

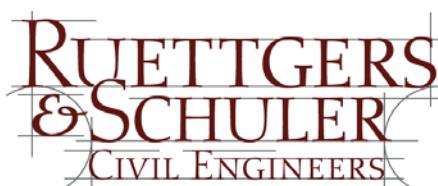
# TRAFFIC STUDY

COMMERCIAL GPA & ZONE CHANGE  
NORTHEAST CORNER OF ASHE ROAD & TAFT HIGHWAY  
BAKERSFIELD, CALIFORNIA

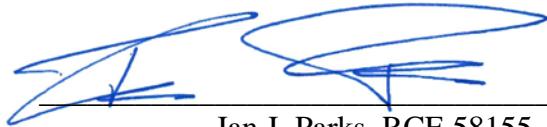
Prepared for:  
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**January 2019**

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## **INTRODUCTION**

The purpose of this study is to evaluate the potential traffic impact of a proposed commercial General Plan Amendment (GPA) and Zone Change located on the northeast corner of Taft Highway (State Route 119) and Ashe Road in the City of Bakersfield, California (see Figures 1 and 2 for Vicinity and Location maps).

### **A. Land Use, Site and Study Area Boundaries**

The site is currently zoned for single family residential. The proposed change is for an approximately 4.9-acres of retail commercial (GC & C-2), with 48,225 square feet of retail commercial buildings as shown on the current site plan (see Figure 3, Site Plan). As shown on the site plan, the retail commercial buildings include a 2,700 square foot convenience market with gasoline pumps, two fast food restaurants with drive-throughs totaling 4,100 square feet, and four multi-tenant retail buildings totaling 41,425 square feet.

The study site is bounded by McCutchen Road to the north, Taft Highway to the south, Stine Road to the east, and Gosford Road to the west.

A total of six unsignalized intersection and two signalized intersections are included in the study. The scope of the study was developed in association with The City of Bakersfield Public Works Traffic Division, and Caltrans District 6.

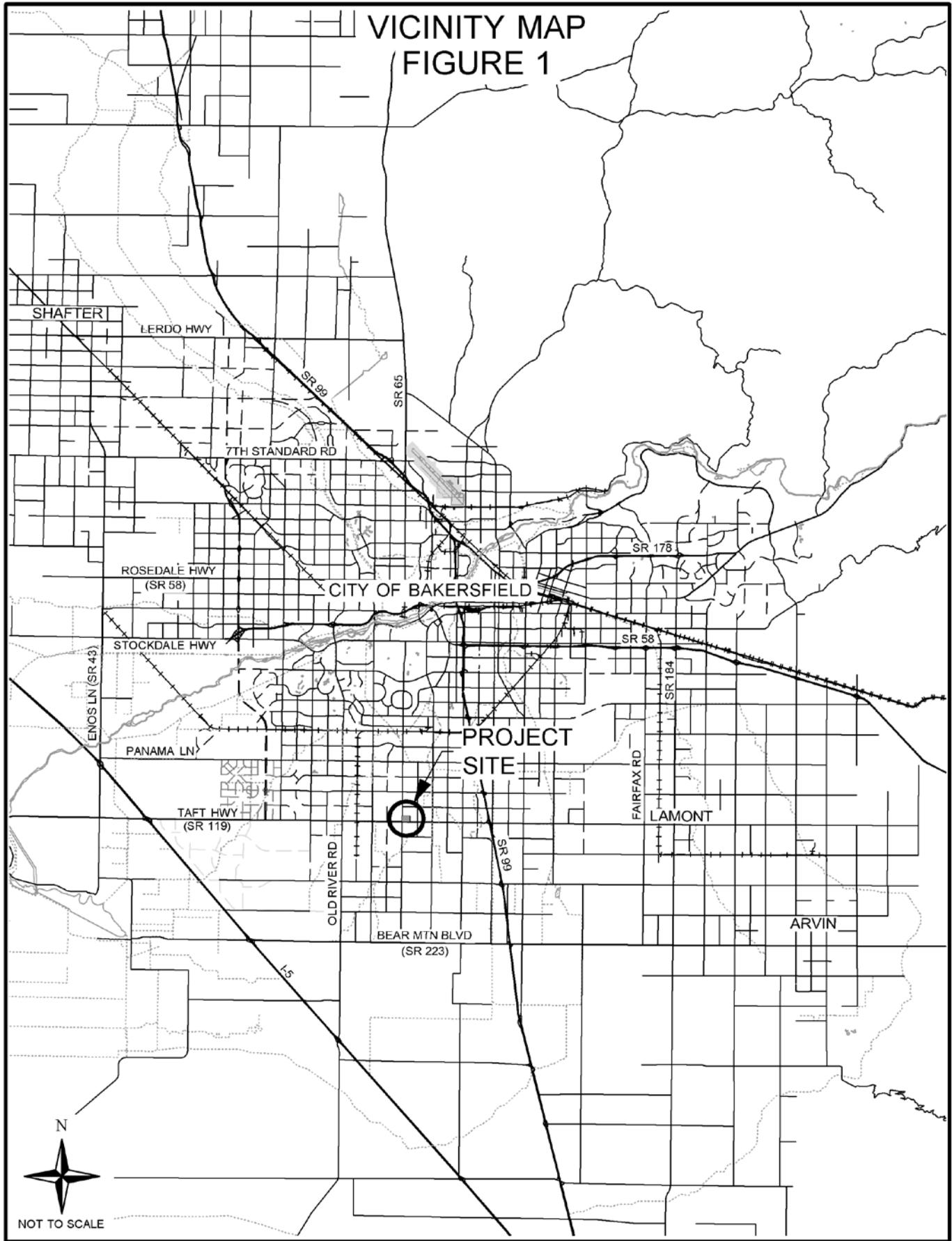
### **B. Existing Site Uses and Site Access**

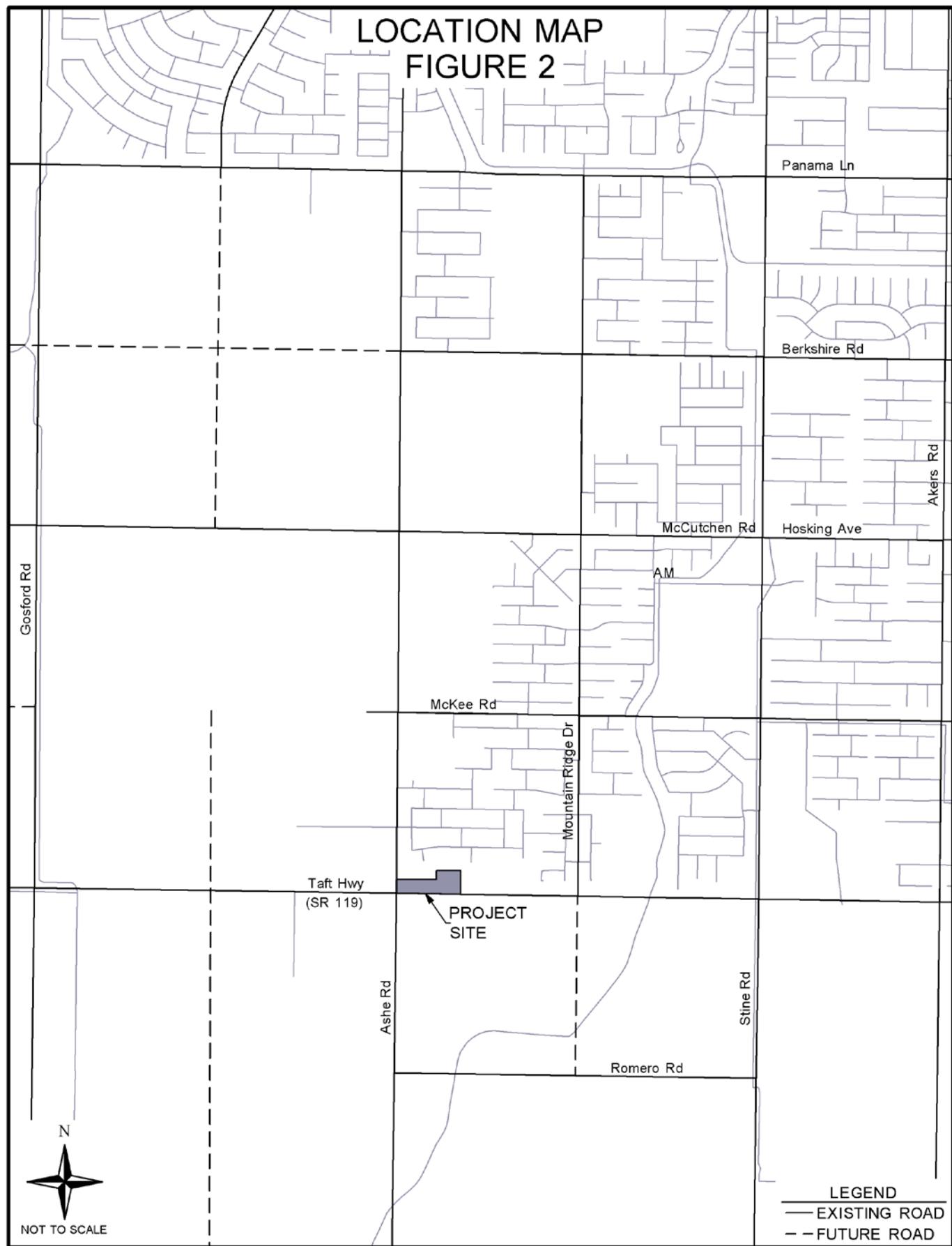
A primary residential unit with three smaller dethatched dwelling units and four storage structures are currently located on the western half of the project site. The remainder of the property is vacant.

Access to the project is proposed to be located on Ashe Road and Taft Highway (SR 119). In accordance with policy standards for State Route 119, access to the site on State Route 119 will be allowed with the construction of a fourth auxiliary lane and right in and right out only.

### C. Existing Uses in the Vicinity of the Site

Existing land uses in the vicinity of the site include residential developments to the north and east, a developing residential development to the south, a sports complex to the northwest and agricultural land uses to the southwest.





## D. Roadway Descriptions

Ashe Road is an arterial which extends south from Stockdale Highway approximately midway between Gosford Road and New Stine Road. It currently operates as a four-lane roadway with improvements adjacent to newer developments and a two-lane roadway in other areas. In the vicinity of the project, it provides access to residential, industrial and agricultural land uses.

Gosford Road is an arterial which extends south from Stockdale Highway midway between Old River Road and Ashe Road. It operates with six lanes north of Harris Road and five lanes from Harris Road to Panama Lane, and then reduces to two lanes south of Panama Road. In the study area, it provides access to agricultural land uses. Gosford Road continues north of Stockdale Highway as Coffee Road. Gosford Road/Coffee Road is one of four north-south arterials that cross the Kern River west of State Route 99, and therefore, serves as a major north-south corridor in western metropolitan Bakersfield.

McCutchen Road is an arterial which extends west from Stine Road along the Hosking Avenue alignment. It currently exists as a fully improved 3-4 lane roadway adjacent to development and a two-lane roadway in other areas, and it provides access to agricultural and residential land uses in the vicinity of the project.

McKee Road is an east-west collector which currently exists as a two-lane roadway at various stages of widening adjacent to development from Ashe Road to where it terminates adjacent to State Route 99. In the vicinity of the project, it provides access to existing and development residential land uses. McKee Road does not cross State Route 99.

Stine Road is a north-south arterial which currently exists at full improvement width north of Panama Lane and at various stages of widening adjacent to development south of Panama Lane. Stine Road provides access from residential and commercial areas to east-west arterials and from southern metropolitan Bakersfield to central Bakersfield via New Stine Road and California Avenue.

Taft Highway, an east-west roadway, is designated as an expressway west of State Route 99 (State Route 119) and as an arterial east of State Route 99. In the project vicinity, it currently exists as a two-lane roadway at various stages of widening adjacent to development west of State Route 99. Taft Highway continues as a two-lane roadway with graded shoulders east of State Route 99 along the Panama Road alignment. The City of Bakersfield and Caltrans have adopted specific design standards for State Route 119 in the vicinity of the project. The standards are contained in City of Bakersfield Resolution 063-12.

## **PROJECT TRIP GENERATION AND DESIGN HOUR VOLUMES**

The trip generation and design hour volumes shown in Table 1 were calculated using the Institute of Transportation Engineers (ITE) Trip Generation, 10<sup>th</sup> Edition, as well as data provided in the project proposal. The AM/PM rates and directional splits for ITE Land Use Codes 934 (Fast-Food Restaurant w/Drive-Thru), 820 (Shopping Center) and 853 (Convenience Market with Gasoline Pumps) were used to estimate trip generation for weekday peak hour of adjacent street traffic.

**Table 1**  
**Project Trip Generation**

General Information			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/Trips	Out % Split/Trips	Rate	In % Split/Trips	Out % Split/Trips
934	Fast-Food Restaurant w/Drive-Thru	2.2 1000 sq ft GFA	470.95	1036	40.19	51% 45	49% 43	32.67	52% 37	48% 34
934	Fast-Food Restaurant w/Drive-Thru	1.9 1000 sq ft GFA	470.95	895	40.19	51% 39	49% 37	32.67	52% 32	48% 30
820	Shopping Center	41.43 1000 sq ft GLA	eq	3302	eq	62% 107	38% 66	eq	48% 136	52% 147
853	Convenience Market with Gasoline Pumps	2.7 1000 sq ft GFA	624.2	1685	40.59	50% 55	50% 55	49.29	50% 67	50% 67
sub-total				6,918		246	201		272	278
<i>Adjustments</i>										
Capture		5%		346		12	10		14	14
Pass-by		20%		660		21	13		27	29
Pass-by		40%		1,446		56	54		54	52

Based on the standard pass-by rates documented in the City of Bakersfield Subdivision and Engineering Design manual, a pass-by rate of 20% was applied to the shopping center, and a pass-by rate of 40% was applied to the fast food restaurant and service station land uses. These pass-by rates account for trips which are made as intermediate stops between trip origin and ultimate destination, and are drawn from traffic passing the site, therefore not adding trips to the adjacent street system.

A capture rate of 5% was applied to all land uses to account for trips between multiple land uses within the project. The capture rate used for this study was also developed based on City of Bakersfield guidelines.

## **TRIP DISTRIBUTION AND ASSIGNMENT**

The trip distribution shown in Table 2 represents the likely movement of traffic accessing the project site by direction. Project traffic distribution was estimated based on a review of the proposed project land use and potential draw from population centers, as well as input from the City of Bakersfield's Traffic Division. Assignments of project peak hour traffic to the study intersections are shown in Figure 3.

**Table 2**  
**Project Trip Distribution**

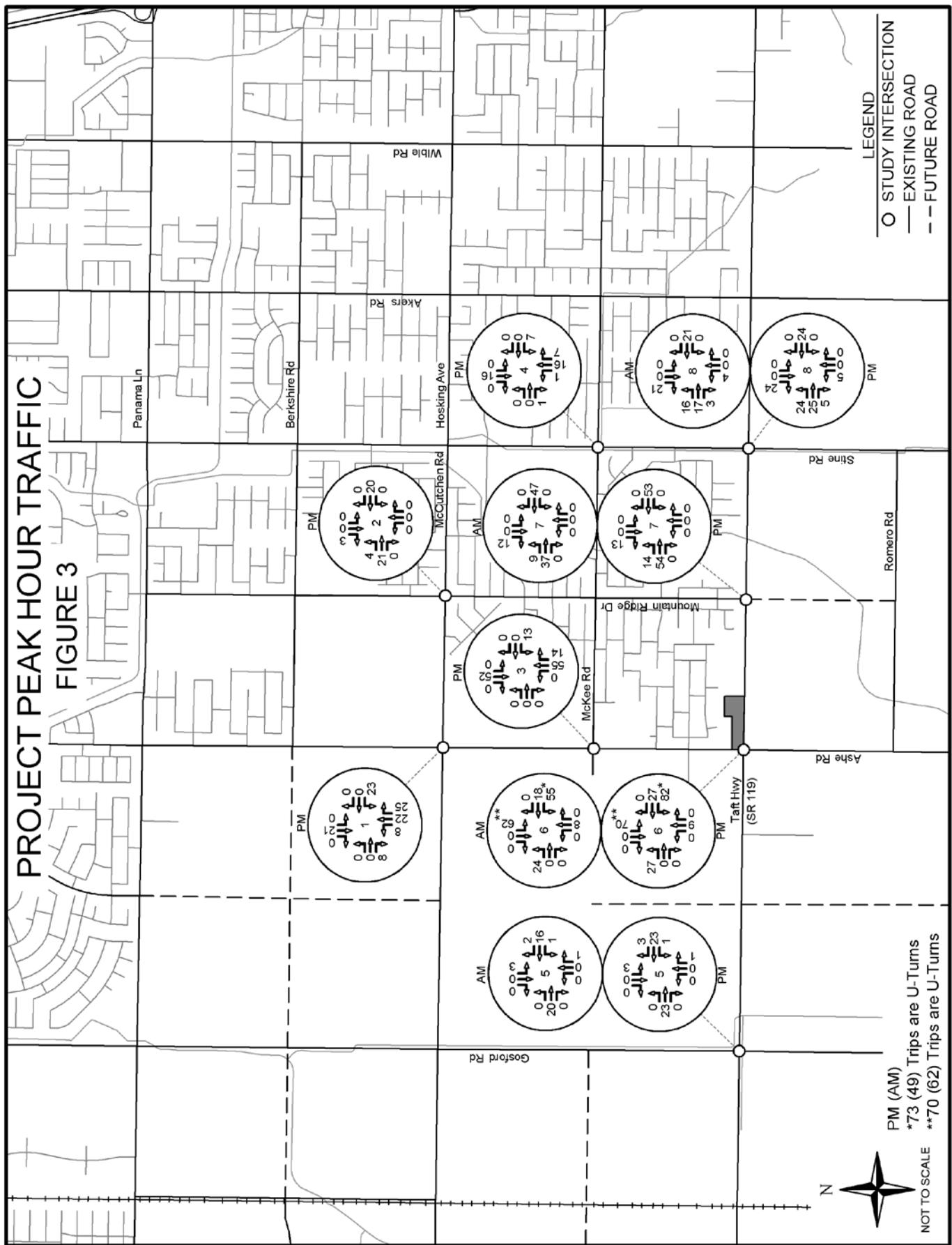
<b>Direction</b>	<b>Percent</b>	<b>Roadway</b>
North	40	Ashe Road
South	5	Ashe Road
East	40	Taft Highway
West	15	Taft Highway

## **EXISTING AND FUTURE TRAFFIC**

Existing weekday AM and PM peak hour volumes and turning movements were field measured at the study intersections in January 2019 (AM counts for state facilities only). Existing volumes are shown in Figure 4.

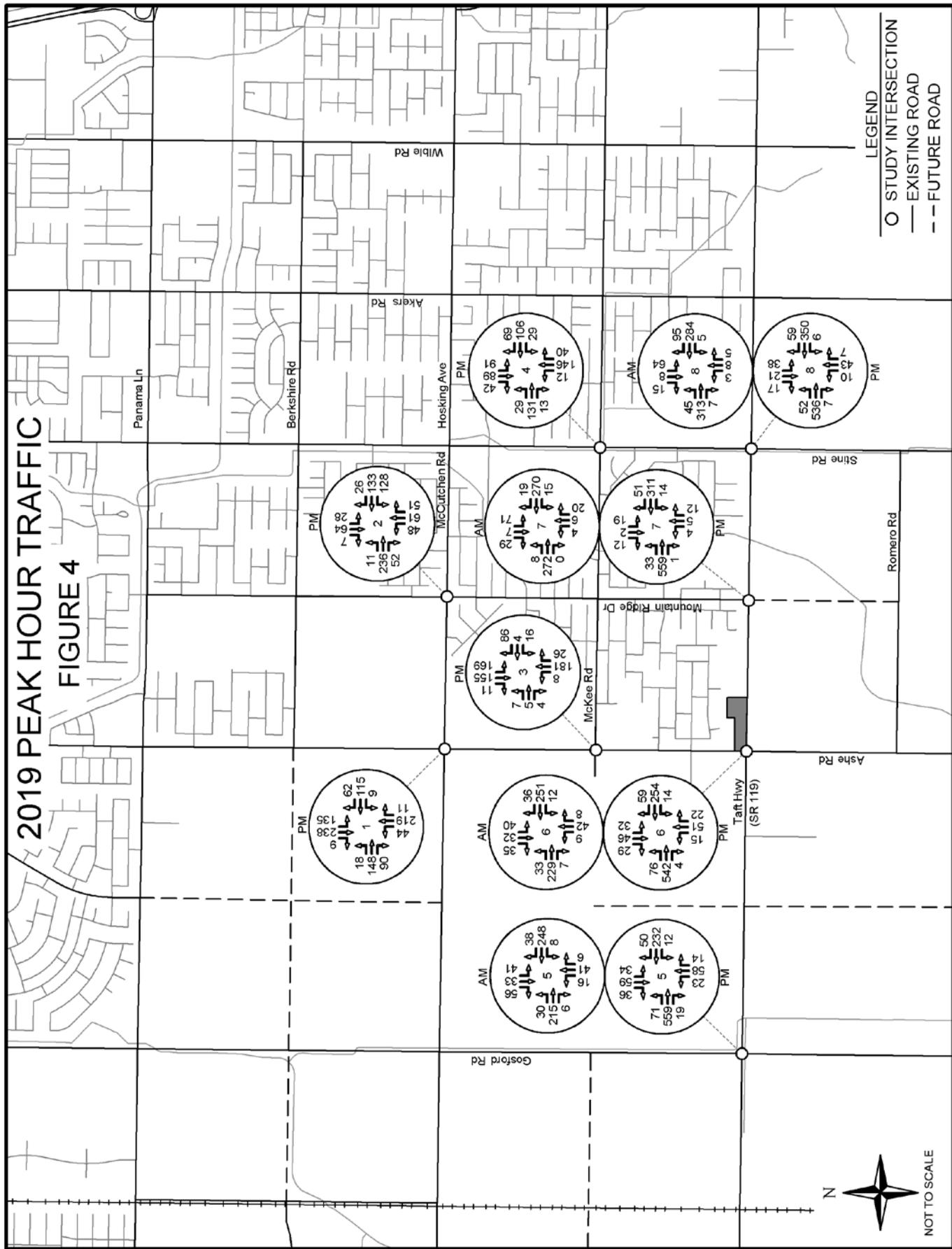
Average annual growth rates ranging between 1.24% and 11.77% were applied to existing peak hour volumes to estimate future volumes for the year 2022 (opening year) and 2035. These growth rates were estimated based on a review of existing development and KernCOG traffic model data.

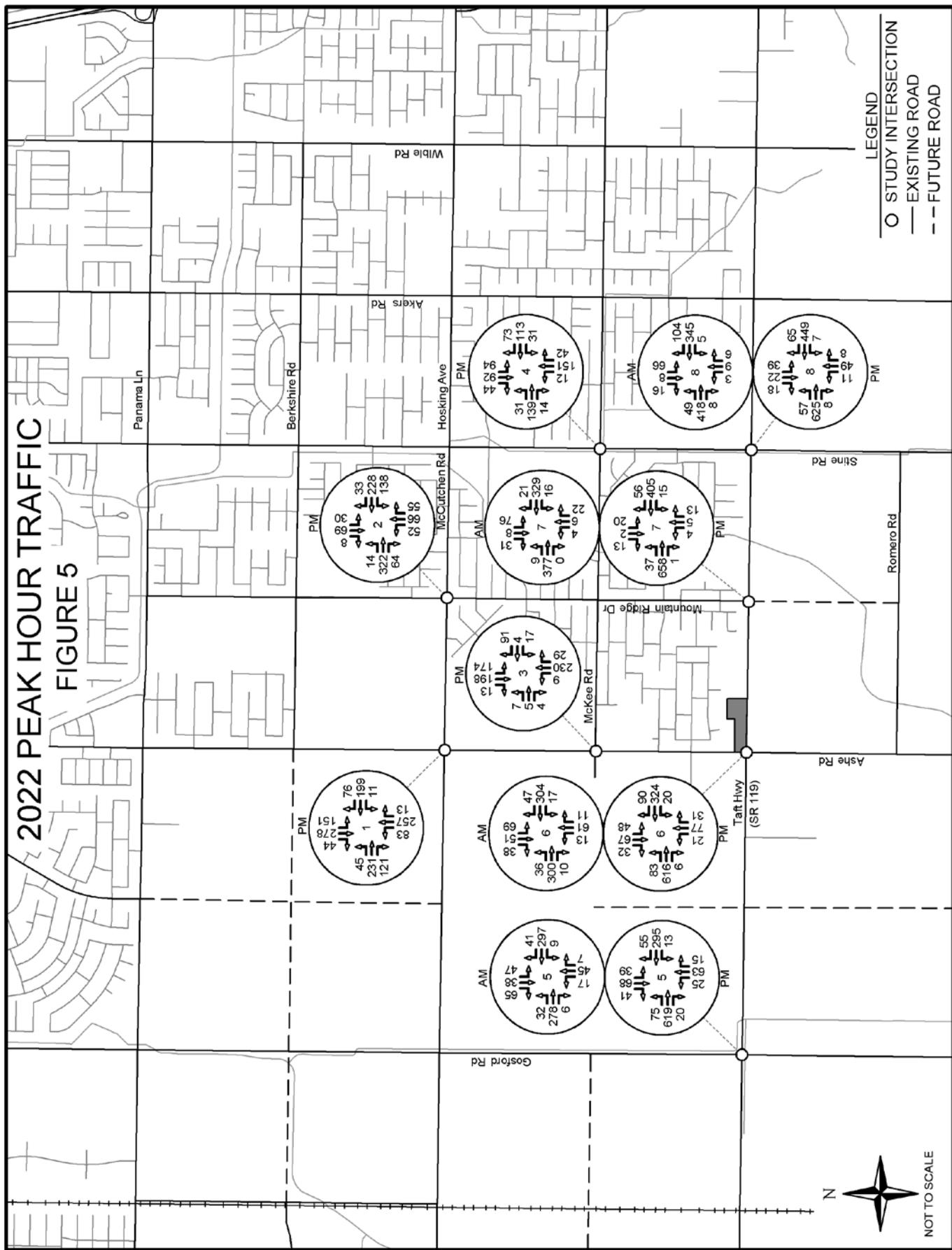
Cumulative traffic was also estimated for projects that would not yet be accounted for in the KernCOG traffic model. A list of active General Plan Amendment (GPA) applications, that are anticipated to interact with the roadway system within the study area, as well as a trip generation table and distribution map of the cumulative projects are included in the appendix. Cumulative traffic was added to traffic volume estimates at the study intersections for all future scenarios. Figures 5 and 6 represent the opening year (2022 Cumulative) and opening year (2022 Cumulative) plus project traffic volumes. Figures 7 and 8 represent the Future Cumulative peak hour volumes for the 2035 and 2035 plus project scenarios.

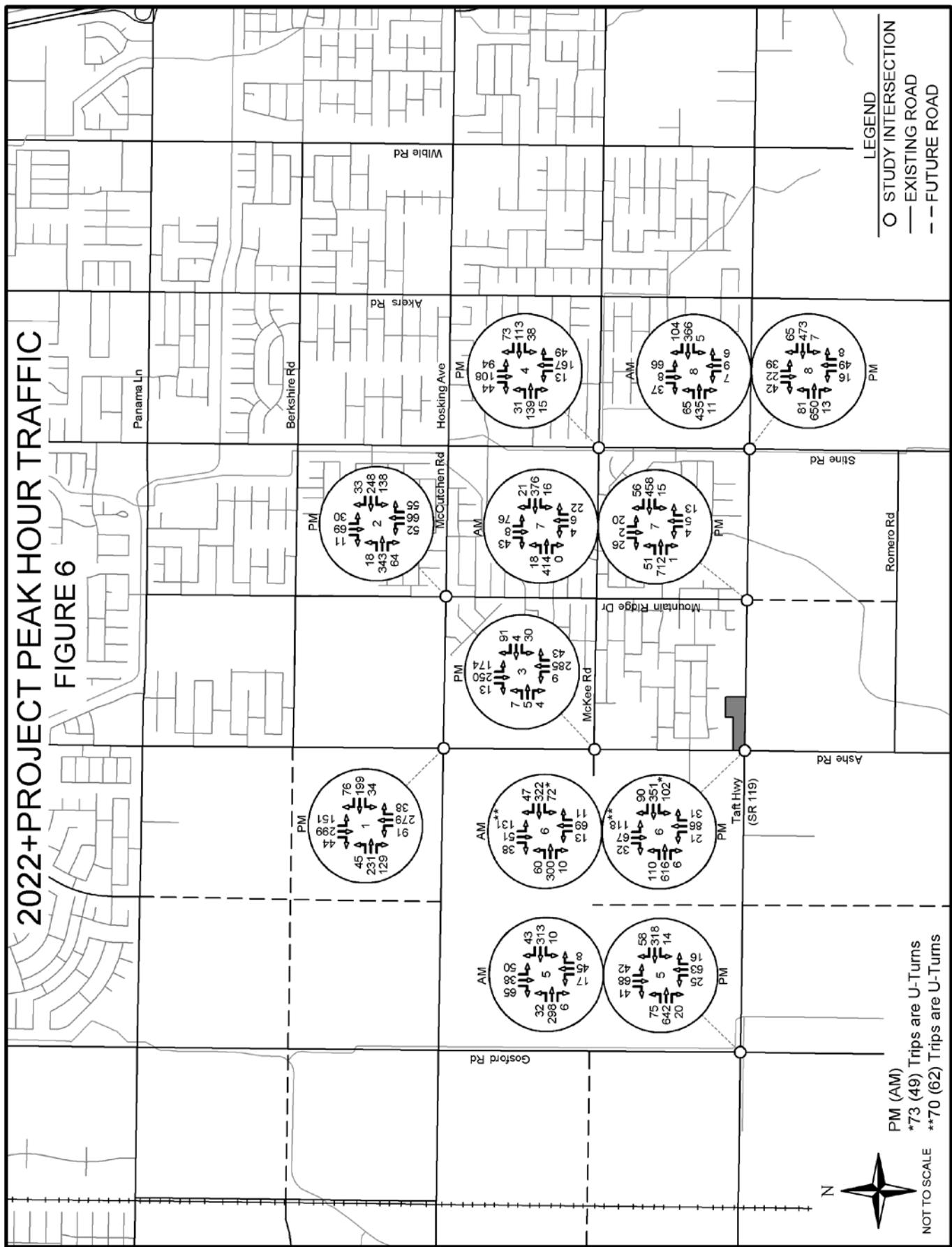


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## Commercial GPA & Zone Change NE Corner Ashe Road & Taft Highway

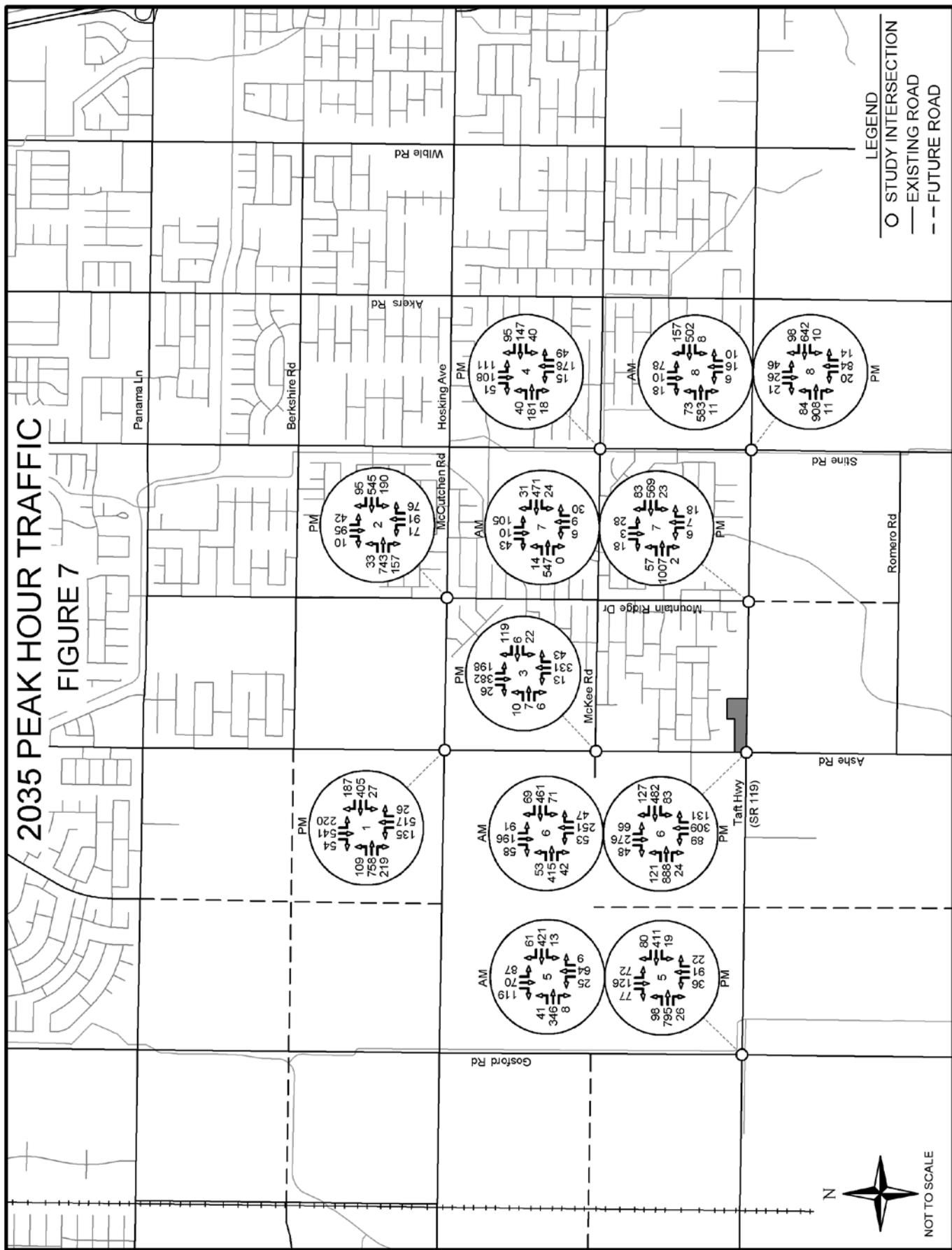




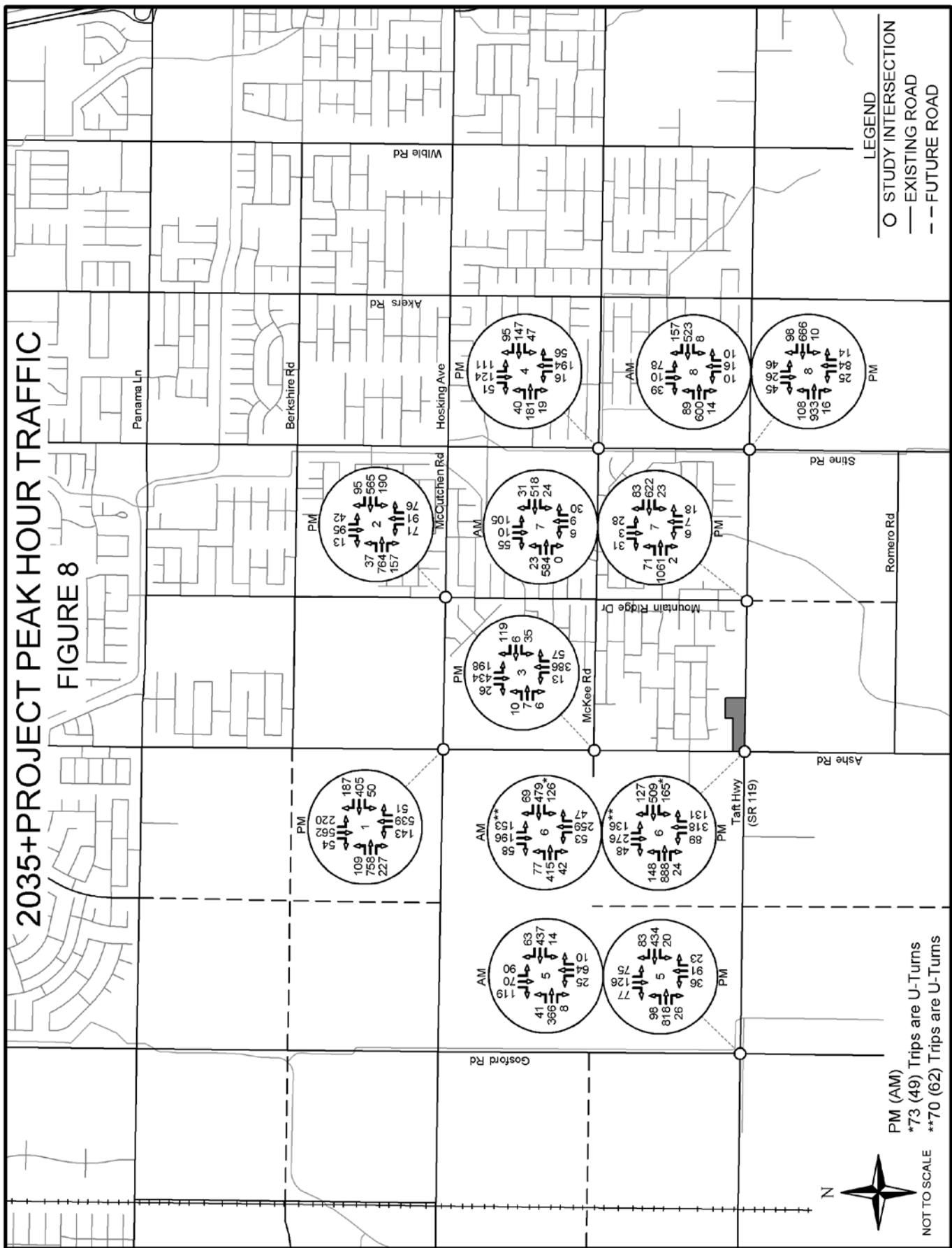


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## Commercial GPA & Zone Change NE Corner Ashe Road & Taft Highway



## Commercial GPA & Zone Change NE Corner Ashe Road & Taft Highway



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## Commercial GPA & Zone Change NE Corner Ashe Road & Taft Highway

## **SIGNIFICANT IMPACT CRITERIA**

The City of Bakersfield utilizes three criteria to evaluate whether project traffic would cause a significant impact and therefore require mitigation. First, a significant impact would be found when the addition of project traffic causes the level of service of an intersection or roadway segment to drop below LOS C. Second, a significant impact would be found when an intersection or roadway segment operates below LOS C without project traffic and the addition of project traffic causes further degradation in the level of service. Third, for intersections that currently operate at LOS D, E or F, mitigation would be required when the addition of project traffic in the future year creates an additional control or an average delay per vehicle of more than 5 seconds.

These criteria have been adopted by the City of Bakersfield and are contained in various planning documents, such as the Circulation Element of the Metropolitan Bakersfield 2010 General Plan and Kern County's Congestion Management Program.

## **INTERSECTION ANALYSIS**

A capacity analysis of the study intersections was conducted using Synchro 9 software from Trafficware. This software utilizes the capacity analysis methodology in the Transportation Research Board's 2010 Highway Capacity Manual. The analysis was performed for the weekday AM and PM peak hours for each of the following traffic scenarios (AM analyzed for state facilities only):

- Existing (2019) Traffic
- Opening Year (2022)
- Opening Year (2022) + Project
- Future (2035) Cumulative Traffic
- Future (2035) Cumulative + Project Traffic

Level of service (LOS) criteria for unsignalized and signalized intersections, as described in HCM 2010, are presented in the tables below. Level of service analysis results for the study intersections are presented in Tables 3 and 4. The intersection peak hour level of service goal for the City of Bakersfield is LOS C or better.

**LEVEL OF SERVICE CRITERIA  
UNSIGNALIZED INTERSECTION**

Level of Service	Average Control Delay (sec/veh)	Expected Delay to Minor Street Traffic
A	$\leq 10$	Little or no delay
B	$> 10 \text{ and } \leq 15$	Short traffic delays
C	$> 15 \text{ and } \leq 25$	Average traffic delays
D	$> 25 \text{ and } \leq 35$	Long traffic delays
E	$> 35 \text{ and } \leq 50$	Very long traffic delays
F	$> 50$	Extreme delays

**LEVEL OF SERVICE CRITERIA  
SIGNALIZED INTERSECTIONS**

Level of Service	Average Control Delay (sec/veh)	Volume-to-Capacity Ratio
A	$\leq 10$	$< 0.60$
B	$> 10 \text{ and } \leq 20$	0.61 - 0.70
C	$> 20 \text{ and } \leq 35$	0.71 - 0.80
D	$> 35 \text{ and } \leq 55$	0.81 - 0.90
E	$> 55 \text{ and } \leq 80$	0.91 - 1.00
F	$> 80$	$> 1.00$

**Table 3**  
**Intersection Level of Service**  
**Weekday AM Peak Hour**

#	Intersection	Control Type	2019	2022 Cum Opening Year	2022 Cum Opening Year +Project	2035 Cum	2035 Cum+ Project	2035+Proj w/Mit <sup>1</sup>
5	Taft Hwy (SR 119) & Gosford Rd	Signal	B	B	B	C	C	C
6	Taft Hwy (SR 119) & Ashe Rd	Signal	C	C	C	C	E (87.4)	C
7	Taft Hwy (SR 119) & Mountain Ridge Dr	AWSC	B	C	C	F (54.3)	F (55.0)	C
8	Taft Hwy (SR 119) & Stine Rd	Signal	A	A	B	B	B	B

NOTE: Cum=Background Cumulative Traffic; Mit=Mitigation

<sup>1</sup>See Table 7 for Mitigation Measures.

**Table 4**  
**Intersection Level of Service**  
**Weekday PM Peak Hour**

#	Intersection	Control Type	2019	2022 Cum Opening Year	2022 Cum Opening Year +Project	2035 Cum	2035 Cum+ Project	2035+Proj w/Mit <sup>1</sup>
1	Ashe Rd & McCutchen Rd	AWSC	C	F (54.0)	F (61.4)	F (75.5)	F (75.1)	C
2	Mountain Ridge Dr & McCutchen Rd	AWSC	B	C	C	F (50.4)	F (50.8)	C
3	Ashe Rd & McKee Rd	AWSC	B	B	B	C	D (29.7)	B
4	McKee Rd & Stine Rd	AWSC	B	B	B	B	B	B
5	Taft Hwy (SR 119) & Gosford Rd	Signal	B	B	B	C	C	C
6	Taft Hwy (SR 119) & Ashe Rd	Signal	B	B	C	F (116.8)	F (396.1)	C
7	Taft Hwy (SR 119) & Mountain Ridge Dr	AWSC	E (35.9)	E (43.0)	E (47.2)	F (56.4)	F (56.4)	C
8	Taft Hwy (SR 119) & Stine Rd	Signal	B	B	B	B	B	B

NOTE: Cum=Background Cumulative Traffic; Mit=Mitigation

<sup>1</sup>See Table 7 for Mitigation Measures.

## **TRAFFIC SIGNAL WARRANT ANALYSIS**

Weekday PM peak hour signal warrants were evaluated for the unsignalized intersection within the scope of the study based on the 2014 edition of the California Manual on Uniform Traffic Control Devices (2014 CA MUTCD). Signal warrants assess delay to traffic on minor street approaches at major street intersections. AM and PM signal warrant analysis results are presented in Tables 5a and 5b.

**Table 5a**  
**Traffic Signal Warrants**  
**Weekday AM Peak Hour**

#	Intersection	2019			2022 Cumulative			2022 Cumulative+Project			2035 Cumulative			2035 Cumulative+Project		
		Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met
7	Mountain Ridge Dr at Taft Hwy (SR 119)	584	107	NO	752	115	NO	845	127	NO	1087	158	YES	1180	170	YES

**Table 5b**  
**Traffic Signal Warrants**  
**Weekday PM Peak Hour**

#	Intersection	2019			2022 Cumulative			2022 Cumulative+Project			2035 Cumulative			2035 Cumulative+Project		
		Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met
1	Ashe Rd at McCutchen Rd	656	256	NO	826	397	N/A	902	405	N/A	1705	815	YES	1736	836	YES
2	Mountain Ridge Dr at McCutchen Rd	586	160	NO	799	173	N/A	844	173	N/A	1763	238	YES	1808	238	YES
3	Ashe Rd at McKee Rd	550	106	NO	653	112	N/A	774	125	N/A	993	147	YES	1114	160	YES
4	Stine Rd at McKee Rd	420	204	NO	435	217	N/A	475	224	N/A	521	270	NO	552	289	NO
7	Mountain Ridge Dr at Taft Hwy (SR 119)	969	33	NO	1172	35	NO	1293	48	NO	1741	49	NO	1862	62	NO

It is important to note that a signal warrant defines the minimum condition under which signalization of an intersection might be warranted. Meeting this threshold does not suggest traffic signals are required, but rather, that other traffic factors and conditions be considered in order to determine whether signals are truly justified.

It is also noted that signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above LOS C, or operate below LOS C and not meet signal warrant criteria.

## **ROADWAY ANALYSIS**

Volume-to-capacity (v/c) ratios for roadway segments in the study area are shown in Table 6. A volume-to-capacity ratio of greater than 0.80 corresponds to a LOS of less than C, as defined in HCM 2010. The City of Bakersfield's operational goal for roadway capacity is LOS C or better.

**Table 6**  
**Roadway Capacity**

Street	2019 <sup>i</sup>	Project ADT	Cum ADT	2022 ADT	2022+ Project	2035 ADT	2035+ Project	Existing Capacity	Mitigated Capacity	v/c(Ex) 2019	v/c(Ex) 2022	v/c(Ex) 2022+Proj	v/c(Ex) 2035	v/c(Ex) 2035+Proj	v/c(Mit)
McCutchen Rd: Ashe Rd to Mt Ridge Dr	5510	670	809	7772	8442	19051	19721	15000	30000	0.37	0.52	0.56	<b>1.27</b>	<b>1.31</b>	0.66
McKee Rd: Ashe Rd to Stine Rd	4698	372	0	4993	5365	6500	6872	15000	-	0.31	0.33	0.36	0.43	0.46	-
Taft Hwy (SR 119): Gosford Rd to Ashe Rd	11976	670	888	14035	14705	20475	21145	15000	50000	0.80	<b>0.94</b>	<b>0.98</b>	<b>1.37</b>	<b>1.41</b>	0.42
Taft Hwy (SR 119): Ashe Rd to Mt Ridge Dr	12105	2457	1392	14965	17422	23407	25864	15000	50000	<b>0.81</b>	<b>1.00</b>	<b>1.16</b>	<b>1.56</b>	<b>1.72</b>	0.52
Taft Hwy (SR 119): Mt Ridge Dr to Stine Rd	13385	1489	1353	16136	17625	23901	25390	15000	50000	<b>0.89</b>	<b>1.08</b>	<b>1.18</b>	<b>1.59</b>	<b>1.69</b>	0.51
Ashe Rd: McKee Rd to McCutchen Rd	3742	670	623	5129	5799	10316	10986	15000	-	0.25	0.34	0.39	0.69	0.73	-
Ashe Rd: Taft Hwy (SR 119) to McKee Rd	3660	2382	623	4708	7090	7096	9478	15000	-	0.24	0.31	0.47	0.47	0.63	-
Mountain Ridge Dr: McKee Rd to McCutchen Rd	1220	372	0	1314	1686	1811	2183	15000	-	0.08	0.09	0.11	0.12	0.15	-
Stine Rd: Taft Hwy (SR 119) to McKee Rd	2449	670	0	2541	3211	2983	3653	15000	-	0.16	0.17	0.21	0.20	0.24	-

NOTE: All future scenarios include cumulative traffic volumes.

<sup>i</sup>Published ADT data not available; 2019 grown from most recent available year.

## **MITIGATION**

The Regional Transportation Impact Fee (RTIF) Program imposes fees on new development and includes a Regional Transportation Facilities List and Transportation Impact Fee Schedule. The Facilities List includes transportation improvements which are needed by the year 2035 to maintain a LOS C or better for new growth or to prevent the degradation of facilities which currently operate below LOS C. The Fee Schedule sets forth fees to be collected from new development to mitigate the need for transportation improvements.

Intersection and roadway improvements needed by the year 2035 to maintain or improve the operational level of service of the street system in the vicinity of the project are presented in Tables 7 and 8.

**Table 7**  
**Future Intersection Improvements and Local Mitigation**

#	Intersection	Total Improvements Required by 2035 <sup>1</sup>	Local Mitigation (Improvements not covered by RTIF or adjacent development)
1	Ashe Rd & McCutchen Rd	Add Signal Add 1 EBL, 2 EBT, 1 EBR, 1 WBL, 2 WBT Change SBT/L to 1 SBT, Add 2 SBL, 2 SBT <sup>2</sup> Change NBT/R/L to 1 NBT, Add 2 NBL, 2 NBT, 1 NBR	-
2	Mt Ridge Dr & McCutchen Rd	Add Signal Add 1 EBT <sup>2</sup> Add 2 WBT <sup>2</sup> Change SBT/R to 1 SBT, Add 1 SBR	-
3	Ashe Rd & McKee Rd	Add Signal Change EBT/R to 1 EBR <sup>2</sup> , Add 2 EBT <sup>2</sup> , 1 EBL <sup>2</sup> Change WBT/R to 1 WBR <sup>2</sup> , Add 2 WBT <sup>2</sup> , 1 WBL <sup>2</sup> Add 1 NBL <sup>2</sup> , 2 NBT <sup>2</sup> , 1 SBL <sup>2</sup> , 2 SBT <sup>2</sup>	-
6	Ashe Rd & Taft Hwy (SR 119)	Add 1 EBL, 2 EBT, 1 EBR, 1 WBT, 1 NBL, 1 NBT, 1 NBR Change SBT/L to SBL, Add 2 SBT <sup>2</sup>	-
7	Mt Ridge Dr & Taft Hwy (SR 119)	Add Signal Add 1 EBT, 1 EBR, 1 WBL <sup>2</sup> , 1 WBT <sup>2</sup> , 1 SBT <sup>2</sup> , 1 NBL, 1 NBT, 1 NBR	-

NOTES: NB=Northbound; L=Left-Turn Lane; SB=Southbound; T=Through Lane; EB=Eastbound;  
 R=Right-Turn Lane; WB=Westbound

<sup>1</sup>All improvements are included in the Fee Program facilities list through planned roadway widening and signal installations.

<sup>2</sup>Striping only.

**Table 8**  
**Future Roadway Improvements and Local Mitigation**

Roadway Segment	Total Improvements Required by 2040	Local Mitigation (Improvements not covered by RTIF or adjacent development)
McCutchen Rd: Ashe Rd to Mt Ridge Rd	Add Two Lanes	-
Taft Hwy (SR 119): Gosford Rd to Ashe Rd	Add Two Lanes	-
Taft Hwy (SR 119): Ashe Rd to Mt Ridge Rd	Add Two Lanes	-
Taft Hwy (SR 119): Mt Ridge Rd to Stine Rd	Add Two Lanes	-

### **ANALYSIS SUMMARY**

This study evaluated the potential traffic impact of a proposed commercial General Plan Amendment (GPA) and Zone Change located on the northeast corner of Taft Highway (State Route 119) and Ashe Road in the City of Bakersfield. Study findings are summarized below.

#### **Intersection Level of Service**

With the exception of the intersection at Taft Highway (SR 119) & Mountain Ridge Drive, all intersections within the scope of the study currently operate at or above LOS C during the weekday peak hours.

By the Opening Year (2022), it is anticipated that the intersection of Ashe Road & McCutchen Road will operate below an acceptable level of service. All remaining intersections operating at an acceptable level of service in the Opening Year (2022), are anticipated to continue to do so before and after the addition of project traffic.

By 2035, it is anticipated that the intersections of Mountain Ridge Drive & McCutchen Road and Taft Highway (SR 119) & Ashe Road will operate below an acceptable level of service prior to the addition of project traffic. With the addition of project traffic in 2035, it is anticipated that the intersection of Ashe Road & McKee Road will also operate below an acceptable level of service. All other intersections

operating at acceptable levels of service in the year 2035 are anticipated to continue to do so before and after the addition of project traffic.

### Roadway Level of Service

With the exception of the segments of Taft Highway (SR 119) from Ashe Road to Mountain Ridge Road and Mountain Ridge Road to Stine Road, all other roadway segments operate at acceptable levels of service in the exiting year. By the Opening Year (2022), it is anticipated that the segment of Taft Highway (SR 119) from Gosford Road to Ashe Road will operate below an acceptable level of service prior to the addition of project traffic. All other roadway segments within the scope of the study operate at an acceptable level of service in the Opening Year (2022), and are anticipated to continue to do so after the addition of project traffic.

By 2035, it is anticipated that the roadway segment of McCutchen Road from Ashe Road to Mountain Ridge Drive will operate below an acceptable level of service prior to the addition of project traffic. All other roadways within the scope of the study operate at an acceptable level of service in the year 2035, and are anticipated to continue to do so after the addition of project traffic.

### **CONCLUSION**

All study intersections and roadway segments meeting the City of Bakersfield's significant impact criteria are able to be mitigated to operate at LOS C during or better during the weekday peak hours in the year 2035 through specific improvements included in the Regional Transportation Impact Fee program.

**REFERENCES**

1. California Manual on Uniform Traffic Control Devices for Streets and Highways, 2014 Edition, State of California, California State Transportation Agency, Department of Transportation (Caltrans), 2014
2. Highway Capacity Manual, Transportation Research Board, 2010
3. Traffic Count Database System (TCDS), Kern Council of Governments (Kern COG)
4. Trip Generation Manual, 10th Edition, Institute of Transportation Engineers (ITE), 2012

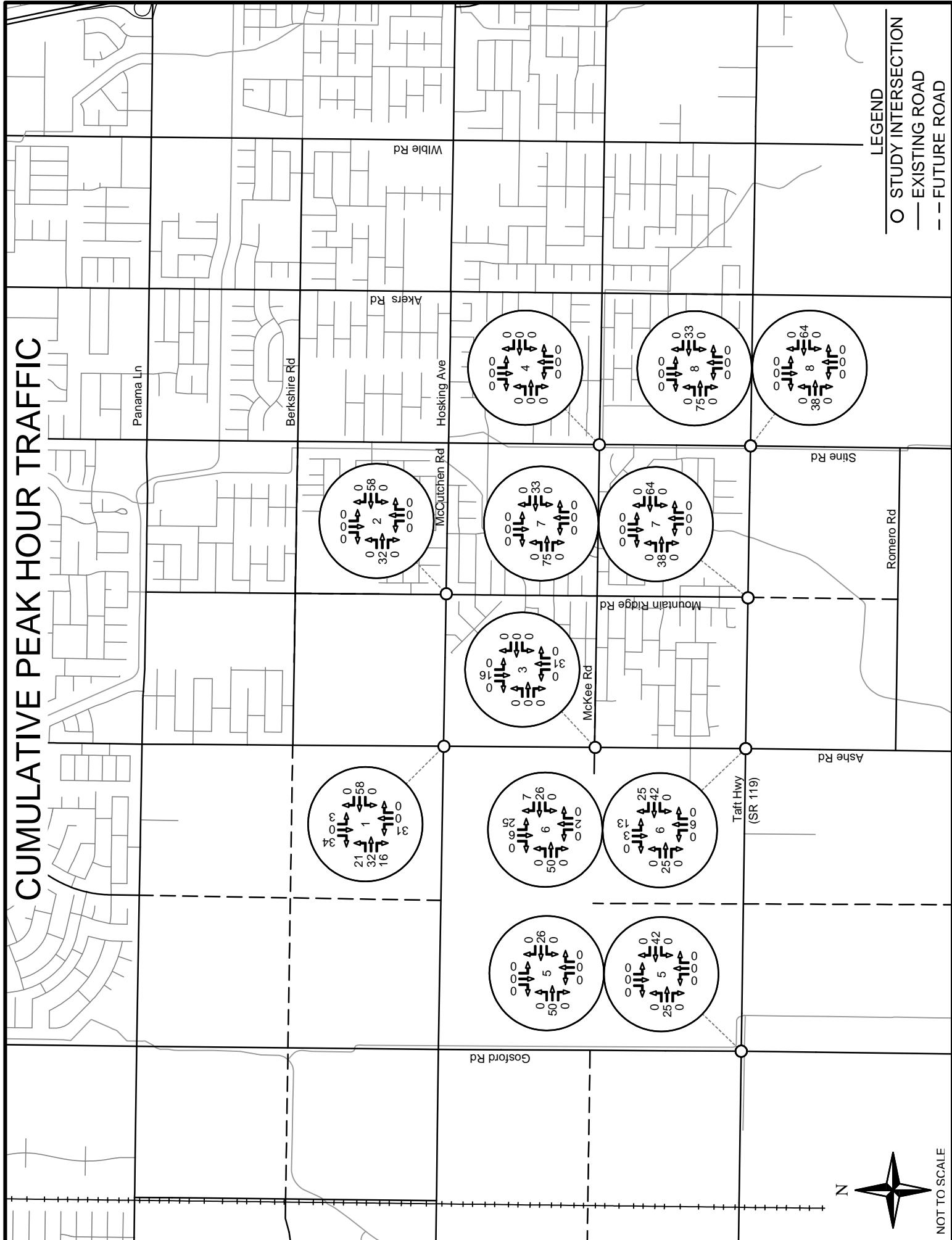
## APPENDIX

## CUMULATIVE TRAFFIC

**Trip Generation**  
**Cumulative Traffic**  
 1/25/2019

General Information				Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips		
ITE Code	GPA/ZC	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/Trips	Out % Split/Trips	Rate	In % Split/Trips	Out % Split/Trips
220	18-0050	Multifamily Housing (Low-Rise)	160 Dwelling Units	eq	1169	eq	23% 17	77% 57	eq	63% 57	37% 33
220	18-0032	Multifamily Housing (Low-Rise)	174 Dwelling Units	eq	1275	eq	23% 19	77% 62	eq	63% 61	37% 36
220	17-0354	Multifamily Housing (Low-Rise)	613 Dwelling Units	eq	4593	eq	23% 61	77% 206	eq	63% 187	37% 110
826	16-0455	Specialty Retail Center	20.75 1000 sq ft GLA	eq	925	eq	48% 104	52% 113	eq	44% 31	56% 40
934	16-0455	Fast-Food Restaurant w/Drive-Thru	2.25 1000 sq ft GFA	470.95	1060	40.19	51% 46	49% 44	32.67	52% 38	48% 35
943	16-0455	Automobile Parts and Service Center	9 1000 sq ft GFA	16.28	147	1.96	73% 13	27% 5	2.26	40% 8	60% 12
945	16-0455	Gasoline/Service Station with Convenience Market	8 Vehicle Fueling Positions	eq	987	eq	51%	49%	15.87	50%	50%
<b>sub-total</b>					<b>10,155</b>		<b>295</b>	<b>520</b>		<b>445</b>	<b>329</b>
<i>Adjustments</i>											
Capture					0		0	0		0	0
Pass-by					15%		329	14	12	16	17
<b>Total</b>					<b>9,826</b>		<b>281</b>	<b>508</b>		<b>429</b>	<b>312</b>

# CUMULATIVE PEAK HOUR TRAFFIC



## LEVEL OF SERVICE

**Intersection 1  
Ashe Rd & McCutchen Rd**

**Intersection**

Intersection Delay, s/veh 22.7

Intersection LOS C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	18	148	90	0	9	115	62	0	44	219	11	0	135	238	9
Future Vol, veh/h	0	18	148	90	0	9	115	62	0	44	219	11	0	135	238	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	161	98	0	10	125	67	0	48	238	12	0	147	259	10
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	13.7	16.4	19.2	34.3
HCM LOS	B	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	17%	0%	11%	0%	5%	35%
Vol Thru, %	83%	0%	89%	0%	62%	62%
Vol Right, %	0%	100%	0%	100%	33%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	263	11	166	90	186	382
LT Vol	44	0	18	0	9	135
Through Vol	219	0	148	0	115	238
RT Vol	0	11	0	90	62	9
Lane Flow Rate	286	12	180	98	202	415
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.577	0.021	0.383	0.187	0.429	0.814
Departure Headway (Hd)	7.262	6.459	7.643	6.867	7.64	7.057
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	495	551	469	519	469	511
Service Time	5.036	4.232	5.422	4.646	5.727	5.123
HCM Lane V/C Ratio	0.578	0.022	0.384	0.189	0.431	0.812
HCM Control Delay	19.6	9.4	15.1	11.2	16.4	34.3
HCM Lane LOS	C	A	C	B	C	D
HCM 95th-tile Q	3.6	0.1	1.8	0.7	2.1	7.9

**Intersection**

Intersection Delay, s/veh 54

Intersection LOS F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	45	231	121	0	11	199	76	0	83	257	13	0	151	278	44
Future Vol, veh/h	0	45	231	121	0	11	199	76	0	83	257	13	0	151	278	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	49	251	132	0	12	216	83	0	90	279	14	0	164	302	48
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	30.6	43.4	57.4	77.6
HCM LOS	D	E	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	24%	0%	16%	0%	4%	32%
Vol Thru, %	76%	0%	84%	0%	70%	59%
Vol Right, %	0%	100%	0%	100%	27%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	340	13	276	121	286	473
LT Vol	83	0	45	0	11	151
Through Vol	257	0	231	0	199	278
RT Vol	0	13	0	121	76	44
Lane Flow Rate	370	14	300	132	311	514
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.926	0.032	0.773	0.31	0.818	1
Departure Headway (Hd)	9.151	8.326	9.277	8.496	9.475	9.398
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	399	433	393	425	385	391
Service Time	6.851	6.026	6.996	6.214	7.49	7.437
HCM Lane V/C Ratio	0.927	0.032	0.763	0.311	0.808	1.315
HCM Control Delay	59.2	11.3	37.4	15	43.4	77.6
HCM Lane LOS	F	B	E	B	E	F
HCM 95th-tile Q	10	0.1	6.4	1.3	7.3	12

**Intersection**

Intersection Delay, s/veh 61.4

Intersection LOS F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	45	231	129	0	34	199	76	0	91	279	38	0	151	299	44
Future Vol, veh/h	0	45	231	129	0	34	199	76	0	91	279	38	0	151	299	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	49	251	140	0	37	216	83	0	99	303	41	0	164	325	48
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	33	57.9	71.1	78.7
HCM LOS	D	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	25%	0%	16%	0%	11%	31%
Vol Thru, %	75%	0%	84%	0%	64%	61%
Vol Right, %	0%	100%	0%	100%	25%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	370	38	276	129	309	494
LT Vol	91	0	45	0	34	151
Through Vol	279	0	231	0	199	299
RT Vol	0	38	0	129	76	44
Lane Flow Rate	402	41	300	140	336	537
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1	0.097	0.796	0.342	0.905	1
Departure Headway (Hd)	9.292	8.467	9.557	8.776	9.7	9.676
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	390	421	378	409	376	381
Service Time	7.087	6.261	7.313	6.532	7.744	7.676
HCM Lane V/C Ratio	1.031	0.097	0.794	0.342	0.894	1.409
HCM Control Delay	77.1	12.2	40.9	16.1	57.9	78.7
HCM Lane LOS	F	B	E	C	F	F
HCM 95th-tile Q	12	0.3	6.8	1.5	9.2	11.8

**Intersection**

Intersection Delay, s/veh 75.5

Intersection LOS F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	109	758	219	0	27	405	187	0	135	517	26	0	220	541	54
Future Vol, veh/h	0	109	758	219	0	27	405	187	0	135	517	26	0	220	541	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	118	824	238	0	29	440	203	0	147	562	28	0	239	588	59
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	67.9	80.3	76.4	81.1
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	21%	0%	13%	0%	4%	27%
Vol Thru, %	79%	0%	87%	0%	65%	66%
Vol Right, %	0%	100%	0%	100%	30%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	652	26	867	219	619	815
LT Vol	135	0	109	0	27	220
Through Vol	517	0	758	0	405	541
RT Vol	0	26	0	219	187	54
Lane Flow Rate	709	28	942	238	673	886
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1	0.071	1	0.597	1	1
Departure Headway (Hd)	9.832	9.029	9.791	9.029	10.05	10.236
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	376	399	386	402	370	363
Service Time	7.532	6.729	7.491	6.729	8.05	8.236
HCM Lane V/C Ratio	1.886	0.07	2.44	0.592	1.819	2.441
HCM Control Delay	79	12.4	78.9	24.2	80.3	81.1
HCM Lane LOS	F	B	F	C	F	F
HCM 95th-tile Q	11.7	0.2	11.7	3.7	11.6	11.5

**Intersection**

Intersection Delay, s/veh 75.1

Intersection LOS F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	109	758	227	0	50	405	187	0	143	539	51	0	220	562	54
Future Vol, veh/h	0	109	758	227	0	50	405	187	0	143	539	51	0	220	562	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	118	824	247	0	54	440	203	0	155	586	55	0	239	611	59
Number of Lanes	0	0	1	1	0	0	1	0	0	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	67.8	80.4	74.5	81.1
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	21%	0%	13%	0%	8%	26%
Vol Thru, %	79%	0%	87%	0%	63%	67%
Vol Right, %	0%	100%	0%	100%	29%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	682	51	867	227	642	836
LT Vol	143	0	109	0	50	220
Through Vol	539	0	758	0	405	562
RT Vol	0	51	0	227	187	54
Lane Flow Rate	741	55	942	247	698	909
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1	0.139	1	0.619	1	1
Departure Headway (Hd)	9.833	9.029	9.791	9.029	10.063	10.236
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	378	400	386	402	370	363
Service Time	7.533	6.729	7.491	6.729	8.063	8.236
HCM Lane V/C Ratio	1.96	0.138	2.44	0.614	1.886	2.504
HCM Control Delay	79.1	13.2	78.9	25.3	80.4	81.1
HCM Lane LOS	F	B	F	D	F	F
HCM 95th-tile Q	11.7	0.5	11.7	4	11.6	11.5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑↑	↑	↑↑	↑↑↑	↑	↑↑	↑↑↑	↑	↑↑	↑↑↑	↑
Traffic Volume (veh/h)	109	758	227	50	405	187	143	539	51	220	562	54
Future Volume (veh/h)	109	758	227	50	405	187	143	539	51	220	562	54
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	118	824	247	54	440	203	155	586	55	239	611	59
Adj No. of Lanes	2	3	1	2	3	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	1752	502	291	1928	553	237	1074	308	554	1582	454
Arrive On Green	0.06	0.34	0.34	0.03	0.13	0.13	0.07	0.21	0.21	0.17	0.31	0.31
Sat Flow, veh/h	3170	5085	1458	3170	5085	1458	3170	5085	1458	3170	5085	1458
Grp Volume(v), veh/h	118	824	247	54	440	203	155	586	55	239	611	59
Grp Sat Flow(s), veh/h/ln	1585	1695	1458	1585	1695	1458	1585	1695	1458	1585	1695	1458
Q Serve(g_s), s	3.3	11.4	12.0	1.5	7.0	6.6	4.3	9.2	2.8	6.1	8.5	2.1
Cycle Q Clear(g_c), s	3.3	11.4	12.0	1.5	7.0	6.6	4.3	9.2	2.8	6.1	8.5	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	1752	502	291	1928	553	237	1074	308	554	1582	454
V/C Ratio(X)	0.65	0.47	0.49	0.19	0.23	0.37	0.65	0.55	0.18	0.43	0.39	0.13
Avail Cap(c_a), veh/h	352	1752	502	291	1928	553	352	1074	308	669	1582	454
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	23.1	23.3	40.4	27.5	9.7	40.5	31.7	29.1	33.1	24.3	13.8
Incr Delay (d2), s/veh	3.9	0.9	3.4	0.3	0.3	1.8	3.0	2.0	1.2	0.5	0.7	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	5.5	5.3	0.7	3.3	2.9	2.0	4.5	1.2	2.7	4.1	0.9
LnGrp Delay(d), s/veh	45.5	24.0	26.7	40.7	27.8	11.6	43.5	33.6	30.4	33.7	25.0	14.4
LnGrp LOS	D	C	C	D	C	B	D	C	C	C	C	B
Approach Vol, veh/h	1189				697			796			909	
Approach Delay, s/veh	26.7				24.1			35.3			26.6	
Approach LOS	C				C			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	19.7	23.0	12.3	35.0	10.7	32.0	9.1	38.1				
Change Period (Y+R <sub>c</sub> ), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	19.0	19.0	5.0	31.0	10.0	28.0	10.0	26.0				
Max Q Clear Time (g <sub>c+l1</sub> ), s	8.1	11.2	3.5	14.0	6.3	10.5	5.3	9.0				
Green Ext Time (p <sub>c</sub> ), s	1.2	1.8	0.0	4.4	0.6	2.7	0.1	2.7				
Intersection Summary												
HCM 2010 Ctrl Delay				28.1								
HCM 2010 LOS				C								

**Intersection 2  
Mountain Ridge Rd & McCutchen Rd**

**Intersection**

Intersection Delay, s/veh 11.6

Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	11	236	52	0	128	133	26	0	48	61	51	0	28	64	7
Future Vol, veh/h	0	11	236	52	0	128	133	26	0	48	61	51	0	28	64	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	257	57	0	139	145	28	0	52	66	55	0	30	70	8
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	3	3
HCM Control Delay	13	11.3	10.3	10.7
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	90%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	10%
Sign Control	Stop										
Traffic Vol by Lane	48	61	51	11	236	52	128	133	26	28	71
LT Vol	48	0	0	11	0	0	128	0	0	28	0
Through Vol	0	61	0	0	236	0	0	133	0	0	64
RT Vol	0	0	51	0	0	52	0	0	26	0	7
Lane Flow Rate	52	66	55	12	257	57	139	145	28	30	77
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.105	0.124	0.093	0.023	0.447	0.087	0.263	0.253	0.044	0.062	0.145
Departure Headway (Hd)	7.242	6.741	6.039	6.779	6.275	5.57	6.802	6.299	5.594	7.336	6.767
Convergence, Y/N	Yes										
Cap	494	530	591	527	572	641	527	570	638	487	528
Service Time	5.005	4.504	3.802	4.532	4.029	3.324	4.555	4.052	3.347	5.099	4.53
HCM Lane V/C Ratio	0.105	0.125	0.093	0.023	0.449	0.089	0.264	0.254	0.044	0.062	0.146
HCM Control Delay	10.9	10.5	9.4	9.7	14	8.9	12	11.2	8.6	10.6	10.7
HCM Lane LOS	B	B	A	A	B	A	B	B	A	B	B
HCM 95th-tile Q	0.3	0.4	0.3	0.1	2.3	0.3	1	1	0.1	0.2	0.5

**Intersection**

Intersection Delay, s/veh      15.5

Intersection LOS      C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	14	322	64	0	138	228	33	0	52	66	55	0	30	69	8
Future Vol, veh/h	0	14	322	64	0	138	228	33	0	52	66	55	0	30	69	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	350	70	0	150	248	36	0	57	72	60	0	33	75	9
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	3	3
HCM Control Delay	19.5	14.3	11.5	11.9
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	90%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	10%
Sign Control	Stop										
Traffic Vol by Lane	52	66	55	14	322	64	138	228	33	30	77
LT Vol	52	0	0	14	0	0	138	0	0	30	0
Through Vol	0	66	0	0	322	0	0	228	0	0	69
RT Vol	0	0	55	0	0	64	0	0	33	0	8
Lane Flow Rate	57	72	60	15	350	70	150	248	36	33	84
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.128	0.152	0.115	0.031	0.658	0.117	0.308	0.467	0.061	0.074	0.178
Departure Headway (Hd)	8.149	7.645	6.94	7.389	6.884	6.177	7.39	6.902	6.195	8.219	7.646
Convergence, Y/N	Yes										
Cap	442	471	519	487	529	584	488	525	582	438	471
Service Time	5.86	5.356	4.651	5.089	4.584	3.877	5.108	4.602	3.895	5.932	5.359
HCM Lane V/C Ratio	0.129	0.153	0.116	0.031	0.662	0.12	0.307	0.472	0.062	0.075	0.178
HCM Control Delay	12.1	11.7	10.6	10.3	21.9	9.7	13.4	15.5	9.3	11.6	12
HCM Lane LOS	B	B	B	B	C	A	B	C	A	B	B
HCM 95th-tile Q	0.4	0.5	0.4	0.1	4.8	0.4	1.3	2.5	0.2	0.2	0.6

Intersection																
Intersection Delay, s/veh		17.3														
Intersection LOS		C														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	18	343	64	0	138	248	33	0	52	66	55	0	30	69	11
Future Vol, veh/h	0	18	343	64	0	138	248	33	0	52	66	55	0	30	69	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	373	70	0	150	270	36	0	57	72	60	0	33	75	12
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0
Approach	EB			WB			NB			SB						
Opposing Approach	WB			EB			SB			NB						
Opposing Lanes	3			3			2			3						
Conflicting Approach Left	SB			NB			EB			WB						
Conflicting Lanes Left	2			3			3			3						
Conflicting Approach Right	NB			SB			WB			EB						
Conflicting Lanes Right	3			2			3			3						
HCM Control Delay	22.7			15.5			11.7			12.2						
HCM LOS	C			C			B			B						
Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2					
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%					
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	0%					
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%					
Sign Control	Stop															
Traffic Vol by Lane	52	66	55	18	343	64	138	248	33	30	80					
LT Vol	52	0	0	18	0	0	138	0	0	30	0					
Through Vol	0	66	0	0	343	0	0	248	0	0	69					
RT Vol	0	0	55	0	0	64	0	0	0	33	0					
Lane Flow Rate	57	72	60	20	373	70	150	270	36	33	87					
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8					
Degree of Util (X)	0.131	0.156	0.118	0.041	0.721	0.121	0.313	0.525	0.063	0.076	0.188					
Departure Headway (Hd)	8.339	7.835	7.129	7.471	6.966	6.259	7.513	7.008	6.3	8.39	7.794					
Convergence, Y/N	Yes															
Cap	430	458	503	480	518	573	479	515	569	427	461					
Service Time	6.085	5.58	4.874	5.209	4.703	3.996	5.25	4.744	4.037	6.135	5.539					
HCM Lane V/C Ratio	0.133	0.157	0.119	0.042	0.72	0.122	0.313	0.524	0.063	0.077	0.189					
HCM Control Delay	12.3	12	10.8	10.5	25.7	9.9	13.7	17.3	9.5	11.8	12.3					
HCM Lane LOS	B	B	B	B	D	A	B	C	A	B	B					
HCM 95th-tile Q	0.4	0.5	0.4	0.1	5.8	0.4	1.3	3	0.2	0.2	0.7					

**Intersection**

Intersection Delay, s/veh      50.4

Intersection LOS      F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	33	743	157	0	190	545	95	0	71	91	76	0	42	95	10
Future Vol, veh/h	0	33	743	157	0	190	545	95	0	71	91	76	0	42	95	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	808	171	0	207	592	103	0	77	99	83	0	46	103	11
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	3	3
HCM Control Delay	61.7	53.8	15.4	16.5
HCM LOS	F	F	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	90%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	10%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	91	76	33	743	157	190	545	95	42	105
LT Vol	71	0	0	33	0	0	190	0	0	42	0
Through Vol	0	91	0	0	743	0	0	545	0	0	95
RT Vol	0	0	76	0	0	157	0	0	95	0	10
Lane Flow Rate	77	99	83	36	808	171	207	592	103	46	114
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.22	0.268	0.208	0.091	1	0.376	0.506	1	0.219	0.133	0.314
Departure Headway (Hd)	10.241	9.745	9.052	9.129	8.632	7.935	8.822	8.324	7.628	10.577	10.022
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	350	367	395	395	428	456	407	438	468	341	361
Service Time	8.039	7.544	6.85	6.829	6.332	5.635	6.618	6.121	5.424	8.277	7.722
HCM Lane V/C Ratio	0.22	0.27	0.21	0.091	1.888	0.375	0.509	1.352	0.22	0.135	0.316
HCM Control Delay	15.9	16.1	14.2	12.7	73.7	15.3	20.4	72.7	12.6	14.9	17.2
HCM Lane LOS	C	C	B	B	F	C	C	F	B	B	C
HCM 95th-tile Q	0.8	1.1	0.8	0.3	12.5	1.7	2.8	12.7	0.8	0.5	1.3

Intersection																
Intersection Delay, s/veh		50.8														
Intersection LOS		F														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	37	764	157	0	190	565	95	0	71	91	76	0	42	95	13
Future Vol, veh/h	0	37	764	157	0	190	565	95	0	71	91	76	0	42	95	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	40	830	171	0	207	614	103	0	77	99	83	0	46	103	14
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0
Approach	EB			WB			NB			SB						
Opposing Approach	WB			EB			SB			NB						
Opposing Lanes	3			3			2			3						
Conflicting Approach Left	SB			NB			EB			WB						
Conflicting Lanes Left	2			3			3			3						
Conflicting Approach Right	NB			SB			WB			EB						
Conflicting Lanes Right	3			2			3			3						
HCM Control Delay	61.8			54.4			15.5			16.7						
HCM LOS	F			F			C			C						
Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2					
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%					
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	0%					
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%					
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop					
Traffic Vol by Lane	71	91	76	37	764	157	190	565	95	42	108					
LT Vol	71	0	0	37	0	0	190	0	0	42	0					
Through Vol	0	91	0	0	764	0	0	565	0	0	95					
RT Vol	0	0	76	0	0	157	0	0	95	0	13					
Lane Flow Rate	77	99	83	40	830	171	207	614	103	46	117					
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8					
Degree of Util (X)	0.22	0.269	0.208	0.102	1	0.377	0.508	1	0.22	0.133	0.323					
Departure Headway (Hd)	10.272	9.777	9.083	9.15	8.652	7.956	8.85	8.352	7.656	10.594	10.021					
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Cap	348	366	393	394	432	456	405	436	466	341	362					
Service Time	8.072	7.576	6.883	6.85	6.352	5.656	6.646	6.149	5.452	8.294	7.721					
HCM Lane V/C Ratio	0.221	0.27	0.211	0.102	1.921	0.375	0.511	1.408	0.221	0.135	0.323					
HCM Control Delay	16	16.2	14.3	12.9	73.7	15.4	20.5	72.8	12.6	14.9	17.4					
HCM Lane LOS	C	C	B	B	F	C	C	F	B	B	C					
HCM 95th-tile Q	0.8	1.1	0.8	0.3	12.5	1.7	2.8	12.6	0.8	0.5	1.4					



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑↑	↑	↑	↑↑↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	37	764	157	190	565	95	71	91	76	42	95	13
Future Volume (veh/h)	37	764	157	190	565	95	71	91	76	42	95	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	40	830	171	207	614	103	77	99	83	46	103	14
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	2172	623	244	2782	798	97	393	308	56	347	272
Arrive On Green	0.02	0.29	0.29	0.15	0.55	0.55	0.06	0.21	0.21	0.03	0.19	0.19
Sat Flow, veh/h	1634	5085	1458	1634	5085	1458	1634	1863	1458	1634	1863	1458
Grp Volume(v), veh/h	40	830	171	207	614	103	77	99	83	46	103	14
Grp Sat Flow(s), veh/h/ln	1634	1695	1458	1634	1695	1458	1634	1863	1458	1634	1863	1458
Q Serve(g_s), s	2.2	11.8	8.2	11.1	5.6	3.1	4.2	4.0	4.3	2.5	4.3	0.7
Cycle Q Clear(g_c), s	2.2	11.8	8.2	11.1	5.6	3.1	4.2	4.0	4.3	2.5	4.3	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	2172	623	244	2782	798	97	393	308	56	347	272
V/C Ratio(X)	0.83	0.38	0.27	0.85	0.22	0.13	0.80	0.25	0.27	0.82	0.30	0.05
Avail Cap(c_a), veh/h	109	2172	623	399	2782	798	182	393	308	127	347	272
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	22.6	21.3	37.3	10.5	9.9	41.8	29.6	29.7	43.2	31.5	30.1
Incr Delay (d2), s/veh	26.7	0.5	1.0	8.9	0.2	0.3	13.3	1.5	2.1	24.0	2.2	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.4	5.6	3.5	5.6	2.7	1.3	2.2	2.2	1.9	1.5	2.4	0.3
LnGrp Delay(d), s/veh	70.6	23.1	22.3	46.1	10.7	10.3	55.1	31.1	31.8	67.2	33.7	30.4
LnGrp LOS	E	C	C	D	B	B	E	C	C	E	C	C
Approach Vol, veh/h		1041				924			259			163
Approach Delay, s/veh		24.8				18.6			38.4			42.9
Approach LOS		C				B			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.1	23.0	17.5	42.4	9.3	20.8	6.7	53.2				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	7.0	19.0	22.0	26.0	10.0	16.0	6.0	42.0				
Max Q Clear Time (g_c+l1), s	4.5	6.3	13.1	13.8	6.2	6.3	4.2	7.6				
Green Ext Time (p_c), s	0.0	0.8	0.4	6.1	0.1	0.7	0.0	9.3				
Intersection Summary												
HCM 2010 Ctrl Delay				25.1								
HCM 2010 LOS				C								

**Intersection 3  
Ashe Rd & McKee Rd**

**Intersection**

Intersection Delay, s/veh 10.4

Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	7	5	4	0	16	4	86	0	8	181	26	0	169	155	11
Future Vol, veh/h	0	7	5	4	0	16	4	86	0	8	181	26	0	169	155	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	5	4	0	17	4	93	0	9	197	28	0	184	168	12
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	9.4	9.4	10.7	10.6
HCM LOS	A	A	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	56%	0%	4%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	44%	0%	96%	0%	0%	100%
Sign Control	Stop									
Traffic Vol by Lane	8	181	26	7	9	16	90	169	155	11
LT Vol	8	0	0	7	0	16	0	169	0	0
Through Vol	0	181	0	0	5	0	4	0	155	0
RT Vol	0	0	26	0	4	0	86	0	0	11
Lane Flow Rate	9	197	28	8	10	17	98	184	168	12
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.015	0.311	0.039	0.015	0.017	0.033	0.151	0.303	0.254	0.016
Departure Headway (Hd)	6.189	5.786	4.983	6.981	6.169	6.742	5.574	5.932	5.43	4.727
Convergence, Y/N	Yes									
Cap	573	626	709	515	583	534	647	601	654	747
Service Time	3.988	3.486	2.782	4.686	3.873	4.446	3.277	3.727	3.224	2.521
HCM Lane V/C Ratio	0.016	0.315	0.039	0.016	0.017	0.032	0.151	0.306	0.257	0.016
HCM Control Delay	9.1	11.1	8	9.8	9	9.7	9.3	11.3	10.1	7.6
HCM Lane LOS	A	B	A	A	A	A	A	B	B	A
HCM 95th-tile Q	0	1.3	0.1	0	0.1	0.1	0.5	1.3	1	0

**Intersection**

Intersection Delay, s/veh 11.5

Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	7	5	4	0	17	4	91	0	9	230	29	0	174	198	13
Future Vol, veh/h	0	7	5	4	0	17	4	91	0	9	230	29	0	174	198	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	5	4	0	18	4	99	0	10	250	32	0	189	215	14
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	9.8	9.8	12.2	11.5
HCM LOS	A	A	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	56%	0%	4%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	44%	0%	96%	0%	0%	100%
Sign Control	Stop									
Traffic Vol by Lane	9	230	29	7	9	17	95	174	198	13
LT Vol	9	0	0	7	0	17	0	174	0	0
Through Vol	0	230	0	0	5	0	4	0	198	0
RT Vol	0	0	29	0	4	0	91	0	0	13
Lane Flow Rate	10	250	32	8	10	18	103	189	215	14
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.018	0.413	0.046	0.016	0.018	0.036	0.169	0.326	0.341	0.02
Departure Headway (Hd)	6.45	5.947	5.243	7.334	6.52	7.06	5.889	6.209	5.706	5.002
Convergence, Y/N	Yes									
Cap	556	605	683	488	549	507	609	581	631	716
Service Time	4.18	3.677	2.972	5.076	4.263	4.798	3.627	3.936	3.433	2.729
HCM Lane V/C Ratio	0.018	0.413	0.047	0.016	0.018	0.036	0.169	0.325	0.341	0.02
HCM Control Delay	9.3	12.8	8.2	10.2	9.4	10.1	9.8	11.9	11.4	7.8
HCM Lane LOS	A	B	A	B	A	B	A	B	B	A
HCM 95th-tile Q	0.1	2	0.1	0	0.1	0.1	0.6	1.4	1.5	0.1

**Intersection**

Intersection Delay, s/veh 13.2

Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	7	5	4	0	30	4	91	0	9	285	43	0	174	250	13
Future Vol, veh/h	0	7	5	4	0	30	4	91	0	9	285	43	0	174	250	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	5	4	0	33	4	99	0	10	310	47	0	189	272	14
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	10.3	10.5	14.6	13
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	56%	0%	4%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	44%	0%	96%	0%	0%	100%
Sign Control	Stop									
Traffic Vol by Lane	9	285	43	7	9	30	95	174	250	13
LT Vol	9	0	0	7	0	30	0	174	0	0
Through Vol	0	285	0	0	5	0	4	0	250	0
RT Vol	0	0	43	0	4	0	91	0	0	13
Lane Flow Rate	10	310	47	8	10	33	103	189	272	14
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.018	0.531	0.071	0.016	0.019	0.067	0.18	0.341	0.451	0.021
Departure Headway (Hd)	6.677	6.174	5.469	7.786	6.97	7.443	6.27	6.482	5.979	5.274
Convergence, Y/N	Yes									
Cap	536	582	654	459	512	481	571	554	603	678
Service Time	4.42	3.917	3.211	5.551	4.735	5.196	4.023	4.22	3.716	3.011
HCM Lane V/C Ratio	0.019	0.533	0.072	0.017	0.02	0.069	0.18	0.341	0.451	0.021
HCM Control Delay	9.5	15.7	8.6	10.7	9.9	10.7	10.4	12.6	13.6	8.1
HCM Lane LOS	A	C	A	B	A	B	B	B	B	A
HCM 95th-tile Q	0.1	3.1	0.2	0	0.1	0.2	0.7	1.5	2.3	0.1

**Intersection**

Intersection Delay, s/veh 19.5

Intersection LOS C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	7	6	0	22	6	119	0	13	331	43	0	198	382	26
Future Vol, veh/h	0	10	7	6	0	22	6	119	0	13	331	43	0	198	382	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	8	7	0	24	7	129	0	14	360	47	0	215	415	28
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	11.2	12.2	20.8	20.7
HCM LOS	B	B	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	54%	0%	5%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	46%	0%	95%	0%	0%	100%
Sign Control	Stop									
Traffic Vol by Lane	13	331	43	10	13	22	125	198	382	26
LT Vol	13	0	0	10	0	22	0	198	0	0
Through Vol	0	331	0	0	7	0	6	0	382	0
RT Vol	0	0	43	0	6	0	119	0	0	26
Lane Flow Rate	14	360	47	11	14	24	136	215	415	28
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.029	0.676	0.079	0.026	0.031	0.054	0.263	0.411	0.734	0.044
Departure Headway (Hd)	7.27	6.765	6.058	8.722	7.89	8.147	6.974	6.87	6.365	5.658
Convergence, Y/N	Yes									
Cap	490	532	587	413	457	437	511	521	565	629
Service Time	5.052	4.547	3.839	6.422	5.59	5.946	4.773	4.644	4.139	3.432
HCM Lane V/C Ratio	0.029	0.677	0.08	0.027	0.031	0.055	0.266	0.413	0.735	0.045
HCM Control Delay	10.3	22.7	9.4	11.7	10.8	11.4	12.3	14.4	24.8	8.7
HCM Lane LOS	B	C	A	B	B	B	B	B	C	A
HCM 95th-tile Q	0.1	5.1	0.3	0.1	0.1	0.2	1	2	6.2	0.1

**Intersection**

Intersection Delay, s/veh 29.7

Intersection LOS D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	10	7	6	0	35	6	119	0	13	386	57	0	198	434	26
Future Vol, veh/h	0	10	7	6	0	35	6	119	0	13	386	57	0	198	434	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	8	7	0	38	7	129	0	14	420	62	0	215	472	28
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	2
HCM Control Delay	11.8	13	32.1	32.8
HCM LOS	B	B	D	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	54%	0%	5%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	46%	0%	95%	0%	0%	100%
Sign Control	Stop									
Traffic Vol by Lane	13	386	57	10	13	35	125	198	434	26
LT Vol	13	0	0	10	0	35	0	198	0	0
Through Vol	0	386	0	0	7	0	6	0	434	0
RT Vol	0	0	57	0	6	0	119	0	0	26
Lane Flow Rate	14	420	62	11	14	38	136	215	472	28
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.03	0.831	0.11	0.028	0.033	0.092	0.283	0.429	0.887	0.047
Departure Headway (Hd)	7.634	7.128	6.419	9.274	8.438	8.68	7.503	7.312	6.77	6.097
Convergence, Y/N	Yes									
Cap	470	508	559	386	424	414	480	495	538	591
Service Time	5.367	4.861	4.152	7.024	6.187	6.418	5.24	5.012	4.506	3.797
HCM Lane V/C Ratio	0.03	0.827	0.111	0.028	0.033	0.092	0.283	0.434	0.877	0.047
HCM Control Delay	10.6	36.1	9.9	12.3	11.5	12.3	13.2	15.4	42.1	9.1
HCM Lane LOS	B	E	A	B	B	B	C	E	A	
HCM 95th-tile Q	0.1	8.3	0.4	0.1	0.1	0.3	1.2	2.1	10	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑↑↑	↑↑	↑↑	↑↑↑↑	↑↑
Traffic Volume (veh/h)	10	7	6	35	6	119	13	386	57	198	434	26
Future Volume (veh/h)	10	7	6	35	6	119	13	386	57	198	434	26
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	11	8	7	38	7	129	14	420	62	215	472	28
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	334	138	83	390	160	41	3188	914	293	3593	1030
Arrive On Green	0.01	0.09	0.09	0.03	0.11	0.11	0.01	0.63	0.63	0.09	0.71	0.71
Sat Flow, veh/h	3170	3539	1458	3170	3539	1458	3170	5085	1458	3170	5085	1458
Grp Volume(v), veh/h	11	8	7	38	7	129	14	420	62	215	472	28
Grp Sat Flow(s), veh/h/ln	1585	1770	1458	1585	1770	1458	1585	1695	1458	1585	1695	1458
Q Serve(g_s), s	0.3	0.2	0.4	1.2	0.2	8.6	0.4	3.4	1.7	6.6	3.0	0.6
Cycle Q Clear(g_c), s	0.3	0.2	0.4	1.2	0.2	8.6	0.4	3.4	1.7	6.6	3.0	0.6
Prop In Lane	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Lane Grp Cap(c), veh/h	33	334	138	83	390	160	41	3188	914	293	3593	1030
V/C Ratio(X)	0.33	0.02	0.05	0.46	0.02	0.80	0.34	0.13	0.07	0.73	0.13	0.03
Avail Cap(c_a), veh/h	190	849	350	254	920	379	190	3188	914	697	3593	1030
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84	0.94	0.94	0.94
Uniform Delay (d), s/veh	49.1	41.1	41.2	48.0	39.7	43.4	48.9	7.6	7.3	44.2	4.7	4.4
Incr Delay (d2), s/veh	5.6	0.0	0.2	3.9	0.0	9.0	4.1	0.1	0.1	3.3	0.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.2	0.1	0.2	0.6	0.1	3.9	0.2	1.6	0.7	3.0	1.4	0.2
LnGrp Delay(d), s/veh	54.7	41.1	41.3	51.9	39.7	52.4	53.0	7.7	7.4	47.5	4.8	4.4
LnGrp LOS	D	D	D	D	D	D	A	A	D	A	A	
Approach Vol, veh/h						174			496			715
Approach Delay, s/veh					46.9		51.8			8.9		17.6
Approach LOS					D		D		A		B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.2	66.7	6.6	13.5	5.3	74.7	5.1	15.0				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	22.0	30.0	8.0	24.0	6.0	46.0	6.0	26.0				
Max Q Clear Time (g_c+l1), s	8.6	5.4	3.2	2.4	2.4	5.0	2.3	10.6				
Green Ext Time (p_c), s	0.7	4.5	0.0	0.5	0.0	4.7	0.0	0.4				
Intersection Summary												
HCM 2010 Ctrl Delay				19.3								
HCM 2010 LOS				B								

**Intersection 4  
Stine Rd & McKee Rd**

**Intersection**

Intersection Delay, s/veh

11

Intersection LOS

B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	29	131	13	0	29	106	69	0	12	146	40	0	91	89	42
Future Vol, veh/h	0	29	131	13	0	29	106	69	0	12	146	40	0	91	89	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	32	142	14	0	32	115	75	0	13	159	43	0	99	97	46
Number of Lanes	0	0	1	1	0	0	1	1	0	1	1	0	0	1	1	0

**Approach**

EB

WB

NB

SB

Opposing Approach

WB

EB

SB

NB

Opposing Lanes

2

2

2

2

Conflicting Approach Left

SB

NB

EB

WB

Conflicting Lanes Left

2

2

2

2

Conflicting Approach Right

NB

SB

WB

EB

Conflicting Lanes Right

2

2

2

2

HCM Control Delay

11.5

10.4

11.6

10.6

HCM LOS

B

B

B

B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	18%	0%	21%	0%	100%	0%
Vol Thru, %	0%	78%	82%	0%	79%	0%	0%	68%
Vol Right, %	0%	22%	0%	100%	0%	100%	0%	32%
Sign Control	Stop							
Traffic Vol by Lane	12	186	160	13	135	69	91	131
LT Vol	12	0	29	0	29	0	91	0
Through Vol	0	146	131	0	106	0	0	89
RT Vol	0	40	0	13	0	69	0	42
Lane Flow Rate	13	202	174	14	147	75	99	142
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.024	0.336	0.305	0.022	0.256	0.114	0.181	0.232
Departure Headway (Hd)	6.636	5.977	6.305	5.503	6.285	5.467	6.593	5.859
Convergence, Y/N	Yes							
Cap	539	600	569	649	571	654	544	612
Service Time	4.379	3.72	4.053	3.251	4.034	3.215	4.337	3.603
HCM Lane V/C Ratio	0.024	0.337	0.306	0.022	0.257	0.115	0.182	0.232
HCM Control Delay	9.5	11.7	11.8	8.4	11.2	8.9	10.8	10.4
HCM Lane LOS	A	B	B	A	B	A	B	B
HCM 95th-tile Q	0.1	1.5	1.3	0.1	1	0.4	0.7	0.9

**Intersection**

Intersection Delay, s/veh 11.4

Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	31	139	14	0	31	113	73	0	12	151	42	0	94	92	44
Future Vol, veh/h	0	31	139	14	0	31	113	73	0	12	151	42	0	94	92	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	151	15	0	34	123	79	0	13	164	46	0	102	100	48
Number of Lanes	0	0	1	1	0	0	1	1	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	12	10.8	12.1	10.8
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	18%	0%	22%	0%	100%	0%
Vol Thru, %	0%	78%	82%	0%	78%	0%	0%	68%
Vol Right, %	0%	22%	0%	100%	0%	100%	0%	32%
Sign Control	Stop							
Traffic Vol by Lane	12	193	170	14	144	73	94	136
LT Vol	12	0	31	0	31	0	94	0
Through Vol	0	151	139	0	113	0	0	92
RT Vol	0	42	0	14	0	73	0	44
Lane Flow Rate	13	210	185	15	157	79	102	148
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.024	0.355	0.329	0.024	0.277	0.123	0.19	0.245
Departure Headway (Hd)	6.751	6.09	6.404	5.601	6.382	5.562	6.708	5.971
Convergence, Y/N	Yes							
Cap	529	589	560	637	562	643	534	600
Service Time	4.503	3.841	4.156	3.353	4.134	3.314	4.46	3.723
HCM Lane V/C Ratio	0.025	0.357	0.33	0.024	0.279	0.123	0.191	0.247
HCM Control Delay	9.7	12.2	12.3	8.5	11.6	9.1	11	10.7
HCM Lane LOS	A	B	B	A	B	A	B	B
HCM 95th-tile Q	0.1	1.6	1.4	0.1	1.1	0.4	0.7	1

**Intersection**

Intersection Delay, s/veh 11.9

Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	31	139	15	0	38	113	73	0	13	167	49	0	94	108	44
Future Vol, veh/h	0	31	139	15	0	38	113	73	0	13	167	49	0	94	108	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	151	16	0	41	123	79	0	14	182	53	0	102	117	48
Number of Lanes	0	0	1	1	0	0	1	1	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	12.4	11.2	12.9	11.2
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	18%	0%	25%	0%	100%	0%
Vol Thru, %	0%	77%	82%	0%	75%	0%	0%	71%
Vol Right, %	0%	23%	0%	100%	0%	100%	0%	29%
Sign Control	Stop							
Traffic Vol by Lane	13	216	170	15	151	73	94	152
LT Vol	13	0	31	0	38	0	94	0
Through Vol	0	167	139	0	113	0	0	108
RT Vol	0	49	0	15	0	73	0	44
Lane Flow Rate	14	235	185	16	164	79	102	165
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.027	0.403	0.337	0.026	0.299	0.126	0.193	0.28
Departure Headway (Hd)	6.841	6.172	6.575	5.771	6.558	5.719	6.813	6.099
Convergence, Y/N	Yes							
Cap	522	580	545	617	547	624	525	587
Service Time	4.604	3.935	4.341	3.536	4.322	3.482	4.578	3.864
HCM Lane V/C Ratio	0.027	0.405	0.339	0.026	0.3	0.127	0.194	0.281
HCM Control Delay	9.8	13.1	12.7	8.7	12.1	9.3	11.2	11.2
HCM Lane LOS	A	B	B	A	B	A	B	B
HCM 95th-tile Q	0.1	1.9	1.5	0.1	1.2	0.4	0.7	1.1

**Intersection**

Intersection Delay, s/veh 13.9

Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	40	181	18	0	40	147	95	0	15	178	49	0	111	108	51
Future Vol, veh/h	0	40	181	18	0	40	147	95	0	15	178	49	0	111	108	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	197	20	0	43	160	103	0	16	193	53	0	121	117	55
Number of Lanes	0	0	1	1	0	0	1	1	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	15.4	13	15.1	12.6
HCM LOS	C	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	18%	0%	21%	0%	100%	0%
Vol Thru, %	0%	78%	82%	0%	79%	0%	0%	68%
Vol Right, %	0%	22%	0%	100%	0%	100%	0%	32%
Sign Control	Stop							
Traffic Vol by Lane	15	227	221	18	187	95	111	159
LT Vol	15	0	40	0	40	0	111	0
Through Vol	0	178	181	0	147	0	0	108
RT Vol	0	49	0	18	0	95	0	51
Lane Flow Rate	16	247	240	20	203	103	121	173
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.034	0.467	0.47	0.034	0.396	0.178	0.249	0.322
Departure Headway (Hd)	7.477	6.812	7.042	6.234	7.013	6.189	7.438	6.698
Convergence, Y/N	Yes							
Cap	479	528	512	574	514	579	483	537
Service Time	5.217	4.552	4.783	3.975	4.754	3.929	5.18	4.44
HCM Lane V/C Ratio	0.033	0.468	0.469	0.035	0.395	0.178	0.251	0.322
HCM Control Delay	10.5	15.4	15.9	9.2	14.3	10.3	12.6	12.6
HCM Lane LOS	B	C	C	A	B	B	B	B
HCM 95th-tile Q	0.1	2.5	2.5	0.1	1.9	0.6	1	1.4

**Intersection**

Intersection Delay, s/veh 14.9

Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	40	181	19	0	47	147	95	0	16	194	56	0	111	124	51
Future Vol, veh/h	0	40	181	19	0	47	147	95	0	16	194	56	0	111	124	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	197	21	0	51	160	103	0	17	211	61	0	121	135	55
Number of Lanes	0	0	1	1	0	0	1	1	0	1	1	0	0	1	1	0

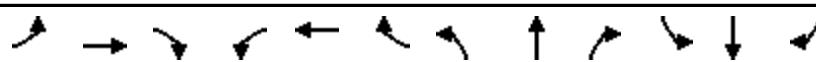
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	16.1	13.7	16.7	13.3
HCM LOS	C	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	18%	0%	24%	0%	100%	0%
Vol Thru, %	0%	78%	82%	0%	76%	0%	0%	71%
Vol Right, %	0%	22%	0%	100%	0%	100%	0%	29%
Sign Control	Stop							
Traffic Vol by Lane	16	250	221	19	194	95	111	175
LT Vol	16	0	40	0	47	0	111	0
Through Vol	0	194	181	0	147	0	0	124
RT Vol	0	56	0	19	0	95	0	51
Lane Flow Rate	17	272	240	21	211	103	121	190
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.037	0.523	0.484	0.037	0.423	0.183	0.254	0.363
Departure Headway (Hd)	7.603	6.931	7.254	6.445	7.225	6.385	7.59	6.87
Convergence, Y/N	Yes							
Cap	471	519	497	555	498	562	473	523
Service Time	5.35	4.678	5.001	4.192	4.973	4.132	5.339	4.618
HCM Lane V/C Ratio	0.036	0.524	0.483	0.038	0.424	0.183	0.256	0.363
HCM Control Delay	10.6	17.1	16.7	9.4	15.2	10.6	12.9	13.5
HCM Lane LOS	B	C	C	A	C	B	B	B
HCM 95th-tile Q	0.1	3	2.6	0.1	2.1	0.7	1	1.6

**Intersection 5  
Gosford Rd & Taft Hwy (SR 119)**

HCM 2010 Signalized Intersection Summary  
5: Gosford Rd & Taft Hwy (SR 119)

AM Existing  
2019



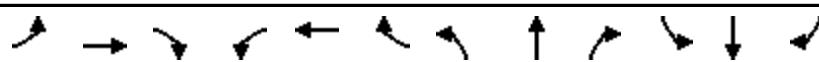
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↓	↓		↓	↓	
Traffic Volume (veh/h)	30	215	6	8	248	38	16	41	6	41	33	56
Future Volume (veh/h)	30	215	6	8	248	38	16	41	6	41	33	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	33	234	7	9	270	41	17	45	7	45	36	61
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	860	26	426	1298	1016	85	168	23	106	64	89
Arrive On Green	0.04	0.48	0.46	0.26	0.70	0.70	0.13	0.13	0.11	0.13	0.13	0.11
Sat Flow, veh/h	1634	1799	54	1634	1863	1458	277	1314	180	417	503	693
Grp Volume(v), veh/h	33	0	241	9	270	41	69	0	0	142	0	0
Grp Sat Flow(s), veh/h/ln	1634	0	1853	1634	1863	1458	1770	0	0	1613	0	0
Q Serve(g_s), s	1.8	0.0	7.0	0.4	4.6	0.8	0.0	0.0	0.0	4.4	0.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	7.0	0.4	4.6	0.8	3.1	0.0	0.0	7.4	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.25		0.10	0.32		0.43
Lane Grp Cap(c), veh/h	68	0	885	426	1298	1016	277	0	0	259	0	0
V/C Ratio(X)	0.49	0.00	0.27	0.02	0.21	0.04	0.25	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	218	0	885	426	1298	1016	543	0	0	509	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.2	0.0	14.1	24.7	4.8	4.3	35.6	0.0	0.0	37.7	0.0	0.0
Incr Delay (d2), s/veh	5.3	0.0	0.8	0.0	0.4	0.1	0.5	0.0	0.0	1.8	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.9	0.0	3.7	0.2	2.5	0.3	1.6	0.0	0.0	3.5	0.0	0.0
LnGrp Delay(d), s/veh	47.4	0.0	14.9	24.7	5.2	4.3	36.1	0.0	0.0	39.5	0.0	0.0
LnGrp LOS	D	B	C	A	A	D			D			
Approach Vol, veh/h			274			320			69			142
Approach Delay, s/veh			18.8			5.6			36.1			39.5
Approach LOS			B			A			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4			6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	15.5	27.5	47.0			15.5	7.7	66.7				
Change Period (Y+R <sub>c</sub> ), s	5.5	5.5	5.5			5.5	5.5	5.5				
Max Green Setting (Gmax), s	24.5	7.5	41.5			24.5	10.5	38.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s	5.1	2.4	9.0			9.4	3.8	6.6				
Green Ext Time (p <sub>c</sub> ), s	0.6	0.0	0.8			0.6	0.0	1.1				

Intersection Summary

HCM 2010 Ctrl Delay	18.7
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑	↓	↓		↓	↓	↓
Traffic Volume (veh/h)	32	278	6	9	297	41	17	45	7	47	38	65
Future Volume (veh/h)	32	278	6	9	297	41	17	45	7	47	38	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	35	302	7	10	323	45	18	49	8	51	41	71
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	526	12	155	563	441	207	284	41	243	112	156
Arrive On Green	0.08	0.29	0.24	0.09	0.30	0.30	0.23	0.23	0.18	0.23	0.23	0.18
Sat Flow, veh/h	1634	1813	42	1634	1863	1458	275	1261	183	397	498	691
Grp Volume(v), veh/h	35	0	309	10	323	45	75	0	0	163	0	0
Grp Sat Flow(s), veh/h/ln	1634	0	1855	1634	1863	1458	1719	0	0	1586	0	0
Q Serve(g_s), s	0.6	0.0	4.4	0.2	4.5	0.7	0.0	0.0	0.0	1.4	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	4.4	0.2	4.5	0.7	1.0	0.0	0.0	2.7	0.0	0.0
Prop In Lane	1.00		0.02	1.00		1.00	0.24		0.11	0.31		0.44
Lane Grp Cap(c), veh/h	135	0	538	155	563	441	533	0	0	511	0	0
V/C Ratio(X)	0.26	0.00	0.57	0.06	0.57	0.10	0.14	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	637	0	2591	424	2359	1847	1607	0	0	1523	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.3	0.0	9.3	12.7	9.1	7.7	9.7	0.0	0.0	10.5	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	1.0	0.2	0.9	0.1	0.1	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.3	0.0	2.4	0.1	2.4	0.3	0.5	0.0	0.0	1.2	0.0	0.0
LnGrp Delay(d), s/veh	14.3	0.0	10.3	12.9	10.0	7.8	9.8	0.0	0.0	10.9	0.0	0.0
LnGrp LOS	B		B	A	A	A			B			
Approach Vol, veh/h			344			378			75			163
Approach Delay, s/veh			10.7			9.8			9.8			10.9
Approach LOS			B			A			A			B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		10.9	6.9	12.9		10.9	6.5	13.3				
Change Period (Y+R <sub>c</sub> ), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		25.5	6.5	41.5		25.5	10.5	37.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s		3.0	2.2	6.4		4.7	2.6	6.5				
Green Ext Time (p <sub>c</sub> ), s		0.8	0.6	1.1		0.8	0.0	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			10.3									
HCM 2010 LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑	↓	↓	↓	↓	↓	↓
Traffic Volume (veh/h)	32	298	6	10	313	43	17	45	8	50	38	65
Future Volume (veh/h)	32	298	6	10	313	43	17	45	8	50	38	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	35	324	7	11	340	47	18	49	9	54	41	71
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	888	19	383	1268	993	87	187	30	115	70	99
Arrive On Green	0.04	0.49	0.47	0.23	0.68	0.68	0.14	0.14	0.13	0.14	0.14	0.13
Sat Flow, veh/h	1634	1817	39	1634	1863	1458	259	1300	209	434	486	687
Grp Volume(v), veh/h	35	0	331	11	340	47	76	0	0	166	0	0
Grp Sat Flow(s), veh/h/ln	1634	0	1856	1634	1863	1458	1769	0	0	1607	0	0
Q Serve(g_s), s	1.9	0.0	10.0	0.5	6.4	1.0	0.0	0.0	0.0	5.4	0.0	0.0
Cycle Q Clear(g_c), s	1.9	0.0	10.0	0.5	6.4	1.0	3.4	0.0	0.0	8.7	0.0	0.0
Prop In Lane	1.00		0.02	1.00		1.00	0.24		0.12	0.33		0.43
Lane Grp Cap(c), veh/h	70	0	907	383	1268	993	303	0	0	283	0	0
V/C Ratio(X)	0.50	0.00	0.36	0.03	0.27	0.05	0.25	0.00	0.00	0.59	0.00	0.00
Avail Cap(c_a), veh/h	200	0	907	383	1268	993	543	0	0	509	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.99	0.99	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.2	0.0	14.3	26.6	5.6	4.7	34.5	0.0	0.0	36.9	0.0	0.0
Incr Delay (d2), s/veh	5.5	0.0	1.1	0.0	0.5	0.1	0.4	0.0	0.0	1.9	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	0.0	5.3	0.2	3.5	0.4	1.7	0.0	0.0	4.1	0.0	0.0
LnGrp Delay(d), s/veh	47.7	0.0	15.5	26.6	6.1	4.8	35.0	0.0	0.0	38.9	0.0	0.0
LnGrp LOS	D	B	C	A	A	C				D		
Approach Vol, veh/h			366			398			76			166
Approach Delay, s/veh			18.5			6.5			35.0			38.9
Approach LOS			B			A			C			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		16.9	25.1	48.0		16.9	7.8	65.3				
Change Period (Y+R <sub>c</sub> ), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		24.5	6.5	42.5		24.5	9.5	39.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s		5.4	2.5	12.0		10.7	3.9	8.4				
Green Ext Time (p <sub>c</sub> ), s		0.8	0.0	1.1		0.7	0.0	1.4				

#### Intersection Summary

HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑	↓	↓	↓	↓	↓	↓
Traffic Volume (veh/h)	41	346	8	13	421	61	25	64	9	87	70	119
Future Volume (veh/h)	41	346	8	13	421	61	25	64	9	87	70	119
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	45	376	9	14	458	66	27	70	10	95	76	129
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	813	19	307	1093	856	114	269	34	154	107	157
Arrive On Green	0.05	0.45	0.43	0.19	0.59	0.59	0.23	0.23	0.21	0.23	0.23	0.21
Sat Flow, veh/h	1634	1812	43	1634	1863	1458	276	1168	149	441	466	684
Grp Volume(v), veh/h	45	0	385	14	458	66	107	0	0	300	0	0
Grp Sat Flow(s), veh/h/ln	1634	0	1855	1634	1863	1458	1592	0	0	1591	0	0
Q Serve(g_s), s	2.4	0.0	13.0	0.6	12.1	1.8	0.0	0.0	0.0	11.7	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	13.0	0.6	12.1	1.8	4.3	0.0	0.0	16.0	0.0	0.0
Prop In Lane	1.00		0.02	1.00		1.00	0.25		0.09	0.32		0.43
Lane Grp Cap(c), veh/h	82	0	833	307	1093	856	416	0	0	419	0	0
V/C Ratio(X)	0.55	0.00	0.46	0.05	0.42	0.08	0.26	0.00	0.00	0.72	0.00	0.00
Avail Cap(c_a), veh/h	134	0	833	307	1093	856	617	0	0	612	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.96	0.96	0.96	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.8	0.0	17.3	29.9	10.2	8.0	28.4	0.0	0.0	32.9	0.0	0.0
Incr Delay (d2), s/veh	5.7	0.0	1.8	0.1	1.1	0.2	0.3	0.0	0.0	2.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.2	0.0	7.1	0.3	6.6	0.7	2.2	0.0	0.0	7.4	0.0	0.0
LnGrp Delay(d), s/veh	47.5	0.0	19.1	30.0	11.3	8.2	28.7	0.0	0.0	35.2	0.0	0.0
LnGrp LOS	D	B	C	B	A	C				D		
Approach Vol, veh/h			430			538			107			300
Approach Delay, s/veh			22.1			11.4			28.7			35.2
Approach LOS			C			B			C			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		24.7	20.9	44.4		24.7	8.5	56.8				
Change Period (Y+R <sub>c</sub> ), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		30.5	4.1	38.9		30.5	5.9	37.1				
Max Q Clear Time (g <sub>c+l1</sub> ), s		6.3	2.6	15.0		18.0	4.4	14.1				
Green Ext Time (p <sub>c</sub> ), s		1.5	0.4	1.3		1.2	0.0	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay			21.3									
HCM 2010 LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑	+	+	+	+	+	+
Traffic Volume (veh/h)	41	366	8	14	437	63	25	64	10	90	70	119
Future Volume (veh/h)	41	366	8	14	437	63	25	64	10	90	70	119
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	45	398	9	15	475	68	27	70	11	98	76	129
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	82	794	18	321	1088	852	114	269	38	158	107	157
Arrive On Green	0.05	0.44	0.42	0.20	0.58	0.58	0.23	0.23	0.22	0.23	0.23	0.22
Sat Flow, veh/h	1634	1814	41	1634	1863	1458	274	1158	162	453	460	676
Grp Volume(v), veh/h	45	0	407	15	475	68	108	0	0	303	0	0
Grp Sat Flow(s), veh/h/ln	1634	0	1856	1634	1863	1458	1594	0	0	1589	0	0
Q Serve(g_s), s	2.4	0.0	14.2	0.7	12.8	1.8	0.0	0.0	0.0	11.8	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	14.2	0.7	12.8	1.8	4.3	0.0	0.0	16.1	0.0	0.0
Prop In Lane	1.00		0.02	1.00		1.00	0.25		0.10	0.32		0.43
Lane Grp Cap(c), veh/h	82	0	812	321	1088	852	420	0	0	422	0	0
V/C Ratio(X)	0.55	0.00	0.50	0.05	0.44	0.08	0.26	0.00	0.00	0.72	0.00	0.00
Avail Cap(c_a), veh/h	134	0	812	321	1088	852	635	0	0	629	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.92	0.92	0.92	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.8	0.0	18.2	29.3	10.4	8.2	28.2	0.0	0.0	32.8	0.0	0.0
Incr Delay (d2), s/veh	5.7	0.0	2.2	0.1	1.2	0.2	0.3	0.0	0.0	2.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.2	0.0	7.7	0.3	6.8	0.8	2.2	0.0	0.0	7.4	0.0	0.0
LnGrp Delay(d), s/veh	47.5	0.0	20.4	29.4	11.6	8.3	28.6	0.0	0.0	35.1	0.0	0.0
LnGrp LOS	D	C	C	B	A	C				D		
Approach Vol, veh/h			452			558			108			303
Approach Delay, s/veh			23.1			11.7			28.6			35.1
Approach LOS			C			B			C			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		24.9	21.7	43.4		24.9	8.5	56.6				
Change Period (Y+R <sub>c</sub> ), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		31.5	4.1	37.9		31.5	5.9	36.1				
Max Q Clear Time (g <sub>c+l1</sub> ), s		6.3	2.7	16.2		18.1	4.4	14.8				
Green Ext Time (p <sub>c</sub> ), s		1.5	0.3	1.4		1.3	0.0	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			21.6									
HCM 2010 LOS			C									



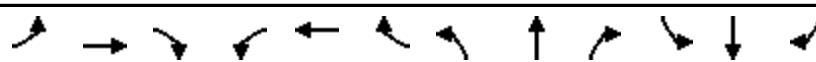
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑	↓	↓	↓	↓	↓	↓
Traffic Volume (veh/h)	71	559	19	12	232	50	23	58	14	34	59	36
Future Volume (veh/h)	71	559	19	12	232	50	23	58	14	34	59	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	77	608	21	13	252	54	25	63	15	37	64	39
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	1074	37	238	1249	978	87	144	31	94	105	57
Arrive On Green	0.08	0.60	0.58	0.15	0.67	0.67	0.12	0.12	0.10	0.12	0.12	0.10
Sat Flow, veh/h	1634	1790	62	1634	1863	1458	307	1193	256	356	867	472
Grp Volume(v), veh/h	77	0	629	13	252	54	103	0	0	140	0	0
Grp Sat Flow(s), veh/h/ln	1634	0	1852	1634	1863	1458	1756	0	0	1696	0	0
Q Serve(g_s), s	4.1	0.0	18.5	0.6	4.6	1.1	0.0	0.0	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	4.1	0.0	18.5	0.6	4.6	1.1	4.8	0.0	0.0	6.9	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.24		0.15	0.26		0.28
Lane Grp Cap(c), veh/h	123	0	1111	238	1249	978	262	0	0	256	0	0
V/C Ratio(X)	0.63	0.00	0.57	0.05	0.20	0.06	0.39	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	218	0	1111	238	1249	978	392	0	0	383	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.99	0.99	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.4	0.0	10.9	33.1	5.6	5.1	37.0	0.0	0.0	37.9	0.0	0.0
Incr Delay (d2), s/veh	5.1	0.0	2.1	0.1	0.4	0.1	1.0	0.0	0.0	1.8	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.0	0.0	10.1	0.3	2.5	0.5	2.4	0.0	0.0	3.5	0.0	0.0
LnGrp Delay(d), s/veh	45.5	0.0	13.0	33.2	6.0	5.2	37.9	0.0	0.0	39.8	0.0	0.0
LnGrp LOS	D	B	C	A	A	D			D			
Approach Vol, veh/h			706			319			103		140	
Approach Delay, s/veh			16.6			7.0			37.9		39.8	
Approach LOS			B			A			D		D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		14.9	17.1	58.0		14.9	10.8	64.3				
Change Period (Y+R <sub>c</sub> ), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		16.5	4.5	52.5		16.5	10.5	46.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s		6.8	2.6	20.5		8.9	6.1	6.6				
Green Ext Time (p <sub>c</sub> ), s		0.6	0.0	2.6		0.5	0.1	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay				18.4								
HCM 2010 LOS				B								



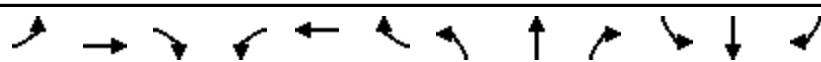
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑	↓	↓	↓	↓	↓	↓
Traffic Volume (veh/h)	75	619	20	13	295	55	25	63	15	39	68	41
Future Volume (veh/h)	75	619	20	13	295	55	25	63	15	39	68	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	82	673	22	14	321	60	27	68	16	42	74	45
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	1076	35	218	1219	955	89	158	33	97	116	63
Arrive On Green	0.08	0.60	0.58	0.13	0.65	0.65	0.13	0.13	0.12	0.13	0.13	0.12
Sat Flow, veh/h	1634	1794	59	1634	1863	1458	298	1186	250	352	868	473
Grp Volume(v), veh/h	82	0	695	14	321	60	111	0	0	161	0	0
Grp Sat Flow(s), veh/h/ln	1634	0	1852	1634	1863	1458	1735	0	0	1694	0	0
Q Serve(g_s), s	4.4	0.0	21.6	0.7	6.5	1.3	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	4.4	0.0	21.6	0.7	6.5	1.3	5.1	0.0	0.0	8.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.24		0.14	0.26		0.28
Lane Grp Cap(c), veh/h	129	0	1111	218	1219	955	281	0	0	276	0	0
V/C Ratio(X)	0.64	0.00	0.63	0.06	0.26	0.06	0.40	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	218	0	1111	218	1219	955	390	0	0	383	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.99	0.99	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.2	0.0	11.5	34.1	6.5	5.6	36.1	0.0	0.0	37.4	0.0	0.0
Incr Delay (d2), s/veh	5.1	0.0	2.7	0.1	0.5	0.1	0.9	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.2	0.0	11.8	0.3	3.5	0.6	2.6	0.0	0.0	4.0	0.0	0.0
LnGrp Delay(d), s/veh	45.3	0.0	14.2	34.2	7.0	5.7	37.0	0.0	0.0	39.3	0.0	0.0
LnGrp LOS	D	B	C	A	A	D			D			
Approach Vol, veh/h				777			395			111		161
Approach Delay, s/veh				17.5			7.8			37.0		39.3
Approach LOS				B			A			D		D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		16.0	16.0	58.0		16.0	11.1	62.9				
Change Period (Y+R <sub>c</sub> ), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		16.5	4.5	52.5		16.5	10.5	46.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s		7.1	2.7	23.6		10.0	6.4	8.5				
Green Ext Time (p <sub>c</sub> ), s		0.6	0.0	2.9		0.5	0.1	1.4				
Intersection Summary												
HCM 2010 Ctrl Delay					18.8							
HCM 2010 LOS					B							



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑	↓	↓	↓	↓	↓	↓
Traffic Volume (veh/h)	75	642	20	14	318	58	25	63	16	42	68	41
Future Volume (veh/h)	75	642	20	14	318	58	25	63	16	42	68	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	82	698	22	15	346	63	27	68	17	46	74	45
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	1058	33	231	1214	950	90	160	36	103	115	63
Arrive On Green	0.08	0.59	0.57	0.14	0.65	0.65	0.14	0.14	0.12	0.14	0.14	0.12
Sat Flow, veh/h	1634	1796	57	1634	1863	1458	293	1177	263	381	846	460
Grp Volume(v), veh/h	82	0	720	15	346	63	112	0	0	165	0	0
Grp Sat Flow(s), veh/h/ln	1634	0	1853	1634	1863	1458	1733	0	0	1688	0	0
Q Serve(g_s), s	4.4	0.0	23.5	0.7	7.2	1.4	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear(g_c), s	4.4	0.0	23.5	0.7	7.2	1.4	5.2	0.0	0.0	8.2	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.24		0.15	0.28		0.27
Lane Grp Cap(c), veh/h	129	0	1091	231	1214	950	286	0	0	281	0	0
V/C Ratio(X)	0.64	0.00	0.66	0.06	0.29	0.07	0.39	0.00	0.00	0.59	0.00	0.00
Avail Cap(c_a), veh/h	203	0	1091	231	1214	950	408	0	0	401	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.97	0.97	0.97	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.2	0.0	12.5	33.5	6.7	5.7	35.9	0.0	0.0	37.2	0.0	0.0
Incr Delay (d2), s/veh	5.1	0.0	3.1	0.1	0.6	0.1	0.9	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.2	0.0	12.8	0.3	3.8	0.6	2.6	0.0	0.0	4.1	0.0	0.0
LnGrp Delay(d), s/veh	45.3	0.0	15.6	33.6	7.3	5.8	36.8	0.0	0.0	39.2	0.0	0.0
LnGrp LOS	D	B	C	A	A	D			D			
Approach Vol, veh/h			802			424			112		165	
Approach Delay, s/veh			18.6			8.0			36.8		39.2	
Approach LOS			B			A			D		D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		16.2	16.8	57.0		16.2	11.1	62.6				
Change Period (Y+R <sub>c</sub> ), s		5.5	5.5	5.5		5.5	5.5	5.5				
Max Green Setting (Gmax), s		17.5	4.5	51.5		17.5	9.7	46.3				
Max Q Clear Time (g <sub>c+l1</sub> ), s		7.2	2.7	25.5		10.2	6.4	9.2				
Green Ext Time (p <sub>c</sub> ), s		0.7	0.0	3.0		0.6	0.0	1.5				
Intersection Summary												
HCM 2010 Ctrl Delay				19.2								
HCM 2010 LOS				B								

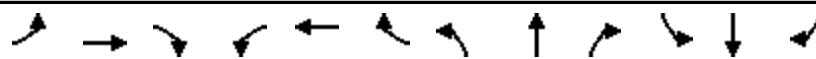


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑	↓	↓		↓	↓	↓
Traffic Volume (veh/h)	98	795	26	19	411	80	36	91	22	72	126	77
Future Volume (veh/h)	98	795	26	19	411	80	36	91	22	72	126	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	107	864	28	21	447	87	39	99	24	78	137	84
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	1016	33	178	1084	849	95	224	49	120	174	99
Arrive On Green	0.09	0.57	0.55	0.11	0.58	0.58	0.22	0.22	0.20	0.22	0.22	0.20
Sat Flow, veh/h	1634	1794	58	1634	1863	1458	253	1028	223	362	799	454
Grp Volume(v), veh/h	107	0	892	21	447	87	162	0	0	299	0	0
Grp Sat Flow(s), veh/h/ln	1634	0	1852	1634	1863	1458	1505	0	0	1615	0	0
Q Serve(g_s), s	7.1	0.0	45.1	1.3	14.8	3.0	0.0	0.0	0.0	10.2	0.0	0.0
Cycle Q Clear(g_c), s	7.1	0.0	45.1	1.3	14.8	3.0	9.6	0.0	0.0	19.8	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.24		0.15	0.26		0.28
Lane Grp Cap(c), veh/h	152	0	1049	178	1084	849	368	0	0	393	0	0
V/C Ratio(X)	0.70	0.00	0.85	0.12	0.41	0.10	0.44	0.00	0.00	0.76	0.00	0.00
Avail Cap(c_a), veh/h	239	0	1049	178	1084	849	461	0	0	486	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.84	0.84	0.84	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	49.3	0.0	20.4	45.1	12.9	10.4	37.8	0.0	0.0	42.0	0.0	0.0
Incr Delay (d2), s/veh	5.9	0.0	8.7	0.2	1.0	0.2	0.8	0.0	0.0	5.5	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.5	0.0	25.3	0.6	7.9	1.2	4.5	0.0	0.0	9.5	0.0	0.0
LnGrp Delay(d), s/veh	55.2	0.0	29.0	45.3	13.9	10.6	38.6	0.0	0.0	47.6	0.0	0.0
LnGrp LOS	E		C	D	B	B	D			D		
Approach Vol, veh/h			999			555			162		299	
Approach Delay, s/veh			31.8			14.5			38.6		47.6	
Approach LOS			C			B			D		D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4			6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	28.4	16.2	67.4			28.4	14.4	69.2				
Change Period (Y+R <sub>c</sub> ), s	5.5	5.5	5.5			5.5	5.5	5.5				
Max Green Setting (Gmax), s	29.5	4.1	61.9			29.5	14.9	51.1				
Max Q Clear Time (g <sub>c+l1</sub> ), s	11.6	3.3	47.1			21.8	9.1	16.8				
Green Ext Time (p <sub>c</sub> ), s	1.6	0.0	3.6			1.1	0.1	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay			29.9									
HCM 2010 LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑	↓	↓	↓	↓	↓	↓
Traffic Volume (veh/h)	98	818	26	20	434	83	36	91	23	75	126	77
Future Volume (veh/h)	98	818	26	20	434	83	36	91	23	75	126	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	107	889	28	22	472	90	39	99	25	82	137	84
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	1040	33	154	1081	846	95	225	51	124	172	98
Arrive On Green	0.09	0.58	0.57	0.09	0.58	0.58	0.22	0.22	0.21	0.22	0.22	0.21
Sat Flow, veh/h	1634	1796	57	1634	1863	1458	252	1017	230	377	781	444
Grp Volume(v), veh/h	107	0	917	22	472	90	163	0	0	303	0	0
Grp Sat Flow(s), veh/h/ln	1634	0	1853	1634	1863	1458	1499	0	0	1601	0	0
Q Serve(g_s), s	7.2	0.0	46.7	1.4	16.1	3.1	0.0	0.0	0.0	10.8	0.0	0.0
Cycle Q Clear(g_c), s	7.2	0.0	46.7	1.4	16.1	3.1	9.7	0.0	0.0	20.5	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.24		0.15	0.27		0.28
Lane Grp Cap(c), veh/h	152	0	1072	154	1081	846	370	0	0	394	0	0
V/C Ratio(X)	0.71	0.00	0.86	0.14	0.44	0.11	0.44	0.00	0.00	0.77	0.00	0.00
Avail Cap(c_a), veh/h	237	0	1072	154	1081	846	441	0	0	465	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.75	0.75	0.75	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	49.8	0.0	19.9	47.0	13.3	10.6	37.9	0.0	0.0	42.4	0.0	0.0
Incr Delay (d2), s/veh	5.9	0.0	8.7	0.3	1.0	0.2	0.8	0.0	0.0	6.5	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.5	0.0	26.3	0.6	8.5	1.3	4.5	0.0	0.0	9.8	0.0	0.0
LnGrp Delay(d), s/veh	55.7	0.0	28.6	47.3	14.3	10.8	38.7	0.0	0.0	48.8	0.0	0.0
LnGrp LOS	E		C	D	B	B	D			D		
Approach Vol, veh/h		1024			584			163			303	
Approach Delay, s/veh		31.4			15.0			38.7			48.8	
Approach LOS		C			B			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4			6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	29.0	14.6	69.4		29.0	14.5	69.6					
Change Period (Y+R <sub>c</sub> ), s	5.5	5.5	5.5		5.5	5.5	5.5					
Max Green Setting (Gmax), s	28.5	4.1	63.9		28.5	14.9	53.1					
Max Q Clear Time (g <sub>c+l1</sub> ), s	11.7	3.4	48.7		22.5	9.2	18.1					
Green Ext Time (p <sub>c</sub> ), s	1.6	0.0	3.8		1.0	0.1	2.2					
Intersection Summary												
HCM 2010 Ctrl Delay			29.9									
HCM 2010 LOS			C									

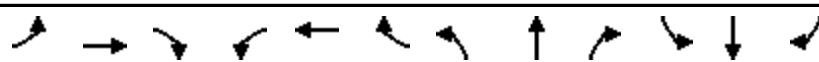
**Intersection 6  
Ashe Rd & Taft Hwy (SR 119)**



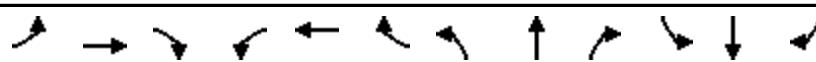
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↓		↓	↓	↑
Traffic Volume (veh/h)	33	229	7	12	251	36	9	42	8	40	32	35
Future Volume (veh/h)	33	229	7	12	251	36	9	42	8	40	32	35
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1750	1750	1863	1750	1750	1863	1716
Adj Flow Rate, veh/h	36	249	8	13	273	39	10	46	9	43	35	38
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	602	838	27	511	1280	181	58	103	18	136	73	127
Arrive On Green	0.37	0.47	0.45	0.31	0.41	0.39	0.09	0.09	0.07	0.09	0.09	0.09
Sat Flow, veh/h	1634	1795	58	1634	3115	440	140	1174	211	846	839	1458
Grp Volume(v), veh/h	36	0	257	13	154	158	65	0	0	78	0	38
Grp Sat Flow(s), veh/h/ln	1634	0	1853	1634	1770	1785	1526	0	0	1685	0	1458
Q Serve(g_s), s	1.3	0.0	7.7	0.5	5.0	5.2	0.5	0.0	0.0	0.0	0.0	2.2
Cycle Q Clear(g_c), s	1.3	0.0	7.7	0.5	5.0	5.2	4.1	0.0	0.0	3.7	0.0	2.2
Prop In Lane	1.00		0.03	1.00		0.25	0.15		0.14	0.55		1.00
Lane Grp Cap(c), veh/h	602	0	865	511	728	734	180	0	0	209	0	127
V/C Ratio(X)	0.06	0.00	0.30	0.03	0.21	0.22	0.36	0.00	0.00	0.37	0.00	0.30
Avail Cap(c_a), veh/h	602	0	865	511	728	734	525	0	0	519	0	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.00	0.99	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	14.9	21.4	17.1	17.3	39.1	0.0	0.0	39.1	0.0	38.5
Incr Delay (d2), s/veh	0.0	0.0	0.9	0.0	0.7	0.7	1.2	0.0	0.0	1.1	0.0	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	0.0	4.1	0.2	2.6	2.7	1.6	0.0	0.0	1.9	0.0	0.9
LnGrp Delay(d), s/veh	18.4	0.0	15.7	21.5	17.8	17.9	40.3	0.0	0.0	40.2	0.0	39.8
LnGrp LOS	B		B	C	B	B	D		D		D	
Approach Vol, veh/h			293			325			65			116
Approach Delay, s/veh			16.1			18.0			40.3			40.1
Approach LOS			B			B			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		11.9	32.1	46.0		11.9	37.1	41.0				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (Gmax), s		24.8	8.5	40.5		24.8	13.5	35.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s		6.1	2.5	9.7		5.7	3.3	7.2				
Green Ext Time (p <sub>c</sub> ), s		0.5	0.0	0.9		0.5	0.1	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			22.3									
HCM 2010 LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↓		↓	↓	↑
Traffic Volume (veh/h)	36	300	10	17	304	47	13	61	11	69	51	38
Future Volume (veh/h)	36	300	10	17	304	47	13	61	11	69	51	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1750	1750	1863	1750	1750	1863	1716
Adj Flow Rate, veh/h	39	326	11	18	330	51	14	66	12	75	55	41
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	460	866	29	388	1353	207	57	156	25	160	93	215
Arrive On Green	0.28	0.48	0.47	0.24	0.44	0.42	0.15	0.15	0.13	0.15	0.15	0.15
Sat Flow, veh/h	1634	1792	60	1634	3078	471	79	1060	171	665	630	1458
Grp Volume(v), veh/h	39	0	337	18	188	193	92	0	0	130	0	41
Grp Sat Flow(s), veh/h/ln	1634	0	1852	1634	1770	1780	1310	0	0	1296	0	1458
Q Serve(g_s), s	1.6	0.0	10.5	0.8	6.1	6.2	0.2	0.0	0.0	0.0	0.0	2.2
Cycle Q Clear(g_c), s	1.6	0.0	10.5	0.8	6.1	6.2	9.5	0.0	0.0	9.3	0.0	2.2
Prop In Lane	1.00		0.03	1.00		0.26	0.15		0.13	0.58		1.00
Lane Grp Cap(c), veh/h	460	0	896	388	778	782	239	0	0	253	0	215
V/C Ratio(X)	0.08	0.00	0.38	0.05	0.24	0.25	0.39	0.00	0.00	0.51	0.00	0.19
Avail Cap(c_a), veh/h	460	0	896	388	778	782	456	0	0	445	0	401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.00	0.93	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.1	0.0	14.9	26.8	16.0	16.2	35.0	0.0	0.0	36.8	0.0	34.0
Incr Delay (d2), s/veh	0.1	0.0	1.1	0.0	0.7	0.8	1.0	0.0	0.0	1.6	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.7	0.0	5.6	0.4	3.1	3.2	2.1	0.0	0.0	3.2	0.0	0.9
LnGrp Delay(d), s/veh	24.2	0.0	16.0	26.8	16.7	16.9	36.0	0.0	0.0	38.4	0.0	34.5
LnGrp LOS	C	B	C	B	B	D			D		C	
Approach Vol, veh/h					399			92				171
Approach Delay, s/veh					17.3			36.0				37.5
Approach LOS					B			D				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		17.4	25.6	48.0		17.4	29.6	44.0				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (Gmax), s		23.8	8.5	42.5		23.8	12.5	38.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s		11.5	2.8	12.5		11.3	3.6	8.2				
Green Ext Time (p <sub>c</sub> ), s		0.7	0.0	1.2		0.7	0.1	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay					22.1							
HCM 2010 LOS					C							



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↓		↓	↓	↑
Traffic Volume (veh/h)	60	300	10	72	322	47	13	69	11	131	51	38
Future Volume (veh/h)	60	300	10	72	322	47	13	69	11	131	51	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1750	1750	1863	1750	1750	1863	1716
Adj Flow Rate, veh/h	65	326	11	78	350	51	14	75	12	142	55	41
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	677	23	290	1207	174	46	195	26	176	57	454
Arrive On Green	0.17	0.38	0.36	0.18	0.39	0.37	0.31	0.31	0.30	0.31	0.31	0.31
Sat Flow, veh/h	1634	1792	60	1634	3105	449	0	625	84	344	185	1458
Grp Volume(v), veh/h	65	0	337	78	198	203	101	0	0	197	0	41
Grp Sat Flow(s), veh/h/ln	1634	0	1852	1634	1770	1784	710	0	0	529	0	1458
Q Serve(g_s), s	3.1	0.0	12.5	3.7	6.9	7.1	0.0	0.0	0.0	0.0	0.0	1.8
Cycle Q Clear(g_c), s	3.1	0.0	12.5	3.7	6.9	7.1	28.0	0.0	0.0	28.0	0.0	1.8
Prop In Lane	1.00		0.03	1.00		0.25	0.14		0.12	0.72		1.00
Lane Grp Cap(c), veh/h	272	0	700	290	688	694	266	0	0	233	0	454
V/C Ratio(X)	0.24	0.00	0.48	0.27	0.29	0.29	0.38	0.00	0.00	0.84	0.00	0.09
Avail Cap(c_a), veh/h	272	0	700	290	688	694	266	0	0	233	0	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.00	0.98	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	0.0	21.3	31.9	18.9	19.1	24.3	0.0	0.0	32.5	0.0	22.0
Incr Delay (d2), s/veh	0.4	0.0	2.3	0.5	1.1	1.1	0.9	0.0	0.0	23.7	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.4	0.0	6.8	1.7	3.6	3.7	1.9	0.0	0.0	6.4	0.0	0.7
LnGrp Delay(d), s/veh	33.0	0.0	23.6	32.4	20.0	20.2	25.2	0.0	0.0	56.2	0.0	22.1
LnGrp LOS	C	C	C	B	C	C			E		C	
Approach Vol, veh/h			402			479			101			238
Approach Delay, s/veh			25.1			22.1			25.2			50.3
Approach LOS			C			C			C			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4			6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	32.0	20.0	38.0			32.0	19.0	39.0				
Change Period (Y+R <sub>c</sub> ), s	5.2	5.5	5.5			5.2	5.5	5.5				
Max Green Setting (Gmax), s	26.8	14.5	32.5			26.8	13.5	33.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s	30.0	5.7	14.5			30.0	5.1	9.1				
Green Ext Time (p <sub>c</sub> ), s	0.0	0.3	1.1			0.0	0.2	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			28.9									
HCM 2010 LOS			C									

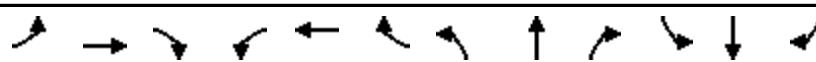


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↓		↑	↑	↑
Traffic Volume (veh/h)	53	415	42	71	461	69	53	251	47	91	196	58
Future Volume (veh/h)	53	415	42	71	461	69	53	251	47	91	196	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1750	1750	1863	1750	1750	1863	1716
Adj Flow Rate, veh/h	58	451	46	77	501	75	58	273	51	99	213	63
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	274	660	67	105	907	135	85	356	61	162	324	591
Arrive On Green	0.17	0.40	0.38	0.06	0.29	0.28	0.41	0.41	0.39	0.41	0.41	0.41
Sat Flow, veh/h	1634	1663	170	1634	3090	461	95	877	150	270	799	1458
Grp Volume(v), veh/h	58	0	497	77	286	290	382	0	0	312	0	63
Grp Sat Flow(s), veh/h/ln	1634	0	1833	1634	1770	1781	1123	0	0	1069	0	1458
Q Serve(g_s), s	2.8	0.0	20.2	4.2	12.3	12.4	8.7	0.0	0.0	0.0	0.0	2.4
Cycle Q Clear(g_c), s	2.8	0.0	20.2	4.2	12.3	12.4	31.3	0.0	0.0	22.6	0.0	2.4
Prop In Lane	1.00		0.09	1.00		0.26	0.15		0.13	0.32		1.00
Lane Grp Cap(c), veh/h	274	0	727	105	519	523	501	0	0	486	0	591
V/C Ratio(X)	0.21	0.00	0.68	0.73	0.55	0.55	0.76	0.00	0.00	0.64	0.00	0.11
Avail Cap(c_a), veh/h	274	0	727	105	519	523	602	0	0	578	0	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.00	0.96	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.3	0.0	22.5	41.3	26.8	27.0	24.4	0.0	0.0	21.2	0.0	16.6
Incr Delay (d2), s/veh	0.4	0.0	4.9	22.7	4.2	4.2	4.7	0.0	0.0	1.8	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.3	0.0	11.2	2.5	6.6	6.7	9.6	0.0	0.0	6.7	0.0	1.0
LnGrp Delay(d), s/veh	32.7	0.0	27.5	64.0	31.0	31.2	29.1	0.0	0.0	23.1	0.0	16.7
LnGrp LOS	C	C	E	C	C	C			C		B	
Approach Vol, veh/h		555			653			382			375	
Approach Delay, s/veh		28.0			35.0			29.1			22.0	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		40.5	9.8	39.7		40.5	19.1	30.4				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (Gmax), s		40.8	4.3	28.7		40.8	8.1	24.9				
Max Q Clear Time (g <sub>c+l1</sub> ), s		33.3	6.2	22.2		24.6	4.8	14.4				
Green Ext Time (p <sub>c</sub> ), s		2.0	0.0	1.2		2.8	0.8	1.6				
Intersection Summary												
HCM 2010 Ctrl Delay			29.4									
HCM 2010 LOS			C									

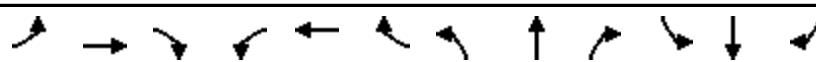


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↓		↑	↑	↑
Traffic Volume (veh/h)	77	415	42	126	479	69	53	259	47	153	196	58
Future Volume (veh/h)	77	415	42	126	479	69	53	259	47	153	196	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1750	1750	1863	1750	1750	1863	1716
Adj Flow Rate, veh/h	84	451	46	137	521	75	58	282	51	166	213	63
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	510	52	171	905	130	46	194	29	177	183	664
Arrive On Green	0.12	0.31	0.29	0.10	0.29	0.27	0.46	0.46	0.44	0.46	0.46	0.46
Sat Flow, veh/h	1634	1663	170	1634	3108	446	0	427	64	262	401	1458
Grp Volume(v), veh/h	84	0	497	137	296	300	391	0	0	379	0	63
Grp Sat Flow(s), veh/h/ln	1634	0	1833	1634	1770	1784	491	0	0	663	0	1458
Q Serve(g_s), s	4.3	0.0	23.2	7.4	12.8	12.9	0.0	0.0	0.0	0.0	0.0	2.2
Cycle Q Clear(g_c), s	4.3	0.0	23.2	7.4	12.8	12.9	41.0	0.0	0.0	41.0	0.0	2.2
Prop In Lane	1.00		0.09	1.00		0.25	0.15		0.13	0.44		1.00
Lane Grp Cap(c), veh/h	196	0	562	171	515	519	270	0	0	360	0	664
V/C Ratio(X)	0.43	0.00	0.88	0.80	0.57	0.58	1.45	0.00	0.00	1.05	0.00	0.09
Avail Cap(c_a), veh/h	196	0	562	171	515	519	270	0	0	360	0	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.00	0.95	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.7	0.0	29.7	39.4	27.2	27.4	30.1	0.0	0.0	26.7	0.0	13.9
Incr Delay (d2), s/veh	1.4	0.0	17.4	23.5	4.6	4.6	222.2	0.0	0.0	62.4	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.0	0.0	14.5	4.4	6.9	7.0	22.2	0.0	0.0	15.1	0.0	0.9
LnGrp Delay(d), s/veh	38.1	0.0	47.1	62.8	31.8	32.0	252.4	0.0	0.0	89.1	0.0	14.0
LnGrp LOS	D	D	E	C	C	F			F		B	
Approach Vol, veh/h					733			391			442	
Approach Delay, s/veh		45.8			37.7			252.4			78.4	
Approach LOS		D			D			F			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		45.0	13.4	31.6		45.0	14.8	30.2				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (Gmax), s		39.8	7.9	26.1		39.8	9.3	24.7				
Max Q Clear Time (g <sub>c+l1</sub> ), s		43.0	9.4	25.2		43.0	6.3	14.9				
Green Ext Time (p <sub>c</sub> ), s		0.0	0.0	0.2		0.0	0.7	1.6				
Intersection Summary												
HCM 2010 Ctrl Delay				87.4								
HCM 2010 LOS				F								

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	77	415	42	126	479	69	53	259	47	153	196	58
Future Volume (veh/h)	77	415	42	126	479	69	53	259	47	153	196	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	84	451	46	137	521	75	58	282	51	166	213	63
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	131	1593	632	192	1725	687	93	473	176	219	746	307
Arrive On Green	0.08	0.45	0.43	0.04	0.16	0.16	0.06	0.13	0.12	0.13	0.21	0.21
Sat Flow, veh/h	1634	3539	1458	1634	3539	1458	1634	3539	1458	1634	3539	1458
Grp Volume(v), veh/h	84	451	46	137	521	75	58	282	51	166	213	63
Grp Sat Flow(s), veh/h/ln	1634	1770	1458	1634	1770	1458	1634	1770	1458	1634	1770	1458
Q Serve(g_s), s	4.5	7.2	1.7	7.5	11.7	4.0	3.1	6.8	2.9	8.8	4.5	3.2
Cycle Q Clear(g_c), s	4.5	7.2	1.7	7.5	11.7	4.0	3.1	6.8	2.9	8.8	4.5	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	131	1593	632	192	1725	687	93	473	176	219	746	307
V/C Ratio(X)	0.64	0.28	0.07	0.71	0.30	0.11	0.62	0.60	0.29	0.76	0.29	0.21
Avail Cap(c_a), veh/h	200	1593	632	192	1725	687	131	904	353	312	1298	535
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	15.6	14.9	41.7	24.3	21.8	41.5	36.7	36.1	37.6	29.8	29.3
Incr Delay (d2), s/veh	4.8	0.4	0.2	9.2	0.4	0.3	6.6	1.2	0.9	6.5	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.2	3.6	0.7	3.9	5.8	1.7	1.6	3.4	1.2	4.4	2.2	1.3
LnGrp Delay(d), s/veh	45.0	16.0	15.1	51.0	24.6	22.0	48.1	37.9	37.0	44.0	30.0	29.6
LnGrp LOS	D	B	B	D	C	C	D	D	D	C	C	
Approach Vol, veh/h												
Approach Delay, s/veh	581				733				391			442
Approach LOS	20.1				29.3				39.3			35.2
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	14.9	16.0	14.6	44.5	7.9	23.0	11.2	47.9				
Change Period (Y+R <sub>c</sub> ), s	4.0	5.2	5.5	5.5	4.0	5.2	5.5	5.5				
Max Green Setting (Gmax), s	16.0	21.8	9.1	22.9	6.0	31.8	9.5	22.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s	10.8	8.8	9.5	9.2	5.1	6.5	6.5	13.7				
Green Ext Time (p <sub>c</sub> ), s	0.2	2.1	0.0	4.0	0.0	2.5	0.0	3.2				
Intersection Summary												
HCM 2010 Ctrl Delay				29.9								
HCM 2010 LOS				C								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↓		↑	↑	↑
Traffic Volume (veh/h)	76	542	4	14	254	59	15	51	22	32	46	29
Future Volume (veh/h)	76	542	4	14	254	59	15	51	22	32	46	29
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1750	1750	1863	1750	1750	1863	1716
Adj Flow Rate, veh/h	83	589	4	15	276	64	16	55	24	35	50	32
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	412	1354	9	50	1464	334	63	102	40	116	119	151
Arrive On Green	0.25	0.73	0.72	0.03	0.51	0.49	0.10	0.10	0.09	0.10	0.10	0.10
Sat Flow, veh/h	1634	1848	13	1634	2864	653	162	986	388	574	1148	1458
Grp Volume(v), veh/h	83	0	593	15	169	171	95	0	0	85	0	32
Grp Sat Flow(s), veh/h/ln	1634	0	1861	1634	1770	1747	1536	0	0	1722	0	1458
Q Serve(g_s), s	3.6	0.0	11.3	0.8	4.6	4.8	1.7	0.0	0.0	0.0	0.0	1.8
Cycle Q Clear(g_c), s	3.6	0.0	11.3	0.8	4.6	4.8	5.7	0.0	0.0	4.0	0.0	1.8
Prop In Lane	1.00		0.01	1.00		0.37	0.17		0.25	0.41		1.00
Lane Grp Cap(c), veh/h	412	0	1363	50	904	893	206	0	0	235	0	151
V/C Ratio(X)	0.20	0.00	0.44	0.30	0.19	0.19	0.46	0.00	0.00	0.36	0.00	0.21
Avail Cap(c_a), veh/h	412	0	1363	127	904	893	367	0	0	388	0	292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	0.89	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	0.0	4.7	42.7	11.9	12.1	38.7	0.0	0.0	37.9	0.0	37.0
Incr Delay (d2), s/veh	0.2	0.0	0.9	3.3	0.5	0.5	1.6	0.0	0.0	0.9	0.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.6	0.0	5.9	0.4	2.4	2.4	2.4	0.0	0.0	2.0	0.0	0.8
LnGrp Delay(d), s/veh	26.7	0.0	5.6	46.0	12.3	12.6	40.3	0.0	0.0	38.9	0.0	37.7
LnGrp LOS	C	A	D	B	B	D			D		D	
Approach Vol, veh/h	676			355			95			117		
Approach Delay, s/veh	8.2			13.9			40.3			38.5		
Approach LOS	A			B			D			D		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R <sub>c</sub> ), s	13.3	6.8	69.9		13.3	26.7	50.0					
Change Period (Y+R <sub>c</sub> ), s	5.2	5.5	5.5		5.2	5.5	5.5					
Max Green Setting (Gmax), s	16.8	5.5	51.5		16.8	12.5	44.5					
Max Q Clear Time (g <sub>c+l1</sub> ), s	7.7	2.8	13.3		6.0	5.6	6.8					
Green Ext Time (p <sub>c</sub> ), s	0.5	0.0	2.7		0.5	1.6	1.2					
Intersection Summary												
HCM 2010 Ctrl Delay	15.1											
HCM 2010 LOS	B											



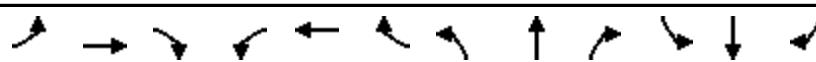
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↓		↓	↓	↑
Traffic Volume (veh/h)	83	616	6	20	324	90	21	77	31	48	67	32
Future Volume (veh/h)	83	616	6	20	324	90	21	77	31	48	67	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1750	1750	1863	1750	1750	1863	1716
Adj Flow Rate, veh/h	90	670	7	22	352	98	23	84	34	52	73	35
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	1262	13	58	1434	394	65	136	49	130	146	212
Arrive On Green	0.20	0.69	0.67	0.04	0.52	0.51	0.15	0.15	0.13	0.15	0.15	0.15
Sat Flow, veh/h	1634	1840	19	1634	2745	754	129	936	338	502	1003	1458
Grp Volume(v), veh/h	90	0	677	22	225	225	141	0	0	125	0	35
Grp Sat Flow(s), veh/h/ln	1634	0	1859	1634	1770	1730	1403	0	0	1505	0	1458
Q Serve(g_s), s	4.2	0.0	16.2	1.2	6.3	6.5	2.5	0.0	0.0	0.0	0.0	1.9
Cycle Q Clear(g_c), s	4.2	0.0	16.2	1.2	6.3	6.5	9.4	0.0	0.0	6.9	0.0	1.9
Prop In Lane	1.00		0.01	1.00		0.44	0.16		0.24	0.42		1.00
Lane Grp Cap(c), veh/h	325	0	1275	58	924	903	251	0	0	276	0	212
V/C Ratio(X)	0.28	0.00	0.53	0.38	0.24	0.25	0.56	0.00	0.00	0.45	0.00	0.17
Avail Cap(c_a), veh/h	325	0	1275	109	924	903	342	0	0	361	0	292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.00	0.85	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.6	0.0	7.0	42.4	11.8	12.0	36.6	0.0	0.0	35.6	0.0	33.7
Incr Delay (d2), s/veh	0.4	0.0	1.3	4.0	0.6	0.7	2.0	0.0	0.0	1.2	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.9	0.0	8.6	0.6	3.2	3.3	3.5	0.0	0.0	3.0	0.0	0.8
LnGrp Delay(d), s/veh	30.9	0.0	8.3	46.5	12.4	12.7	38.6	0.0	0.0	36.8	0.0	34.0
LnGrp LOS	C	A	D	B	B	D			D		C	
Approach Vol, veh/h			767			472			141			160
Approach Delay, s/veh			11.0			14.1			38.6			36.2
Approach LOS			B			B			D			D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4			6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	17.1	7.2	65.7			17.1	21.9	51.0				
Change Period (Y+R <sub>c</sub> ), s	5.2	5.5	5.5			5.2	5.5	5.5				
Max Green Setting (Gmax), s	16.8	4.5	52.5			16.8	11.5	45.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s	11.4	3.2	18.2			8.9	6.2	8.5				
Green Ext Time (p <sub>c</sub> ), s	0.5	0.0	3.2			0.7	1.6	1.6				

#### Intersection Summary

HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑↑			↓		↓	↓	↑
Traffic Volume (veh/h)	110	616	6	102	351	90	21	86	31	118	67	32
Future Volume (veh/h)	110	616	6	102	351	90	21	86	31	118	67	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1750	1750	1863	1750	1750	1863	1716
Adj Flow Rate, veh/h	120	670	7	111	382	98	23	93	34	128	73	35
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	962	10	163	1305	331	46	143	42	160	69	356
Arrive On Green	0.16	0.52	0.51	0.10	0.47	0.45	0.24	0.24	0.23	0.24	0.24	0.24
Sat Flow, veh/h	1634	1840	19	1634	2797	710	0	584	171	387	283	1458
Grp Volume(v), veh/h	120	0	677	111	240	240	150	0	0	201	0	35
Grp Sat Flow(s), veh/h/ln	1634	0	1859	1634	1770	1737	755	0	0	670	0	1458
Q Serve(g_s), s	6.0	0.0	24.6	5.9	7.5	7.8	0.0	0.0	0.0	0.0	0.0	1.7
Cycle Q Clear(g_c), s	6.0	0.0	24.6	5.9	7.5	7.8	22.0	0.0	0.0	22.0	0.0	1.7
Prop In Lane	1.00		0.01	1.00		0.41	0.15		0.23	0.64		1.00
Lane Grp Cap(c), veh/h	254	0	972	163	826	811	231	0	0	229	0	356
V/C Ratio(X)	0.47	0.00	0.70	0.68	0.29	0.30	0.65	0.00	0.00	0.88	0.00	0.10
Avail Cap(c_a), veh/h	254	0	972	218	826	811	231	0	0	229	0	356
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.00	0.83	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.6	0.0	16.1	39.1	14.8	15.1	29.0	0.0	0.0	35.5	0.0	26.3
Incr Delay (d2), s/veh	1.1	0.0	3.4	5.3	0.9	0.9	6.3	0.0	0.0	29.5	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.8	0.0	13.5	2.9	3.9	3.9	3.5	0.0	0.0	6.8	0.0	0.7
LnGrp Delay(d), s/veh	35.8	0.0	19.6	44.4	15.7	16.0	35.3	0.0	0.0	65.0	0.0	26.4
LnGrp LOS	D	B	D	B	B	D			E		C	
Approach Vol, veh/h			797			591			150			236
Approach Delay, s/veh			22.0			21.2			35.3			59.3
Approach LOS			C			C			D			E
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4			6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	26.0	13.0	51.0			26.0	18.0	46.0				
Change Period (Y+R <sub>c</sub> ), s	5.2	5.5	5.5			5.2	5.5	5.5				
Max Green Setting (Gmax), s	20.8	10.5	42.5			20.8	12.5	40.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s	24.0	7.9	26.6			24.0	8.0	9.8				
Green Ext Time (p <sub>c</sub> ), s	0.0	0.1	2.9			0.0	1.4	1.7				
Intersection Summary												
HCM 2010 Ctrl Delay			27.8									
HCM 2010 LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↓		↓	↓	↑
Traffic Volume (veh/h)	121	888	24	83	482	127	89	309	131	66	276	48
Future Volume (veh/h)	121	888	24	83	482	127	89	309	131	66	276	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1750	1750	1863	1750	1750	1863	1716
Adj Flow Rate, veh/h	132	965	26	90	524	138	97	336	142	72	300	52
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	267	750	20	80	835	219	89	254	100	110	427	625
Arrive On Green	0.16	0.42	0.40	0.05	0.30	0.29	0.43	0.43	0.42	0.43	0.43	0.43
Sat Flow, veh/h	1634	1806	49	1634	2776	728	120	592	233	167	996	1458
Grp Volume(v), veh/h	132	0	991	90	333	329	575	0	0	372	0	52
Grp Sat Flow(s), veh/h/ln	1634	0	1854	1634	1770	1734	945	0	0	1164	0	1458
Q Serve(g_s), s	8.2	0.0	46.5	5.5	18.2	18.4	21.6	0.0	0.0	0.0	0.0	2.4
Cycle Q Clear(g_c), s	8.2	0.0	46.5	5.5	18.2	18.4	48.0	0.0	0.0	26.4	0.0	2.4
Prop In Lane	1.00		0.03	1.00		0.42	0.17		0.25	0.19		1.00
Lane Grp Cap(c), veh/h	267	0	770	80	532	522	443	0	0	537	0	625
V/C Ratio(X)	0.49	0.00	1.29	1.12	0.63	0.63	1.30	0.00	0.00	0.69	0.00	0.08
Avail Cap(c_a), veh/h	267	0	770	80	532	522	443	0	0	537	0	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.00	0.61	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.6	0.0	32.8	53.3	33.7	34.1	38.5	0.0	0.0	24.4	0.0	19.0
Incr Delay (d2), s/veh	0.9	0.0	135.4	137.2	5.5	5.7	150.4	0.0	0.0	3.8	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.8	0.0	52.7	5.5	9.7	9.6	32.1	0.0	0.0	9.8	0.0	1.0
LnGrp Delay(d), s/veh	43.5	0.0	168.2	2190.5	39.2	39.8	188.9	0.0	0.0	28.2	0.0	19.0
LnGrp LOS	D	F	F	D	D	F			C		B	
Approach Vol, veh/h	1123			752			575			424		
Approach Delay, s/veh	153.5			57.5			188.9			27.1		
Approach LOS	F			E			F			C		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4		6	7	8					
Phs Duration (G+Y+R <sub>c</sub> ), s	52.0	9.5	50.5		52.0	22.3	37.7					
Change Period (Y+R <sub>c</sub> ), s	5.2	5.5	5.5		5.2	5.5	5.5					
Max Green Setting (Gmax), s	46.8	4.0	45.0		46.8	16.8	32.2					
Max Q Clear Time (g <sub>c+l1</sub> ), s	50.0	7.5	48.5		28.4	10.2	20.4					
Green Ext Time (p <sub>c</sub> ), s	0.0	0.0	0.0		4.3	0.4	2.0					
Intersection Summary												
HCM 2010 Ctrl Delay	116.8											
HCM 2010 LOS	F											



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑	↑		↓		↓	↓	↑
Traffic Volume (veh/h)	148	888	24	165	509	127	89	318	131	136	276	48
Future Volume (veh/h)	148	888	24	165	509	127	89	318	131	136	276	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1750	1716	1863	1750	1750	1863	1750	1750	1863	1716
Adj Flow Rate, veh/h	161	965	26	179	553	138	97	346	142	148	300	52
Adj No. of Lanes	1	1	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	250	703	19	101	838	208	37	79	25	149	239	645
Arrive On Green	0.15	0.39	0.38	0.06	0.30	0.28	0.44	0.44	0.43	0.44	0.44	0.44
Sat Flow, veh/h	1634	1806	49	1634	2810	699	0	179	57	240	540	1458
Grp Volume(v), veh/h	161	0	991	179	348	343	585	0	0	448	0	52
Grp Sat Flow(s), veh/h/ln	1634	0	1854	1634	1770	1739	237	0	0	780	0	1458
Q Serve(g_s), s	10.5	0.0	44.0	7.0	19.4	19.6	0.0	0.0	0.0	0.0	0.0	2.3
Cycle Q Clear(g_c), s	10.5	0.0	44.0	7.0	19.4	19.6	50.0	0.0	0.0	50.0	0.0	2.3
Prop In Lane	1.00		0.03	1.00		0.40	0.17		0.24	0.33		1.00
Lane Grp Cap(c), veh/h	250	0	722	101	528	519	142	0	0	388	0	645
V/C Ratio(X)	0.64	0.00	1.37	1.77	0.66	0.66	4.12	0.00	0.00	1.16	0.00	0.08
Avail Cap(c_a), veh/h	250	0	722	101	528	519	142	0	0	388	0	645
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.00	0.58	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.0	0.0	34.5	53.0	34.6	35.0	35.7	0.0	0.0	33.3	0.0	18.2
Incr Delay (d2), s/veh	3.3	0.0	172.8	382.8	6.3	6.5	421.0	0.0	0.0	95.4	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	5.0	0.0	57.1	13.9	10.4	10.3	59.3	0.0	0.0	22.3	0.0	0.9
LnGrp Delay(d), s/veh	48.2	0.0	207.4	435.8	40.9	41.5	456.7	0.0	0.0	128.7	0.0	18.3
LnGrp LOS	D	F	F	D	D	F			F		B	
Approach Vol, veh/h		1152			870			585			500	
Approach Delay, s/veh		185.1			122.4			1456.7			117.2	
Approach LOS		F			F			F			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		54.0	11.0	48.0		54.0	21.3	37.7				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (Gmax), s		48.8	5.5	42.5		48.8	15.8	32.2				
Max Q Clear Time (g <sub>c+l1</sub> ), s		52.0	9.0	46.0		52.0	12.5	21.6				
Green Ext Time (p <sub>c</sub> ), s		0.0	0.0	0.0		0.0	0.4	2.0				
Intersection Summary												
HCM 2010 Ctrl Delay			396.1									
HCM 2010 LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	148	888	24	165	509	127	89	318	131	136	276	48
Future Volume (veh/h)	148	888	24	165	509	127	89	318	131	136	276	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	161	965	26	179	553	138	97	346	142	148	300	52
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	1536	609	218	1535	608	142	517	194	199	642	265
Arrive On Green	0.13	0.43	0.42	0.04	0.14	0.14	0.09	0.15	0.13	0.12	0.18	0.18
Sat Flow, veh/h	1634	3539	1458	1634	3539	1458	1634	3539	1458	1634	3539	1458
Grp Volume(v), veh/h	161	965	26	179	553	138	97	346	142	148	300	52
Grp Sat Flow(s), veh/h/ln	1634	1770	1458	1634	1770	1458	1634	1770	1458	1634	1770	1458
Q Serve(g_s), s	8.5	19.1	1.0	9.8	12.7	7.6	5.2	8.3	8.4	7.9	6.8	2.7
Cycle Q Clear(g_c), s	8.5	19.1	1.0	9.8	12.7	7.6	5.2	8.3	8.4	7.9	6.8	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	1536	609	218	1535	608	142	517	194	199	642	265
V/C Ratio(X)	0.74	0.63	0.04	0.82	0.36	0.23	0.68	0.67	0.73	0.74	0.47	0.20
Avail Cap(c_a), veh/h	309	1536	609	218	1535	608	203	629	240	276	786	324
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	19.8	15.6	42.0	27.3	25.9	39.9	36.4	37.5	38.1	32.9	31.3
Incr Delay (d2), s/veh	5.2	1.8	0.1	20.3	0.6	0.8	5.7	2.0	8.6	6.7	0.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.2	9.6	0.4	5.7	6.4	3.2	2.6	4.2	3.9	3.9	3.4	1.1
LnGrp Delay(d), s/veh	42.6	21.6	15.7	62.3	27.9	26.7	45.6	38.4	46.1	44.9	33.5	31.6
LnGrp LOS	D	C	B	E	C	C	D	D	D	D	C	C
Approach Vol, veh/h		1152			870			585			500	
Approach Delay, s/veh		24.4			34.8			41.5			36.6	
Approach LOS		C			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.8	17.2	16.0	43.1	10.6	20.3	16.0	43.0				
Change Period (Y+Rc), s	4.0	5.2	5.5	5.5	4.0	5.2	5.5	5.5				
Max Green Setting (Gmax), s	14.0	14.8	10.5	30.5	10.0	18.8	15.5	25.5				
Max Q Clear Time (g_c+l1), s	9.9	10.4	11.8	21.1	7.2	8.8	10.5	14.7				
Green Ext Time (p_c), s	0.2	1.5	0.0	5.1	0.1	2.6	0.2	5.6				
Intersection Summary												
HCM 2010 Ctrl Delay				32.5								
HCM 2010 LOS				C								

**Intersection 7  
Mountain Ridge Rd & Taft Hwy (SR 119)**

**Intersection**

Intersection Delay, s/veh 12.7

Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	8	272	0	0	15	270	19	0	4	6	20	0	71	7	29
Future Vol, veh/h	0	8	272	0	0	15	270	19	0	4	6	20	0	71	7	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	9	296	0	0	16	293	21	0	4	7	22	0	77	8	32
Number of Lanes	0	1	1	0	0	1	1	1	0	0	1	0	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay	13.7	13.1	9.5	10
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	13%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	20%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	67%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop								
Traffic Vol by Lane	30	8	272	15	270	19	71	7	29
LT Vol	4	8	0	15	0	0	71	0	0
Through Vol	6	0	272	0	270	0	0	7	0
RT Vol	20	0	0	0	0	19	0	0	29
Lane Flow Rate	33	9	296	16	293	21	77	8	32
Geometry Grp	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.058	0.015	0.479	0.029	0.473	0.029	0.146	0.013	0.049
Departure Headway (Hd)	6.364	6.333	5.83	6.308	5.804	5.1	6.809	6.305	5.6
Convergence, Y/N	Yes								
Cap	563	566	618	568	622	702	527	568	640
Service Time	4.106	4.06	3.557	4.036	3.532	2.827	4.543	4.039	3.334
HCM Lane V/C Ratio	0.059	0.016	0.479	0.028	0.471	0.03	0.146	0.014	0.05
HCM Control Delay	9.5	9.2	13.8	9.2	13.7	8	10.7	9.1	8.6
HCM Lane LOS	A	A	B	A	B	A	B	A	A
HCM 95th-tile Q	0.2	0	2.6	0.1	2.5	0.1	0.5	0	0.2

**Intersection**

Intersection Delay, s/veh 18.1

Intersection LOS C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	9	377	0	0	16	329	21	0	4	6	22	0	76	8	31
Future Vol, veh/h	0	9	377	0	0	16	329	21	0	4	6	22	0	76	8	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	410	0	0	17	358	23	0	4	7	24	0	83	9	34
Number of Lanes	0	1	1	0	0	1	1	1	0	0	1	0	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay	21.5	17.5	10.3	10.8
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	12%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	19%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	69%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop								
Traffic Vol by Lane	32	9	377	16	329	21	76	8	31
LT Vol	4	9	0	16	0	0	76	0	0
Through Vol	6	0	377	0	329	0	0	8	0
RT Vol	22	0	0	0	0	21	0	0	31
Lane Flow Rate	35	10	410	17	358	23	83	9	34
Geometry Grp	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.068	0.018	0.696	0.032	0.617	0.035	0.169	0.017	0.058
Departure Headway (Hd)	7.01	6.622	6.118	6.713	6.208	5.502	7.37	6.864	6.154
Convergence, Y/N	Yes								
Cap	508	540	590	532	579	648	486	520	579
Service Time	4.791	4.373	3.869	4.466	3.961	3.254	5.135	4.628	3.919
HCM Lane V/C Ratio	0.069	0.019	0.695	0.032	0.618	0.035	0.171	0.017	0.059
HCM Control Delay	10.3	9.5	21.8	9.7	18.5	8.5	11.6	9.7	9.3
HCM Lane LOS	B	A	C	A	C	A	B	A	A
HCM 95th-tile Q	0.2	0.1	5.5	0.1	4.2	0.1	0.6	0.1	0.2

**Intersection**

Intersection Delay, s/veh      23.6

Intersection LOS      C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	18	414	0	0	16	376	21	0	4	6	22	0	76	8	43
Future Vol, veh/h	0	18	414	0	0	16	376	21	0	4	6	22	0	76	8	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	450	0	0	17	409	23	0	4	7	24	0	83	9	47
Number of Lanes	0	1	1	0	0	1	1	1	0	0	1	0	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay	28.4	23.4	10.8	11.2
HCM LOS	D	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	12%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	19%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	69%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop								
Traffic Vol by Lane	32	18	414	16	376	21	76	8	43
LT Vol	4	18	0	16	0	0	76	0	0
Through Vol	6	0	414	0	376	0	0	8	0
RT Vol	22	0	0	0	0	21	0	0	43
Lane Flow Rate	35	20	450	17	409	23	83	9	47
Geometry Grp	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.073	0.037	0.792	0.033	0.73	0.036	0.176	0.017	0.084
Departure Headway (Hd)	7.515	6.843	6.339	6.934	6.428	5.72	7.68	7.172	6.46
Convergence, Y/N	Yes								
Cap	480	521	567	514	560	622	464	496	551
Service Time	5.215	4.613	4.109	4.706	4.2	3.492	5.469	4.96	4.247
HCM Lane V/C Ratio	0.073	0.038	0.794	0.033	0.73	0.037	0.179	0.018	0.085
HCM Control Delay	10.8	9.9	29.2	9.9	24.8	8.7	12.1	10.1	9.8
HCM Lane LOS	B	A	D	A	C	A	B	B	A
HCM 95th-tile Q	0.2	0.1	7.5	0.1	6.1	0.1	0.6	0.1	0.3

**Intersection**

Intersection Delay, s/veh      54.3

Intersection LOS      F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	14	547	0	0	24	471	31	0	6	9	30	0	105	10	43
Future Vol, veh/h	0	14	547	0	0	24	471	31	0	6	9	30	0	105	10	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	595	0	0	26	512	34	0	7	10	33	0	114	11	47
Number of Lanes	0	1	1	0	0	1	1	1	0	0	1	0	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay	65	59	12.1	12.9
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	13%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	20%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	67%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop								
Traffic Vol by Lane	45	14	547	24	471	31	105	10	43
LT Vol	6	14	0	24	0	0	105	0	0
Through Vol	9	0	547	0	471	0	0	10	0
RT Vol	30	0	0	0	0	31	0	0	43
Lane Flow Rate	49	15	595	26	512	34	114	11	47
Geometry Grp	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.113	0.032	1	0.054	0.995	0.059	0.264	0.024	0.092
Departure Headway (Hd)	8.315	7.561	7.054	7.493	6.994	6.295	8.315	7.817	7.121
Convergence, Y/N	Yes								
Cap	431	472	517	479	522	570	433	458	503
Service Time	6.072	5.327	4.82	5.219	4.72	4.022	6.055	5.557	4.86
HCM Lane V/C Ratio	0.114	0.032	1.151	0.054	0.981	0.06	0.263	0.024	0.093
HCM Control Delay	12.1	10.6	66.4	10.6	64.7	9.4	14	10.8	10.6
HCM Lane LOS	B	B	F	B	F	A	B	B	B
HCM 95th-tile Q	0.4	0.1	13.8	0.2	13.7	0.2	1	0.1	0.3

**Intersection**

Intersection Delay, s/veh      55

Intersection LOS      F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	23	584	0	0	24	518	31	0	6	9	30	0	105	10	55
Future Vol, veh/h	0	23	584	0	0	24	518	31	0	6	9	30	0	105	10	55
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	25	635	0	0	26	563	34	0	7	10	33	0	114	11	60
Number of Lanes	0	1	1	0	0	1	1	1	0	0	1	0	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay	64.3	60.9	12.3	12.9
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	13%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	20%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	67%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop								
Traffic Vol by Lane	45	23	584	24	518	31	105	10	55
LT Vol	6	23	0	24	0	0	105	0	0
Through Vol	9	0	584	0	518	0	0	10	0
RT Vol	30	0	0	0	0	31	0	0	55
Lane Flow Rate	49	25	635	26	563	34	114	11	60
Geometry Grp	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.115	0.053	1	0.055	1	0.06	0.266	0.024	0.119
Departure Headway (Hd)	8.5	7.586	7.088	7.562	7.063	6.364	8.376	7.877	7.18
Convergence, Y/N	Yes								
Cap	424	473	514	475	518	564	431	457	502
Service Time	6.218	5.313	4.814	5.288	4.789	4.09	6.086	5.587	4.889
HCM Lane V/C Ratio	0.116	0.053	1.235	0.055	1.087	0.06	0.265	0.024	0.12
HCM Control Delay	12.3	10.7	66.4	10.7	66.3	9.5	14.1	10.8	10.9
HCM Lane LOS	B	B	F	B	F	A	B	B	B
HCM 95th-tile Q	0.4	0.2	13.8	0.2	13.8	0.2	1.1	0.1	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	23	584	0	24	518	31	6	9	30	105	10	55
Future Volume (veh/h)	23	584	0	24	518	31	6	9	30	105	10	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	25	635	0	26	563	34	7	10	33	114	11	60
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	803	331	35	805	332	12	393	308	593	1056	827
Arrive On Green	0.04	0.45	0.00	0.02	0.23	0.23	0.01	0.21	0.21	0.36	0.57	0.57
Sat Flow, veh/h	1634	3539	1458	1634	3539	1458	1634	1863	1458	1634	1863	1458
Grp Volume(v), veh/h	25	635	0	26	563	34	7	10	33	114	11	60
Grp Sat Flow(s), veh/h/ln	1634	1770	1458	1634	1770	1458	1634	1863	1458	1634	1863	1458
Q Serve(g_s), s	1.4	13.8	0.0	1.4	13.2	0.7	0.4	0.4	1.4	4.3	0.2	1.7
Cycle Q Clear(g_c), s	1.4	13.8	0.0	1.4	13.2	0.7	0.4	0.4	1.4	4.3	0.2	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	34	803	331	35	805	332	12	393	308	593	1056	827
V/C Ratio(X)	0.74	0.79	0.00	0.75	0.70	0.10	0.60	0.03	0.11	0.19	0.01	0.07
Avail Cap(c_a), veh/h	127	1180	486	145	1219	502	73	393	308	593	1056	827
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	22.8	0.0	43.8	31.9	4.7	44.6	28.2	21.2	19.6	8.5	8.8
Incr Delay (d2), s/veh	25.0	2.1	0.0	19.2	0.7	0.1	40.8	0.1	0.7	0.2	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	6.8	0.0	0.8	6.5	0.3	0.3	0.2	0.6	2.0	0.1	0.7
LnGrp Delay(d), s/veh	67.9	24.9	0.0	63.0	32.7	4.8	85.4	28.3	21.9	19.8	8.5	9.0
LnGrp LOS	E	C		E	C	A	F	C	C	B	A	A
Approach Vol, veh/h			660			623			50			185
Approach Delay, s/veh			26.5			32.4			32.1			15.6
Approach LOS			C			C			C			B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	36.7	23.0	5.9	24.4	4.6	55.0	5.9	24.5				
Change Period (Y+R <sub>c</sub> ), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	17.0	19.0	8.0	30.0	4.0	32.0	7.0	31.0				
Max Q Clear Time (g <sub>c+l1</sub> ), s	6.3	3.4	3.4	15.8	2.4	3.7	3.4	15.2				
Green Ext Time (p <sub>c</sub> ), s	0.4	0.1	0.0	4.7	0.0	0.7	0.0	4.9				

#### Intersection Summary

HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

**Intersection**

Intersection Delay, s/veh 35.9

Intersection LOS E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	33	559	1	0	14	311	51	0	4	5	12	0	19	2	12
Future Vol, veh/h	0	33	559	1	0	14	311	51	0	4	5	12	0	19	2	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	608	1	0	15	338	55	0	4	5	13	0	21	2	13
Number of Lanes	0	1	1	0	0	1	1	1	0	0	1	0	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay	50.7	16.2	10.5	10.3
HCM LOS	F	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	19%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	24%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	57%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop								
Traffic Vol by Lane	21	33	560	14	311	51	19	2	12
LT Vol	4	33	0	14	0	0	19	0	0
Through Vol	5	0	559	0	311	0	0	2	0
RT Vol	12	0	1	0	0	51	0	0	12
Lane Flow Rate	23	36	609	15	338	55	21	2	13
Geometry Grp	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.047	0.062	0.973	0.029	0.59	0.086	0.045	0.004	0.024
Departure Headway (Hd)	7.37	6.254	5.752	6.782	6.278	5.572	7.789	7.28	6.568
Convergence, Y/N	Yes								
Cap	485	573	633	528	575	642	459	491	544
Service Time	5.135	3.988	3.485	4.526	4.022	3.316	5.545	5.036	4.323
HCM Lane V/C Ratio	0.047	0.063	0.962	0.028	0.588	0.086	0.046	0.004	0.024
HCM Control Delay	10.5	9.4	53.1	9.7	17.7	8.8	10.9	10.1	9.5
HCM Lane LOS	B	A	F	A	C	A	B	B	A
HCM 95th-tile Q	0.1	0.2	14.1	0.1	3.8	0.3	0.1	0	0.1

**Intersection**

Intersection Delay, s/veh      43

Intersection LOS      E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	37	658	1	0	15	405	56	0	4	5	13	0	20	2	13
Future Vol, veh/h	0	37	658	1	0	15	405	56	0	4	5	13	0	20	2	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	40	715	1	0	16	440	61	0	4	5	14	0	22	2	14
Number of Lanes	0	1	1	0	0	1	1	1	0	0	1	0	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay	58.3	24.4	10.8	10.5
HCM LOS	F	C	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	18%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	23%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	59%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop								
Traffic Vol by Lane	22	37	659	15	405	56	20	2	13
LT Vol	4	37	0	15	0	0	20	0	0
Through Vol	5	0	658	0	405	0	0	2	0
RT Vol	13	0	1	0	0	56	0	0	13
Lane Flow Rate	24	40	716	16	440	61	22	2	14
Geometry Grp	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.051	0.073	1	0.031	0.77	0.095	0.048	0.005	0.027
Departure Headway (Hd)	7.669	6.569	6.066	6.795	6.297	5.599	7.995	7.498	6.801
Convergence, Y/N	Yes								
Cap	470	548	602	526	572	639	450	480	529
Service Time	5.373	4.275	3.772	4.543	4.044	3.346	5.698	5.2	4.503
HCM Lane V/C Ratio	0.051	0.073	1.189	0.03	0.769	0.095	0.049	0.004	0.026
HCM Control Delay	10.8	9.8	61	9.8	27.1	8.9	11.1	10.2	9.7
HCM Lane LOS	B	A	F	A	D	A	B	B	A
HCM 95th-tile Q	0.2	0.2	14.9	0.1	7	0.3	0.2	0	0.1

**Intersection**

Intersection Delay, s/veh      47.2

Intersection LOS      E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	51	712	1	0	15	458	56	0	4	5	13	0	20	2	26
Future Vol, veh/h	0	51	712	1	0	15	458	56	0	4	5	13	0	20	2	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	55	774	1	0	16	498	61	0	4	5	14	0	22	2	28
Number of Lanes	0	1	1	0	0	1	1	1	0	0	1	0	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay	58.7	35.4	11	10.5
HCM LOS	F	E	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	18%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	23%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	59%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop								
Traffic Vol by Lane	22	51	713	15	458	56	20	2	26
LT Vol	4	51	0	15	0	0	20	0	0
Through Vol	5	0	712	0	458	0	0	2	0
RT Vol	13	0	1	0	0	56	0	0	26
Lane Flow Rate	24	55	775	16	498	61	22	2	28
Geometry Grp	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.052	0.105	1	0.031	0.881	0.096	0.049	0.005	0.054
Departure Headway (Hd)	7.89	6.788	6.285	6.868	6.369	5.671	8.128	7.63	6.934
Convergence, Y/N	Yes								
Cap	456	531	581	520	568	629	443	472	519
Service Time	5.594	4.492	3.989	4.625	4.127	3.428	5.831	5.333	4.637
HCM Lane V/C Ratio	0.053	0.104	1.334	0.031	0.877	0.097	0.05	0.004	0.054
HCM Control Delay	11	10.3	62.2	9.8	39.5	9	11.2	10.4	10
HCM Lane LOS	B	B	F	A	E	A	B	B	A
HCM 95th-tile Q	0.2	0.3	14.7	0.1	10.1	0.3	0.2	0	0.2

**Intersection**

Intersection Delay, s/veh 56.4

Intersection LOS F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	57	1007	2	0	23	569	83	0	6	7	18	0	28	3	18
Future Vol, veh/h	0	57	1007	2	0	23	569	83	0	6	7	18	0	28	3	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	62	1095	2	0	25	618	90	0	7	8	20	0	30	3	20
Number of Lanes	0	1	1	0	0	1	1	1	0	0	1	0	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay	60.7	54.9	11.6	11
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	19%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	23%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	58%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop								
Traffic Vol by Lane	31	57	1009	23	569	83	28	3	18
LT Vol	6	57	0	23	0	0	28	0	0
Through Vol	7	0	1007	0	569	0	0	3	0
RT Vol	18	0	2	0	0	83	0	0	18
Lane Flow Rate	34	62	1097	25	618	90	30	3	20
Geometry Grp	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.077	0.12	1	0.048	1	0.144	0.07	0.007	0.039
Departure Headway (Hd)	8.177	6.999	6.501	6.961	6.462	5.764	8.326	7.827	7.13
Convergence, Y/N	Yes								
Cap	439	512	570	514	563	622	432	458	503
Service Time	5.905	4.737	4.238	4.705	4.206	3.508	6.052	5.553	4.855
HCM Lane V/C Ratio	0.077	0.121	1.925	0.049	1.098	0.145	0.069	0.007	0.04
HCM Control Delay	11.6	10.7	63.5	10.1	63.3	9.5	11.7	10.6	10.1
HCM Lane LOS	B	B	F	B	F	A	B	B	B
HCM 95th-tile Q	0.2	0.4	14.4	0.2	14.4	0.5	0.2	0	0.1

**Intersection**

Intersection Delay, s/veh 56.4

Intersection LOS F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	71	1061	2	0	23	622	83	0	6	7	18	0	28	3	31
Future Vol, veh/h	0	71	1061	2	0	23	622	83	0	6	7	18	0	28	3	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	77	1153	2	0	25	676	90	0	7	8	20	0	30	3	34
Number of Lanes	0	1	1	0	0	1	1	1	0	0	1	0	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay	60.5	55.8	11.7	11
HCM LOS	F	F	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	19%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	23%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	58%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop								
Traffic Vol by Lane	31	71	1063	23	622	83	28	3	31
LT Vol	6	71	0	23	0	0	28	0	0
Through Vol	7	0	1061	0	622	0	0	3	0
RT Vol	18	0	2	0	0	83	0	0	31
Lane Flow Rate	34	77	1155	25	676	90	30	3	34
Geometry Grp	8	8	8	8	8	8	7	7	7
Degree of Util (X)	0.077	0.151	1	0.049	1	0.146	0.07	0.007	0.067
Departure Headway (Hd)	8.242	7.051	6.552	7.034	6.535	5.836	8.338	7.839	7.142
Convergence, Y/N	Yes								
Cap	435	509	566	509	554	613	431	458	503
Service Time	5.98	4.794	4.295	4.783	4.285	3.586	6.064	5.565	4.867
HCM Lane V/C Ratio	0.078	0.151	2.041	0.049	1.22	0.147	0.07	0.007	0.068
HCM Control Delay	11.7	11.1	63.8	10.1	63.7	9.6	11.7	10.6	10.4
HCM Lane LOS	B	B	F	B	F	A	B	B	B
HCM 95th-tile Q	0.2	0.5	14.3	0.2	14.3	0.5	0.2	0	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	71	1061	2	23	622	83	6	7	18	28	3	31
Future Volume (veh/h)	71	1061	2	23	622	83	6	7	18	28	3	31
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	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	1716	1863	1716	1716	1863	1716	1716	1863	1716	1716	1863	1716
Adj Flow Rate, veh/h	77	1153	2	25	676	90	7	8	20	30	3	34
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	1986	818	34	1851	763	12	404	316	38	435	340
Arrive On Green	0.12	1.00	1.00	0.02	0.52	0.52	0.01	0.22	0.22	0.02	0.23	0.23
Sat Flow, veh/h	1634	3539	1458	1634	3539	1458	1634	1863	1458	1634	1863	1458
Grp Volume(v), veh/h	77	1153	2	25	676	90	7	8	20	30	3	34
Grp Sat Flow(s), veh/h/ln	1634	1770	1458	1634	1770	1458	1634	1863	1458	1634	1863	1458
Q Serve(g_s), s	4.1	0.0	0.0	1.4	10.1	2.8	0.4	0.3	1.0	1.6	0.1	1.6
Cycle Q Clear(g_c), s	4.1	0.0	0.0	1.4	10.1	2.8	0.4	0.3	1.0	1.6	0.1	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	1986	818	34	1851	763	12	404	316	38	435	340
V/C Ratio(X)	0.80	0.58	0.00	0.74	0.37	0.12	0.60	0.02	0.06	0.78	0.01	0.10
Avail Cap(c_a), veh/h	182	1986	818	109	1851	763	73	404	316	109	435	340
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.60	0.60	0.60	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	39.2	0.0	0.0	43.8	12.7	10.9	44.6	27.7	28.0	43.7	26.5	27.1
Incr Delay (d2), s/veh	10.2	0.9	0.0	17.3	0.3	0.2	40.8	0.1	0.4	25.8	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.1	0.2	0.0	0.8	5.0	1.2	0.3	0.2	0.4	1.0	0.1	0.7
LnGrp Delay(d), s/veh	49.4	0.9	0.0	61.2	13.0	11.1	85.4	27.8	28.4	69.5	26.5	27.6
LnGrp LOS	D	A	A	E	B	B	F	C	C	E	C	C
Approach Vol, veh/h	1232				791			35			67	
Approach Delay, s/veh	3.9				14.3			39.6			46.3	
Approach LOS	A				B			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	23.5	5.9	54.5	4.6	25.0	9.3	51.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	19.0	6.0	43.0	4.0	21.0	10.0	39.0				
Max Q Clear Time (g_c+l1), s	3.6	3.0	3.4	2.0	2.4	3.6	6.1	12.1				
Green Ext Time (p_c), s	0.0	0.1	0.0	11.6	0.0	0.1	0.1	10.4				
Intersection Summary												
HCM 2010 Ctrl Delay	9.7											
HCM 2010 LOS	A											

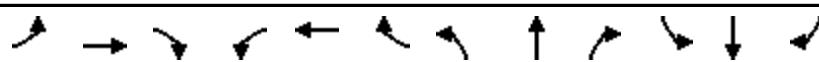
**Intersection 8  
Stine Rd & Taft Hwy (SR 119)**

HCM 2010 Signalized Intersection Summary  
8: Stine Rd & Taft Hwy (SR 119)

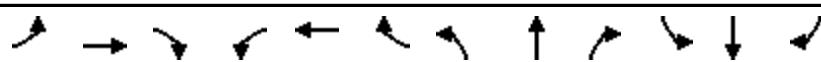
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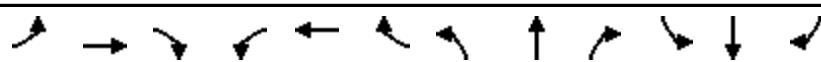
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↓	↓	↓	↓	↓	↓
Traffic Volume (veh/h)	45	313	7	5	284	95	3	8	5	64	8	15
Future Volume (veh/h)	45	313	7	5	284	95	3	8	5	64	8	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		0.97	1.00		0.97	0.99		0.96	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	1716	1863	1716	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	49	340	8	5	309	103	3	9	5	70	9	16
Adj No. of Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	702	534	87	629	478	168	189	93	382	46	46
Arrive On Green	0.09	0.38	0.38	0.05	0.34	0.34	0.19	0.19	0.15	0.19	0.19	0.15
Sat Flow, veh/h	1634	1863	1417	1634	1863	1415	178	1011	496	974	248	248
Grp Volume(v), veh/h	49	340	8	5	309	103	17	0	0	95	0	0
Grp Sat Flow(s), veh/h/ln	1634	1863	1417	1634	1863	1415	1685	0	0	1470	0	0
Q Serve(g_s), s	0.9	4.4	0.1	0.1	4.1	1.6	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.9	4.4	0.1	0.1	4.1	1.6	0.3	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.18		0.29	0.74		0.17
Lane Grp Cap(c), veh/h	151	702	534	87	629	478	450	0	0	474	0	0
V/C Ratio(X)	0.33	0.48	0.01	0.06	0.49	0.22	0.04	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	678	2616	1990	469	2379	1807	1457	0	0	1354	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.3	7.4	6.1	14.1	8.2	7.4	10.6	0.0	0.0	11.1	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.5	0.0	0.3	0.6	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.4	2.3	0.0	0.0	2.2	0.7	0.1	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d), s/veh	14.5	8.0	6.1	14.4	8.8	7.6	10.6	0.0	0.0	11.3	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B			B		
Approach Vol, veh/h												95
Approach Delay, s/veh												11.3
Approach LOS												B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		9.9	5.7	15.8		9.9	6.9	14.6				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (Gmax), s		23.8	7.5	42.5		23.8	11.5	38.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s		2.3	2.1	6.4		3.7	2.9	6.1				
Green Ext Time (p <sub>c</sub> ), s		0.3	0.0	2.8		0.3	0.1	2.8				
Intersection Summary												
HCM 2010 Ctrl Delay				9.0								
HCM 2010 LOS					A							



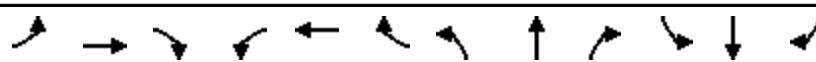
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	+	+	+	+	+	+
Traffic Volume (veh/h)	49	418	8	5	345	104	3	9	6	66	8	16
Future Volume (veh/h)	49	418	8	5	345	104	3	9	6	66	8	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		0.97	1.00		0.97	0.99		0.96	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	1716	1863	1716	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	53	454	9	5	375	113	3	10	7	72	9	17
Adj No. of Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	775	590	82	698	531	150	165	103	359	40	45
Arrive On Green	0.09	0.42	0.42	0.05	0.37	0.37	0.18	0.18	0.14	0.18	0.18	0.14
Sat Flow, veh/h	1634	1863	1418	1634	1863	1417	151	937	586	982	225	253
Grp Volume(v), veh/h	53	454	9	5	375	113	20	0	0	98	0	0
Grp Sat Flow(s), veh/h/ln	1634	1863	1418	1634	1863	1417	1673	0	0	1461	0	0
Q Serve(g_s), s	1.0	6.3	0.1	0.1	5.3	1.8	0.0	0.0	0.0	1.5	0.0	0.0
Cycle Q Clear(g_c), s	1.0	6.3	0.1	0.1	5.3	1.8	0.3	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.15		0.35	0.73		0.17
Lane Grp Cap(c), veh/h	149	775	590	82	698	531	418	0	0	443	0	0
V/C Ratio(X)	0.36	0.59	0.02	0.06	0.54	0.21	0.05	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	683	2501	1904	439	2223	1691	1304	0	0	1219	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.3	7.6	5.8	15.2	8.2	7.1	11.7	0.0	0.0	12.2	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.7	0.0	0.3	0.6	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	3.3	0.0	0.1	2.8	0.7	0.2	0.0	0.0	0.8	0.0	0.0
LnGrp Delay(d), s/veh	15.7	8.3	5.8	15.5	8.8	7.3	11.7	0.0	0.0	12.5	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B			B		
Approach Vol, veh/h					516		493			20		98
Approach Delay, s/veh					9.0		8.6			11.7		12.5
Approach LOS					A		A			B		B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		9.9	5.7	17.9		9.9	7.1	16.6				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (G <sub>max</sub> ), s		22.8	7.5	43.5		22.8	12.5	38.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s		2.3	2.1	8.3		3.9	3.0	7.3				
Green Ext Time (p <sub>c</sub> ), s		0.3	0.0	3.8		0.3	0.1	3.7				
Intersection Summary												
HCM 2010 Ctrl Delay					9.2							
HCM 2010 LOS					A							



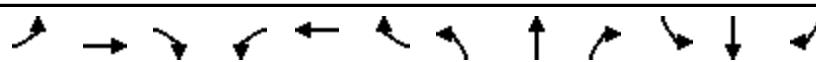
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↓	↓	↓	↓	↓	↓
Traffic Volume (veh/h)	65	435	11	5	366	104	7	9	6	66	8	37
Future Volume (veh/h)	65	435	11	5	366	104	7	9	6	66	8	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		0.97	1.00		0.97	0.99		0.96	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	1716	1863	1716	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	71	473	12	5	398	113	8	10	7	72	9	40
Adj No. of Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	710	540	113	645	491	206	154	84	322	35	89
Arrive On Green	0.10	0.38	0.38	0.07	0.35	0.35	0.18	0.18	0.15	0.18	0.18	0.15
Sat Flow, veh/h	1634	1863	1417	1634	1863	1416	335	848	460	800	191	489
Grp Volume(v), veh/h	71	473	12	5	398	113	25	0	0	121	0	0
Grp Sat Flow(s), veh/h/ln	1634	1863	1417	1634	1863	1416	1643	0	0	1480	0	0
Q Serve(g_s), s	1.3	6.9	0.2	0.1	5.8	1.9	0.0	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	1.3	6.9	0.2	0.1	5.8	1.9	0.4	0.0	0.0	2.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.32		0.28	0.60		0.33
Lane Grp Cap(c), veh/h	170	710	540	113	645	491	445	0	0	445	0	0
V/C Ratio(X)	0.42	0.67	0.02	0.04	0.62	0.23	0.06	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	750	2680	2039	400	2281	1733	1262	0	0	1206	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.7	8.4	6.3	14.2	8.9	7.6	11.2	0.0	0.0	12.0	0.0	0.0
Incr Delay (d2), s/veh	1.6	1.1	0.0	0.2	1.0	0.2	0.1	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.7	3.6	0.1	0.0	3.0	0.8	0.2	0.0	0.0	1.0	0.0	0.0
LnGrp Delay(d), s/veh	15.3	9.5	6.3	14.4	9.8	7.8	11.3	0.0	0.0	12.4	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B			B		
Approach Vol, veh/h					516			25			121	
Approach Delay, s/veh					10.1			9.4		11.3		12.4
Approach LOS					B			A		B		B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4			6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	9.9	6.3	16.5			9.9	7.4	15.3				
Change Period (Y+R <sub>c</sub> ), s	5.2	5.5	5.5			5.2	5.5	5.5				
Max Green Setting (Gmax), s	21.8	6.5	45.5			21.8	13.5	38.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s	2.4	2.1	8.9			4.3	3.3	7.8				
Green Ext Time (p <sub>c</sub> ), s	0.4	0.1	1.8			0.4	0.1	1.9				
Intersection Summary												
HCM 2010 Ctrl Delay					10.1							
HCM 2010 LOS					B							



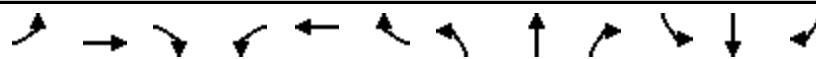
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	+	+	+	+	+	+
Traffic Volume (veh/h)	73	583	11	8	502	157	6	16	10	78	10	18
Future Volume (veh/h)	73	583	11	8	502	157	6	16	10	78	10	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		0.97	1.00		0.97	0.99		0.96	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	1716	1863	1716	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	79	634	12	9	546	171	7	17	11	85	11	20
Adj No. of Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	838	639	105	772	587	150	155	87	335	32	42
Arrive On Green	0.10	0.45	0.45	0.06	0.41	0.41	0.17	0.17	0.13	0.17	0.17	0.13
Sat Flow, veh/h	1634	1863	1419	1634	1863	1418	211	940	527	1019	192	252
Grp Volume(v), veh/h	79	634	12	9	546	171	35	0	0	116	0	0
Grp Sat Flow(s), veh/h/ln	1634	1863	1419	1634	1863	1418	1678	0	0	1463	0	0
Q Serve(g_s), s	1.7	10.6	0.2	0.2	9.1	3.0	0.0	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	10.6	0.2	0.2	9.1	3.0	0.6	0.0	0.0	2.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.20		0.31	0.73		0.17
Lane Grp Cap(c), veh/h	163	838	639	105	772	587	393	0	0	408	0	0
V/C Ratio(X)	0.48	0.76	0.02	0.09	0.71	0.29	0.09	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	524	2826	2153	262	2528	1924	1001	0	0	942	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.9	8.6	5.7	16.5	9.1	7.3	13.5	0.0	0.0	14.2	0.0	0.0
Incr Delay (d2), s/veh	2.2	1.4	0.0	0.3	1.2	0.3	0.1	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.9	5.6	0.1	0.1	4.8	1.2	0.3	0.0	0.0	1.1	0.0	0.0
LnGrp Delay(d), s/veh	18.1	10.0	5.7	16.8	10.3	7.6	13.6	0.0	0.0	14.5	0.0	0.0
LnGrp LOS	B	B	A	B	B	A	B			B		
Approach Vol, veh/h					726			35			116	
Approach Delay, s/veh					10.8			9.7		13.6		14.5
Approach LOS					B			A		B		B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		10.2	6.4	20.8		10.2	7.7	19.5				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (Gmax), s		19.0	4.5	55.3		19.0	10.5	49.3				
Max Q Clear Time (g <sub>c+l1</sub> ), s		2.6	2.2	12.6		4.6	3.7	11.1				
Green Ext Time (p <sub>c</sub> ), s		0.4	0.0	2.7		0.4	0.1	2.9				
Intersection Summary												
HCM 2010 Ctrl Delay					10.7							
HCM 2010 LOS					B							



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	+	+	+	+	+	+
Traffic Volume (veh/h)	89	600	14	8	523	157	10	16	10	78	10	39
Future Volume (veh/h)	89	600	14	8	523	157	10	16	10	78	10	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		0.97	1.00		0.97	0.99		0.96	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	1716	1863	1716	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	97	652	15	9	568	171	11	17	11	85	11	42
Adj No. of Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	973	742	70	855	651	150	153	78	268	33	75
Arrive On Green	0.11	0.52	0.52	0.04	0.46	0.46	0.17	0.17	0.14	0.17	0.17	0.14
Sat Flow, veh/h	1634	1863	1420	1634	1863	1419	283	921	473	833	198	451
Grp Volume(v), veh/h	97	652	15	9	568	171	39	0	0	138	0	0
Grp Sat Flow(s), veh/h/ln	1634	1863	1420	1634	1863	1419	1677	0	0	1482	0	0
Q Serve(g_s), s	2.5	11.5	0.2	0.2	10.6	3.3	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear(g_c), s	2.5	11.5	0.2	0.2	10.6	3.3	0.9	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.28		0.28	0.62		0.30
Lane Grp Cap(c), veh/h	174	973	742	70	855	651	381	0	0	376	0	0
V/C Ratio(X)	0.56	0.67	0.02	0.13	0.66	0.26	0.10	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	491	2183	1665	201	1854	1412	835	0	0	791	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.9	7.8	5.1	20.5	9.4	7.4	16.0	0.0	0.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	2.8	0.8	0.0	0.8	0.9	0.2	0.1	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.3	6.0	0.1	0.1	5.6	1.3	0.4	0.0	0.0	1.6	0.0	0.0
LnGrp Delay(d), s/veh	21.7	8.6	5.2	21.4	10.3	7.6	16.1	0.0	0.0	17.8	0.0	0.0
LnGrp LOS	C	A	A	C	B	A	B			B		
Approach Vol, veh/h					748			39			138	
Approach Delay, s/veh					10.2			9.8		16.1		17.8
Approach LOS					B			A		B		B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		11.4	5.9	27.3		11.4	8.7	24.5				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (Gmax), s		19.0	4.0	50.8		19.0	11.9	42.9				
Max Q Clear Time (g <sub>c+l1</sub> ), s		2.9	2.2	13.5		5.7	4.5	12.6				
Green Ext Time (p <sub>c</sub> ), s		0.5	0.0	6.5		0.5	0.1	6.4				
Intersection Summary												
HCM 2010 Ctrl Delay					10.8							
HCM 2010 LOS					B							



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	+	+	+	+	+	+
Traffic Volume (veh/h)	52	536	7	6	350	59	10	43	7	38	21	17
Future Volume (veh/h)	52	536	7	6	350	59	10	43	7	38	21	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		0.97	1.00		0.97	0.99		0.96	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	1716	1863	1716	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	57	583	8	7	380	64	11	47	8	41	23	18
Adj No. of Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	258	805	613	83	605	460	155	227	36	264	98	58
Arrive On Green	0.16	0.43	0.43	0.05	0.32	0.32	0.17	0.17	0.14	0.17	0.17	0.14
Sat Flow, veh/h	1634	1863	1418	1634	1863	1415	197	1331	211	636	574	340
Grp Volume(v), veh/h	57	583	8	7	380	64	66	0	0	82	0	0
Grp Sat Flow(s), veh/h/ln	1634	1863	1418	1634	1863	1415	1738	0	0	1549	0	0
Q Serve(g_s), s	1.1	9.0	0.1	0.1	6.0	1.1	0.0	0.0	0.0	0.4	0.0	0.0
Cycle Q Clear(g_c), s	1.1	9.0	0.1	0.1	6.0	1.1	1.1	0.0	0.0	1.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.17		0.12	0.50		0.22
Lane Grp Cap(c), veh/h	258	805	613	83	605	460	418	0	0	420	0	0
V/C Ratio(X)	0.22	0.72	0.01	0.08	0.63	0.14	0.16	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	424	2742	2088	283	2580	1960	1160	0	0	1071	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.7	8.1	5.6	15.7	9.9	8.3	12.4	0.0	0.0	12.6	0.0	0.0
Incr Delay (d2), s/veh	0.4	1.3	0.0	0.4	1.1	0.1	0.2	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	4.8	0.0	0.1	3.2	0.4	0.6	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d), s/veh	13.2	9.4	5.6	16.1	11.0	8.4	12.6	0.0	0.0	12.8	0.0	0.0
LnGrp LOS	B	A	A	B	B	A	B			B		
Approach Vol, veh/h												
Approach Delay, s/veh	648				451			66		82		
Approach LOS	9.7				10.7			12.6		12.8		
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4			6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	9.9	5.8	19.0			9.9	9.5	15.3				
Change Period (Y+R <sub>c</sub> ), s	5.2	5.5	5.5			5.2	5.5	5.5				
Max Green Setting (Gmax), s	19.8	4.5	49.5			19.8	7.5	46.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s	3.1	2.1	11.0			3.5	3.1	8.0				
Green Ext Time (p <sub>c</sub> ), s	0.4	0.0	2.4			0.4	0.0	1.6				
Intersection Summary												
HCM 2010 Ctrl Delay				10.4								
HCM 2010 LOS				B								



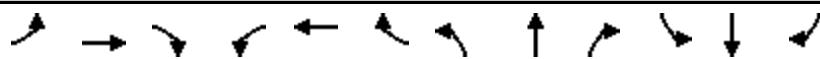
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↓	↓	↓	↓	↓	↓
Traffic Volume (veh/h)	57	625	8	7	449	65	11	49	8	39	22	18
Future Volume (veh/h)	57	625	8	7	449	65	11	49	8	39	22	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		0.97	1.00		0.97	0.99		0.96	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	1716	1863	1716	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	62	679	9	8	488	71	12	53	9	42	24	20
Adj No. of Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	243	881	671	79	695	528	142	212	34	244	89	58
Arrive On Green	0.15	0.47	0.47	0.05	0.37	0.37	0.16	0.16	0.13	0.16	0.16	0.13
Sat Flow, veh/h	1634	1863	1419	1634	1863	1417	194	1332	211	636	561	363
Grp Volume(v), veh/h	62	679	9	8	488	71	74	0	0	86	0	0
Grp Sat Flow(s), veh/h/ln	1634	1863	1419	1634	1863	1417	1738	0	0	1559	0	0
Q Serve(g_s), s	1.3	11.4	0.1	0.2	8.4	1.2	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	1.3	11.4	0.1	0.2	8.4	1.2	1.4	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.16		0.12	0.49		0.23
Lane Grp Cap(c), veh/h	243	881	671	79	695	528	388	0	0	391	0	0
V/C Ratio(X)	0.26	0.77	0.01	0.10	0.70	0.13	0.19	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	478	2578	1965	261	2330	1772	1070	0	0	987	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.2	8.2	5.2	17.1	10.0	7.8	13.9	0.0	0.0	14.1	0.0	0.0
Incr Delay (d2), s/veh	0.5	1.5	0.0	0.6	1.3	0.1	0.2	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	6.0	0.0	0.1	4.5	0.5	0.7	0.0	0.0	0.8	0.0	0.0
LnGrp Delay(d), s/veh	14.7	9.7	5.3	17.6	11.3	7.9	14.1	0.0	0.0	14.4	0.0	0.0
LnGrp LOS	B	A	A	B	B	A	B			B		
Approach Vol, veh/h					750			567			74	
Approach Delay, s/veh					10.0			11.0			14.1	
Approach LOS					B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		10.0	5.8	21.8		10.0	9.6	18.0				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (Gmax), s		19.8	4.5	50.5		19.8	9.5	45.5				
Max Q Clear Time (g <sub>c+l1</sub> ), s		3.4	2.2	13.4		3.7	3.3	10.4				
Green Ext Time (p <sub>c</sub> ), s		0.4	0.0	2.9		0.4	0.1	2.1				
Intersection Summary												
HCM 2010 Ctrl Delay					10.9							
HCM 2010 LOS					B							



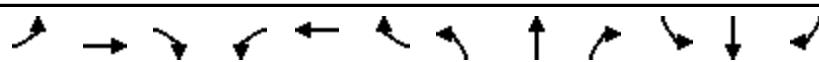
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↓	↓	↓	↓	↓	↓
Traffic Volume (veh/h)	81	650	13	7	473	65	16	49	8	39	22	42
Future Volume (veh/h)	81	650	13	7	473	65	16	49	8	39	22	42
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		0.97	1.00		0.97	0.99		0.95	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	1716	1863	1716	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	88	707	14	8	514	71	17	53	9	42	24	46
Adj No. of Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	967	738	72	862	657	144	191	30	192	65	97
Arrive On Green	0.10	0.52	0.52	0.04	0.46	0.46	0.15	0.15	0.12	0.15	0.15	0.12
Sat Flow, veh/h	1634	1863	1420	1634	1863	1419	264	1269	197	492	434	645
Grp Volume(v), veh/h	88	707	14	8	514	71	79	0	0	112	0	0
Grp Sat Flow(s), veh/h/ln	1634	1863	1420	1634	1863	1419	1731	0	0	1571	0	0
Q Serve(g_s), s	2.1	12.3	0.2	0.2	8.6	1.2	0.0	0.0	0.0	1.0	0.0	0.0
Cycle Q Clear(g_c), s	2.1	12.3	0.2	0.2	8.6	1.2	1.6	0.0	0.0	2.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.22		0.11	0.37		0.41
Lane Grp Cap(c), veh/h	164	967	738	72	862	657	365	0	0	354	0	0
V/C Ratio(X)	0.54	0.73	0.02	0.11	0.60	0.11	0.22	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	467	2300	1753	234	2033	1549	916	0	0	852	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	7.8	4.9	19.3	8.4	6.4	15.9	0.0	0.0	16.4	0.0	0.0
Incr Delay (d2), s/veh	2.7	1.1	0.0	0.7	0.7	0.1	0.3	0.0	0.0	0.5	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.1	6.4	0.1	0.1	4.4	0.5	0.8	0.0	0.0	1.2	0.0	0.0
LnGrp Delay(d), s/veh	20.6	8.9	4.9	19.9	9.0	6.4	16.2	0.0	0.0	16.9	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	B			B		
Approach Vol, veh/h					593			79			112	
Approach Delay, s/veh					8.9			16.2			16.9	
Approach LOS					A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4			6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	10.3	5.9	25.8		10.3	8.2	23.4					
Change Period (Y+R <sub>c</sub> ), s	5.2	5.5	5.5		5.2	5.5	5.5					
Max Green Setting (Gmax), s	19.0	4.5	50.3		19.0	10.5	44.3					
Max Q Clear Time (g <sub>c+l1</sub> ), s	3.6	2.2	14.3		4.6	4.1	10.6					
Green Ext Time (p <sub>c</sub> ), s	0.5	0.0	6.0		0.5	0.1	5.9					

#### Intersection Summary

HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	+	+	+	+	+	+
Traffic Volume (veh/h)	84	908	11	10	642	98	20	84	14	46	26	21
Future Volume (veh/h)	84	908	11	10	642	98	20	84	14	46	26	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		0.97	1.00		0.97	0.99		0.96	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	1716	1863	1716	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	91	987	12	11	698	107	22	91	15	50	28	23
Adj No. of Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	311	1125	858	61	839	639	103	200	30	190	90	55
Arrive On Green	0.19	0.60	0.60	0.04	0.45	0.45	0.15	0.15	0.13	0.15	0.15	0.13
Sat Flow, veh/h	1634	1863	1421	1634	1863	1419	200	1336	204	641	600	366
Grp Volume(v), veh/h	91	987	12	11	698	107	128	0	0	101	0	0
Grp Sat Flow(s), veh/h/ln	1634	1863	1421	1634	1863	1419	1739	0	0	1607	0	0
Q Serve(g_s), s	2.7	25.6	0.2	0.4	18.9	2.6	0.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	25.6	0.2	0.4	18.9	2.6	3.8	0.0	0.0	2.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.17		0.12	0.50		0.23
Lane Grp Cap(c), veh/h	311	1125	858	61	839	639	334	0	0	334	0	0
V/C Ratio(X)	0.29	0.88	0.01	0.18	0.83	0.17	0.38	0.00	0.00	0.30	0.00	0.00
Avail Cap(c_a), veh/h	311	1894	1446	157	1764	1344	678	0	0	630	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.9	9.6	4.5	26.7	13.8	9.4	22.4	0.0	0.0	22.1	0.0	0.0
Incr Delay (d2), s/veh	0.5	2.7	0.0	1.4	2.2	0.1	0.7	0.0	0.0	0.5	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.3	13.7	0.1	0.2	10.0	1.0	1.9	0.0	0.0	1.5	0.0	0.0
LnGrp Delay(d), s/veh	20.4	12.3	4.5	28.1	16.1	9.5	23.1	0.0	0.0	22.6	0.0	0.0
LnGrp LOS	C	B	A	C	B	A	C			C		
Approach Vol, veh/h		1090			816			128			101	
Approach Delay, s/veh		12.9			15.4			23.1			22.6	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s		12.6	6.1	38.6		12.6	14.9	29.8				
Change Period (Y+R <sub>c</sub> ), s		5.2	5.5	5.5		5.2	5.5	5.5				
Max Green Setting (Gmax), s		19.0	4.0	56.8		19.0	8.0	52.8				
Max Q Clear Time (g <sub>c+l1</sub> ), s		5.8	2.4	27.6		4.9	4.7	20.9				
Green Ext Time (p <sub>c</sub> ), s		0.6	0.0	5.5		0.6	1.7	3.5				
Intersection Summary												
HCM 2010 Ctrl Delay				14.9								
HCM 2010 LOS				B								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	+	+	+	+	+	+
Traffic Volume (veh/h)	108	933	16	10	666	98	25	84	14	46	26	45
Future Volume (veh/h)	108	933	16	10	666	98	25	84	14	46	26	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		0.97	1.00		0.97	0.99		0.96	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	1716	1863	1716	1716	1863	1716	1750	1863	1750	1750	1863	1750
Adj Flow Rate, veh/h	117	1014	17	11	724	107	27	91	15	50	28	49
Adj No. of Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	306	1140	870	59	859	654	110	194	29	161	72	93
Arrive On Green	0.19	0.61	0.61	0.04	0.46	0.46	0.15	0.15	0.13	0.15	0.15	0.13
Sat Flow, veh/h	1634	1863	1422	1634	1863	1419	246	1297	196	513	478	623
Grp Volume(v), veh/h	117	1014	17	11	724	107	133	0	0	127	0	0
Grp Sat Flow(s), veh/h/ln	1634	1863	1422	1634	1863	1419	1739	0	0	1614	0	0
Q Serve(g_s), s	3.7	27.6	0.3	0.4	20.4	2.6	0.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	27.6	0.3	0.4	20.4	2.6	4.0	0.0	0.0	3.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.20		0.11	0.39		0.39
Lane Grp Cap(c), veh/h	306	1140	870	59	859	654	333	0	0	326	0	0
V/C Ratio(X)	0.38	0.89	0.02	0.18	0.84	0.16	0.40	0.00	0.00	0.39	0.00	0.00
Avail Cap(c_a), veh/h	319	1732	1322	151	1541	1174	651	0	0	607	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.2	9.8	4.5	27.8	14.1	9.3	23.2	0.0	0.0	23.4	0.0	0.0
Incr Delay (d2), s/veh	0.8	4.1	0.0	1.5	2.4	0.1	0.8	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.8	15.1	0.1	0.2	10.8	1.0	2.1	0.0	0.0	2.0	0.0	0.0
LnGrp Delay(d), s/veh	21.9	13.9	4.5	29.3	16.5	9.5	24.0	0.0	0.0	24.1	0.0	0.0
LnGrp LOS	C	B	A	C	B	A	C			C		
Approach Vol, veh/h		1148			842			133			127	
Approach Delay, s/veh		14.6			15.8			24.0			24.1	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	2	3	4			6	7	8				
Phs Duration (G+Y+R <sub>c</sub> ), s	12.9	6.2	40.4		12.9	15.1	31.4					
Change Period (Y+R <sub>c</sub> ), s	5.2	5.5	5.5		5.2	5.5	5.5					
Max Green Setting (Gmax), s	19.0	4.0	53.8		19.0	10.1	47.7					
Max Q Clear Time (g <sub>c+l1</sub> ), s	6.0	2.4	29.6		5.9	5.7	22.4					
Green Ext Time (p <sub>c</sub> ), s	0.7	0.1	5.3		0.7	0.1	3.5					
Intersection Summary												
HCM 2010 Ctrl Delay				16.1								
HCM 2010 LOS				B								

## VEHICLE TURNING MOVEMENT COUNTS

Location ID: 1  
 North/South: Ashe Road  
 East/West: McCutchen Road

Date: 1/8/2019  
 City: Bakersfield, CA

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
4:00													
4:15													
4:30	3	53	30	19	28	1	2	53	12	22	40	2	265
4:45	2	48	29	18	26	1	6	64	12	27	32	6	271
5:00	2	68	31	15	32	2	1	55	7	17	29	7	266
5:15	2	69	45	10	29	5	2	47	13	24	47	3	296
5:30													
5:45													

Total Volume:	9	238	135	62	115	9	11	219	44	90	148	18	1098
Approach %	2%	62%	35%	33%	62%	5%	4%	80%	16%	35%	58%	7%	

Peak Hr Begin:	4:30												
PHV	9	238	135	62	115	9	11	219	44	90	148	18	1098
PHF	0.823			0.949				0.835			0.865		0.927

Location ID: 2  
 North/South: Mountain Ridge Drive  
 East/West: McCutchen Road

Date: 1/8/2019  
 City: Bakersfield, CA

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
	R	T	L	R	T	L	R	T	L	R	T	L	
4:00													
4:15													
4:30	1	13	7	14	35	26	8	11	18	17	59	2	211
4:45	2	15	7	2	32	35	13	15	7	9	52	3	192
5:00	3	14	6	8	34	26	17	19	11	9	55	0	202
5:15	1	22	8	2	32	41	13	16	12	17	70	6	240
5:30													
5:45													
Total Volume:	7	64	28	26	133	128	51	61	48	52	236	11	845
Approach %	7%	65%	28%	9%	46%	45%	32%	38%	30%	17%	79%	4%	
Peak Hr Begin:	4:30												
PHV	7	64	28	26	133	128	51	61	48	52	236	11	845
PHF	0.798			0.957			0.851			0.804			0.880

Location ID: 3  
 North/South: Ashe Road  
 East/West: McKee Road

Date: 1/8/2019  
 City: Bakersfield, CA

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
	R	T	L	R	T	L	R	T	L	R	T	L	
4:00													
4:15													
4:30	1	36	37	22	0	1	9	48	2	0	1	1	158
4:45	1	28	49	25	1	5	6	48	2	1	1	4	171
5:00	3	42	41	18	0	3	4	44	1	0	0	0	156
5:15	6	49	42	21	3	7	7	41	3	3	3	2	187
5:30													
5:45													
Total Volume:	11	155	169	86	4	16	26	181	8	4	5	7	672
Approach %	3%	46%	50%	81%	4%	15%	12%	84%	4%	25%	31%	44%	
Peak Hr Begin:	4:30												
PHV	11	155	169	86	4	16	26	181	8	4	5	7	672
PHF	0.863			0.855			0.911			0.500			0.898

Location ID: 4  
 North/South: Stine Road  
 East/West: McKee Road

Date: 1/8/2019  
 City: Bakersfield, CA

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
	R	T	L	R	T	L	R	T	L	R	T	L	
4:00													
4:15													
4:30	12	16	20	23	21	7	12	27	3	5	26	9	181
4:45	11	25	25	15	28	3	7	39	3	1	38	5	200
5:00	12	22	25	20	25	8	9	47	4	2	36	7	217
5:15	7	26	21	11	32	11	12	33	2	5	31	8	199
5:30													
5:45													
Total Volume:	42	89	91	69	106	29	40	146	12	13	131	29	797
Approach %	19%	40%	41%	34%	52%	14%	20%	74%	6%	8%	76%	17%	
Peak Hr Begin:	4:30												
PHV	42	89	91	69	106	29	40	146	12	13	131	29	797
PHF	0.910			0.944			0.825			0.961			0.918

Location ID: 5  
 North/South: Gosford Road  
 East/West: SR 119 (Taft Highway)

Date: 1/8/2019  
 City: Bakersfield, CA

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
7:00													
7:15													
7:30	20	8	16	9	72	3	0	10	4	4	65	6	217
7:45	15	8	10	9	68	0	1	14	5	1	57	6	194
8:00	10	10	8	13	51	1	5	11	4	1	38	7	159
8:15	11	7	7	7	57	4	0	6	3	0	55	11	168
8:30													
8:45													

Total Volume:	56	33	41	38	248	8	6	41	16	6	215	30	738
Approach %	43%	25%	32%	13%	84%	3%	10%	65%	25%	2%	86%	12%	

Peak Hr Begin:	7:30												
PHV	56	33	41	38	248	8	6	41	16	6	215	30	738
PHF		0.739			0.875			0.788			0.837		0.850

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
16:00													
16:15													
16:30	8	17	7	14	65	5	6	21	5	5	139	26	318
16:45	8	13	10	9	53	3	3	12	6	5	148	19	289
17:00	10	16	7	14	58	1	1	12	7	6	158	14	304
17:15	10	13	10	13	56	3	4	13	5	3	114	12	256
17:30													
17:45													

Total Volume:	36	59	34	50	232	12	14	58	23	19	559	71	1167
Approach %	28%	46%	26%	17%	79%	4%	15%	61%	24%	3%	86%	11%	

Peak Hr Begin:	16:30												
PHV	36	59	34	50	232	12	14	58	23	19	559	71	1167
PHF		0.977			0.875			0.742			0.912		0.917

Location ID: 6  
 North/South: Ashe Road  
 East/West: SR 119 (Taft Highway)

Date: 1/8/2019  
 City: Bakersfield, CA

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
7:00													
7:15													
7:30	2	7	16	10	75	5	1	13	2	1	69	8	209
7:45	10	8	11	13	61	5	3	9	1	3	64	11	199
8:00	17	4	8	9	58	1	4	12	3	1	47	9	173
8:15	6	13	5	4	57	1	0	8	3	2	49	5	153
8:30													
8:45													

Total Volume:	35	32	40	36	251	12	8	42	9	7	229	33	734
Approach %	33%	30%	37%	12%	84%	4%	14%	71%	15%	3%	85%	12%	

Peak Hr Begin:	7:30												
PHV	35	32	40	36	251	12	8	42	9	7	229	33	734
PHF		0.922			0.831			0.776			0.862		0.878

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
16:00													
16:15													
16:30	9	11	3	18	72	6	12	18	3	2	131	24	309
16:45	5	11	11	15	56	3	1	10	3	1	129	19	264
17:00	7	10	8	13	69	2	6	11	6	1	161	19	313
17:15	8	14	10	13	57	3	3	12	3	0	121	14	258
17:30													
17:45													

Total Volume:	29	46	32	59	254	14	22	51	15	4	542	76	1144
Approach %	27%	43%	30%	18%	78%	4%	25%	58%	17%	1%	87%	12%	

Peak Hr Begin:	16:30												
PHV	29	46	32	59	254	14	22	51	15	4	542	76	1144
PHF		0.836			0.852			0.667			0.859		0.914

Location ID: 7  
 North/South: Mountain Ridge Drive  
 East/West: SR 119 (Taft Highway)

Date: 1/8/2019  
 City: Bakersfield, CA

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
7:00													
7:15													
7:30	12	1	33	3	77	2	6	1	1	0	78	2	216
7:45	7	1	20	3	70	1	4	2	0	0	77	2	187
8:00	6	2	10	6	66	5	5	2	2	0	54	1	159
8:15	4	3	8	7	57	7	5	1	1	0	63	3	159
8:30													
8:45													

Total Volume:	29	7	71	19	270	15	20	6	4	0	272	8	721
Approach %	27%	7%	66%	6%	89%	5%	67%	20%	13%	0%	97%	3%	

Peak Hr Begin:	7:30												
PHV	29	7	71	19	270	15	20	6	4	0	272	8	721
PHF		0.582			0.927			0.833			0.875		0.834

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
16:00													
16:15													
16:30	5	0	6	11	95	1	3	1	1	0	142	7	272
16:45	3	1	5	9	72	3	2	1	0	0	124	10	230
17:00	0	1	4	19	76	7	3	1	2	0	160	9	282
17:15	4	0	4	12	68	3	4	2	1	1	133	7	239
17:30													
17:45													

Total Volume:	12	2	19	51	311	14	12	5	4	1	559	33	1023
Approach %	36%	6%	58%	14%	83%	4%	57%	24%	19%	0%	94%	6%	

Peak Hr Begin:	16:30												
PHV	12	2	19	51	311	14	12	5	4	1	559	33	1023
PHF		0.750			0.879			0.750			0.877		0.907

Location ID: 8  
 North/South: Stine Road  
 East/West: SR 119 (Taft Highway)

Date: 1/8/2019  
 City: Bakersfield, CA

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
7:00													
7:15													
7:30	4	1	7	44	76	0	2	3	0	1	105	20	263
7:45	5	4	21	24	70	1	2	3	0	3	87	15	235
8:00	4	0	15	14	72	0	0	1	0	1	64	3	174
8:15	2	3	21	13	66	4	1	1	3	2	57	7	180
8:30													
8:45													

Total Volume:	15	8	64	95	284	5	5	8	3	7	313	45	852
Approach %	17%	9%	74%	25%	74%	1%	31%	50%	19%	2%	86%	12%	

Peak Hr Begin:	7:30												
PHV	15	8	64	95	284	5	5	8	3	7	313	45	852
PHF		0.725			0.800			0.800			0.724		0.810

Lanes:	Southbound			Westbound			Northbound			Eastbound			Totals:
	1	2	3	4	5	6	7	8	9	10	11	12	
16:00													
16:15													
16:30	2	3	12	13	104	1	3	9	3	5	132	10	297
16:45	6	7	6	13	76	1	1	11	2	2	113	16	254
17:00	6	5	10	14	92	2	1	11	3	0	160	14	318
17:15	3	6	10	19	78	2	2	12	2	0	131	12	277
17:30													
17:45													

Total Volume:	17	21	38	59	350	6	7	43	10	7	536	52	1146
Approach %	22%	28%	50%	14%	84%	1%	12%	72%	17%	1%	90%	9%	

Peak Hr Begin:	16:30												
PHV	17	21	38	59	350	6	7	43	10	7	536	52	1146
PHF		0.905			0.879			0.938			0.855		0.901