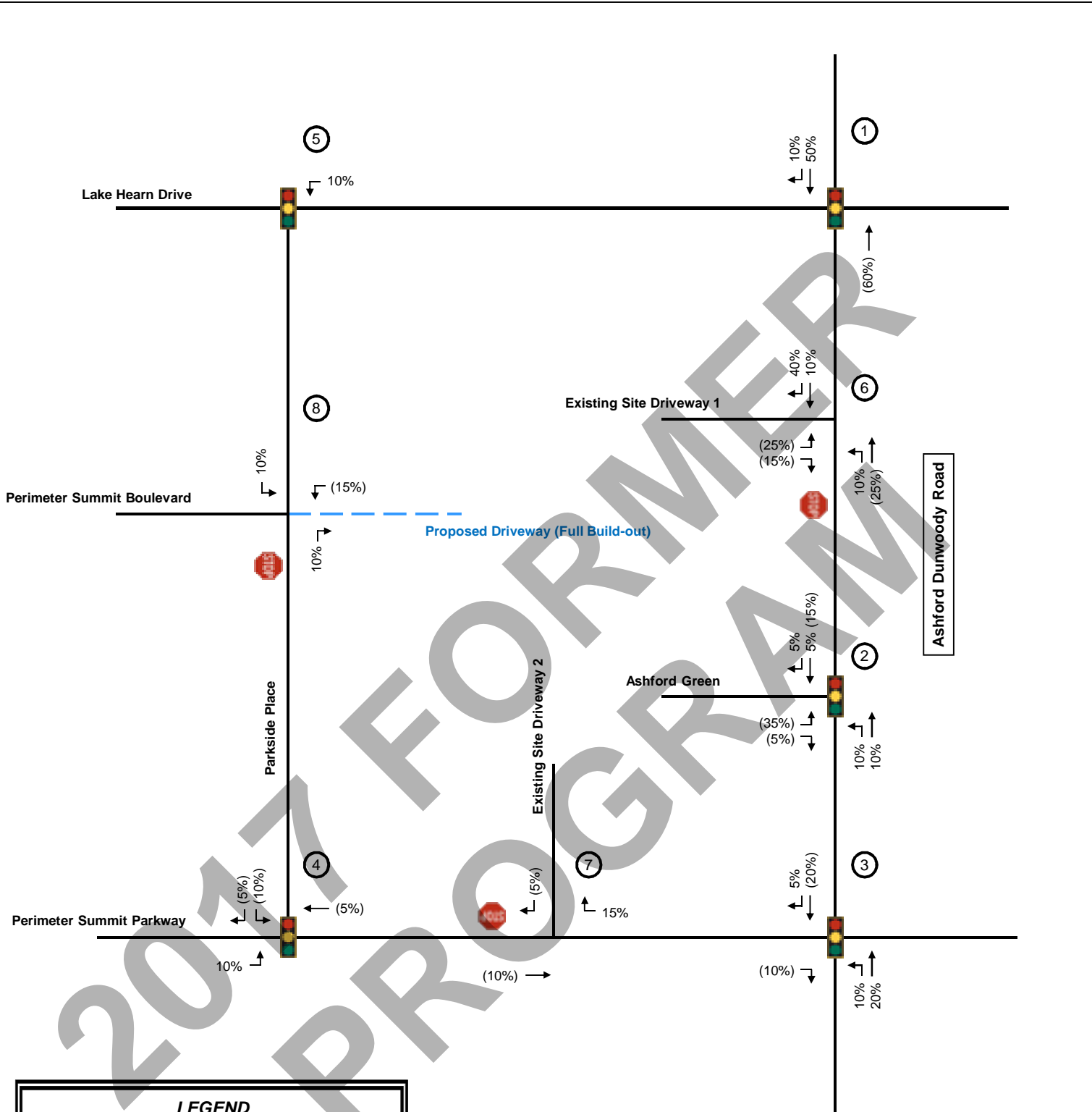
LEGEND

- Existing Laneage
- XX AM Peak Hour Traffic Volume
- (XX) PM Peak Hour Traffic Volume
- Existing Stop Control
- Existing Traffic Signal
- (X) Intersection Reference Number

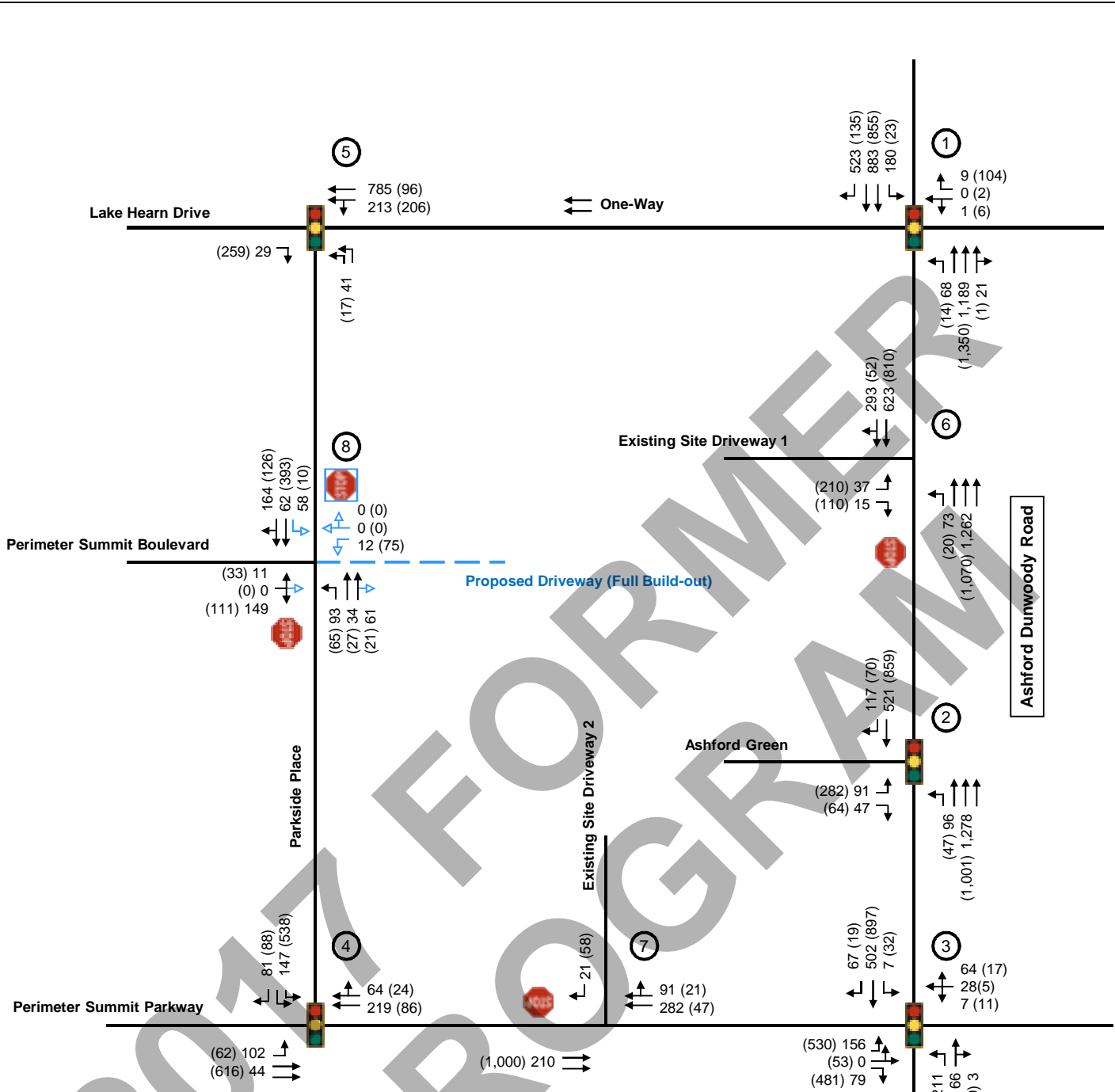


LEGEND

- Turning Movement
- XX % Entering Trips
- (XX) % Exiting Trips
- Existing Stop Control
- Existing Traffic Signal
- (X) Intersection Reference Number



LEGEND	
→	Turning Movement
XX	% Entering Trips
(XX)	% Exiting Trips
	Existing Stop Control
	Existing Traffic Signal
(X)	Intersection Reference Number



6.0 LEVEL-OF-SERVICE ANALYSIS

Level-of-service (LOS) determinations were made for the weekday AM and PM peak hours for the existing study network intersections and proposed access intersections using *Synchro Professional, Version 9.0*. The program uses methodologies contained in the *2010 Highway Capacity Manual* to determine the operating characteristics of an intersection. 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 (LOS) 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 of a traffic stream. The *Highway Capacity Manual* defines six levels of service, LOS A through LOS F, with A being the best and F the worst.

Levels-of-service for unsignalized intersections, with stop control on the minor street(s) only, are reported for the side street approaches. Low levels-of-service for the side street approaches are not uncommon, as vehicles may experience a delay turning onto a major roadway. The level-of-service at unsignalized intersections for the mainline traffic is very good as through vehicles do not stop.

Levels-of-service for signalized intersections and all-way stop controlled unsignalized intersections are reported for the intersection as a whole. One or more movements at an intersection may experience a low level-of-service, while the intersection as a whole may operate acceptably.

In addition to the Adjusted 2017 traffic conditions, an analysis was performed for the AM and PM peak hours for the Projected 2019 No-Build traffic conditions, the Projected 2019 Build traffic conditions, the Projected 2024 No-Build traffic conditions, and the Projected 2024 Build (Full Build-out) traffic conditions.

The results of the LOS analysis under the Adjusted 2017, Projected 2019 No-Build, and Projected 2019 Build (Phase 1) traffic conditions are summarized in **Table 2**.

A detailed set of the analyses from *Synchro* is available in Appendix C.

Table 2: Level-of-Service Summary
LOS (Delay in Seconds)

Intersection	Approach	Adjusted 2017		Projected 2019 No-Build		Projected 2019 Build (Phase 1)	
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
1. Ashford Dunwoody Rd @ Lake Hearn Dr (signalized)	Overall	A (1.7)	A (5.4)	A (1.7)	A (5.4)	A (1.7)	A (5.4)
2. Ashford Dunwoody Rd @ Ashford Green (signalized)	Overall	A (0.3)	A (4.9)	A (0.3)	A (4.9)	A (4.4)	A (6.8)
3. Ashford Dunwoody Rd @ Perimeter Summit Pkwy (signalized)	Overall	C (29.7)	D (51.3)	C (30.6)	D (53.4)	C (30.6)	D (53.8)
4. Perimeter Summit Pkwy @ Parkside Place (signalized)	Overall	B (16.9)	B (16.0)	B (16.9)	B (16.0)	B (16.9)	B (16.0)
5. Parkside Place @ Lake Hearn Dr (signalized)	Overall	A (3.6)	A (1.9)	A (3.6)	A (1.9)	A (3.6)	A (1.9)
6. Ashford Dunwoody Rd @ Existing Site Driveway 1 (unsignalized)	NB Left	A (8.8)	A (9.4)	A (8.8)	A (9.5)	A (8.9)	A (9.8)
	Eastbound	C (19.7)	D (27.1)	C (23.9)	D (28.4)	C (24.1)	D (33.3)
7. Perimeter Summit Pkwy @ Existing Site Driveway 2 (unsignalized)	SB Approach	A (9.1)	A (8.5)	A (9.2)	A (8.5)	A (9.2)	A (8.6)
8. Parkside Place @ Perimeter Summit Blvd / Proposed Site Driveway (unsignalized)	NB Left	A (7.9)	A (8.9)	A (7.9)	A (9.0)	A (7.9)	A (9.0)
	SB Left	-	-	-	-	-	-
	Eastbound	B (10.0)	B (13.6)	B (10.1)	B (13.9)	B (10.1)	B (13.9)
	Westbound	-	-	-	-	-	-

As shown in **Table 2**, all study intersections operate at LOS D or better under the Adjust 2017, Projected 2019 No-Build, and Projected 2019 Build (Phase 1) traffic conditions.

The results of the LOS analysis under the Projected 2024 No-Build and Projected 2024 Build (Full Build-out) traffic conditions are summarized in **Table 3**.

A detailed set of the analyses from *Synchro* is available in Appendix C.

Table 3: Level-of-Service Summary (Year 2024)					
LOS (Delay in Seconds)					
Intersection	Approach	Projected 2024 No-Build		Projected 2024 Build (Full Build-out)	
		AM Peak	PM Peak	AM Peak	PM Peak
1. Ashford Dunwoody Rd @ Lake Hearn Dr (signalized)	Overall	A (1.7)	A (5.6)	A (2.0)	A (5.6)
2. Ashford Dunwoody Rd @ Ashford Green (signalized)	Overall	A (4.7)	A (6.8)	A (4.8)	B (18.5)
3. Ashford Dunwoody Rd @ Perimeter Summit Pkwy (signalized)	Overall	C (32.2)	E (56.2)	C (31.3)	E (74.6)
4. Perimeter Summit Pkwy @ Parkside Place (signalized)	Overall	B (16.9)	B (16.1)	B (16.9)	B (16.1)
5. Parkside Place @ Lake Hearn Dr (signalized)	Overall	A (3.6)	A (1.9)	A (3.7)	A (1.9)
6. Ashford Dunwoody Rd @ Existing Site Driveway 1 (unsignalized)	NB Left	A (9.0)	A (9.8)	B (10.7)	B (10.1)
	Eastbound	C (24.9)	E (35.8)	F (50.4)	F (211.8)
7. Perimeter Summit Pkwy @ Existing Site Driveway 2 (unsignalized)	SB Approach	A (9.2)	A (8.6)	A (9.6)	A (8.7)
8. Parkside Place @ Perimeter Summit Blvd / Proposed Site Driveway (unsignalized)	NB Left	A (7.9)	A (9.1)	A (7.9)	A (9.1)
	SB Left	-	-	A (7.5)	A (7.3)
	Eastbound	B (10.2)	B (14.2)	B (10.4)	C (15.1)
	Westbound	-	-	B (14.5)	C (17.5)

As shown in **Table 3**, two intersections are projected to operate at LOS E or worse under the Projected 2024 No-Build and Projected 2024 Build (Full Build-out) traffic conditions. The signalized intersection of Ashford Dunwoody Road at Perimeter Summit Parkway (Intersection 3) is projected to operate at LOS E during the PM peak hour under both scenarios. The eastbound approach of the unsignalized intersection of Ashford Dunwoody Road at Existing Site Driveway 1 (Intersection 6) is projected to operate at LOS E during the PM peak hour under the Projected 2024 No-Build traffic conditions. The eastbound approach at the intersection is projected to operate at LOS F during both the AM and PM peak hours under the Projected 2024 Build (Full Build-out) traffic conditions. All other study intersections are projected to operate at LOS D or better.

In order for the intersection of Ashford Dunwoody Road at Perimeter Summit Parkway (Intersection 3) to operate at LOS D, the eastbound approach would need to consist of two (2) exclusive left-turn lanes, one (1) through lane, and one (1) right-turn lane.

7.0 QUEUING ANALYSIS

In addition to the level-of-service analysis of the study area, queuing analysis was performed for the Projected 2024 Build (Full Build-out) traffic conditions for turn lanes along public roadways using *Synchro 9.0* for signalized intersections and *HCM 2010* for unsignalized intersections. The 95th percentile queue lengths are summarized in **Table 4** below.

Table 4: Queuing Analysis					
<i>95th Percentile Queue Lengths, in feet</i>					
Intersection	Movement	Projected 2024 Build (Full Build-out)			
		Existing		AM Peak	PM Peak
		Storage	Taper	Queue, in ft	Queue, in ft
1. Ashford Dunwoody Rd @ Lake Hearn Dr (signalized)	NB Left *	580'	-	25'	25'
	SB Left	160'	65'	30'	25'
2. Ashford Dunwoody Rd @ Ashford Green (signalized)	NB Left	85'	70'	25'	25'
3. Ashford Dunwoody Rd @ Perimeter Summit Pkwy (signalized)	NB Left	35'	70'	75'	95'
	SB Left	75'	75'	25'	25'
	EB Left	205'	45'	200'	330'
	EB Right *	1,000'	-	25'	425'
4. Perimeter Summit Pkwy @ Parkside Place (signalized)	SB Left *	435'	-	55'	140'
	SB Right	245'	45'	30'	25'
	EB Left	165'	55'	55'	45'
5. Parkside Place @ Lake Hearn Dr (signalized)	NB Left *	775'	-	25'	25'
	WB Left *	575'	-	95'	25'
6. Ashford Dunwoody Rd @ Existing Site Driveway 1 (unsignalized)	NB Left *	390'	-	25'	25'
8. Parkside Place @ Perimeter Summit Blvd / Proposed Site Driveway (unsignalized)	NB Left	115'	70'	25'	25'

* Drop lane from a through lane from the previous intersection into a turn lane.
 Note: The queue lengths reported were all rounded up to the nearest 5 feet and any projected queue lengths between 1 and 24 feet were rounded up to 25 feet, which is the assumed length of a passenger vehicle.

Based on **Table 4**, the eastbound approach of the intersection of Ashford Dunwoody Road at Perimeter Summit Parkway (Intersection 3) is projected to have a queue length longer than the available storage and taper during the PM peak hour. Lengthening the eastbound exclusive left-turn lane should be considered. It should be noted that there are two eastbound left-turn lanes at Intersection 3, where one lane is a shared through/left-turn lane that extends from the previous intersection (approximately 1,000 feet).

8.0 CONCLUSION

As currently envisioned, the *Hanover Ashford Green* development is expected to be completed through multiple phases. Phase 1 is expected to consist of approximately 300 apartment units and to be completed in 2019. Full build-out of the development is still in the conceptual phase and is expected to consist of approximately 500,000 SF of office; however, the completion year has yet to be determined. For the purposes of analysis, the full build-out year is assumed to be 2024. The approximate 18.33-acre site is bordered by Ashford Dunwoody Road to the east, Parkside Place to the west, Lake Hearn Drive to the north, and Perimeter Summit Parkway to the south in the City of Brookhaven, Georgia. The site is currently occupied by an approximate 270,000 SF office building that will remain.

The study network, comprised of five (5) existing signalized intersections and three (3) unsignalized intersections, was analyzed for following five (5) scenarios:

1. Adjusted 2017 Traffic Conditions
2. Projected 2019 No-Build Traffic Conditions
3. Projected 2019 Build (Phase 1) Traffic Conditions
4. Projected 2024 No-Build Traffic Conditions
5. Projected 2024 Build (Full Build-out) Traffic Conditions

Based on the level-of-service results of this traffic study, two intersections are projected to operate at LOS E or worse under the Projected 2024 No-Build and Projected 2024 Build (Full Build-out) traffic conditions. The signalized intersection of Ashford Dunwoody Road at Perimeter Summit Parkway (Intersection 3) is projected to operate at LOS E during the PM peak hour under both scenarios. The eastbound approach of the unsignalized intersection of Ashford Dunwoody Road at Existing Site Driveway 1 (Intersection 6) is projected to operate at LOS E during the PM peak hour under the Projected 2024 No-Build traffic conditions. The eastbound approach at the intersection is projected to operate at LOS F during both the AM and PM peak hours under the Projected 2024 Build (Full Build-out) traffic conditions. All other study intersections are projected to operate at LOS D or better.

Based on the queueing analysis results of this traffic study, the eastbound approach of the intersection of Ashford Dunwoody Road at Perimeter Summit Parkway (Intersection 3) is projected to have a queue length longer than the available storage and taper during the PM peak hour. Lengthening the eastbound exclusive left-turn lane should be considered. It should be noted that there are two eastbound left-turn lanes at Intersection 3, where one lane is a shared through/left-turn lane that extends from the previous intersection (approximately 1,000 feet).

9.0 GENERAL RECOMMENDATIONS

Based on the results of this study, no roadway improvements are recommended to serve the Projected 2019 Build traffic conditions.

Although there no roadway improvements are recommended under the Projected 2019 Build traffic conditions, Kimley-Horn and Associates, Inc. recommends the following site-access improvements to serve the Projected 2024 Build (Full Build-out) traffic conditions (note: this would be the improvements needed to serve the traffic associated with the *Hanover Ashford Green* development):

Intersection #8: Parkside Place @ Perimeter Summit Boulevard / Proposed Driveway (Full Build-out)

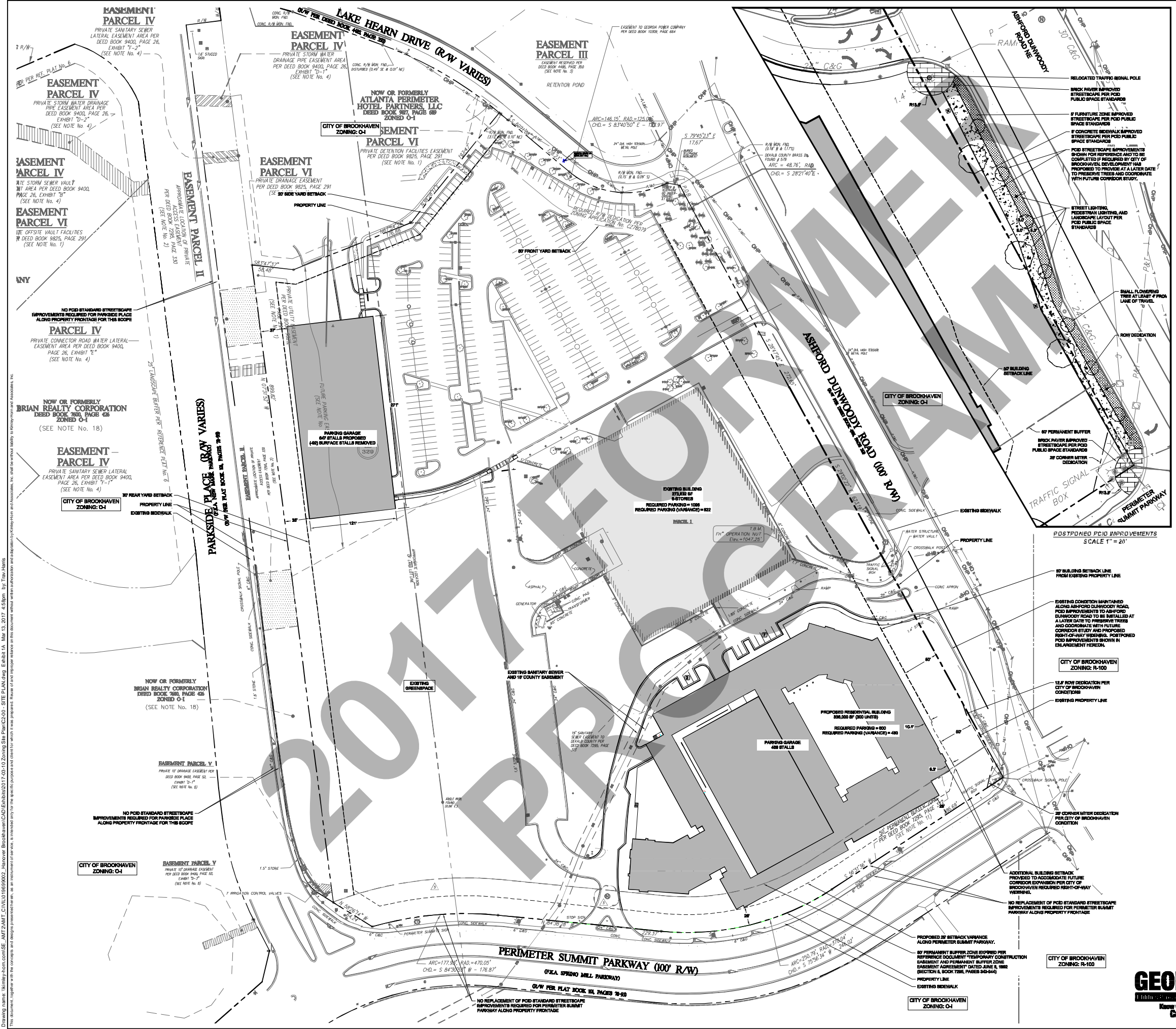
- Construct a driveway to align with Perimeter Summit Boulevard.
- On site, construct one (1) westbound exclusive left-turn egress lane and one (1) westbound shared through/right-turn egress lane exiting the site from Proposed Driveway (Full Build-out) and one (1) ingress lane entering the site.
- Restripe the median on the southbound approach along Parkside Place into one (1) southbound left-turn lane with a minimum of 150 feet of storage and 50 feet of taper, per the City of Brookhaven Code of Ordinances, along Parkside Place to serve traffic entering the site.

Site Plan

2017 FORMER PROGRAM

Drawings name: \\homer\john.com\SE - AMTZ\AMT - CIVIL\019699002 - Hanover Brookhaven\CAD\Exhibits\017 - 01.10 Zoning Site Plan\02.dwg, SITE PLAN.dwg, Exhibit 1A, Am. 13, 2017, 4:58pm, by: Tim Harts

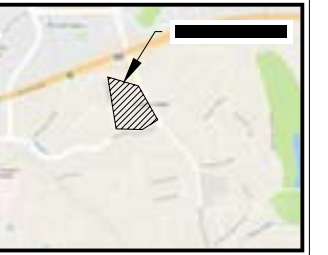
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7	6	5	4	3	2	1
NO	NO	NO	NO	NO	NO	NO

VARIANCE REQUESTS:
 25' BUILDING SETBACK FOR PERIMETER SUMMIT PARKWAY
 1.5 PARKING SPACES/UNIT FOR RESIDENTIAL PARKING REQUIREMENTS

PARKING DECK HEIGHT NOTE:
 BUILDING HEIGHT FOR ALL PROPOSED PARKING DECKS DOES NOT EXCEED THE 10'-0" HEIGHT THRESHOLD FROM AVERAGE GRADE PLANE



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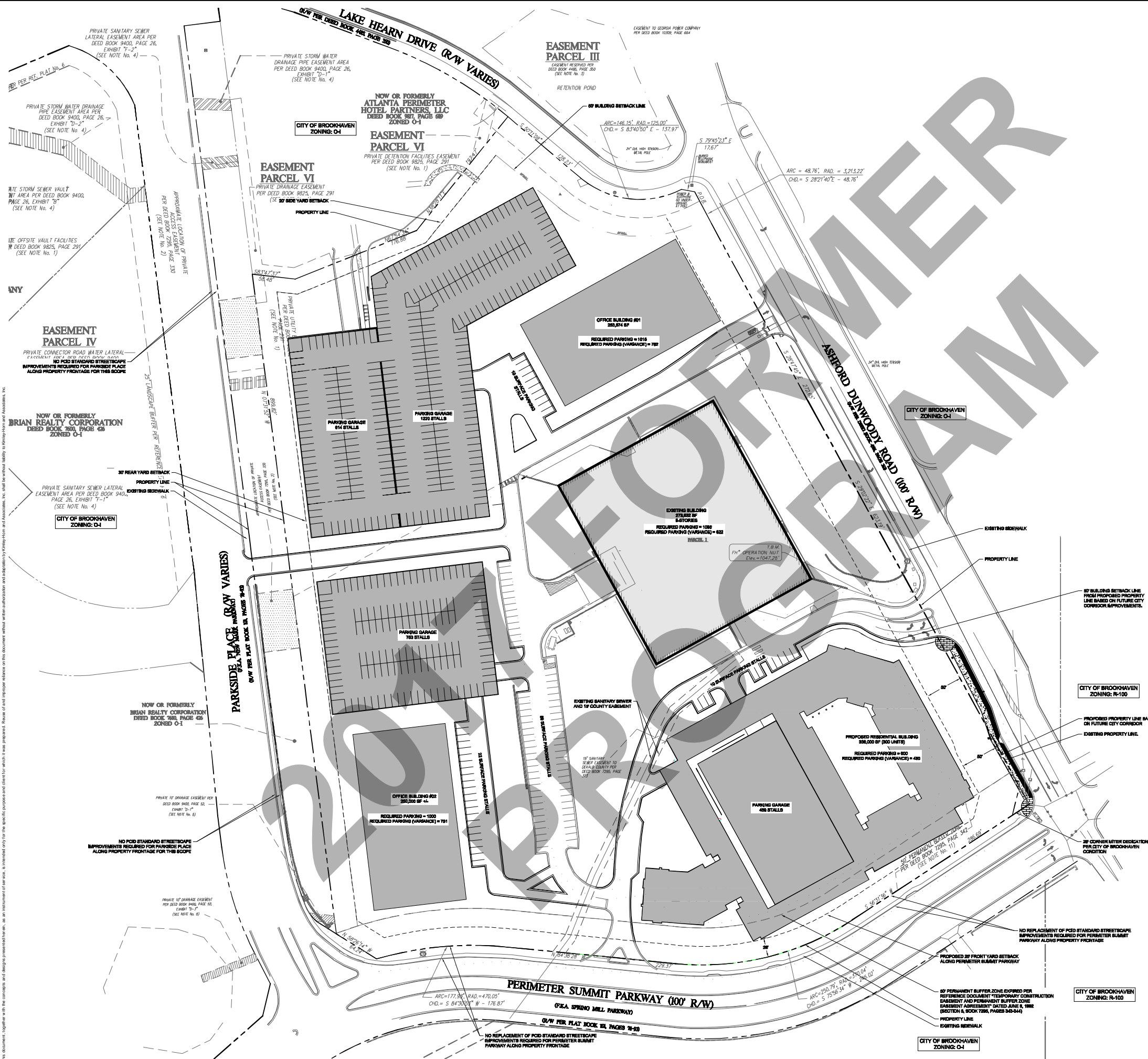
GRAPHIC SCALE IN FEET
 0 25 50 100

PROJECT:	HANOVER BROOKHAVEN
TITLE:	ASHFORD GREEN PHASE I VARIANCE SITE PLAN
CLIENT:	THE HANOVER COMPANY
DESIGNED BY:	JOHN HANCOCK
CHECKED BY:	BWS
SCALE:	1" = 50'
DATE:	
BY:	

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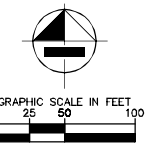
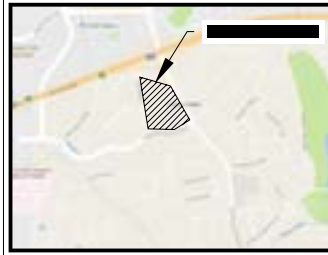
Drawn by: Kimley-Horn and Associates, Inc. AMTZ/AMT, CIVIL/UD 08/09/2017. 08/10/2017. Master Site Plan. Mar 13, 2017. 4:17pm. by: Tom Harris
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NO.	REVISIONS	DATE
1		
2		
3		
4		
5		
6		
7		

VARIANCE REQUESTS:

- 25' BUILDING SETBACK FOR ASHFORD DUNWOODY
- 1.5 PARKING SPACES/UNIT FOR RESIDENTIAL PARKING REQUIREMENTS
- 1 PARKING SPACE/333 SF FOR OFFICE PARKING REQUIREMENTS



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THE HANOVER COMPANY
 5847 SAN FELIPE, SUITE 5800
 HOUSTON, TX 77057
 PHONE: 713-267-2100

HANOVER BROOKHAVEN
ASHFORD GREEN MASTER VARIANCE SITE PLAN

SCALE: 1" = 50'
 DRAWN BY: THW
 DESIGNED BY: DJU
 CHECKED BY: BWS

PROJECT: HANOVER BROOKHAVEN
 TITLE: ASHFORD GREEN MASTER VARIANCE SITE PLAN

EXHIBIT 2A

Intersection Volume Worksheets

2017 FORMER PROGRAM

**Trip Generation Analysis (9th Ed.)
Hanover Ashford Green
City of Brookhaven, GA**

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Proposed Site Traffic								
Phase I (Year 2019) 220 Apartment	300 d.u.	1,942	151	30	121	183	119	64
Full Build-out* (Year 2024) 710 General Office Building <i>*Full Build-out includes Phase I</i>	500,000 s.f.	4,462	693	610	83	638	108	530
Phase I (Year 2019) Gross Trips		1,942	151	30	121	183	119	64
Full Build-out (Year 2024) Gross Trips		6,404	844	640	204	821	227	594
Phase I (Year 2019) Trips		1,942	151	30	121	183	119	64
<i>Mixed-Use Reductions</i>		0	0	0	0	0	0	0
<i>Alternative Mode Reductions</i>		-98	-8	-2	-6	-9	-6	-3
Adjusted Phase I Trips		1,844	143	28	115	174	113	61
Full Build-out (Year 2024) Trips		6,404	844	640	204	821	227	594
<i>Mixed-Use Reductions</i>		-58	-4	-2	-2	-16	-8	-8
<i>Alternative Mode Reductions</i>		-318	-42	-32	-10	-41	-11	-29
Adjusted Office Trips		6,028	798	606	192	764	208	557
<i>Residential Trips (Full Build-out)</i>		1,942	151	30	121	183	119	64
<i>Mixed-Use Reductions</i>		-29	-2	0	-2	-8	-5	-3
<i>Alternative Mode Reductions</i>		-96	-7	-2	-6	-9	-6	-3
Adjusted Residential (Full Build-out) Trips		1,817	142	28	113	166	108	58
<i>Office Trips (Full Build-out)</i>		4,462	693	610	83	638	108	530
<i>Mixed-Use Reductions</i>		-29	-2	-2	0	-8	-3	-5
<i>Alternative Mode Reductions</i>		-222	-35	-30	-4	-32	-5	-26
Adjusted Office (Full Build-out) Trips		4,211	656	578	79	598	100	499
<i>Mixed-Use Reductions - TOTAL</i>		-58	-4	-2	-2	-16	-8	-8
<i>Alternative Mode Reductions - TOTAL</i>		-318	-42	-32	-10	-41	-11	-29
<i>Pass-By Reductions - TOTAL</i>		0	0	0	0	0	0	0
New Trips (Full Build-out)		6,028	798	606	192	764	208	557
Driveway Volumes (Full Build-out)		6,028	798	606	192	764	208	557

INTERSECTION VOLUME DEVELOPMENT

**Int #1: Ashford Dunwoody Road @ Lake Hearn Drive
AM PEAK HOUR**

Description	Ashford Dunwoody Road Northbound			Ashford Dunwoody Road Southbound			Lake Hearn Drive Eastbound			Lake Hearn Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	64	1,022	20	171	549	441				1	0	9
Pedestrians												
Conflicting Pedestrians	0		0			0	0		0	0		0
Heavy Vehicles	1	18	0	3	21	1				0	0	2
Heavy Vehicle %	2%	2%	2%	2%	4%	2%	0%	0%	0%	2%	0%	22%
Peak Hour Factor		0.90			0.90			0.90			0.90	
Adjustment	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Adjusted 2017 Volumes	65	1032	20	173	554	445	0	0	0	1	0	9
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	66	1,053	20	176	565	454	0	0	0	1	0	9
Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Residential Trips (Phase I)	0	63	0	0	15	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	63	0	0	15	0	0	0	0	0	0	0
2019 Buildout Total	66	1,116	20	176	580	454	0	0	0	1	0	9
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	68	1,143	21	180	594	465	0	0	0	1	0	9
Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Residential Trips (Full Build-out)	0	62	0	0	15	0	0	0	0	0	0	0
Trip Distribution IN					50%	10%						
Trip Distribution OUT		60%										
Office Trips (Full Build-out)	0	47	0	0	289	58	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	109	0	0	304	58	0	0	0	0	0	0
2024 Buildout Total	68	1,189	21	180	883	523	0	0	0	1	0	9

PM PEAK HOUR

Description	Ashford Dunwoody Road Northbound			Ashford Dunwoody Road Southbound			Lake Hearn Drive Eastbound			Lake Hearn Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	14	964	1	22	707	419				6	2	98
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	19	0	0	13	3	0	0	0	0	0	2
Heavy Vehicle %	2%	2%	2%	2%	2%	3%	0%	0%	0%	2%	2%	2%
Peak Hour Factor		0.94			0.94			0.94			0.94	
Adjustment	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Adjusted 2017 Volumes	14	974	1	22	714	420	0	0	0	6	2	99
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	14	994	1	22	728	422	0	0	0	6	2	101
Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Residential Trips (Phase I)	0	34	0	0	62	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	34	0	0	62	0	0	0	0	0	0	0
2019 Buildout Total	14	1,028	1	22	790	422	0	0	0	6	2	101
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	14	1,053	1	23	808	425	0	0	0	6	2	104
Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Residential Trips (Full Build-out)	0	32	0	0	59	0	0	0	0	0	0	0
Trip Distribution IN					50%	10%						
Trip Distribution OUT		60%										
Office Trips (Full Build-out)	0	299	0	0	50	10	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	331	0	0	109	10	0	0	0	0	0	0
2024 Buildout Total	14	1,350	1	23	855	435	0	0	0	6	2	104

INTERSECTION VOLUME DEVELOPMENT

**Int #2: Ashford Dunwoody Road @ Ashford Green
AM PEAK HOUR**

Description	Ashford Dunwoody Road Northbound			Ashford Dunwoody Road Southbound			Ashford Green Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	28	1,155			454	69	1		3			
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	1	30			16	4	0		0			
Heavy Vehicle %	4%	3%	0%	0%	4%	6%	2%	0%	2%	0%	0%	0%
Peak Hour Factor		0.96			0.96			0.96			0.96	
Adjustment	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Adjusted 2017 Volumes	28	1167	0	0	459	70	1	0	3	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	29	1,190	0	0	468	71	1	0	3	0	0	0
Project Trips												
Trip Distribution IN	40%					55%						
Trip Distribution OUT							55%		35%			
Residential Trips (Phase I)	11	0	0	0	0	15	63	0	40	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	11	0	0	0	0	15	63	0	40	0	0	0
2019 Buildout Total	40	1,190	0	0	468	86	64	0	43	0	0	0
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	41	1,220	0	0	480	88	64	0	43	0	0	0
Project Trips												
Trip Distribution IN	30%					55%						
Trip Distribution OUT							55%		35%			
Residential Trips (Full Build-out)	8	0	0	0	0	15	62	0	40	0	0	0
Trip Distribution IN	10%	10%			5%	5%						
Trip Distribution OUT					15%		35%		5%			
Office Trips (Full Build-out)	58	58	0	0	41	29	28	0	4	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	66	58	0	0	41	44	90	0	44	0	0	0
2024 Buildout Total	96	1,278	0	0	521	117	91	0	47	0	0	0

*Note: Assumed PHF = 0.88 for Proposed Site Driveway for both the AM and PM Peaks

PM PEAK HOUR

Description	Ashford Dunwoody Road Northbound			Ashford Dunwoody Road Southbound			Ashford Green Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	5	939			738	6	71		19			
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	2	18			12	0	0		0			
Heavy Vehicle %	40%	2%	0%	0%	2%	2%	2%	0%	2%	0%	0%	0%
Peak Hour Factor		0.95			0.95			0.95			0.95	
Adjustment	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Adjusted 2017 Volumes	5	948	0	0	745	6	72	0	19	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	5	967	0	0	760	6	73	0	19	0	0	0
Project Trips												
Trip Distribution IN	40%					55%						
Trip Distribution OUT							55%		35%			
Residential Trips (Phase I)	45	0	0	0	0	62	34	0	21	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	45	0	0	0	0	62	34	0	21	0	0	0
2019 Buildout Total	50	967	0	0	760	68	107	0	40	0	0	0
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	50	991	0	0	779	68	109	0	40	0	0	0
Project Trips												
Trip Distribution IN	30%					55%						
Trip Distribution OUT							55%		35%			
Residential Trips (Full Build-out)	32	0	0	0	0	59	32	0	20	0	0	0
Trip Distribution IN	10%	10%			5%	5%						
Trip Distribution OUT					15%		35%		5%			
Office Trips (Full Build-out)	10	10	0	0	80	5	175	0	25	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	42	10	0	0	80	64	207	0	45	0	0	0
2024 Buildout Total	47	1,001	0	0	859	70	282	0	64	0	0	0

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INTERSECTION VOLUME DEVELOPMENT

**Int #3: Ashford Dunwoody Road @ Perimeter Summit Parkway
AM PEAK HOUR**

Description	Ashford Dunwoody Road Northbound			Ashford Dunwoody Road Southbound			Perimeter Summit Parkway Eastbound			Perimeter Summit Parkway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	144	986	3	7	422	36	148	0	67	7	26	60
Pedestrians												
Conflicting Pedestrians	0		0			0	0		0	0		0
Heavy Vehicles	0	24	0	0	18	3	6	0	1	0	0	0
Heavy Vehicle %	2%	2%	2%	2%	4%	8%	4%	0%	2%	2%	2%	2%
Peak Hour Factor		0.97			0.97			0.97			0.97	
Adjustment	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Adjusted 2017 Volumes	145	996	3	7	426	36	149	0	68	7	26	61
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	148	1,016	3	7	435	37	152	0	69	7	27	62
Project Trips												
Trip Distribution IN	5%	30%					10%					
Trip Distribution OUT					35%							
Residential Trips (Phase I)	1	8	0	0	40	0	3	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	1	8	0	0	40	0	3	0	0	0	0	0
2019 Buildout Total	149	1,024	3	7	475	37	155	0	69	7	27	62
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	153	1,050	3	7	486	38	159	0	71	7	28	64
Project Trips												
Trip Distribution IN	5%	30%										
Trip Distribution OUT					38%							
Residential Trips (Full Build-out)	1	8	0	0	40	0	0	0	0	0	0	0
Trip Distribution IN	10%	20%					5%					
Trip Distribution OUT					20%				10%			
Office Trips (Full Build-out)	58	116	0	0	16	29	0	0	8	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	59	124	0	0	56	29	0	0	8	0	0	0
2024 Buildout Total	211	1,166	3	7	502	67	156	0	79	7	28	64

*Note: Assumed PHF = 0.88 for Proposed Site Driveway for both the AM and PM Peaks

PM PEAK HOUR

Description	Ashford Dunwoody Road Northbound			Ashford Dunwoody Road Southbound			Perimeter Summit Parkway Eastbound			Perimeter Summit Parkway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	33	442	9	30	736	14	502	50	408	11	5	17
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	10	1	2	12	0	13	0	3	1	0	0
Heavy Vehicle %	2%	2%	11%	7%	2%	2%	3%	2%	2%	9%	2%	2%
Peak Hour Factor		0.95			0.95			0.95			0.95	
Adjustment	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Adjusted 2017 Volumes	33	446	9	30	743	14	507	51	412	11	5	17
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	34	455	9	31	758	14	517	52	420	11	5	17
Project Trips												
Trip Distribution IN	5%	30%					10%					
Trip Distribution OUT					35%							
Residential Trips (Phase I)	6	34	0	0	21	0	11	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	6	34	0	0	21	0	11	0	0	0	0	0
2019 Buildout Total	40	489	9	31	779	14	528	52	420	11	5	17
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	41	500	9	32	798	14	541	53	431	11	5	17
Project Trips												
Trip Distribution IN	5%	30%										
Trip Distribution OUT					35%							
Residential Trips (Full Build-out)	5	32	0	0	20	0	0	0	0	0	0	0
Trip Distribution IN	10%	20%					5%					
Trip Distribution OUT					20%				10%			
Office Trips (Full Build-out)	10	20	0	0	100	5	0	0	50	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	15	52	0	0	120	5	0	0	50	0	0	0
2024 Buildout Total	50	518	9	32	897	19	530	53	481	11	5	17

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INTERSECTION VOLUME DEVELOPMENT

**Int #4: Parkside Place @ Perimeter Summit Parkway
AM PEAK HOUR**

Description	Northbound			Parkside Place Southbound			Perimeter Summit Parkway Eastbound			Perimeter Summit Parkway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes				132		73	39	42			193	60
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles				6		5	5		5		5	
Heavy Vehicle %	0%	0%	0%	5%	0%	7%	13%	2%	0%	0%	3%	2%
Peak Hour Factor		0.96		0.96			0.96			0.96		
Adjustment	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Adjusted 2017 Volumes	0	0	0	133	0	74	39	42	0	0	195	61
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	0	0	0	136	0	75	40	43	0	0	199	62
Project Trips												
Trip Distribution IN							10%					
Trip Distribution OUT										10%		
Residential Trips (Phase I)	0	0	0	0	0	0	0	3	0	0	12	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	0	0	3	0	0	12	0
2019 Buildout Total	0	0	0	136	0	75	40	46	0	0	211	62
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	0	0	0	139	0	77	41	47	0	0	216	64
Project Trips												
Trip Distribution IN							10%					
Trip Distribution OUT										10%		
Residential Trips (Full Build-out)	0	0	0	0	0	0	3	0	0	0	11	0
Trip Distribution IN							10%					
Trip Distribution OUT				10%		5%					5%	
Office Trips (Full Build-out)	0	0	0	8	0	4	58	0	0	0	4	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	8	0	4	61	0	0	0	15	0
2024 Buildout Total	0	0	0	147	0	81	102	44	0	0	219	64

*Note: Assumed PHF = 0.88 for Proposed Site Driveway for both the AM and PM Peaks

PM PEAK HOUR

Description	Northbound			Parkside Place Southbound			Perimeter Summit Parkway Eastbound			Perimeter Summit Parkway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes				462		59	39	583			52	23
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles				8		4	4	5			2	1
Heavy Vehicle %	0%	0%	0%	2%	0%	7%	10%	2%	0%	0%	4%	4%
Peak Hour Factor		0.89		0.89			0.89			0.89		
Adjustment	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Adjusted 2017 Volumes	0	0	0	467	0	60	39	589	0	0	53	23
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	0	0	0	476	0	61	40	601	0	0	54	23
Project Trips												
Trip Distribution IN							10%					
Trip Distribution OUT										10%		
Residential Trips (Phase I)	0	0	0	0	0	0	0	11	0	0	6	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	0	0	11	0	0	6	0
2019 Buildout Total	0	0	0	476	0	61	40	612	0	0	60	23
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	0	0	0	488	0	63	41	627	0	0	61	24
Project Trips												
Trip Distribution IN							10%					
Trip Distribution OUT										10%		
Residential Trips (Full Build-out)	0	0	0	0	0	0	11	0	0	0	6	0
Trip Distribution IN							10%					
Trip Distribution OUT				10%		5%					5%	
Office Trips (Full Build-out)	0	0	0	50	0	25	10	0	0	0	25	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	50	0	25	21	0	0	0	31	0
2024 Buildout Total	0	0	0	538	0	88	62	616	0	0	86	24

INTERSECTION VOLUME DEVELOPMENT

**Int #5: Parkside Place @ Lake Hearn Drive
AM PEAK HOUR**

Description	Parkside Place Northbound			Southbound			Lake Hearn Drive Eastbound			Lake Hearn Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	39								27	147	744	
Pedestrians												
Conflicting Pedestrians	0		0			0			0	0		0
Heavy Vehicles	1								1	3	7	
Heavy Vehicle %	3%	0%	0%	0%	0%	0%	0%	0%	4%	2%	2%	0%
Peak Hour Factor		0.96			0.96			0.96			0.96	
Adjustment	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Adjusted 2017 Volumes	39	0	0	0	0	0	0	0	27	148	751	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	40	0	0	0	0	0	0	0	28	151	766	0
Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
Residential Trips (Phase I)	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	0	0	0	0	0	0	0
2019 Buildout Total	40	0	0	0	0	0	0	0	28	151	766	0
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	41	0	0	0	0	0	0	0	29	155	785	0
Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
Residential Trips (Full Build-out)	0	0	0	0	0	0	0	0	0	0	0	0
Trip Distribution IN										10%		
Trip Distribution OUT												
Office Trips (Full Build-out)	0	0	0	0	0	0	0	0	0	58	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	0	0	0	0	58	0	0
2024 Buildout Total	41	0	0	0	0	0	0	0	29	213	785	0

PM PEAK HOUR

Description	Parkside Place Northbound			Southbound			Lake Hearn Drive Eastbound			Lake Hearn Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	17								246	185	91	
Pedestrians												
Conflicting Pedestrians	0		0			0			0	0		0
Heavy Vehicles	0								3	1	7	
Heavy Vehicle %	2%	0%	0%	0%	0%	0%	0%	0%	2%	2%	8%	0%
Peak Hour Factor		0.90			0.90			0.90			0.90	
Adjustment	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Adjusted 2017 Volumes	17	0	0	0	0	0	0	0	248	187	92	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	17	0	0	0	0	0	0	0	253	191	94	0
Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
Residential Trips (Phase I)	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	0	0	0	0	0	0	0
2019 Buildout Total	17	0	0	0	0	0	0	0	253	191	94	0
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	17	0	0	0	0	0	0	0	259	196	96	0
Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
Residential Trips (Full Build-out)	0	0	0	0	0	0	0	0	0	0	0	0
Trip Distribution IN										10%		
Trip Distribution OUT												
Office Trips (Full Build-out)	0	0	0	0	0	0	0	0	0	10	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	0	0	0	0	10	0	0
2024 Buildout Total	17	0	0	0	0	0	0	0	259	206	96	0

INTERSECTION VOLUME DEVELOPMENT

**Int #6: Ashford Dunwoody Road @ Existing Site Driveway 1
AM PEAK HOUR**

Description	Ashford Dunwoody Road Northbound			Ashford Dunwoody Road Southbound			Existing Site Driveway 1 Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	15	1,128			525	59	17		3			
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	7			9	1	0		0			
Heavy Vehicle %	2%	2%	0%	0%	2%	2%	2%	0%	2%	0%	0%	0%
Peak Hour Factor		0.95			0.95			0.95			0.95	
Adjustment	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2017 Volumes	15	1128	0	0	525	59	17	0	3	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	15	1,151	0	0	536	60	17	0	3	0	0	0
Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Residential Trips (Phase I)	0	63	0	0	15	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	63	0	0	15	0	0	0	0	0	0	0
2019 Buildout Total	15	1,214	0	0	551	60	17	0	3	0	0	0
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	15	1,243	0	0	565	62	17	0	3	0	0	0
Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Residential Trips (Full Build-out)	0	62	0	0	15	0	0	0	0	0	0	0
Trip Distribution IN	10%				10%	40%						
Trip Distribution OUT		25%					25%		15%			
Office Trips (Full Build-out)	58	20	0	0	58	231	20	0	12	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	58	82	0	0	73	231	20	0	12	0	0	0
2024 Buildout Total	73	1,262	0	0	623	293	37	0	15	0	0	0

PM PEAK HOUR

Description	Ashford Dunwoody Road Northbound			Ashford Dunwoody Road Southbound			Existing Site Driveway 1 Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	10	873			709	12	81		33			
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	1			0	1	0		0			
Heavy Vehicle %	2%	2%	0%	0%	2%	8%	2%	0%	2%	0%	0%	0%
Peak Hour Factor		0.92			0.92			0.92			0.92	
Adjustment	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2017 Volumes	10	873	0	0	709	12	81	0	33	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	10	891	0	0	723	12	83	0	34	0	0	0
Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Residential Trips (Phase I)	0	34	0	0	62	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	34	0	0	62	0	0	0	0	0	0	0
2019 Buildout Total	10	925	0	0	785	12	83	0	34	0	0	0
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	10	947	0	0	803	12	85	0	35	0	0	0
Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Residential Trips (Full Build-out)	0	32	0	0	59	0	0	0	0	0	0	0
Trip Distribution IN	10%				10%	40%						
Trip Distribution OUT		25%					25%		15%			
Office Trips (Full Build-out)	10	125	0	0	10	40	125	0	75	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	10	157	0	0	69	40	125	0	75	0	0	0
2024 Buildout Total	20	1,070	0	0	810	52	210	0	110	0	0	0

INTERSECTION VOLUME DEVELOPMENT

**Int #7: Perimeter Summit Parkway @ Existing Site Driveway 2
AM PEAK HOUR**

Description	Northbound			Existing Site Driveway 2 Southbound			Perimeter Summit Parkway Eastbound			Perimeter Summit Parkway Westbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
Observed 2017 Traffic Volumes						6			193			270	3
Pedestrians													
Conflicting Pedestrians	0		0	0		0	0		0	0		0	0
Heavy Vehicles						0			8			6	0
Heavy Vehicle %	0%	0%	0%	0%	0%	2%	0%	4%	0%	0%	2%	2%	0%
Peak Hour Factor		0.94			0.94			0.94			0.94		
Adjustment	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2017 Volumes	0	0	0	0	0	6	0	0	193	0	0	270	3
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	0	0	0	0	0	6	0	0	197	0	0	275	3
Project Trips													
Trip Distribution IN									10%				5%
Trip Distribution OUT						10%							
Residential Trips (Phase I)	0	0	0	0	0	12	0	0	3	0	0	0	1
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	12	0	0	3	0	0	0	1
2019 Buildout Total	0	0	0	0	0	18	0	0	200	0	0	275	4
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	0	0	0	0	0	18	0	0	205	0	0	282	4
Project Trips													
Trip Distribution IN													5%
Trip Distribution OUT						10%							
Residential Trips (Full Build-out)	0	0	0	0	0	11	0	0	0	0	0	0	1
Trip Distribution IN													15%
Trip Distribution OUT						5%			10%				
Office Trips (Full Build-out)	0	0	0	0	0	4	0	0	8	0	0	0	87
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	15	0	0	8	0	0	0	88
2024 Buildout Total	0	0	0	0	0	21	0	0	210	0	0	282	91

PM PEAK HOUR

Description	Northbound			Existing Site Driveway 2 Southbound			Perimeter Summit Parkway Eastbound			Perimeter Summit Parkway Westbound			
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right	
Observed 2017 Traffic Volumes						25			909			45	1
Pedestrians													
Conflicting Pedestrians	0		0	0		0	0		0	0		0	0
Heavy Vehicles						0			0			0	0
Heavy Vehicle %	0%	0%	0%	0%	0%	2%	0%	2%	0%	0%	2%	2%	0%
Peak Hour Factor		0.94			0.94			0.94			0.94		
Adjustment	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2017 Volumes	0	0	0	0	0	25	0	0	909	0	0	45	1
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	0	0	0	0	0	26	0	0	927	0	0	46	1
Project Trips													
Trip Distribution IN									10%				5%
Trip Distribution OUT						10%							
Residential Trips (Phase I)	0	0	0	0	0	6	0	0	11	0	0	0	6
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	6	0	0	11	0	0	0	6
2019 Buildout Total	0	0	0	0	0	32	0	0	938	0	0	46	7
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	0	0	0	0	0	33	0	0	961	0	0	47	7
Project Trips													
Trip Distribution IN													5%
Trip Distribution OUT						10%							
Residential Trips (Full Build-out)	0	0	0	0	0	6	0	0	0	0	0	0	5
Trip Distribution IN													15%
Trip Distribution OUT						5%			10%				
Office Trips (Full Build-out)	0	0	0	0	0	25	0	0	50	0	0	0	15
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	31	0	0	50	0	0	0	20
2024 Buildout Total	0	0	0	0	0	58	0	0	1,000	0	0	47	21

INTERSECTION VOLUME DEVELOPMENT

**Int #8: Parkside Place @ Perimeter Summit Boulevard / Proposed Site Driveway
AM PEAK HOUR**

Description	Parkside Place Northbound			Parkside Place Southbound			Perimeter Summit Blvd Eastbound			Proposed Site Driveway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	89	32			59	157	11		142			
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0			6	0	0		0			
Heavy Vehicle %	2%	2%	0%	0%	10%	2%	2%	0%	2%	0%	0%	0%
Peak Hour Factor		0.94			0.94			0.94			0.94	
Adjustment	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2017 Volumes	89	32	0	0	59	157	11	0	142	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	91	33	0	0	60	160	11	0	145	0	0	0
Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
Residential Trips (Phase I)	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	0	0	0	0	0	0	0
2019 Buildout Total	91	33	0	0	60	160	11	0	145	0	0	0
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	93	34	0	0	62	164	11	0	149	0	0	0
Project Trips												
Trip Distribution IN				10%								
Trip Distribution OUT												
Residential Trips (Full Build-out)	0	0	3	0	0	0	0	0	0	0	0	0
Trip Distribution IN				10%	10%							
Trip Distribution OUT										15%		
Office Trips (Full Build-out)	0	0	58	58	0	0	0	0	0	12	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	61	58	0	0	0	0	0	12	0	0
2024 Buildout Total	93	34	61	58	62	164	11	0	149	12	0	0

PM PEAK HOUR

Description	Parkside Place Northbound			Parkside Place Southbound			Perimeter Summit Blvd Eastbound			Proposed Site Driveway Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2017 Traffic Volumes	62	25			375	121	31		106			
Pedestrians												
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0			0	0	0		0			
Heavy Vehicle %	2%	2%	0%	0%	2%	2%	2%	0%	2%	0%	0%	0%
Peak Hour Factor		0.85			0.85			0.85			0.85	
Adjustment	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2017 Volumes	62	25	0	0	375	121	31	0	106	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
2019 Background Traffic	63	26	0	0	383	123	32	0	108	0	0	0
Project Trips												
Trip Distribution IN				10%								
Trip Distribution OUT												
Residential Trips (Phase I)	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	0	0	0	0	0	0	0	0	0	0
2019 Buildout Total	63	26	0	0	383	123	32	0	108	0	0	0
Annual Growth Rate	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Growth Factor	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025
2024 Background Traffic	65	27	0	0	393	126	33	0	111	0	0	0
Project Trips												
Trip Distribution IN				10%								
Trip Distribution OUT												
Residential Trips (Full Build-out)	0	0	11	0	0	0	0	0	0	0	0	0
Trip Distribution IN				10%	10%							
Trip Distribution OUT										15%		
Office Trips (Full Build-out)	0	0	10	10	0	0	0	0	0	75	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	0	21	10	0	0	0	0	0	75	0	0
2024 Buildout Total	65	27	21	10	393	126	33	0	111	75	0	0

Synchro Analysis Reports

2017 FORMER PROGRAM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	0	9	65	1032	20	173	554	445
Future Volume (veh/h)	0	0	0	1	0	9	65	1032	20	173	554	445
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1557	1863	1863	1900	1863	1845	1863
Adj Flow Rate, veh/h				1	0	10	72	1147	22	192	616	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				22	0	22	2	2	2	2	3	2
Cap, veh/h				22	0	16	748	4293	82	507	2933	1325
Arrive On Green				0.01	0.00	0.01	0.06	1.00	1.00	0.03	0.84	0.00
Sat Flow, veh/h				1774	0	1324	1774	5137	99	1774	3505	1583
Grp Volume(v), veh/h				1	0	10	72	757	412	192	616	0
Grp Sat Flow(s),veh/h/ln				1774	0	1324	1774	1695	1845	1774	1752	1583
Q Serve(g_s), s				0.1	0.0	1.1	0.8	0.0	0.0	2.4	5.2	0.0
Cycle Q Clear(g_c), s				0.1	0.0	1.1	0.8	0.0	0.0	2.4	5.2	0.0
Prop In Lane				1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h				22	0	16	748	2833	1542	507	2933	1325
V/C Ratio(X)				0.05	0.00	0.62	0.10	0.27	0.27	0.38	0.21	0.00
Avail Cap(c_a), veh/h				103	0	77	863	2833	1542	560	2933	1325
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				73.2	0.0	73.7	1.4	0.0	0.0	1.4	2.4	0.0
Incr Delay (d2), s/veh				0.9	0.0	32.4	0.1	0.2	0.4	0.5	0.2	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
%ile BackOfQ(95%),veh/ln				0.1	0.0	1.0	0.7	0.2	0.3	2.1	4.6	0.0
LnGrp Delay(d),s/veh				74.1	0.0	106.2	1.5	0.2	0.4	1.9	2.6	0.0
LnGrp LOS				E		F	A	A	A	A	A	
Approach Vol, veh/h					11			1241			808	
Approach Delay, s/veh					103.2			0.4			2.4	
Approach LOS					F			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	10.4	131.5			10.5	131.4		8.1				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 14	* 1.1E2			9.5	* 1.1E2		8.7				
Max Q Clear Time (g_c+I1), s	2.8	7.2			4.4	2.0		3.1				
Green Ext Time (p_c), s	0.1	51.4			0.2	53.5		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	1.7
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	↖	↗	↖	↑↑↑	↑	↗		
Traffic Volume (veh/h)	1	3	28	1167	459	70		
Future Volume (veh/h)	1	3	28	1167	459	70		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1845	1863	1845	1810		
Adj Flow Rate, veh/h	1	3	29	1216	478	73		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	3	2	3	5		
Cap, veh/h	13	11	822	4659	1690	1409		
Arrive On Green	0.01	0.01	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	845	5253	1845	1538		
Grp Volume(v), veh/h	1	3	29	1216	478	73		
Grp Sat Flow(s),veh/h/ln	1774	1583	845	1695	1845	1538		
Q Serve(g_s), s	0.1	0.3	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	0.1	0.3	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	13	11	822	4659	1690	1409		
V/C Ratio(X)	0.08	0.26	0.04	0.26	0.28	0.05		
Avail Cap(c_a), veh/h	341	304	822	4659	1690	1409		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(I)	1.00	1.00	0.62	0.62	1.00	1.00		
Uniform Delay (d), s/veh	74.0	74.1	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	1.0	4.5	0.0	0.1	0.4	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	0.1	0.2	0.0	0.1	0.4	0.0		
LnGrp Delay(d),s/veh	74.9	78.6	0.0	0.1	0.4	0.1		
LnGrp LOS	E	E	A	A	A	A		
Approach Vol, veh/h	4			1245	551			
Approach Delay, s/veh	77.7			0.1	0.4			
Approach LOS	E			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		143.7		6.3		143.7		
Change Period (Y+Rc), s		* 6.3		* 5.2		* 6.3		
Max Green Setting (Gmax), s		* 1.1E2		* 29		* 1.1E2		
Max Q Clear Time (g_c+I1), s		2.0		2.3		2.0		
Green Ext Time (p_c), s		53.6		0.0		53.6		

Intersection Summary

HCM 2010 Ctrl Delay	0.3
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	68	7	26	61	145	996	3	7	426	36
Future Volume (veh/h)	149	0	68	7	26	61	145	996	3	7	426	36
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1900	1863	1900	1863	1863	1900	1863	1827	1759
Adj Flow Rate, veh/h	154	0	70	7	27	63	149	1027	3	7	439	37
Adj No. of Lanes	2	0	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	0	2	2	2	2	2	2	2	2	4	8
Cap, veh/h	188	0	86	6	25	58	659	1434	4	316	1261	1032
Arrive On Green	0.05	0.00	0.05	0.05	0.05	0.05	0.04	0.77	0.77	0.69	0.69	0.69
Sat Flow, veh/h	3480	0	1583	120	464	1082	1774	1856	5	545	1827	1495
Grp Volume(v), veh/h	154	0	70	97	0	0	149	0	1030	7	439	37
Grp Sat Flow(s),veh/h/ln	1740	0	1583	1666	0	0	1774	0	1862	545	1827	1495
Q Serve(g_s), s	6.6	0.0	6.6	8.0	0.0	0.0	3.5	0.0	42.2	1.0	14.7	1.2
Cycle Q Clear(g_c), s	6.6	0.0	6.6	8.0	0.0	0.0	3.5	0.0	42.2	30.9	14.7	1.2
Prop In Lane	1.00		1.00	0.07		0.65	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	0	86	89	0	0	659	0	1439	316	1261	1032
V/C Ratio(X)	0.82	0.00	0.82	1.09	0.00	0.00	0.23	0.00	0.72	0.02	0.35	0.04
Avail Cap(c_a), veh/h	188	0	86	89	0	0	868	0	1439	316	1261	1032
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	70.2	0.0	70.2	71.0	0.0	0.0	6.5	0.0	8.7	19.7	9.5	7.4
Incr Delay (d2), s/veh	22.7	0.0	41.9	122.5	0.0	0.0	0.2	0.0	3.1	0.1	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.8	0.0	7.0	12.1	0.0	0.0	3.1	0.0	30.5	0.3	12.0	0.9
LnGrp Delay(d),s/veh	92.9	0.0	112.1	193.7	0.0	0.0	6.7	0.0	11.8	19.8	10.2	7.4
LnGrp LOS	F		F	F			A		B	B	B	A
Approach Vol, veh/h		224			97			1179			483	
Approach Delay, s/veh		98.9			193.7			11.1			10.1	
Approach LOS		F			F			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.4	109.6		14.0		122.0		14.0				
Change Period (Y+Rc), s	6.5	6.1		* 5.9		6.1		6.0				
Max Green Setting (Gmax), s	23.5	85.9		* 8.1		115.9		8.0				
Max Q Clear Time (g_c+I1), s	5.5	32.9		8.6		44.2		10.0				
Green Ext Time (p_c), s	0.3	34.9		0.0		42.0		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	29.7
HCM 2010 LOS	C

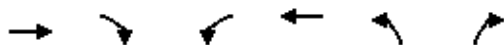
Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	39	42	195	61	133	74		
Future Volume (veh/h)	39	42	195	61	133	74		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1696	1863	1863	1900	1827	1792		
Adj Flow Rate, veh/h	41	44	203	0	139	77		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	12	2	2	2	4	6		
Cap, veh/h	641	2135	1773	0	941	425		
Arrive On Green	0.04	0.60	0.50	0.00	0.28	0.28		
Sat Flow, veh/h	1616	3632	3725	0	3375	1524		
Grp Volume(v), veh/h	41	44	203	0	139	77		
Grp Sat Flow(s),veh/h/ln	1616	1770	1770	0	1688	1524		
Q Serve(g_s), s	1.0	0.4	2.7	0.0	2.8	3.5		
Cycle Q Clear(g_c), s	1.0	0.4	2.7	0.0	2.8	3.5		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	641	2135	1773	0	941	425		
V/C Ratio(X)	0.06	0.02	0.11	0.00	0.15	0.18		
Avail Cap(c_a), veh/h	745	2135	1773	0	941	425		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	9.1	7.2	11.9	0.0	24.4	24.6		
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.3	0.9		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	0.8	0.4	2.4	0.0	2.4	2.8		
LnGrp Delay(d),s/veh	9.2	7.2	11.9	0.0	24.7	25.6		
LnGrp LOS	A	A	B		C	C		
Approach Vol, veh/h		85	203		216			
Approach Delay, s/veh		8.1	11.9		25.0			
Approach LOS		A	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.2	50.8		30.0		60.0		
Change Period (Y+Rc), s	6.0	* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s	9.0	* 39		* 25		* 54		
Max Q Clear Time (g_c+I1), s	3.0	4.7		5.5		2.4		
Green Ext Time (p_c), s	0.0	3.0		0.7		3.3		

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	27	148	751	39	0
Future Volume (vph)	0	27	148	751	39	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.99	0.95	
Satd. Flow (prot)		1596		3510	3433	
Flt Permitted		1.00		0.99	0.95	
Satd. Flow (perm)		1596		3510	3433	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	28	154	782	41	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	28	0	936	41	0
Heavy Vehicles (%)	0%	3%	2%	2%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		62.0		47.9	2.9	
Effective Green, g (s)		62.0		47.9	2.9	
Actuated g/C Ratio		1.00		0.77	0.05	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1596		2711	160	
v/s Ratio Prot					c0.01	
v/s Ratio Perm		0.02		0.27		
v/c Ratio		0.02		0.35	0.26	
Uniform Delay, d1		0.0		2.2	28.5	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.0		0.3	0.9	
Delay (s)		0.0		2.5	29.4	
Level of Service		A		A	C	
Approach Delay (s)	0.0			2.5	29.4	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			3.6		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.34			
Actuated Cycle Length (s)			62.0		Sum of lost time (s)	11.2
Intersection Capacity Utilization			40.2%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection							
Int Delay, s/veh	0.3						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↘	↗	↘	↑↑↑	↑↑		
Traffic Vol, veh/h	17	3	15	1128	525	59	
Future Vol, veh/h	17	3	15	1128	525	59	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	95	95	95	95	95	95	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	18	3	16	1187	553	62	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1091	307	615	0	-	0	
Stage 1	584	-	-	-	-	-	
Stage 2	507	-	-	-	-	-	
Critical Hdwy	6.29	6.94	4.14	-	-	-	
Critical Hdwy Stg 1	5.84	-	-	-	-	-	
Critical Hdwy Stg 2	6.04	-	-	-	-	-	
Follow-up Hdwy	3.67	3.32	2.22	-	-	-	
Pot Cap-1 Maneuver	242	689	961	-	-	-	
Stage 1	505	-	-	-	-	-	
Stage 2	537	-	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	238	689	961	-	-	-	
Mov Cap-2 Maneuver	238	-	-	-	-	-	
Stage 1	505	-	-	-	-	-	
Stage 2	528	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	19.7		0.1		0		
HCM LOS	C						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR	
Capacity (veh/h)	961	-	238	689	-	-	
HCM Lane V/C Ratio	0.016	-	0.075	0.005	-	-	
HCM Control Delay (s)	8.8	-	21.4	10.2	-	-	
HCM Lane LOS	A	-	C	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.2	0	-	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	193	270	3	0	6
Future Vol, veh/h	0	193	270	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	4	2	2	0	2
Mvmt Flow	0	205	287	3	0	6
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	145
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	876
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	876
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		9.1	
HCM LOS					A	
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	876		
HCM Lane V/C Ratio	-	-	-	0.007		
HCM Control Delay (s)	-	-	-	9.1		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0		

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↔	↔	↔
Traffic Vol, veh/h	11	142	89	32	59	157
Future Vol, veh/h	11	142	89	32	59	157
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	115	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	10	2
Mvmt Flow	12	151	95	34	63	167
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	352	115	230	0	-	0
Stage 1	146	-	-	-	-	-
Stage 2	206	-	-	-	-	-
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	619	916	1335	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	575	916	1335	-	-	-
Mov Cap-2 Maneuver	575	-	-	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10		5.8		0	
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1335	-	879	-	-	-
HCM Lane V/C Ratio	0.071	-	0.185	-	-	-
HCM Control Delay (s)	7.9	-	10	-	-	-
HCM Lane LOS	A	-	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-	-













Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	6	2	99	14	974	1	22	714	120
Future Volume (veh/h)	0	0	0	6	2	99	14	974	1	22	714	120
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h				6	2	105	15	1036	1	23	760	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	2	2	2	2	2	2	2	2
Cap, veh/h				112	37	132	546	3646	4	500	2480	1109
Arrive On Green				0.08	0.08	0.08	0.03	1.00	1.00	0.02	0.70	0.00
Sat Flow, veh/h				1347	449	1583	1774	5247	5	1774	3539	1583
Grp Volume(v), veh/h				8	0	105	15	669	368	23	760	0
Grp Sat Flow(s),veh/h/ln				1795	0	1583	1774	1695	1862	1774	1770	1583
Q Serve(g_s), s				0.4	0.0	5.9	0.2	0.0	0.0	0.3	7.4	0.0
Cycle Q Clear(g_c), s				0.4	0.0	5.9	0.2	0.0	0.0	0.3	7.4	0.0
Prop In Lane				0.75		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h				149	0	132	546	2355	1294	500	2480	1109
V/C Ratio(X)				0.05	0.00	0.80	0.03	0.28	0.28	0.05	0.31	0.00
Avail Cap(c_a), veh/h				233	0	206	641	2355	1294	585	2480	1109
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				38.0	0.0	40.5	4.0	0.0	0.0	3.6	5.1	0.0
Incr Delay (d2), s/veh				0.1	0.0	11.1	0.0	0.3	0.6	0.0	0.3	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
%ile BackOfQ(95%),veh/ln				0.3	0.0	5.3	0.2	0.2	0.4	0.3	6.7	0.0
LnGrp Delay(d),s/veh				38.1	0.0	51.7	4.0	0.3	0.6	3.6	5.5	0.0
LnGrp LOS				D		D	A	A	A	A	A	
Approach Vol, veh/h					113			1052			783	
Approach Delay, s/veh					50.7			0.4			5.4	
Approach LOS					D			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	7.2	69.1			7.7	68.5		13.8				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 6.4	* 54			6.5	* 54		11.7				
Max Q Clear Time (g_c+I1), s	2.2	9.4			2.3	2.0		7.9				
Green Ext Time (p_c), s	0.0	31.8			0.0	35.4		0.1				

Intersection Summary

HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	72	19	5	948	745	6		
Future Volume (veh/h)	72	19	5	948	745	6		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1357	1863	1863	1863		
Adj Flow Rate, veh/h	76	20	5	998	784	6		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	40	2	2	2		
Cap, veh/h	95	85	479	4488	1644	1397		
Arrive On Green	0.05	0.05	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	498	5253	1863	1583		
Grp Volume(v), veh/h	76	20	5	998	784	6		
Grp Sat Flow(s),veh/h/ln	1774	1583	498	1695	1863	1583		
Q Serve(g_s), s	7.6	2.2	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	7.6	2.2	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	95	85	479	4488	1644	1397		
V/C Ratio(X)	0.80	0.24	0.01	0.22	0.48	0.00		
Avail Cap(c_a), veh/h	294	262	479	4488	1644	1397		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(l)	1.00	1.00	0.76	0.76	1.00	1.00		
Uniform Delay (d), s/veh	84.2	81.6	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	5.7	0.5	0.0	0.1	1.0	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	7.0	1.7	0.0	0.1	0.8	0.0		
LnGrp Delay(d),s/veh	89.9	82.2	0.0	0.1	1.0	0.0		
LnGrp LOS	F	F	A	A	A	A		
Approach Vol, veh/h	96			1003	790			
Approach Delay, s/veh	88.3			0.1	1.0			
Approach LOS	F			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		165.1		14.9		165.1		
Change Period (Y+Rc), s		* 6.3		* 5.2		* 6.3		
Max Green Setting (Gmax), s		* 1.4E2		* 30		* 1.4E2		
Max Q Clear Time (g_c+I1), s		2.0		9.6		2.0		
Green Ext Time (p_c), s		64.4		0.1		64.4		
Intersection Summary								
HCM 2010 Ctrl Delay			4.9					
HCM 2010 LOS			A					
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	507	51	412	11	5	17	33	446	9	30	743	14
Future Volume (veh/h)	507	51	412	11	5	17	33	446	9	30	743	14
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1820	1900	1863	1860	1900	1792	1863	1863
Adj Flow Rate, veh/h	573	0	434	12	5	18	35	469	9	32	782	15
Adj No. of Lanes	2	0	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	6	2	2
Cap, veh/h	753	0	336	18	8	27	288	1010	19	432	1035	879
Arrive On Green	0.21	0.00	0.21	0.03	0.03	0.03	0.56	0.56	0.56	0.74	0.74	0.74
Sat Flow, veh/h	3548	0	1583	563	235	845	679	1819	35	878	1863	1583
Grp Volume(v), veh/h	573	0	434	35	0	0	35	0	478	32	782	15
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1643	0	0	679	0	1853	878	1863	1583
Q Serve(g_s), s	13.7	0.0	19.1	1.9	0.0	0.0	3.4	0.0	13.9	1.6	22.4	0.2
Cycle Q Clear(g_c), s	13.7	0.0	19.1	1.9	0.0	0.0	25.7	0.0	13.9	15.5	22.4	0.2
Prop In Lane	1.00		1.00	0.34		0.51	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	753	0	336	53	0	0	288	0	1029	432	1035	879
V/C Ratio(X)	0.76	0.00	1.29	0.66	0.00	0.00	0.12	0.00	0.46	0.07	0.76	0.02
Avail Cap(c_a), veh/h	753	0	336	110	0	0	288	0	1029	432	1035	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	33.3	0.0	35.4	43.0	0.0	0.0	22.8	0.0	12.0	10.7	8.2	5.3
Incr Delay (d2), s/veh	4.1	0.0	151.7	13.0	0.0	0.0	0.9	0.0	1.5	0.3	4.5	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(95%),veh/ln	11.5	0.0	40.4	1.9	0.0	0.0	1.3	0.0	11.9	0.8	17.9	0.2
LnGrp Delay(d),s/veh	37.4	0.0	187.2	56.0	0.0	0.0	23.6	0.0	13.5	11.0	12.7	5.3
LnGrp LOS	D		F	E			C		B	B	B	A
Approach Vol, veh/h		1007			35			513			829	
Approach Delay, s/veh		102.0			56.0			14.2			12.5	
Approach LOS		F			E			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		56.1		25.0		56.1		8.9				
Change Period (Y+Rc), s		6.1		* 5.9		6.1		6.0				
Max Green Setting (Gmax), s		46.9		* 19		46.9		6.0				
Max Q Clear Time (g_c+I1), s		24.4		21.1		27.7		3.9				
Green Ext Time (p_c), s		15.9		0.0		14.0		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	51.3
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

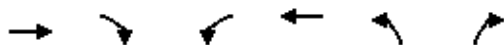
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	39	589	53	23	467	60		
Future Volume (veh/h)	39	589	53	23	467	60		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1727	1863	1839	1900	1863	1792		
Adj Flow Rate, veh/h	44	662	60	0	525	67		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89		
Percent Heavy Veh, %	10	2	3	3	2	6		
Cap, veh/h	609	1517	1498	0	1510	668		
Arrive On Green	0.43	0.43	0.43	0.00	0.44	0.44		
Sat Flow, veh/h	1240	3632	3679	0	3442	1524		
Grp Volume(v), veh/h	44	662	60	0	525	67		
Grp Sat Flow(s),veh/h/ln	1240	1770	1747	0	1721	1524		
Q Serve(g_s), s	1.7	10.5	0.8	0.0	8.1	2.1		
Cycle Q Clear(g_c), s	2.5	10.5	0.8	0.0	8.1	2.1		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	609	1517	1498	0	1510	668		
V/C Ratio(X)	0.07	0.44	0.04	0.00	0.35	0.10		
Avail Cap(c_a), veh/h	609	1517	1498	0	1510	668		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	14.0	16.1	13.3	0.0	14.9	13.2		
Incr Delay (d2), s/veh	0.2	0.9	0.0	0.0	0.6	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	1.1	9.0	0.7	0.0	7.1	1.6		
LnGrp Delay(d),s/veh	14.2	17.0	13.3	0.0	15.5	13.5		
LnGrp LOS	B	B	B		B	B		
Approach Vol, veh/h		706	60		592			
Approach Delay, s/veh		16.8	13.3		15.3			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		40.0		40.0		40.0		
Change Period (Y+Rc), s		* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s		* 34		* 35		* 34		
Max Q Clear Time (g_c+I1), s		2.8		10.1		12.5		
Green Ext Time (p_c), s		10.5		2.2		8.8		

Intersection Summary

HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	248	187	92	17	0
Future Volume (vph)	0	248	187	92	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.97	0.95	
Satd. Flow (prot)		1611		3370	3433	
Flt Permitted		1.00		0.97	0.95	
Satd. Flow (perm)		1611		3370	3433	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	276	208	102	19	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	276	0	310	19	0
Heavy Vehicles (%)	0%	2%	2%	7%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		63.6		50.9	1.5	
Effective Green, g (s)		63.6		50.9	1.5	
Actuated g/C Ratio		1.00		0.80	0.02	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1611		2697	80	
v/s Ratio Prot					0.01	
v/s Ratio Perm		c0.17		0.09		
v/c Ratio		0.17		0.11	0.24	
Uniform Delay, d1		0.0		1.4	30.5	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.2		0.1	1.5	
Delay (s)		0.2		1.5	32.0	
Level of Service		A		A	C	
Approach Delay (s)	0.2			1.5	32.0	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			1.9		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.21			
Actuated Cycle Length (s)			63.6		Sum of lost time (s)	11.2
Intersection Capacity Utilization			25.5%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection							
Int Delay, s/veh	1.8						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↵	↶	↵	↶↶↶	↶↶		
Traffic Vol, veh/h	81	33	10	873	709	12	
Future Vol, veh/h	81	33	10	873	709	12	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	8	
Mvmt Flow	88	36	11	949	771	13	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1178	392	784	0	-	0	
Stage 1	777	-	-	-	-	-	
Stage 2	401	-	-	-	-	-	
Critical Hdwy	6.29	6.94	4.14	-	-	-	
Critical Hdwy Stg 1	5.84	-	-	-	-	-	
Critical Hdwy Stg 2	6.04	-	-	-	-	-	
Follow-up Hdwy	3.67	3.32	2.22	-	-	-	
Pot Cap-1 Maneuver	215	607	830	-	-	-	
Stage 1	403	-	-	-	-	-	
Stage 2	610	-	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	212	607	830	-	-	-	
Mov Cap-2 Maneuver	212	-	-	-	-	-	
Stage 1	403	-	-	-	-	-	
Stage 2	602	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	27.1		0.1		0		
HCM LOS	D						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR	
Capacity (veh/h)	830	-	212	607	-	-	
HCM Lane V/C Ratio	0.013	-	0.415	0.059	-	-	
HCM Control Delay (s)	9.4	-	33.5	11.3	-	-	
HCM Lane LOS	A	-	D	B	-	-	
HCM 95th %tile Q(veh)	0	-	1.9	0.2	-	-	

Intersection							
Int Delay, s/veh	0.2						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↑↑	↑↑				↑
Traffic Vol, veh/h	0	909	45	1	0	25	
Future Vol, veh/h	0	909	45	1	0	25	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	-	0	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	94	94	94	94	94	94	
Heavy Vehicles, %	0	2	2	2	0	2	
Mvmt Flow	0	967	48	1	0	27	
Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	24	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	-	-	-	-	6.94	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	-	-	-	-	3.32	
Pot Cap-1 Maneuver	0	-	-	-	0	1047	
Stage 1	0	-	-	-	0	-	
Stage 2	0	-	-	-	0	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	-	-	-	-	-	1047	
Mov Cap-2 Maneuver	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Approach	EB		WB		SB		
HCM Control Delay, s	0		0		8.5		
HCM LOS					A		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1			
Capacity (veh/h)	-	-	-	1047			
HCM Lane V/C Ratio	-	-	-	0.025			
HCM Control Delay (s)	-	-	-	8.5			
HCM Lane LOS	-	-	-	A			
HCM 95th %tile Q(veh)	-	-	-	0.1			

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↔	↔	↔
Traffic Vol, veh/h	31	106	62	25	375	121
Future Vol, veh/h	31	106	62	25	375	121
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	115	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	125	73	29	441	142
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	673	292	584	0	-	0
Stage 1	512	-	-	-	-	-
Stage 2	161	-	-	-	-	-
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	389	704	987	-	-	-
Stage 1	567	-	-	-	-	-
Stage 2	851	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	360	704	987	-	-	-
Mov Cap-2 Maneuver	360	-	-	-	-	-
Stage 1	567	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	13.6		6.4		0	
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	987	-	579	-	-	-
HCM Lane V/C Ratio	0.074	-	0.278	-	-	-
HCM Control Delay (s)	8.9	-	13.6	-	-	-
HCM Lane LOS	A	-	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	0	9	66	1053	20	176	565	454
Future Volume (veh/h)	0	0	0	1	0	9	66	1053	20	176	565	454
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1557	1863	1863	1900	1863	1845	1863
Adj Flow Rate, veh/h				1	0	10	73	1170	22	196	628	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				22	0	22	2	2	2	2	3	2
Cap, veh/h				22	0	16	741	4295	81	498	2932	1325
Arrive On Green				0.01	0.00	0.01	0.06	1.00	1.00	0.03	0.84	0.00
Sat Flow, veh/h				1774	0	1324	1774	5139	97	1774	3505	1583
Grp Volume(v), veh/h				1	0	10	73	772	420	196	628	0
Grp Sat Flow(s),veh/h/ln				1774	0	1324	1774	1695	1846	1774	1752	1583
Q Serve(g_s), s				0.1	0.0	1.1	0.9	0.0	0.0	2.4	5.3	0.0
Cycle Q Clear(g_c), s				0.1	0.0	1.1	0.9	0.0	0.0	2.4	5.3	0.0
Prop In Lane				1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h				22	0	16	741	2833	1543	498	2932	1325
V/C Ratio(X)				0.05	0.00	0.62	0.10	0.27	0.27	0.39	0.21	0.00
Avail Cap(c_a), veh/h				103	0	77	855	2833	1543	551	2932	1325
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				73.2	0.0	73.7	1.4	0.0	0.0	1.4	2.4	0.0
Incr Delay (d2), s/veh				0.9	0.0	32.4	0.1	0.2	0.4	0.5	0.2	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
%ile BackOfQ(95%),veh/ln				0.1	0.0	1.0	0.8	0.2	0.3	2.2	4.7	0.0
LnGrp Delay(d),s/veh				74.1	0.0	106.2	1.5	0.2	0.4	2.0	2.6	0.0
LnGrp LOS				E		F	A	A	A	A	A	
Approach Vol, veh/h					11			1265			824	
Approach Delay, s/veh					103.2			0.4			2.4	
Approach LOS					F			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	10.4	131.5			10.5	131.4		8.1				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 14	* 1.1E2			9.5	* 1.1E2		8.7				
Max Q Clear Time (g_c+I1), s	2.9	7.3			4.4	2.0		3.1				
Green Ext Time (p_c), s	0.1	53.1			0.2	55.5		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	1.7
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	1	3	29	1190	468	71		
Future Volume (veh/h)	1	3	29	1190	468	71		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1845	1863	1845	1810		
Adj Flow Rate, veh/h	1	3	30	1240	488	74		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	3	2	3	5		
Cap, veh/h	13	11	814	4659	1690	1409		
Arrive On Green	0.01	0.01	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	836	5253	1845	1538		
Grp Volume(v), veh/h	1	3	30	1240	488	74		
Grp Sat Flow(s),veh/h/ln	1774	1583	836	1695	1845	1538		
Q Serve(g_s), s	0.1	0.3	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	0.1	0.3	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	13	11	814	4659	1690	1409		
V/C Ratio(X)	0.08	0.26	0.04	0.27	0.29	0.05		
Avail Cap(c_a), veh/h	341	304	814	4659	1690	1409		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(I)	1.00	1.00	0.60	0.60	1.00	1.00		
Uniform Delay (d), s/veh	74.0	74.1	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	1.0	4.5	0.1	0.1	0.4	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	0.1	0.2	0.0	0.1	0.4	0.0		
LnGrp Delay(d),s/veh	74.9	78.6	0.1	0.1	0.4	0.1		
LnGrp LOS	E	E	A	A	A	A		
Approach Vol, veh/h	4			1270	562			
Approach Delay, s/veh	77.7			0.1	0.4			
Approach LOS	E			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		143.7		6.3		143.7		
Change Period (Y+Rc), s		* 6.3		* 5.2		* 6.3		
Max Green Setting (Gmax), s		* 1.1E2		* 29		* 1.1E2		
Max Q Clear Time (g_c+I1), s		2.0		2.3		2.0		
Green Ext Time (p_c), s		55.6		0.0		55.6		
Intersection Summary								
HCM 2010 Ctrl Delay			0.3					
HCM 2010 LOS			A					
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	0	69	7	27	62	148	1016	3	7	435	37
Future Volume (veh/h)	152	0	69	7	27	62	148	1016	3	7	435	37
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1900	1863	1900	1863	1863	1900	1863	1827	1759
Adj Flow Rate, veh/h	157	0	71	7	28	64	153	1047	3	7	448	38
Adj No. of Lanes	2	0	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	0	2	2	2	2	2	2	2	2	4	8
Cap, veh/h	188	0	86	6	25	57	652	1434	4	304	1260	1031
Arrive On Green	0.05	0.00	0.05	0.05	0.05	0.05	0.04	0.77	0.77	0.69	0.69	0.69
Sat Flow, veh/h	3480	0	1583	118	471	1077	1774	1856	5	535	1827	1495
Grp Volume(v), veh/h	157	0	71	99	0	0	153	0	1050	7	448	38
Grp Sat Flow(s),veh/h/ln	1740	0	1583	1667	0	0	1774	0	1862	535	1827	1495
Q Serve(g_s), s	6.7	0.0	6.7	8.0	0.0	0.0	3.6	0.0	44.1	1.0	15.1	1.2
Cycle Q Clear(g_c), s	6.7	0.0	6.7	8.0	0.0	0.0	3.6	0.0	44.1	32.7	15.1	1.2
Prop In Lane	1.00		1.00	0.07		0.65	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	0	86	89	0	0	652	0	1439	304	1260	1031
V/C Ratio(X)	0.84	0.00	0.83	1.11	0.00	0.00	0.23	0.00	0.73	0.02	0.36	0.04
Avail Cap(c_a), veh/h	188	0	86	89	0	0	859	0	1439	304	1260	1031
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	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.97	0.97	0.97
Uniform Delay (d), s/veh	70.3	0.0	70.3	71.0	0.0	0.0	6.6	0.0	8.9	20.7	9.6	7.4
Incr Delay (d2), s/veh	25.3	0.0	44.7	129.5	0.0	0.0	0.2	0.0	3.3	0.1	0.8	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(95%),veh/ln	7.0	0.0	7.2	12.4	0.0	0.0	3.2	0.0	31.4	0.3	12.4	0.9
LnGrp Delay(d),s/veh	95.6	0.0	115.0	200.5	0.0	0.0	6.8	0.0	12.2	20.8	10.3	7.5
LnGrp LOS	F		F	F			A		B	C	B	A
Approach Vol, veh/h		228			99			1203			493	
Approach Delay, s/veh		101.6			200.5			11.5			10.3	
Approach LOS		F			F			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.5	109.5		14.0		122.0		14.0				
Change Period (Y+Rc), s	6.5	6.1		* 5.9		6.1		6.0				
Max Green Setting (Gmax), s	23.5	85.9		* 8.1		115.9		8.0				
Max Q Clear Time (g_c+I1), s	5.6	34.7		8.7		46.1		10.0				
Green Ext Time (p_c), s	0.4	35.1		0.0		42.8		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	30.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



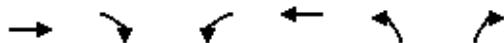
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↖	↕	↕		↖	↗		
Traffic Volume (veh/h)	40	43	199	62	136	75		
Future Volume (veh/h)	40	43	199	62	136	75		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1696	1863	1863	1900	1827	1792		
Adj Flow Rate, veh/h	42	45	207	0	142	78		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	12	2	2	2	4	6		
Cap, veh/h	639	2135	1772	0	941	425		
Arrive On Green	0.04	0.60	0.50	0.00	0.28	0.28		
Sat Flow, veh/h	1616	3632	3725	0	3375	1524		
Grp Volume(v), veh/h	42	45	207	0	142	78		
Grp Sat Flow(s),veh/h/ln	1616	1770	1770	0	1688	1524		
Q Serve(g_s), s	1.1	0.5	2.8	0.0	2.9	3.5		
Cycle Q Clear(g_c), s	1.1	0.5	2.8	0.0	2.9	3.5		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	639	2135	1772	0	941	425		
V/C Ratio(X)	0.07	0.02	0.12	0.00	0.15	0.18		
Avail Cap(c_a), veh/h	742	2135	1772	0	941	425		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	9.1	7.2	11.9	0.0	24.4	24.7		
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.3	1.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	0.8	0.4	2.5	0.0	2.5	2.9		
LnGrp Delay(d),s/veh	9.2	7.2	12.0	0.0	24.8	25.6		
LnGrp LOS	A	A	B		C	C		
Approach Vol, veh/h		87	207		220			
Approach Delay, s/veh		8.1	12.0		25.1			
Approach LOS		A	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.3	50.7		30.0		60.0		
Change Period (Y+Rc), s	6.0	* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s	9.0	* 39		* 25		* 54		
Max Q Clear Time (g_c+I1), s	3.1	4.8		5.5		2.5		
Green Ext Time (p_c), s	0.0	3.1		0.7		3.3		

Intersection Summary

HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	28	151	766	40	0
Future Volume (vph)	0	28	151	766	40	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.99	0.95	
Satd. Flow (prot)		1596		3510	3433	
Flt Permitted		1.00		0.99	0.95	
Satd. Flow (perm)		1596		3510	3433	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	29	157	798	42	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	29	0	955	42	0
Heavy Vehicles (%)	0%	3%	2%	2%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		62.0		47.9	2.9	
Effective Green, g (s)		62.0		47.9	2.9	
Actuated g/C Ratio		1.00		0.77	0.05	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1596		2711	160	
v/s Ratio Prot					c0.01	
v/s Ratio Perm		0.02		0.27		
v/c Ratio		0.02		0.35	0.26	
Uniform Delay, d1		0.0		2.2	28.5	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.0		0.4	0.9	
Delay (s)		0.0		2.6	29.4	
Level of Service		A		A	C	
Approach Delay (s)	0.0			2.6	29.4	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			3.6		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.35			
Actuated Cycle Length (s)			62.0		Sum of lost time (s)	11.2
Intersection Capacity Utilization			40.7%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection							
Int Delay, s/veh	0.3						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↵	↵	↵	↵↵↵	↵↵		
Traffic Vol, veh/h	17	3	15	1151	536	60	
Future Vol, veh/h	17	3	15	1151	536	60	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	95	95	95	95	95	95	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	18	3	16	1212	564	63	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1112	314	627	0	-	0	
Stage 1	596	-	-	-	-	-	
Stage 2	516	-	-	-	-	-	
Critical Hdwy	6.99	6.94	4.14	-	-	-	
Critical Hdwy Stg 1	6.54	-	-	-	-	-	
Critical Hdwy Stg 2	6.74	-	-	-	-	-	
Follow-up Hdwy	3.67	3.32	2.22	-	-	-	
Pot Cap-1 Maneuver	189	682	951	-	-	-	
Stage 1	443	-	-	-	-	-	
Stage 2	480	-	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	187	682	951	-	-	-	
Mov Cap-2 Maneuver	187	-	-	-	-	-	
Stage 1	436	-	-	-	-	-	
Stage 2	472	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	23.9		0.1		0		
HCM LOS	C						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR	
Capacity (veh/h)	951	-	187	682	-	-	
HCM Lane V/C Ratio	0.017	-	0.096	0.005	-	-	
HCM Control Delay (s)	8.8	-	26.3	10.3	-	-	
HCM Lane LOS	A	-	D	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.3	0	-	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	197	275	3	0	6
Future Vol, veh/h	0	197	275	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	4	2	2	0	2
Mvmt Flow	0	210	293	3	0	6
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	148
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	872
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	872
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	872		
HCM Lane V/C Ratio	-	-	-	0.007		
HCM Control Delay (s)	-	-	-	9.2		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0		

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↔	↔	↔
Traffic Vol, veh/h	11	145	91	33	60	160
Future Vol, veh/h	11	145	91	33	60	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	115	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	10	2
Mvmt Flow	12	154	97	35	64	170
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	360	117	234	0	-	0
Stage 1	149	-	-	-	-	-
Stage 2	211	-	-	-	-	-
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	612	913	1331	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	567	913	1331	-	-	-
Mov Cap-2 Maneuver	567	-	-	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.1		5.8		0	
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1331	-	875	-	-	-
HCM Lane V/C Ratio	0.073	-	0.19	-	-	-
HCM Control Delay (s)	7.9	-	10.1	-	-	-
HCM Lane LOS	A	-	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-	-













Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	6	2	101	14	994	1	22	728	122
Future Volume (veh/h)	0	0	0	6	2	101	14	994	1	22	728	122
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h				6	2	107	15	1057	1	23	774	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	2	2	2	2	2	2	2	2
Cap, veh/h				114	38	134	537	3638	3	491	2475	1107
Arrive On Green				0.08	0.08	0.08	0.03	1.00	1.00	0.02	0.70	0.00
Sat Flow, veh/h				1347	449	1583	1774	5247	5	1774	3539	1583
Grp Volume(v), veh/h				8	0	107	15	683	375	23	774	0
Grp Sat Flow(s),veh/h/ln				1795	0	1583	1774	1695	1862	1774	1770	1583
Q Serve(g_s), s				0.4	0.0	6.0	0.2	0.0	0.0	0.3	7.6	0.0
Cycle Q Clear(g_c), s				0.4	0.0	6.0	0.2	0.0	0.0	0.3	7.6	0.0
Prop In Lane				0.75		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h				152	0	134	537	2351	1291	491	2475	1107
V/C Ratio(X)				0.05	0.00	0.80	0.03	0.29	0.29	0.05	0.31	0.00
Avail Cap(c_a), veh/h				233	0	206	633	2351	1291	576	2475	1107
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				37.9	0.0	40.4	4.0	0.0	0.0	3.6	5.2	0.0
Incr Delay (d2), s/veh				0.1	0.0	11.7	0.0	0.3	0.6	0.0	0.3	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
%ile BackOfQ(95%),veh/ln				0.3	0.0	5.5	0.2	0.2	0.4	0.3	6.8	0.0
LnGrp Delay(d),s/veh				38.0	0.0	52.2	4.0	0.3	0.6	3.7	5.5	0.0
LnGrp LOS				D		D	A	A	A	A	A	
Approach Vol, veh/h					115			1073			797	
Approach Delay, s/veh					51.2			0.5			5.5	
Approach LOS					D			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	7.2	68.9			7.7	68.4		13.9				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 6.4	* 54			6.5	* 54		11.7				
Max Q Clear Time (g_c+I1), s	2.2	9.6			2.3	2.0		8.0				
Green Ext Time (p_c), s	0.0	32.3			0.0	36.1		0.1				

Intersection Summary

HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	73	19	5	967	760	6		
Future Volume (veh/h)	73	19	5	967	760	6		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1357	1863	1863	1863		
Adj Flow Rate, veh/h	77	20	5	1018	800	6		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	40	2	2	2		
Cap, veh/h	96	86	472	4485	1643	1396		
Arrive On Green	0.05	0.05	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	490	5253	1863	1583		
Grp Volume(v), veh/h	77	20	5	1018	800	6		
Grp Sat Flow(s),veh/h/ln	1774	1583	490	1695	1863	1583		
Q Serve(g_s), s	7.7	2.2	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	7.7	2.2	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	96	86	472	4485	1643	1396		
V/C Ratio(X)	0.80	0.23	0.01	0.23	0.49	0.00		
Avail Cap(c_a), veh/h	294	262	472	4485	1643	1396		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(I)	1.00	1.00	0.75	0.75	1.00	1.00		
Uniform Delay (d), s/veh	84.2	81.5	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	5.7	0.5	0.0	0.1	1.0	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	7.1	1.7	0.0	0.1	0.9	0.0		
LnGrp Delay(d),s/veh	89.8	82.0	0.0	0.1	1.0	0.0		
LnGrp LOS	F	F	A	A	A	A		
Approach Vol, veh/h	97			1023	806			
Approach Delay, s/veh	88.2			0.1	1.0			
Approach LOS	F			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		165.0		15.0		165.0		
Change Period (Y+Rc), s		* 6.3		* 5.2		* 6.3		
Max Green Setting (Gmax), s		* 1.4E2		* 30		* 1.4E2		
Max Q Clear Time (g_c+I1), s		2.0		9.7		2.0		
Green Ext Time (p_c), s		67.2		0.1		67.2		
Intersection Summary								
HCM 2010 Ctrl Delay			4.9					
HCM 2010 LOS			A					
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

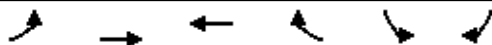
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	517	52	420	11	5	17	34	455	9	31	758	14
Future Volume (veh/h)	517	52	420	11	5	17	34	455	9	31	758	14
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1820	1900	1863	1860	1900	1792	1863	1863
Adj Flow Rate, veh/h	583	0	442	12	5	18	36	479	9	33	798	15
Adj No. of Lanes	2	0	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	6	2	2
Cap, veh/h	753	0	336	18	8	27	277	1011	19	425	1035	879
Arrive On Green	0.21	0.00	0.21	0.03	0.03	0.03	0.56	0.56	0.56	0.74	0.74	0.74
Sat Flow, veh/h	3548	0	1583	563	235	845	669	1819	34	870	1863	1583
Grp Volume(v), veh/h	583	0	442	35	0	0	36	0	488	33	798	15
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1643	0	0	669	0	1854	870	1863	1583
Q Serve(g_s), s	13.9	0.0	19.1	1.9	0.0	0.0	3.6	0.0	14.3	1.7	23.4	0.2
Cycle Q Clear(g_c), s	13.9	0.0	19.1	1.9	0.0	0.0	27.0	0.0	14.3	16.0	23.4	0.2
Prop In Lane	1.00		1.00	0.34		0.51	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	753	0	336	53	0	0	277	0	1030	425	1035	879
V/C Ratio(X)	0.77	0.00	1.32	0.66	0.00	0.00	0.13	0.00	0.47	0.08	0.77	0.02
Avail Cap(c_a), veh/h	753	0	336	110	0	0	277	0	1030	425	1035	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	33.4	0.0	35.4	43.0	0.0	0.0	23.6	0.0	12.1	10.9	8.3	5.3
Incr Delay (d2), s/veh	4.6	0.0	161.6	13.0	0.0	0.0	1.0	0.0	1.6	0.3	4.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.7	0.0	42.1	1.9	0.0	0.0	1.3	0.0	12.3	0.8	18.6	0.2
LnGrp Delay(d),s/veh	38.0	0.0	197.0	56.0	0.0	0.0	24.6	0.0	13.6	11.2	13.2	5.3
LnGrp LOS	D		F	E			C		B	B	B	A
Approach Vol, veh/h		1025			35			524			846	
Approach Delay, s/veh		106.6			56.0			14.4			12.9	
Approach LOS		F			E			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		56.1		25.0		56.1		8.9				
Change Period (Y+Rc), s		6.1		* 5.9		6.1		6.0				
Max Green Setting (Gmax), s		46.9		* 19		46.9		6.0				
Max Q Clear Time (g_c+I1), s		25.4		21.1		29.0		3.9				
Green Ext Time (p_c), s		15.6		0.0		13.5		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	53.4
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↵	↕↕	↕↕		↵↵	↵		
Traffic Volume (veh/h)	40	601	54	23	476	61		
Future Volume (veh/h)	40	601	54	23	476	61		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1812	1900	1900	1900		
Adj Flow Rate, veh/h	44	668	60	0	529	68		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	0	0	7	7	0	0		
Cap, veh/h	644	1503	1433	0	1584	729		
Arrive On Green	0.42	0.42	0.42	0.00	0.45	0.45		
Sat Flow, veh/h	1364	3705	3623	0	3510	1615		
Grp Volume(v), veh/h	44	668	60	0	529	68		
Grp Sat Flow(s),veh/h/ln	1364	1805	1721	0	1755	1615		
Q Serve(g_s), s	1.6	10.6	0.8	0.0	7.8	1.9		
Cycle Q Clear(g_c), s	2.4	10.6	0.8	0.0	7.8	1.9		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	644	1503	1433	0	1584	729		
V/C Ratio(X)	0.07	0.44	0.04	0.00	0.33	0.09		
Avail Cap(c_a), veh/h	644	1503	1433	0	1584	729		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	14.6	16.7	13.9	0.0	14.2	12.6		
Incr Delay (d2), s/veh	0.2	1.0	0.0	0.0	0.6	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	1.1	9.3	0.7	0.0	7.0	1.6		
LnGrp Delay(d),s/veh	14.8	17.7	13.9	0.0	14.8	12.8		
LnGrp LOS	B	B	B		B	B		
Approach Vol, veh/h		712	60		597			
Approach Delay, s/veh		17.5	13.9		14.5			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		39.0		41.0		39.0		
Change Period (Y+Rc), s		* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s		* 33		* 36		* 33		
Max Q Clear Time (g_c+I1), s		2.8		9.8		12.6		
Green Ext Time (p_c), s		10.4		2.2		8.6		

Intersection Summary	
HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

Notes
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	253	191	94	17	0
Future Volume (vph)	0	253	191	94	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.97	0.95	
Satd. Flow (prot)		1611		3370	3433	
Flt Permitted		1.00		0.97	0.95	
Satd. Flow (perm)		1611		3370	3433	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	281	212	104	19	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	281	0	316	19	0
Heavy Vehicles (%)	0%	2%	2%	7%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		63.6		50.9	1.5	
Effective Green, g (s)		63.6		50.9	1.5	
Actuated g/C Ratio		1.00		0.80	0.02	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1611		2697	80	
v/s Ratio Prot					0.01	
v/s Ratio Perm		c0.17		0.09		
v/c Ratio		0.17		0.12	0.24	
Uniform Delay, d1		0.0		1.4	30.5	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.2		0.1	1.5	
Delay (s)		0.2		1.5	32.0	
Level of Service		A		A	C	
Approach Delay (s)	0.2			1.5	32.0	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	1.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.21		
Actuated Cycle Length (s)	63.6	Sum of lost time (s)	11.2
Intersection Capacity Utilization	25.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↗↗↗	↗↘	
Traffic Vol, veh/h	83	34	10	891	723	12
Future Vol, veh/h	83	34	10	891	723	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	8
Mvmt Flow	90	37	11	968	786	13
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1201	399	799	0	-	0
Stage 1	792	-	-	-	-	-
Stage 2	409	-	-	-	-	-
Critical Hdwy	6.29	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.67	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	209	601	819	-	-	-
Stage 1	396	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	206	601	819	-	-	-
Mov Cap-2 Maneuver	206	-	-	-	-	-
Stage 1	396	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	28.4		0.1		0	
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	819	-	206	601	-	-
HCM Lane V/C Ratio	0.013	-	0.438	0.061	-	-
HCM Control Delay (s)	9.5	-	35.4	11.4	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0	-	2	0.2	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	927	46	1	0	26
Future Vol, veh/h	0	927	46	1	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	2	2	2	0	2
Mvmt Flow	0	986	49	1	0	28
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	25
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	1045
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		8.5	
HCM LOS					A	
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	1045		
HCM Lane V/C Ratio	-	-	-	0.026		
HCM Control Delay (s)	-	-	-	8.5		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↔	↔	↔
Traffic Vol, veh/h	32	108	63	26	383	123
Future Vol, veh/h	32	108	63	26	383	123
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	115	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	127	74	31	451	145
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	687	298	595	0	-	0
Stage 1	523	-	-	-	-	-
Stage 2	164	-	-	-	-	-
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	381	698	977	-	-	-
Stage 1	559	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	352	698	977	-	-	-
Mov Cap-2 Maneuver	352	-	-	-	-	-
Stage 1	559	-	-	-	-	-
Stage 2	784	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	13.9		6.4		0	
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	977	-	570	-	-	
HCM Lane V/C Ratio	0.076	-	0.289	-	-	
HCM Control Delay (s)	9	-	13.9	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0.2	-	1.2	-	-	













Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	0	9	66	1116	20	176	580	454
Future Volume (veh/h)	0	0	0	1	0	9	66	1116	20	176	580	454
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1557	1863	1863	1900	1863	1845	1863
Adj Flow Rate, veh/h				1	0	10	73	1240	22	196	644	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				22	0	22	2	2	2	2	3	2
Cap, veh/h				22	0	16	730	4300	76	473	2932	1325
Arrive On Green				0.01	0.00	0.01	0.06	1.00	1.00	0.03	0.84	0.00
Sat Flow, veh/h				1774	0	1324	1774	5146	91	1774	3505	1583
Grp Volume(v), veh/h				1	0	10	73	817	445	196	644	0
Grp Sat Flow(s),veh/h/ln				1774	0	1324	1774	1695	1847	1774	1752	1583
Q Serve(g_s), s				0.1	0.0	1.1	0.9	0.0	0.0	2.4	5.5	0.0
Cycle Q Clear(g_c), s				0.1	0.0	1.1	0.9	0.0	0.0	2.4	5.5	0.0
Prop In Lane				1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h				22	0	16	730	2833	1543	473	2932	1325
V/C Ratio(X)				0.05	0.00	0.62	0.10	0.29	0.29	0.41	0.22	0.00
Avail Cap(c_a), veh/h				103	0	77	844	2833	1543	526	2932	1325
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				73.2	0.0	73.7	1.4	0.0	0.0	1.4	2.5	0.0
Incr Delay (d2), s/veh				0.9	0.0	32.4	0.1	0.3	0.5	0.6	0.2	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
%ile BackOfQ(95%),veh/ln				0.1	0.0	1.0	0.8	0.2	0.4	2.2	4.8	0.0
LnGrp Delay(d),s/veh				74.1	0.0	106.2	1.5	0.3	0.5	2.0	2.6	0.0
LnGrp LOS				E		F	A	A	A	A	A	
Approach Vol, veh/h					11			1335			840	
Approach Delay, s/veh					103.2			0.4			2.5	
Approach LOS					F			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	10.4	131.5			10.5	131.4		8.1				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 14	* 1.1E2			9.5	* 1.1E2		8.7				
Max Q Clear Time (g_c+I1), s	2.9	7.5			4.4	2.0		3.1				
Green Ext Time (p_c), s	0.1	57.4			0.2	60.3		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	1.7
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	64	43	40	1190	468	86		
Future Volume (veh/h)	64	43	40	1190	468	86		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1845	1863	1845	1810		
Adj Flow Rate, veh/h	67	45	42	1240	488	90		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	3	2	3	5		
Cap, veh/h	91	81	767	4436	1609	1342		
Arrive On Green	0.05	0.05	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	824	5253	1845	1538		
Grp Volume(v), veh/h	67	45	42	1240	488	90		
Grp Sat Flow(s),veh/h/ln	1774	1583	824	1695	1845	1538		
Q Serve(g_s), s	5.6	4.2	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	5.6	4.2	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	91	81	767	4436	1609	1342		
V/C Ratio(X)	0.74	0.56	0.05	0.28	0.30	0.07		
Avail Cap(c_a), veh/h	341	304	767	4436	1609	1342		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(I)	1.00	1.00	0.59	0.59	1.00	1.00		
Uniform Delay (d), s/veh	70.2	69.5	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	4.4	2.2	0.1	0.1	0.5	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	5.1	3.4	0.0	0.1	0.4	0.1		
LnGrp Delay(d),s/veh	74.6	71.7	0.1	0.1	0.5	0.1		
LnGrp LOS	E	E	A	A	A	A		
Approach Vol, veh/h	112			1282	578			
Approach Delay, s/veh	73.4			0.1	0.4			
Approach LOS	E			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		137.1		12.9		137.1		
Change Period (Y+Rc), s		* 6.3		* 5.2		* 6.3		
Max Green Setting (Gmax), s		* 1.1E2		* 29		* 1.1E2		
Max Q Clear Time (g_c+I1), s		2.0		7.6		2.0		
Green Ext Time (p_c), s		56.7		0.1		56.7		
Intersection Summary								
HCM 2010 Ctrl Delay			4.4					
HCM 2010 LOS			A					
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	0	69	7	27	62	149	1024	3	7	475	37
Future Volume (veh/h)	155	0	69	7	27	62	149	1024	3	7	475	37
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1900	1863	1900	1863	1863	1900	1863	1827	1759
Adj Flow Rate, veh/h	160	0	71	7	28	64	154	1056	3	7	490	38
Adj No. of Lanes	2	0	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	0	2	2	2	2	2	2	2	2	4	8
Cap, veh/h	188	0	86	6	25	57	621	1434	4	299	1259	1031
Arrive On Green	0.05	0.00	0.05	0.05	0.05	0.05	0.04	0.77	0.77	0.69	0.69	0.69
Sat Flow, veh/h	3480	0	1583	118	471	1077	1774	1857	5	531	1827	1495
Grp Volume(v), veh/h	160	0	71	99	0	0	154	0	1059	7	490	38
Grp Sat Flow(s),veh/h/ln	1740	0	1583	1667	0	0	1774	0	1862	531	1827	1495
Q Serve(g_s), s	6.8	0.0	6.7	8.0	0.0	0.0	3.7	0.0	45.0	1.1	17.1	1.2
Cycle Q Clear(g_c), s	6.8	0.0	6.7	8.0	0.0	0.0	3.7	0.0	45.0	33.5	17.1	1.2
Prop In Lane	1.00		1.00	0.07		0.65	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	0	86	89	0	0	621	0	1439	299	1259	1031
V/C Ratio(X)	0.85	0.00	0.83	1.11	0.00	0.00	0.25	0.00	0.74	0.02	0.39	0.04
Avail Cap(c_a), veh/h	188	0	86	89	0	0	827	0	1439	299	1259	1031
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	70.4	0.0	70.3	71.0	0.0	0.0	6.9	0.0	9.0	21.1	9.9	7.4
Incr Delay (d2), s/veh	28.1	0.0	44.7	129.5	0.0	0.0	0.2	0.0	3.4	0.1	0.9	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(95%),veh/ln	7.2	0.0	7.2	12.4	0.0	0.0	3.2	0.0	32.0	0.3	13.7	0.9
LnGrp Delay(d),s/veh	98.4	0.0	115.0	200.5	0.0	0.0	7.1	0.0	12.4	21.3	10.8	7.5
LnGrp LOS	F		F	F			A		B	C	B	A
Approach Vol, veh/h		231			99			1213			535	
Approach Delay, s/veh		103.5			200.5			11.7			10.7	
Approach LOS		F			F			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.5	109.5		14.0		122.0		14.0				
Change Period (Y+Rc), s	6.5	6.1		* 5.9		6.1		6.0				
Max Green Setting (Gmax), s	23.5	85.9		* 8.1		115.9		8.0				
Max Q Clear Time (g_c+I1), s	5.7	35.5		8.8		47.0		10.0				
Green Ext Time (p_c), s	0.4	35.8		0.0		44.3		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	30.6
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



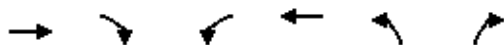
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↰	↕	↕		↰	↰		
Traffic Volume (veh/h)	40	46	211	62	136	75		
Future Volume (veh/h)	40	46	211	62	136	75		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1871	1900	1900	1900		
Adj Flow Rate, veh/h	42	48	220	0	142	78		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	2	2	0	0		
Cap, veh/h	739	2298	1898	0	862	397		
Arrive On Green	0.04	0.64	0.53	0.00	0.25	0.25		
Sat Flow, veh/h	1810	3705	3742	0	3510	1615		
Grp Volume(v), veh/h	42	48	220	0	142	78		
Grp Sat Flow(s),veh/h/ln	1810	1805	1778	0	1755	1615		
Q Serve(g_s), s	0.9	0.4	2.8	0.0	2.9	3.4		
Cycle Q Clear(g_c), s	0.9	0.4	2.8	0.0	2.9	3.4		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	739	2298	1898	0	862	397		
V/C Ratio(X)	0.06	0.02	0.12	0.00	0.16	0.20		
Avail Cap(c_a), veh/h	774	2298	1898	0	862	397		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	7.8	6.0	10.4	0.0	26.7	26.9		
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.4	1.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	0.8	0.4	2.4	0.0	2.6	3.0		
LnGrp Delay(d),s/veh	7.8	6.0	10.5	0.0	27.1	28.0		
LnGrp LOS	A	A	B		C	C		
Approach Vol, veh/h		90	220		220			
Approach Delay, s/veh		6.9	10.5		27.4			
Approach LOS		A	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.3	53.7		27.0		63.0		
Change Period (Y+Rc), s	6.0	* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s	5.0	* 46		* 22		* 57		
Max Q Clear Time (g_c+I1), s	2.9	4.8		5.4		2.4		
Green Ext Time (p_c), s	0.0	3.5		0.6		3.6		

Intersection Summary

HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.























Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	28	151	766	40	0
Future Volume (vph)	0	28	151	766	40	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Fr _t		0.86		1.00	1.00	
Flt Protected		1.00		0.99	0.95	
Satd. Flow (prot)		1596		3510	3433	
Flt Permitted		1.00		0.99	0.95	
Satd. Flow (perm)		1596		3510	3433	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	29	157	798	42	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	29	0	955	42	0
Heavy Vehicles (%)	0%	3%	2%	2%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		62.0		47.9	2.9	
Effective Green, g (s)		62.0		47.9	2.9	
Actuated g/C Ratio		1.00		0.77	0.05	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1596		2711	160	
v/s Ratio Prot					c0.01	
v/s Ratio Perm		0.02		0.27		
v/c Ratio		0.02		0.35	0.26	
Uniform Delay, d ₁		0.0		2.2	28.5	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d ₂		0.0		0.4	0.9	
Delay (s)		0.0		2.6	29.4	
Level of Service		A		A	C	
Approach Delay (s)	0.0			2.6	29.4	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			3.6		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.35			
Actuated Cycle Length (s)			62.0		Sum of lost time (s)	11.2
Intersection Capacity Utilization			40.7%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection							
Int Delay, s/veh	0.3						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↘	↗	↘	↑↑↑	↑↑		
Traffic Vol, veh/h	17	3	15	1214	551	60	
Future Vol, veh/h	17	3	15	1214	551	60	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	95	95	95	95	95	95	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	18	3	16	1278	580	63	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1155	322	643	0	-	0	
Stage 1	612	-	-	-	-	-	
Stage 2	543	-	-	-	-	-	
Critical Hdwy	6.8	6.94	4.14	-	-	-	
Critical Hdwy Stg 1	5.84	-	-	-	-	-	
Critical Hdwy Stg 2	6.04	-	-	-	-	-	
Follow-up Hdwy	3.67	3.32	2.22	-	-	-	
Pot Cap-1 Maneuver	188	674	938	-	-	-	
Stage 1	489	-	-	-	-	-	
Stage 2	514	-	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	185	674	938	-	-	-	
Mov Cap-2 Maneuver	185	-	-	-	-	-	
Stage 1	489	-	-	-	-	-	
Stage 2	505	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	24.1		0.1		0		
HCM LOS	C						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR	
Capacity (veh/h)	938	-	185	674	-	-	
HCM Lane V/C Ratio	0.017	-	0.097	0.005	-	-	
HCM Control Delay (s)	8.9	-	26.5	10.4	-	-	
HCM Lane LOS	A	-	D	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.3	0	-	-	

Intersection							
Int Delay, s/veh	0.3						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↑↑	↑↑				↑
Traffic Vol, veh/h	0	200	275	4	0	18	
Future Vol, veh/h	0	200	275	4	0	18	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	-	0	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	94	94	94	94	94	94	
Heavy Vehicles, %	0	4	2	2	0	2	
Mvmt Flow	0	213	293	4	0	19	
Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	148	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	-	-	-	-	6.94	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	-	-	-	-	3.32	
Pot Cap-1 Maneuver	0	-	-	-	0	872	
Stage 1	0	-	-	-	0	-	
Stage 2	0	-	-	-	0	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	-	-	-	-	-	872	
Mov Cap-2 Maneuver	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Approach	EB		WB		SB		
HCM Control Delay, s	0		0		9.2		
HCM LOS					A		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1			
Capacity (veh/h)	-	-	-	872			
HCM Lane V/C Ratio	-	-	-	0.022			
HCM Control Delay (s)	-	-	-	9.2			
HCM Lane LOS	-	-	-	A			
HCM 95th %tile Q(veh)	-	-	-	0.1			

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↔	↔	↔
Traffic Vol, veh/h	11	145	91	33	60	160
Future Vol, veh/h	11	145	91	33	60	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	115	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	10	2
Mvmt Flow	12	154	97	35	64	170
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	360	117	234	0	-	0
Stage 1	149	-	-	-	-	-
Stage 2	211	-	-	-	-	-
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	612	913	1331	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	567	913	1331	-	-	-
Mov Cap-2 Maneuver	567	-	-	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.1		5.8		0	
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1331	-	875	-	-	-
HCM Lane V/C Ratio	0.073	-	0.19	-	-	-
HCM Control Delay (s)	7.9	-	10.1	-	-	-
HCM Lane LOS	A	-	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-	-

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	6	2	101	14	1028	1	22	790	122
Future Volume (veh/h)	0	0	0	6	2	101	14	1028	1	22	790	122
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h				6	2	107	15	1094	1	23	840	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	2	2	2	2	2	2	2	2
Cap, veh/h				114	38	134	506	3638	3	479	2475	1107
Arrive On Green				0.08	0.08	0.08	0.03	1.00	1.00	0.02	0.70	0.00
Sat Flow, veh/h				1347	449	1583	1774	5247	5	1774	3539	1583
Grp Volume(v), veh/h				8	0	107	15	707	388	23	840	0
Grp Sat Flow(s),veh/h/ln				1795	0	1583	1774	1695	1862	1774	1770	1583
Q Serve(g_s), s				0.4	0.0	6.0	0.2	0.0	0.0	0.3	8.4	0.0
Cycle Q Clear(g_c), s				0.4	0.0	6.0	0.2	0.0	0.0	0.3	8.4	0.0
Prop In Lane				0.75		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h				152	0	134	506	2351	1291	479	2475	1107
V/C Ratio(X)				0.05	0.00	0.80	0.03	0.30	0.30	0.05	0.34	0.00
Avail Cap(c_a), veh/h				233	0	206	601	2351	1291	564	2475	1107
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				37.9	0.0	40.4	4.1	0.0	0.0	3.6	5.3	0.0
Incr Delay (d2), s/veh				0.1	0.0	11.7	0.0	0.3	0.6	0.0	0.4	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
%ile BackOfQ(95%),veh/ln				0.3	0.0	5.5	0.2	0.2	0.4	0.3	7.6	0.0
LnGrp Delay(d),s/veh				38.0	0.0	52.2	4.1	0.3	0.6	3.7	5.7	0.0
LnGrp LOS				D		D	A	A	A	A	A	
Approach Vol, veh/h					115			1110			863	
Approach Delay, s/veh					51.2			0.5			5.7	
Approach LOS					D			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	7.2	68.9			7.7	68.4		13.9				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 6.4	* 54			6.5	* 54		11.7				
Max Q Clear Time (g_c+I1), s	2.2	10.4			2.3	2.0		8.0				
Green Ext Time (p_c), s	0.0	32.8			0.0	37.4		0.1				

Intersection Summary

HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	107	40	50	967	760	68		
Future Volume (veh/h)	107	40	50	967	760	68		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1357	1863	1863	1863		
Adj Flow Rate, veh/h	113	42	53	1018	800	72		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	40	2	2	2		
Cap, veh/h	133	119	437	4379	1604	1363		
Arrive On Green	0.08	0.08	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	461	5253	1863	1583		
Grp Volume(v), veh/h	113	42	53	1018	800	72		
Grp Sat Flow(s),veh/h/ln	1774	1583	461	1695	1863	1583		
Q Serve(g_s), s	11.3	4.5	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	11.3	4.5	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	133	119	437	4379	1604	1363		
V/C Ratio(X)	0.85	0.35	0.12	0.23	0.50	0.05		
Avail Cap(c_a), veh/h	294	262	437	4379	1604	1363		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(I)	1.00	1.00	0.71	0.71	1.00	1.00		
Uniform Delay (d), s/veh	82.2	79.1	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	5.6	0.7	0.4	0.1	1.1	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	9.7	3.6	0.1	0.1	0.9	0.1		
LnGrp Delay(d),s/veh	87.8	79.8	0.4	0.1	1.1	0.1		
LnGrp LOS	F	E	A	A	A	A		
Approach Vol, veh/h	155		1071		872			
Approach Delay, s/veh	85.7		0.1		1.0			
Approach LOS	F		A		A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	2		4		6			
Phs Duration (G+Y+Rc), s	161.3		18.7		161.3			
Change Period (Y+Rc), s	* 6.3		* 5.2		* 6.3			
Max Green Setting (Gmax), s	* 1.4E2		* 30		* 1.4E2			
Max Q Clear Time (g_c+I1), s	2.0		13.3		2.0			
Green Ext Time (p_c), s	72.2		0.2		72.2			
Intersection Summary								
HCM 2010 Ctrl Delay			6.8					
HCM 2010 LOS			A					
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	528	52	420	11	5	17	40	489	9	31	779	14
Future Volume (veh/h)	528	52	420	11	5	17	40	489	9	31	779	14
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1820	1900	1863	1860	1900	1792	1863	1863
Adj Flow Rate, veh/h	595	0	442	12	5	18	42	515	9	33	820	15
Adj No. of Lanes	2	0	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	6	2	2
Cap, veh/h	714	0	336	18	8	27	262	1012	18	400	1035	879
Arrive On Green	0.20	0.00	0.21	0.03	0.03	0.03	0.56	0.56	0.56	0.74	0.74	0.74
Sat Flow, veh/h	3548	0	1583	563	235	845	655	1822	32	842	1863	1583
Grp Volume(v), veh/h	595	0	442	35	0	0	42	0	524	33	820	15
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1643	0	0	655	0	1854	842	1863	1583
Q Serve(g_s), s	14.5	0.0	19.1	1.9	0.0	0.0	4.5	0.0	15.8	1.8	25.0	0.2
Cycle Q Clear(g_c), s	14.5	0.0	19.1	1.9	0.0	0.0	29.4	0.0	15.8	17.6	25.0	0.2
Prop In Lane	1.00		1.00	0.34		0.51	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	714	0	336	53	0	0	262	0	1030	400	1035	879
V/C Ratio(X)	0.83	0.00	1.32	0.66	0.00	0.00	0.16	0.00	0.51	0.08	0.79	0.02
Avail Cap(c_a), veh/h	714	0	336	110	0	0	262	0	1030	400	1035	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	34.5	0.0	35.4	43.0	0.0	0.0	25.1	0.0	12.4	11.6	8.5	5.3
Incr Delay (d2), s/veh	7.9	0.0	161.6	13.0	0.0	0.0	1.3	0.0	1.8	0.3	5.4	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(95%),veh/ln	12.5	0.0	42.1	1.9	0.0	0.0	1.6	0.0	13.3	0.8	19.5	0.2
LnGrp Delay(d),s/veh	42.5	0.0	197.0	56.0	0.0	0.0	26.4	0.0	14.2	12.0	13.9	5.3
LnGrp LOS	D		F	E			C		B	B	B	A
Approach Vol, veh/h		1037			35			566			868	
Approach Delay, s/veh		108.3			56.0			15.1			13.7	
Approach LOS		F			E			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		56.1		25.0		56.1		8.9				
Change Period (Y+Rc), s		6.1		* 5.9		6.1		6.0				
Max Green Setting (Gmax), s		46.9		* 19		46.9		6.0				
Max Q Clear Time (g_c+I1), s		27.0		21.1		31.4		3.9				
Green Ext Time (p_c), s		15.0		0.0		12.2		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	53.8
HCM 2010 LOS	D

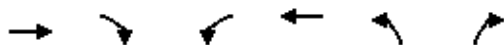
Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	40	612	60	23	476	61		
Future Volume (veh/h)	40	612	60	23	476	61		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1809	1900	1900	1900		
Adj Flow Rate, veh/h	44	680	67	0	529	68		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	0	0	7	7	0	0		
Cap, veh/h	656	1548	1473	0	1540	709		
Arrive On Green	0.43	0.43	0.43	0.00	0.44	0.44		
Sat Flow, veh/h	1355	3705	3618	0	3510	1615		
Grp Volume(v), veh/h	44	680	67	0	529	68		
Grp Sat Flow(s),veh/h/ln	1355	1805	1718	0	1755	1615		
Q Serve(g_s), s	1.6	10.6	0.9	0.0	8.0	2.0		
Cycle Q Clear(g_c), s	2.5	10.6	0.9	0.0	8.0	2.0		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	656	1548	1473	0	1540	709		
V/C Ratio(X)	0.07	0.44	0.05	0.00	0.34	0.10		
Avail Cap(c_a), veh/h	656	1548	1473	0	1540	709		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	14.0	16.1	13.3	0.0	14.8	13.2		
Incr Delay (d2), s/veh	0.2	0.9	0.0	0.0	0.6	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	1.1	9.3	0.8	0.0	7.1	1.7		
LnGrp Delay(d),s/veh	14.2	17.0	13.3	0.0	15.4	13.4		
LnGrp LOS	B	B	B		B	B		
Approach Vol, veh/h		724	67		597			
Approach Delay, s/veh		16.8	13.3		15.2			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		40.0		40.0		40.0		
Change Period (Y+Rc), s		* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s		* 34		* 35		* 34		
Max Q Clear Time (g_c+I1), s		2.9		10.0		12.6		
Green Ext Time (p_c), s		10.8		2.2		9.1		

Intersection Summary	
HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

Notes
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.























Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	253	191	94	17	0
Future Volume (vph)	0	253	191	94	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.97	0.95	
Satd. Flow (prot)		1611		3370	3433	
Flt Permitted		1.00		0.97	0.95	
Satd. Flow (perm)		1611		3370	3433	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	281	212	104	19	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	281	0	316	19	0
Heavy Vehicles (%)	0%	2%	2%	7%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		63.6		50.9	1.5	
Effective Green, g (s)		63.6		50.9	1.5	
Actuated g/C Ratio		1.00		0.80	0.02	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1611		2697	80	
v/s Ratio Prot					0.01	
v/s Ratio Perm		c0.17		0.09		
v/c Ratio		0.17		0.12	0.24	
Uniform Delay, d1		0.0		1.4	30.5	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.2		0.1	1.5	
Delay (s)		0.2		1.5	32.0	
Level of Service		A		A	C	
Approach Delay (s)	0.2			1.5	32.0	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			1.9		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.21			
Actuated Cycle Length (s)			63.6		Sum of lost time (s)	11.2
Intersection Capacity Utilization			25.7%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↵	↵	↵	↵↵↵	↵↵	
Traffic Vol, veh/h	83	34	10	925	785	12
Future Vol, veh/h	83	34	10	925	785	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	8
Mvmt Flow	90	37	11	1005	853	13
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1284	433	866	0	-	0
Stage 1	860	-	-	-	-	-
Stage 2	424	-	-	-	-	-
Critical Hdwy	6.29	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.67	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	187	571	773	-	-	-
Stage 1	365	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	184	571	773	-	-	-
Mov Cap-2 Maneuver	184	-	-	-	-	-
Stage 1	365	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	33.3		0.1		0	
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	773	-	184	571	-	-
HCM Lane V/C Ratio	0.014	-	0.49	0.065	-	-
HCM Control Delay (s)	9.7	-	42.1	11.7	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0	-	2.4	0.2	-	-

Intersection							
Int Delay, s/veh	0.3						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↑↑	↑↑			↑	
Traffic Vol, veh/h	0	938	46	7	0	32	
Future Vol, veh/h	0	938	46	7	0	32	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	-	0	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	94	94	94	94	94	94	
Heavy Vehicles, %	0	2	2	2	0	2	
Mvmt Flow	0	998	49	7	0	34	
Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	28	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	-	-	-	-	6.94	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	-	-	-	-	3.32	
Pot Cap-1 Maneuver	0	-	-	-	0	1041	
Stage 1	0	-	-	-	0	-	
Stage 2	0	-	-	-	0	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	-	-	-	-	-	1041	
Mov Cap-2 Maneuver	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Approach	EB		WB		SB		
HCM Control Delay, s	0		0		8.6		
HCM LOS					A		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1			
Capacity (veh/h)	-	-	-	1041			
HCM Lane V/C Ratio	-	-	-	0.033			
HCM Control Delay (s)	-	-	-	8.6			
HCM Lane LOS	-	-	-	A			
HCM 95th %tile Q(veh)	-	-	-	0.1			

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↔	↔	↔
Traffic Vol, veh/h	32	108	63	26	383	123
Future Vol, veh/h	32	108	63	26	383	123
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	115	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	127	74	31	451	145
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	687	298	595	0	-	0
Stage 1	523	-	-	-	-	-
Stage 2	164	-	-	-	-	-
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	381	698	977	-	-	-
Stage 1	559	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	352	698	977	-	-	-
Mov Cap-2 Maneuver	352	-	-	-	-	-
Stage 1	559	-	-	-	-	-
Stage 2	784	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	13.9		6.4		0	
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	977	-	570	-	-	
HCM Lane V/C Ratio	0.076	-	0.289	-	-	
HCM Control Delay (s)	9	-	13.9	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0.2	-	1.2	-	-	













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	0	9	68	1143	21	180	594	465
Future Volume (veh/h)	0	0	0	1	0	9	68	1143	21	180	594	465
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1557	1863	1863	1900	1863	1845	1863
Adj Flow Rate, veh/h				1	0	10	76	1270	23	200	660	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				22	0	22	2	2	2	2	3	2
Cap, veh/h				22	0	16	721	4299	78	462	2932	1324
Arrive On Green				0.01	0.00	0.01	0.06	1.00	1.00	0.03	0.84	0.00
Sat Flow, veh/h				1774	0	1324	1774	5143	93	1774	3505	1583
Grp Volume(v), veh/h				1	0	10	76	837	456	200	660	0
Grp Sat Flow(s),veh/h/ln				1774	0	1324	1774	1695	1846	1774	1752	1583
Q Serve(g_s), s				0.1	0.0	1.1	0.9	0.0	0.0	2.5	5.7	0.0
Cycle Q Clear(g_c), s				0.1	0.0	1.1	0.9	0.0	0.0	2.5	5.7	0.0
Prop In Lane				1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h				22	0	16	721	2833	1543	462	2932	1324
V/C Ratio(X)				0.05	0.00	0.62	0.11	0.30	0.30	0.43	0.23	0.00
Avail Cap(c_a), veh/h				103	0	77	834	2833	1543	515	2932	1324
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				73.2	0.0	73.7	1.4	0.0	0.0	1.4	2.5	0.0
Incr Delay (d2), s/veh				0.9	0.0	32.4	0.1	0.3	0.5	0.6	0.2	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
%ile BackOfQ(95%),veh/ln				0.1	0.0	1.0	0.8	0.2	0.4	2.2	5.1	0.0
LnGrp Delay(d),s/veh				74.1	0.0	106.2	1.5	0.3	0.5	2.1	2.6	0.0
LnGrp LOS				E		F	A	A	A	A	A	
Approach Vol, veh/h					11			1369			860	
Approach Delay, s/veh					103.2			0.4			2.5	
Approach LOS					F			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	10.4	131.5			10.5	131.4		8.1				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 14	* 1.1E2			9.5	* 1.1E2		8.7				
Max Q Clear Time (g_c+I1), s	2.9	7.7			4.5	2.0		3.1				
Green Ext Time (p_c), s	0.1	59.6			0.2	62.9		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	1.7
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	64	43	41	1220	480	88		
Future Volume (veh/h)	64	43	41	1220	480	88		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1845	1863	1845	1810		
Adj Flow Rate, veh/h	67	45	43	1271	500	92		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	3	2	3	5		
Cap, veh/h	91	81	719	4435	1609	1341		
Arrive On Green	0.05	0.05	1.00	1.00	0.87	0.87		
Sat Flow, veh/h	1774	1583	814	5253	1845	1538		
Grp Volume(v), veh/h	67	45	43	1271	500	92		
Grp Sat Flow(s),veh/h/ln	1774	1583	814	1695	1845	1538		
Q Serve(g_s), s	5.6	4.2	0.5	0.0	7.1	1.2		
Cycle Q Clear(g_c), s	5.6	4.2	7.6	0.0	7.1	1.2		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	91	81	719	4435	1609	1341		
V/C Ratio(X)	0.74	0.55	0.06	0.29	0.31	0.07		
Avail Cap(c_a), veh/h	1015	906	719	4435	1609	1341		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.56	0.56	1.00	1.00		
Uniform Delay (d), s/veh	70.2	69.5	0.2	0.0	1.7	1.3		
Incr Delay (d2), s/veh	4.3	2.2	0.1	0.1	0.5	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	5.1	3.4	0.2	0.1	6.7	1.0		
LnGrp Delay(d),s/veh	74.5	71.7	0.3	0.1	2.2	1.4		
LnGrp LOS	E	E	A	A	A	A		
Approach Vol, veh/h	112			1314	592			
Approach Delay, s/veh	73.3			0.1	2.1			
Approach LOS	E			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		137.1		12.9		137.1		
Change Period (Y+Rc), s		* 6.3		* 5.2		* 6.3		
Max Green Setting (Gmax), s		* 53		* 86		* 53		
Max Q Clear Time (g_c+I1), s		9.1		7.6		9.6		
Green Ext Time (p_c), s		33.0		0.2		32.7		
Intersection Summary								
HCM 2010 Ctrl Delay			4.7					
HCM 2010 LOS			A					
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	0	71	7	28	64	153	1050	3	7	486	38
Future Volume (veh/h)	159	0	71	7	28	64	153	1050	3	7	486	38
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1900	1863	1900	1863	1863	1900	1863	1827	1759
Adj Flow Rate, veh/h	164	0	73	7	29	66	158	1082	3	7	501	39
Adj No. of Lanes	2	0	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	0	2	2	2	2	2	2	2	2	4	8
Cap, veh/h	188	0	86	6	25	58	714	1435	4	284	1258	1030
Arrive On Green	0.05	0.00	0.05	0.05	0.05	0.05	0.04	0.77	0.77	1.00	1.00	1.00
Sat Flow, veh/h	3480	0	1583	114	474	1078	1774	1857	5	518	1827	1495
Grp Volume(v), veh/h	164	0	73	102	0	0	158	0	1085	7	501	39
Grp Sat Flow(s),veh/h/ln	1740	0	1583	1667	0	0	1774	0	1862	518	1827	1495
Q Serve(g_s), s	7.0	0.0	6.9	8.0	0.0	0.0	3.8	0.0	47.6	0.7	0.0	0.0
Cycle Q Clear(g_c), s	7.0	0.0	6.9	8.0	0.0	0.0	3.8	0.0	47.6	35.7	0.0	0.0
Prop In Lane	1.00		1.00	0.07		0.65	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	0	86	89	0	0	714	0	1439	284	1258	1030
V/C Ratio(X)	0.87	0.00	0.85	1.15	0.00	0.00	0.22	0.00	0.75	0.02	0.40	0.04
Avail Cap(c_a), veh/h	188	0	86	89	0	0	919	0	1439	284	1258	1030
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	70.4	0.0	70.4	71.0	0.0	0.0	5.5	0.0	9.3	6.0	0.0	0.0
Incr Delay (d2), s/veh	32.2	0.0	50.7	140.7	0.0	0.0	0.2	0.0	3.7	0.2	0.9	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(95%),veh/ln	7.6	0.0	7.6	12.9	0.0	0.0	3.3	0.0	33.9	0.2	0.6	0.0
LnGrp Delay(d),s/veh	102.6	0.0	121.1	211.7	0.0	0.0	5.6	0.0	13.0	6.2	0.9	0.1
LnGrp LOS	F		F	F			A		B	A	A	A
Approach Vol, veh/h		237			102			1243				547
Approach Delay, s/veh		108.3			211.7			12.1				0.9
Approach LOS		F			F			B				A
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.6	109.4		14.0		122.0		14.0				
Change Period (Y+Rc), s	6.5	6.1		* 5.9		6.1		6.0				
Max Green Setting (Gmax), s	23.5	85.9		* 8.1		115.9		8.0				
Max Q Clear Time (g_c+I1), s	5.8	37.7		9.0		49.6		10.0				
Green Ext Time (p_c), s	0.4	35.8		0.0		44.9		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

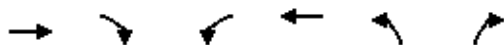
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	41	47	216	64	139	77		
Future Volume (veh/h)	41	47	216	64	139	77		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1871	1900	1900	1900		
Adj Flow Rate, veh/h	43	49	225	0	145	80		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	2	2	0	0		
Cap, veh/h	722	2258	1857	0	901	415		
Arrive On Green	0.04	0.63	0.52	0.00	0.26	0.26		
Sat Flow, veh/h	1810	3705	3742	0	3510	1615		
Grp Volume(v), veh/h	43	49	225	0	145	80		
Grp Sat Flow(s),veh/h/ln	1810	1805	1778	0	1755	1615		
Q Serve(g_s), s	0.9	0.5	2.9	0.0	2.9	3.5		
Cycle Q Clear(g_c), s	0.9	0.5	2.9	0.0	2.9	3.5		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	722	2258	1857	0	901	415		
V/C Ratio(X)	0.06	0.02	0.12	0.00	0.16	0.19		
Avail Cap(c_a), veh/h	836	2258	1857	0	901	415		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	8.2	6.4	11.0	0.0	25.9	26.2		
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.4	1.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	0.8	0.4	2.6	0.0	2.6	3.0		
LnGrp Delay(d),s/veh	8.3	6.4	11.0	0.0	26.3	27.2		
LnGrp LOS	A	A	B		C	C		
Approach Vol, veh/h		92	225		225			
Approach Delay, s/veh		7.3	11.0		26.6			
Approach LOS		A	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.3	52.7		28.0		62.0		
Change Period (Y+Rc), s	6.0	* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s	9.0	* 41		* 23		* 56		
Max Q Clear Time (g_c+I1), s	2.9	4.9		5.5		2.5		
Green Ext Time (p_c), s	0.0	3.4		0.7		3.7		

Intersection Summary

HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	29	155	785	41	0
Future Volume (vph)	0	29	155	785	41	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.99	0.95	
Satd. Flow (prot)		1596		3510	3433	
Flt Permitted		1.00		0.99	0.95	
Satd. Flow (perm)		1596		3510	3433	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	30	161	818	43	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	30	0	979	43	0
Heavy Vehicles (%)	0%	3%	2%	2%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		62.0		47.9	2.9	
Effective Green, g (s)		62.0		47.9	2.9	
Actuated g/C Ratio		1.00		0.77	0.05	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1596		2711	160	
v/s Ratio Prot					c0.01	
v/s Ratio Perm		0.02		0.28		
v/c Ratio		0.02		0.36	0.27	
Uniform Delay, d1		0.0		2.2	28.5	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.0		0.4	0.9	
Delay (s)		0.0		2.6	29.4	
Level of Service		A		A	C	
Approach Delay (s)	0.0			2.6	29.4	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			3.6		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.36			
Actuated Cycle Length (s)			62.0		Sum of lost time (s)	11.2
Intersection Capacity Utilization			41.4%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection							
Int Delay, s/veh	0.3						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↘	↗	↘	↑↑↑	↑↑		
Traffic Vol, veh/h	17	3	15	1243	565	62	
Future Vol, veh/h	17	3	15	1243	565	62	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	95	95	95	95	95	95	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	18	3	16	1308	595	65	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1182	330	660	0	-	0	
Stage 1	627	-	-	-	-	-	
Stage 2	555	-	-	-	-	-	
Critical Hdwy	6.8	6.94	4.14	-	-	-	
Critical Hdwy Stg 1	5.84	-	-	-	-	-	
Critical Hdwy Stg 2	6.04	-	-	-	-	-	
Follow-up Hdwy	3.67	3.32	2.22	-	-	-	
Pot Cap-1 Maneuver	181	666	924	-	-	-	
Stage 1	480	-	-	-	-	-	
Stage 2	506	-	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	178	666	924	-	-	-	
Mov Cap-2 Maneuver	178	-	-	-	-	-	
Stage 1	480	-	-	-	-	-	
Stage 2	497	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	24.9		0.1		0		
HCM LOS	C						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR	
Capacity (veh/h)	924	-	178	666	-	-	
HCM Lane V/C Ratio	0.017	-	0.101	0.005	-	-	
HCM Control Delay (s)	9	-	27.5	10.4	-	-	
HCM Lane LOS	A	-	D	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.3	0	-	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	205	282	4	0	18
Future Vol, veh/h	0	205	282	4	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	4	2	2	0	2
Mvmt Flow	0	218	300	4	0	19
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	152
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	867
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	867
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	867		
HCM Lane V/C Ratio	-	-	-	0.022		
HCM Control Delay (s)	-	-	-	9.2		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↔	↔	↔
Traffic Vol, veh/h	11	149	93	34	62	164
Future Vol, veh/h	11	149	93	34	62	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	115	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	10	2
Mvmt Flow	12	159	99	36	66	174
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	369	120	240	0	-	0
Stage 1	153	-	-	-	-	-
Stage 2	216	-	-	-	-	-
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	604	909	1324	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	559	909	1324	-	-	-
Mov Cap-2 Maneuver	559	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.1		5.8		0	
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1324	-	871	-	-	-
HCM Lane V/C Ratio	0.075	-	0.195	-	-	-
HCM Control Delay (s)	7.9	-	10.1	-	-	-
HCM Lane LOS	A	-	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	6	2	104	14	1053	1	23	808	125
Future Volume (veh/h)	0	0	0	6	2	104	14	1053	1	23	808	125
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h				6	2	111	15	1120	1	24	860	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	2	2	2	2	2	2	2	2
Cap, veh/h				118	39	138	494	3620	3	470	2465	1103
Arrive On Green				0.09	0.09	0.09	0.03	1.00	1.00	0.03	0.70	0.00
Sat Flow, veh/h				1347	449	1583	1774	5247	5	1774	3539	1583
Grp Volume(v), veh/h				8	0	111	15	724	397	24	860	0
Grp Sat Flow(s),veh/h/ln				1795	0	1583	1774	1695	1862	1774	1770	1583
Q Serve(g_s), s				0.4	0.0	6.2	0.2	0.0	0.0	0.4	8.8	0.0
Cycle Q Clear(g_c), s				0.4	0.0	6.2	0.2	0.0	0.0	0.4	8.8	0.0
Prop In Lane				0.75		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h				157	0	138	494	2339	1284	470	2465	1103
V/C Ratio(X)				0.05	0.00	0.80	0.03	0.31	0.31	0.05	0.35	0.00
Avail Cap(c_a), veh/h				233	0	206	589	2339	1284	553	2465	1103
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				37.6	0.0	40.3	4.2	0.0	0.0	3.7	5.5	0.0
Incr Delay (d2), s/veh				0.1	0.0	12.8	0.0	0.3	0.6	0.0	0.4	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
%ile BackOfQ(95%),veh/ln				0.3	0.0	5.8	0.2	0.2	0.4	0.3	7.7	0.0
LnGrp Delay(d),s/veh				37.8	0.0	53.1	4.2	0.3	0.6	3.8	5.9	0.0
LnGrp LOS				D		D	A	A	A	A	A	
Approach Vol, veh/h					119			1136			884	
Approach Delay, s/veh					52.1			0.5			5.8	
Approach LOS					D			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	7.2	68.7			7.8	68.1		14.2				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 6.4	* 54			6.5	* 54		11.7				
Max Q Clear Time (g_c+I1), s	2.2	10.8			2.4	2.0		8.2				
Green Ext Time (p_c), s	0.0	33.8			0.0	39.0		0.1				

Intersection Summary

HCM 2010 Ctrl Delay	5.6
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	109	40	50	991	779	68		
Future Volume (veh/h)	109	40	50	991	779	68		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1357	1863	1863	1863		
Adj Flow Rate, veh/h	115	42	53	1043	820	72		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	40	2	2	2		
Cap, veh/h	135	121	429	4373	1602	1362		
Arrive On Green	0.08	0.08	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	452	5253	1863	1583		
Grp Volume(v), veh/h	115	42	53	1043	820	72		
Grp Sat Flow(s),veh/h/ln	1774	1583	452	1695	1863	1583		
Q Serve(g_s), s	11.5	4.5	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	11.5	4.5	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	135	121	429	4373	1602	1362		
V/C Ratio(X)	0.85	0.35	0.12	0.24	0.51	0.05		
Avail Cap(c_a), veh/h	294	262	429	4373	1602	1362		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(l)	1.00	1.00	0.71	0.71	1.00	1.00		
Uniform Delay (d), s/veh	82.1	78.9	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	5.6	0.6	0.4	0.1	1.2	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	9.8	3.6	0.1	0.1	0.9	0.1		
LnGrp Delay(d),s/veh	87.8	79.5	0.4	0.1	1.2	0.1		
LnGrp LOS	F	E	A	A	A	A		
Approach Vol, veh/h	157			1096	892			
Approach Delay, s/veh	85.6			0.1	1.1			
Approach LOS	F			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		161.1		18.9		161.1		
Change Period (Y+Rc), s		* 6.3		* 5.2		* 6.3		
Max Green Setting (Gmax), s		* 1.4E2		* 30		* 1.4E2		
Max Q Clear Time (g_c+I1), s		2.0		13.5		2.0		
Green Ext Time (p_c), s		78.4		0.2		78.4		
Intersection Summary								
HCM 2010 Ctrl Delay			6.8					
HCM 2010 LOS			A					
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								












Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	541	53	431	11	5	17	41	500	9	32	798	14
Future Volume (veh/h)	541	53	431	11	5	17	41	500	9	32	798	14
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1820	1900	1863	1860	1900	1792	1863	1863
Adj Flow Rate, veh/h	609	0	454	12	5	18	43	526	9	34	840	15
Adj No. of Lanes	2	0	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	6	2	2
Cap, veh/h	753	0	336	18	8	27	248	1013	17	393	1035	879
Arrive On Green	0.21	0.00	0.21	0.03	0.03	0.03	0.56	0.56	0.56	0.74	0.74	0.74
Sat Flow, veh/h	3548	0	1583	563	235	845	643	1823	31	833	1863	1583
Grp Volume(v), veh/h	609	0	454	35	0	0	43	0	535	34	840	15
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1643	0	0	643	0	1854	833	1863	1583
Q Serve(g_s), s	14.7	0.0	19.1	1.9	0.0	0.0	4.8	0.0	16.2	1.9	26.5	0.2
Cycle Q Clear(g_c), s	14.7	0.0	19.1	1.9	0.0	0.0	31.3	0.0	16.2	18.2	26.5	0.2
Prop In Lane	1.00		1.00	0.34		0.51	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	753	0	336	53	0	0	248	0	1030	393	1035	879
V/C Ratio(X)	0.81	0.00	1.35	0.66	0.00	0.00	0.17	0.00	0.52	0.09	0.81	0.02
Avail Cap(c_a), veh/h	753	0	336	110	0	0	248	0	1030	393	1035	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	33.7	0.0	35.4	43.0	0.0	0.0	26.3	0.0	12.5	11.9	8.7	5.3
Incr Delay (d2), s/veh	6.1	0.0	176.5	13.0	0.0	0.0	1.5	0.0	1.9	0.4	6.0	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(95%),veh/ln	12.4	0.0	44.6	1.9	0.0	0.0	1.7	0.0	13.5	0.9	20.8	0.2
LnGrp Delay(d),s/veh	39.8	0.0	211.9	56.0	0.0	0.0	27.9	0.0	14.4	12.3	14.7	5.3
LnGrp LOS	D		F	E			C		B	B	B	A
Approach Vol, veh/h		1063			35			578			889	
Approach Delay, s/veh		113.3			56.0			15.4			14.4	
Approach LOS		F			E			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		56.1		25.0		56.1		8.9				
Change Period (Y+Rc), s		6.1		* 5.9		6.1		6.0				
Max Green Setting (Gmax), s		46.9		* 19		46.9		6.0				
Max Q Clear Time (g_c+I1), s		28.5		21.1		33.3		3.9				
Green Ext Time (p_c), s		14.5		0.0		11.2		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	56.2
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

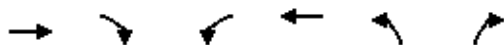
								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	41	627	61	24	488	63		
Future Volume (veh/h)	41	627	61	24	488	63		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1809	1900	1900	1900		
Adj Flow Rate, veh/h	46	697	68	0	542	70		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	0	0	7	7	0	0		
Cap, veh/h	655	1548	1474	0	1540	709		
Arrive On Green	0.43	0.43	0.43	0.00	0.44	0.44		
Sat Flow, veh/h	1354	3705	3619	0	3510	1615		
Grp Volume(v), veh/h	46	697	68	0	542	70		
Grp Sat Flow(s),veh/h/ln	1354	1805	1719	0	1755	1615		
Q Serve(g_s), s	1.6	10.9	0.9	0.0	8.2	2.0		
Cycle Q Clear(g_c), s	2.6	10.9	0.9	0.0	8.2	2.0		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	655	1548	1474	0	1540	709		
V/C Ratio(X)	0.07	0.45	0.05	0.00	0.35	0.10		
Avail Cap(c_a), veh/h	655	1548	1474	0	1540	709		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	14.1	16.2	13.3	0.0	14.9	13.2		
Incr Delay (d2), s/veh	0.2	0.9	0.0	0.0	0.6	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	1.2	9.5	0.8	0.0	7.3	1.7		
LnGrp Delay(d),s/veh	14.3	17.1	13.3	0.0	15.5	13.4		
LnGrp LOS	B	B	B		B	B		
Approach Vol, veh/h		743	68		612			
Approach Delay, s/veh		16.9	13.3		15.3			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		40.0		40.0		40.0		
Change Period (Y+Rc), s		* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s		* 34		* 35		* 34		
Max Q Clear Time (g_c+I1), s		2.9		10.2		12.9		
Green Ext Time (p_c), s		11.1		2.3		9.2		

Intersection Summary

HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	259	196	96	17	0
Future Volume (vph)	0	259	196	96	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.97	0.95	
Satd. Flow (prot)		1611		3370	3433	
Flt Permitted		1.00		0.97	0.95	
Satd. Flow (perm)		1611		3370	3433	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	288	218	107	19	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	288	0	325	19	0
Heavy Vehicles (%)	0%	2%	2%	7%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		65.6		52.9	1.5	
Effective Green, g (s)		65.6		52.9	1.5	
Actuated g/C Ratio		1.00		0.81	0.02	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1611		2717	78	
v/s Ratio Prot					0.01	
v/s Ratio Perm		c0.18		0.10		
v/c Ratio		0.18		0.12	0.24	
Uniform Delay, d1		0.0		1.4	31.5	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.2		0.1	1.6	
Delay (s)		0.2		1.5	33.1	
Level of Service		A		A	C	
Approach Delay (s)	0.2			1.5	33.1	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			1.9		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.22			
Actuated Cycle Length (s)			65.6		Sum of lost time (s)	11.2
Intersection Capacity Utilization			26.0%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↵	↵	↵	↵↵↵	↵↵	
Traffic Vol, veh/h	85	35	10	947	803	12
Future Vol, veh/h	85	35	10	947	803	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	8
Mvmt Flow	92	38	11	1029	873	13
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1312	443	886	0	-	0
Stage 1	879	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Critical Hdwy	6.29	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.67	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	180	562	760	-	-	-
Stage 1	357	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	177	562	760	-	-	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	357	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	35.8		0.1		0	
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	760	-	177	562	-	-
HCM Lane V/C Ratio	0.014	-	0.522	0.068	-	-
HCM Control Delay (s)	9.8	-	45.6	11.9	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0	-	2.6	0.2	-	-

Intersection							
Int Delay, s/veh	0.3						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↑↑	↑↑			↑	
Traffic Vol, veh/h	0	961	47	7	0	33	
Future Vol, veh/h	0	961	47	7	0	33	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	-	0	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	94	94	94	94	94	94	
Heavy Vehicles, %	0	2	2	2	0	2	
Mvmt Flow	0	1022	50	7	0	35	
Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	29	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	-	-	-	-	6.94	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	-	-	-	-	3.32	
Pot Cap-1 Maneuver	0	-	-	-	0	1039	
Stage 1	0	-	-	-	0	-	
Stage 2	0	-	-	-	0	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	-	-	-	-	-	1039	
Mov Cap-2 Maneuver	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Approach	EB		WB		SB		
HCM Control Delay, s	0		0		8.6		
HCM LOS					A		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1			
Capacity (veh/h)	-	-	-	1039			
HCM Lane V/C Ratio	-	-	-	0.034			
HCM Control Delay (s)	-	-	-	8.6			
HCM Lane LOS	-	-	-	A			
HCM 95th %tile Q(veh)	-	-	-	0.1			

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↔	↔	↔	↔
Traffic Vol, veh/h	33	111	65	27	393	126
Future Vol, veh/h	33	111	65	27	393	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	115	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	131	76	32	462	148
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	705	305	611	0	-	0
Stage 1	536	-	-	-	-	-
Stage 2	169	-	-	-	-	-
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	371	691	964	-	-	-
Stage 1	551	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	342	691	964	-	-	-
Mov Cap-2 Maneuver	342	-	-	-	-	-
Stage 1	551	-	-	-	-	-
Stage 2	777	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	14.2		6.4		0	
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	964	-	560	-	-	
HCM Lane V/C Ratio	0.079	-	0.303	-	-	
HCM Control Delay (s)	9.1	-	14.2	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-	















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	0	9	68	1189	21	180	883	523
Future Volume (veh/h)	0	0	0	1	0	9	68	1189	21	180	883	523
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1557	1863	1863	1900	1863	1845	1863
Adj Flow Rate, veh/h				1	0	10	76	1321	23	200	981	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				22	0	22	2	2	2	2	3	2
Cap, veh/h				22	0	16	546	4302	75	445	2932	1324
Arrive On Green				0.01	0.00	0.01	0.06	1.00	1.00	0.03	0.84	0.00
Sat Flow, veh/h				1774	0	1324	1774	5148	90	1774	3505	1583
Grp Volume(v), veh/h				1	0	10	76	870	474	200	981	0
Grp Sat Flow(s),veh/h/ln				1774	0	1324	1774	1695	1847	1774	1752	1583
Q Serve(g_s), s				0.1	0.0	1.1	0.9	0.0	0.0	2.5	9.5	0.0
Cycle Q Clear(g_c), s				0.1	0.0	1.1	0.9	0.0	0.0	2.5	9.5	0.0
Prop In Lane				1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h				22	0	16	546	2833	1544	445	2932	1324
V/C Ratio(X)				0.05	0.00	0.62	0.14	0.31	0.31	0.45	0.33	0.00
Avail Cap(c_a), veh/h				103	0	77	660	2833	1544	499	2932	1324
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				73.2	0.0	73.7	1.7	0.0	0.0	1.4	2.8	0.0
Incr Delay (d2), s/veh				0.9	0.0	32.4	0.1	0.3	0.5	0.7	0.3	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
%ile BackOfQ(95%),veh/ln				0.1	0.0	1.0	0.8	0.2	0.4	2.3	8.1	0.0
LnGrp Delay(d),s/veh				74.1	0.0	106.2	1.8	0.3	0.5	2.2	3.1	0.0
LnGrp LOS				E		F	A	A	A	A	A	
Approach Vol, veh/h					11			1420			1181	
Approach Delay, s/veh					103.2			0.4			2.9	
Approach LOS					F			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	10.4	131.5			10.5	131.4		8.1				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 14	* 1.1E2			9.5	* 1.1E2		8.7				
Max Q Clear Time (g_c+I1), s	2.9	11.5			4.5	2.0		3.1				
Green Ext Time (p_c), s	0.1	73.7			0.2	81.6		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	2.0
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations				  				
Traffic Volume (veh/h)	91	47	96	1278	521	117		
Future Volume (veh/h)	91	47	96	1278	521	117		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1845	1863	1845	1810		
Adj Flow Rate, veh/h	95	49	100	1331	543	122		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	3	2	3	5		
Cap, veh/h	119	106	699	4354	1579	1317		
Arrive On Green	0.07	0.07	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	760	5253	1845	1538		
Grp Volume(v), veh/h	95	49	100	1331	543	122		
Grp Sat Flow(s),veh/h/ln	1774	1583	760	1695	1845	1538		
Q Serve(g_s), s	7.9	4.5	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	7.9	4.5	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	119	106	699	4354	1579	1317		
V/C Ratio(X)	0.80	0.46	0.14	0.31	0.34	0.09		
Avail Cap(c_a), veh/h	341	304	699	4354	1579	1317		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(I)	1.00	1.00	0.43	0.43	1.00	1.00		
Uniform Delay (d), s/veh	69.0	67.3	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	4.5	1.2	0.2	0.1	0.6	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	7.3	3.6	0.1	0.1	0.5	0.1		
LnGrp Delay(d),s/veh	73.5	68.5	0.2	0.1	0.6	0.1		
LnGrp LOS	E	E	A	A	A	A		
Approach Vol, veh/h	144			1431	665			
Approach Delay, s/veh	71.8			0.1	0.5			
Approach LOS	E			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		134.7		15.3		134.7		
Change Period (Y+Rc), s		* 6.3		* 5.2		* 6.3		
Max Green Setting (Gmax), s		* 1.1E2		* 29		* 1.1E2		
Max Q Clear Time (g_c+I1), s		2.0		9.9		2.0		
Green Ext Time (p_c), s		68.6		0.2		68.6		
Intersection Summary								
HCM 2010 Ctrl Delay			4.8					
HCM 2010 LOS			A					
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	0	79	7	28	64	211	1166	3	7	502	67
Future Volume (veh/h)	156	0	79	7	28	64	211	1166	3	7	502	67
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1863	1900	1863	1900	1863	1863	1900	1863	1827	1759
Adj Flow Rate, veh/h	161	0	81	7	29	66	218	1202	3	7	518	69
Adj No. of Lanes	2	0	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	0	2	2	2	2	2	2	2	2	4	8
Cap, veh/h	188	0	86	6	25	58	662	1435	4	212	1236	1012
Arrive On Green	0.05	0.00	0.05	0.05	0.05	0.05	0.05	0.77	0.77	0.90	0.90	0.90
Sat Flow, veh/h	3480	0	1583	114	474	1078	1774	1857	5	462	1827	1495
Grp Volume(v), veh/h	161	0	81	102	0	0	218	0	1205	7	518	69
Grp Sat Flow(s),veh/h/ln	1740	0	1583	1667	0	0	1774	0	1862	462	1827	1495
Q Serve(g_s), s	6.9	0.0	7.7	8.0	0.0	0.0	5.4	0.0	62.5	1.2	6.8	0.7
Cycle Q Clear(g_c), s	6.9	0.0	7.7	8.0	0.0	0.0	5.4	0.0	62.5	49.3	6.8	0.7
Prop In Lane	1.00		1.00	0.07		0.65	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	0	86	89	0	0	662	0	1439	212	1236	1012
V/C Ratio(X)	0.86	0.00	0.95	1.15	0.00	0.00	0.33	0.00	0.84	0.03	0.42	0.07
Avail Cap(c_a), veh/h	188	0	86	89	0	0	847	0	1439	212	1236	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	70.4	0.0	70.7	71.0	0.0	0.0	6.0	0.0	11.0	17.8	2.8	2.5
Incr Delay (d2), s/veh	29.1	0.0	79.0	140.7	0.0	0.0	0.3	0.0	6.0	0.3	1.0	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(95%),veh/ln	7.3	0.0	9.0	12.9	0.0	0.0	4.8	0.0	43.4	0.3	6.4	0.6
LnGrp Delay(d),s/veh	99.5	0.0	149.7	211.7	0.0	0.0	6.3	0.0	17.0	18.1	3.8	2.6
LnGrp LOS	F		F	F			A		B	B	A	A
Approach Vol, veh/h		242			102			1423			594	
Approach Delay, s/veh		116.3			211.7			15.3			3.8	
Approach LOS		F			F			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	14.4	107.6		14.0		122.0		14.0				
Change Period (Y+Rc), s	6.5	6.1		* 5.9		6.1		6.0				
Max Green Setting (Gmax), s	23.5	85.9		* 8.1		115.9		8.0				
Max Q Clear Time (g_c+I1), s	7.4	51.3		9.7		64.5		10.0				
Green Ext Time (p_c), s	0.5	30.0		0.0		42.1		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	31.3
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	102	44	219	64	147	81		
Future Volume (veh/h)	102	44	219	64	147	81		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1871	1900	1900	1900		
Adj Flow Rate, veh/h	106	46	228	0	153	84		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	2	2	0	0		
Cap, veh/h	603	1897	1448	0	1252	576		
Arrive On Green	0.05	0.53	0.41	0.00	0.36	0.36		
Sat Flow, veh/h	1810	3705	3742	0	3510	1615		
Grp Volume(v), veh/h	106	46	228	0	153	84		
Grp Sat Flow(s),veh/h/ln	1810	1805	1778	0	1755	1615		
Q Serve(g_s), s	2.9	0.6	3.7	0.0	2.6	3.2		
Cycle Q Clear(g_c), s	2.9	0.6	3.7	0.0	2.6	3.2		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	603	1897	1448	0	1252	576		
V/C Ratio(X)	0.18	0.02	0.16	0.00	0.12	0.15		
Avail Cap(c_a), veh/h	690	1897	1448	0	1252	576		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	13.1	10.3	16.9	0.0	19.5	19.6		
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.0	0.2	0.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	2.6	0.5	3.2	0.0	2.4	2.7		
LnGrp Delay(d),s/veh	13.2	10.3	17.0	0.0	19.7	20.2		
LnGrp LOS	B	B	B		B	C		
Approach Vol, veh/h		152	228		237			
Approach Delay, s/veh		12.3	17.0		19.9			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	10.6	42.4		37.0		53.0		
Change Period (Y+Rc), s	6.0	* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s	9.0	* 32		* 32		* 47		
Max Q Clear Time (g_c+I1), s	4.9	5.7		5.2		2.6		
Green Ext Time (p_c), s	0.1	3.1		0.8		3.6		

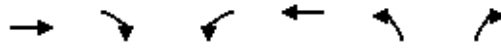
Intersection Summary

HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
5: Parkside Place & Lake Hearn Drive



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	29	213	785	41	0
Future Volume (vph)	0	29	213	785	41	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.99	0.95	
Satd. Flow (prot)		1596		3502	3433	
Flt Permitted		1.00		0.99	0.95	
Satd. Flow (perm)		1596		3502	3433	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	30	222	818	43	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	30	0	1040	43	0
Heavy Vehicles (%)	0%	3%	2%	2%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		62.0		47.9	2.9	
Effective Green, g (s)		62.0		47.9	2.9	
Actuated g/C Ratio		1.00		0.77	0.05	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1596		2705	160	
v/s Ratio Prot					c0.01	
v/s Ratio Perm		0.02		0.30		
v/c Ratio		0.02		0.38	0.27	
Uniform Delay, d1		0.0		2.3	28.5	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.0		0.4	0.9	
Delay (s)		0.0		2.7	29.4	
Level of Service		A		A	C	
Approach Delay (s)	0.0			2.7	29.4	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			3.7		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.38			
Actuated Cycle Length (s)			62.0		Sum of lost time (s)	11.2
Intersection Capacity Utilization			43.1%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection							
Int Delay, s/veh	1.2						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↵	↶	↵	↶↶↶	↶↶		
Traffic Vol, veh/h	37	15	73	1262	623	293	
Future Vol, veh/h	37	15	73	1262	623	293	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	95	95	95	95	95	95	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	39	16	77	1328	656	308	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1495	482	964	0	-	0	
Stage 1	810	-	-	-	-	-	
Stage 2	685	-	-	-	-	-	
Critical Hdwy	6.29	6.94	4.14	-	-	-	
Critical Hdwy Stg 1	5.84	-	-	-	-	-	
Critical Hdwy Stg 2	6.04	-	-	-	-	-	
Follow-up Hdwy	3.67	3.32	2.22	-	-	-	
Pot Cap-1 Maneuver	140	530	710	-	-	-	
Stage 1	387	-	-	-	-	-	
Stage 2	432	-	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	125	530	710	-	-	-	
Mov Cap-2 Maneuver	125	-	-	-	-	-	
Stage 1	387	-	-	-	-	-	
Stage 2	385	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	36.4		0.6		0		
HCM LOS	E						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR	
Capacity (veh/h)	710	-	125	530	-	-	
HCM Lane V/C Ratio	0.108	-	0.312	0.03	-	-	
HCM Control Delay (s)	10.7	-	46.3	12	-	-	
HCM Lane LOS	B	-	E	B	-	-	
HCM 95th %tile Q(veh)	0.4	-	1.2	0.1	-	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	210	282	91	0	21
Future Vol, veh/h	0	210	282	91	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	4	2	2	0	2
Mvmt Flow	0	223	300	97	0	22
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	198
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	810
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	810
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		9.6	
HCM LOS					A	
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	810		
HCM Lane V/C Ratio	-	-	-	0.028		
HCM Control Delay (s)	-	-	-	9.6		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕			↕	↕
Traffic Vol, veh/h	11	0	149	12	0	0	93	34	61	58	62	164
Future Vol, veh/h	11	0	149	12	0	0	93	34	61	58	62	164
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	115	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	0	2	0	0	0	2	2	0	0	10	2
Mvmt Flow	12	0	159	13	0	0	99	36	65	62	66	174
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	493	576	120	422	630	51	240	0	0	101	0	0
Stage 1	277	277	-	266	266	-	-	-	-	-	-	-
Stage 2	216	299	-	156	364	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.94	7.5	6.5	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.32	3.5	4	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	459	431	909	521	401	1013	1324	-	-	1504	-	-
Stage 1	706	685	-	722	692	-	-	-	-	-	-	-
Stage 2	766	670	-	836	627	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	417	379	909	391	353	1013	1324	-	-	1504	-	-
Mov Cap-2 Maneuver	417	379	-	391	353	-	-	-	-	-	-	-
Stage 1	653	651	-	668	640	-	-	-	-	-	-	-
Stage 2	709	620	-	656	596	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	10.4			14.5			3.9			1.5		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	1324	-	-	841	391	-	1504	-	-			
HCM Lane V/C Ratio	0.075	-	-	0.202	0.033	-	0.041	-	-			
HCM Control Delay (s)	7.9	-	-	10.4	14.5	0	7.5	-	-			
HCM Lane LOS	A	-	-	B	B	A	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	0.8	0.1	-	0.1	-	-			















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	6	2	104	14	1350	1	23	855	135
Future Volume (veh/h)	0	0	0	6	2	104	14	1350	1	23	855	135
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h				6	2	111	15	1436	1	24	910	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	2	2	2	2	2	2	2	2
Cap, veh/h				117	39	137	473	3625	3	380	2467	1104
Arrive On Green				0.09	0.09	0.09	0.03	1.00	1.00	0.03	0.70	0.00
Sat Flow, veh/h				1347	449	1583	1774	5249	4	1774	3539	1583
Grp Volume(v), veh/h				8	0	111	15	928	509	24	910	0
Grp Sat Flow(s),veh/h/ln				1795	0	1583	1774	1695	1862	1774	1770	1583
Q Serve(g_s), s				0.4	0.0	6.2	0.2	0.0	0.0	0.4	9.4	0.0
Cycle Q Clear(g_c), s				0.4	0.0	6.2	0.2	0.0	0.0	0.4	9.4	0.0
Prop In Lane				0.75		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h				155	0	137	473	2341	1286	380	2467	1104
V/C Ratio(X)				0.05	0.00	0.81	0.03	0.40	0.40	0.06	0.37	0.00
Avail Cap(c_a), veh/h				174	0	153	568	2341	1286	464	2467	1104
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				37.7	0.0	40.4	4.2	0.0	0.0	3.7	5.6	0.0
Incr Delay (d2), s/veh				0.1	0.0	24.7	0.0	0.5	0.9	0.1	0.4	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
%ile BackOfQ(95%),veh/ln				0.3	0.0	6.6	0.2	0.3	0.6	0.3	8.2	0.0
LnGrp Delay(d),s/veh				37.8	0.0	65.0	4.3	0.5	0.9	3.8	6.0	0.0
LnGrp LOS				D		E	A	A	A	A	A	
Approach Vol, veh/h					119			1452			934	
Approach Delay, s/veh					63.2			0.7			5.9	
Approach LOS					E			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	7.2	68.7			7.8	68.2		14.1				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 6.4	* 57			6.5	* 57		8.7				
Max Q Clear Time (g_c+I1), s	2.2	11.4			2.4	2.0		8.2				
Green Ext Time (p_c), s	0.0	39.8			0.0	46.8		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	5.6
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations				  				
Traffic Volume (veh/h)	282	64	47	1001	859	70		
Future Volume (veh/h)	282	64	47	1001	859	70		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1357	1863	1863	1863		
Adj Flow Rate, veh/h	297	67	49	1054	904	74		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	40	2	2	2		
Cap, veh/h	294	262	362	3919	1435	1220		
Arrive On Green	0.17	0.17	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	417	5253	1863	1583		
Grp Volume(v), veh/h	297	67	49	1054	904	74		
Grp Sat Flow(s),veh/h/ln	1774	1583	417	1695	1863	1583		
Q Serve(g_s), s	29.8	6.6	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	29.8	6.6	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	294	262	362	3919	1435	1220		
V/C Ratio(X)	1.01	0.26	0.14	0.27	0.63	0.06		
Avail Cap(c_a), veh/h	294	262	362	3919	1435	1220		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(I)	1.00	1.00	0.72	0.72	1.00	1.00		
Uniform Delay (d), s/veh	75.1	65.4	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	55.4	0.2	0.6	0.1	2.1	0.1		
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	34.4	5.3	0.1	0.1	1.5	0.1		
LnGrp Delay(d),s/veh	130.6	65.6	0.6	0.1	2.1	0.1		
LnGrp LOS	F	E	A	A	A	A		
Approach Vol, veh/h	364			1103	978			
Approach Delay, s/veh	118.6			0.1	2.0			
Approach LOS	F			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	2		4		6			
Phs Duration (G+Y+Rc), s	145.0		35.0		145.0			
Change Period (Y+Rc), s	* 6.3		* 5.2		* 6.3			
Max Green Setting (Gmax), s	* 1.4E2		* 30		* 1.4E2			
Max Q Clear Time (g_c+I1), s	2.0		31.8		2.0			
Green Ext Time (p_c), s	86.9		0.0		86.9			
Intersection Summary								
HCM 2010 Ctrl Delay			18.5					
HCM 2010 LOS			B					
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	530	53	481	11	5	17	50	518	9	32	897	19
Future Volume (veh/h)	530	53	481	11	5	17	50	518	9	32	897	19
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1820	1900	1863	1860	1900	1792	1863	1863
Adj Flow Rate, veh/h	598	0	506	12	5	18	53	545	9	34	944	20
Adj No. of Lanes	2	0	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	6	2	2
Cap, veh/h	753	0	336	18	8	27	137	1013	17	380	1035	879
Arrive On Green	0.21	0.00	0.21	0.03	0.03	0.03	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	3548	0	1583	563	235	845	580	1825	30	819	1863	1583
Grp Volume(v), veh/h	598	0	506	35	0	0	53	0	554	34	944	20
Grp Sat Flow(s),veh/h/ln	1774	0	1583	1643	0	0	580	0	1855	819	1863	1583
Q Serve(g_s), s	14.4	0.0	19.1	1.9	0.0	0.0	8.2	0.0	17.0	2.5	41.1	0.5
Cycle Q Clear(g_c), s	14.4	0.0	19.1	1.9	0.0	0.0	49.3	0.0	17.0	19.5	41.1	0.5
Prop In Lane	1.00		1.00	0.34		0.51	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	753	0	336	53	0	0	137	0	1030	380	1035	879
V/C Ratio(X)	0.79	0.00	1.51	0.66	0.00	0.00	0.39	0.00	0.54	0.09	0.91	0.02
Avail Cap(c_a), veh/h	753	0	336	110	0	0	137	0	1030	380	1035	879
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	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	33.6	0.0	35.4	43.0	0.0	0.0	40.2	0.0	12.7	18.9	18.0	9.0
Incr Delay (d2), s/veh	5.4	0.0	242.6	13.0	0.0	0.0	8.0	0.0	2.0	0.4	10.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.2	0.0	55.7	1.9	0.0	0.0	2.9	0.0	14.2	1.1	31.2	0.4
LnGrp Delay(d),s/veh	39.0	0.0	278.1	56.0	0.0	0.0	48.3	0.0	14.7	19.2	28.9	9.0
LnGrp LOS	D		F	E			D		B	B	C	A
Approach Vol, veh/h		1104			35			607			998	
Approach Delay, s/veh		148.6			56.0			17.6			28.2	
Approach LOS		F			E			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		56.1		25.0		56.1		8.9				
Change Period (Y+Rc), s		6.1		* 5.9		6.1		6.0				
Max Green Setting (Gmax), s		46.9		* 19		46.9		6.0				
Max Q Clear Time (g_c+I1), s		43.1		21.1		51.3		3.9				
Green Ext Time (p_c), s		3.5		0.0		0.0		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	74.6
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



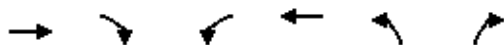
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↙	↕	↕		↙	↗		
Traffic Volume (veh/h)	62	616	86	24	538	88		
Future Volume (veh/h)	62	616	86	24	538	88		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1802	1900	1900	1900		
Adj Flow Rate, veh/h	69	684	96	0	598	98		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	0	0	7	7	0	0		
Cap, veh/h	634	1548	1468	0	1540	709		
Arrive On Green	0.43	0.43	0.43	0.00	0.44	0.44		
Sat Flow, veh/h	1320	3705	3603	0	3510	1615		
Grp Volume(v), veh/h	69	684	96	0	598	98		
Grp Sat Flow(s),veh/h/ln	1320	1805	1711	0	1755	1615		
Q Serve(g_s), s	2.6	10.7	1.3	0.0	9.2	2.9		
Cycle Q Clear(g_c), s	3.9	10.7	1.3	0.0	9.2	2.9		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	634	1548	1468	0	1540	709		
V/C Ratio(X)	0.11	0.44	0.07	0.00	0.39	0.14		
Avail Cap(c_a), veh/h	634	1548	1468	0	1540	709		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	14.6	16.1	13.4	0.0	15.2	13.4		
Incr Delay (d2), s/veh	0.3	0.9	0.0	0.0	0.7	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	1.8	9.4	1.1	0.0	8.1	2.4		
LnGrp Delay(d),s/veh	14.9	17.0	13.5	0.0	15.9	13.8		
LnGrp LOS	B	B	B		B	B		
Approach Vol, veh/h		753	96		696			
Approach Delay, s/veh		16.8	13.5		15.6			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		40.0		40.0		40.0		
Change Period (Y+Rc), s		* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s		* 34		* 35		* 34		
Max Q Clear Time (g_c+I1), s		3.3		11.2		12.7		
Green Ext Time (p_c), s		11.5		2.6		9.6		

Intersection Summary

HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	259	206	96	17	0
Future Volume (vph)	0	259	206	96	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.97	0.95	
Satd. Flow (prot)		1611		3370	3433	
Flt Permitted		1.00		0.97	0.95	
Satd. Flow (perm)		1611		3370	3433	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	288	229	107	19	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	288	0	336	19	0
Heavy Vehicles (%)	0%	2%	2%	7%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		66.6		53.9	1.5	
Effective Green, g (s)		66.6		53.9	1.5	
Actuated g/C Ratio		1.00		0.81	0.02	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1611		2727	77	
v/s Ratio Prot					0.01	
v/s Ratio Perm		c0.18		0.10		
v/c Ratio		0.18		0.12	0.25	
Uniform Delay, d1		0.0		1.3	32.0	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.2		0.1	1.7	
Delay (s)		0.2		1.4	33.7	
Level of Service		A		A	C	
Approach Delay (s)	0.2			1.4	33.7	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			1.9		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.21			
Actuated Cycle Length (s)			66.6		Sum of lost time (s)	11.2
Intersection Capacity Utilization			26.6%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection							
Int Delay, s/veh	29.9						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↵	↵	↵	↵↵↵	↵↵		
Traffic Vol, veh/h	210	110	20	1070	810	52	
Future Vol, veh/h	210	110	20	1070	810	52	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	8	
Mvmt Flow	228	120	22	1163	880	57	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1418	468	937	0	-	0	
Stage 1	909	-	-	-	-	-	
Stage 2	509	-	-	-	-	-	
Critical Hdwy	6.29	6.94	4.14	-	-	-	
Critical Hdwy Stg 1	5.84	-	-	-	-	-	
Critical Hdwy Stg 2	6.04	-	-	-	-	-	
Follow-up Hdwy	3.67	3.32	2.22	-	-	-	
Pot Cap-1 Maneuver	~ 156	542	727	-	-	-	
Stage 1	344	-	-	-	-	-	
Stage 2	535	-	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	~ 151	542	727	-	-	-	
Mov Cap-2 Maneuver	~ 151	-	-	-	-	-	
Stage 1	344	-	-	-	-	-	
Stage 2	519	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	211.8		0.2		0		
HCM LOS	F						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR	
Capacity (veh/h)	727	-	151	542	-	-	
HCM Lane V/C Ratio	0.03	-	1.512	0.221	-	-	
HCM Control Delay (s)	10.1	-	\$ 315.6	13.5	-	-	
HCM Lane LOS	B	-	F	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	15.3	0.8	-	-	
Notes							
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon							

Intersection							
Int Delay, s/veh	0.4						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↑↑	↑↑			↑	
Traffic Vol, veh/h	0	1000	47	21	0	58	
Future Vol, veh/h	0	1000	47	21	0	58	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	-	0	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	94	94	94	94	94	94	
Heavy Vehicles, %	0	2	2	2	0	2	
Mvmt Flow	0	1064	50	22	0	62	
Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	36	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Critical Hdwy	-	-	-	-	-	6.94	
Critical Hdwy Stg 1	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	
Follow-up Hdwy	-	-	-	-	-	3.32	
Pot Cap-1 Maneuver	0	-	-	-	0	1029	
Stage 1	0	-	-	-	0	-	
Stage 2	0	-	-	-	0	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	-	-	-	-	-	1029	
Mov Cap-2 Maneuver	-	-	-	-	-	-	
Stage 1	-	-	-	-	-	-	
Stage 2	-	-	-	-	-	-	
Approach	EB		WB		SB		
HCM Control Delay, s	0		0		8.7		
HCM LOS					A		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1			
Capacity (veh/h)	-	-	-	1029			
HCM Lane V/C Ratio	-	-	-	0.06			
HCM Control Delay (s)	-	-	-	8.7			
HCM Lane LOS	-	-	-	A			
HCM 95th %tile Q(veh)	-	-	-	0.2			

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕			↕	↕
Traffic Vol, veh/h	33	0	111	75	0	0	65	27	21	10	393	126
Future Vol, veh/h	33	0	111	75	0	0	65	27	21	10	393	126
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	115	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	0	2	0	0	0	2	2	0	0	2	2
Mvmt Flow	39	0	131	88	0	0	76	32	25	12	462	148
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	729	769	305	452	831	28	611	0	0	56	0	0
Stage 1	560	560	-	197	197	-	-	-	-	-	-	-
Stage 2	169	209	-	255	634	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.94	7.5	6.5	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.32	3.5	4	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	311	334	691	496	307	1047	964	-	-	1562	-	-
Stage 1	480	514	-	792	742	-	-	-	-	-	-	-
Stage 2	816	733	-	733	476	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	290	304	691	375	279	1047	964	-	-	1562	-	-
Mov Cap-2 Maneuver	290	304	-	375	279	-	-	-	-	-	-	-
Stage 1	442	508	-	730	684	-	-	-	-	-	-	-
Stage 2	752	675	-	587	470	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	15.1			17.5			5.2			0.1		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	964	-	-	525	375	-	1562	-	-			
HCM Lane V/C Ratio	0.079	-	-	0.323	0.235	-	0.008	-	-			
HCM Control Delay (s)	9.1	-	-	15.1	17.5	0	7.3	-	-			
HCM Lane LOS	A	-	-	C	C	A	A	-	-			
HCM 95th %tile Q(veh)	0.3	-	-	1.4	0.9	-	0	-	-			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1	0	9	68	1189	21	180	883	523
Future Volume (veh/h)	0	0	0	1	0	9	68	1189	21	180	883	523
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1557	1863	1863	1900	1863	1845	1863
Adj Flow Rate, veh/h				1	0	10	76	1321	23	200	981	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %				22	0	22	2	2	2	2	3	2
Cap, veh/h				22	0	16	546	4302	75	445	2932	1324
Arrive On Green				0.01	0.00	0.01	0.06	1.00	1.00	0.03	0.84	0.00
Sat Flow, veh/h				1774	0	1324	1774	5148	90	1774	3505	1583
Grp Volume(v), veh/h				1	0	10	76	870	474	200	981	0
Grp Sat Flow(s),veh/h/ln				1774	0	1324	1774	1695	1847	1774	1752	1583
Q Serve(g_s), s				0.1	0.0	1.1	0.9	0.0	0.0	2.5	9.5	0.0
Cycle Q Clear(g_c), s				0.1	0.0	1.1	0.9	0.0	0.0	2.5	9.5	0.0
Prop In Lane				1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h				22	0	16	546	2833	1544	445	2932	1324
V/C Ratio(X)				0.05	0.00	0.62	0.14	0.31	0.31	0.45	0.33	0.00
Avail Cap(c_a), veh/h				103	0	77	660	2833	1544	499	2932	1324
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				73.2	0.0	73.7	1.7	0.0	0.0	1.4	2.8	0.0
Incr Delay (d2), s/veh				0.9	0.0	32.4	0.1	0.3	0.5	0.7	0.3	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
%ile BackOfQ(95%),veh/ln				0.1	0.0	1.0	0.8	0.2	0.4	2.3	8.1	0.0
LnGrp Delay(d),s/veh				74.1	0.0	106.2	1.8	0.3	0.5	2.2	3.1	0.0
LnGrp LOS				E		F	A	A	A	A	A	
Approach Vol, veh/h					11			1420			1181	
Approach Delay, s/veh					103.2			0.4			2.9	
Approach LOS					F			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	10.4	131.5			10.5	131.4		8.1				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 14	* 1.1E2			9.5	* 1.1E2		8.7				
Max Q Clear Time (g_c+I1), s	2.9	11.5			4.5	2.0		3.1				
Green Ext Time (p_c), s	0.1	73.7			0.2	81.6		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	2.0
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	91	47	96	1278	521	117		
Future Volume (veh/h)	91	47	96	1278	521	117		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1845	1863	1845	1810		
Adj Flow Rate, veh/h	95	49	100	1331	543	122		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	3	2	3	5		
Cap, veh/h	119	106	699	4354	1579	1317		
Arrive On Green	0.07	0.07	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	760	5253	1845	1538		
Grp Volume(v), veh/h	95	49	100	1331	543	122		
Grp Sat Flow(s),veh/h/ln	1774	1583	760	1695	1845	1538		
Q Serve(g_s), s	7.9	4.5	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	7.9	4.5	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	119	106	699	4354	1579	1317		
V/C Ratio(X)	0.80	0.46	0.14	0.31	0.34	0.09		
Avail Cap(c_a), veh/h	341	304	699	4354	1579	1317		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(I)	1.00	1.00	0.44	0.44	1.00	1.00		
Uniform Delay (d), s/veh	69.0	67.3	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	4.5	1.2	0.2	0.1	0.6	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	7.3	3.6	0.1	0.1	0.5	0.1		
LnGrp Delay(d),s/veh	73.5	68.5	0.2	0.1	0.6	0.1		
LnGrp LOS	E	E	A	A	A	A		
Approach Vol, veh/h	144			1431	665			
Approach Delay, s/veh	71.8			0.1	0.5			
Approach LOS	E			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		134.7		15.3		134.7		
Change Period (Y+Rc), s		* 6.3		* 5.2		* 6.3		
Max Green Setting (Gmax), s		* 1.1E2		* 29		* 1.1E2		
Max Q Clear Time (g_c+I1), s		2.0		9.9		2.0		
Green Ext Time (p_c), s		68.6		0.2		68.6		
Intersection Summary								
HCM 2010 Ctrl Delay			4.8					
HCM 2010 LOS			A					
Notes								
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	0	79	7	28	64	211	1166	3	7	502	67
Future Volume (veh/h)	156	0	79	7	28	64	211	1166	3	7	502	67
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1900	1863	1900	1863	1900	1863	1863	1900	1863	1827	1759
Adj Flow Rate, veh/h	161	0	81	7	29	66	218	1202	3	7	518	69
Adj No. of Lanes	2	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	0	2	2	2	2	2	2	2	2	4	8
Cap, veh/h	204	291	243	29	28	57	693	1423	4	204	1226	1004
Arrive On Green	0.06	0.00	0.15	0.05	0.05	0.05	0.05	0.77	0.77	1.00	1.00	1.00
Sat Flow, veh/h	3375	1900	1583	65	517	1066	1774	1857	5	462	1827	1495
Grp Volume(v), veh/h	161	0	81	102	0	0	218	0	1205	7	518	69
Grp Sat Flow(s),veh/h/ln	1688	1900	1583	1648	0	0	1774	0	1862	462	1827	1495
Q Serve(g_s), s	7.1	0.0	6.8	4.6	0.0	0.0	5.5	0.0	64.4	1.2	0.0	0.0
Cycle Q Clear(g_c), s	7.1	0.0	6.8	8.0	0.0	0.0	5.5	0.0	64.4	51.3	0.0	0.0
Prop In Lane	1.00		1.00	0.07		0.65	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	204	291	243	114	0	0	693	0	1426	204	1226	1004
V/C Ratio(X)	0.79	0.00	0.33	0.90	0.00	0.00	0.31	0.00	0.84	0.03	0.42	0.07
Avail Cap(c_a), veh/h	227	305	254	114	0	0	730	0	1426	204	1226	1004
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	69.5	0.0	56.7	71.5	0.0	0.0	6.0	0.0	11.6	12.8	0.0	0.0
Incr Delay (d2), s/veh	13.3	0.0	0.3	54.1	0.0	0.0	0.3	0.0	6.3	0.3	1.0	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(95%),veh/ln	6.6	0.0	5.4	9.9	0.0	0.0	4.9	0.0	44.7	0.3	0.6	0.1
LnGrp Delay(d),s/veh	82.8	0.0	57.0	125.6	0.0	0.0	6.2	0.0	17.9	13.1	1.0	0.1
LnGrp LOS	F		E	F			A		B	B	A	A
Approach Vol, veh/h		242			102			1423			594	
Approach Delay, s/veh		74.1			125.6			16.1			1.1	
Approach LOS		E			F			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6	7	8				
Phs Duration (G+Y+Rc), s	14.2	106.8		29.0		121.0	15.0	14.0				
Change Period (Y+Rc), s	6.5	6.1		* 6		6.1	* 5.9	6.0				
Max Green Setting (Gmax), s	10.8	96.6		* 24		113.9	* 10	8.0				
Max Q Clear Time (g_c+I1), s	7.5	53.3		8.8		66.4	9.1	10.0				
Green Ext Time (p_c), s	0.2	36.5		0.5		39.5	0.0	0.0				

Intersection Summary

HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

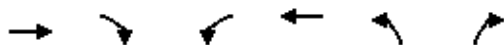
Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Volume (veh/h)	102	44	219	64	147	81		
Future Volume (veh/h)	102	44	219	64	147	81		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1871	1900	1900	1900		
Adj Flow Rate, veh/h	106	46	228	0	153	84		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	2	2	0	0		
Cap, veh/h	603	1897	1448	0	1252	576		
Arrive On Green	0.05	0.53	0.41	0.00	0.36	0.36		
Sat Flow, veh/h	1810	3705	3742	0	3510	1615		
Grp Volume(v), veh/h	106	46	228	0	153	84		
Grp Sat Flow(s),veh/h/ln	1810	1805	1778	0	1755	1615		
Q Serve(g_s), s	2.9	0.6	3.7	0.0	2.6	3.2		
Cycle Q Clear(g_c), s	2.9	0.6	3.7	0.0	2.6	3.2		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	603	1897	1448	0	1252	576		
V/C Ratio(X)	0.18	0.02	0.16	0.00	0.12	0.15		
Avail Cap(c_a), veh/h	690	1897	1448	0	1252	576		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	13.1	10.3	16.9	0.0	19.5	19.6		
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.0	0.2	0.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	2.6	0.5	3.2	0.0	2.4	2.7		
LnGrp Delay(d),s/veh	13.2	10.3	17.0	0.0	19.7	20.2		
LnGrp LOS	B	B	B		B	C		
Approach Vol, veh/h		152	228		237			
Approach Delay, s/veh		12.3	17.0		19.9			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	10.6	42.4		37.0		53.0		
Change Period (Y+Rc), s	6.0	* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s	9.0	* 32		* 32		* 47		
Max Q Clear Time (g_c+I1), s	4.9	5.7		5.2		2.6		
Green Ext Time (p_c), s	0.1	3.1		0.8		3.6		

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	29	213	785	41	0
Future Volume (vph)	0	29	213	785	41	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.99	0.95	
Satd. Flow (prot)		1596		3502	3433	
Flt Permitted		1.00		0.99	0.95	
Satd. Flow (perm)		1596		3502	3433	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	30	222	818	43	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	30	0	1040	43	0
Heavy Vehicles (%)	0%	3%	2%	2%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		62.0		47.9	2.9	
Effective Green, g (s)		62.0		47.9	2.9	
Actuated g/C Ratio		1.00		0.77	0.05	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1596		2705	160	
v/s Ratio Prot					c0.01	
v/s Ratio Perm		0.02		0.30		
v/c Ratio		0.02		0.38	0.27	
Uniform Delay, d1		0.0		2.3	28.5	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.0		0.4	0.9	
Delay (s)		0.0		2.7	29.4	
Level of Service		A		A	C	
Approach Delay (s)	0.0			2.7	29.4	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			3.7		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.38			
Actuated Cycle Length (s)			62.0		Sum of lost time (s)	11.2
Intersection Capacity Utilization			43.1%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection							
Int Delay, s/veh	1.2						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↵	↶	↵	↶↶↶	↶↶		
Traffic Vol, veh/h	37	15	73	1262	623	293	
Future Vol, veh/h	37	15	73	1262	623	293	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	95	95	95	95	95	95	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	39	16	77	1328	656	308	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1495	482	964	0	-	0	
Stage 1	810	-	-	-	-	-	
Stage 2	685	-	-	-	-	-	
Critical Hdwy	6.29	6.94	4.14	-	-	-	
Critical Hdwy Stg 1	5.84	-	-	-	-	-	
Critical Hdwy Stg 2	6.04	-	-	-	-	-	
Follow-up Hdwy	3.67	3.32	2.22	-	-	-	
Pot Cap-1 Maneuver	140	530	710	-	-	-	
Stage 1	387	-	-	-	-	-	
Stage 2	432	-	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	125	530	710	-	-	-	
Mov Cap-2 Maneuver	125	-	-	-	-	-	
Stage 1	387	-	-	-	-	-	
Stage 2	385	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	36.4		0.6		0		
HCM LOS	E						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR	
Capacity (veh/h)	710	-	125	530	-	-	
HCM Lane V/C Ratio	0.108	-	0.312	0.03	-	-	
HCM Control Delay (s)	10.7	-	46.3	12	-	-	
HCM Lane LOS	B	-	E	B	-	-	
HCM 95th %tile Q(veh)	0.4	-	1.2	0.1	-	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	210	282	91	0	21
Future Vol, veh/h	0	210	282	91	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	200	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	4	2	2	0	2
Mvmt Flow	0	223	300	97	0	22
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	198
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	810
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	810
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		9.6	
HCM LOS					A	
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	810		
HCM Lane V/C Ratio	-	-	-	0.028		
HCM Control Delay (s)	-	-	-	9.6		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.1		

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕			↕	↕
Traffic Vol, veh/h	11	0	149	12	0	0	93	34	61	58	62	164
Future Vol, veh/h	11	0	149	12	0	0	93	34	61	58	62	164
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	115	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	0	2	0	0	0	2	2	0	0	10	2
Mvmt Flow	12	0	159	13	0	0	99	36	65	62	66	174
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	493	576	120	422	630	51	240	0	0	101	0	0
Stage 1	277	277	-	266	266	-	-	-	-	-	-	-
Stage 2	216	299	-	156	364	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.94	7.5	6.5	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.32	3.5	4	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	459	431	909	521	401	1013	1324	-	-	1504	-	-
Stage 1	706	685	-	722	692	-	-	-	-	-	-	-
Stage 2	766	670	-	836	627	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	417	379	909	391	353	1013	1324	-	-	1504	-	-
Mov Cap-2 Maneuver	417	379	-	391	353	-	-	-	-	-	-	-
Stage 1	653	651	-	668	640	-	-	-	-	-	-	-
Stage 2	709	620	-	656	596	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	10.4			14.5			3.9			1.5		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	1324	-	-	841	391	-	1504	-	-			
HCM Lane V/C Ratio	0.075	-	-	0.202	0.033	-	0.041	-	-			
HCM Control Delay (s)	7.9	-	-	10.4	14.5	0	7.5	-	-			
HCM Lane LOS	A	-	-	B	B	A	A	-	-			
HCM 95th %tile Q(veh)	0.2	-	-	0.8	0.1	-	0.1	-	-			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	6	2	104	14	1350	1	23	855	135
Future Volume (veh/h)	0	0	0	6	2	104	14	1350	1	23	855	135
Number				3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh				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
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h				6	2	111	15	1436	1	24	910	0
Adj No. of Lanes				0	1	1	1	3	0	1	2	1
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				2	2	2	2	2	2	2	2	2
Cap, veh/h				117	39	137	473	3625	3	380	2467	1104
Arrive On Green				0.09	0.09	0.09	0.03	1.00	1.00	0.03	0.70	0.00
Sat Flow, veh/h				1347	449	1583	1774	5249	4	1774	3539	1583
Grp Volume(v), veh/h				8	0	111	15	928	509	24	910	0
Grp Sat Flow(s),veh/h/ln				1795	0	1583	1774	1695	1862	1774	1770	1583
Q Serve(g_s), s				0.4	0.0	6.2	0.2	0.0	0.0	0.4	9.4	0.0
Cycle Q Clear(g_c), s				0.4	0.0	6.2	0.2	0.0	0.0	0.4	9.4	0.0
Prop In Lane				0.75		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h				155	0	137	473	2341	1286	380	2467	1104
V/C Ratio(X)				0.05	0.00	0.81	0.03	0.40	0.40	0.06	0.37	0.00
Avail Cap(c_a), veh/h				174	0	153	568	2341	1286	464	2467	1104
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				37.7	0.0	40.4	4.2	0.0	0.0	3.7	5.6	0.0
Incr Delay (d2), s/veh				0.1	0.0	24.7	0.0	0.5	0.9	0.1	0.4	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
%ile BackOfQ(95%),veh/ln				0.3	0.0	6.6	0.2	0.3	0.6	0.3	8.2	0.0
LnGrp Delay(d),s/veh				37.8	0.0	65.0	4.3	0.5	0.9	3.8	6.0	0.0
LnGrp LOS				D		E	A	A	A	A	A	
Approach Vol, veh/h					119			1452			934	
Approach Delay, s/veh					63.2			0.7			5.9	
Approach LOS					E			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2			5	6		8				
Phs Duration (G+Y+Rc), s	7.2	68.7			7.8	68.2		14.1				
Change Period (Y+Rc), s	* 5.6	* 6			5.5	* 6		6.3				
Max Green Setting (Gmax), s	* 6.4	* 57			6.5	* 57		8.7				
Max Q Clear Time (g_c+I1), s	2.2	11.4			2.4	2.0		8.2				
Green Ext Time (p_c), s	0.0	39.8			0.0	46.8		0.0				

Intersection Summary

HCM 2010 Ctrl Delay	5.6
HCM 2010 LOS	A

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Traffic Volume (veh/h)	282	64	47	1001	859	70		
Future Volume (veh/h)	282	64	47	1001	859	70		
Number	7	14	1	6	2	12		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1357	1863	1863	1863		
Adj Flow Rate, veh/h	297	67	49	1054	904	74		
Adj No. of Lanes	1	1	1	3	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	40	2	2	2		
Cap, veh/h	294	262	362	3919	1435	1220		
Arrive On Green	0.17	0.17	1.00	1.00	1.00	1.00		
Sat Flow, veh/h	1774	1583	417	5253	1863	1583		
Grp Volume(v), veh/h	297	67	49	1054	904	74		
Grp Sat Flow(s),veh/h/ln	1774	1583	417	1695	1863	1583		
Q Serve(g_s), s	29.8	6.6	0.0	0.0	0.0	0.0		
Cycle Q Clear(g_c), s	29.8	6.6	0.0	0.0	0.0	0.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	294	262	362	3919	1435	1220		
V/C Ratio(X)	1.01	0.26	0.14	0.27	0.63	0.06		
Avail Cap(c_a), veh/h	294	262	362	3919	1435	1220		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00		
Upstream Filter(l)	1.00	1.00	0.72	0.72	1.00	1.00		
Uniform Delay (d), s/veh	75.1	65.4	0.0	0.0	0.0	0.0		
Incr Delay (d2), s/veh	55.4	0.2	0.6	0.1	2.1	0.1		
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	34.4	5.3	0.1	0.1	1.5	0.1		
LnGrp Delay(d),s/veh	130.6	65.6	0.6	0.1	2.1	0.1		
LnGrp LOS	F	E	A	A	A	A		
Approach Vol, veh/h	364		1103		978			
Approach Delay, s/veh	118.6		0.1		2.0			
Approach LOS	F		A		A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs	2		4		6			
Phs Duration (G+Y+Rc), s	145.0		35.0		145.0			
Change Period (Y+Rc), s	* 6.3		* 5.2		* 6.3			
Max Green Setting (Gmax), s	* 1.4E2		* 30		* 1.4E2			
Max Q Clear Time (g_c+I1), s	2.0		31.8		2.0			
Green Ext Time (p_c), s	86.9		0.0		86.9			

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Notes
 * HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

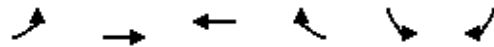
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	530	53	481	11	5	17	50	518	9	32	897	19
Future Volume (veh/h)	530	53	481	11	5	17	50	518	9	32	897	19
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1820	1900	1863	1860	1900	1792	1863	1863
Adj Flow Rate, veh/h	558	56	506	12	5	18	53	545	9	34	944	20
Adj No. of Lanes	2	1	1	0	1	0	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	6	2	2
Cap, veh/h	616	561	477	71	20	39	190	1099	18	433	1122	954
Arrive On Green	0.18	0.30	0.30	0.06	0.06	0.06	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	3442	1863	1583	300	349	687	580	1825	30	819	1863	1583
Grp Volume(v), veh/h	558	56	506	35	0	0	53	0	554	34	944	20
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1337	0	0	580	0	1855	819	1863	1583
Q Serve(g_s), s	14.3	1.9	27.1	0.6	0.0	0.0	7.3	0.0	15.2	2.2	36.8	0.5
Cycle Q Clear(g_c), s	14.3	1.9	27.1	2.0	0.0	0.0	44.4	0.0	15.2	17.7	36.8	0.5
Prop In Lane	1.00		1.00	0.34		0.51	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	616	561	477	129	0	0	190	0	1117	433	1122	954
V/C Ratio(X)	0.91	0.10	1.06	0.27	0.00	0.00	0.28	0.00	0.50	0.08	0.84	0.02
Avail Cap(c_a), veh/h	616	561	477	129	0	0	190	0	1117	433	1122	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	36.2	22.7	31.4	40.9	0.0	0.0	32.5	0.0	10.2	15.2	14.4	7.2
Incr Delay (d2), s/veh	16.8	0.0	58.4	1.1	0.0	0.0	3.6	0.0	1.6	0.3	6.0	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(95%),veh/ln	13.0	1.8	35.1	1.6	0.0	0.0	2.5	0.0	12.9	1.0	27.0	0.4
LnGrp Delay(d),s/veh	53.0	22.7	89.9	42.0	0.0	0.0	36.1	0.0	11.7	15.5	20.5	7.2
LnGrp LOS	D	C	F	D			D		B	B	C	A
Approach Vol, veh/h		1120			35			607			998	
Approach Delay, s/veh		68.1			42.0			13.9			20.0	
Approach LOS		E			D			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		60.4		33.1		60.4	22.0	11.1				
Change Period (Y+Rc), s		6.1		* 6		6.1	* 5.9	6.0				
Max Green Setting (Gmax), s		50.9		* 27		50.9	* 16	5.0				
Max Q Clear Time (g_c+I1), s		38.8		29.1		46.4	16.3	4.0				
Green Ext Time (p_c), s		10.7		0.0		4.2	0.0	0.2				

Intersection Summary

HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↰	↕↕	↕↰		↰↰	↰		
Traffic Volume (veh/h)	62	616	86	24	538	88		
Future Volume (veh/h)	62	616	86	24	538	88		
Number	1	6	2	12	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1802	1900	1900	1900		
Adj Flow Rate, veh/h	69	684	96	0	598	98		
Adj No. of Lanes	1	2	2	0	2	1		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	0	0	7	7	0	0		
Cap, veh/h	634	1548	1468	0	1540	709		
Arrive On Green	0.43	0.43	0.43	0.00	0.44	0.44		
Sat Flow, veh/h	1320	3705	3603	0	3510	1615		
Grp Volume(v), veh/h	69	684	96	0	598	98		
Grp Sat Flow(s),veh/h/ln	1320	1805	1711	0	1755	1615		
Q Serve(g_s), s	2.6	10.7	1.3	0.0	9.2	2.9		
Cycle Q Clear(g_c), s	3.9	10.7	1.3	0.0	9.2	2.9		
Prop In Lane	1.00			0.00	1.00	1.00		
Lane Grp Cap(c), veh/h	634	1548	1468	0	1540	709		
V/C Ratio(X)	0.11	0.44	0.07	0.00	0.39	0.14		
Avail Cap(c_a), veh/h	634	1548	1468	0	1540	709		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00		
Uniform Delay (d), s/veh	14.6	16.1	13.4	0.0	15.2	13.4		
Incr Delay (d2), s/veh	0.3	0.9	0.0	0.0	0.7	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(95%),veh/ln	1.8	9.4	1.1	0.0	8.1	2.4		
LnGrp Delay(d),s/veh	14.9	17.0	13.5	0.0	15.9	13.8		
LnGrp LOS	B	B	B		B	B		
Approach Vol, veh/h		753	96		696			
Approach Delay, s/veh		16.8	13.5		15.6			
Approach LOS		B	B		B			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		40.0		40.0		40.0		
Change Period (Y+Rc), s		* 5.7		* 4.9		* 5.7		
Max Green Setting (Gmax), s		* 34		* 35		* 34		
Max Q Clear Time (g_c+I1), s		3.3		11.2		12.7		
Green Ext Time (p_c), s		11.5		2.6		9.6		

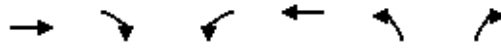
Intersection Summary

HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM Signalized Intersection Capacity Analysis
 5: Parkside Place & Lake Hearn Drive



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗		↖↗	↖↗	
Traffic Volume (vph)	0	259	206	96	17	0
Future Volume (vph)	0	259	206	96	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		6.0	5.2	
Lane Util. Factor		1.00		0.95	0.97	
Frt		0.86		1.00	1.00	
Flt Protected		1.00		0.97	0.95	
Satd. Flow (prot)		1611		3370	3433	
Flt Permitted		1.00		0.97	0.95	
Satd. Flow (perm)		1611		3370	3433	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	288	229	107	19	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	288	0	336	19	0
Heavy Vehicles (%)	0%	2%	2%	7%	2%	0%
Turn Type		Free	Perm	NA	Prot	
Protected Phases				2	8	
Permitted Phases		Free	2			
Actuated Green, G (s)		66.6		53.9	1.5	
Effective Green, g (s)		66.6		53.9	1.5	
Actuated g/C Ratio		1.00		0.81	0.02	
Clearance Time (s)				6.0	5.2	
Vehicle Extension (s)				5.0	3.0	
Lane Grp Cap (vph)		1611		2727	77	
v/s Ratio Prot					0.01	
v/s Ratio Perm		c0.18		0.10		
v/c Ratio		0.18		0.12	0.25	
Uniform Delay, d1		0.0		1.3	32.0	
Progression Factor		1.00		1.00	1.00	
Incremental Delay, d2		0.2		0.1	1.7	
Delay (s)		0.2		1.4	33.7	
Level of Service		A		A	C	
Approach Delay (s)	0.2			1.4	33.7	
Approach LOS	A			A	C	
Intersection Summary						
HCM 2000 Control Delay			1.9		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.21			
Actuated Cycle Length (s)			66.6		Sum of lost time (s)	11.2
Intersection Capacity Utilization			26.6%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Intersection							
Int Delay, s/veh	29.9						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	↘	↗	↘	↑↑↑	↑↑		
Traffic Vol, veh/h	210	110	20	1070	810	52	
Future Vol, veh/h	210	110	20	1070	810	52	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	8	
Mvmt Flow	228	120	22	1163	880	57	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1418	468	937	0	-	0	
Stage 1	909	-	-	-	-	-	
Stage 2	509	-	-	-	-	-	
Critical Hdwy	6.29	6.94	4.14	-	-	-	
Critical Hdwy Stg 1	5.84	-	-	-	-	-	
Critical Hdwy Stg 2	6.04	-	-	-	-	-	
Follow-up Hdwy	3.67	3.32	2.22	-	-	-	
Pot Cap-1 Maneuver	~ 156	542	727	-	-	-	
Stage 1	344	-	-	-	-	-	
Stage 2	535	-	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	-	
Mov Cap-1 Maneuver	~ 151	542	727	-	-	-	
Mov Cap-2 Maneuver	~ 151	-	-	-	-	-	
Stage 1	344	-	-	-	-	-	
Stage 2	519	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	211.8		0.2		0		
HCM LOS	F						
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR	
Capacity (veh/h)	727	-	151	542	-	-	
HCM Lane V/C Ratio	0.03	-	1.512	0.221	-	-	
HCM Control Delay (s)	10.1	-	\$ 315.6	13.5	-	-	
HCM Lane LOS	B	-	F	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	15.3	0.8	-	-	
Notes							
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon							

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	1000	47	21	0	58
Future Vol, veh/h	0	1000	47	21	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	200	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	2	2	2	0	2
Mvmt Flow	0	1064	50	22	0	62
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	36
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	1029
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		8.7	
HCM LOS					A	
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	1029		
HCM Lane V/C Ratio	-	-	-	0.06		
HCM Control Delay (s)	-	-	-	8.7		
HCM Lane LOS	-	-	-	A		
HCM 95th %tile Q(veh)	-	-	-	0.2		

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕			↕	↕
Traffic Vol, veh/h	33	0	111	75	0	0	65	27	21	10	393	126
Future Vol, veh/h	33	0	111	75	0	0	65	27	21	10	393	126
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	-	115	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	0	2	0	0	0	2	2	0	0	2	2
Mvmt Flow	39	0	131	88	0	0	76	32	25	12	462	148
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	729	769	305	452	831	28	611	0	0	56	0	0
Stage 1	560	560	-	197	197	-	-	-	-	-	-	-
Stage 2	169	209	-	255	634	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.5	6.94	7.5	6.5	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4	3.32	3.5	4	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	311	334	691	496	307	1047	964	-	-	1562	-	-
Stage 1	480	514	-	792	742	-	-	-	-	-	-	-
Stage 2	816	733	-	733	476	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	290	304	691	375	279	1047	964	-	-	1562	-	-
Mov Cap-2 Maneuver	290	304	-	375	279	-	-	-	-	-	-	-
Stage 1	442	508	-	730	684	-	-	-	-	-	-	-
Stage 2	752	675	-	587	470	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	15.1			17.5			5.2			0.1		
HCM LOS	C			C								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	964	-	-	525	375	-	1562	-	-			
HCM Lane V/C Ratio	0.079	-	-	0.323	0.235	-	0.008	-	-			
HCM Control Delay (s)	9.1	-	-	15.1	17.5	0	7.3	-	-			
HCM Lane LOS	A	-	-	C	C	A	A	-	-			
HCM 95th %tile Q(veh)	0.3	-	-	1.4	0.9	-	0	-	-			

Raw Traffic Counts

2017 FORMER PROGRAM

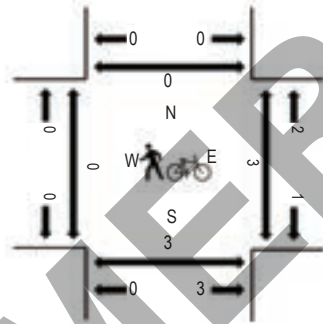
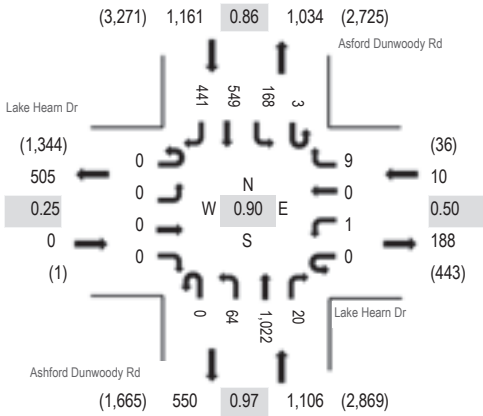


(303) 216-2439
www.alltrafficdata.net

Location: DK3 Ashford Dunwoody Rd & Lake Hearn Dr AM
Date and Start Time: Wednesday, September 14, 2016
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Lake Hearn Dr Eastbound				Lake Hearn Dr Westbound				Ashford Dunwoody Rd Northbound				Ashford Dunwoody Rd Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	0	0	0	0	0	0	0	3	0	3	178	1	0	38	144	92	459	2,041	3	5	8	0
7:15 AM	0	0	0	0	0	0	0	1	2	0	6	179	1	1	34	151	97	472	2,124	0	2	3	0
7:30 AM	0	0	0	0	0	0	0	2	0	6	142	3	0	57	163	102	475	2,192	0	0	0	0	
7:45 AM	0	0	0	0	0	1	0	5	0	16	247	7	1	66	187	125	635	2,277	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	1	0	10	277	1	0	37	118	98	542	2,243	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	19	240	6	2	30	123	120	540	2,271	0	3	3	0	
8:30 AM	0	0	0	0	0	0	0	3	0	19	258	6	0	35	141	98	560	2,259	0	0	0	0	
8:45 AM	0	0	0	0	0	1	0	1	0	8	258	12	0	40	169	112	601	2,103	0	2	0	0	
9:00 AM	0	0	0	0	0	0	1	7	0	14	259	3	0	25	149	112	570	1,893	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	2	0	10	257	5	0	14	120	120	528		0	0	0	0	
9:30 AM	0	0	0	0	0	2	0	2	0	9	212	4	0	4	101	70	404		0	0	0	0	
9:45 AM	0	0	0	1	0	2	0	0	0	5	186	2	0	12	112	71	391		0	1	0	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Lights	0	0	0	0	0	1	0	7	0	63	1,004	20	3	165	528	440	2,231
Mediums	0	0	0	0	0	0	0	2	0	1	18	0	0	2	21	1	45
Total	0	0	0	0	0	1	0	9	0	64	1,022	20	3	168	549	441	2,277



Location: DK3 Ashford Dunwoody Rd & Lake Hearn Dr PM

Date and Start Time: Wednesday, September 14, 2016

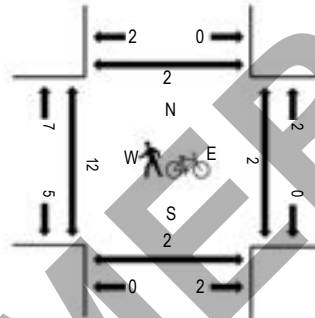
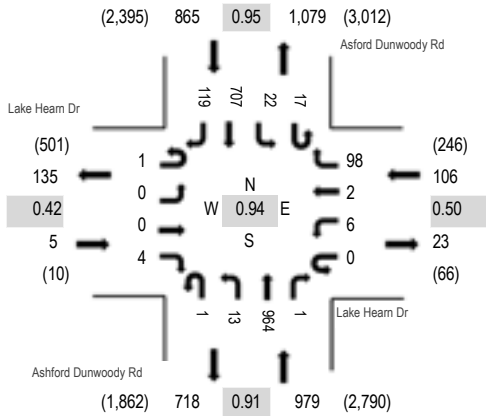
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:15 PM - 04:30 PM

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Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Lake Hearn Dr Eastbound				Lake Hearn Dr Westbound				Ashford Dunwoody Rd Northbound				Ashford Dunwoody Rd Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	1	0	0	1	0	3	1	13	0	4	264	0	3	9	192	18	509	1,955	5	0	0	0
4:15 PM	0	0	0	3	0	1	1	23	0	5	259	1	8	8	180	32	521	1,920	0	1	1	1
4:30 PM	0	0	0	0	0	2	0	51	0	3	217	0	3	3	172	38	489	1,868	5	0	0	1
4:45 PM	0	0	0	0	0	0	0	11	1	1	224	0	3	2	163	31	436	1,814	2	1	1	0
5:00 PM	0	0	0	1	0	3	0	15	0	0	260	0	1	3	161	30	474	1,805	1	1	0	0
5:15 PM	0	0	0	0	0	1	0	19	0	2	244	0	4	3	143	53	469	1,749	0	0	0	0
5:30 PM	0	0	0	0	0	1	2	13	0	5	213	1	1	8	131	60	435	1,716	0	6	0	0
5:45 PM	0	0	0	1	0	1	0	21	0	4	209	0	2	6	135	48	427	1,725	1	0	0	0
6:00 PM	0	0	0	0	0	2	0	18	0	3	199	0	0	11	156	29	418	1,681	0	0	0	4
6:15 PM	0	0	0	0	0	0	2	12	0	3	209	0	2	2	153	53	436		0	1	1	0
6:30 PM	0	2	0	0	0	0	1	15	0	1	236	1	3	3	139	43	444		0	0	0	0
6:45 PM	0	0	0	1	0	0	1	13	0	1	219	1	3	4	115	25	383		0	1	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Lights	1	0	0	4	0	6	2	96	1	13	945	1	17	22	694	116	1,918
Mediums	0	0	0	0	0	0	0	2	0	0	18	0	0	0	13	3	36
Total	1	0	0	4	0	6	2	98	1	13	964	1	17	22	707	119	1,955



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Location: DK 2 Ashford Dunwoody Road & Ashford Green AM

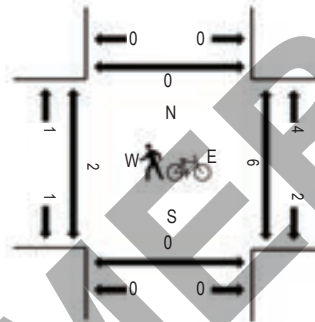
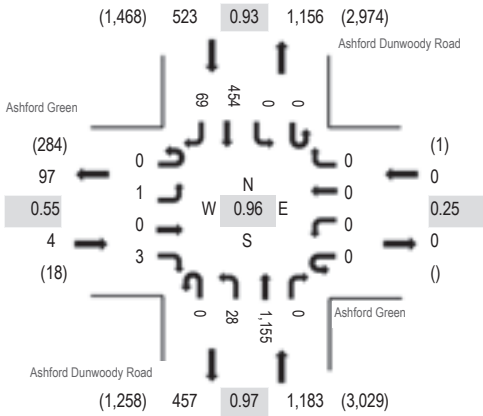
Date and Start Time: Wednesday, September 14, 2016

Peak Hour: 08:15 AM - 09:15 AM

Peak 15-Minutes: 09:00 AM - 09:15 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Ashford Green Eastbound				Ashford Green Westbound				Ashford Dunwoody Road Northbound				Ashford Dunwoody Road Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	1	0	0	0	0	0	0	0	0	4	182	0	0	0	121	23	331	1,382	4	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	3	178	0	0	0	111	23	316	1,464	2	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	4	171	0	0	0	103	21	300	1,547	7	0	0	0
7:45 AM	0	3	0	0	0	0	0	0	0	0	13	283	0	0	0	104	32	435	1,681	4	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	5	304	0	0	0	86	18	413	1,677	1	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	6	284	0	0	0	89	20	399	1,710	2	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	301	0	0	0	113	18	434	1,705	0	3	0	0
8:45 AM	0	0	0	1	0	0	0	0	0	0	8	277	0	0	0	129	16	431	1,600	0	1	0	0
9:00 AM	0	1	0	2	0	0	0	0	0	0	12	293	0	0	0	123	15	446	1,457	0	2	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	6	279	0	0	0	100	9	394	2	1	0	0	
9:30 AM	0	4	0	1	0	0	0	0	0	0	5	223	0	0	0	83	13	329	10	1	0	0	
9:45 AM	0	2	0	1	0	0	1	0	0	0	0	186	0	0	0	91	7	288	0	0	0	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Lights	0	1	0	3	0	0	0	0	0	27	1,125	0	0	0	438	65	1,659
Mediums	0	0	0	0	0	0	0	0	0	1	30	0	0	0	15	4	50
Total	0	1	0	3	0	0	0	0	0	28	1,155	0	0	0	454	69	1,710

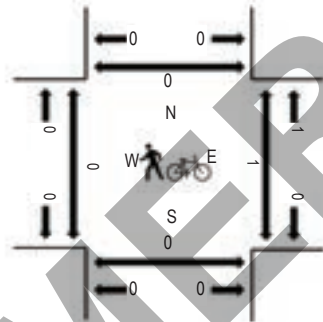
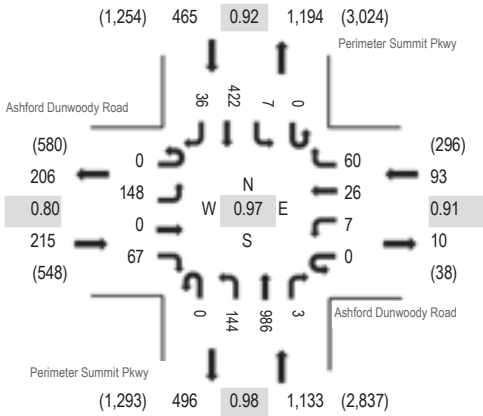


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Location: DK1 Perimeter Summit Pkwy & Ashford Dunwoody Road AM
Date and Start Time: Wednesday, September 14, 2016
Peak Hour: 08:30 AM - 09:30 AM
Peak 15-Minutes: 09:00 AM - 09:15 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Ashford Dunwoody Road Eastbound				Ashford Dunwoody Road Westbound				Perimeter Summit Pkwy Northbound				Perimeter Summit Pkwy Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	22	0	14	0	1	1	12	0	16	153	0	0	0	102	9	330	1,454	3	0	0	0
7:15 AM	1	19	1	6	0	7	7	21	0	15	142	2	0	5	88	14	328	1,572	1	0	0	0
7:30 AM	0	24	1	25	0	3	7	29	0	27	106	3	0	4	89	12	330	1,685	0	0	0	0
7:45 AM	0	33	0	11	0	1	6	25	0	40	235	2	0	0	94	19	466	1,843	0	3	0	0
8:00 AM	1	40	1	7	0	0	14	22	0	36	243	0	0	4	72	8	448	1,858	0	0	0	0
8:15 AM	0	27	0	5	0	1	15	14	0	45	246	0	0	0	76	12	441	1,900	0	2	0	0
8:30 AM	0	31	0	19	0	3	8	28	0	34	252	1	0	1	105	6	488	1,906	0	0	0	0
8:45 AM	0	27	0	18	0	4	7	13	0	40	246	0	0	1	108	17	481	1,768	0	1	0	0
9:00 AM	0	38	0	12	0	0	6	10	0	39	257	1	0	1	119	7	490	1,623	0	0	0	0
9:15 AM	0	52	0	18	0	0	5	9	0	31	231	1	0	4	90	6	447		0	0	0	0
9:30 AM	0	43	0	15	0	0	3	7	0	25	178	0	0	4	66	9	350		12	0	0	0
9:45 AM	0	19	0	18	0	0	1	6	0	26	164	0	0	1	96	5	336		0	0	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Lights	0	142	0	66	0	7	26	60	0	144	962	3	0	7	404	33	1,854
Mediums	0	5	0	1	0	0	0	0	0	0	24	0	0	0	17	2	49
Total	0	148	0	67	0	7	26	60	0	144	986	3	0	7	422	36	1,906



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Location: DK1 Perimeter Summit Pkwy & Ashford Dunwoody Road PM

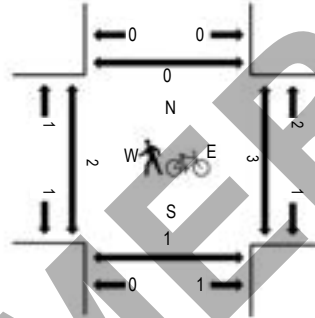
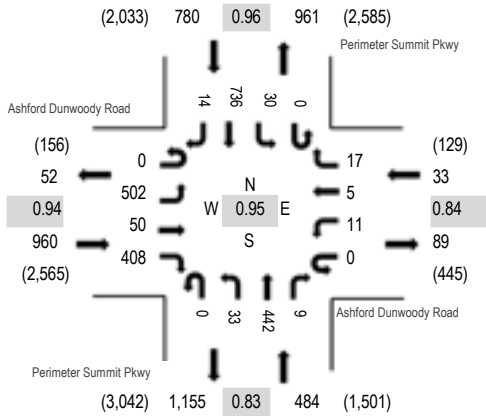
Date and Start Time: Wednesday, September 14, 2016

Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Ashford Dunwoody Road Eastbound				Ashford Dunwoody Road Westbound				Perimeter Summit Pkwy Northbound				Perimeter Summit Pkwy Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	143	2	93	0	3	0	6	0	10	114	1	0	10	174	2	558	2,257	0	0	0	0
4:15 PM	0	128	6	102	0	4	2	3	0	11	131	3	0	7	191	5	593	2,244	2	0	0	0
4:30 PM	0	106	15	113	0	3	3	4	0	4	98	4	0	7	188	2	547	2,208	0	1	1	0
4:45 PM	0	125	27	100	0	1	0	4	0	8	99	1	0	6	183	5	559	2,194	0	2	0	0
5:00 PM	0	119	36	115	0	5	2	5	0	6	82	2	0	9	161	3	545	2,139	0	1	0	1
5:15 PM	0	105	40	95	0	4	1	3	0	9	119	4	0	5	171	1	557	2,054	1	0	0	0
5:30 PM	0	88	41	120	0	8	0	5	0	8	93	5	0	9	150	6	533	2,000	0	0	0	0
5:45 PM	0	63	42	99	0	13	0	3	0	6	127	5	0	8	137	1	504	1,916	1	2	0	0
6:00 PM	0	79	35	57	0	10	1	4	0	7	99	1	0	2	153	12	460	1,832	0	0	0	2
6:15 PM	0	84	36	86	0	5	1	4	0	6	110	3	0	7	157	4	503		0	0	0	0
6:30 PM	0	59	23	49	0	1	3	7	0	4	159	3	0	4	131	6	449		0	0	0	0
6:45 PM	0	56	22	56	0	2	4	5	0	8	146	5	0	9	102	5	420		1	0	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	489	50	405	0	10	5	17	0	33	432	8	0	28	724	14	2,215
Mediums	0	13	0	3	0	1	0	0	0	0	10	1	0	2	12	0	42
Total	0	502	50	408	0	11	5	17	0	33	442	9	0	30	736	14	2,257



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Location: DK7 Parkside Place & Perimeter Summit Pkwy AM

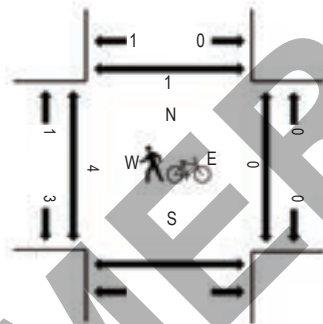
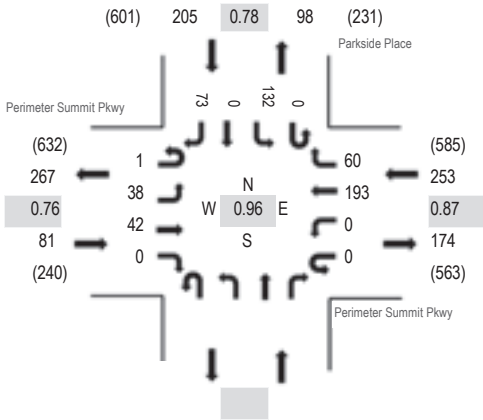
Date and Start Time: Wednesday, September 14, 2016

Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Perimeter Summit Pkwy Eastbound				Perimeter Summit Pkwy Westbound				Parkside Place Northbound				Parkside Place Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	4	8	0	0	0	16	7	0	29	0	8	0	29	0	8	72	431	0	0	1	
7:15 AM	0	10	6	0	0	0	34	9	1	31	0	11	1	31	0	11	102	500	3	0	0	
7:30 AM	0	13	16	0	0	0	28	12	0	33	0	16	0	33	0	16	118	529	0	0	0	
7:45 AM	0	15	12	0	0	0	45	20	0	32	0	15	0	32	0	15	139	539	0	0	0	
8:00 AM	0	7	9	0	0	0	49	15	0	41	0	20	0	41	0	20	141	530	1	0	0	
8:15 AM	0	6	5	0	0	0	61	12	0	28	0	19	0	28	0	19	131	523	2	0	1	
8:30 AM	1	10	16	0	0	0	38	13	0	31	0	19	0	31	0	19	128	530	1	0	0	
8:45 AM	0	4	15	0	0	0	46	15	0	32	0	18	0	32	0	18	130	511	0	0	0	
9:00 AM	0	7	8	0	0	0	45	9	0	43	0	22	0	43	0	22	134	465	0	0	0	
9:15 AM	0	6	14	0	0	0	30	10	0	57	0	21	0	57	0	21	138		0	0	0	
9:30 AM	0	6	21	0	0	0	34	6	0	34	0	8	0	34	0	8	109		0	0	0	
9:45 AM	0	7	14	0	1	0	23	7	0	27	0	5	0	27	0	5	84		0	0	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Lights	1	33	42	0	0	0	187	60	0	126	0	68	0	126	0	68	517
Mediums	0	5	0	0	0	0	5	0	0	6	0	5	0	6	0	5	21
Total	1	38	42	0	0	0	193	60	0	132	0	73	0	132	0	73	539



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Location: DK7 Parkside Place & Perimeter Summit Pkwy PM

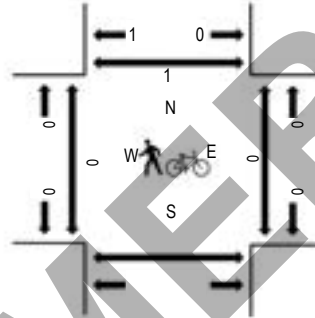
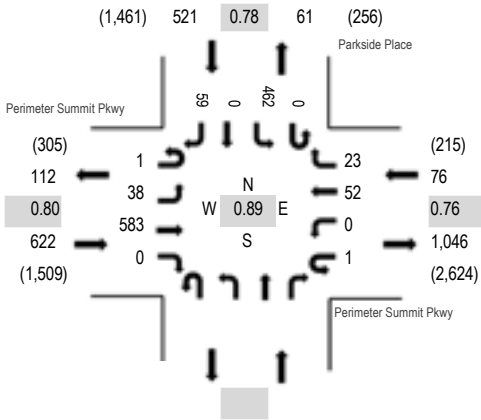
Date and Start Time: Wednesday, September 14, 2016

Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Perimeter Summit Pkwy Eastbound				Perimeter Summit Pkwy Westbound				Northbound			Parkside Place Southbound			Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left			Thru	Right	West	East
4:00 PM	0	13	99	0	0	0	12	2	0	157	0	15	298	1,173	0	0	0	0	0	0
4:15 PM	0	7	134	0	0	0	14	7	0	109	0	18	289	1,219	0	0	0	0	0	0
4:30 PM	0	9	185	0	1	0	11	3	0	106	0	18	333	1,205	0	0	0	0	0	0
4:45 PM	0	7	116	0	0	0	10	5	0	106	0	9	253	1,184	0	0	0	0	0	1
5:00 PM	1	15	148	0	0	0	17	8	0	141	0	14	344	1,189	0	0	0	0	0	0
5:15 PM	0	17	125	0	0	0	11	4	0	104	0	14	275	1,080	1	0	0	0	0	0
5:30 PM	0	27	139	0	0	0	11	9	1	109	0	16	312	1,026	0	0	0	0	0	0
5:45 PM	0	25	110	0	0	0	7	7	1	95	0	13	258	907	2	0	0	0	0	1
6:00 PM	1	16	94	0	0	0	6	15	1	90	0	12	235	823	0	0	0	0	0	0
6:15 PM	0	16	64	0	0	0	10	6	0	111	0	14	221		0	0	0	0	0	0
6:30 PM	0	15	65	0	1	0	10	7	0	84	0	11	193		0	0	0	0	0	0
6:45 PM	1	8	52	0	2	0	14	5	0	77	0	15	174		0	0	0	0	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right				
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	1	34	578	0	1	0	50	22	0	454	0	55	1,195							
Mediums	0	4	5	0	0	0	2	1	0	8	0	4	24							
Total	1	38	583	0	1	0	52	23	0	462	0	59	1,219							

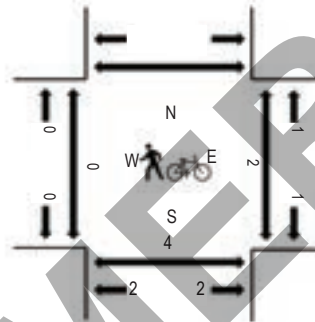
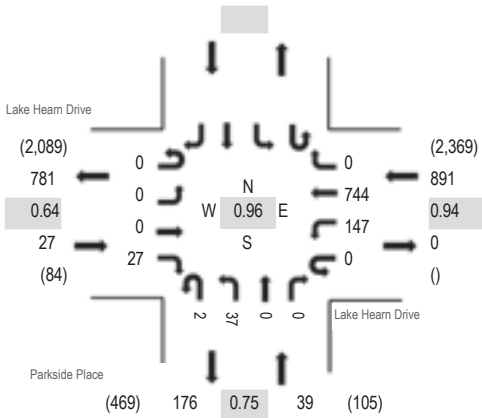


(303) 216-2439
www.alltrafficdata.net

Location: DK 5 Parkside Place & Lake Hearn Drive AM
Date and Start Time: Wednesday, September 14, 2016
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Lake Hearn Drive Eastbound				Lake Hearn Drive Westbound				Parkside Place Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	5	0	39	133	0	1	4	0	0	0	0	0	0	182	861	0	0	0	
7:15 AM	0	0	0	4	0	37	160	0	0	5	0	0	0	0	0	0	206	913	0	0	1	
7:30 AM	0	0	0	4	0	38	179	0	0	6	0	0	0	0	0	0	227	957	0	0	2	
7:45 AM	0	0	0	4	0	40	197	0	0	5	0	0	0	0	0	0	246	941	0	0	1	
8:00 AM	0	0	0	14	0	34	169	0	1	16	0	0	0	0	0	0	234	944	0	1	0	
8:15 AM	0	0	0	5	0	35	199	0	1	10	0	0	0	0	0	0	250	939	0	1	1	
8:30 AM	0	0	0	10	0	33	157	0	0	11	0	0	0	0	0	0	211	897	1	0	0	
8:45 AM	0	0	0	7	0	29	201	0	1	11	0	0	0	0	0	0	249	860	0	1	2	
9:00 AM	0	0	0	8	0	20	187	0	0	14	0	0	0	0	0	0	229	753	0	0	0	
9:15 AM	0	0	0	6	0	32	164	0	0	6	0	0	0	0	0	0	208		0	0	0	
9:30 AM	0	0	0	9	0	21	135	0	0	9	0	0	0	0	0	0	174		0	0	0	
9:45 AM	0	0	0	8	0	23	107	0	0	4	0	0	0	0	0	0	142		0	0	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Lights	0	0	0	26	0	144	736	0	2	36	0	0	0	0	0	0	944
Mediums	0	0	0	1	0	3	7	0	0	1	0	0	0	0	0	0	12
Total	0	0	0	27	0	147	744	0	2	37	0	0	0	0	0	0	957

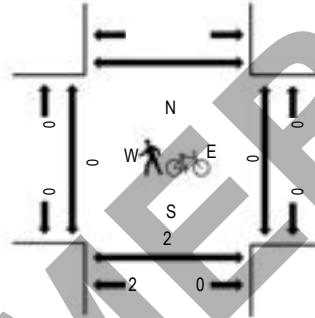
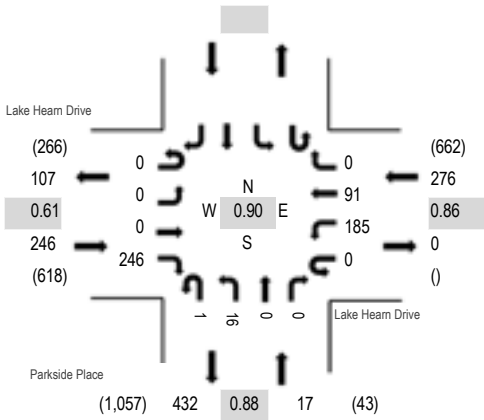


(303) 216-2439
www.alltrafficdata.net

Location: DK 5 Parkside Place & Lake Hearn Drive PM
Date and Start Time: Wednesday, September 14, 2016
Peak Hour: 05:30 PM - 06:30 PM
Peak 15-Minutes: 06:15 PM - 06:30 PM

Peak Hour - All Vehicles

Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Lake Hearn Drive Eastbound				Lake Hearn Drive Westbound				Parkside Place Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	55	0	16	21	0	0	1	0	0	0	0	0	0	93	333	0	0	0	
4:15 PM	0	0	0	23	0	22	20	0	1	1	0	0	0	0	0	0	67	395	0	0	0	
4:30 PM	0	0	0	27	0	24	26	0	0	4	0	0	0	0	0	0	81	434	0	0	0	
4:45 PM	0	0	0	38	0	27	23	0	0	4	0	0	0	0	0	0	92	487	0	0	0	
5:00 PM	0	0	0	110	0	30	9	0	0	6	0	0	0	0	0	0	155	533	0	0	1	
5:15 PM	0	0	0	43	0	44	13	0	2	4	0	0	0	0	0	0	106	495	0	0	1	
5:30 PM	0	0	0	61	0	45	23	0	0	5	0	0	0	0	0	0	134	539	0	0	1	
5:45 PM	0	0	0	55	0	55	25	0	1	2	0	0	0	0	0	0	138	505	0	0	0	
6:00 PM	0	0	0	63	0	35	15	0	0	4	0	0	0	0	0	0	117	457	0	0	0	
6:15 PM	0	0	0	67	0	50	28	0	0	5	0	0	0	0	0	0	150		0	0	1	
6:30 PM	0	0	0	43	0	45	10	0	0	2	0	0	0	0	0	0	100		0	0	0	
6:45 PM	0	0	0	33	0	42	14	0	0	1	0	0	0	0	0	0	90		0	0	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	0	243	0	184	84	0	1	16	0	0	0	0	0	0	528
Mediums	0	0	0	3	0	1	7	0	0	0	0	0	0	0	0	0	11
Total	0	0	0	246	0	185	91	0	1	16	0	0	0	0	0	0	539

Project ID: 17-9084-002
 Location: Office Dwy & Perimeter Summit Pwy
 City: Brookhaven

Day: Tuesday
 Date: 2/7/2017

Peak Start Times	
AM	7:15 AM
MD	12:00 AM
PM	4:15 PM

Groups Printed - Cars, PU, Vans - Heavy Trucks

Start Time	Office Dwy Northbound					Office Dwy Southbound					Perimeter Summit Pwy Eastbound					Perimeter Summit Pwy Westbound					Int. Total
	Left	Thru	Rgt	Peds	App. Total	Left	Thru	Rgt	Peds	App. Total	Left	Thru	Rgt	Peds	App. Total	Left	Thru	Rgt	Peds	App. Total	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	35	0	0	35	0	23	0	0	23	58
7:30 AM	0	0	0	0	0	0	0	1	0	1	0	61	0	0	61	0	50	1	0	51	113
7:45 AM	0	0	0	0	0	0	0	3	0	3	0	50	0	0	50	0	57	0	0	57	110
8:00 AM	0	0	0	0	0	0	0	3	0	3	0	53	0	0	53	0	68	1	0	69	125
Total	0	0	0	0	0	0	0	7	0	7	0	199	0	0	199	0	198	2	0	200	406
8:15 AM	0	0	0	0	0	0	0	1	0	1	0	49	0	0	49	0	69	1	0	70	120
8:30 AM	0	0	0	0	0	0	0	2	0	2	0	46	0	0	46	0	65	1	0	66	114
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	45	0	0	45	0	68	0	0	68	113
9:00 AM	0	0	0	0	0	0	0	3	0	3	0	52	0	0	52	0	65	2	0	67	122
Total	0	0	0	0	0	0	0	6	0	6	0	192	0	0	192	0	267	4	0	271	469
BREAK																					
4:15 PM	0	0	0	0	0	0	0	6	0	6	0	229	0	0	229	0	24	0	0	24	259
4:30 PM	0	0	0	0	0	0	0	8	0	8	0	206	0	0	206	0	18	0	0	18	232
4:45 PM	0	0	0	0	0	0	0	7	0	7	0	139	0	0	139	0	13	0	0	13	159
5:00 PM	0	0	0	0	0	0	0	11	0	11	0	236	0	0	236	0	15	0	0	15	262
Total	0	0	0	0	0	0	0	32	0	32	0	810	0	0	810	0	70	0	0	70	912
5:15 PM	0	0	0	0	0	0	0	5	0	5	0	228	0	0	228	0	5	1	0	6	239
5:30 PM	0	0	0	0	0	0	0	4	0	4	0	209	0	0	209	0	14	0	0	14	227
5:45 PM	0	0	0	0	0	0	0	5	0	5	0	236	0	0	236	0	11	0	0	11	252
6:00 PM	0	0	0	0	0	0	0	6	0	6	0	212	0	0	212	0	18	0	0	18	236
Total	0	0	0	0	0	0	0	20	0	20	0	885	0	0	885	0	48	1	0	49	954
Grand Total	0	0	0	0	0	0	0	65	0	65	0	2086	0	0	2086	0	583	7	0	590	2741
Apprch %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	100.0	0.0	98.8	1.2	0.0	100.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	2.4	0.0	76.1	0.0	0.0	76.1	0.0	21.3	0.3	0.0	21.5	
Cars, PU, Vans	0	0	0	0	0	0	0	65	0	65	0	2073	0	0	2073	0	571	7	0	578	2716
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	99.4	0.0	0.0	99.4	0.0	97.9	100.0	0.0	98.0	99.1
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	0	12	0	0	12	25
% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.0	2.1	0.0	0.0	2.0	0.9

Project ID: 17-9084-002
 Location: Office Dwy & Perimeter Summit
 City: Brookhaven

PEAK HOURS

Day: Tuesday
 Date: 2/7/2017

AM																					
Start Time	Office Dwy Northbound				Office Dwy Southbound				Perimeter Summit Pwy Eastbound				Perimeter Summit Pwy Westbound				Int. Total				
	Left	Thru	Rgt	App. Total	Left	Thru	Rgt	App. Total	Left	Thru	Rgt	App. Total	Left	Thru	Rgt	App. Total					
Peak Hour Analysis from 07:15 AM to 09:15 AM																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
8:00 AM	0	0	0	0	0	0	3	3	0	53	0	53	0	68	1	69	125				
8:15 AM	0	0	0	0	0	0	1	1	0	49	0	49	0	69	1	70	120				
8:30 AM	0	0	0	0	0	0	2	2	0	46	0	46	0	65	1	66	114				
8:45 AM	0	0	0	0	0	0	0	0	0	45	0	45	0	68	0	68	113				
Total Volume	0	0	0	0	0	0	6	6	0	193	0	193	0	270	3	273	472				
% App. Total	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	0.0	98.9	1.1	100.0					
PHF	0.000				0.500				0.910				0.975								
Cars, PU, Vans	0	0	0	0	0	0	6	6	0	185	0	185	0	264	3	267	458				
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	95.9	0.0	95.9	0.0	97.8	100.0	97.8	97.0				
Heavy Trucks	0	0	0	0	0	0	0	0	0	8	0	8	0	6	0	6	14				
% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	4.1	0.0	2.2	0.0	2.2	3.0				
PM																					
Start Time	Office Dwy Northbound				Office Dwy Southbound				Perimeter Summit Pwy Eastbound				Perimeter Summit Pwy Westbound				Int. Total				
	Left	Thru	Rgt	App. Total	Left	Thru	Rgt	App. Total	Left	Thru	Rgt	App. Total	Left	Thru	Rgt	App. Total					
Peak Hour Analysis from 04:15 PM to 06:15 PM																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
5:00 PM	0	0	0	0	0	0	11	11	0	236	0	236	0	15	0	15	262				
5:15 PM	0	0	0	0	0	0	5	5	0	228	0	228	0	5	1	6	239				
5:30 PM	0	0	0	0	0	0	4	4	0	209	0	209	0	14	0	14	227				
5:45 PM	0	0	0	0	0	0	5	5	0	236	0	236	0	11	0	11	252				
Total Volume	0	0	0	0	0	0	25	25	0	909	0	909	0	45	1	46	980				
% App. Total	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	0.0	97.8	2.2	100.0					
PHF	0.000				0.568				0.963				0.767								
Cars, PU, Vans	0	0	0	0	0	0	25	25	0	909	0	909	0	45	1	46	980				
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	0.0	100.0	100.0	100.0	100.0				
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Project Fact Sheets

2017 FORMER PROGRAM

Short Title REVIVE 285 - I-285 NORTH MANAGED LANES AND COLLECTOR/DISTRIBUTOR LANE IMPROVEMENTS FROM I-75 NORTH TO I-85 NORTH

GDOT Project No. 0001758

Federal ID No. N/A

Status Long Range

Service Type Roadway / Managed Lanes

Sponsor GDOT

Jurisdiction Regional - Perimeter

Analysis Level In the Region's Air Quality Conformity Analysis



Existing Thru Lane **LCI**

Planned Thru Lane **Flex**

Network Year

Corridor Length miles

Detailed Description and Justification

Revive 285 is the name given to the improvement project on I-285 North from I-75 to I-85. Revive 285 will serve as an umbrella for a number of isolated but critical near-term fixes in the project corridor, guiding these efforts in a way that provides the most benefit for the corridor and anticipates the transportation needs of future generations. This project will identify, evaluate, and possibly enhance the most appropriate projects and programs that provide safe and efficient travel along the I-285 corridor from the I-75/I-285 interchange in Cobb County to the I-285/I-85 interchange in DeKalb County. It will also develop and advance concepts through the environmental phase of Georgia DOT's PDP, including completion of an environmental document and receipt of a Record of Decision.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	National Highway System	AUTH	2003	\$1,000,000	\$800,000	\$200,000	\$0,000	\$0,000
PE	National Highway System	AUTH	2006	\$19,933,151	\$15,946,521	\$3,986,630	\$0,000	\$0,000
PE	Interstate Maintenance	AUTH	2007	\$1,250,000	\$1,125,000	\$125,000	\$0,000	\$0,000
PE	National Highway Performance Program (NHPP)	AUTH	2015	\$5,000,000	\$4,500,000	\$500,000	\$0,000	\$0,000
PE	General Federal Aid 2022-2040		LR 2022-2030	\$38,000,000	\$30,400,000	\$7,600,000	\$0,000	\$0,000
ALL	General Federal Aid 2022-2040		LR 2022-2030	\$888,280,000	\$799,452,000	\$88,828,000	\$0,000	\$0,000
ALL	Toll Revenue Bonds		LR 2022-2030	\$733,320,000	\$0,000	\$0,000	\$733,320,000	\$0,000
				\$1,686,783,151	\$852,223,521	\$101,239,630	\$733,320,000	\$0,000

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquisition
 UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

Short Title ASHFORD DUNWOODY ROAD AND DRESDEN DRIVE - ITS SYSTEM EXPANSION

GDOT Project No. 0013138

Federal ID No. N/A

Status Programmed

Service Type Roadway / Operations & Safety

Sponsor City of Brookhaven

Jurisdiction DeKalb County

Analysis Level Exempt from Air Quality Analysis (40 CFR 93)



Existing Thru Lane **LCI**

Planned Thru Lane **Flex** **Network Year**

Corridor Length miles

Detailed Description and Justification

This project will expand the ITS system along Ashford Dunwoody Road from Perimeter Summit Parkway to SR 141 (Peachtree Road) and Dresden Drive from SR 141 to Clairmont Road. Both locations will include ITS improvements, signal equipment upgrades, communications/interconnections, CCTV, related signing/stripping/ADA upgrades, timing of all signals along corridors. This intent of this project is to produce reductions in traffic congestion, travel time and length of backups. The 2 corridors on a daily basis act as arterials for regional commuters from residential areas to Major Activity Centers such as Perimeter CID, the hospital area along Johnson Ferry, Lenox and Brookhaven Marta among a few. The Ashford Dunwoody corridor additionally acts to relieve GA 400 as a parallel north-south route. Like most urban collectors and arterials, both corridors absorb additional traffic when the interstate system breaks down. The project goal is to relieve congestion at key intersection points and also to help create less interrupted flow along the corridor by interconnections and updated signal timing, with continued signal timing monitoring in the future.

Phase Status & Funding Information	Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
				FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE STP - Urban (>200K) (ARC)	AUTH	2015	\$187,500	\$150,000	\$0,000	\$0,000	\$37,500
CST Congestion Mitigation & Air Quality Improvement (CMAQ)		2019	\$1,290,421	\$1,032,337	\$0,000	\$0,000	\$258,084
			\$1,477,921	\$1,182,337	\$0,000	\$0,000	\$295,584

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquisition
 UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

Short Title	MEDICAL CENTER TO DUNWOODY MARTA PEDESTRIAN/BICYCLE AND TRANSIT CONNECTIVITY IMPROVEMENTS
GDOT Project No.	0015070
Federal ID No.	N/A
Status	Programmed
Service Type	Last Mile Connectivity / Sidepaths and Trails
Sponsor	DeKalb County, MARTA, Perimeter CID - DeKalb
Jurisdiction	DeKalb County
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)



Existing Thru Lane	<input type="text" value="N/A"/>	LCI	<input checked="" type="checkbox"/>	Network Year	<input type="text" value="TBD"/>
Planned Thru Lane	<input type="text" value="N/A"/>	Flex	<input checked="" type="checkbox"/>	Corridor Length	<input type="text" value="1.9"/> miles

Detailed Description and Justification

The project includes a complete street typical section on a four-street superblock connecting the Dunwoody and Medical Center MARTA stations. Specifically, the proposed project includes 4-foot on-street bike lanes on Hammond Drive, Perimeter Center Parkway and Lake Hearn Drive, as well as a 12-foot, two-way cycle track on the west side of Peachtree-Dunwoody Road between Hammond Drive and the I-285 bridge. A 10-foot multi-use path will connect the I-285 underpass at Peachtree-Dunwoody Road to Lake Hearn Drive, where a 4-foot on-street bike lane connects from Lake Hearn to the Medical MARTA station. The project also includes new 6-foot sidewalks and joins in existing sidewalks for a seamless connection along all four roadways. The pedestrian and bicycle improvements will provide full connectivity between the Medical Center and Dunwoody MARTA stations along two different routes. The project includes landscaping and beautification and improves pedestrian safety through the addition of the PCIDs standard streetscape amenities. The proposed improvements will encourage more use of alternative modes of transportation, support mixed-use economic development and meet future travel demands. The project also includes intersection improvements at the intersections of Peachtree-Dunwoody and the I-285 ramps by moving two southbound travel lanes to the outside of the existing I-285 bridge columns, thus providing additional room under the bridge for dual left and right turn lanes onto the I-285 eastbound ramp. The project will also widen Lake Hearn Drive from two to four lanes between Peachtree-Dunwoody Road and Perimeter Center Parkway, thus improve safety and operations at the Peachtree Dunwoody Road interchange with I-285.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	Georgia Transportation Infrastructure Bank	AUTH	2016	\$720,000	\$0,000	\$720,000	\$0,000	\$0,000
ROW	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)	AUTH	2016	\$771,985	\$541,985	\$0,000	\$0,000	\$230,000
UTL	Georgia Transportation Infrastructure Bank	AUTH	2016	\$250,000	\$0,000	\$250,000	\$0,000	\$0,000
CST	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)	AUTH	2016	\$4,125,000	\$3,300,000	\$0,000	\$0,000	\$825,000
				\$5,866,985	\$3,841,985	\$970,000	\$0,000	\$1,055,000

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquisition
 UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

Site Photo Log

2017 FORMER PROGRAM

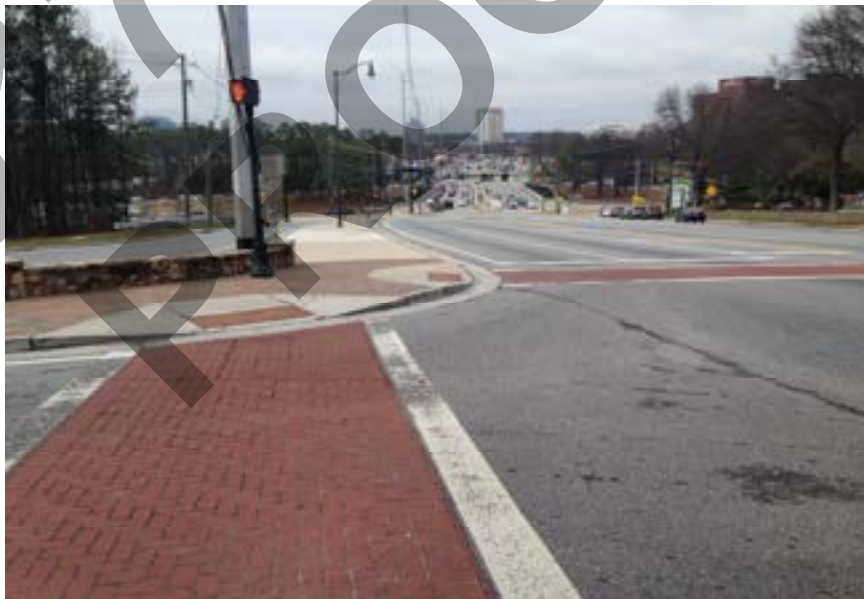
Hanover Ashford Green TIA

Photo No. 1



Comments: Ashford Dunwoody Road @ Lake Hearn Drive. Photo looking east on Lake Hearn Drive.

Photo No. 2



Comments: Ashford Dunwoody Road @ Lake Hearn Drive. Photo looking north on Lake Hearn Drive.

Hanover Ashford Green TIA

Photo No. 3



Comments: Ashford Dunwoody Road @ Lake Hearn Drive. Photo looking south on Lake Hearn Drive.

Photo No. 4



Comments: Ashford Dunwoody Road @ Ashford Green. Photo looking east on Ashford Green.

Hanover Ashford Green TIA

Photo No. 5



Comments: Ashford Dunwoody Road @ Ashford Green. Photo looking north on Ashford Green.

Photo No. 6



Comments: Ashford Dunwoody Road @ Ashford Green. Photo looking south on Ashford Green.

Hanover Ashford Green TIA

Photo No. 7



Comments: Ashford Dunwoody Road @ Existing Site Driveway 1. Photo looking east from Existing Site Driveway 1.

Photo No. 8



Comments: Ashford Dunwoody Road @ Existing Site Driveway 1. Photo looking north from Existing Site Driveway 1.

Hanover Ashford Green TIA

Photo No. 9



Comments: Ashford Dunwoody Road @ Existing Site Driveway 1. Photo looking south from Existing Site Driveway 1.

Photo No. 10



Comments: Parkside Place @ Proposed Driveway (Phase 2). Photo looking west from Proposed Driveway (Phase 2).

Hanover Ashford Green TIA

Photo No. 11



Comments: Parkside Place @ Proposed Driveway (Phase 2). Photo looking north from Proposed Driveway (Phase 2).

Photo No. 12



Comments: Parkside Place @ Proposed Driveway (Phase 2). Photo looking south from Proposed Driveway (Phase 2).