TRAFFIC IMPACT STUDY

CROTON UPPER VILLAGE

Croton-on-Hudson, Westchester County, New York

Prepared for

Village of Croton-on-Hudson
1 Van Wyck Street
Croton-on-Hudson, New York

Prepared by

Provident Design Engineering, PLLC
7 Skyline Drive
Hawthorne, New York

September 19, 2019

PDE Project No. 19-008

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APPENDICES

SECTION 1 – INTRODUCTION

1.0 PROJECT DESCRIPTION

The Village of Croton-on-Hudson (Croton), Westchester County, New York has retained Provident Design Engineering, PLLC (Provident) to review the traffic conditions in the Upper Village, particularly the existing "Dummy" signal at the intersection of Old Post Road South and Grand Street. Provident has prepared this Traffic Study to analyze existing traffic conditions and provide recommendations on how to improve the operations of traffic and safety in this area for drivers and pedestrians.

The Study focused on the operation of the intersection for both vehicles and pedestrians, including the potential impacts of different types of intersection traffic control. This Traffic Impact Study uses the standard Traffic Engineering methodology and has been prepared to document the findings and conclusions of the analysis undertaken to measure the traffic impacts associated with the existing and future conditions on the roadways.

There is significant history in the "Dummy" signal. From a purely Traffic Engineering basis, the "Dummy" signal does not meet current Federal Highway Administration (FHWA) and New York State Department of Transportation (NYSDOT). A driver from outside the area could be expecting a standard traffic signal that is located above the road and thus, not see the existing "Dummy" signal.

The "Dummy" signal is also not located in the center of the intersection, but it is offset to the east. Thus, some drivers are confused regarding which way to travel around the "Dummy" signal.

Another issue with the operation of the existing "Dummy" signal is that there are no Pedestrian Signals provided and some pedestrians are not clear on when they can cross. An updated traffic signal controller would be needed to provide the pedestrian signal operations. In addition, the existing "Dummy" signal cannot be efficiently coordinated with the traffic signal at Old Post Road and Maple Street.

To improve traffic operating conditions, striping modifications are recommended, some of which would result in the loss of some on-street parking.

It is noted that an All-Way Stop was previously utilized at the intersection but was removed based upon public comments. This All-Way Stop did not consider some of the other enhancements recommended herein.

SECTION 2 – TRAFFIC CONDITIONS

2.0 STUDY METHODOLOGY

Provident has been retained to analyze the existing traffic conditions in the Upper Village area, specifically in the area of the existing "Dummy" signal. The Study was scoped based upon field observations, Provident's knowledge of the area, and discussions with Village representatives. The existing traffic volumes were collected by Provident at the adjacent roadways in the vicinity of the study area. Based upon the results of the analysis, comparisons of the different traffic control options for the area were made and recommendations were proposed.

2.1 DESCRIPTION OF EXISTING ROADWAY NETWORK

The following are brief descriptions of the roadways located in the vicinity of the study area:

- Grand Street – Grand Street is a one lane per direction roadway travelling in the north/south direction and has on-street parking. Grand Street is under the jurisdiction of the Village of Croton-on-Hudson.

- Old Post Road South – Old Post Road South is a one lane per direction roadway travelling in the east/west direction. Old Post Road South is under the jurisdiction of the Village of Croton-on-Hudson.

2.2 EXISTING TRAFFIC VOLUMES

After a thorough review of the existing traffic conditions for the study area and discussions with the Village, the following study locations were determined:

1. Grand Street and Old Post Road South
2. Maple Street and Old Post Road South

PDE conducted turning movement traffic counts for Grand Street and Old Post Road South on Thursday, June 6, 2019 from 7:30 to 9:30 AM, 12:00 – 1:00 PM, and 4:00 PM to 8:00 PM. Traffic counts were also performed on Saturday, June 8, 2019 and Sunday, June 9, 2019 from 11:00 to 1:00 PM on both days. In addition to the traffic counts, pedestrian counts were conducted and field observations were performed to determine roadway geometry, traffic control, sidewalk integrity and widths, etc. Traffic signal timing was obtained from field measurements.

Based upon the traffic counts conducted, the following Peak Roadway Hours were determined:

Peak AM Roadway Hour - 7:30 AM to 8:30 AM

Peak MID Roadway Hour - 12:00 PM to 1:00 PM

Peak PM Roadway Hour - 5:15 PM to 6:15 PM

Peak SAT Roadway Hour - 11:45 AM to 12:45 PM

Peak SUN Roadway Hour - 11:45 AM to 12:45 PM

Additional traffic counts were performed at the intersection of Maple Street and Old Post Road South, in the event the two traffic signals were to be coordinated.

The existing Peak Hour Traffic Volumes are illustrated on Figure No. 1 in Appendix A.

SECTION 3 – ANALYSIS

3.0 DESCRIPTION OF ANALYSIS

- Capacity analyses were conducted at the study location to identify the traffic impact associated with different traffic controls. The three traffic control options analyzed are:

    1. Roundabout
    2. Traffic Signal Control
    3. All-Way Stop Control

  The following section contains a brief description of the procedure utilized in the preparation of this analysis for all the study locations listed:

- Capacity analysis is a method by which traffic volumes are compared to calculated roadway and intersection capacities to evaluate future traffic conditions. The methodology utilized is described in the Highway Capacity Manual published by the Transportation Research Board. In general, the term "Level of Service" is used to provide a qualitative evaluation based on certain quantitative calculations related to empirical values. The definitions of Level of Service as contained in the Highway Capacity Manual appear in Appendix C of this Report.

- In general, Level of Service A represents the best traffic operating condition. Levels of Service for signalized and unsignalized intersections are defined in terms of average delay.

Delay is used as a measure of driver discomfort, frustration, efficiency, etc.

Capacity analyses were performed for the study locations with the Existing Traffic Volumes utilizing Highway Capacity Software (Synchro) developed for the FHWA. The capacity analyses worksheets are contained in Appendix D of this Report.

3.1 LOCATION NO. 1 – GRAND STREET AND OLD POST ROAD SOUTH

Existing Conditions

Grand Street provides the northbound and southbound approaches to this three-legged, signalized intersection. The northbound approach provides one through/right-turn lane. The southbound approach provides one left-turn/through lane. Old Post Road South provides the westbound approach. The westbound approach provides one left-turn/right-turn lane. The intersection is controlled by a pre-timed traffic signal (the "Dummy" signal).

Capacity Analysis

Capacity analyses were conducted for this location utilizing the Existing Traffic Volumes for the Peak Hours counted and the different Traffic Control scenarios. The results of these analyses are shown in the table in Appendix B. As indicated in the table, acceptable Levels of Service "B" are maintained during all of the Weekday and Weekend Peak Hours with the existing traffic control. The same Levels of Service would be maintained with the provision of an updated traffic signal system as well as with the different traffic control scenarios (All-Way Stop Control and Roundabout). Therefore, the improvements should be considered based on geometric, financial and safety concerns at the location.

SECTION 4 – CONCEPT PLANS

Provident has prepared five concept plans that consider the three traffic control scenarios analyzed and take into consideration discussions with the Village.

CONCEPT PLAN 1 – STRIPING MODIFICATIONS

(Concept Plan shown on next page)

Concept Plan 1 demonstrates improvements to the intersection by providing striping and signage modifications including striping areas to help guide drivers around the "Dummy" signal, while maintaining the existing pre-timed "Dummy" signal in operation. The striped markings recommended are flow arrows that show the "Dummy" signal as a point of reference. Another striping improvement is a striped bump-out for the northbound right-turn movement on Grand Street. This would limit the conflict between the right-turning vehicles and the parked vehicles on Old Post Road South. Additional striping is recommended between the "Dummy" signal and the Old Post Road South crosswalk, in order to guide vehicles around the "Dummy" signal. "No U-turn" and "Keep Right" signs would also be recommended to supplement the striping. The main advantage of these modifications is that this would help reduce confusion that occurs at this location for drivers due to the layout of the intersection. In addition, this is a cost-effective improvement (approximately $10,000 to $20,000). The disadvantages with this improvement are that the traffic signal continues to operate in a non-standard condition, may be less aesthetically pleasing, and the removal of parking in the intersection (up to 3 parking spaces eliminated).

NO.	REVISION	DATE

10 8 6 4 2 0 5 10 20
SCALE IN FEET

Provident design engineering
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UPPER CROTON VILLAGE
Croton, NY

TITLE:
CONCEPT PLAN 1
STRIPING

Seal

Scale:	1" = 10'
Date:	08/01/19
Drawn By:	DC
Checked By:	CH
Project No.:	19-008
Sheet No.:	1 of 5
Dwg. No.:	CP-1

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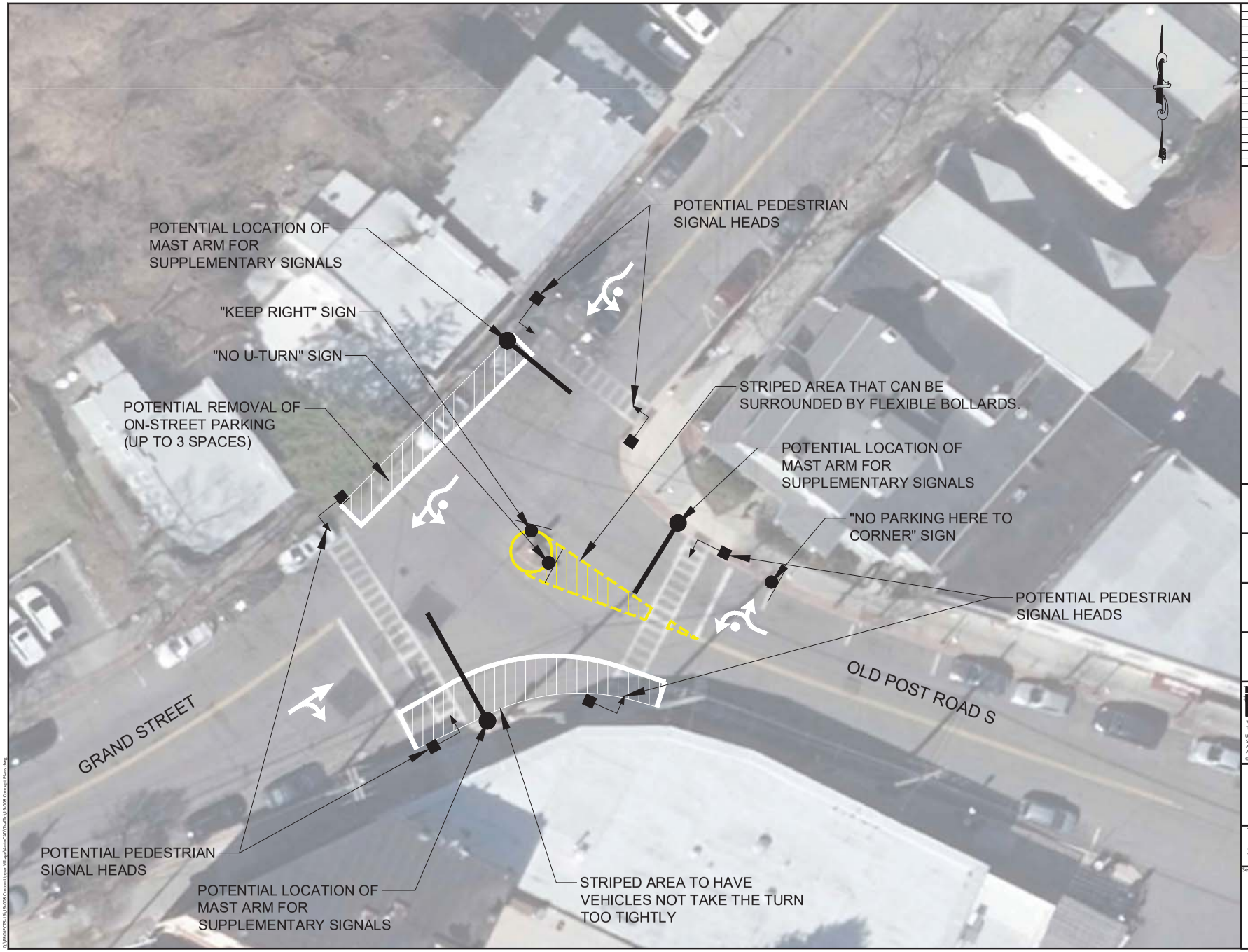
CONCEPT PLAN 2 – STRIPING WITH TRAFFIC SIGNAL IMPROVEMENT

(Concept Plan shown on next page)

The intersection currently operates with a pre-timed traffic signal that utilizes the existing "Dummy" signal. This Concept would maintain the "Dummy" signal but in a non-operational state while providing an updated traffic signal system with new mast arms and signal heads. In addition, the striping and signage recommended in Concept Plan 1 would also be provided on Concept Plan 2. This concept also recommends the provision of pedestrian signal heads. The advantages of updating the signal are that it can be designed to current standards, it can include detectors which would help optimize traffic flow through the intersection, pedestrian signals can be added, and it can be coordinated with the traffic signal at Maple Street. The disadvantages are the costs of this option (approximately $150,000 to $250,000) and the removal of parking in the intersection (up to 3 parking spaces eliminated).



NO.	REVISION	DATE

10 8 6 4 2 0 5 10 20
SCALE IN FEET

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UPPER CROTON VILLAGE
Croton, NY

TITLE:
CONCEPT PLAN 2
STRIPING WITH IMPROVEMENTS

Seal

Scale:	1" = 10'
Date:	08/01/19
Drawn By:	DC
Checked By:	CH
Project No.:	19-008
Sheet No.:	2 of 5
Dwg. No.:	CP-2

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CONCEPT PLAN 2A – REMOVAL OF "DUMMY" SIGNAL

(Concept Plan shown on next page)

This Concept would completely remove the "Dummy" signal and incorporates the recommendations made in conjunction with Concept Plan 2. These improvements include new traffic signal heads, new pedestrian signal heads, striping, and signage at the intersection. The advantages of updating the signal are that it can be designed to current standards, it can be provided with detectors which would help traffic flow through the intersection, pedestrian signals could be added, it can be coordinated with the traffic signal at Maple Street, and the removal of the "Dummy" signal would help the maneuvering through the intersection. The disadvantages are the costs of this option (approximately $200,000 to $300,000), removal of the "Dummy" signal which has significant historical value in the Village, and the removal of on-street parking in the intersection (up to 3 parking spaces eliminated).

NO.	REVISION	DATE

10 8 6 4 2 0 5 10 20
SCALE IN FEET

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UPPER CROTON VILLAGE
Croton, NY

TITLE:
CONCEPT PLAN 2A
REMOVAL OF DUMMY LIGHT

Seal

Scale:	1" = 10'
Date:	08/01/19
Drawn By:	DC
Checked By:	CH
Project No.:	19-008
Sheet No.:	3 of 5
Dwg. No.:	CP-2A

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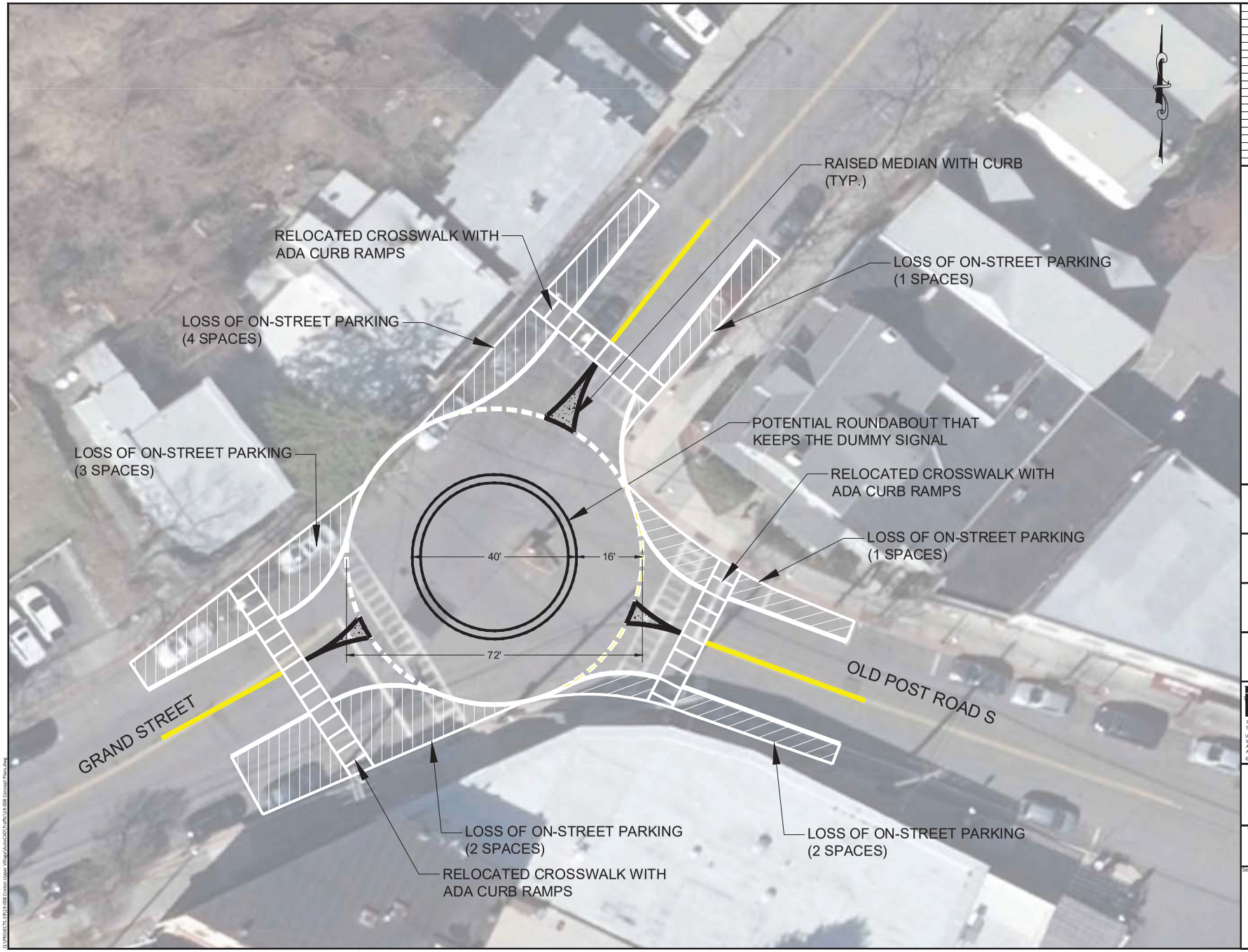
CONCEPT PLAN 3 - ROUNDABOUT

(Concept Plan shown on next page)

Installing a roundabout at the intersection would also provide both advantages and disadvantages. The benefits are that it would provide a continuous traffic flow and it would remove confusion caused by the existing layout of the intersection. This also leads to safer conditions for both vehicles and pedestrians. In addition, it provides the opportunity to maintain the "Dummy" signal; however, in a non-operational state. The disadvantages of installing a roundabout are that the costs would be higher than the other alternatives (approximately $500,000 to $750,000), drainage modifications would be required, there would be a significant amount of on-street parking spaces lost (up to 13 parking spaces eliminated), and the pedestrian crossings would have to be pulled back farther away from the intersection.



NO.	REVISION	DATE

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SCALE IN FEET

Provident design engineering
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UPPER CROTON VILLAGE
Croton, NY

TITLE:
CONCEPT PLAN 3
ROUNDABOUT

Seal

Scale:	1" = 10'
Date:	08/01/19
Drawn By:	DC
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Project No.:	19-008
Sheet No.:	4 of 5
Dwg. No.:	CP-3

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CONCEPT PLAN 4 - ALL-WAY STOP CONTROL (PREFERRED ALTERNATIVE)
(Concept Plan shown on next page)

This Concept Plan converts the intersection from being under traffic signal control to be an All-Way Stop intersection by placing Stop Signs at all approaches as well as providing the striping and signage that was shown in Concept Plan 1. In addition, pavement markings are provided to help bring attention to the proper maneuvering through the intersection and to the recommended Stop Signs. "No U-turn" and "Keep Right" signs would also be recommended to supplement the striping. The advantages of this Concept are that it would allow the "Dummy" signal to remain in a semi-operational state (it would be placed in All-Red Flashing Mode), would not lead to significant costs (approximately $10,000 to $25,000), and if combined with striping, as shown in the concept plan, can help reduce confusion caused by the existing layout of the intersection. This also leads to safer conditions for both vehicles and pedestrians. The disadvantage of this Concept is the potential elimination of one on-street parking space on the southbound Grand Street approach. This would provide better visibility for an approaching vehicle to see the Stop Sign.

Based on the foregoing, it is the opinion of Provident Design Engineering, PLLC that Concept Plan 4 provides the best solution when considering cost, vehicular/pedestrian safety and minimizing any loss of existing on-street parking, as well as respecting the historical significance of the "Dummy" signal.

NO.	REVISION	DATE

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UPPER CROTON VILLAGE
Croton, NY

TITLE:
CONCEPT PLAN 4
ALL-WAY STOP CONTROL

Seal

Scale:	1" = 10'
Date:	08/01/19
Drawn By:	DC
Checked By:	CH
Project No.:	19-008
Sheet No.:	5 of 5
Dwg. No.:	CP-4

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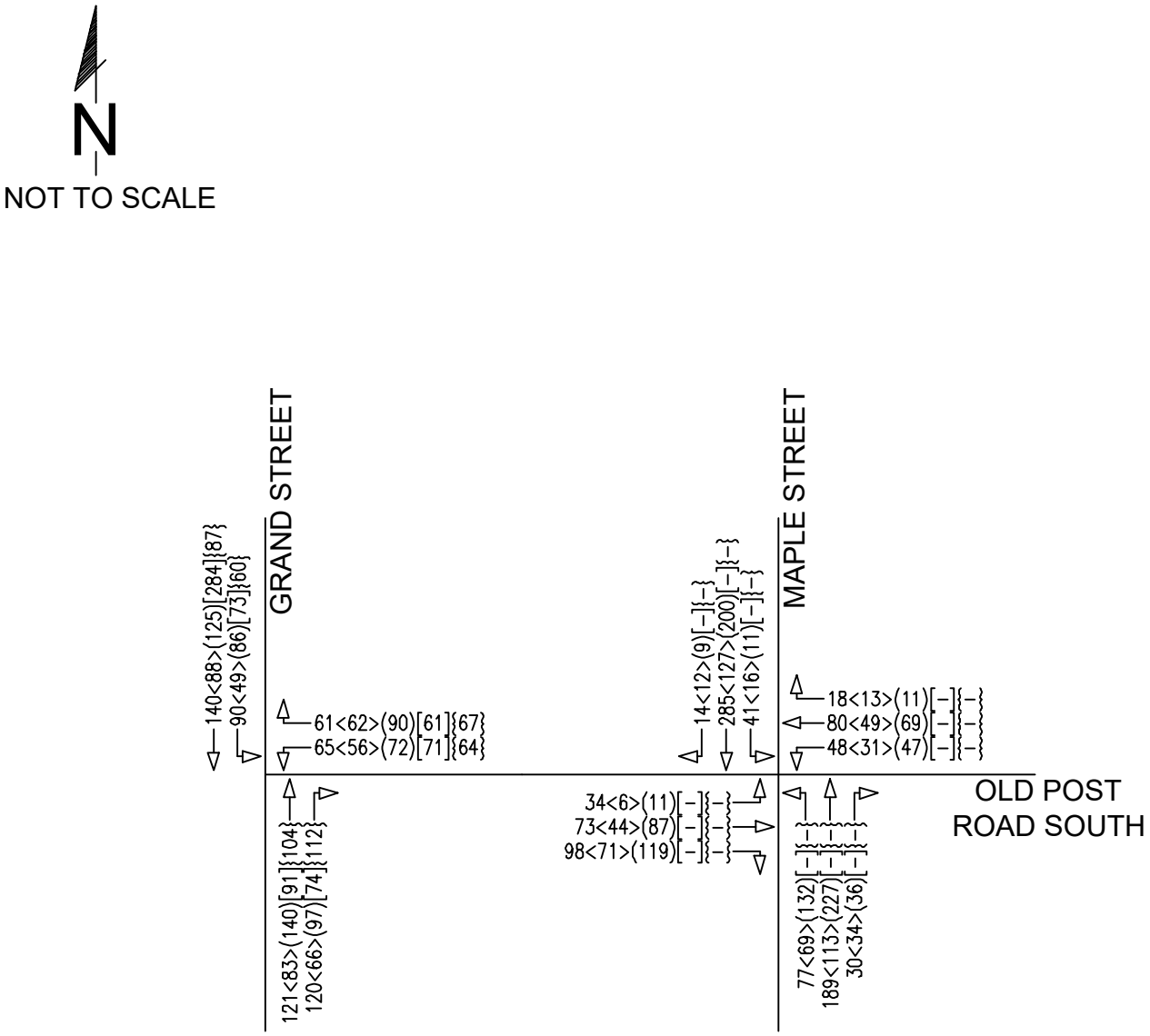
SECTION 5 – CONCLUSIONS

Various Concept Plans are presented with viable alternatives utilizing three different means of traffic control. Each alternative will provide for appropriate operation of the intersection and maintain good levels of service. Whichever alternative is chosen will require additional signage and striping as well as the loss of some on-street parking.

It is the opinion of Provident Design Engineering, PLLC that Concept Plan 4 provides the best solution when considering cost, vehicular/pedestrian safety and minimizing any loss of existing on-street parking, as well as respecting the historical significance of the "Dummy" signal.

APPENDIX A

TRAFFIC FIGURES



LEGEND

00 - VPH-PEAK AM HOUR (7:30-8:30)
<00> - VPH-PEAK MIDDAY HOUR (12:00-1:00)
(00) - VPH-PEAK PM HOUR (5:15-6:15)
[00] - VPH-PEAK SAT HOUR (11:45-12:45)
{00} - VPH-PEAK SUN HOUR (11:45-12:45)

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Project No. 19-008
August 2019

Existing Traffic Volumes
Croton Upper Village
Croton, Westchester, NY

Figure No. 01

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APPENDIX B

LEVEL OF SERVICE SUMMARY TABLES

OVERALL LEVELS OF SERVICE - GRAND STREET & OLD POST ROAD			
	2019 EXISTING	**2019 UNSIGNALIZED**	**2019 ROUNDABOUT**
TIME PERIOD	**LOS DELAY (sec)**	**LOS DELAY (sec)**	**LOS DELAY (sec)**
PEAK AM HOUR (7:30 - 8:30)	B 16.2	B 10.3	A 6.4
PEAK MIDDAY HOUR (12:00 - 1:00)	B 12.7	A 8.5	A 4.9
PEAK PM HOUR (5:15 - 6:15)	B 14.1	A 9.4	A 5.7
PEAK SAT HOUR (11:45 - 12:45)	B 14.6	B 10.6	A 6.4
PEAK SUN HOUR (11:45 - 12:45)	B 14.5	A 9.5	A 5.9

APPENDIX C

LEVEL OF SERVICE STANDARDS

1. LEVEL OF SERVICE

CONCEPT

The 2010 Highway Capacity Manual, published by the Transportation Research Board of the U.S. Government, established a system by which highway facilities are examined for their adequacy to handle traffic volumes. The terminology "Level of Service" is used to provide a "qualitative" evaluation based on certain "quantitative" calculations which are related to empirical values.

Intersection Capacity, Delay and resultant Levels of Service are dependent upon a number of factors, including the following:

- Area Type
- Intersection geometrics
- Traffic volumes
- Parking conditions
- Pedestrian activity
- Vehicle Mix
- Bus Stop location and activity
- Peak Hour Factor
- Traffic Signal operation, if applicable

Ramp and weaving area Densities and resultant Levels of Service are dependent upon a number of factors, including the following:

- Number of lanes
- Configuration of weaving area
- Length of acceleration/deceleration lanes
- Vehicle speeds
- Traffic volumes
- Vehicle Mix
- Peak Hour Factor

FACTORS

SIGNALIZED INTERSECTIONS

Level of Service for Signalized Intersections is defined in terms of Delay, which is a measure of driver discomfort, frustration, fuel consumption, and loss of travel time. Specifically, Level of Service criteria are stated in terms of the Average Control Delay per vehicle for the peak 15-minute period within the hour analyzed.

Delay is a complex measure and is dependent upon a number of variables, including:

- Cycle length
- Ratio of Green time to Cycle length (G/C)

- Ratio of Volume to Capacity (V/C) for lane group or approach
- Traffic signal progression

UNSIGNALIZED INTERSECTIONS

Level of Service for Unsignalized Intersections is also defined in terms of Delay. The amount of Delay is based upon the availability of "gaps" in the mainline traffic stream and the acceptance of these gaps by motorists waiting on the side street to enter the main street traffic flow.

RAMP AND RAMP JUNCTIONS

Level of Service for ramp freeway junctions and the ramp proper are defined in terms of Density (passenger cars per mile per lane). Density is related to the traffic flow in the area of influence.

WEAVING AREAS

Level of Service for weaving areas is defined in terms of Density (passenger cars per mile per lane). Density is based on the ratio of weaving vehicles to non-weaving vehicles and on vehicle speeds in the weaving area of influence

CRITERIA

The criteria for the various Level of Service designations are as follows:

	SIGNALIZED	UNSIGNALIZED
LEVEL OF SERVICE	**Average Control Delay per Vehicle (Seconds)**	**Average Control Delay per Vehicle (Seconds)**
A	10.0 or less	10.0 or less
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	80.1 or greater	50.1 or greater

Level of Service	Ramp-Freeway Junction	Ramp Proper	Weaving Areas	
	Maximum Density pc/mi/ln	Density Range pc/mi/ln	Maximum Density pc/mi/ln	
			Freeway Weaving Area	Multi-lane + C-D Weaving Area
A	≤10	≤11	≤10	≤12
B	>10 - 20	>11 – 18	>10 - 20	>12 - 24
C	>20 - 28	>18 – 26	> 20 - 28	>24 - 32
D	>28 - 35	>26 – 35	>28 - 35	>32 - 36
E	>35	>35 – 45	>35 - 43	>36 - 40
F	Demand exceeds capacity	>45	>43	>40

DESCRIPTION

The following is a brief description of each of the six Level of Service designations as defined by the Highway Capacity Manual:

SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE A

Average Control Delay - 10.0 secs. or less

Describes operations with very low delay. Occurs when progression is extremely favorable and most vehicles arrive during the Green Phase and do not stop at all. Short cycle lengths may also contribute to low delay.

LEVEL OF SERVICE B

Average Control Delay - 10.1 to 20.0 secs.

Generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of average delay.

LEVEL OF SERVICE C

Average Control Delay - 20.1 to 35.0 secs.

Higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this Level of Service. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.

LEVEL OF SERVICE D

Average Control Delay - 35.1 to 55.0 secs.

The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high Volume/Capacity (V/C) Ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LEVEL OF SERVICE E

Average Control Delay - 55.1 to 80.0 secs.

The limit of acceptable delay.

Higher delay values generally indicate poor progression, long cycle lengths, and high V/C Ratios. Individual cycle failures are frequent occurrences.

LEVEL OF SERVICE F

Average Control Delay - in excess of 80.0 secs.

Unacceptable to most drivers.

Occurs with oversaturation, i.e., arrival flow rates exceed the capacity of the intersection. May also occur at high V/C Ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.

UNSIGNALIZED INTERSECTIONS

LEVEL OF SERVICE A
Average Control Delay - 10.0 secs. or less
Operations with little or no delay to minor turning movements.

LEVEL OF SERVICE B
Average Control Delay - 10.1 to 15.0 secs.
Operations with short delays on minor turning movements.

LEVEL OF SERVICE C
Average Control Delay - 15.1 to 25.0 secs.
Operations with average delays on minor turning movements.

LEVEL OF SERVICE D
Average Control Delay - 25.1 to 35.0 secs.
Operations with some delays on minor turning movements.

LEVEL OF SERVICE E
Average Control Delay - 35.1 to 50.0 secs.
Operations with long delays on minor turning movements.

LEVEL OF SERVICE F
Average Control Delay - In excess of 50.0 secs.
Operations where demand exceeds capacity. Very long delays with queuing may be experienced on the minor street approach.

RAMPS AND RAMP JUNCTIONS

LEVEL OF SERVICE A

Maximum Density - 10 pc/mi/ln

Unrestricted operations with no noticeable turbulence in the ramp influence area.

LEVEL OF SERVICE B

Maximum Density - 20 pc/mi/ln

Minimal levels of turbulence exist and speeds of vehicles in the influence area begin to decline.

LEVEL OF SERVICE C

Maximum Density - 28 pc/mi/ln

Level of turbulence becomes noticeable as average speed within the influence area declines. Driving conditions are still relatively comfortable at this level.

LEVEL OF SERVICE D

Maximum Density - 35 pc/mi/ln

Turbulence levels become intrusive. Queues may form on some high volume on-ramps but freeway operation remains stable.

LEVEL OF SERVICE E

Maximum Density - >35 pc/mi/ln

Conditions approaching and reaching capacity. Speeds are reduced and turbulence of merging/diverging vehicles becomes intrusive to all vehicles in the influence area. Flow levels approach capacity limits and minor changes in demand can cause ramp and freeway queues to occur.

LEVEL OF SERVICE F

Maximum Density – Demand flow exceeds limits

Unstable, or breakdown, operation. Approaching demand flows exceed the discharge capacity of the downstream freeway or ramp. Queues are visibly formed on the freeway and on-ramps and will continue to grow as long as the approaching demand exceeds the discharge capacity.

APPENDIX D

CAPACITY ANALYSIS

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	65	61	121	120	90	140
Future Volume (veh/h)	65	61	121	120	90	140
Number	3	18	2	12	1	6
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00	0.99		0.98	0.99	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1900	1863
Adj Flow Rate, veh/h	83	78	155	154	115	179
Adj No. of Lanes	0	0	1	0	0	1
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	342	321	340	337	233	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Ln Grp Delay, s/veh	12.8	0.0	0.0	15.4	18.8	0.0
Ln Grp LOS	B			B	B	
Approach Vol, veh/h	162		309			294
Approach Delay, s/veh	12.8		15.4			18.8
Approach LOS	B		B			B

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8			6		
Case No		8.0	12.0			8.0		
Phs Duration (G+Y+Rc), s		30.0	30.0			30.0		
Change Period (Y+Rc), s		6.0	6.0			6.0		
Max Green (Gmax), s		24.0	24.0			24.0		
Max Allow Headway (MAH), s		5.4	3.9			5.6		
Max Q Clear (g_c+I1), s		10.0	5.9			16.3		
Green Ext Time (g_e), s		1.6	0.4			1.1		
Prob of Phs Call (p_c)		1.00	1.00			1.00		
Prob of Max Out (p_x)		0.00	0.00			0.00		
Left-Turn Movement Data								
Assigned Mvmt		5	3			1		
Mvmt Sat Flow, veh/h		0	854			373		
Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		849	10			822		
Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		843	802			0		
Left Lane Group Data								
Assigned Mvmt	0	5	3	0	0	1	0	0
Lane Assignment			L+T+R			L+T		

Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	162	0	0	294	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1667	0	0	1195	0	0
Q Serve Time (g_s), s	0.0	0.0	3.9	0.0	0.0	6.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	3.9	0.0	0.0	14.3	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	1078	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0
Time to First Blk (g_f), s	0.0	24.0	0.0	0.0	0.0	3.1	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.51	0.00	0.00	0.39	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	667	0	0	561	0	0
V/C Ratio (X)	0.00	0.00	0.24	0.00	0.00	0.52	0.00	0.00
Avail Cap (c_a), veh/h	0	0	667	0	0	561	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	12.0	0.0	0.0	15.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.9	0.0	0.0	3.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	12.8	0.0	0.0	18.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	1.8	0.0	0.0	4.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	1.9	0.0	0.0	4.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.13	0.00	0.00	0.21	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment		T+R						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	309	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1692	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.50	0.48	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	677	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	677	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.4	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	73	98	48	80	18	77	189	30	41	285	14
Future Volume (veh/h)	34	73	98	48	80	18	77	189	30	41	285	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	0.97		0.96	0.98		0.96	1.00		0.98	0.99		0.98
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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	41	89	120	59	98	22	94	230	37	50	348	17
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	122	244	278	227	353	71	225	520	77	122	732	34
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
Prop Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Ln Grp Delay, s/veh	17.2	0.0	0.0	15.6	0.0	0.0	13.0	0.0	0.0	13.4	0.0	0.0
Ln Grp LOS	B			B			B			B		
Approach Vol, veh/h		250			179			361			415	
Approach Delay, s/veh		17.2			15.6			13.0			13.4	
Approach LOS		B			B			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		8.0		8.0
Phs Duration (G+Y+Rc), s		35.0		29.0		35.0		29.0
Change Period (Y+Rc), s		5.0		6.0		5.0		6.0
Max Green (Gmax), s		30.0		23.0		30.0		23.0
Max Allow Headway (MAH), s		5.5		5.5		5.3		5.5
Max Q Clear (g_c+I1), s		10.5		9.2		11.8		6.5
Green Ext Time (g_e), s		2.3		1.3		2.5		0.9
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		328		157		127		424

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1110		680		1562		983

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		164		773		72		197

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L+T+R		L+T+R		L+T+R

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	361	0	250	0	415	0	179
Grp Sat Flow (s), veh/h/ln	0	1602	0	1611	0	1761	0	1605
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	8.5	0.0	7.2	0.0	9.8	0.0	4.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1028	0	1258	0	1123	0	1168
Shared LT Sat Flow (s_sh), veh/h/ln	0	1785	0	1839	0	1850	0	1820
Perm LT Eff Green (g_p), s	0.0	30.0	0.0	23.0	0.0	30.0	0.0	23.0
Perm LT Serve Time (g_u), s	0.0	20.2	0.0	18.5	0.0	21.5	0.0	15.8
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	5.6	0.0	8.9	0.0	11.5	0.0	4.0
Serve Time pre Blk (g_fs), s	0.0	5.6	0.0	7.2	0.0	9.8	0.0	4.0
Prop LT Inside Lane (P_L)	0.00	0.26	0.00	0.16	0.00	0.12	0.00	0.33
Lane Grp Cap (c), veh/h	0	822	0	644	0	888	0	652
V/C Ratio (X)	0.00	0.44	0.00	0.39	0.00	0.47	0.00	0.27
Avail Cap (c_a), veh/h	0	822	0	644	0	888	0	652
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.3	0.0	15.4	0.0	11.6	0.0	14.6
Incr Delay (d2), s/veh	0.0	1.7	0.0	1.8	0.0	1.8	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.0	0.0	17.2	0.0	13.4	0.0	15.6
1st-Term Q (Q1), veh/ln	0.0	4.2	0.0	3.3	0.0	5.0	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.3	0.0	0.4	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.6	0.0	3.6	0.0	5.4	0.0	2.4
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.24	0.00	0.25	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.10	0.00	0.48	0.00	0.04	0.00	0.12
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	61	121	120	90	140
Future Vol, veh/h	65	61	121	120	90	140
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	78	155	154	115	179
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.7	10.1	10.9
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	52%	39%
Vol Thru, %	50%	0%	61%
Vol Right, %	50%	48%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	241	126	230
LT Vol	0	65	90
Through Vol	121	0	140
RT Vol	120	61	0
Lane Flow Rate	309	162	295
Geometry Grp	1	1	1
Degree of Util (X)	0.377	0.228	0.39
Departure Headway (Hd)	4.397	5.076	4.762
Convergence, Y/N	Yes	Yes	Yes
Cap	816	703	752
Service Time	2.445	3.142	2.813
HCM Lane V/C Ratio	0.379	0.23	0.392
HCM Control Delay	10.1	9.7	10.9
HCM Lane LOS	B	A	B
HCM 95th-tile Q	1.8	0.9	1.9

Intersection	
Intersection Delay, s/veh	6.4
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	161	309	294
Demand Flow Rate, veh/h	165	315	300
Vehicles Circulating, veh/h	158	117	85
Vehicles Exiting, veh/h	274	268	238
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	17	9	10
Ped Cap Adj	0.998	0.999	0.999
Approach Delay, s/veh	5.5	6.9	6.4
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	165	315	300
Cap Entry Lane, veh/h	965	1005	1038
Entry HV Adj Factor	0.976	0.981	0.981
Flow Entry, veh/h	161	309	294
Cap Entry, veh/h	939	985	1017
V/C Ratio	0.171	0.314	0.289
Control Delay, s/veh	5.5	6.9	6.4
LOS	A	A	A
95th %tile Queue, veh	1	1	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	56	62	83	66	49	88
Future Volume (veh/h)	56	62	83	66	49	88
Number	3	18	2	12	1	6
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00	0.98		0.96	0.98	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1900	1863
Adj Flow Rate, veh/h	66	73	98	78	58	104
Adj No. of Lanes	0	0	1	0	0	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	310	343	378	301	264	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Ln Grp Delay, s/veh	12.5	0.0	0.0	13.0	12.6	0.0
Ln Grp LOS	B			B	B	
Approach Vol, veh/h	140		176			162
Approach Delay, s/veh	12.5		13.0			12.6
Approach LOS	B		B			B

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8			6		
Case No		8.0	12.0			8.0		
Phs Duration (G+Y+Rc), s		30.0	30.0			30.0		
Change Period (Y+Rc), s		6.0	6.0			6.0		
Max Green (Gmax), s		24.0	24.0			24.0		
Max Allow Headway (MAH), s		5.4	4.0			5.4		
Max Q Clear (g_c+I1), s		6.2	5.3			6.2		
Green Ext Time (g_e), s		0.9	0.4			0.8		
Prob of Phs Call (p_c)		1.00	1.00			1.00		
Prob of Max Out (p_x)		0.00	0.00			0.00		
Left-Turn Movement Data								
Assigned Mvmt		5	3			1		
Mvmt Sat Flow, veh/h		0	776			456		
Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		944	12			1094		
Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		751	859			0		
Left Lane Group Data								
Assigned Mvmt	0	5	3	0	0	1	0	0
Lane Assignment			L+T+R			L+T		

Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	140	0	0	162	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1647	0	0	1549	0	0
Q Serve Time (g_s), s	0.0	0.0	3.3	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	3.3	0.0	0.0	4.2	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	1198	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	19.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	24.0	0.0	0.0	0.0	3.6	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.47	0.00	0.00	0.36	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	659	0	0	701	0	0
V/C Ratio (X)	0.00	0.00	0.21	0.00	0.00	0.23	0.00	0.00
Avail Cap (c_a), veh/h	0	0	659	0	0	701	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	11.8	0.0	0.0	11.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.0	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	12.5	0.0	0.0	12.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	1.5	0.0	0.0	1.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	1.7	0.0	0.0	1.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.11	0.00	0.00	0.09	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment		T+R						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	176	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1696	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.44	0.52	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	678	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	678	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	44	71	31	49	13	69	113	34	16	127	12
Future Volume (veh/h)	6	44	71	31	49	13	69	113	34	16	127	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	0.86		0.83	0.88		0.83	0.99		0.99	1.00		0.99
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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	7	49	80	35	55	15	78	127	38	18	143	13
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	67	212	314	219	319	77	275	428	117	107	729	63
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
Prop Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Ln Grp Delay, s/veh	15.3	0.0	0.0	14.6	0.0	0.0	11.4	0.0	0.0	10.5	0.0	0.0
Ln Grp LOS	B			B			B			B		
Approach Vol, veh/h		136			105			243			174	
Approach Delay, s/veh		15.3			14.6			11.4			10.5	
Approach LOS		B			B			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		8.0		8.0
Phs Duration (G+Y+Rc), s		35.0		29.0		35.0		29.0
Change Period (Y+Rc), s		5.0		6.0		5.0		6.0
Max Green (Gmax), s		30.0		23.0		30.0		23.0
Max Allow Headway (MAH), s		5.4		5.7		5.3		5.6
Max Q Clear (g_c+I1), s		7.5		6.1		5.6		4.6
Green Ext Time (g_e), s		1.5		0.7		1.0		0.5
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data				
Assigned Mvmt	5	7	1	3
Mvmt Sat Flow, veh/h	429	22	96	400

Through Movement Data				
Assigned Mvmt	2	4	6	8
Mvmt Sat Flow, veh/h	913	589	1556	888

Right-Turn Movement Data				
Assigned Mvmt	12	14	16	18
Mvmt Sat Flow, veh/h	249	873	133	215

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L+T+R		L+T+R		L+T+R

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	243	0	136	0	174	0	105
Grp Sat Flow (s), veh/h/ln	0	1590	0	1485	0	1786	0	1503
Q Serve Time (g_s), s	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.5	0.0	4.1	0.0	3.6	0.0	2.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1243	0	1165	0	1234	0	1130
Shared LT Sat Flow (s_sh), veh/h/ln	0	1830	0	1842	0	1852	0	1751
Perm LT Eff Green (g_p), s	0.0	30.0	0.0	23.0	0.0	30.0	0.0	23.0
Perm LT Serve Time (g_u), s	0.0	26.4	0.0	20.4	0.0	24.5	0.0	18.9
Perm LT Q Serve Time (g_ps), s	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	4.2	0.0	16.2	0.0	14.0	0.0	4.0
Serve Time pre Blk (g_fs), s	0.0	4.2	0.0	4.1	0.0	3.6	0.0	2.6
Prop LT Inside Lane (P_L)	0.00	0.32	0.00	0.05	0.00	0.10	0.00	0.33
Lane Grp Cap (c), veh/h	0	820	0	593	0	899	0	615
V/C Ratio (X)	0.00	0.30	0.00	0.23	0.00	0.19	0.00	0.17
Avail Cap (c_a), veh/h	0	820	0	593	0	899	0	615
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.4	0.0	14.4	0.0	10.0	0.0	14.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.9	0.0	0.5	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.4	0.0	15.3	0.0	10.5	0.0	14.6
1st-Term Q (Q1), veh/ln	0.0	2.6	0.0	1.7	0.0	1.8	0.0	1.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.8	0.0	1.8	0.0	1.9	0.0	1.4
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.13	0.00	0.09	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.16	0.00	0.59	0.00	0.07	0.00	0.14
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	12.5
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	56	62	83	66	49	88
Future Vol, veh/h	56	62	83	66	49	88
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	73	98	78	58	104
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.4	8.3	8.7
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	47%	36%
Vol Thru, %	56%	0%	64%
Vol Right, %	44%	53%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	149	118	137
LT Vol	0	56	49
Through Vol	83	0	88
RT Vol	66	62	0
Lane Flow Rate	175	139	161
Geometry Grp	1	1	1
Degree of Util (X)	0.203	0.172	0.202
Departure Headway (Hd)	4.169	4.454	4.509
Convergence, Y/N	Yes	Yes	Yes
Cap	862	807	798
Service Time	2.189	2.475	2.529
HCM Lane V/C Ratio	0.203	0.172	0.202
HCM Control Delay	8.3	8.4	8.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.6	0.8

Intersection	
Intersection Delay, s/veh	4.9
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	139	176	162
Demand Flow Rate, veh/h	141	180	165
Vehicles Circulating, veh/h	100	59	67
Vehicles Exiting, veh/h	139	173	174
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	30	13	20
Ped Cap Adj	0.996	0.998	0.997
Approach Delay, s/veh	4.9	5.0	4.9
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	141	180	165
Cap Entry Lane, veh/h	1022	1065	1057
Entry HV Adj Factor	0.986	0.978	0.981
Flow Entry, veh/h	139	176	162
Cap Entry, veh/h	1004	1040	1034
V/C Ratio	0.138	0.169	0.157
Control Delay, s/veh	4.9	5.0	4.9
LOS	A	A	A
95th %tile Queue, veh	0	1	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	72	90	140	97	86	125
Future Volume (veh/h)	72	90	140	97	86	125
Number	3	18	2	12	1	6
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00	0.98		0.95	0.97	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1900	1863
Adj Flow Rate, veh/h	75	94	146	101	90	130
Adj No. of Lanes	0	0	1	0	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	290	363	402	278	261	345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Ln Grp Delay, s/veh	13.0	0.0	0.0	14.1	15.0	0.0
Ln Grp LOS	B			B	B	
Approach Vol, veh/h	170		247			220
Approach Delay, s/veh	13.0		14.1			15.0
Approach LOS	B		B			B

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8			6		
Case No		8.0	12.0			8.0		
Phs Duration (G+Y+Rc), s		30.0	30.0			30.0		
Change Period (Y+Rc), s		6.0	6.0			6.0		
Max Green (Gmax), s		24.0	24.0			24.0		
Max Allow Headway (MAH), s		5.4	4.0			5.5		
Max Q Clear (g_c+I1), s		8.1	6.2			11.3		
Green Ext Time (g_e), s		1.3	0.4			1.0		
Prob of Phs Call (p_c)		1.00	1.00			1.00		
Prob of Max Out (p_x)		0.00	0.00			0.00		
Left-Turn Movement Data								
Assigned Mvmt		5	3			1		
Mvmt Sat Flow, veh/h		0	725			442		
Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		1004	10			862		
Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		694	908			0		
Left Lane Group Data								
Assigned Mvmt	0	5	3	0	0	1	0	0
Lane Assignment			L+T+R			L+T		

Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	170	0	0	220	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1643	0	0	1304	0	0
Q Serve Time (g_s), s	0.0	0.0	4.2	0.0	0.0	3.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	4.2	0.0	0.0	9.3	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	1122	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	17.9	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0
Time to First Blk (g_f), s	0.0	24.0	0.0	0.0	0.0	2.9	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.44	0.00	0.00	0.41	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	657	0	0	606	0	0
V/C Ratio (X)	0.00	0.00	0.26	0.00	0.00	0.36	0.00	0.00
Avail Cap (c_a), veh/h	0	0	657	0	0	606	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	12.0	0.0	0.0	13.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.0	0.0	0.0	1.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	13.0	0.0	0.0	15.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	1.9	0.0	0.0	2.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	2.1	0.0	0.0	3.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.14	0.00	0.00	0.14	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment		T+R						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	247	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1698	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.41	0.55	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	679	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	679	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.6	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	87	119	47	69	11	132	227	36	11	200	9
Future Volume (veh/h)	11	87	119	47	69	11	132	227	36	11	200	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	0.98		0.97	0.99		0.97	0.98		0.96	0.99		0.96
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	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	13	101	138	55	80	13	153	264	42	13	233	10
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	71	258	326	252	343	50	280	457	67	74	806	33
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
Prop Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Ln Grp Delay, s/veh	17.2	0.0	0.0	15.1	0.0	0.0	15.3	0.0	0.0	11.3	0.0	0.0
Ln Grp LOS	B			B			B			B		
Approach Vol, veh/h		252			148			459			256	
Approach Delay, s/veh		17.2			15.1			15.3			11.3	
Approach LOS		B			B			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		8.0		8.0
Phs Duration (G+Y+Rc), s		35.0		29.0		35.0		29.0
Change Period (Y+Rc), s		5.0		6.0		5.0		6.0
Max Green (Gmax), s		30.0		23.0		30.0		23.0
Max Allow Headway (MAH), s		5.5		5.5		5.3		5.5
Max Q Clear (g_c+I1), s		15.3		9.3		7.5		5.6
Green Ext Time (g_e), s		2.7		1.2		1.5		0.7
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		438		32		32		488

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		975		718		1719		954

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		142		908		71		139

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L+T+R		L+T+R		L+T+R

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	459	0	252	0	256	0	148
Grp Sat Flow (s), veh/h/ln	0	1555	0	1657	0	1823	0	1580
Q Serve Time (g_s), s	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	13.3	0.0	7.3	0.0	5.5	0.0	3.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1133	0	1296	0	1083	0	1143
Shared LT Sat Flow (s_sh), veh/h/ln	0	1820	0	1856	0	1857	0	1795
Perm LT Eff Green (g_p), s	0.0	30.0	0.0	23.0	0.0	30.0	0.0	23.0
Perm LT Serve Time (g_u), s	0.0	24.5	0.0	19.4	0.0	16.7	0.0	15.7
Perm LT Q Serve Time (g_ps), s	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	4.0	0.0	14.3	0.0	19.3	0.0	3.4
Serve Time pre Blk (g_fs), s	0.0	4.0	0.0	7.3	0.0	5.5	0.0	3.4
Prop LT Inside Lane (P_L)	0.00	0.33	0.00	0.05	0.00	0.05	0.00	0.37
Lane Grp Cap (c), veh/h	0	804	0	655	0	913	0	645
V/C Ratio (X)	0.00	0.57	0.00	0.38	0.00	0.28	0.00	0.23
Avail Cap (c_a), veh/h	0	804	0	655	0	913	0	645
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.3	0.0	15.5	0.0	10.5	0.0	14.3
Incr Delay (d2), s/veh	0.0	2.9	0.0	1.7	0.0	0.8	0.0	0.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.3	0.0	17.2	0.0	11.3	0.0	15.1
1st-Term Q (Q1), veh/ln	0.0	5.9	0.0	3.4	0.0	2.8	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.3	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.5	0.0	3.7	0.0	3.0	0.0	2.0
%ile Storage Ratio (RQ%)	0.00	0.38	0.00	0.25	0.00	0.14	0.00	0.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.09	0.00	0.55	0.00	0.04	0.00	0.09
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	72	90	140	97	86	125
Future Vol, veh/h	72	90	140	97	86	125
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	94	146	101	90	130
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.1	9.3	9.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	44%	41%
Vol Thru, %	59%	0%	59%
Vol Right, %	41%	56%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	237	162	211
LT Vol	0	72	86
Through Vol	140	0	125
RT Vol	97	90	0
Lane Flow Rate	247	169	220
Geometry Grp	1	1	1
Degree of Util (X)	0.299	0.222	0.286
Departure Headway (Hd)	4.353	4.728	4.691
Convergence, Y/N	Yes	Yes	Yes
Cap	825	758	765
Service Time	2.39	2.772	2.731
HCM Lane V/C Ratio	0.299	0.223	0.288
HCM Control Delay	9.3	9.1	9.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.3	0.8	1.2

Intersection	
Intersection Delay, s/veh	5.7
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	169	247	220
Demand Flow Rate, veh/h	172	252	225
Vehicles Circulating, veh/h	149	92	76
Vehicles Exiting, veh/h	195	209	245
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	39	17	16
Ped Cap Adj	0.995	0.998	0.998
Approach Delay, s/veh	5.5	6.0	5.6
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	172	252	225
Cap Entry Lane, veh/h	974	1031	1047
Entry HV Adj Factor	0.983	0.980	0.980
Flow Entry, veh/h	169	247	220
Cap Entry, veh/h	951	1008	1024
V/C Ratio	0.178	0.245	0.215
Control Delay, s/veh	5.5	6.0	5.6
LOS	A	A	A
95th %tile Queue, veh	1	1	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	71	61	91	74	73	284
Future Volume (veh/h)	71	61	91	74	73	284
Number	3	18	2	12	1	6
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00	0.99		0.99	0.99	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1900	1863
Adj Flow Rate, veh/h	77	66	99	80	79	309
Adj No. of Lanes	0	0	1	0	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	358	306	380	307	171	591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Ln Grp Delay, s/veh	12.6	0.0	0.0	13.0	16.1	0.0
Ln Grp LOS	B			B	B	
Approach Vol, veh/h	144		179			388
Approach Delay, s/veh	12.6		13.0			16.1
Approach LOS	B		B			B

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8			6		
Case No		8.0	12.0			8.0		
Phs Duration (G+Y+Rc), s		30.0	30.0			30.0		
Change Period (Y+Rc), s		6.0	6.0			6.0		
Max Green (Gmax), s		24.0	24.0			24.0		
Max Allow Headway (MAH), s		5.4	3.9			5.3		
Max Q Clear (g_c+I1), s		6.2	5.4			11.9		
Green Ext Time (g_e), s		0.9	0.4			1.9		
Prob of Phs Call (p_c)		1.00	1.00			1.00		
Prob of Max Out (p_x)		0.00	0.00			0.00		
Left-Turn Movement Data								
Assigned Mvmt		5	3			1		
Mvmt Sat Flow, veh/h		0	894			246		
Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		949	12			1478		
Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		767	766			0		
Left Lane Group Data								
Assigned Mvmt	0	5	3	0	0	1	0	0
Lane Assignment			L+T+R			L+T		

Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	144	0	0	388	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1671	0	0	1724	0	0
Q Serve Time (g_s), s	0.0	0.0	3.4	0.0	0.0	3.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	3.4	0.0	0.0	9.9	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	1215	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	19.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
Time to First Blk (g_f), s	0.0	24.0	0.0	0.0	0.0	6.6	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.53	0.00	0.00	0.20	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	669	0	0	762	0	0
V/C Ratio (X)	0.00	0.00	0.22	0.00	0.00	0.51	0.00	0.00
Avail Cap (c_a), veh/h	0	0	669	0	0	762	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	11.8	0.0	0.0	13.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.0	0.0	2.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	12.6	0.0	0.0	16.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	1.6	0.0	0.0	4.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	1.7	0.0	0.0	5.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.12	0.00	0.00	0.25	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment		T+R						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	179	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1716	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.45	0.46	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	686	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	686	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	71	61	91	74	73	284
Future Vol, veh/h	71	61	91	74	73	284
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	66	99	80	79	309
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.3	8.8	11.9
HCM LOS	A	A	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	54%	20%
Vol Thru, %	55%	0%	80%
Vol Right, %	45%	46%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	165	132	357
LT Vol	0	71	73
Through Vol	91	0	284
RT Vol	74	61	0
Lane Flow Rate	179	143	388
Geometry Grp	1	1	1
Degree of Util (X)	0.222	0.2	0.489
Departure Headway (Hd)	4.464	5.025	4.538
Convergence, Y/N	Yes	Yes	Yes
Cap	802	712	792
Service Time	2.506	3.077	2.574
HCM Lane V/C Ratio	0.223	0.201	0.49
HCM Control Delay	8.8	9.3	11.9
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.8	0.7	2.7

Intersection	
Intersection Delay, s/veh	6.4
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	143	179	388
Demand Flow Rate, veh/h	146	183	396
Vehicles Circulating, veh/h	101	81	79
Vehicles Exiting, veh/h	163	394	168
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	10	1	10
Ped Cap Adj	0.999	1.000	0.999
Approach Delay, s/veh	4.9	5.2	7.6
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	146	183	396
Cap Entry Lane, veh/h	1021	1042	1044
Entry HV Adj Factor	0.979	0.978	0.979
Flow Entry, veh/h	143	179	388
Cap Entry, veh/h	999	1019	1021
V/C Ratio	0.143	0.176	0.380
Control Delay, s/veh	4.9	5.2	7.6
LOS	A	A	A
95th %tile Queue, veh	0	1	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	64	67	104	112	60	87
Future Volume (veh/h)	64	67	104	112	60	87
Number	3	18	2	12	1	6
Initial Q, veh	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00	1.00		0.99	1.00	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	1900	1863
Adj Flow Rate, veh/h	86	91	141	151	81	118
Adj No. of Lanes	0	0	1	0	0	1
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	0	0	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	323	341	328	352	246	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Ln Grp Delay, s/veh	13.1	0.0	0.0	15.0	15.0	0.0
Ln Grp LOS	B			B	B	
Approach Vol, veh/h	178		292			199
Approach Delay, s/veh	13.1		15.0			15.0
Approach LOS	B		B			B

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8			6		
Case No		8.0	12.0			8.0		
Phs Duration (G+Y+Rc), s		30.0	30.0			30.0		
Change Period (Y+Rc), s		6.0	6.0			6.0		
Max Green (Gmax), s		24.0	24.0			24.0		
Max Allow Headway (MAH), s		5.4	3.9			5.6		
Max Q Clear (g_c+I1), s		9.5	6.3			12.1		
Green Ext Time (g_e), s		1.5	0.5			0.9		
Prob of Phs Call (p_c)		1.00	1.00			1.00		
Prob of Max Out (p_x)		0.00	0.00			0.00		

Left-Turn Movement Data								
Assigned Mvmt		5	3			1		
Mvmt Sat Flow, veh/h		0	807			403		

Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		821	9			813		

Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		879	853			0		

Left Lane Group Data								
Assigned Mvmt	0	5	3	0	0	1	0	0
Lane Assignment			L+T+R			L+T		

Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	178	0	0	199	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1669	0	0	1216	0	0
Q Serve Time (g_s), s	0.0	0.0	4.3	0.0	0.0	2.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	4.3	0.0	0.0	10.1	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	1101	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0
Time to First Blk (g_f), s	0.0	24.0	0.0	0.0	0.0	2.9	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.48	0.00	0.00	0.41	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	668	0	0	571	0	0
V/C Ratio (X)	0.00	0.00	0.27	0.00	0.00	0.35	0.00	0.00
Avail Cap (c_a), veh/h	0	0	668	0	0	571	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	12.1	0.0	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.0	0.0	0.0	1.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	13.1	0.0	0.0	15.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	2.0	0.0	0.0	2.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	2.2	0.0	0.0	2.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.15	0.00	0.00	0.13	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment		T+R						
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	292	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1700	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.52	0.51	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	680	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	680	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	64	67	104	112	60	87
Future Vol, veh/h	64	67	104	112	60	87
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	86	91	141	151	81	118
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.3	9.6	9.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	49%	41%
Vol Thru, %	48%	0%	59%
Vol Right, %	52%	51%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	216	131	147
LT Vol	0	64	60
Through Vol	104	0	87
RT Vol	112	67	0
Lane Flow Rate	292	177	199
Geometry Grp	1	1	1
Degree of Util (X)	0.348	0.236	0.263
Departure Headway (Hd)	4.295	4.807	4.764
Convergence, Y/N	Yes	Yes	Yes
Cap	835	744	753
Service Time	2.332	2.854	2.807
HCM Lane V/C Ratio	0.35	0.238	0.264
HCM Control Delay	9.6	9.3	9.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.6	0.9	1.1

Intersection	
Intersection Delay, s/veh	5.9
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	177	292	199
Demand Flow Rate, veh/h	181	298	203
Vehicles Circulating, veh/h	144	83	88
Vehicles Exiting, veh/h	237	208	237
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	6	2	1
Ped Cap Adj	0.999	1.000	1.000
Approach Delay, s/veh	5.5	6.4	5.4
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	181	298	203
Cap Entry Lane, veh/h	978	1040	1035
Entry HV Adj Factor	0.978	0.980	0.979
Flow Entry, veh/h	177	292	199
Cap Entry, veh/h	956	1019	1012
V/C Ratio	0.185	0.287	0.196
Control Delay, s/veh	5.5	6.4	5.4
LOS	A	A	A
95th %tile Queue, veh	1	1	1

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